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# British Birds



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# British Birds

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**The Scottish Crossbill: *Loxia scotica*  
Rare breeding birds in 1976**

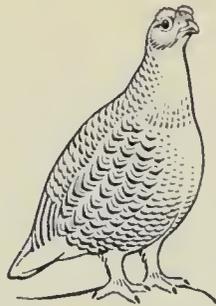
**Personalities: Dr K. E. L Simmons**

**Mystery photograph · Notes · Letters**

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# British Birds



## News and comment

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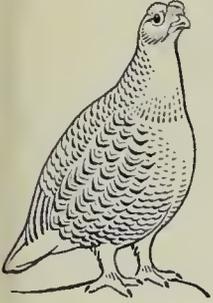
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## Editorial

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**F**ew birdwatchers are systematists or have any real knowledge of taxonomy and the reasons behind scientific nomenclature. We all, however, make constant use of classification: even non-ornithologists can recognise a duck as a duck or a thrush as a thrush; at a more advanced level, identifications often start with a generic determination such as, 'There's a *Sylvia*', later refined to become, 'It's a Lesser Whitethroat'. Thus, even those who might not be able to define systematics or taxonomy are recognising the basic importance of a natural classification system.

Nevertheless, the sequence in which birds are listed and their scientific names are, sadly, of relatively little interest to the majority of British and Irish birdwatchers. Convenience is of most importance and, for that reason, change is not welcome. The names and sequence employed in *The Handbook* (1938-41) remained in use by British ornithologists for 13 years, until the publication in 1952 of the British Ornithologists' Union's *Check-list of the Birds of Great Britain and Ireland*. Since then, the familiar 'Wetmore order' of the 1952 list has remained relatively unchanged, although dozens of new species have been 'slotted in', sometimes in rather arbitrary positions. In 1971, the BOU published *The Status of Birds in Britain and Ireland*, which, with slight modifications, employed a combination of the nomenclature of Dr Charles Vaurie's *The Birds of the Palearctic Fauna* (1959, 1965) and, after much argument, the sequence of J. L. Peters's *Check-list of Birds of the World* (1931-70). The local and regional recorders (the people in Britain who make most use of bird lists, in their annual bird reports) expressed their unanimous disapproval, through the Report Editors' Committee, and Robert Hudson produced on their behalf a sequence hardly different from the familiar 1952 list, *A Species List of British and Irish Birds* (1971). This has been used by almost all report editors and by *British Birds*.

Despite this background of opposition to unnecessary change, we nevertheless now announce that, with this issue, *British Birds* is adopting a new sequence. In three issues of the BOU journal, *The Ibis*, Professor Dr K. H.

Voous has produced a completely revised 'List of recent Holarctic species' (*Ibis* 115: 612-638; 119: 223-250, 376-406), based broadly on the Wetmore system and with the aim of finding 'a reasonable compromise between the sequences of orders, families, genera, and species as adhered to by ornithological workers, societies, and organisations in various parts of the northern hemisphere.' Thus, this list involves the minimum necessary changes (in the light of modern knowledge) from the familiar sequence in use here since 1952. Our decision to adopt Professor Voous's list has, however, been strongly influenced by the earlier decision of the editors of *Handbook of the Birds of Europe, the Middle East and North Africa: the Birds of the Western Palearctic* to do so. 'BWP' must surely be destined to become as widely used and familiar to European ornithologists as was *The Handbook*. We feel, therefore, that our decision is both natural and inevitable: birdwatchers in the late 1970s and 1980s will be using 'the Voous sequence'.

We are producing an up-to-date list of all bird species recorded in the western Palearctic, arranged in the sequence and with the scientific names recommended by Professor Voous; a copy of this '1978 list' will be sent free to every subscriber with the February or March issue of *British Birds*. We do not, therefore, propose to detail here the changes involved, except to mention two that may be of interest to many British and Irish birdwatchers. Professor Voous regards the Scottish Crossbill as a separate species *Loxia scotica*, distinct from Crossbill *L. curvirostra* and Parrot Crossbill *L. pytyopsittacus* (see pages 3-10); the Isabelline Shrike, treated as a distinct species *Lanius isabellinus* when first recorded in Britain in 1950 (*Brit. Birds* 44: 217-219), until its four races were merged as red-tailed forms of the Red-backed Shrike *L. collurio*, now regains specific rank (the reasons for this will be published shortly). Thus, on a light-hearted note, many British birdwatchers may, without stirring from their armchairs, add one (or the luckier of us two) species to their life lists.

We have not yet mentioned the English vernacular names in common usage. Some are in need of revision and the list is currently being reviewed by a working group including representatives of *British Birds*, the BOU, the BTO, *BWP*, the RSPB and the Wildfowl Trust. Following the general principle of making minimum change, pending this full review, we advocate only the following 13 alterations:

SCIENTIFIC NAME	1971 LIST	1978 LIST	REFS. TO NOTES
<i>Aix galericulata</i>	Mandarin Duck	Mandarin	1
<i>Lagopus lagopus</i>	Red Grouse	Willow/Red Grouse	6
<i>Colinus virginianus</i>	Bob-white Quail	Bobwhite	2
<i>Perdix perdix</i>	Partridge	Grey Partridge	3
<i>Burhinus oedicnemus</i>	Stone Curlew	Stone-curlew	4
<i>Chordeiles minor</i>	Nighthawk	Common Nighthawk	2
<i>Anthus spinoletta</i>	Rock/Water Pipit	Rock Pipit	5
<i>Motacilla flava</i>	Yellow/Blue-headed Wagtail	Yellow Wagtail	5
<i>M. alba</i>	Pied/White Wagtail	Pied Wagtail	5
<i>Catharus ustulatus</i>	Olive-backed Thrush	Swainson's Thrush	2
<i>Corvus corone</i>	Carrion/Hooded Crow	Carrion Crow	5
<i>Dendroica coronata</i>	Myrtle Warbler	Yellow-rumped Warbler	2
<i>Icterus galbula</i>	Baltimore Oriole	Northern Oriole	2

(1) Simplification, involving dropping of unnecessary group name, to accord with modern usage; (2) Nearctic species bringing us into line with American terminology; (3) adds adjective to otherwise ambiguous name, and again conforms with modern usage; (4) modification of existing name, to avoid possible misinterpretation of its systematic relationship; (5) to conform to an important principle: that each species should have a vernacular name, whereas each race—distinguishable by its scientific name—does not need one; and (6) acknowledging that the principle in (5) is unlikely to overrule long-established usage in one case: we recommend the use of Willow Grouse, but recognise that Red Grouse may remain the usual name for *L. l. scoticus*. Finally, we consider that female Ruff *Philomachus pugnax* is preferable to 'reeve' and that feral Rock Dove *Columba livia* is preferable to 'Feral Pigeon'.

Apart from such minor adjustments to vernacular names, we hope that the adoption of Professor Voous's sequence and nomenclature by both 'BWP' and 'BB' will signify the start of a new phase of stability in ornithological listing in Europe.

## The Scottish Crossbill: *Loxia scotica*

*K. H. Voous*



**T**he promotion of the Scottish Crossbill *Loxia scotica* to specific status (Voous 1977) is more than just a systematic technicality of marginal interest to ordinary birdwatchers, but should not be given undue importance. The problems involved, however, are interesting in relation to more than one biological discipline, and the consequences have been elaborately

treated already by Dr Alan G. Knox, in an appendix to Desmond Nethersole-Thompson's commendable book, *Pine Crossbills* (1975).

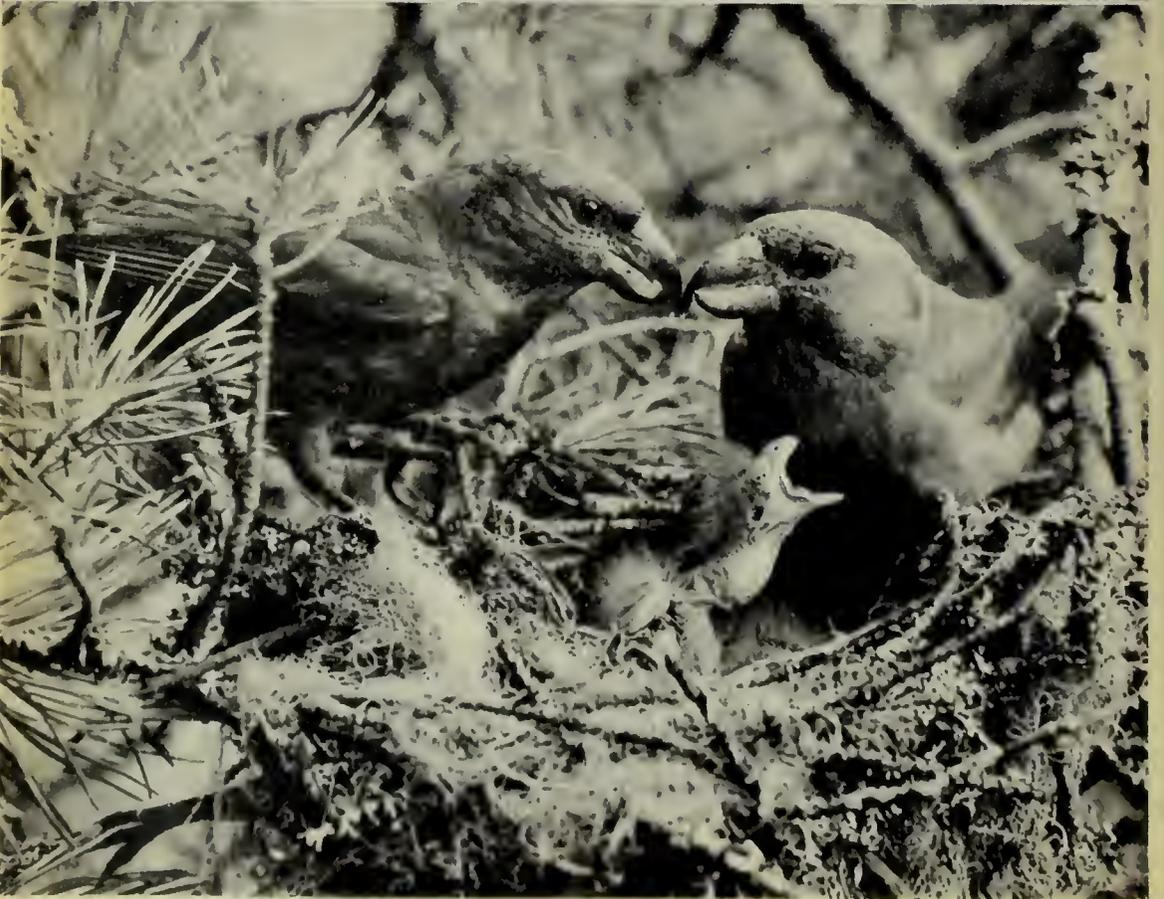
In 1904, Ernst Hartert described the Scottish Crossbill and its intermediate morphological characters (mainly shape and strength of the bill) between the common Crossbill *L. curvirostra curvirostra* and the Parrot Crossbill *L. pytyopsittacus*; he named it *L. c. scotica*. For over 25 years it was left in peace in this systematic place, as a British geographical form, subspecies or race of the well-known *Loxia curvirostra*, together with at least 12 other subspecies in the Old World and eight in the New. Since then, the Scottish Crossbill has been shifted from a race of *L. curvirostra* to one of *L. pytyopsittacus*, and back again. Proponents of the former theory included Witherby *et al.* (1938), the British Ornithologists' Union (1952), Vaurie (1956, 1959) and Voous (1960); those of the latter were Hartert (1932) and the BOU Taxonomic Committee (1956). Others, however, such as Meinertzhagen & Williamson (1953), were inclined not to recognise any specific difference between Crossbill and Parrot Crossbill, thereby reducing the problem of the specific allocation of Scottish Crossbill to irrelevancy.

Nevertheless, the basic problem remained of great interest. Although others had appreciated the theoretical importance of the situation (e.g. Griscom 1937), Dr David Laek, in his classic *Darwin's Finches* (1947) and also later (1971), clearly showed the correlation between bill-shapes and feeding niches of crossbills in general and the importance of the presence of related competitors in particular. In broad terms, one can state that, in northern Europe, the Two-barred Crossbill *L. leucoptera*, with the slimmest bill and smallest size, feeds mostly on the cones of larch *Larix*, extracting the seeds from between the short, flexible scales; that the Crossbill, with a bill of variable strength, feeds throughout on the larger cones of spruce *Picea*, which have longer, though rather thin, scales; and that the Parrot Crossbill, with the heaviest bill, and largest size, feeds generally on Scots pine *Pinus sylvestris*, manoeuvring its strong bill in-between the thick, wooden scales to reach the hidden seeds. These three species of crossbills form an almost perfect example of ecological isolation, the segregation being maintained at least during their breeding seasons. While the unpredictability of their food resources, and their consequently largely nomadic lives, may force crossbills of all species not only to nest now here, then there, but also, on their wanderings, to feed on seeds of any seed-bearing conifer available, the situation has become almost chaotic by the introduction and widespread plantings in Continental Europe and Britain of non-indigenous conifers, including Scots pine, Austrian pine *Pinus nigra* var *nigra* and Corsican pine *P. n.* var *maritima*. Nevertheless, the German names *Fichtenkreuzschnabel* (spruce-crossbill) for the Crossbill and *Kiefernkreuzschnabel* (pine-crossbill) for the Parrot Crossbill remain appropriate.

It is, however, now appreciated that body size and bill structure do not play a decisive role in separating bird species in nature: it is the mating behaviour, including songs and calls, which keeps them reproductively isolated. Thus, the structural differences between the Crossbill and the

Parrot Crossbill could equally be those between races as between species; but their breeding behaviour shows otherwise. In northern Europe at least, these birds exclude each other on their breeding sites, and the rapidly growing knowledge of their vocalisations has helped us to realise that they do indeed behave as distinct species. The same applies to the mating behaviour and calls, including the social and sexual responses, of the Crossbill and Scottish Crossbill in Britain, as described by Nethersole-Thompson (1975); behaviour keeps the populations reproductively isolated and thereby strengthens their specific structural differences. It will be interesting for birdwatchers to follow the spread of the Crossbill as a more or less sedentary breeding bird in Britain (supposed to have been established by the big irruption of 1910) and the invasion of this species (probably assisted by the introduction of non-indigenous conifers) into the original Scots pine habitat of the Scottish Crossbill. Does the Crossbill still usually forage in different trees from those frequented by the Scottish Crossbill, and how are ecological and ethological conflicts (sociality, pair forming) between these species settled? If Nethersole-Thompson is correct—and his observations seem very accurate—then the newly suggested name of 'Pine Crossbill' for the Scottish Crossbill is most appropriate.

The history of the development of a 'pine crossbill', as distinct from a 'spruce crossbill', can only be surmised, but it seems likely that pine crossbills evolved in west Continental Europe (then including Britain) during and after one of the later glaciations (probably the last), when Scots pines were widespread and Norway spruce *Picea abies* still had a mainly east European distribution. Only if it could be demonstrated that present north European and Scottish pine crossbills have the same origin, and afterwards separated in isolated regions, could these birds be considered to represent the geographical forms of one species, which would then have to be called *L. pytyopsittacus*, with different Continental (*P. p. pytyopsittacus*) and insular (*L. p. scotica*) populations. Then, also, the more strongly developed (or rather 'more advanced') characters of the north European Parrot Crossbill could be seen as the result of subsequent interspecific competition with the Crossbill through a process known as 'character divergence'. There is, however, no proof of a common origin. Instead, isolated southern Crossbill populations, such as those occurring in the pine woods of North Africa (*L. c. poliogyna*) and Cyprus (*L. c. guillemardi*), lead to other thoughts. These crossbills have to cope with cones which have long, strong scales and, in consequence, have bills which are heavier than those of the Crossbills of the transcontinental spruce areas of Eurasia and North America. Apparently, they show stages of development already passed by the Scottish and the Parrot Crossbills. Polytypic origins of pine-adapted bills seem, therefore, to be a regular feature, and this possibility also has to be accepted as the most likely one for the Scottish and Parrot Crossbills. This necessitates recognition of them as systematic species, *L. scotica* and *L. pytyopsittacus* respectively, as proposed by Salomonsen (1963) and Knox (1975, 1976). If, on the other hand, Parrot and Scottish Crossbills were the geographical representatives





1, 2 & 3. Three species of crossbills *Loxia*: top left, male Crossbill *L. curvirostra*, Surrey, 1973 (colour transparency: F. V. Blackburn); bottom left, pair of Parrot Crossbills *L. pytyopsittacus*, male left, female right, with nestling, Sweden (Viking Olsson); above, male Scottish Crossbill *L. scotica*, Inverness-shire, 1946 (John Markham)



4, 5 & 6. Three species of crossbills *Loxia*: above, female Scottish Crossbill *L. scotica* on nest, Inverness-shire, June 1947 (*Eric Hosking*); top right, female Crossbill *L. curvirostra*, Sweden (*Viking Olsson*); bottom right, female Parrot Crossbill *L. pytyopsittacus* on nest, Sweden (*Viking Olsson*)



of one species, they would, given the opportunity, interbreed. This would imply that the differences in their songs and calls were not sufficient to prevent random mating. In view of the seemingly great role of vocal differences in maintaining reproductive isolation between Crossbill and Parrot Crossbill in northern Europe and between Crossbill and Scottish Crossbill in Scotland, interbreeding between Parrot and Scottish Crossbills seems hardly likely.

Further studies, not only of morphological and structural differences, but especially concentrating on comparative ecology and behaviour, should reveal the further mysteries of the adaptations of crossbills to the structure, seasonality and life cycles of their food trees. The rank given to the Scottish Crossbill in checklists is of minor importance compared with the documentation of the history of its adaptations and of the degree of its ecological segregation and reproductive isolation. Desmond Nethersole-Thompson and Dr Alan G. Knox are to be congratulated on their timely work, which has refocused our attentions on this very special example of micro-evolution in action.

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# Rare breeding birds in the United Kingdom in 1976

*J. T. R. Sharrock and the Rare Breeding Birds Panel*



**T**he main purpose of the Rare Breeding Birds Panel, already fully described (*Brit. Birds* 66: 172-174), is to provide a confidential repository for detailed information on scarce nesting species in the United Kingdom, so that changes in status can be monitored and the relevant details, which might otherwise be lost through the deaths of individuals keeping them secret, can be safeguarded for posterity. This annual report, the panel's fourth, is a spin-off; as usual, it includes only those data for which the recorders gave clearance for publication.

The panel is supported, morally and financially, by *British Birds*, the British Trust for Ornithology and the Royal Society for the Protection of Birds; it also includes a representative of the Nature Conservancy Council. During 1976, the members were A. W. Colling, R. H. Dennis, I. J. Ferguson-Lees, Ian Prestt and Dr J. T. R. Sharrock (secretary).

Most records reach the panel from the county and regional recorders and editors (for names and addresses, see *Brit. Birds* 70: 356-360): individual observers are strongly encouraged to submit their data in this way, although a few send them direct. Forms are available free from the address at the end of this report; two copies should always be sent in on these special forms, which are filed under lock and key in two separate places as a safeguard against loss by fire, and to which only the panel's secretary has direct access.

With great pleasure, we can report that only two county societies withheld their records in 1976 (see fig 1); we especially welcomed the receipt of information for the first time from the Isle of Wight. The value of both the stored detail and these published summaries is in direct proportion to their completeness. We hope that the excellent results of 1976 will encourage continued co-operation in future and that Nottinghamshire and Sussex records will soon be submitted to give 100% coverage.

As usual, counties are named here only when permission has been given. In other cases, code letters are used: these are the same as in earlier reports, so that histories of decline or colonisation can be followed, even though the locations must remain secret to ensure freedom from disturbance. This report contains a mixture of new and old county names: we have used those supplied by the recorders, since conversion of old names could, in some cases, reveal information about the locations of breeding sites.

For most species, we have given a range of figures for 'pairs breeding', the lower figure representing the number confirmed breeding and the upper the maximum if, for instance, every singing male or single sighting represented a nesting pair. Although these ranges are often very wide, they can be consistently calculated each year and will, we hope, be valuable for comparisons. To ensure uniform treatment, figures for past years have been recalculated on this basis.

We regret that, yet again, we have to make our annual apology for the late appearance of this report. Some records reached us in August 1976, but the last batches were not received until the second half of October 1977, despite numerous reminders. We appreciate the difficulties and the pressures on county recorders, but nevertheless wish that we could receive all the data by, say, 1st February of the following year and publish our report seven or eight months earlier, in the May issue of *British Birds*.

Fig. 1. Areas covered by this report. Records (or negative returns) were supplied for all the areas shown black. Some individual observers supplied data for the counties left white, but records were not received from the local recorders, and so the picture may be very incomplete for these two areas. The panel does not collect records from the Republic of Ireland



### The year's highlights

The year covered by this report will doubtless be long-remembered as 'the long, hot summer of '76', but it was less remarkable for rare breeding birds. The discovery, however, of several pockets of Golden Orioles *Oriolus oriolus* in a completely new area must rank as the major event. The fine summer may have had some influence on the pleasing

harrier situation, with the greatest number of Marsh Harriers *Circus aeruginosus* for at least nine years and the first instances of successful breeding by Montagu's Harriers *C. pygargus* for four years. It was also the best year for Hobbies *Falco subbuteo* since these reports started (the most pairs located, the most pairs successful and the most young fledged) and Goshawks *Accipiter gentilis* did well too (the highest totals to date of proved breeding and young reared). Goldeneyes *Bucephala clangula* continued to colonise, Ruffs *Philomachus pugnax* spread to a total of six sites, Temminck's Stints *Calidris temminckii* were proved to breed for the first time since 1971, and after a seven-year gap a male Mediterranean Gull *Larus melanocephalus* found himself a female and they reared one young. The strangest record was undoubtedly the Citrine Wagtail *Motacilla citreola* feeding a brood of young wagtails, but there were also tantalising or hopeful signs from Red-necked Grebes *Podiceps grisegena*, Turnstones *Arenaria interpres*, a Shore Lark *Eremophila alpestris*, a Great Reed Warbler *Acrocephalus arundinaceus* and Serins *Serinus serinus*. The debit side, however, included serious declines of Black-necked Grebes *Podiceps nigricollis*, Snowy Owls *Nyctea scandiaca*, Redwings *Turdus iliacus*, Firecrests *Regulus ignicapillus* and Red-backed Shrikes *Lanius collurio*.

### Changes to the list

In view of the large number of individual records annually and the BTO census in 1977, we do not propose to include the Black Redstart *Phoenicurus ochruros* in our reports in future. At the request of several county recorders, its place will be taken by the Bittern *Botaurus stellaris*, which appears to be declining in the UK.

### Systematic list of 1976 records

There were no relevant records of the following species in 1976:

Great Northern Diver *Gavia immer*

Spotted Sandpiper *Actitis macularia*

Scaup *Aythya marila*

Black Tern *Chlidonias niger*

Sanderling *Calidris alba*

Bluethroat *Luscinia svecica*

### Red-necked Grebe *Podiceps grisegena*

Four sites: four summering.

**Lanark** One site: single male seen regularly during second half of May and on 8th and 15th June.

**County A** Three sites, but no evidence of breeding: (1) one seen on 18 dates during May to October; (2) one seen on five dates during July to October; (3) one seen on three dates during June to August.

This is the third successive year in which individuals have summered in the UK, the annual totals rising from one in 1974 to two in 1975 and, now, four in 1976. Developments are awaited with keen interest.



**Slavonian Grebe** *Podiceps auritus*

At least 23 sites: 70-75 pairs.

**Inverness** At least 21 sites, with evidence of breeding: (1) 18-19 pairs; (2) 14-15 pairs; (3) three pairs; (4) two to three pairs, unsuccessful; (5) one or two pairs, one rearing two young; (6) to (8) single pairs; (9) to (11) single pairs, all unsuccessful; (12) to (21) total of 20 pairs on at least ten lochs. Comments relating to sites (1) to (11), 'generally a better year and breeding success better, although no detailed counts of young', and to sites (12) to (21), 'breeding success was poor'.

**Moray** One site: five or six pairs, two of which reared a total of at least four young.

**Perth** One site: one pair reared two young.

More were found at the 23 sites in 1976 than at the 22 and 25 sites visited in the full surveys in 1973 and 1974 (52-53 pairs and 58-63 pairs); the 1975 total was 39-43 pairs at 12 sites. It is sad to see no Caithness records (1-3 pairs each year during 1973-75).

**Black-necked Grebe** *Podiceps nigricollis*

One site: ten pairs.

**County B** One site: at least ten pairs.

The situation appears bleak, with totals dropping in the past four years from 19 pairs at four sites in two counties down to ten pairs at one site.

**Pintail** *Anas acuta*

Ten sites: six pairs confirmed breeding, eight more probably breeding and two possibly breeding; at least eight young reared.

**Cambridge** One site: one pair present on the Ouse Washes during May and June.

**Inverness** One site: one pair present.

**Kirkcudbright** One site: eggs laid, but probably did not hatch.

**Orkney** Seven sites on three islands involving a possible total of 13 pairs and some proof of breeding: (1) three pairs, two of which reared at least eight young and the third probably bred; (2) one pair with young; (3) female flushed from scrape; (4) one pair on several dates in mid April 'scemed territorial'; (5) two females with young; (6) four females together, all considered to be probably breeding; (7) one pair possibly breeding.

After a gradual build-up during 1973-75 (3-5 pairs, 10-11 pairs, 12-25 pairs), there was a partial slump in 1976, down to 6-16 pairs. This species remains one of our rarest breeding wildfowl, a fact that was not wholly apparent until five years of intensive *Atlas* fieldwork during 1968-72 produced confirmed breeding in only 35 10-km squares in Britain and Ireland (34 in the UK).

**Common Scoter** *Melanitta nigra*

12 sites: 21-157 pairs breeding.

**Caithness** Five sites, with a possible total of 23 pairs hatching at least 67 young: (1) six pairs on 6th June, and two used nests and seven females with five broods of seven, six, five, one and one on 6th August; (2) two pairs and one male on 13th June, but no further evidence of breeding; (3) six females with five broods of eight, six, six, five and three on 22nd July, and two females with broods of six and two on 1st August; (4) three females, one with brood of 15 young in late July; (5) four females with four young on 22nd July.

**Dunbarton/Stirling** One site: seven pairs, two females with brood of three young on 10th July, two females with brood of four small young on 20th July.

**Fermanagh** Two sites, breeding success not known but probably poor: (1) 107 pairs; (2) six pairs.

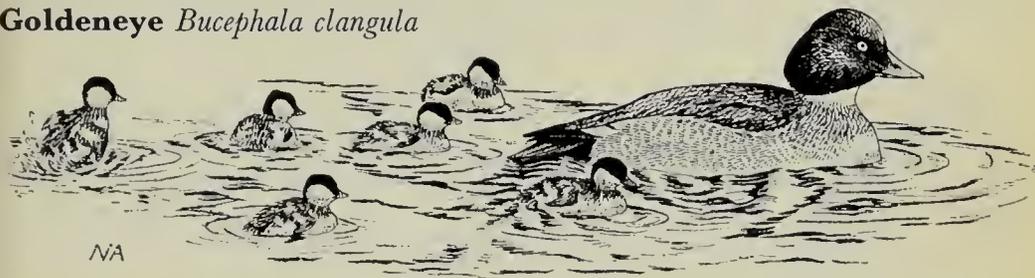
**Inverness** One site: in new locality, probably over ten pairs, seven nests with eggs in first week of June.

**Perth** Two sites, but no evidence of breeding: (1) two females in June and July; (2) male in June and July.

**Wigtown** One site: adult male on 27th June.

The number of pairs has remained fairly steady (4-133, 10-142 and 32-159 in 1973-75). For the first time, a successful census was carried out in Caithness: although accounting for only 15% of the possible UK pairs, the county provided 91% of the young reported.

### Goldeneye *Bucephala clangula*



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Six sites: a total of at least five pairs hatched at least 46 young at three sites in one county.

**Cumbria** Three sites, but no evidence of breeding: (1) male on 8th June; (2) female from 5th May to 30th June; (3) female from 10th May to 8th August.

**Inverness** Three sites, with successful breeding at each: (1) two or more pairs, females with nine and six young on 29th May, and six and one young on 15th June; (2) two or more pairs, females with 11 young on 7th June, and 12 and six young on 15th June (broods of 11 and 12 may have been the same); (3) at least one pair, female with 13 young on 18th May, and three young on 15th June. 'All five broods reared in RSPB nestboxes, but much interchange between lochs and river, so five pairs is minimum: there could have been up to another three females attempting to nest, possibly successfully.'

Establishment became firmer, with at least five pairs confirmed breeding, compared with one during 1970-72, three during 1973-74 and two in 1975 (maxima of five pairs in 1975 and 11 in 1976, if every summering bird bred).

### Honey Buzzard *Pernis apivorus*

Probably at least five pairs, but details incomplete.

**Bedford** One site: one seen flying into wood in May.

**Gloucester** One site: single sightings on 11th and 23rd August.

**Hampshire** One site: one pair present all summer, but no attempt made to find nest. We know that other data have been withheld by observers.

**Norfolk** One site: a pair present from 22nd May and probable juvenile seen.

**Yorkshire** One site: one pair present throughout summer, seen carrying food and 'almost certainly reared successfully'.

**County A** One site: one regularly from May to August, displaying in May, three on 14th August. Observers have continued to trespass in search of these birds, which puts them at risk not only from disturbance, but at the hands of the irate landowner, with whom we have sympathy. We appeal again, as we did in our 1974 report (*Brit. Birds* 68: 494), to observers to stay away or keep to public roads.

**County C** Present throughout summer at several localities, display seen, at least three pairs suspected.

Although clearly incomplete, the number of breeding pairs reported to us during 1973-76 have been 1-2, 2-6, 0-5 and 1-9. There seems to be a welcome trend towards an increase in summering and breeding away

from the main area in the New Forest. Unfortunately, we still do not receive useful data from that main area, even though it is well-known to both egg-collectors and birdwatchers, and is swarming with picnickers and others on summer weekends. We wish that those who watch this population would share their information, since the Honey Buzzards' reactions to so much disturbance, and their nesting behaviour and fledging success, could have an important influence on protection measures at other British sites. The lack of data contrasts markedly with the detailed nest-by-nest information that is provided annually by those who monitor the Ospreys *Pandion haliaetus* and the Red Kites *Milvus milvus*.

### Red Kite *Milvus milvus*

Total of 34 pairs: 28 nests, of which 14 successful with 18 young reared.

**County B** Two sites, with breeding proved: (1) one pair reared two young; (2) one pair failed.

**County C** Total of 25 sites, with breeding proved: (1) (2) single pairs reared two young; (3) to (10) single pairs reared one young; (11) to (19) single pairs failed; (20) to (25) single pairs held territory, but did not breed.

**County D** Three sites, with breeding proved: (1) (2) single pairs reared one young; (3) one pair failed.

**County E** Three sites, with breeding proved: (1) one pair reared one young; (2) (3) single pairs failed.

**County F** One site: one pair reared one young, the first successful nest in the county for over 40 years.

There have been no breeding attempts in county A since 1973, when two pairs failed. The slow build-up during 1973-76 in the numbers of pairs (26, 32-33, 32 and 34) and nesting pairs (26, 27, 28 and 28) has been partly reflected by the numbers of successful pairs (10, 9, 15 and 14) and young reared (14, 12, 24 and 18).

### Marsh Harrier *Circus aeruginosus*

Nine sites: 13 pairs, of which nine or ten successful in rearing at least 25 young.

**Hampshire** One site: one pair throughout summer may have raised two young.

**Norfolk** Four sites, five pairs, of which three reared a total of eight young: (1) two pairs each reared three young; (2) one pair reared two young; (3) one pair, laid three eggs, but later deserted; (4) one pair deserted nest.

**Suffolk** Four sites, seven pairs, of which six reared a total of 17 young: (1) at Minsmere, four pairs reared broods of five, five, one and one; (2) one pair reared three young; (3) one pair reared two young, other females present but did not breed; (4) one pair present, but no proof of breeding.

The totals of 11-13 pairs breeding and 25 young reared are both the highest for at least nine years; the 1973-75 totals of breeding females were five or six (rearing 14 young), six (ten young) and six to eight (18 young).

**Montagu's Harrier *Circus pygargus*** Four sites: three males and four females held territory, three females nested, and two successfully reared a total of six young.

**County B** One site: one pair bred, male shot, two young reared with human aid (food supplied for female to collect).

**County C** Two sites, but no proof of breeding: (1) one pair holding territory throughout breeding season; (2) one female on 13th June.

**County D** One site: one pair reared four young and the male also mated with a second female, but her nest was destroyed by farm machinery.

No sooner had we stated (*Brit. Birds* 70: 8) that 'the outlook for the future of the Montagu's Harrier as a British breeding species now seems very bleak' than there was this unexpected resurgence in the exceptional summer of 1976, with the first young known to have been reared in Britain for four years; there had not even been a recorded breeding attempt since 1973.



### **Goshawk** *Accipiter gentilis*

About 18 sites: at least 12 pairs present, with nine breeding and eight successfully rearing at least 13 young.

**Gloucester** One site: single birds seen on four dates during May to August.

**Gwent** One site: one seen on 17th July in same area as 1975.

**County D** Eleven sites, eight pairs successful, rearing at least 13 young: (1) one pair reared three young; (2) to (8) single pairs each reared one or two young (total of at least ten); (9) one pair laid eggs, but nest robbed; (10) one pair displayed, but no further evidence of breeding; (11) one pair known not to have bred.

**County L** Three sites, but possibility of overlap: (1) up to six individuals; (2) three individuals; (3) one individual.

**County M** 'Present.'

**County N** One site: one pair failed.

With breeding proved for nine pairs and at least 13 young known to have fledged, 1976 was the best year to date, although the number of possible pairs was smaller than in 1975. Totals of pairs breeding during 1973-76 have been 6-12, 8-17, 4-31 and 9-18. Unfortunately, there are still some observers who withhold information from the panel, so these totals are known to be too low.

### **Osprey** *Pandion haliaetus*

14 sites: ten successful pairs reared 20 young. In view of recent increases in the activities of egg-collectors, we are this year discontinuing, perhaps only temporarily, the practice of listing the records from counties A to E individually.

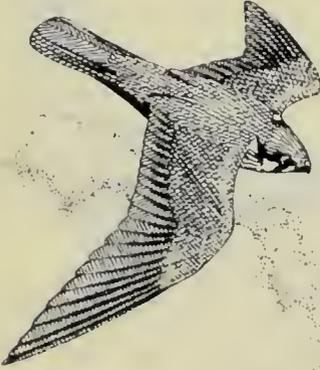
**Inverness** Loch Garten: pair laid two eggs in usual nest and reared two young; the male, the same as in 1974, had been reared in Scotland in 1970.

**Perth** Loch of Lowes: male and two females, at least one female laid eggs, both incubated, but no eggs hatched.

**Counties A, B, C, D, E** Twelve sites: eggs laid in all 12 eyries, one pair robbed by egg-collectors, one nest destroyed by gale and one clutch failed to hatch, but other nine pairs reared 17 young (3, 3, 2, 2, 2 and 1 from clutches of 3; and 2, 1 and 1 from clutches of 2). 'A reasonable year.'

**County G** Several sightings, although fewer than usual and no indication of breeding.

Despite the failure at Loch of Lowes, one of the two publicised sites, it was a fairly satisfactory year. There has, however, been no sign of any recent growth in the population and the 1976 statistics were identical with those two years previously. During 1973-76 the figures have been: 16 sites, 10 pairs rearing 21 young; 14 sites, 7 pairs rearing 20 young; 14 sites, 7 pairs rearing 16 young; 14 sites, 10 pairs rearing 20 young.



VA

### **Hobby** *Falco subbuteo*

120 sites: 52-131 pairs breeding, with 36 known to have reared 69 young.

**Avon** Two sites, but no evidence of breeding: (1) single birds seen throughout June and July; (2) numerous sightings in breeding season.

**Bedford** Seven sites, with three pairs breeding successfully: (1) one pair reared three young; (2) one pair reared two young; (3) one pair reared at least one young; (4) to (7) single birds in suitable habitats.

**Berkshire** Six sites, with breeding confirmed at four: (1) to (3) one pair, young seen flying; (4) one pair with one juvenile in August and September; (5) (6) single pairs, but breeding not confirmed.

**Buckingham** Three sites, but no proof of breeding: (1) two on several dates in second half of May; (2) one on 7th July; (3) seen frequently in feeding area, but breeding site not located.

**Cornwall** One site: one pair throughout June and July, but no evidence of breeding.

**Devon** 'Another good season, with young reared at several sites', but details have been withheld.

**Dorset** Total of 14 sites, with nesting proved at nine: (1) to (7) single pairs reared a total of 13 young; (8) one pair failed; (9) one pair robbed; (10) to (14) single pairs in territory.

**Durham** One site: one pair present 23rd May to 2nd June, then male only on 5th and 6th June. Also 'an unprecedented number of reports on passage'.

**Hampshire** Information from two New Forest sources, with unknown degree of overlap. (a) Five sites, with breeding proved at three: (1) to (3) single pairs bred successfully; (4) (5) single pairs, but breeding not confirmed. (b) A minimum of 16 pairs in an area of 150 km<sup>2</sup>, of which seven proved to have bred. Outside this area, a further three or four pairs known.

**Hereford** Two sites, with evidence of breeding at one: (1) two juveniles in August, but nest not located; (2) one on 22nd May.

**Hertford** At least four sites, with breeding proved at three: (1) one pair reared one young; (2) 'two pairs nested'; (3) 'one pair nested'; (4) present in summer.

**Kent** One site: one pair in August, behaviour suggestive of feeding young.

**Leicester** Two sites, with breeding proved at both: (1) one pair reared three young; (2) one pair reared two young.

**Northampton** Four sites, with breeding proved: (1) one pair reared three young; (2) one pair reared two young; (3) (4) single pairs 'almost certainly bred'.

**Nottingham** One site: seen on a few occasions during May to August, at same site as in 1975, seems likely to be breeding locally.

**Oxford** Fourteen sites, with breeding proved at nine: details of only one site provided, where one pair reared one young.

**Somerset** Sixteen sites, with breeding proved at two: (1) one pair bred successfully at same site as 1974 and 1975; (2) two adults and two juveniles together on 3rd October; (3) two engaging in aerial display on 9th May; (4) to (16) single birds or pairs seen.

**Stafford** One site: one pair with young in nest.

**Surrey** Total of 17 pairs at 13 sites, of which 13 pairs proved breeding, 24 young reared:

(1) three pairs, of which one reared three young, one reared two young, and one pair robbed; (2) two pairs reared three and two young; (3) two pairs each fledged two young; (4) (5) single pairs each reared three young; (6) one pair fledged two young; (7) (8) one pair with one fledged young; (9) one pair, breeding failed; (10) (11) one pair at each, success not known; (12) (13) pairs present, but no evidence of breeding.

**Warwick** Three sites for which details known, with breeding proved: (1) one pair reared three or four young; (2) one pair bred, but outcome not known; (3) one pair all summer and with one young in September. Recorder estimates five to ten pairs, but observers have withheld some records.

**Wiltshire** Five sites, with breeding proved: three pairs bred, but details withheld.

**Worcester** One site: one pair seen regularly in traditional feeding area, but nest site not found.

The long, hot summer of 1976 was a highly successful one for this slim falcon. More pairs were confirmed than in any of the previous three years (52-131 in 1976, compared with 22-60, 43-91 and 37-132 during 1973-75) and there were also record numbers of successful pairs and young fledged (36 pairs reared 69 young in 1976, compared with 12 rearing 24, 25 rearing 49, and 24 rearing 40 during 1973-75). The situation was almost certainly even better than these figures suggest, since we have never received any Sussex records and the full data from Devon, Oxfordshire and Wiltshire have been withheld. We appeal to these four societies to reconsider their position and contribute to what is becoming a valuable annual assessment of the Hobby population.

### **Spotted Crane** *Porzana porzana*

One pair probably bred.

**Perth** One site: one pair holding territory in June and July, but no proof of breeding.

Although this species is doubtless under-recorded because of its skulking and crepuscular behaviour, the 'whip-lash' song is so highly distinctive as to be commented on by local non-ornithologists, in the same way as are itinerant Hoopoes *Upupa epops*. Events since 1973 reveal how scarce this species is as a breeding bird in the UK: 1973, no records; 1974, one or two heard at four sites; 1975, no records; and, now, just one pair present. All the 1973-76 records were in Scotland, as were 54% of those found during *Atlas* fieldwork in 1968-72.

### **Avocet** *Recurvirostra avosetta*

Five sites: 151 pairs reared 68 young.

**Suffolk** Two sites, with successful breeding at both: (1) on Havergate Island, 95 pairs reared only 12 young; (2) at Minsmere, 51 pairs reared 46 young. 'High salinities, no rainfall, very hot dry summer following cold spring—all resulting in poor food supply—combined to make it another disastrous year at Havergate.'

**County A** Two sites, with successful breeding at both: (1) two pairs, one reared three young, success of other not known; (2) two pairs, one reared three young.

**County B** One site: one pair reared four young.

The number of breeding pairs remained high (151 compared with 149, 125 and 158 during 1973-75), but success was almost as meagre as in 1974, when bad weather and poor feeding conditions resulted in only six young being reared on Havergate Island and the small total of 64 in the UK.

### **Stone-curlew** *Burhinus oedicnemus*

Probably well over 100 pairs, but only 16 proved breeding.

**Berkshire** One site: two seen on 14th May at traditional site, not properly covered later in season, probably bred.

**Dorset** Four sites, with breeding proved at one: (1) one pair with nest; (2) to (4) single pairs apparently holding territory. 'Perhaps a slight improvement on recent years.'

**Essex** Two sites, but no proof of breeding: (1) single birds on 25th April and 18th May; (2) one on 30th June.

**Hampshire** Details from only one site: one pair reared two young from believed repeat clutch of two eggs, four other pairs suspected in same general area. Within the county, 'A pilot survey was carried out . . . the results suggest a healthier population than we had feared.'

**Hertford** Total of 12-14 pairs in northeast of county.

**Norfolk** Total of 30 pairs in Norfolk Breckland, of which at least eight hatched clutches.

**Oxford** Three sites, but no proof of breeding: (1) one pair in July; (2) flock of four in spring; (3) flock of six in spring. 'Numerous other reports', but details not supplied.

**Suffolk** At least 36 pairs: in coastal belt, five pairs, of which one reared young; in Suffolk Breckland, 31 pairs and 10-15 pairs reported independently, but overlap unknown.

**Wiltshire** Twelve sites, five pairs proved breeding, but no details supplied.

With only vague information from Hampshire and none from Sussex, it is not possible to do more than indicate minimal figures: reported pairs during 1973-76 have been 26-102, 28-63, 64-121 and 16-111. We suspect that co-ordinated all-night censuses by specialist teams would reveal more than are currently recorded, perhaps as many as the 300-500 pairs estimated in the *Atlas*.

### **Dotterel** *Eudromias morinellus*

At least eight sites, but data very incomplete.

**Argyll** One site: pair seen and song heard on 18th and 27th May.

**Cumbria** At least one site: (1) two pairs, with clutches of one and three eggs on 7th June; (2) two pairs proved breeding, but perhaps same as (1).

**Grampian** 'Numbers as usual. Slightly better than average breeding: 0.5 to 1.0 young per adult.'

**Perthshire** One site: female on 17th June.

**County D** Two sites, but no proof of breeding: (1) (2) at least one pair at each.

**County E** One site: up to eight birds (including four males and three females) calling and showing courtship activity on 8th and 9th May.

**County F** One site: one male, two females and a chick seen on 29th June at locality where breeding attempted in previous years.

The details of 3-14 pairs breeding is hopelessly unrepresentative, especially in view of the Grampian comment which must be based on counts not made available to us. With full data supplied annually from the areas visited regularly, we could maintain a sample index to indicate population trends; we hope that reporting will improve in future and appeal for unsubmitted data for 1973-76 to be sent to us now.

### **Temminck's Stint** *Calidris temminckii*

Two sites: 1-4 pairs breeding.

**County A** One site: one individual reported.

**County B** One site: up to five individuals, nest with four eggs found, two adults displaying as late as 3rd July.

The first instance of confirmed breeding since 1971, in a different county from the site occupied regularly during 1969-74; there were also more summering than in any previous year, but it is disappointing that other sites have not been discovered.

**Ruff** *Philomachus pugnax*

Six sites: 4-17 or more females nesting.

**Caithness** One site: up to six at various times, two males holding territory for two or three weeks in June, but no females seen.

**Cambridge/Norfolk** One site: 'good numbers' on the Ouse Washes and males lekking in early April, but no proof of breeding.

**Kent** Two sites, but no evidence of breeding: (1) one on 26th May and two on 23rd June; (2) present in breeding season.

**Lancashire** One site: four females nested; unlined scrape with one egg submerged by high tides in second week of May; second nest with two eggs on 24th June; third nest with four eggs on 28th June; fourth nest with three eggs on 9th July; some eggs subsequently damaged by cows, but hatching occurred in last three nests on 13th July and 'likely that five Ruff chicks survived at least two days'.

**Norfolk** One site: 'a few pairs may have bred'. See also Cambridge/Norfolk entry.



Females (reeves) become very elusive once they start to incubate; hence, the vague details from, for instance, the Ouse Washes and Norfolk. The annual totals of breeding pairs since 1973 (0-8, 2-12, 2-26 and, now, 4-17 or more) are, therefore, probably less indicative of the current trend than is the welcome increase in sites: one in 1973, one in 1974, four in 1975 and six in 1976.

**Black-tailed Godwit** *Limosa limosa*

13 sites: probably 72-87 pairs breeding.

**Cambridge/Norfolk** One site: on the Ouse Washes, at least 58 pairs estimated, success not known, but thought to be very good.

**Cumberland** One site: three pairs confirmed breeding, a fourth probably bred.

**Kent** Three sites, but no proof of breeding: (1) one pair April to May, behaviour suggesting attempted breeding; (2) 12 on 29th May and 13 on 6th July, but only singles in June; (3) three on 30th May and one on 1st June.

**Norfolk** One site: three pairs reared a total of at least four young. See also Cambridge/Norfolk entry.

**Somerset** Four sites, five pairs, but no firm proof of breeding: (1) two pairs whose behaviour indicated presence of young, and three non-breeders; (2) two in breeding plumage on 8th May; (3) one pair on 5th-6th April, mating on 5th; (4) two, one calling loudly, on 14th June.

**Suffolk** Two sites, with breeding proved: (1) at Minsmere, one pair laid two eggs, but these subsequently destroyed by Moorhen *Gallinula chloropus*; (2) two pairs, one with young on 1st June.

With 70-80% of the UK population in just one locality, on the Ouse Washes in Cambridge/Norfolk, the figures depend greatly on recording there, but the high concentration and necessity to keep disturbance to a

minimum result in few data being available; the Ouse Washes total was, however, higher in 1976 than in any of the previous three years. The numbers away from this main area were also the best since the panel's reports started, the 1973-76 figures for pairs breeding being 4-10, 6-11, 8-16 and 8-23.

### **Wood Sandpiper** *Tringa glareola*

Three sites: 1-8 pairs breeding.

**Inverness** Two sites, with breeding proved at one: (1) agitated adult with young on 3rd July; (2) present 26th May to 20th June, two displaying on 8th June, but no proof of breeding.

**Perth** One site: five or six pairs in territory and possible change-over observed.

Another reasonably satisfactory year, although still not up to the standard of 1972, the best year to date, when *Atlas* fieldwork produced 5-8 breeding pairs at five sites; the 1973-75 totals were 0-2, 1-4 and 2-6 pairs. The Perthshire records, the first in the county since 1971, are especially pleasing, but we wonder how many other sites, perhaps only occasionally suitable for breeding, hold what may almost amount to small colonies for one or two seasons.

### **Turnstone** *Arenaria interpres*

One site: probable breeding.

**Sutherland** One site: on 9th August, agitated alarm-calls from adult; search then revealed downy chick one to two weeks old, but, unfortunately, its specific identity was not established.

Surely the first confirmed breeding record in the UK must come soon? There was display, song and alarm at three sites in Orkney and Shetland in 1975, and nesting has been suspected elsewhere in other years; the Northern Ireland Bird Records Committee has, however, informed us that it totally rejects the Co. Down record described by Rev. P. G. Kennedy *et al.* (1954, *The Birds of Ireland*, page 157) and briefly mentioned in the panel's last report (70: 11).

### **Red-necked Phalarope** *Phalaropus lobatus*

Only four sites: 1-21 pairs breeding.

**Shetland** Two sites on one island: (1) (2) total of 16 to 19 pairs.

**Western Isles** Two sites, with breeding proved at one: (1) one pair failed; (2) one pair, but no details known.

Although we receive data from the main areas, there is insufficient detail to assess trends. Totals of breeding pairs during 1973-76 have been: 2-7 or more, 2-21, 18-32 and 1-21.

### **Mediterranean Gull** *Larus melanocephalus*

One pair reared one young.

**Hampshire** One site: pair reared one young from clutch of single egg.

Up to six males held territories during 1969-75 and mixed pairings with female Black-headed Gulls *Larus ridibundus* occurred, but this was only the second record of nesting in the UK by a pure pair, the first having been in 1968 (J. H. Taverner, *Brit. Birds* 63: 67-79; 65: 185-186).

**Little Gull** *Larus minutus*

One site: one pair may have attempted to nest.

**County B** One site: pair displaying and mobbing observer on 12th May, but not present on 1st June; nesting was twice suspected at this site during 1968-72.

With numbers of Little Gulls still increasing in the UK, colonisation remains a possibility. The only confirmed nesting to date involved a pair on the Ouse Washes in 1975 (C. A. Carson *et al.*, *Brit. Birds* 70: 331-332).

**Glaucous Gull** *Larus hyperboreus*

One adult bred with a Herring Gull *L. argentatus*.

**Shetland** One site: adult paired with a Herring Gull and successfully reared young at same site as in 1975.

Only the second known breeding by a Glaucous Gull in the UK.

**Snowy Owl** *Nyctea scandiaca*

One site: no breeding.

**Shetland** One site: on Fetlar, up to five females (two adults, three immatures), but no male (see *Brit. Birds* 70: 427).

It is sad to note that, after breeding on Fetlar for the nine consecutive years 1967-75 and rearing a total of 21 young, the old male disappeared; having driven off all the young males, he left the females without a mate.

**Hoopoe** *Upupa epops*

One site: one pair may have bred.

**Kent** One site: two on 13th May and then singles for a further six weeks; casual observation revealed no further evidence of breeding.

The only record submitted during 1973-75 involved a single bird which spent several weeks at a site in Hertfordshire in 1975. There has been no confirmed breeding record in the UK since those at one site in Cornwall in 1968 and 1969, and in Sussex in 1971.

**Wryneck** *Jynx torquilla*

Seven sites: 1-7 pairs breeding.

**Inverness** Three sites, with breeding proved at one: (1) pair feeding four or five young in nest on 3rd July in same tree stump as in 1975, young subsequently fledged; (2) two singing during 6th to 21st June; (3) one singing on 9th June. No intensive efforts made to prove breeding at sites (2) and (3).

**Perth** One site: two singing on 19th June and one 'agitated' on 25th June.

**Surrey** One site: two at former breeding locality on 11th and 12th May.

**County A** Two sites, but no proof of breeding: (1) adult seen June and July, and observer also reported 'seven to nine small fluffy juveniles', but county records committee has not given breeding unqualified acceptance; (2) one heard calling in early June.

A less exciting year than 1975, when there were 3-10 pairs, but the successful breeding in the same tree in Inverness-shire in two successive years is encouraging. There were 1-2 pairs breeding in 1973 and 1-5 in 1974.

**Shore Lark** *Eremophila alpestris*

One site: one pair may have bred.

**County A** One site: male on 18th May and 24th August in same area as 1972-73 records (*Brit. Birds* 66: 505-508; 67: 127; 68: 17-18).

Another hint, following the Grampian record in 1975 (*Brit. Birds* 70:

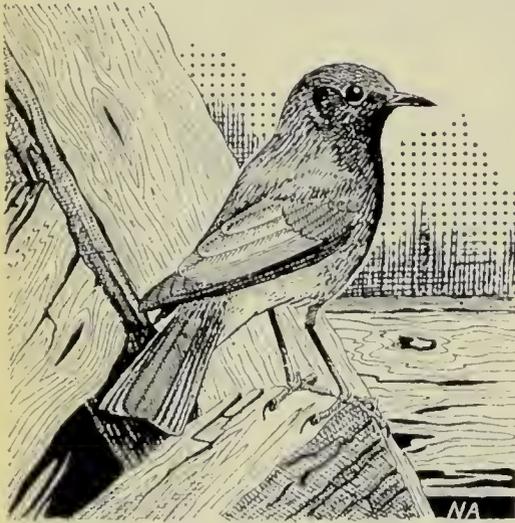
15), that developments might occur—as they did in 1977 (see *Brit. Birds* 70: 511 for preliminary details).

**Citrine Wagtail** *Motacilla citreola*

One site: male feeding young wagtails.

**Essex** One site: male feeding four young wagtails of uncertain parentage, 4th to 24th July, but no female seen.

This species had never been identified in the UK until 1954, but there have now been 24 records, all at coastal sites, mostly in September or October. Full details of this extraordinary record will be published shortly.



**Black Redstart** *Phoenicurus ochruros*

47 sites: 31-74 pairs breeding.

**Bedford** One site: one pair present throughout summer and probable juveniles observed.

**Berkshire** One site: immature male singing from 5th May to 4th July at former breeding site.

**Buckingham** Two sites, with breeding proved at one: (1) one pair with first brood strongly on wing by 12th June and second brood four or five days out of nest on 20th July, second male present in early June; (2) male singing on 22nd May.

**Devon** One site: one pair summered, male singing in April.

**Essex** Five sites, with proof of breeding at three: (1) one pair reared three young from

two broods; (2) one pair reared two young; (3) one pair reared total of seven young in two broods; (4) one pair; (5) one pair in June 'probably nested'.

**Grampian** One site: male singing from April to mid July, female also reported, but any nest almost certainly lost during demolition work.

**Greater London** One site: one pair throughout summer, may have nested, but no juveniles seen. Some other Greater London records appear under Essex, Kent, Middlesex and Surrey.

**Hampshire** One site: three pairs, two of which reared young, but no details supplied.

**Hertford** Three sites, in two towns, with breeding proved: (1) two pairs nested; (2) (3) single pairs nested.

**Huntingdon** One site: two juveniles and possible male on 11th July, one or two juveniles until 25th August.

**Kent** Five sites, with breeding proved: (1) one pair reared three and three young from two broods; (2) one pair with nest and young at end of May; (3) one pair in early May, used nest found in September, report of young being seen by workmen; (4) one pair feeding two young on 19th July; (5) one pair reared two broods.

**Middlesex** One site: one pair on 16th April.

**Norfolk** Three sites, with breeding proved at two: (1) (2) total of ten singing males and breeding occurred at both sites; (3) two singing males.

**Stafford** One site in new area: either two pairs or one with two broods.

**Suffolk** Four sites, with 11-12 pairs and breeding proved: (1) five, possibly six pairs; (2) one pair bred successfully; (3) three pairs, of which two bred successfully; (4) two pairs bred and a third singing male in June.

**Surrey** Seven sites, with breeding proved at two: (1) at least four singing males, at least one pair bred, pair with three young on 21st June and adults with young on 9th August; (2) one pair bred; (3) male singing late April to early June; (4) one heard on 18th and 19th April; (5) one, possibly two, heard on 18th and 19th April; (6) male seen on 24th

May and 6th June; (7) pair on 14th May, not revisited.

**Warwick** One site: one pair, juvenile on 28th July.

**West Midlands** Seven sites, with breeding proved at three: (1) one pair raised two broods of two and four or five young, second male singing; (2) one pair feeding young; (3) male feeding female on 3rd June, two well-grown young on 14th June; (4) one pair in second half of May, but area not revisited; (5) male in late June at site where breeding occurred in previous year; (6) singing male in late June, two individuals seen in July; (7) male singing during May.

**Wiltshire** One site: one first seen on 28th April, sitting on eggs on 14th May, later feeding young.

Apparently a rather poor year, with the lowest number of pairs confirmed breeding since 1971, but the total of 74 possibly breeding was second only to the best-ever 91 in 1975. Pairs breeding during 1973-76 have been 53-68, 46-72, 47-91 and 31-74. In response to pressure from several county recorders, we are dropping this species from our list and 1977 records will not appear in our next report; we shall, however, welcome any 1973-76 additions, so that the picture for those years is as complete as possible.

### **Fieldfare** *Turdus pilaris*

Eight sites: two pairs confirmed breeding, six other instances of summering individuals.

**Bedford** One site: one adult on four dates in May-June, once carrying food.

**Essex** Two sites, but no evidence of breeding: (1) one on 23rd June; (2) one on three dates from 7th June to 8th August.

**Grampian** One site: one adult mobbed observers on three dates in May, two adults and three young on 3rd July.

**Inverness** One site: pair on 2nd July behaved as if breeding, but no nest found.

**Lincoln/south Humberside** One site: one or two present throughout summer, but no further evidence of breeding.

**Midlothian** One site: one adult on 8th and 11th July.

**Stafford** One site: 'one nesting pair located'.

Although breeding has been proved annually since the first nest in 1967, we still hear of only 1-3 instances each year; during 1973-76 the totals of breeding pairs have been 2-3, 3-6, 1-7 and, now, 2-8. Most records in the last ten years have been in Scotland or the northern half of England, doubtless Scandinavian migrants staying into summer, but the Fieldfare is pushing westwards in the Low Countries and it must be only a matter of time before southern England is colonised independently.

### **Redwing** *Turdus iliacus*

Six sites: 2-6 pairs breeding.

**Argyll** One site: one pair reared two young.

**Grampian** One site: birds present at former breeding site, but did not breed.

**Inverness** One site: male singing on 27th May. Steady decline noted since peak years of 1969-72.

**Kirkcudbright** Two sites, but no evidence of breeding: (1) male singing on 20th April; (2) male singing on 20th May, area not revisited.

**Nairn** One site: one pair seen with juveniles on 22nd July.

There has plainly been a marked decline since the *Atlas* years of 1968-72, when a Scottish population of 300 pairs was suggested. Totals of pairs breeding during 1972-76 have been 12-42, 4-11, 3-26, 10-34 and, now, 2-6, the lowest for more than ten years.

**Cetti's Warbler** *Cettia cetti*

More than 20 sites: 8-80 or more pairs breeding.

**Cornwall** One site: one male singing from 4th April to 20th June.

**Devon** Three sites, with breeding proved at one; (1) present throughout year, breeding of one pair proved (adults carrying food and faecal sacs, five fledged young seen on 13th June), two or three pairs may have bred, at least eight singing in December; (2) one heard and seen from 27th November to end of year; (3) one from 24th October to 13th November, two on 23rd December.

**Essex** One site: two singing from 15th April to 8th June.

**Hampshire** One site: one singing from 13th to 19th June.

**Hertford** One site: one singing from 1st May to at least 10th August, second bird present from 8th to 27th May.

**Kent** No census, but numbers similar to 1975 (when 61 singing birds, 27 pairs, five proved breeding). Details from five sites with breeding proved at two: (1) ten singing males, two pairs carrying food, one nest with eggs on 16th May; (2) three pairs with newly fledged young in early July; (3) male from 5th May to end of year; (4) three pairs probably bred; (5) one pair present, but no evidence of breeding.

**Norfolk** Five sites, with breeding proved at one; (1) six males held territory in summer (but three possibly unmated), one pair proved breeding, two pairs probably reared young, ten singing in November; (2) five singing in breeding season; (3) three singing in breeding season, five singing in November; (4) two singing throughout breeding season; (5) two, one singing, on 31st May.

**Suffolk** Two sites, with probable breeding at one; (1) one pair from end of April to mid June probably bred; (2) one singing from 26th April to 6th May.

There was no increase in numbers comparable with those in previous years (1-14 pairs in 1973, 5-16 in 1974 and 8-75 in 1975), but the continuing spread is graphically shown by the 1973-76 totals of sites occupied in summer away from Kent: none in 1973, three in 1974, six in 1975 and, now, 12 in seven counties in 1976.

**Savi's Warbler** *Locustella luscinioides*

Eight sites: nine singing males, but only one pair probably bred, and none was proved.

**Hampshire** One site: one singing male holding territory.

**Kent** Two sites, with probable breeding at one: (1) two males singing from 9th April, one unmated, one pair probably bred successfully; (2) one male singing on 12th June and 6th July.

**Norfolk** Two sites, but no proof of breeding: (1) one male singing on 9th May; (2) one male singing on 24th May.

**Suffolk** Two sites, but no proof of breeding: (1) at Minsmerc, one male singing from May to July, almost certainly did not breed; (2) two males singing in May and early June, probably did not breed.

**Warwickshire** One site: male singing at two localities 400 m apart from 14th to 19th July, about 3 km from site where one was heard and seen in May-June 1972 (*Brit. Birds* 66: 347); reporter regards it as 'likely that the area is being prospected'.

After a disappointing summer in 1975 (only three singing males in the whole of the UK), there was thus something of a return to former numbers. Totals of pairs breeding during 1973-76 were 0-13, 1-8, 1-3 and 0-9. Although only one pair probably bred in 1976, it is mildly encouraging to have reports from eight sites in five counties (the most during 1973-75 having been five sites in four counties).

**Marsh Warbler** *Acrocephalus palustris*

Insufficient data from main area; three sites and 0-3 pairs breeding elsewhere.

- Devon** One site: one singing on 2nd and 3rd June, ringed on 13th, retrapped on 23rd.  
**Kent** Two sites, but no proof of breeding: (1) one male on 7th May; (2) one male on 26th May, one pair holding territory from late May into June.  
**Worcester** Number of sites not known. 'Reported to be up to usual strength and breeding success above average, due to dry, hot weather.' Males singing at two sites north of usual range, from 20th to 23rd May and on 24th May.

The main area in Worcestershire has held an estimated 40-70 pairs each year since 1973, but we have received no details of any census. Elsewhere, Kent has also featured annually, with 2-12 pairs breeding (at six sites) in 1973, but only 0-2, 0-3 and 0-2 in the following three years. The only other counties involved have been Gloucestershire (2-5 pairs breeding in 1974), Warwickshire (0-2 pairs breeding in 1975) and Devon, which features for the first time this year.

### **Great Reed Warbler** *Acrocephalus arundinaceus*

One site: one singing male.

**Lincoln/south Humberside** One site: one male singing from 23rd May to end of June (sporadically after mid June); what was presumed to be same bird at two localities nearby on 11th July and 26th to 28th July.

This species has never been proved to breed in the UK and has not appeared in our report before. Males have, however, taken up temporary territories in large reed-beds on a number of occasions previously. The most spring records have been in 1960 (five), 1969 (seven) and 1976 (six). Sometime, surely, a vagrant female must stray within earshot.

### **Dartford Warbler** *Sylvia undata*

Probably fewer than the 560 pairs of 1974 and 1975, due to decline in Dorset.

**Devon** Three sites, with breeding proved at one: (1) at least 12 pairs breeding; (2) present in October and November; (3) one male from 9th October to end of year.

**Dorset** Eighteen or more sites, with breeding proved: total well down on 1974-75, even before fires in summer 1976 destroyed much habitat, but at least 30 pairs bred successfully; at Arne, nine pairs and four unmated males, compared with 23 pairs in 1975. Factors contributing to this decline were heavy juvenile mortality in early winter 1975/76 and prolonged frosts in April 1976.

**Hampshire** Two sites, with breeding proved: (1) New Forest population of 250-300 pairs possibly 'at an all-time high since recording started; not much hit by fires that so plagued Dorset'; (2) three pairs proved breeding elsewhere in county.

**Isle of Wight** Two sites, but no evidence of breeding: (1) one on 1st April and 14th May; (2) one on 29th May.

**Surrey** Two sites, with breeding proved at both: (1) three pairs each raised two broods; (2) one pair reared at least one brood, presence of second pair suspected. A third site was burnt out and 'fires adversely affected the spread . . . but consolidation has continued and there was evidence of the birds seeking new sites to colonise.'

With no estimate from Dorset, the total population cannot be properly assessed, but it must have exceeded 300-350 pairs (a range which includes only the successful breeders in Dorset).

### **Firecrest** *Regulus ignicapillus*

14 sites: 4-27 pairs breeding.

**Bedford** One site: male singing during 12th to 15th June.

**Berkshire** One site: male singing on four dates from 31st May to 4th July near location of previous records.

**Buckingham** One site, where large decrease occurred: 11 males singing in early June, one adult with three juveniles on 1st July (search-effort same as in previous years). Other former sites not visited.

**Essex** Two sites, but no proof of breeding: (1) one on 20th April and two on 15th May; (2) one on 4th May.

**Gwent** One site: at least one singing on 25th June.

**Hampshire** Two sites, with evidence of breeding at one: (1) one collecting nest material on 13th May; (2) male singing on 1st June.

**Kent** One site: one male singing during May.

**Middlesex** Two sites, confirmed breeding at one: (1) adult female with brood-patch trapped on 5th June; (2) two, one singing, on 24th April, but area not revisited.

**Surrey** One site: male singing on 9th June, still present 6th July.

**Worcester** One site: two males singing in late May.

**County A** One site: one to three from May to September, food-carrying and possible juveniles seen.

Although recorded in as many counties (11) as in 1975, there were huge reductions in the numbers of sites (down to 14 from 29) and pairs breeding (4-27 from 14-121). Despite this crash, however, 1976 was the second best year ever and, hopefully, this delightful species will resume its expansion in years to come.

### **Golden Oriole** *Oriolus oriolus*

Nine sites: 6-21 or more pairs breeding.

**Derby** One site: a male seen and heard on 13th June.

**Gwent** Two sites, but no evidence of breeding: (1) (2) single males seen.

**Hampshire** One site: a female, an immature male and a third individual, probably another immature, during 12th July to 3rd August in a seldom-watched area.

**Suffolk** One site: perhaps as many as nine singing males, conservative estimate of six pairs, and at least two successful nests.

**County A** Four sites, with at least 24 birds calling in late summer: (1) five pairs reported by owner, at least ten calling in mid August; (2) at least five calling in mid August; (3) at least five calling in mid August; (4) at least four calling in mid August.

The discovery of the sizeable population in county A was one of the most exciting features of 1976; with the further consolidation in Suffolk, this resulted in the highest-ever estimate of pairs breeding in the UK. By comparison, totals during 1973-75 were a mere 1-8 pairs, 2-4 or more pairs and 2-7 pairs breeding.

### **Red-backed Shrike** *Lanius collurio*

Reported from three counties: only 3-25 pairs breeding.

**Essex** One site: male present throughout June.

**Hampshire** One site: three pairs nested and probably reared young, possibly two further pairs.

**Norfolk** No information supplied.

**Suffolk** Thirteen pairs in coastal belt and five or six pairs in Breckland.

**Surrey** 'Sadly it is worth recording that for the first time this century this species was not recorded in the county.'

The decline during the last 100 years was apparently decelerating (172 pairs in 1960, 127 in 1966, 81 in 1971 and 27-34 in 1973, then 30-52 in 1974 and 51-54 in 1975), but the 1976 total bodes ill for the Red-backed Shrike's future as an English breeding species. It is depressing to note that it was recorded in only three counties (or four, including those doubtless present in Norfolk), compared with seven or eight in each year during 1973-75.

**Serín** *Serinus serinus*

Two sites: two singing males.

**Kent** One site: male singing on 23rd May.

**Lincoln/south Humberside** One site: male singing from 5th to 7th May.

These two records of brief stays are meagre evidence of any intention to nest, but no Serins at all were reported to us during the previous three summers. The only published breeding records are still those in Dorset in 1967 and Sussex in 1969. When will they come?

**Snow Bunting** *Plectrophenax nivalis*

At least four pairs.

**Grampian** No details supplied, but in Cairngorms 'better year than 1975; at least four pairs reared young (large broods)'.

Lack of detail makes comparison with earlier years difficult. Totals of pairs breeding in 1973-75 were 5-11 at six sites, 2-13 at seven sites and 2-20 at 13 sites, making 1975 one of the best of recent years; if 1976 was indeed a 'better year', it would be interesting to have more information.

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**Additions and corrections for 1974**

(cf *Brit. Birds* 68: 489-503; 70: 22-23)

**Pintail** *Anas acuta*

**Cumberland** One site: one female with downy young.

This record raises the 1974 total to 10-11 pairs breeding.

**Hobby** *Falco subbuteo*

**Somerset** Additional site: (2) one pair bred successfully.

This record raises the 1974 total to 43-91 pairs breeding.

**Black Redstart** *Phoenicurus ochruros*

**Leicester** Additional site: (2) one pair, unsuccessful.

**Surrey** Additional site: (2) one pair may have bred.

These records raise the 1974 total to 46-72 pairs breeding.

**Lapland Bunting** *Calcarius lapponicus*

**Caithness** One site: adult male in breeding plumage on 30th June.

This was the first indication of summering in a suitable breeding area in the UK.

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**Additions and corrections for 1975**

(cf *Brit. Birds* 70: 2-22)

**Pintail** *Anas acuta*

**Kent** Two sites, but no evidence of breeding: (1) one pair from 8th to 11th May; (2) male on 8th May.

These records raise the 1975 total to 12-25 pairs breeding.

**Common Scoter** *Melanitta nigra*

**Caithness** Additional information: nest with seven eggs at site (5).

**Dunbarton/Stirling** Amended figures: at least five pairs, two broods.

**Shetland** Additional site: (3) female with two young.

These data raise the 1975 total to 32-159 pairs breeding.

### **Honey Buzzard** *Pernis apivorus*

**County A** One site: one regularly from May to August, displaying in May, could have bred.

**County C** Present throughout summer at several localities, display seen, and at least three pairs suspected.

It seems likely that there were more than four breeding pairs in the UK in 1975.

### **Red Kite** *Milvus milvus*

**County C** Correction: the pair at site (14) failed; thus, breeding was successful at only 13 of the 23 sites.

This amendment changes the 1975 totals to 32 pairs, of which 28 nested (one twice) and 15 were successful, rearing 24 young.

### **Montagu's Harrier** *Circus pygargus*

**Hampshire** One site: pair present throughout June and July, but no young seen.

This was the only record of a pair in the UK in 1975.

### **Goshawk** *Accipiter gentilis*

**Dorset** One site: one unmated female, present from April into 1976, built nest in May.

**Gwent** One site: single birds seen on many occasions from 2nd March to 29th July.

These records raise the 1975 total to 4-31 pairs breeding.

### **Rough-legged Buzzard** *Buteo lagopus*

**Lincoln/south Humberside** One site: three from mid March to mid April, seen carrying twigs and tumbling in display flights.

Apart from unsubstantiated rumours, this is the first suggestion of breeding behaviour in the UK.

### **Hobby** *Falco subbuteo*

**Avon** Three sites, but no proof of breeding: (1) single birds during June and July, and thought likely to be nesting nearby; (2) numerous sightings from June to September; (3) one pair.

**Berkshire** Two additional sites: (5) one on 25th June and 8th July; (6) one pair on numerous dates from 19th June to 5th September, breeding highly probable.

**Hampshire** Additional site: (2) pair with two fledged young on 7th August. 'Six pairs known' in New Forest—perhaps including sites (1) and (2)—and recorder 'would be surprised if less than 25 pairs away from the Forest'.

**Hertford** Four sites, with breeding proved at each: (1) two pairs nested; (2) to (4) single pairs nested.

**Kent** Three sites, with breeding proved at one: (1) two adults from June to 27th September, latterly feeding two young in the air; (2) single birds on 31st May, 1st June and 7th July; (3) single birds on nine dates from 1st June to 26th July at site where young reared in 1974.

**Leicester** One site: one pair with three fledged young 300 m from 1974 site.

**Nottingham** One site: seen on a few occasions during May to August, and thought likely to be breeding nearby.

**Somerset** Six sites, with breeding proved at one: (1) one pair bred successfully at same site as in 1974; (2) to (4) seen at traditional sites from 25th June to 22nd September, on 22nd May, and on 29th June; (5) (6) single birds on 1st June, 6th July and 7th August.

**Wiltshire** One pair proved breeding and two others probably nested, but details withheld.

These records raise the 1975 total to 37-132 pairs, but the data are still incomplete, with no information from Devon or Sussex.

**Stone-curlew** *Burhinus oedicnemus*

**Berkshire** One site: one pair summered, display flights in June and July.

**Hampshire** Full details not provided, but 17 pairs located in area of about 65 km<sup>2</sup> and total 'must surely exceed 50 pairs'.

**Hertfordshire** At least 11 pairs in northeast of county.

**Wiltshire** 20 sites, with six pairs proved breeding, but further details withheld.

These records raise the 1975 total to 64-121 pairs breeding, but the data are still unsatisfactorily incomplete.

**Ruff** *Philomachus pugnax*

**Kent** One site: up to 11 individuals from 20th May to 9th August, display observed, females inconspicuous after late May, breeding may have been attempted.

This record raises the 1975 total to 2-26 females breeding.

**Black-tailed Godwit** *Limosa limosa*

**Cambridge** One site: maximum of six individuals, one pair with nest and three or perhaps four eggs.

**Cumberland** One site: two pairs proved to have bred and probable third pair present.

**Somerset** One site: two pairs and one other adult from 6th April to 15th June, no proof of breeding, but behaviour of one pair suggested young hatched.

**County E** One site: two pairs, one of which had chicks.

These records raise the 1975 totals to 63-71 pairs breeding at ten sites.

**Red-necked Phalarope** *Phalaropus lobatus*

**Shetland** Two additional sites: (3) up to four females, but numbers of pairs not known; (4) at least one pair.

These records raise the 1975 total to 18-32 pairs breeding.

**Wryneck** *Jynx torquilla*

**Hampshire** One site: pair feeding young.

**Kent** One site: one singing on 10th May.

**Northumberland** One site: heard and seen during May, one fledgling later found on a windowsill.

**Surrey** One site: two at former breeding locality from 15th to 17th May and from 16th to 19th June.

These records raise the 1975 total to 3-10 pairs breeding.

**Black Redstart** *Phoenicurus ochruros*

**Hampshire** Two sites, with breeding proved at both: (1) two pairs reared total of eight young, and third pair possibly bred; (2) one pair reared at least six young.

**Hertford** Three sites, with breeding proved at each: (1) to (3) single pairs nested.

**Kent** Six additional sites, with breeding proved at five: (3) one pair reared three young; (4) one pair reared at least three young; (5) one pair reared broods of two and four; (6) one pair feeding young in nest; (7) male holding territory from 24th April to 16th May, female on 20th May; (8) four singing males, but only one fledged brood of three young seen.

**Leicester** One site: one pair with one young.

**Surrey** Additional site: (9) one pair bred (and may also have done so in 1974).

**Wiltshire** One site: pair reared two broods of four young, second brood of half-grown

young in nest on 7th August.

These records raise the 1975 total to 47-91 pairs breeding.

**Fieldfare** *Turdus pilaris*

**Lincoln/south Humberside** One site: two on 6th June, one remaining until 22nd.

This record raises the 1975 total to 1-7 pairs breeding.

**Redwing** *Turdus iliacus*

**Shetland** Two sites, with breeding proved at one: (1) up to five males singing in June, one pair with two newly fledged young on 5th August; (2) one singing male.

**Sutherland** Additional site: (6) nest with four well-grown young and one egg.

These records raise the 1975 total to 10-34 pairs.

**Dartford Warbler** *Sylvia undata*

**Hampshire** Estimate of 250 or more pairs in the New Forest, where they 'seemed to be everywhere'.

**Isle of Wight** One site: recorded on numerous occasions between 6th April and 1st June, and three or four singing on 27th April, but no direct evidence of breeding.

These records confirm that, in 1975, the population was probably still at about the 1974 level of 560 pairs.

**Firecrest** *Regulus ignicapillus*

**Hampshire** Two additional sites: (2) two pairs, one of which raised two young, no proof of breeding by second; (3) two males singing on 24th May. We believe that some New Forest records have been withheld.

**Kent** Four sites, with first proof of breeding in the county: (1) (2) total of 36 singing males in late May, 12 still singing in early July; (3) up to three singing males, nest-building seen on 26th May, juvenile on 30th July; (4) one male singing on 8th June.

**Nottingham** One site: one juvenile seen, breeding strongly suspected.

These records raise the 1975 total to 14-121 pairs breeding.

**Golden Oriole** *Oriolus oriolus*

**Hampshire** Additional site: (2) three, including one male, appeared late in breeding season and stayed some time, perhaps having bred nearby.

This record raises the 1975 total to 2-7 pairs breeding.

**Red-backed Shrike** *Lanius collurio*

**Avon** One site: nest with three young on 24th June.

**Bedford** Correction: the comment 'This is the first breeding record in the county since 1968' was wrong, for a pair bred in 1971.

**Essex** Correction: delete entry for site (2).

**Hampshire** Information from two sources, perhaps overlapping: (a) three pairs bred in the New Forest, but success not known; (b) details from one site: male with one fledged young on 6th August.

**Kent** Two additional sites, but no evidence of breeding: (2) one male on 27th to 28th May at site where breeding occurred in 1972-74; (3) one male from 1st June to 14th July.

These records raise the 1975 total to 51-56 pairs breeding.

**Great Grey Shrike** *Lanius excubitor*

**Lincoln/south Humberside** One site: one in small area of wooded heathland from 25th May to 14th June, 'the second summer record in recent years', but no evidence of breeding.

This species has not appeared in our reports before.

**Snow Bunting** *Plectrophenax nivalis*

**Angus** One site: one male singing in suitable habitat in late May.

This record raises the 1975 totals to 7-20 pairs at about 13 sites, with 2-4 pairs proved breeding.

*Dr J. T. R. Sharrock, Fountains, Park Lane, Blunham, Bedford MK44 3NJ*

## Mystery photographs

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**13** Although plumage features are important in the identification of any bird, experienced field ornithologists tend to make much use of the way that it moves, its structure and its shape—the factors that go to make up its ‘jizz’. Mystery photograph 13 (*Brit. Birds* 70: 544, plate 153), repeated at reduced size here, is barely more than a silhouette, yet is easily identified.



It is clearly a Grey *Ardea cinerea* or a Purple Heron *A. purpurea* which, with neither neck nor legs tucked in, has just taken off or is about to alight. Even so, its structure is quite evident. The legs and the toes are very long, extending far beyond the tip of the tail; the long neck is coiled, with a bulge protruding below the general body level, and a sharp indentation between the breast and the base of the neck; and the long bill is not only dagger-like, but also slender. These structural features were superbly described and illustrated by R. A. Richardson in his account of a Purple Heron at Cley, Norfolk, in May 1951 (*Brit. Birds* 45: 331, plate 71). Comparison of the elegant ‘mystery’ Purple Heron, photographed by Pamela Harrison in France in April 1967, with the stocky Grey Heron in plate 7 serves to emphasise the differences.

JTRS

7. Grey Heron *Ardea cinerea* in flight  
(*Eric Hosking*)





8. Mystery photograph  
14. What is this species?  
Answer next month

## Personalities

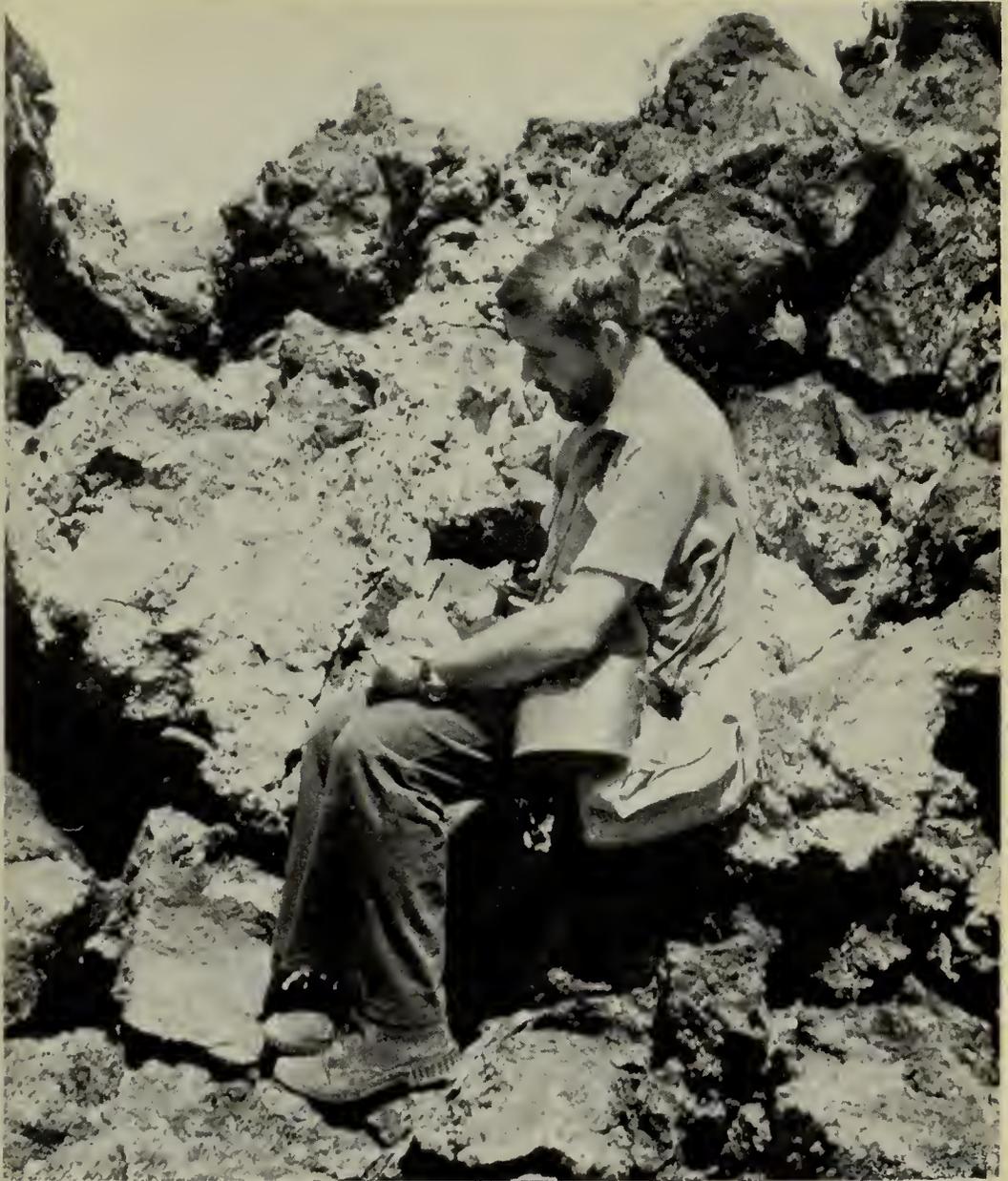
### 11 Dr K. E. L. Simmons

**T**he three of us viewed each other with mutual suspicion across gravel flats where the first Little Ringed Plovers in our area had their nest; we two were schoolboys and 'he' looked pretty seruffy; later, however, my companion, spotting the name on the stranger's army knapsack, muttered that this was the chap who had seen the White-winged Black Tern. Instant respect! . . . and, subsequently, a lasting and valued friendship with a man who has, through his quiet determination and remarkable talents, achieved an international reputation based on a long and impressive series of important papers.

In May 1950, Ken Simmons had just returned from National Service in Egypt. That year abroad, coming at a time when birdwatching was far more insular than it is today, proved to be immensely stimulating to him. He had gained experience of new birds, with time to develop techniques of fieldwork, and made studies of raptor migration, of Graceful and Olivaceous Warblers and of Kentish Plovers; it was the last of these which had led to the immediate interest in our LRPs. This work developed into studies on wider problems, such as distraction displays and other anti-predator reactions.

Ken's serious birdwatching began in 1948, when his continuing work on Great Crested Grebes was started. In that year, he became the youngest member of the British Ornithologists' Union and has since served on its council. He is no ivory tower ornithologist and keenly supported his local bird clubs in Reading, where he was joint recorder and chairman, and later in Bristol, where he was one of 12 founder members of the Bristol Ornithological Club.

After National Service, Ken taught in a Reading school, where he met and married Marion, who has given him great support, particularly in recent years, when back trouble has made life difficult and cut into the



9. Dr K. E. L. Simmons on Ascension (*Robin Prytherch*)

fieldwork which is so vital to his research. Ken's detailed and meticulous notebooks testify to the care and quality of his observations.

In 1962, he and Marion went to Ascension to spend two very happy and productive years running the island's school. Ken started watching two small colonies of Brown Boobies, and has continued this study with a series of return visits, enabling him to get away from desk work and recharge his batteries in the field.

The stream of papers and notes which Ken has written, especially in the 1950s and 1960s, are in scientific but readable language. Since he believes in the value of illustrations, we began a long partnership; he probably has little idea of the enormous help, encouragement and inspiration which this gave to me, a young illustrator who was thereby able to see his work in print far sooner than would otherwise have been

possible. The long list of Ken's publications include nearly 60 contributions to *British Birds* since 1947; they graphically demonstrate his broad range of interests, from anting to zoogeography.

On leaving Ascension in 1964, Ken gave up teaching—I suspect not without a small sigh of relief—to become a professional ornithologist. At first he held a Leverhulme Fellowship and then worked full-time on post-graduate studies at Bristol University, where the late Professor K. R. L. Hall, a fellow plover enthusiast, had welcomed him to the Psychology Department. Latterly, in the Psychology Department at Leicester University, he has been working on duck displays and has become increasingly involved with *The Birds of the Western Palearctic*—of which he is now full-time second editor in the team headed by Stanley Cramp. With Ken's wide interests in ornithology, this is a job for which he is exceptionally qualified.

Ken's study of Great Crested Grebes has been at the forefront of his scientific work since the beginning. Its high standard was recognised when his thesis gained him a PhD at Bristol in 1970; earlier, he had been awarded an MSc for his work on the Brown Booby. Those who learn it for the first time are always surprised that Ken did not have a traditional university career.

His ruling passion, apart from birds, is music and he has always made sure that he has the best equipment for playing his huge record collection—as one would expect, he has now 'gone quadraphonic'. His enthusiasms cover a wide spectrum, but particularly opera and English music. Ken is something of an expert on Elgar, to the extent of having published two articles about him.

Ken wears his considerable reputation lightly, and is approachable and friendly—someone who is always ready to enjoy a laugh and a good gossip.

ROBERT GILLMOR

## Notes

### **Golden Eagle persistently attacking red deer**

**calf** On 26th June 1976, I watched a pair of Golden Eagles *Aquila chrysaetos* hunting over a mountain ridge above Loch Hourn, Highland, where several female red deer *Cervus elaphus* and their calves were grazing. The eagles flew out of sight to the east, but several minutes later the female returned and descended vertically and rather slowly, with her wings half-closed and her legs fully extended below. She landed in a slight depression, where she may have been attempting to kill a deer calf which was lying there, but three hinds rushed up, causing her to take off. Later, I saw the male eagle hanging motionless on outstretched wings above the ridge; below him, his mate was diving repeatedly, at an angle of 45 degrees, at the same deer calf, which was running about



frantically as the eagle dived at its back from one side and then pulled up, turned and dived again from the other; once the eagle briefly held on to the calf's back. The hind was running up and down close to her young, trying to distract the eagle, which broke off the attack after several passes and settled briefly on a rock before she and her mate flew off east again. I had not seen the eagle's approach for the attacks, but assumed that she flew east after spotting the calf and then doubled back on the far side of the mountain, so as to gain an element of surprise by coming up over the ridge directly above her intended prey.

C. J. NORTHEAST  
23 Ffordd Colomendy, Denbigh, Clwyd

Seton Gordon (1955, *The Golden Eagle: King of Birds*) described a number of attacks by Golden Eagles on red deer calves, but these were all second-hand stories related to him by deer-stalkers. EDS

**Merlins hunting together outside breeding season** On 4th November 1976, at Ynys-hir, Dyfed, I watched two Merlins *Falco columbarius* pursuing a small passerine, possibly a Meadow Pipit *Anthus pratensis*, over rough grazing land. They made about ten stoops in the space of 20 seconds, each diving alternately from about 10 m above their quarry so that it was under continuous attack. Eventually the prey was caught and passed from one Merlin's talons to the other's. The speed and cleanliness with which this transfer took place rule out the possibility of its having been a robbery. Both Merlins were in 'brown' plumage and appeared to be the same size; they were not, therefore, an adult pair, though the possibility of an immature pair cannot be excluded. ALAN PARKER

c/o Royal Society for the Protection of Birds, The Lodge,  
Sandy, Bedfordshire SG19 2DL

**Peregrine quartering ground like harrier** On 7th November 1976, at Cors Tregaron nature reserve, Dyfed, I saw a Peregrine *Falco peregrinus* fly slowly, low over the ground, in a methodical manner reminiscent of a harrier *Circus*. In about three minutes, it covered most of the tract of heather. Several times it concentrated on small areas, above which it kept its position by beating its wings rapidly; this caused it to fly in small circles, and at times it seemed on the verge of hovering. I assumed that the Peregrine was attempting to flush or capture Red Grouse *Lagopus lagopus*, but it did not succeed and left the area. ALAN PARKER

c/o Royal Society for the Protection of Birds, The Lodge,  
Sandy, Bedfordshire SG19 2DL

Douglas Weir has commented that this behaviour is very little known, although it is well described by J. A. Baker (1971, *The Peregrine*), in a fictional but presumably authentic way, for a Peregrine hunting Grey Partridges *Perdix perdix*. EDS.

**Peregrine taking Meadow Pipit in upward strike from front** On 8th May 1976, at Loch Indaal, Islay, Strathclyde, I saw a male Peregrine *Falco peregrinus* rise straight off the ground at great speed and fly through an oncoming small flock of Meadow Pipits *Anthus pratensis*, taking one in

its talons as it went by. All of the many other Peregrine strikes that I have seen have been from above.

K. VERRALL

*Cnoc-na-Daal, Bridgend, Islay, Strathclyde*

We showed this note to Douglas Weir, who commented that, although accelerated pursuit from a perch is a very common hunting method of Peregrines, an upward direction is unusual; birds, however, may be attacked from any angle. We have also noted that J. Walpole-Bond (1938, *A History of Sussex Birds*) gave the following description of a female Peregrine's hunting method: 'Singling a bird out, she catches up with but dashes under it, gets in front a little, turns up and backwards and "trusses" from beneath, now being of course upside down and head towards the pigeon's tail.' EDS

**Behaviour of adult and young Coots with fish** In May 1976, at South Norwood Lake, London, I watched a pair of Coots *Fulica atra*, one of which had caught a slender fish about 6½ cm long. It immersed the fish in the water, shook it and presented it to its mate, which repeated the procedure and returned it. The routine was performed about 20 times and the fish then given to one of the chicks. The chick, which I estimated to be about 30 days old, swallowed the fish head first in one gulp.

MICHAEL HAMPTON

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**Female Dotterel tending chick** During the 1976 breeding season, I located a Dotterel *Eudromias morinellus* on a remote hilltop in northern England. On 18th July, at the same locality, Brian Leflay watched a pair, the larger and brighter of which, the female, was tending a four- or five-day-old chick. On 24th July, I found the female and chick, and, 200 m away, two adults, marginally smaller and much drabber, which I took to be males. The female and chick did not associate at all with the males during the time of my observation. When approached to within 20 m, the female performed a typical distraction display with trailing wing. It appeared that the roles of the sexes had been reversed in this case.

DOUGLAS PAGE

*5 Colvin Close, Arksey, Doncaster, South Yorkshire*

Desmond Nethersole-Thompson has commented that there is only one other, rather unlikely explanation of this most interesting observation. Dotterels begin to moult in the second half of July, and size is not necessarily an important factor, since some females are not appreciably larger than males. It is just possible, therefore, that the females had started to moult before the male, which was, in fact, tending the young. EDS

**Feeding association between Redshank and injured Oystercatcher** On 23rd November 1975, on the Eden estuary, Fife, I watched an Oystercatcher *Haematopus ostralegus* with a badly injured leg, hopping about on the sand, trying to feed. Its movements and feeding actions were very weak. A Redshank *Tringa totanus* kept trying to feed very close to it, often

with its head actually under the Oystercatcher. Although completely ignored, the Redshank frequently jerked back, as if expecting to be attacked. It repeatedly wandered a few metres away and fed for a short time, before returning to the Oystercatcher.

ALAN S. HOLMES

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**Ivory Gull bathing and settling on water** J. M. Bayldon's note on the reluctance of Ivory Gulls *Pagophila eburnea* to settle on water (*Brit. Birds* 69: 308) prompts me to record the following. On 22nd and 23rd December 1973, I watched an adult Ivory Gull at Dunnet Bay, Caithness, for a total of about three hours (*Scot. Birds* 8: 246). It fed on one of several carcasses of young grey seals *Halichoerus grypus* along the high water mark. Several times, when disturbed by people on the beach, it flew to a point near the mouth of a small burn which spread out over the sand, and bathed and preened thoroughly in the freshwater channels of the burn delta, in water about 2-3 cm deep. When the disturbance had passed, it would return to the seal and resume feeding. On 23rd December, I watched the gull, again disturbed by passers-by, fly out over the bay and land on the water. It remained there for about 30 seconds before rising and flying farther out, when it was lost to sight.

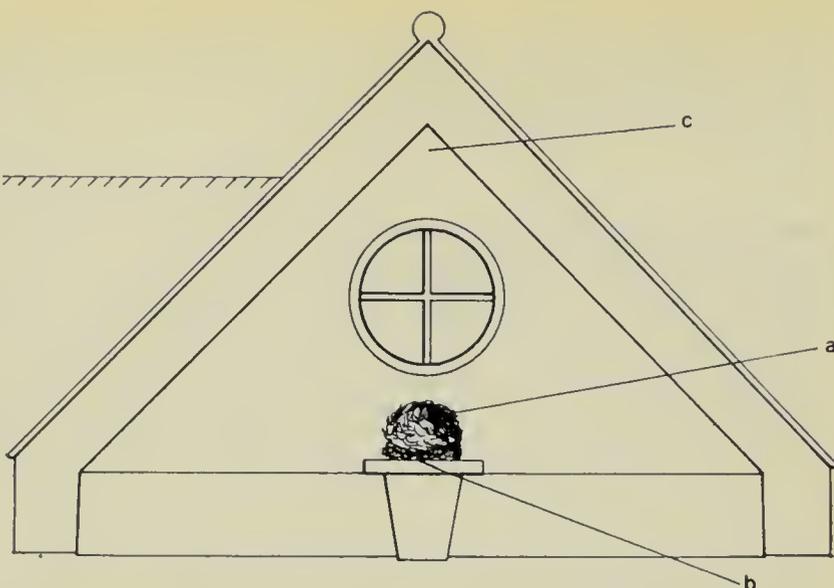
S. LAYBOURNE

Old Schoolhouse, Harpsdale, Halkirk, Caithness KW12 6UN

J. M. Bayldon has informed us that, since his note, his attention has been drawn to observations in the North American literature. These show that the particular risk to an Ivory Gull if it settles on water is that, when it flies, it exposes its feet to a much lower air temperature. Dr R. G. B. Brown (*in litt.*) reported to JMB that the Canadian Wildlife Service has several records of Ivory Gulls sitting on near-freezing water in northern Baffin Bay, in most cases in or very close to sea ice, which could have provided the gulls with an alternative resting place: in two cases, in September 1970, small flocks sat on the water for over an hour beside a stationary ship, apparently waiting for garbage to be thrown overboard; in September 1971, there were other similar sightings of small groups, some landing briefly to feed and others sitting on water for at least 1½ hours; in every instance the air temperature was similar to that of the water and, since wind speeds were virtually nil, the wind chill factor must have been slight. The Ivory Gull appears to feed primarily on fish and invertebrates associated with the ice, and to a lesser extent on the droppings and carcasses of mammals. It, therefore, obtains much of its food from the water. EDS

**House Martins taking over Swallows' nest** In May 1972, a pair of Swallows *Hirundo rustica* constructed a nest on the decorative ledge (30.5 cm long by 7.5 cm deep) above the second-floor window of a house in Gravesend, Kent. When building was nearly complete, the Swallows were ousted by a pair of House Martins *Delichon urbica*, a species which normally nests under the eaves of the house and usually at the apex of the gable immediately above the site of the Swallows' nest. The martins built on top of the Swallows' nest, completing a dome with the entrance near the top (fig. 1). They bred and raised young successfully. Dr Bruce

Fig. 1. Position of (a) domed nest of House Martin *Delichon urbica* on top of (b) nest of Swallow *Hirundo rustica* on ledge above a second-floor window, Kent, 1972. Usual site of House Martins' nest, both before and after 1972, was (c) in apex of gable



Campbell and James Ferguson-Lees (1972, *A Field Guide to Birds' Nests*) referred to Swallows nesting on the outsides of buildings, and taking over nests of House Martins, but I can find no reference to the reverse occurring.

L. F. WOOLLARD

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**Great Grey Shrike feeding on refuse tip** In November 1975, at Chasewater, Staffordshire, I observed a Great Grey Shrike *Lanius excubitor* feeding on a refuse tip. It would fly down from a perch and pick something from the tip, or settle on the tip slope or flat upper surface for several minutes, now and then leaping forward to take food or peer under overhanging rubbish. It often explored patches of tangled, bushy cuttings, beneath which there were hundreds of house crickets *Acheta domestica*, but it picked up and swallowed food too quickly to be taking these. Dr T. Cade (*Wilson Bull.* 74: 386-408) described Great Grey Shrikes dancing about on the ground for several minutes when killing certain rodents, and H. Mester (*Brit. Birds* 58: 375-383) recorded the species hunting around human habitations, presumably attracted by concentrations of other birds. Dozens of Starlings *Sturnus vulgaris*, House Sparrows *Passer domesticus* and Black-headed Gulls *Larus ridibundus* feed on the tip, suggesting a plentiful food supply.

R. A. HUME

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**Newly acquired feeding technique by crows?** During 1972-76, at Higher Metcombe, Devon, I observed what may be a new feeding technique by Carrion Crows *Corvus corone*, Jays *Garrulus glandarius* and Magpies *Pica pica* visiting feeding stations. From 1974, all three learned to feed on suspended fat and peanuts in red plastic bags. They always flew in, perched on a convenient bush and then suddenly launched themselves into the air, landing upside down on either the fat or the peanut bag. There they would hang for up to 20 seconds, with much wing-flapping and tail-balancing, like giant Great Tits *Parus major*,

tearing off lumps of fat or ripping the fabric of the plastic bag and removing the nuts in large beakfuls.

GEOFFREY H. GUSH

*Heather Cottage, Higher Metcombe, Ottery St Mary, Devon* EX11 1SR

**Blackpoll Warbler in Devon** On 18th September 1976, I made an early morning visit to Prawle Point, south Devon, to search for migrants. There were sunny periods and the wind was light southwesterly, but had been strong westerly two days previously. At 08.45 GMT, while walking along an overgrown hedge, I came across a stout, yellow-green, warbler-like bird. It flew away, down the hedge, giving glimpses of white under the tail, and disappeared into thicker vegetation. I could think of no European species which showed these features, so I decided to wait for it to reappear. It did not do so until three-quarters of an hour later, when it flew out to feed clumsily on top of the hedge. It was then visible for long periods until 11.00 hours, when, having identified it as an American wood-warbler, but lacking any identification guides or previous experience, I decided to go to Slapton to alert other observers. When I returned at midday with Mr and Mrs R. Andrew, the bird had gone into cover, but it was extremely active later in the afternoon and all present, including M. J. Giles, had good views at close range until fading light prevented further observation. The following notes were compiled during the day.

General impression of bird about the size of fluffed-out Wood Warbler *Phylloscopus sibilatrix*, rather slow and deliberate in movements, predominant colours green, yellow and black. On closer examination, general upperparts olive-green, appearing considerably brighter in good light. Six heavy dark lines of striations down mantle gave 'furrow' effect, which faded out on nape. Rump slightly streaked, rather more grey-green in tone than mantle. Short yellowish supercilium faded out just behind eye. Yellow suffusion extended down throat and breast, contrasting with white lower belly and undertail-coverts.

Flanks lightly streaked with brown, visible only at close range. Wings and tail blackish with white edges to feathers and prominent white tips to outer tail feathers, particularly noticeable in flight and from below. Two pale, yellowish-white bars extended across primary coverts, the higher being approximately half the length of the lower, which was slightly curved. On close observation, the undertail showed two

white, pear-shaped blobs on a grey background.

Quite stocky for an insectivore of this size, with noticeably short wings and tail, the latter deeply cleft. Medium-short, horn-coloured bill, quite stout at base. Legs strong, rather long and orange-brown, appearing deep orange in good light.

Behaviour distinctive, consisting of heavy movements with much disturbance of the vegetation. Fed in tops of bushes 2½ to 3 m up, near ground-level among dense weeds, and several times foraging on open ground. It was a clumsy feeder in bushes, occasionally hovering to pick food off leaves, once seen swinging under a twig like a tit *Parus*, and once running down a tree trunk for more than a metre. The normal feeding method involved climbing slowly around an area of vegetation, fanning wings and tail to balance, while inspecting leaves with an air of great thoroughness. We assumed that the long breaks in our observations were caused by the bird feeding intensively in low cover.

The only identification guide available to us in the field was Robbins *et al.* (1966). Although this was useful in showing which were the most critical identification points for distinguishing Nearctic 'fall warblers', we felt unable to make any positive identification because no illustration corresponded to the markedly yellow-green bird before us. The streaked back and green mantle led us to consider Black-throated Green Warbler

*Dendroica virens*, but this was ruled out by the fineness of the flank striations, the lack of a yellow 'collar', the pale legs and the extent of white on the undertail. The remaining possibilities were Pine *D. pinus*, Bay-breasted *D. castanea*, and Blackpoll Warblers *D. striata*. The whiteness of the undertail-coverts militated against Bay-breasted, although streaking and tail markings fitted, and the streaked back appeared to rule out Pine Warbler, which was close in colour to our bird. Blackpoll seemed, therefore, to be the most likely solution, but we agreed not to put a name to the bird until further references had been consulted.

On reading M. A. Hollingworth's description of Blackpoll Warbler in the *Isles of Scilly Bird Report* (1975: 34-35), we became convinced of the correctness of our identification. We were able to confirm the previous day's impressions on 19th, when the bird was seen well by many observers and a thin 'tsipp' call-note heard. The warbler was ringed by A. K. Searle on the morning of 20th, but was then not seen again until its final appearance on 29th.

This was the fifth record for Britain and Europe, and the first for the mainland, previous records (all in October) being from the Isles of Scilly (three) and Bardsey, Gwynedd. It was, however, the precursor of a series of nine more Blackpoll records in Britain and Ireland in October and November 1976 (*Brit. Birds* 70: 440).

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## Reviews

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**Bird Count.** By **Humphrey M. Dobinson.** Penguin Books, Harmondsworth, 1976. 192 pages; almost 100 black-and-white drawings. Hardback £2.75; paperback 75p.

These days, most of us count our pennies before deciding whether or not to purchase the latest books on birds. It will, therefore, come as a pleasant surprise to discover a new, reliable book that costs only 75p! Humphrey Dobinson, head of remedial education at a Wiltshire school and an experienced field ornithologist, has written *Bird Count*, with the young enthusiast or beginner in mind. The book, however, contains a useful summary of practical fieldwork suitable for both young and old, experienced and inexperienced.

In a little under 200 pages, we are told how to write field notes, carry out a common birds census, conduct a sea-watch, record migration and count birds at their roosts. There are some useful tables: one indicates when visits should be made to nest sites in order to fill in nest record cards efficiently, and another shows where various species roost. I found the chapters on sea-watches and on roosting particularly enjoyable: the latter posed many interesting questions and will, I hope, successfully stimulate both novices and experts to do more to discover some of the answers. There are also details of projects to which amateurs can make useful contributions, instructions for writing notes on rarities and suggestions for local studies.

It is a pity that the book includes descriptions and black-and-white drawings of 60 common species. In the limited space, it would have been better to have stressed the importance of one or two reliable field identification guides, and then, for instance, to have expanded the sections on counting waders and wildfowl or on pellet analysis.

In spite of this criticism, this guide would make an ideal present for a teenage bird-watcher; I found it refreshing to read a book which tells the reader how to discover more for himself and encourages him to look more closely at his local area and at the birds he sees every day.

PETER HOLDEN

**Crows of the World.** By Derek Goodwin. Comstock Publicity Associates, Ithaca, New York, in co-operation with the British Museum (Natural History), 1976. 354 pages; 3 colour plates and many line-drawings by Robert Gillmor; maps. £15.00.

Derek Goodwin began as an amateur, with an absorbing passion for the study of the living bird, both in the field and the aviary. Later, he turned professional and developed into a distinguished taxonomist, but without losing any of his earlier enthusiasms. His range of interests has always been wide, but perhaps his special favourites are pigeons and crows—two groups which many birdwatchers find unattractive or boring. It is fitting that he should set the seal on his professional career by adding this authoritative handbook on the crows to his earlier work, *Pigeons and Doves of the World* (1967), reviewed in *Brit. Birds* 61: 317-318.

The general plan is similar to that of the earlier work. First, there are four general chapters, covering nomenclature, adaptive radiation, plumage and behaviour. Then follows a detailed account of each of the 116 species of crows, divided into 13 groups. Each group is prefaced by an account of taxonomic relationships and habits, and then the species are covered in detail—description, field identification, distribution and habitat, feeding and general habits, nesting, and display and social behaviour. These accounts vary from over eight pages, in the cases of well-studied species such as the Magpie and Jay, to barely a quarter of a page for the Flores Crow, where most headings state bluntly 'No information'. Most species accounts are illustrated with line-drawings by Robert Gillmor, who also provided the three attractive coloured plates, and include small maps (which do not, however, distinguish breeding and wintering ranges where these differ).

This is a monumental work, bearing witness to years of careful study, and is fully referenced. With great authority, it covers a remarkable range of topics, from classification to behaviour; indeed, only migration and eruptive movements (where these are relevant) receive less than adequate treatment. To many readers, perhaps, the behaviour sections will prove the most absorbing: they reflect the author's insight, long experience and sometimes highly individual attitude to bird—and human—behaviour. Understanding, enthusiasm and exact scholarship are here combined to provide a most attractive volume

STANLEY CRAMP

**Atlas of Breeding Birds of the London Area.** Edited by David J. Montier for the London Natural History Society. B. T. Batsford Ltd, London, 1977. 288 pages; over 240 maps and line-drawings. £12.50.

Very sensibly, the LNHS decided that, while taking part in the British Trust for Ornithology/Irish Wildbird Conservancy atlas project during 1968-72, it should survey the birds of London on an even finer grid than the national scheme's 10-km squares. This book summarises, by maps and texts, the resulting 37,349 records, gathered for the 856 2-km squares (tetrads) within the LNHS recording area, which has a 20-mile (32.2 km) radius centred on St Paul's Cathedral.

The book's format resembles *The Atlas of Breeding Birds in Britain and Ireland* (1976), with a double page spread devoted to each of the 120 species: one page of text, with a line-drawing of the bird, and the facing page wholly taken up by a two-colour dot-distribution map. The line-drawings, by five artists, are all pleasing and many are exceptionally fine. The maps, with orange dots on an outline showing 10-km squares and rivers in black and built-up areas tinted grey, are clear, useful and repay detailed examination. They reveal for example, the widespread distribution of Kestrels and Tawny Owls, but that Collared Doves had hardly penetrated Central London by 1972. A total of 11

authors contributed to the texts. They have done a good job, concentrating on the factors affecting distribution within the London area and giving details of past censuses or surveys: irrelevant padding is conspicuous by its absence, which reflects well on the editor. There is a foreword by Stanley Cramp, a helpful introduction and a chapter on the area's geology and habitats.

My only criticism concerns the survey. Of the 856 tetrads, 28 (3%) were so inadequately covered that fewer than ten species were recorded in the five years and 13 have no records at all. If these had been scattered through the area, they would not have mattered, but unfortunately they mostly fall in a wedge which extends through the northeastern sector and is obtrusive on nearly every species map. Since two hours of fieldwork in an average tetrad can produce 20 to 50 species, this blemish on the survey could have been cured so easily by just a little more fieldwork by observers in the parts of Essex concerned.

I cannot, however, imagine any London birdwatcher, now or for many years to come, not wishing to own this beautiful book. Its value as a historical document will assuredly increase as London and its habitats change; the success of this venture must make a repeat survey a certainty. David Montier and the LNHS have every right to feel proud: they have produced a book which shows British ornithology at its co-operative best.

J. T. R. SHARROCK

## Letters

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**Breeding success of Red-throated Divers** I read with interest the note on the breeding success of Red-throated Divers *Gavia stellata* on Hascosay, Shetland, in 1975 (*Brit. Birds* 69: 409), and, although I agree that skuas *Stercorarius* or gulls *Larus* probably took the eggs and young, I feel that they were not the sole reason for the failures and that another important factor was human disturbance. I have been monitoring the breeding success of this species in parts of Orkney since 1971 and have found that any examination of a diver's nest causes the adult to move to the far side of the loch, or to fly away from it, which then gives ample opportunity for predation before the diver can return to the nest. Arctic Skuas *S. parasiticus* will take eggs or young when people are only a few metres away. A survey involving egg counts would be biased because of the disturbance factor; monitoring can be safely carried out if one visit is made early in the season to establish presence of pairs on territory, and another later to count young or failed nests.

Red-throated Divers breed successfully in Orkney, with Great Skuas *S. skua*, Arctic Skuas and large numbers of gulls all nesting in close proximity to the lochs. The only ones that have shown a fall in breeding success are those on lochs where there has been an increase in disturbance. This was particularly noticeable in 1975 and 1976, on a loch that has become popular with people wishing to see nesting divers: the number of young reared fell from six in 1971 and 1973, to five in 1974, two in 1975 and only one in 1976.

C. J. BOOTH

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**Past status of the Brent Goose in Northumberland** The most vivid accounts of the large numbers of Brent Geese *Branta bernicla* which used to visit what is now the Lindisfarne National Nature Reserve in north

Northumberland are to be found in the writings of Abel Chapman (1889, 1907, 1924). Atkinson-Willes and Matthews (1960), in a detailed review of the literature concerning the past status of the Brent Goose in Britain, turned to Chapman's works to 'obtain anything in the nature of reliable numerical estimates'. In the course of preparing material for the forthcoming *Birds of Northumberland*, we have, however, discovered a considerable discrepancy in Chapman's figures, possibly the result of a misprint or transcription error, but perhaps showing that his estimates were not quite as reliable as has been assumed.

In the first edition of *Bird Life of the Borders*, Chapman (1889), describing the largest arrival of Brent Geese he had ever witnessed at Lindisfarne, stated that '... on the morning of the 3rd [March 1886] the numbers which had come were roughly estimated at 15,000 to 20,000... and fresh bodies of Geese kept coming in all day from sea, until the total aggregate could not be estimated (as I saw myself) at less than 30,000'; and, later, 'In roughly estimating their numbers at something like 30,000—more than double the number we had in the severe winters of 1878-9 and 1880-81—I fear I may be suspected of exaggeration. But these numbers are probably not very far wrong.' The figure of 30,000 is quoted several times by Atkinson-Willes and Matthews (1960) and seems to be the largest flock of Brents ever recorded in Britain. In the second edition of the same work, published in 1907, the figure had, however, been radically altered so that the equivalent passage reads '... on the morning of the 3rd the numbers which had come were roughly estimated as "into the tens of thousands"... fresh bodies of geese kept coming in all day from sea, until the total aggregate could not then be estimated (as I saw myself a few days later) at less than 20,000.' This reduction of the estimate by no less than one-third does not appear to have been noticed before. Even at the reduced figure, however, the record remains the largest concentration anywhere in Britain.

A further anomaly became apparent when consideration was given to the subspecific identity of the Brents occurring at Lindisfarne in the past. Today, the much smaller numbers which are to be seen belong, almost entirely, to the pale-bellied form *B. b. hrota*, but reference to the two standard 20th-century works on Northumbrian ornithology, Bolam (1912, 1932), indicates that, at that time, the dark-bellied form *B. b. bernicla* predominated. In the first work, he stated that 'in most, the underparts are darkish slate-grey...', and, in the second, that 'the dark-bellied birds [are] the predominating type with us.' Chapman (1907), however, disagreed, stating that 'these dark-breasted birds are the exception, the vast majority being pale grey or dusky below...', and 'The light bellied race [is] the more abundant of the two locally...' In *The Borders and Beyond* (1924) he further emphasised this view, saying that 'of late years the darker geese—always in a minority—seem to have become relatively even less numerous.' It is difficult to account for these completely differing observations. Chapman was a wildfowler of great experience and unlikely to be mistaken in his descriptions of the geese. Bolam was and still is renowned for his accuracy in such matters and,

likewise, would be unlikely to make such an error. One possible explanation is that Bolam was referring to a normal winter, when numbers of Brents were much lower than those mentioned above and when, quite possibly, the race *B. b. bernicla* was the more numerous. Chapman, however, may have based his writings mainly on his experiences in the exceptional winters of 1878/79, 1880/81 and 1885/86, when the numbers were possibly swollen by great influxes of *B. b. hrota*. Atkinson-Willes and Matthews proposed that it was *B. b. hrota* rather than *B. b. bernicla* which underwent a severe decline during the first half of the 20th century, using Chapman's and more recent observations to support their views. Bolam's statements, however, seem to make interpretation of the situation more complex.

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**Avian prey of large raptors on Canna** In response to D. M. Hawker's note on Golden Eagles *Aquila chrysaetos* feeding on Fulmars *Fulmarus glacialis* on Eigg, Lochaber, Highland (*Brit. Birds* 68: 293), the situation on nearby Canna may be of interest. Canna (1,241 ha) supports a huge population of rabbits *Oryctolagus cuniculus*, which, with sheep carrion in winter, maintain two pairs of Golden Eagles and up to nine pairs of Buzzards *Buteo buteo*. The eagles have always taken a few Fulmars, but in 1971, when the rabbit population was severely reduced by myxomatosis, they began to feed almost exclusively on Fulmars, and have continued to do so, despite the increase in rabbit numbers; Razorbills *Alca torda* and a moulting adult Herring Gull *Larus argentatus* have also been taken, but, since 1971, virtually no rabbit remains have been found in eagle pellets. Following this change of diet, no young eagles have been reared on Canna. On neighbouring Rhum, eagles feeding on Fulmars have also failed to rear young, whereas those taking carrion and Manx Shearwaters *Puffinus puffinus* have been more successful. Although Buzzards on Canna occasionally feed on shearwaters, the eagles apparently do not. The Golden Eagles' lack of breeding success may be due, at least in part, to their feeding on Fulmars, which are known to have high levels of pesticides (Dr W. R. P. Bourne verbally).

R. L. SWANN and A. D. K. RAMSAY  
14 St Drostan, Drumnadrochit, Inverness-shire  
Warden's House, Berstane Road, Kirkwall, Orkney

**Swallow hawking insects at 04.00 hours** D. M. Hanford's note on a Swallow *Hirundo rustica* hawking insects half an hour before sunrise (*Brit. Birds* 69: 309-310) makes interesting reading on a matter referred to by L. de Breay (*Gerfaut* 36: 133-193), who recorded that 'during incubation a Swallow went off her nest about 11 minutes after sunrise and retired 40 minutes before sunset, but when there were chicks she began before sunrise and ended after sunset.'

ALAN S. HOLMES

13 Hunter Crescent, Troon, Strathclyde KA10 7AH

**Holiday exchanges between British and Dutch or Belgian bird-watchers** By means of an advertisement in *British Birds*, I arranged a holiday exchange between a British ornithologist and myself, which proved very successful. I am willing, therefore, to organise such exchanges on a larger scale. They offer opportunities for interchange of ideas and, since accommodation is in each other's homes, cost is limited to travel expenses.

Anyone who has a serious interest is invited to write to me before 10th March 1978, enclosing a stamped and addressed envelope and giving their name, age (minimum 16), sex, dates suitable for the holidays and any special wishes. In principle, I shall bring into contact those of the same sex and similar ages. Once I have put people in touch with each other, further arrangements will be entirely up to them.

HANS OLSTHOORN

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## Announcement

**Young Ornithologists of the Year** The winners of the annual Young Ornithologists' Club competition, sponsored in 1977 by this journal (*Brit. Birds* 70: 305), have now been chosen. Entrants competed in three sections, submitting (1) a notebook covering observations during 1st June to 1st September, (2) the answers to a short ornithological quiz, and (3) an article on a single species. They were judged in three age-groups. The winners were:

- |             |                           |
|-------------|---------------------------|
| 9 and under | Neil Dummigan (Cleveland) |
| 10-12       | Danny Markey (Cornwall)   |
| 13 and over | Rachel F. Warren (Sussex) |



Danny Markey was a clear winner in his group, his careful work being enhanced by sketches showing artistic promise. We must make special mention, however, of Neil Dummigan's work, which was of such a high standard that it would have resulted in short-listing even in a more senior age-group; and of the achievement of Rachel Warren in winning the '13 and over' award at the age of 13. The three winners will be presented with their cash or book awards at the YOC Annual London Members' Meeting on 11th February (for details see page 48).

# Requests

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**Sketches of Eurasian birds** The Western Field Ornithologists would welcome the submission of sketches of Holarctic and Palearctic birds (particularly waders) for use in their journal *Western Birds*. Anyone interested in helping should contact Tim Manolis, 4409 44th Avenue, Sacramento, California 95824, USA.

**Black Redstart breeding survey** The Rare Breeding Birds Panel has now dropped the Black Redstart *Phoenicurus ochruros* from its list (*Brit. Birds* 71: 13), but in 1977 the British Trust for Ornithology organised a survey into the summer status in Britain of this species. All records of breeding pairs and singing males should be submitted to the BTO as soon as possible. Special recording forms will be supplied on request by the organisers, David Glue and Robert Morgan, British Trust for Ornithology, Beech Grove, Tring, Hertfordshire HP23 5NR.

## Diary dates

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This list covers events taking place during January to December 1978. We welcome the submission of details of events for possible inclusion in the next list, covering July 1978 to June 1979.

**6th-8th January** BRITISH TRUST FOR ORNITHOLOGY RINGING AND MIGRATION CONFERENCE. Hayes Conference Centre, Swanwick, Derbyshire.

**17th January** BRITISH ORNITHOLOGISTS' CLUB. Dr J. G. Harrison on 'Indian interlude'. Central London. Non-members should write to the hon. secretary, R. E. F. Peal, 24 Creighton Avenue, London N10 1NU.

**20th-22nd January** SCOTTISH ORNITHOLOGISTS' CLUB ANNUAL CONFERENCE. Marine Hotel, North Berwick, East Lothian. Applications to SOC, 21 Regent Terrace, Edinburgh EH7 5BT.

**11th February** YOUNG ORNITHOLOGISTS' CLUB ANNUAL LONDON MEMBERS' MEETING. Edward Lewis Theatre in Middlesex Hospital Medical School, Mortimer Street, London WC1. Chris Mead on 'Migration' and Richard Porter on 'The raptor migration at the Bosphorus, Turkey'. Send SAE to YOC, The Lodge, Sandy, Bedfordshire SG19 2DL.

**17th-19th February** BTO FARMLAND BIRDS CONFERENCE. Hayes Conference Centre.

**3rd-5th March** ALL-IRELAND CONFERENCE. Jointly organised by the Royal Society for the Protection of Birds and the Irish Wild-bird Conservancy. Wexford.

**14th March** BOC. Dr Bruce Campbell on 'Problems of gravel pits'. Central London.

**31st March-2nd April** RSPB MEMBERS' WEEKEND. University of York. Applications to Conference Secretary, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

**7th-9th April** BRITISH ORNITHOLOGISTS' UNION ANNUAL CONFERENCE. Royal Holloway College, Egham. 'Eggs, incubation and growth rates' (jointly with the Incubation Research Group). Applications to BOU Office, c/o Zoological Society of London, Regent's Park, London NW1 4RY. (Note change of date from *Brit. Birds* 70: 309.)

**25th May** THE WILDFOWL TRUST AGM.

**4th-11th June** XVII INTERNATIONAL ORNITHOLOGICAL CONGRESS. West Berlin (see *Brit. Birds* 70: 129).

**22nd June-8th July** SOCIETY OF WILDLIFE ARTISTS ANNUAL EXHIBITION. The Mall Galleries, The Mall, London SW1. Open 10 a.m.-5 p.m. Monday-Friday; 10 a.m.-1 p.m. Saturday.

**29th September-1st October** BTO COMMON BIRDS CENSUS CONFERENCE. Pendley Manor, Tring, Hertfordshire.

**27th-29th October** SOC ANNUAL CONFERENCE. Marine Hotel, North Berwick, East Lothian. Applications to SOC.

**1st-3rd December** BTO ANNUAL CONFERENCE. Hayes Conference Centre.

# News and comment

*Peter Conder and Mike Everett*

**NCC grants** In a September press release, the Nature Conservancy Council announced two grants with ornithological implications. The first, of £500, will enable the Royal Society for the Protection of Birds to employ an ornithologist to complete a seabird population survey in north-west Scotland and fill a gap in our knowledge of this region revealed when questions were being asked about the Ekofisk blow-out in April. The second, also of £500, will go towards the cost of a booklet on the wildlife of the Severn estuary, and the need for its conservation, which is being prepared by the Severn Estuary Conservation Group.

**Vermont atlas** The director of the Vermont Institute of Natural Science has sent us details of the 'Vermont breeding birds atlas project, 1977-81' and has said that if any keen British or Irish atlas workers happen to be in the eastern United States in the next few years 'we would certainly appreciate the opportunity to meet and talk with them.' Contact Sarah Loughlin, Vermont Institute of Natural Science, Woodstock, Vermont 05091, USA.

**Bald Eagle news** At last there is some good news about the United States' national bird, the Bald Eagle *Haliaeetus leucocephalus*—a species in decline over much of its remaining range. The September 1977 issue of *Audubon Naturalist News* reports the best year since 1936 in Chesapeake Bay (Delaware, Maryland and Virginia). In 1977, 79 active nests were located: 77 were rechecked and 44 were successful, producing 69 young. The figure of 0.90 young per breeding pair is a dramatic improvement compared with 0.23 in 1962, the first year of annual aerial surveys. The situation is not, however, uniform over the whole bay—southern Maryland shows the most striking increases, whereas elsewhere there is either no change or continuing decline.

**Ospreys in the Med.** Like us, most British birdwatchers probably assume that

the Osprey *Pandion haliaetus* is a reasonably common and widespread bird in the Mediterranean—if the information in our bird books is anything to go by. Writing in the 1977 volume of *Nos Oiseaux* (34: 111-127), Jean-François and Michel Terrasse reveal a quite different state of affairs. In the western Mediterranean, there are now only about 25 breeding pairs: about ten in the Balearic Islands, six to ten in Corsica and a small number on the coast of Algeria. All the former breeding haunts in Spain, Italy, Sardinia and Sicily seem to be deserted. The authors conclude that tourist development, disturbance by visitors' boats and pollution are the main factors involved in the decline, and stress that protection of the remaining pairs and their breeding sites is urgent. Fortunately, some progress in the right direction is already being made in the 'Parc naturel régional de la Corse'.

**'The Shetland Way of Oil'** A paperback with this title (published by Thuleprint Ltd, Sandwick, Shetland, price £2.40) appeared late in 1976. Its subtitle, 'Reactions of a Small Community to Big Business', effectively sums up its contents. Contributors have examined the impact of the oil boom on the islanders, their way of life, and the whole Shetland environment. Pete Kinnear has contributed a compelling chapter on 'Birds and Oil', all too painfully aware that 'the National Interest' seems yet again to have ridden roughshod over the values of naturalists and environmentalists.

**A warning note** 'There was one depressing aspect. Although the owners of several gardens which the bird frequented gave permission for visiting birdwatchers to wander around freely, this hospitality was occasionally abused. Bad behaviour on the part of a few birdwatchers has occasionally led to a situation when all birders have been banned from gardens, though fortunately this state of affairs has not yet occurred in Shetland. We hope it never will. There is no excuse for "thrashing the bushes" when consideration of the bird comes first. And anyone who sees the

individual who considered it necessary to clap loudly at 5 a.m. to ensure a tick is asked to jump on him from a great height.' The place—Shetland; the bird—Rüppell's Warbler *Sylvia rueppelli*. But it is an all-too-familiar story and any comment from us can only underline what Pete Kinnear says above, writing in the September 1977 *Shetland Bird Club Newsletter*. It seems a pity to mention what must be the liveliest of all the newsletters that we see in such a sour context; as usual, this issue was crammed with interesting news. (We wonder, too, how many people know that if one lives in the UK, but outside Shetland, and joins the SBC one can have what must be a unique distinction—being an 'Overseas Member' of a British bird club!)

**New NNRs** Three new National Nature Reserves, all in Scotland, were announced by the NCC in September, and all have considerable bird interest. The 2,190 ha in Glen Strathfarrar, Inverness-shire, includes the largest remaining fragment of the central group of native pinewoods in Scotland; native Scots pine *Pinus sylvestris* is also an important feature of the second reserve, the islands of Loch Maree in Wester Ross; the third area, 1,416 ha at Muir of Dinnet, Deeside, covers a mixture of important woodland, moorland, lochs, marshes and bogs.

**Guide for disabled birdwatchers** An *Access Guide to the Nature Reserves of England, Scotland and Wales for the Disabled* (1977) covers NNRs, RSPB and Wildfowl Trust reserves and also those run by the National Trust for Scotland. Compiled by Anthony Chapman, himself a wheelchair-birdwatcher, this most useful booklet is available for a mere 20p from the publishers, The Royal Association for Disablement and Rehabilitation, 25 Mortimer Street, London W1.

**WWF plans ahead** In its 'Conservation Programme, 1977-78', the World Wildlife Fund has listed a number of proposals which, if and when they are implemented, could have important results in the western Palearctic. Under its new programme, 'The Seas Must Live', proposals include reserves for Audouin's Gull *Larus audouinii* in Morocco, on Cabrera in the Balearic Islands, in the Lebanon (three sites) and in Corsica; a possible reserve covering the

Maltese island of Filfla, which has a big population of breeding Cory's Shearwaters *Calonectris diomedea* and what is probably the largest colony of Storm Petrels *Hydrobates pelagicus* in the Mediterranean; further assistance on management and protection programmes for the National Park established on the Banc d'Arguin, Mauritania, where 750,000 European waders winter; a campaign to give reserve or protected site status to so far unprotected areas on the 'Green Route', which identifies the 30 most vital spots on the migration route of waders from northern Europe to Mauritania; and a survey of Italy's coast and its birds, aimed at identifying the growing threats from development, so that plans for action and an education and propaganda programme can be drawn up. Other sections of the programme point out the need to provide protected feeding places for immature Griffon Vultures *Gyps fulvus* summering in the Salzburg Alps; these birds come from the Dalmatian islands and are the sole surviving vultures in the Alps; feeding places are also being established for this species in Sardinia (where about 35 pairs remain), along the lines of the successful vulture feeding projects already in operation in parts of Spain.

**A new owl** The WWF Conservation Programme referred to above also mentioned that about 348 'varieties' of birds (presumably species and races) are considered to be in danger of extinction. At the other end of the scale, it is pleasing to see that new species are still being discovered at regular intervals. *The Auk* (94: 3) tells the fascinating story of how John O'Neill and Gary Graves found a hitherto undescribed owl in a mistnet in August 1976: falling somewhere between the genera *Glaucidium* and *Micrathene*, this delightful-looking little bird has been named the Long-whiskered Owllet *Xenoglaux loweryi*. The genus as well as the species is entirely new. The type locality in northern Peru has proved a rich source of new species for the staff of the Louisiana State University Museum: including this new owl, they have named no fewer than 21 species new to science since 1963! No doubt there are still more to come. A new nuthatch in North Africa (see *Brit. Birds* 69: 520) is all very well, but we cannot help envying our American friends

who seem to have hit it really rich in this remote and largely unexplored area.

**'Birds of Galway and Mayo'** Tony Wildc has sent us this useful guide, which he has edited and compiled on behalf of the Irish Wildbird Conservancy. It follows the pattern of many others, beginning with descriptions of the variety of habitats in the two counties, from the seabird islands and tortuous coastline, through lowlands, wetlands and the particularly Irish turloughs, to the uplands and mountains. The booklet contains an article by Oscar Merne on aerial censusing of wetlands and another on the threats to the birds of the area. The bulk of the book, however, is taken up by a systematic list which, as one might expect, contains a high proportion of sea and wetland birds. The compiler has expressed the hope that his booklet will stimulate the collection and publishing of further information. It may be obtained (price £1.25) from the Irish Wildbird Conservancy, c/o the Royal

Irish Academy, 19 Dawson Street, Dublin 2, Ireland.

**WAGBI book** The Wildfowlers' Association of Great Britain and Ireland has produced a guide to the management for wildfowl of small lakes and ponds; advice is given on methods of impoundment, water and vegetation management, and construction of artificial nest sites. *Ducks, Ponds and People* may be obtained (price £1.00, plus 14p postage) from WAGBI, Marford Mill, Rosset, Clywd.

**'The Pheasants of the World'** The World Pheasant Association has announced the republication of Dr Jean Delacour's classic. This, fully revised and updated, will be published by Spur Publications in association with the WPA, and will retail at £18. Hand-bound, full leather, special editions (100 only) are also available: these are signed by the author, contain a hand-coloured etching of the Western Tragopan *Tragopan melanocephalus* by Timothy Greenwood—and cost £225 each!

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers October and the first part of November; except where otherwise stated, all dates refer to October.

The first week of October was dominated by low pressure over the Atlantic, with associated frontal systems arriving from the west. Strong northwesterly winds on 1st produced some interesting sea-watching from the Calf of Man (Isle of Man), with an adult **Sabine's Gull** *Larus sabini*, two **Manx Shearwaters** *Puffinus puffinus* of the race *mauretanicus* and 16 **Leach's Petrels** *Oceanodroma leucorhoa*.

By 6th, an anticyclone over Europe cleared the way for Continental migrants to reach Britain. On 7th, during mist and drizzle, many thousands of **Redwings** *Turdus iliacus*, with small numbers of other night migrants, arrived on the Yorkshire coast. On Fair Isle (Shetland) there were 400 **Bramblings** *Fringilla montifringilla* on 8th, and at least 200 **Blackcaps** *Sylvia*

*atricapilla* on 9th. The weather remained settled for the next ten days, with light southerly winds, but observations were hampered by fog at many coastal watch points. **Lapland Buntings** *Calcarius lapponicus* began to appear in numbers, with eight at Loch of Strathbeg (Aberdeenshire) on 9th, and at least 140 on the Norfolk coast by the end of the month, including 35 at Clcy; 16 were found on the Isles of Scilly on 15th and Fair Isle had up to ten daily during the first three weeks of the month; the only inland report concerned two at Fairburn Ings (West Yorkshire) on 29th.

Despite the good influxes of Redwings, most places had few **Fieldfares** *T. pilaris*, although the Calf of Man recorded 2,000 on 13th and 1,200 on 15th, moving west towards the Irish coast; there had been a similar movement of at least 1,800 **Woodpeckers** *Columba palumbus* on 9th. Some

ten **Red-breasted Flycatchers** *Ficedula parva* were on the Isles of Scilly at this time, with others reported from Co. Cork, and singles trapped at Walney Island (Cumbria) on 14th and Calf of Man on 24th. In addition to the regular scarce migrants, there was a scattering of eastern vagrants: single **Stonechats** *Saxicola torquata* of one of the Siberian races *maura* or *stejnegeri* were found on Fair Isle on 10th and Saltee (Co. Wexford) on 12th-15th; there were few eastern warblers, however, with the only **Pallas's Phylloscopus** *proregulus* being singles on the Isles of Scilly on 16th and 25th, and trapped at Blackmoorfoot Reservoir (West Yorkshire), the last being Britain's third inland Pallas's. A lone **Radde's Warbler** *P. schwarzi* appeared on St Agnes (Isles of Scilly) on 26th, at a time when there were at least 15 **Yellow-browed Warblers** *P. inornatus* on that archipelago; these were soon followed by a **Blyth's Reed Warbler** *Acrocephalus dumetorum* on nearby Bryher on 29th. This beautiful island tends to be poorly covered in comparison with other islands in Scilly, but the discovery there of an **Arctic Redpoll** *Carduelis hornemanni* on 17th meant good coverage for the following few weeks: exciting birds turned up, including Britain's third **Spanish Sparrow** *Passer hispaniolensis* on 21st, **Little Bunting** *Emberiza pusilla* on 23rd and **Blackpoll Warbler** *Dendroica striata* on 29th. Attention then switched back to St Mary's, when an **Alpine Accentor** *Prunella collaris* was found on the following day. Better coverage of Scilly in late October in recent years is really paying off; could we see rarities turning up well into November if observers stayed on there long enough?

Although it was not really an 'eastern October', there were nevertheless some surprises, none more than Britain's second **Siberian Rubythroat** *Luscinia calliope*, at Donna Nook (Lincolnshire), and a **Pallid Swift** *Apus pallidus*, at Spurn (Humberside) at the end of the month; the latter species is not yet admitted to the British and Irish list, but this is the fourth record of this difficult species claimed in the last three years.

The number of **Richard's Pipits** *Anthus novaeseelandiae* was reminiscent of the late 1960s, with at least 20 reports from Norfolk during the month, four on the Isles of Scilly from 8th, singles in Co. Cork and at Filey Brigg (North Yorkshire) early in the month, inland at Bleasby (Notting-

hamshire) on 8th-9th, on Fair Isle on 17th, and at Spurn.

### Bearded Tits on the move

Following a very successful year at Blacktoft Sands (Humberside), with some 120 breeding pairs, many **Bearded Tits** *Panurus biarmicus* started showing eruptive behaviour there in mid September, when some 1,200 were considered to be in the extensive beds of reeds *Phragmites australis*. Parties of up to 15 were seen leaving the area, flying east, west and south along the rivers Humber and Trent. There soon followed a spate of reports inland in Yorkshire and elsewhere, including 25 at Pot-teric Carr (South Yorkshire) in early October, 14 at Holme Pierpont (Nottinghamshire) on 2nd and a few at Grafham Water (Cambridgeshire) in mid November. Perhaps the oddest were singles at Bampton Cliffs on 19th and nearby Flamborough Head (Humberside) on 24th. Doubtless, as the winter progresses we shall hear of many more.

### The November gales

There was a **Franklin's Gull** *L. pipixcan* at Lowestoft (Suffolk) in late October and a **Laughing Gull** *L. atricilla* reported flying south off Filey Brigg a week or so earlier.

Although the late autumn was dominated by westerly winds, it was, however, not until mid November that really vigorous depressions crossed the Atlantic and created ideal sea-watching conditions. On the stormy 12th, at St Ives (Cornwall), 490 **Great Skuas** *Stercorarius skua*, 20 **Grey Phalaropes** *Phalaropus fulicarius*, and a good run of gulls, including an adult **Ross's** *Rhodostethia rosea*, a **Sabine's**, 22 **Little** *L. minutus* and two **Mediterranean** *L. melanocephalus* moved west; fewer skuas passed on the following day, but another 30 **Grey Phalaropes**, 30 **Leach's Petrels** and a **Black Guillemot** *Cephus grylle* were recorded.

### Latest news

In mid December: **Mediterranean** *L. melanocephalus*, **Laughing**, **Little** *L. minutus*, **Iceland** *L. glaucoides* and **Glaucous Gulls** *L. hyperboreus* at St. Ives (Cornwall); **Franklin's Gull** still at Lowestoft (Suffolk); **Teal** *Anas crecca* of American race *carolinensis* at Hayle (Cornwall).

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# The Hen Harrier

by Donald Watson

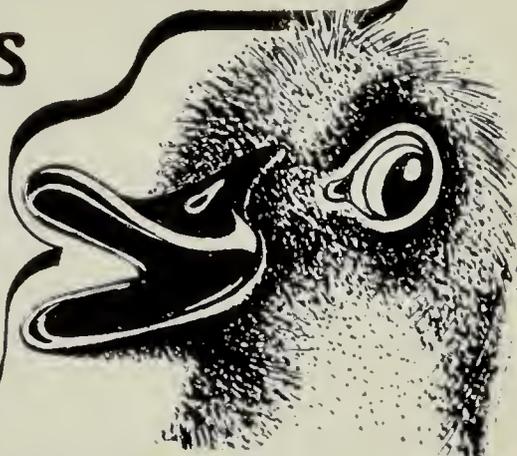
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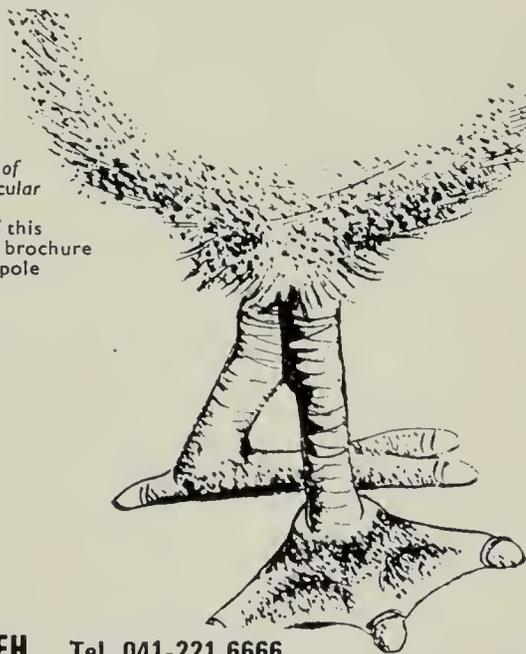


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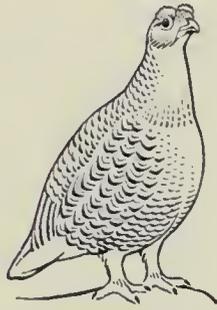
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## News and comment

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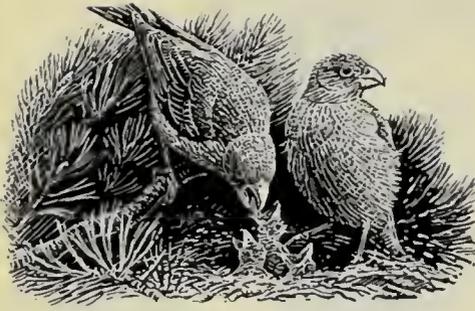
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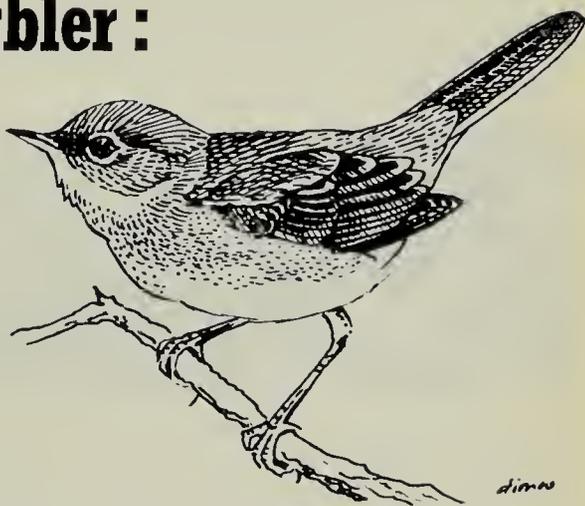
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# British Birds

VOLUME 71 NUMBER 2 FEBRUARY 1978

## Spectacled Warbler : new to Britain and Ireland

*John Cudworth  
and B. R. Spence*



On 19th October 1968, there was a fairly large arrival of passerines at Spurn Head, East Yorkshire (now Humberside), associated with southeasterly winds. The main species involved were thrushes *Turdus*, Robins *Erithacus rubecula* and Goldcrests *Regulus regulus*, with a scattering of various warblers, including a Greenish *Phylloscopus trochiloides* and a Pallas's *P. proregulus*. On the next day, with fresh southerly winds veering to the southwest, there was a general decrease, and by 21st, with fog and very light variable winds, most of the grounded migrants had moved on. By late morning, the mist-nets at the point were catching no birds, so BRS and F. C. Gribble began furling them. All except the last were empty; that one, set on the east side of the peninsula, held a small *Sylvia* warbler which neither BRS nor FCG was able to identify immediately. It was taken back to the bird observatory, where a full description, measurements and photographs were taken.

**PLUMAGE** Forehead, crown, nape, mantle, rump and uppertail-coverts grey, washed brown; lores grey, with slight orange-brown mark between lores and crown; cheeks grey, faintly washed brown; fairly broad white moustachial stripe; orbital ring off-white. Lesser coverts grey, tipped very pale brown; median and greater coverts faded brown, broadly edged rufous

on outer webs; bastard wing brown, with outer web broadly fringed pale buff; primaries and secondaries faded brown, broadly edged rufous, with tips of inner primaries pale fawn; tertials faded brown, with paler brown fringes. Chin off-white; throat and upper breast white, tinged grey-buff, with richer buff at sides of breast; lower breast, belly and undertail-

coverts off-white; flanks warm buff; underwing-coverts white, washed buff. Tail feathers (left half) all old, outermost dirty-white, with proximal two-thirds of inner web pale grey-brown and the rest faded grey-brown, with paler tips to penultimate and next innermost; (right half) penultimate and next innermost new, being dark grey-brown, with narrow white fringes to outer webs and broad white tips; rest of feathers old and same as equivalent ones on left.

**BARE PARTS** Eye pale brown. Bill: upper

By reference to Williamson (1964), the bird was identified as either a Subalpine *S. cantillans* or a Spectacled Warbler *S. conspicillata*; the broad rufous edges to its flight feathers showed that it was the latter, a species new to Britain and Ireland.



10. Spectacled Warbler *Sylvia conspicillata*, Humberside, October 1968 (colour transparency: F. C. Gribble)

When released in a sallow *Salix* near the observatory, the warbler moved quickly through and flew to some teaplant *Lycium* growing on a bank, where it perched in the open, facing away, but looking over its shoulder. It was watched by BRS, FCG, J. R. Collman, M. Densley, G. Hainsworth, R. D. Hind, C. W. Holt, R. Kaye, J. S. Kenyon, C. E. Lynch, R. J. Rhodes, T. Stevenson and Mr and Mrs K. Wilson. It resembled a small Whitethroat *S. communis*, with greyish head, white throat and rufous patch on the wing. After a while, it turned round, cocked its tail briefly, and dropped out of sight. On the following day, it was seen 2 km south of the observatory and, on 23rd, at Chalk Bank, about 1 km farther south. On 26th, it was found again, in a tangle of scrub sea-buckthorn *Hippophae rhamnoides* still farther south, where it remained until last seen on 31st.

On 26th, JC gained the impression of a dingy Whitethroat: the upperparts were fairly dark grey-brown, greyer on the head; the underparts were greyish-white, washed brownish on the lower breast and flanks; and the outer tail-feathers were conspicuously white in flight. The bird's small size was shown by the fact that, when first seen from the front, it was thought to be a *Phylloscopus*: this resemblance was remarked on by Sharrock (1962). On 30th, BRS had good views again: at first sight, it looked very much like a Lesser Whitethroat *S. curruca*, with grey head (but not darker cheeks), grey-brown back with a rufous patch in the wings, and dark tail with prominent white outer feathers. The bird's habits, however, were more like those of a Subalpine Warbler: it often kept its tail cocked. On 27th, C. Massingham had also likened the bird to a Lesser Whitethroat and noted its habit of raising and cocking its tail.

mandible dark horn, with cutting edge pale horn; lower mandible greyish-horn, with darker tip. Tarsus dark flesh; soles of feet dull ochre, tinged green.

**MEASUREMENTS** Wing 60 mm, tail 54 mm, tarsus 18 mm, bill 11.5 mm and weight 8.5 g at 12.00 GMT. Wing-formula: 1st 2.5 mm longer than primary coverts, 3rd and 4th longest, 2nd -2.5 mm, 5th -0.5 mm, 6th -2.0 mm, 7th -4.0 mm, 8th -6.0 mm; 3rd, 4th and 5th emarginated and 6th indistinctly; notch on inner web of 2nd primary 14 mm from tip.

### Distribution

The breeding range of the Spectacled Warbler is more or less restricted to the Mediterranean basin, and is always very local. In the western Mediterranean, the species' main headquarters, the nominate race is found in the Iberian peninsula, southern France, peninsular Italy, the major islands, Tunisia, Algeria and Morocco (to the south of the Atlas Mountains), and it extends into Mauritania; populations on the Canary Islands, Madeira and the Cape Verde Islands were regarded by Vaurie (1959) as a separate race, *S. c. orbitalis*; the Spectacled Warbler probably also breeds in northwest Libya (Bundy 1976). Farther east, it is more thinly distributed, breeding for certain only in Cyprus (Stewart & Christensen 1971), Jordan (Benson 1970) and southern Israel (Safriel 1968, R. F. Porter *in litt.*), although probably also in Lebanon (Benson 1970), Sinai and northeast Egypt (Etchécopar & Hüe 1967), and possibly in the Libyan desert (Bundy 1976). Records are apparently very few on the north side of the eastern Mediterranean, the only published ones we have been able to find being two in Yugoslavia (Matvejev & Vasić 1973), six in Greece (Bauer *et al.* 1969) and three in recent years in southern Turkey (Ornithological Society of Turkey 1975, R. F. Porter *in litt.*), all in spring or autumn, with no evidence of breeding.

Movements, usually described in the literature as local (e.g. Etchécopar & Hüe 1967), take place in the autumn. Most of those from north of the Mediterranean apparently cross to the south, although some can be found in the Camargue throughout the winter (Dr J. Blondel *in litt.*). The species is widespread in Libya from October to April (Bundy 1976) and can be found in many places in the Sahara, probably extending to the southern limits. It occurs in Egypt and Sinai in winter and is common in the desert around Azraq (Meinertzhagen 1954). The Cyprus population scatters in winter and some may leave the island (Stewart & Christensen 1971). Similarly, fewer are seen in Malta in winter, suggesting that some leave the islands; no passage migrants or winter visitors have been detected there (Sultana *et al.* 1975).

### Discussion

Considering its restricted and local range well to the south of Britain and its normally short-distance movements, the species seems an unlikely one to occur in Britain. But are its movements longer than suspected? Species with wider distributions often have leap-frog migrations, the populations breeding farthest north tending to winter farthest south. If Spectacled Warblers behave in a similar way, the birds breeding in, for example, southern France will be the ones frequenting the Saharan oases in winter, thus undertaking journeys of up to 2,000 km. Movement by the western Mediterranean populations appears to be north to south. So, accepting the hypothesis of reversed migration as put forward to explain the vagrancy of various eastern species in northwest Europe (Rabøl 1969), the occasional Spectacled Warbler is to be expected in northwest Europe in autumn. There have been extralimital records in Europe on Heligoland on 10th September 1965 (Vauk 1972), at Porthgwarra, Cornwall, on 17th October 1969 (Jobson 1978) and on Christiansø in the



11, 12 & 13. Spectacled Warblers *Sylvia conspicillata*, Portugal, June 1973 (colour transparencies: M. D. England)





14 & 15. Spectacled Warbler *Sylvia conspicillata*, Denmark, September 1976 (colour transparencies: Stephan Pihl)



Baltic Sea, Denmark, on 20th September 1976 (Rabol & Pihl in press). There are no records of Spectacled Warblers in France north of the known breeding areas (E. Cruon *in litt.*), but some have appeared occasionally in the north of Italy, where they do not breed (Brichetti 1976).

The wing-length of the Spurn bird (60 mm) was just outside the theoretical range (49-59 mm) given by Williamson (1964), but within that (53-62 mm) for those in the Camargue (Swift 1959). In addition, the tail:wing ratio of the Spurn bird (90%) is more likely to refer to one from the north of the species' range than from the south (mostly 98% or over in North Africa) (Williamson 1964).

There had been high pressure over France and the western Mediterranean since 17th October and, by midday on 19th, this had moved northeast to Germany and combined with a high over southern Scandinavia. From early on 20th, it formed a large area of high pressure over central Europe and, by late on 20th, was giving southerly winds along its western edge, over France and extending into the southern North Sea. The low weight of the Spurn individual (8.5 g), compared with those breeding in Cyprus (9.0-10.0 g, for birds with wing-lengths of 52-55 mm: Jeal 1970), suggested that it was a new arrival.

### Acknowledgements

We wish to express our thanks to Dr Jacques Blondel for his very helpful comments on the record itself; to Dr A. S. Cheke, R. Cruon, R. F. Porter, Dr J. Rabol, Dr R. J. Raines and B. L. Sage for help with our summary of the species' distribution; and to F. C. Gribble for arranging translations of correspondence.

### Summary

The first Spectacled Warbler *Sylvia conspicillata* recorded in Britain and Ireland was at Spurn Head, Humberside, on 21st-31st October 1968. Its weight and measurements suggested that it was newly-arrived from the northern part of the species' range.

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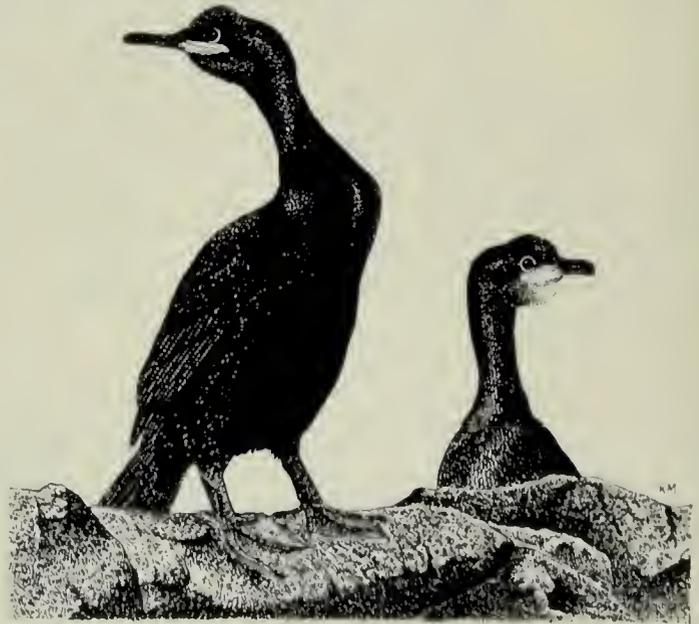
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## Further mass seabird deaths from paralytic shellfish poisoning

*I. H. Armstrong, J. C. Coulson, P. Hawkey and M. J. Hudson*

**Shags are especially sensitive to poisons produced during 'red tides'. The circumstances of mass deaths in 1975 are compared with those in the infamous 1968 incident**



**I**n mid May 1968, there was an exceptionally heavy mortality among Shags *Phalacrocorax aristotelis* nesting on the Farne Islands, Northumberland; within a few days, about 82% of the breeding population died,

while other seabirds, such as Fulmars *Fulmarus glacialis*, Cormorants *P. carbo*, Eiders *Somateria mollissima*, gulls *Larus*, auks (Alcidae) and terns *Sterna*, suffered less extensive mortality (Coulson *et al.* 1968). The evidence available at the time suggested that a nerve poison was responsible, and the deaths were linked with many cases of paralytic shellfish poisoning (PSP) among human beings in the area (McCallum 1968).

PSP is produced by the local abundance of a small, single-celled dinoflagellate protozoan, *Gonyaulax tamarensis*. The toxin is concentrated in particular by mussels (Mytilidae), but other marine organisms also accumulate it. Most seabirds acquire the poison through feeding on fish, not mussels (Coulson *et al.* 1968). Outbreaks of PSP have been exceedingly uncommon in Europe, but are frequent in other areas, such as the western coast of North America, where they are associated with red or brown discoloration of the sea and are often named 'red tides' (Rounsefell & Nelson 1966). In 1968, few areas of coloured water were reported off the Northumberland coast (Adams *et al.* 1968), but there was intensive phosphorescence of the sea at night owing to blooms of other dinoflagellates, particularly *Noctiluca*.

In spring 1975, cold, wet, windy weather appeared to delay the start of the Shags' nesting activities, but by 23rd May most had nests, many with eggs. On 21st May, public warnings had been issued that high PSP levels had been recorded in common mussels *M. edulis* in Northumberland. At the end of that month and in early June, many dead seabirds were reported from the north Northumberland coast, and the great majority of Shag nests on the Farne Islands had been deserted. This paper records the events of 1975, making comparisons with the 1968 PSP outbreak. Attention is also drawn to the need for more detailed, co-ordinated research to clarify a number of important aspects of the red tides, in particular those which impinge on the conservation of breeding seabirds in Britain.

### **Mortality rate of Shags**

During the last two weeks of May 1968, 82% of the Shags on the Farnes died, as many as would normally die in five years. The mortality of adult Shags caused by the 1975 red tide can be estimated from both the survival of colour-ringed birds and the number of dead individuals reported in beach surveys.

#### *Mortality estimated from colour-ringed Shags*

In 1968, a large sample of breeding Shags was colour-ringed and known to be alive immediately before the red tide. In 1975, this number was not known and the estimate of the mortality rate has had to be calculated from samples known to have been breeding in 1973 and 1974.

A few breeding Shags which survived the 1968 red tide were not recorded on breeding sites again until 1969; a similar situation arose in 1975 and 1976. Accordingly, a method has been devised to allow for the calculation of the mortality rate of breeding Shags due to the red tide on the Farne Islands in 1975 (for full details, see appendix). The normal

average annual mortality and survival rates of Shags are 16% and 84% respectively (Potts 1969). Since the numbers of the sample of colour-ringed birds surviving is known, the proportionate mortality rate due to the red tide can also be calculated. This was found to be 62%.

#### *Mortality estimated from Shags found dead*

In 1968, the Shags found dead on the Farnes or the neighbouring coast (16.6% of those at risk) represented only about one-fifth of the 82% of the colour-ringed breeding birds which had disappeared and were almost certainly dead. In 1975, 13.0% of those at risk were found dead (table 3). Assuming the ratio of birds found dead to those which actually died to be the same as in 1968, this corresponds to a total mortality rate of 64% due to the red tide, which is very close to that of 62% obtained from the disappearance of colour-ringed Shags (above). It would appear that the mortality rate of Shags in the 1975 red tide was over 75% of that in 1968.

#### **Age distribution of dead Shags**

Of the 156 dead Shags found in Northumberland in 1975, 67 (43%) had been ringed as young on the Farnes and 22 (14%) in the Firth of Forth (table 1). There was a marked difference in the ages of those originating from these two areas. A total of 82% of the Shags from the Forth were under four years old, compared with only 34% of those from the Farnes. This difference is consistent with the findings during the 1968 red tide, when many of the immatures produced on the Farnes in previous years were dispersed, and so not at risk, whereas some of the Forth immatures had dispersed into the Farnes area and were killed. The relatively high numbers of 1966 and 1967 young reared on the Farnes and killed in 1975 confirm that many of these age classes survived the 1968 red tide.

Table 1 indicates that, apart from a shortage of young, the age classes of Farnes Shags were proportionately as would have been expected in the breeding population. The small number of young hatched there in 1968 and 1969 reflects the effects of the 1968 red tide on production of young in these two years, while the six recoveries of birds ringed before 1966 involved individuals which escaped the effects.

**Table 1. Year of birth of ringed Shags *Phalacrocorax aristotelis* recovered in Northumberland in June and July 1975**

Area of birth	YEAR OF BIRTH AND AGE									
	74	73	72	71	70	69	68	67	66	65
Farne Islands	5	9	9	14	8	1	1	8	6	0
Firth of Forth	7	6	5	0	2	1	0	0	0	1
		64	63	62	61	60	pre-60	Totals		
Farne Islands		11	12	13	14	15	older	67		
Firth of Forth		0	0	0	0	0	0	22		

### Effects of red tides on Shag breeding population

The number of Shag nests on the Farne Islands since the original colonisation is shown in fig. 1. Between 1930 and 1965, a progressive increase was nearly steady at 11% per annum. A slight decrease occurred in 1966, after a winter with above-average adult mortality. The red tide in 1968 caused a dramatic decrease, the breeding population returning to the 1950 level. Aided by the young of 1966 and 1967 which had avoided the red tide, and by immigrants from the Firth of Forth, there was a rapid build-up of nesting Shags in 1969 and 1970. In 1971 and 1972, the in-

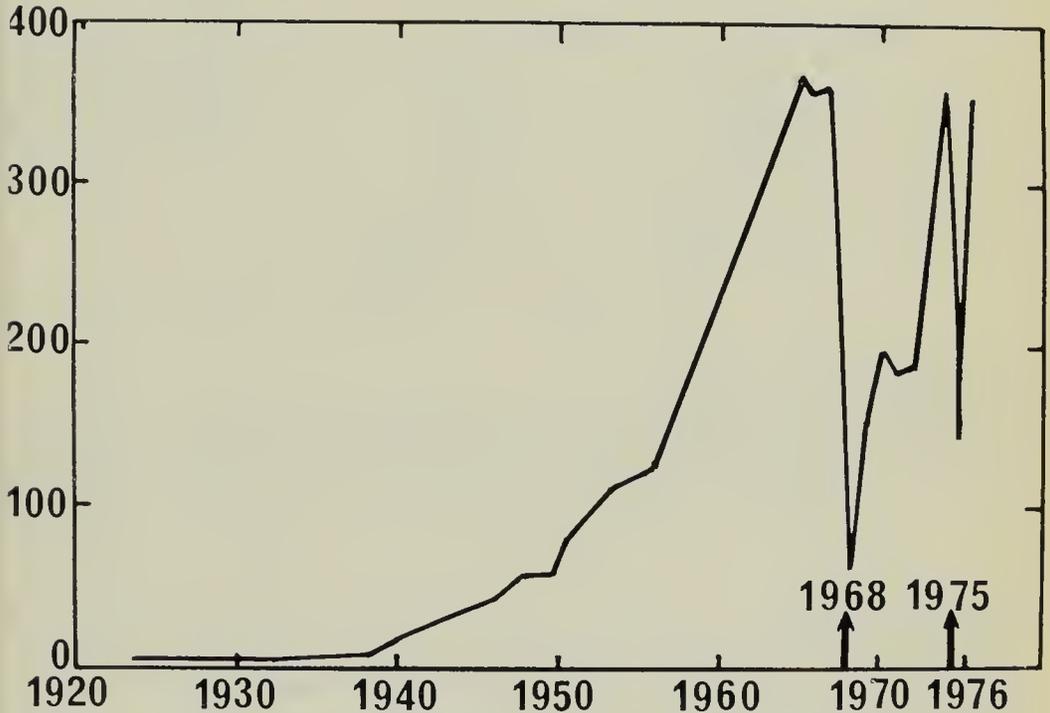


Fig. 1. Numbers of nests of Shags *Phalacrocorax aristotelis* on Farne Islands, Northumberland, from original colonisation to 1976

crease stopped: there were relatively few recruits available, since few young were reared in 1968 and 1969. Growth was resumed in 1973, and by 1974 the number of nests had almost reached the 1966 peak. Thus, the increase between 1968 and 1974 was about 40% per annum, nearly four times that during 1930-65. Although the number of breeding Shags decreased by about 60% after the 1975 red tide, the 1976 breeding population had almost recovered to the 1974 level. This was again due to the existence of a reservoir of immatures which had avoided the catastrophe and to immigrants from other colonies. (Immigration of Shags into the Farnes breeding population occurs every year; it contributes a higher proportion in years when the number of breeding birds has been markedly reduced.)

The steady increase of the Shag population on the Farnes (and in the Firth of Forth) between 1930 and 1967 is a clear indication that red tides of the size encountered in 1968 and 1975 are probably new to the area and now represent an important hazard to seabird populations.

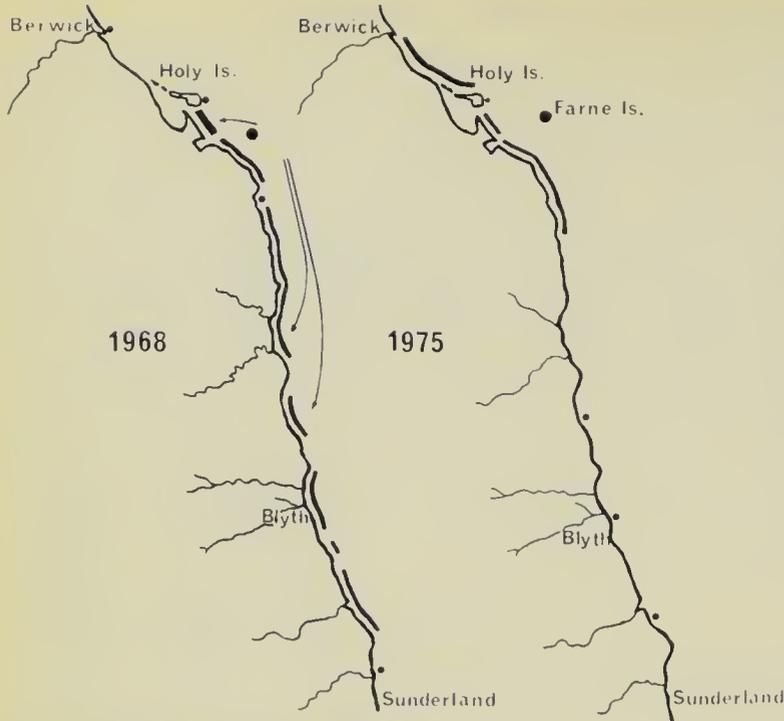
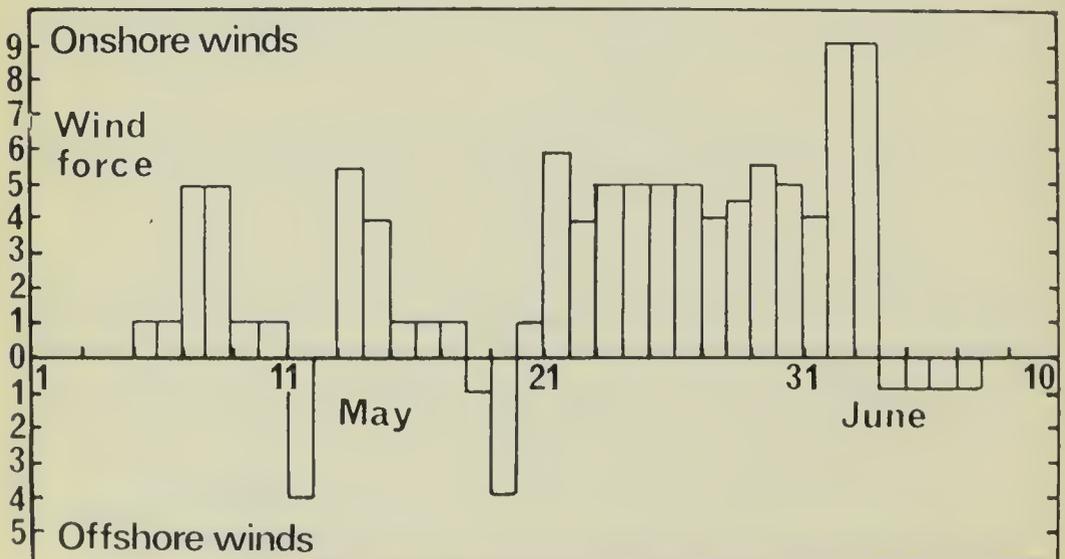


Fig. 2. Distribution of ringing recoveries of dead Shags *Phalacrocorax aristotelis* in Northumberland during periods of high mortality in May and June in 1968 (left) and 1975 (right). Solid lines represent high density of corpses; large dot indicates Farne Islands, where many corpses found; small dots represent single records

### Location of dead Shags

In 1968, the Shags killed by PSP were distributed on the mainland adjacent to the Farne Islands, southwards to the southern limit of Tyne and Wear, whereas, in 1975, the corpses were found adjacent to and north of the islands (fig. 2). This difference reflects the wind conditions at the time and during the few days following the mortalities. In 1968, the winds were mainly northerly, while, in 1975, the northerlies changed to ESE just before the Shag deaths (fig. 3): with the winds more directly onshore in 1975, the corpses were spread along a much shorter stretch of

Fig. 3. Wind direction and strength on Farne Islands, Northumberland, during May and early June 1975. Note unusually frequent onshore winds, in contrast to more usual offshore, westerly airstream



**Table 2. Number of nests of Shags *Phalacrocorax aristotelis* on Farne Islands, Northumberland, in 1975, and their condition on 4th June**

Nests rebuilt and new clutches of eggs laid after 4th June are not included

	Total nests built	Nests occupied on 4th June	Pairs rearing young
Inner Farne	61	25 (41%)	minimum 11 (18%)
Staple Island	105	1 (1%)	0 (0%)
Brownsman	35	0 (0%)	0 (0%)
Others	2	2 (100%)	2 (100%)
	203	28 (14%)	13 (6%)

coast (fig. 2), confirming the impression gained in 1968 of a local, but intense, distribution of the toxin. As in 1968, the Shags nesting on Inner Farne were not killed or affected to the same extent as those on the outer group of islands, some 3 km away. Table 2 shows that at least 18% of those on Inner Farne continued incubation and hatched young, whereas every nest on the outer group was deserted, although some Shags subsequently relaid. Shags nesting at Dunstanburgh (20 km south) and St Abbs (50 km north) did not desert, nor was desertion reported in the Firth of Forth.

If the winds during a red tide were offshore, the kill would almost certainly be the same, but far fewer dead birds would be recorded. It is important to maintain intensive monitoring of the Shag breeding numbers to ensure that other instances of red tide kills of seabirds are not overlooked.

### Mortality of other seabirds

The Northumberland coastline consists mainly of sandy beaches and is relatively easy to cover. Additional searches made north of Berwick and south to Sunderland, Tyne and Wear, produced very few dead birds. A total of 490 corpses was found, 481 in north Northumberland, mainly north of Seahouses (table 3). In general, the species-composition was similar to that in the 1968 red tide, when 636 corpses were found. The exception in 1975 was the large number of Herring Gulls *Larus argentatus* (145), several of which had been ringed on the Isle of May, but the direction of the winds in late May strongly suggested that these were gulls which had been culled on that island and had drifted in the sea to north Northumberland.

Table 3 shows that, as in 1968, more Shags were found dead than any other species. It is difficult to estimate the numbers of Fulmars at risk, since the local breeding population is small but there may have been many non-breeding individuals from other areas. With the exception of the Herring Gull (see above), the three species most affected were the same in both years: the Shag, the Cormorant and the Fulmar. As with the Shag, it is possible that the numbers of the other seabirds killed were much greater than those found on the coast.

Many Shags died in the Firth of Forth, too. This mortality started in the second week of June, continuing to mid July and, at a lower rate, until mid August; 51 Shags ringed on the Isle of May were recovered

during this period, compared with only 11 in the same period in 1976. The cause is not clear; there was no well-defined peak of deaths, and it lasted much longer; probably more than 20% of the Shags in the Forth area died. Paralytic shellfish poisoning does not appear to have been implicated, but the mortality of Shags in the four-week period was equivalent to that normally suffered in a full year.

### The red tide

Since 1968, when a monitoring system was established by the Ministry of Agriculture, Fisheries and Food (MAFF), the toxin of PSP has been recorded each year; peak concentrations in mussels in northeast England are shown in table 4. Clearly, these were higher in 1968 than in other years. Nevertheless, high levels of about 6,000 mouse units (an arbitrary scale measuring, in a bio-assay method, the amount of toxin present by its effect on mice: see *Nature* 220: 25-27) were recorded in 1969 and 1975, but the effects in each year were very different: in 1969 there was no evidence of many Shags dying, whereas in 1975 over 60% died. This may

**Table 3. Numbers of dead seabirds found on Northumberland and north Durham coasts during 31st May to 18th June 1975, in relation to populations at risk in Northumberland**

Northumberland is divided into north and south at Craster; north Durham extends from Sunderland to South Shields

	Birds at risk	Farne Islands	NUMBER OF CORPSES FOUND			Totals	‰ corpses 1975	‰ corpses 1968
			Northumberland north	Northumberland south	North Durham			
Fulmar								
<i>Fulmarus glacialis</i>	500*	0	44	1	0	45	9	5
Gannet <i>Sula bassana</i>	—	0	12	0	0	12	—	—
Cormorant <i>Phalacrocorax carbo</i>	600	9	26	0	0	35	6	4
Shag <i>P. aristotelis</i>	1,200	52	102	1	1	156	13	17
Eider <i>Somateria mollissima</i>	3,300	1	23	1	0	25	<1	2
Lesser Black-backed Gull <i>Larus fuscus</i>	4,000	0	19	0	0	19	<1	<1
Herring Gull <i>L. argentatus</i>	1,700	0	142	2	1	145†	9	2
Common Gull <i>L. canus</i>	—	0	8	0	0	8	—	—
Kittiwake <i>Rissa tridactyla</i>	7,600	1	11	0	1	13	<1	1
Common Tern <i>Sterna hirundo</i>	3,000	1	0	0	0	1	<1	<1
Arctic Tern <i>S. paradisaea</i>	6,100	11	1	0	0	12	<1	1
Sandwich Tern <i>S. sandwicensis</i>	6,500	2	4	0	0	6	<1	1
Guillemot <i>Uria aalge</i>	4,300	0	12	1	0	13	<1	1
<b>TOTALS</b>		<b>77</b>	<b>404</b>	<b>6</b>	<b>3</b>	<b>490</b>		

\* Many non-breeding Fulmars in the area

† A substantial proportion of these Herring Gulls originated from the cull in late May on the Isle of May, Fife

**Table 4. Peak levels of PSP recorded in mussels *Mytilus* collected annually during 1968-76 in northeast England**  
 'Mouse unit' is arbitrary division on scale of amount of toxin present, measured, in bio-assay method, by effect on micc. (Data from MAFF Fisheries Laboratory, Burnham-on-Crouch, Essex)

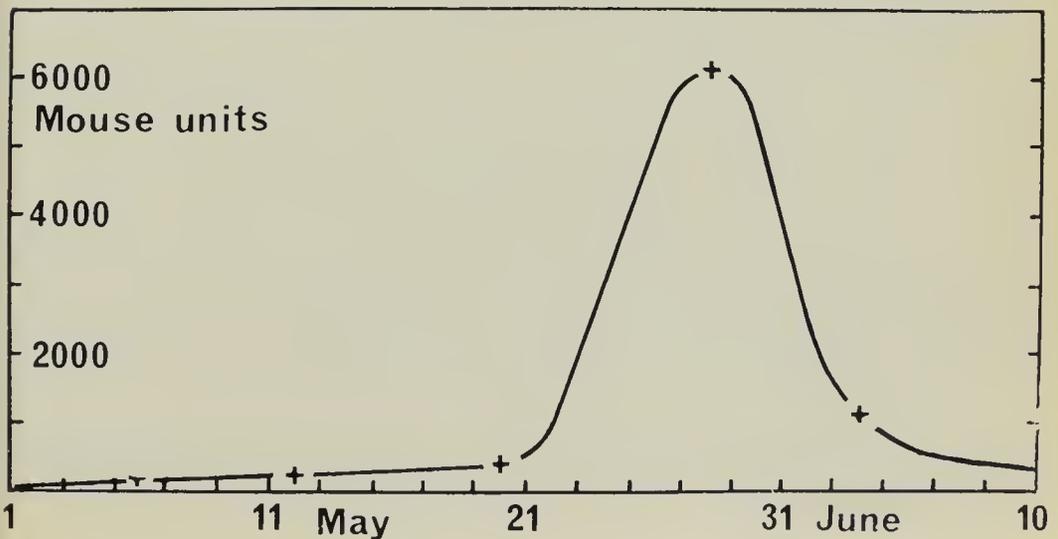
Date	Locality	Toxin level (mouse units)
5th June 1968	Holy Island/Budle Bay	50,000
12th June 1969	Blyth	6,305
18th June 1970	Blyth	4,100
24th May 1971	Whitby	488
2nd May 1972	Hartlepool	212
25th June 1973	Hartlepool	218
23rd June 1974	Hartlepool	2,730
28th May 1975	Berwick	6,146
29th June 1976	Sunderland	869

have been due to the fact that, in 1969, the peak concentrations occurred farther south and away from the Farnes. The changes in PSP concentration in mussels at Berwick during the spring and summer of 1975 are shown in fig. 4. The build-up and decline of the toxin is noticeably rapid: between 20th and 28th May, it increased by over twelvefold, while there was almost a sixfold decrease between 28th May and 3rd June.

These results give rise to two points of concern: there is little early warning of very high toxic levels; and there is now clear evidence that PSP has become chronically established in eastern Britain.

Fig. 3 shows the unusually long period of onshore winds in northeast England before the deaths in 1975. A similar situation occurred in 1968. Although it is too early to associate these effects positively with peaks in the red tide, such a relationship seems possible, since such winds may well hold the rapidly increasing *Gonyaulax* population near the coast and prevent its dispersing into more distant offshore regions of the North Sea.

Fig. 4. Levels of toxin in common mussels *Mytilus edulis* taken from sampling station at Berwick-on-Tweed, Northumberland, in 1975. ('Mouse unit' is division on arbitrary scale of amount of toxin present, measured, in bio-assay method, by its effect on mice.)  
 (Data from MAFF)



### Comparison with 1968 red tide

There were many points of similarity between the 1968 and 1975 red tide outbreaks in Northumberland:

1. Similar ranges of species were involved, although in 1975 corpses of gulls which were probably killed in the Firth of Forth and drifted down the coast distorted the numbers of gulls apparently killed by PSP.
2. A higher proportion of Shags was killed than any other bird species.
3. The Shags nesting on the outer group of islands, only about 3 km away, were affected to a greater extent than those on the Inner Farne.
4. There was no evidence of Shags being killed in other colonies at the time of the Farne deaths: no deserted nests were found at Dunstanburgh or at St Abbs.
5. The timing of the deaths was similar, although a few days later in 1975.
6. Deaths occurred over very short periods.
7. Certain weather conditions were similar; in particular, the spring had been cold and onshore winds unusually frequent.
8. More breeding Shags died than immatures, as many of the one- and two-year-olds were dispersed and not in the area where PSP was present. (Conversely, a higher proportion of young from Firth of Forth colonies was killed, since these were also dispersed and some were in the Farnes area.)
9. Probably only a minority of the birds killed were washed ashore and recorded. The different wind directions in 1968 and 1975 account for their being found in different areas.
10. Dead Shags did not have exceptionally high levels of organochlorine insecticides or PCBs; those recorded in 1968 and 1975 are considered too low to have caused death.
11. There is no evidence that avian botulism was involved in either year; we cannot support the opinion of Lloyd *et al.* (1976) that it was probably a factor in the 1975 kill (Coulson & Armstrong 1977).

### Discussion

It is now evident that PSP has become established in eastern Britain. Since the MAFF started monitoring in 1968, the toxin has been recorded every year, although the levels have varied considerably. Circumstantial evidence, both the lack of human cases of PSP before 1968 and the absence of large mortalities of Shags during late spring or early summer, suggests that a new environmental situation has developed in eastern Britain which could have a major influence on some seabird populations. It is impossible to forecast whether much greater levels of PSP than those in 1968 and 1975 are likely to occur in future years.

We wish to make four major points:

(1) Although the present system of monitoring mussels is adequate to prevent human cases of PSP, the critical level is reached so rapidly that seabird deaths are likely to be encountered before samples have been analysed and the information distributed. This was the case in 1975.

(2) A chemical method recognising PSP in vertebrates is essential; the bio-assay method used to measure levels in mussels has failed to identify PSP in Shags, presumably because the concentrations in birds and fish, although lethal, do not reach the lower limits of sensitivity of this method. No laboratory in Britain is experienced in carrying out the chemical method in use in North America. There is a danger of confusing the effects of PSP with those of other neurotoxins, such as pesticides, or botulism. Further, the high levels of organochlorine pesticide residues reported in Shags, and this species' high sensitivity to PSP, suggest that synergistic (co-operative) effects between the two groups of toxins are possible.

(3) It seems only a matter of time before other seabird colonies in Britain are affected by PSP. A detailed examination of the origins, distribution and build-up of *Gonyaulax* populations and, in particular, investigations of the causes of variation in PSP levels are needed. We also need to know whether nutrient enrichment in the Firth of Forth plays a part in causing outbreaks, and whether mussels collected from the shore give an accurate picture of PSP concentrations farther offshore.

(4) The information required would demand co-operation between several research groups, with a central co-ordinating body to plan and ensure that adequate data are collected. At present, there seems to be too little co-operation between fisheries and conservation interests.

### Acknowledgements

Many people have supplied information. We are particularly grateful to Dr J. J. M. Flegg, who was on Holy Island when the mortality started, realised its significance and obtained fresh bodies for chemical and bacteriological examination. Many people helped to record the numbers of dead birds in north Northumberland: we are particularly grateful to J. Bacon, D. O'Connor and all of the RSPB beached bird counters in Northumberland and farther north, whose efforts allowed us to define the limits of the mortality. Additional data concerning the levels of toxin were supplied by the MAFF through Dr P. Ayres and Commander A. Liddicoat, and further information was given by HM Coastguards.

### Summary

In May 1968, the first occurrence of a heavy mortality of seabirds in Britain caused by paralytic shellfish poisoning (PSP) was reported from Northumberland. A second extensive incident occurred in late May and early June 1975. The cause of the mortalities was a neurotoxin produced by the dinoflagellate protozoan *Gonyaulax tamarensis*, which has bloomed in the North Sea every year since 1968. The toxin reaches seabirds through the food chain, but not all bird species are equally affected.

The Shag *Phalacrocorax aristotelis* is the most sensitive seabird: in 1975, about 63% of the adults breeding on the Farne Islands, Northumberland, died from the toxin; 156 dead Shags were found, but the actual kill was probably at least four times this number. The dead Shags that had been ringed showed a wide age distribution which probably represented that in the population, with the exception that relatively few immatures were found. An appreciable number of the latter had been ringed in the Firth of Forth, whereas most of the breeding birds had been marked on the Farnes.

The 1975 red tide was not so severe as that in 1968, but the removal of over 60% of the breeding Shags caused a marked decrease. Some of the survivors re-nested in 1975; and, in the following year, large numbers of the previous season's immatures colonised the Farnes, bringing the breeding population close to that before the 1975 deaths. As in 1968, this rapid recovery was facilitated by the dispersal of the immatures, the mortality of which was not as high as that of adults. Considerable interchange between the Farnes and the Firth of Forth colonies also helped the recovery.

Some two to six weeks after the 1975 red tide in Northumberland, many Shags died in the Firth of Forth; the cause was not identified, but botulism may have been involved. There were no proven cases of avian botulism in Northumberland in 1975, nor were any birds reported with symptoms of this disease (*contra* Lloyd *et al.* 1976).

Levels of PSP recorded in common mussels *Mytilus edulis* by the Ministry of Agriculture, Fisheries and Food indicate that outbreaks have occurred annually since 1968, although the levels have varied considerably from year to year. Since it appears that the toxin-producing organism has become permanently established, there is a need for better methods of identifying the presence of the toxin in birds and for more research on the organism.

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#### **Appendix 1. Details of method of calculating mortality rate of breeding Shags due to red tide, using survival of colour-ringed individuals**

Potts (1969) has shown that the average annual mortality rate of adult Shags is 16%, the proportionate survival rate (denoted by *S*) being, therefore, 0.84. Accordingly, it would be expected that, under normal conditions without a red tide, 71% would survive from 1974 to 1976 ( $S^2 = 0.84^2 = 0.71$ ). The red tide was an additional mortality risk, and the rate of Shags surviving it is denoted by *R*. Of the ringed birds breeding in 1974, *S*<sup>2</sup>.*R* are expected to be alive in 1976. If sightings of colour-ringed Shags indicate that, say, 22% (0.22) have survived to 1976, then  $0.22 = S^2.R$ . Since *S* is known, the survival rate after the red tide can be calculated. (The calculation has been slightly modified to include individuals seen in 1973, but the principle remains the same.)

From a sample of 165 colour-ringed adult Shags known to be alive in 1973 or 1974, 34 survived the 1975 red tide, giving a value of *R* = 0.32; while, with an independent sample of 125 year-ringed birds, 36 are known to have survived, giving *R* = 0.44. Using these figures, *R* - 1 will give the proportionate mortality rate due to the red tide: 0.68 and 0.56, giving a combined value of 0.62; in other words, 62% of the adult Shags died.

## **Birds in action**

**This is the third selection of photographs under this general title, further connecting links between them being the individual interest and quality of each plate**

**T**HE first four photographs all depict waders. It is perhaps fitting to start this selection with one that is the complete opposite of the title—the splendid yawning Curlew *Numenius arquata* (plate 16) is a supreme example of *inaction*. No set of photographs of waders would be complete without one by the Bottomleys, and it would be difficult to better the bathing Lapwing *Vanellus vanellus* (plate 17), with the water droplets







**18, 19 & 20.** Top left, Woodcock *Scolopax rusticola*, Netherlands, September 1973 (*Hans Schouten*); bottom left, Wood Sandpiper *Tringa glareola*, Kenya, October 1972 (*J. F. Reynolds*); above, Black-headed Gull *Larus ridibundus*, Netherlands, October 1970 (*P. Munsterman*)

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**16 & 17.** Page 69, top, Curlew *Numenius arquata*, Co. Cork, October 1974 (*Richard T. Mills*); bottom, Lapwing *Vanellus vanellus*, Cornwall, November 1969 (*J. B. & Bottomley*)



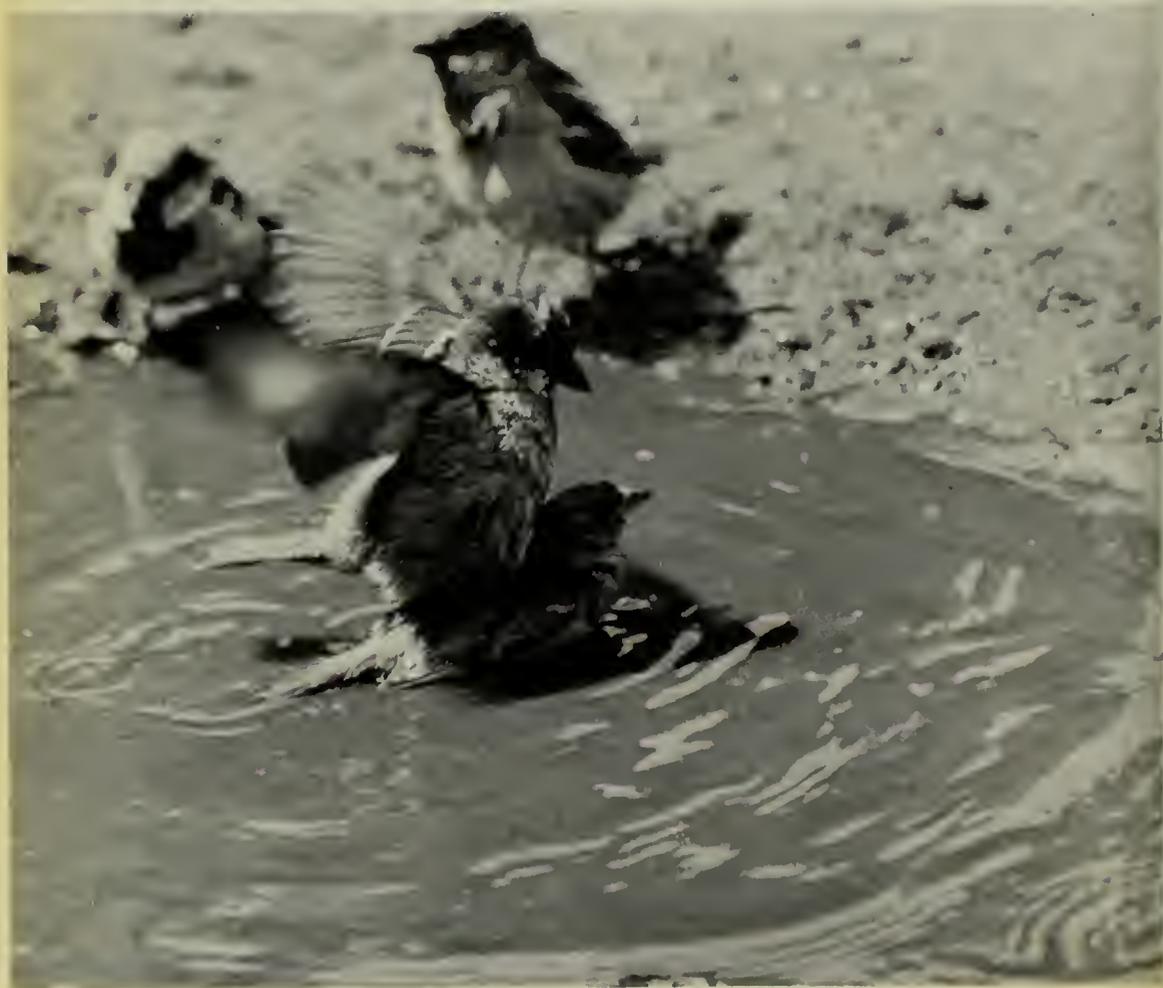


**21, 22, 23 & 24.** Top left, Starling *Sturnus vulgaris* on bullock's head, Surrey, August 1974 (Michael W. Richards); bottom left, Common Tern *Sterna hirundo* on sheep's back, Lancashire, July 1975 (Dennis Green); above, Starling *Sturnus vulgaris* on pig, German Federal Republic, August 1964 (Fritz Pölking); below, Mallards *Anus platyrhynchos* and Coots *Fulica atra* following wild boar, September 1972 (Rodney Dawson)





25 & 26. Above, Jay *Garrulus glandarius* with nut, Netherlands, January 1975 (*Hans Schouten*); below, House Sparrows *Passer domesticus* copulating, Hertfordshire, July 1975 (*E. A. Janes*).



flying. The next pair of waders are also both in water, but there could be no greater contrast than that between the quiet serenity of the probing Woodcock *Scolopax rusticola* (plate 18) and the violent activity of the Wood Sandpiper *Tringa glareola* (plate 19), its head completely submerged below the surface of the water. One often sees milling, noisy flocks of squabbling gulls, yet plate 20 shows the delicate skill used by a Black-headed Gull *Larus ridibundus* as it picks a food item from the surface of a Dutch harbour.

Instances of birds using the activities of other animals are numerous and have often formed the subjects of short notes in this journal. The Starling *Sturnus vulgaris* on the bullock's head (plate 21) was presumably in search of flies or other invertebrate food, whereas the one on the back of the pig (plate 23) and the Common Tern *Sterna hirundo* riding on a sheep (plate 22) both have the appearance of using the mammal purely as a convenient look-out post. It has been suggested to us that plate 23 is more suitable for inclusion in a journal on pigs than in *British Birds*, but we could not resist it, just as our predecessors, Eric Hosking and I. J. Ferguson-Lees, could not resist a similar photo by Fritz Pölking in the first of the three selections (*Brit. Birds* 68: plate 52b). Staying with the pig theme, plate 24 shows a very evocative scene of Mallards *Anas platyrhynchos* and Coots *Fulica atra* taking advantage of the movements of a wild boar *Sus scrofa* as its wading stirs up food.

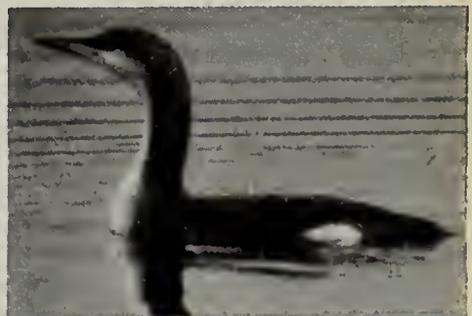
It is common enough in autumn and winter to see a Jay *Garrulus glandarius* with an acorn or a nut (plate 25), but this shy species is not easily photographed in the act. Copulating House Sparrows *Passer domesticus* (plate 26) are, similarly, no unusual sight—indeed, may be seen from any urban or rural window—but this study of a pair in a Hertfordshire puddle has a special charm.

We should like to feature another set of action photographs and shall welcome the submission of possible black-and-white prints from photographers both in this country and abroad. We are also planning a feature on 'Birds in winter' and hope that photographers will send relevant prints to us.

MWR and JTRS

## Mystery photographs

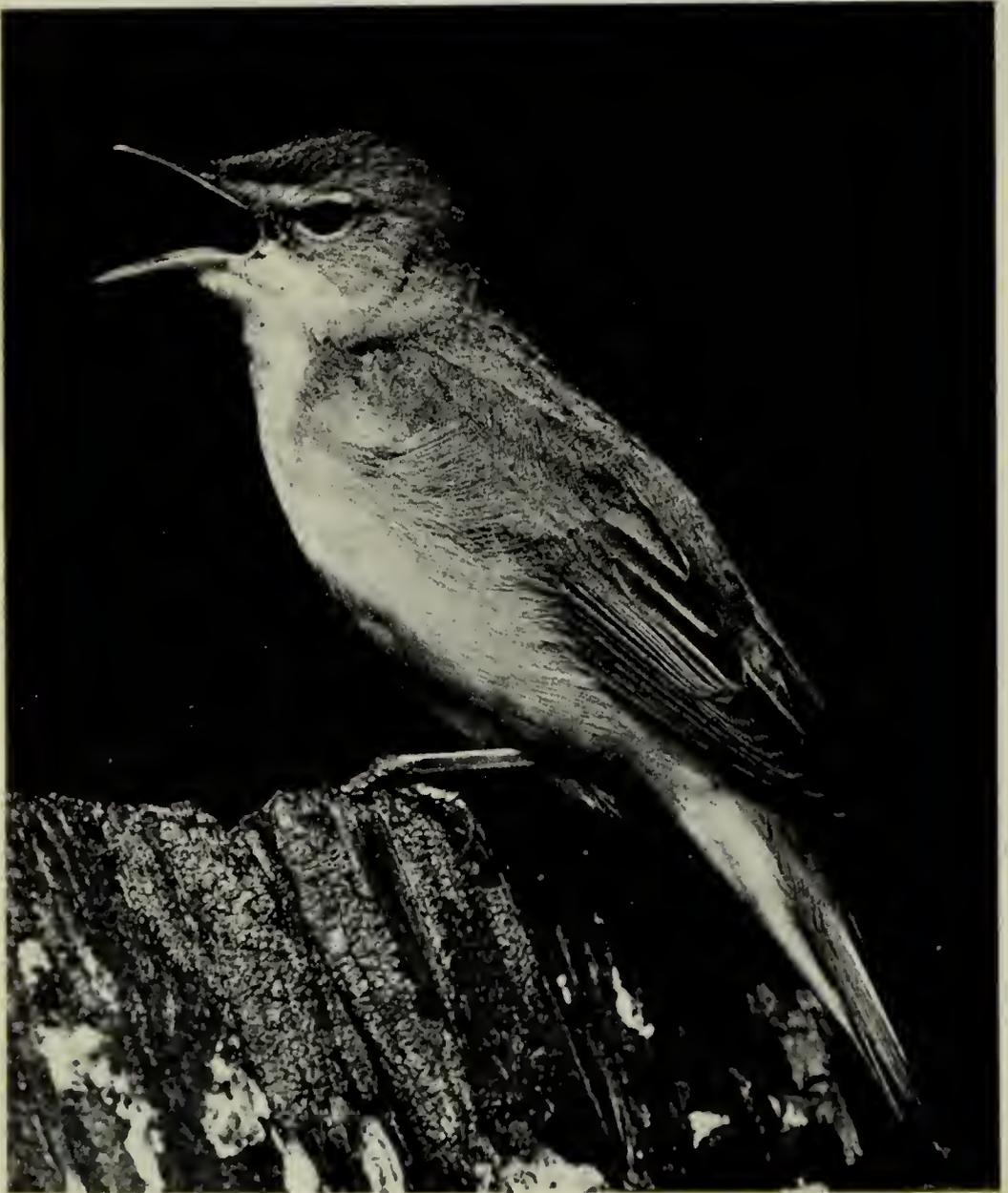
**14** It is a grey day with little wind; the surface of the water is little disturbed and there, riding low on it, is a long, lithe waterbird. The possibility of its being a Cormorant *Phalacrocorax carbo* or a Shag *P. aristotelis* is considered, but a clear sight of the pointed bill and white flanks rules out even the palest immature of either species. It is a diver *Gavia* in winter plumage, but which



of the four? The Red-throated

*G. stellata* is the commonest, and the angle of the head suggests an uptilt at times, but the bill is shaped like a narrow dagger and lacks the retroussé lower line so typical of Red-throated. Furthermore, the black forehead, dark grey hind-neck and dark black-brown, apparently uniform upperparts are incompatible with that much-speckled species. Since the bird is not huge and its bill, although pale, has an obvious dark culmen and tip, it is clearly not the rarest of the quartet, White-billed *G. adamsii*, so Great Northern *G. immer* and Black-throated *G. arctica* must be considered. These species can, however, approach one another in size and, without direct comparison, an accurate assessment is, in any case, not possible. Careful observation of the bird's structure and plumage is, therefore, needed, and this eliminates Great Northern, since (1) both the bill and the head are too fine, (2) there are no breaks to or pale patches running

27. Mystery photograph 15. What is this species? Answer next month



into the divide between the white and dark areas of the rear head and neck, (3) the nape and rear neck are uniformly grey (and noticeably paler than either the forehead or the mantle), and (4) the upperparts are markedly uniform. The structure and pattern of the bill and head, recalling those of a Guillemot *Uria aalge*, confirm that it is a Black-throated Diver. The individual in plate 7 (page 33) and repeated here was photographed by W. H. Dady in Middlesex in winter 1954/55. DIMW

## Notes

**Montagu's Harrier hovering** On the evening of 29th May 1976, at St Remy-des-Niorts in north-western France, my wife and I watched three adult Montagu's Harriers *Circus pygargus* hunting over a complex of partly harvested cornfields. One male repeatedly paused in flight and hovered, at heights of between about 2 m and 4 m, in much the same fashion as a Kestrel *Falco tinnunculus*. One spell of hovering lasted one minute 40 seconds, and several others up to 15 seconds. In 1¼ hours' observation, the harrier caught two prey items, both apparently small mammals, in this way. I can find no reference to protracted hovering by Montagu's Harriers in the standard literature.



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We showed this note to Robin Khan, who commented: 'I have twice witnessed a Montagu's Harrier hovering, on both occasions an adult male. The first was in south Spain in May 1960: for about ten minutes I had been watching a male Montagu's Harrier quartering a disused airfield, flying approximately 1 m above long grass and facing into a light breeze; suddenly, he checked and started hovering in a Kestrel-like manner for fully five seconds, dropping suddenly into the grass and flying up a moment later carrying a grass snake *Natrix natrix* in his feet. The second instance was in Devon in June 1976: the male harrier had visited a cornfield several times during the day, each time returning to the same place, where a pair of Skylarks *Alauda arvensis* had a brood of recently fledged young; at least three of these young had been taken by the harrier and on this particular visit he approached at about 1 m above the corn and, when over the Skylark's site, checked and hovered for fully 25 seconds; he failed to make a kill and resumed flying normally. Eds

**Close nesting by two pairs of Sparrowhawks** In May 1976, in north Devon, two breeding pairs of Sparrowhawks *Accipiter nisus* were discovered in a 5.7-ha broadleaved wood in predominantly dairy farmland. Their nests were only 30 m apart, in oaks *Quercus* along an undisturbed woodland ride. A slight curve in the path and the interposition of

other trees rendered each nest virtually hidden from the other. Separate males and females were observed at each site and the hawks from the different nests always left in opposite directions, avoiding contact. The routes taken led to similar wooded valleys and farmland. The nests were under observation until mid July, when young fledged from both.

Such close nesting by Sparrowhawks is extremely unusual and is normally attributed to bigamy, although even this is not recorded very often and usually refers to two females laying in the same nest (Newton 1976). Young (1973) found two nests 22 m apart in two successive years in a Dumfriesshire wood, but suspected bigamy in one year. According to Newton *et al.* (1977), who analysed data from different areas of Britain, pairs of Sparrowhawks normally nest from 0.46 km to 2.06 km apart; the distance was found to increase with altitude and decrease with land productivity.

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**Avocet with pink feet** On 31st January 1975, two Avocets *Recurvirostra avosetta* appeared at Radipole Lake, Dorset. During the following week, I noted that one had pale, flesh-pink feet, similar to the leg colour of a Herring Gull *Larus argentatus*. Its legs were the normal blue-grey and the contrasting feet were noticeable when it was standing on mud or in flight. *The Handbook* gives the colour of legs and feet of the Avocet as bluish-slate.

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Dr C. J. Cadbury has commented: 'I am aware of no previous records of Avocets with aberrantly coloured feet, but some variation might be expected occasionally, as has been reported for the Greenshank *Tringa nebularia*. The leg and foot coloration of the Ruff *Philomachus pugnax* is very variable and that of the Oystercatcher *Haematopus ostralegus* changes with season and age.' Eds

**Distinctive feeding action of Baird's Sandpiper** During several hours' observation of two individual Baird's Sandpipers *Calidris bairdii* in 1977, at Eye Brook Reservoir, Leicestershire, on 12th September and on Tresco, Isles of Scilly, in early October, I noted a distinctive feeding method of the species. Although moving in the same way as Dunlin *C. alpina*, the Baird's Sandpipers picked only once at the surface—not several times rapidly—and thus looked deliberate and methodical rather than hurried.

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P. J. Grant has commented that, although some generalisations (such as stints feeding more quickly than Dunlins) are valid, extreme caution is needed with finer points (such as differences in feeding action), particularly when these concern the field characters of small *Calidris* species. He added, however, that he welcomed publication of such observations, since this might stimulate the detailed study needed to solve the identification problems of this difficult group. EDS

**Posture of Jack Snipe while feeding** On 12th October 1975, on Tresco, Isles of Scilly, I watched a Jack Snipe *Lymnocyptes minutus* at close range on a patch of open mud surrounded by reeds *Phragmites*. It fed while stationary, but with a constant bobbing (not pivoting) action: its legs were held bent and were flexed repeatedly, in a regular, rhythmic, up-and-down motion, producing a vertical movement of the whole body held in a horizontal pose. Thus, its posture was similar to that of a Woodcock *Scolopax rusticola* described by G. des Forges (*Brit. Birds* 68: 425). Between short spells of feeding, the snipe made several quick, nervous runs, crouching and 'freezing' at times, or darting for a metre or two, often chased by Water Rails *Rallus aquaticus*; but it bobbed only while feeding and apparently unsuspecting. Its feeding action was a series of short, shallow, rapid probes. *The Handbook* records an observation by G. E. Manser of a similar feeding posture for Jack Snipe, involving movement of the body up and down two or three times at each step, independent of the leg actions, as the bird slowly moved forward. R. A. HUME

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**Unusual plumage of Greenshank** The note by D. A. Ladhams on the aberrant plumage of a Greenshank *Tringa nebularia* and the accompanying editorial comment (*Brit. Birds* 69: 499) prompt me to record the following. From 29th April to 8th May 1973, a nearly complete albino Greenshank stayed at Cob pool, Malltraeth, Anglesey. It was white, except for a little grey-buff flecking on the back and wing-coverts and a few dusky smudges on the throat. The bill was dull yellow, the legs straw-yellow and the eyes dark. It associated with up to four normal Greenshanks and its call notes were typical of the species.

JOHN P. WILKINSON

Overstrand Malltraeth, Bodorgan, Anglesey LL62 5AW

We welcome notes on unusual plumage aberrations, but in future they will not be published individually: we shall collect them with a view to producing periodic summaries. EDS

**Little Gull feeding on human food scraps** On 20th April 1976, at Dungeness, Kent, a dozen Black-headed Gulls *Larus ridibundus* and a Rook *Corvus frugilegus* were taking advantage of food scraps, mainly bread, left the previous day in a litter bin. A clapnet baited with bread was set out in an attempt to trap them. At 06.30 GMT, 45 minutes after the net had been set, an adult Little Gull *L. minutus* flew in, landed, took a beakful

of bread and was trapped. On the numerous occasions that Little Gulls have been observed feeding at Dungeness they have always taken food from water, by dipping and picking small items from the surface or by hawking flying insects above the water; they had never before been noted feeding on the ground, nor on human food scraps. *The Handbook* makes no reference to such behaviour, and does not mention bread in the diet of Little Gulls.

NICK RIDDIFORD and MARK FLETCHER  
Dungeness Bird Observatory, Romney Marsh, Kent

Brian Neath has commented that 'both feeding on the ground and on food scraps are unusual', although, in his preparation with C. D. Hutchinson of a paper on the Little Gull in Britain and Ireland, he has come across examples of both; and, on 2nd July 1960, at Buddon Burn, Angus, he himself saw 30 immatures and one adult feeding on the ground. EDS

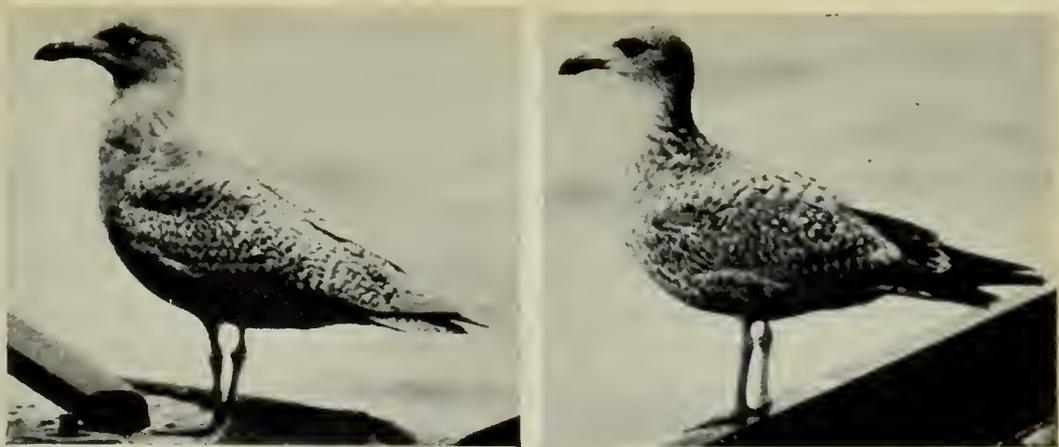
**Common and Black-headed Gulls feeding on road corpses** During 1975 and 1976, I became aware that Common Gulls *Larus canus* in Shetland regularly fed on the carcasses of dead mammals on roads, with rabbits *Oryctolagus cuniculus* and hedgehogs *Erinaceus europaeus* forming the major sources, reflecting their local abundance. Judging from comments by other observers scattered over Scotland, this habit appears to be very widespread. My attention has also been drawn to the fact that Black-headed Gulls *L. ridibundus* quite often feed in the same fashion. R. Gall has told me (verbally) that he has occasionally seen Black-headed Gulls feeding on dead sheep on Shetland moorlands. J. D. R. Vernon, in his review of the food of Common and Black-headed Gulls (*Bird Study* 19: 173-186), suggested that both species frequently feed on mice (Muridae) and voles (Cricetidae) in late summer, but cited no other source of mammalian food. I have seen Common Gulls feeding on mammal corpses most often between mid summer and early autumn. This may reflect either a shortage of other food or a superabundance of road casualties at this time. It seems surprising that such a common habit has not been documented previously: have both species only recently started to exploit this food source?

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**Herring Gull attempting to catch snowflakes** In mid January 1977, during a light fall of snow at Falmouth, Cornwall, I saw four Herring Gulls *Larus argentatus* on a ridge roof outside my office. One, an adult, was walking about, lunging in this direction and that, trying to catch the larger of the snowflakes in its beak. When the snow stopped, it preened a little and flew off.

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**Identification of hybrid or leucistic gull** R. A. Hume (*Brit. Birds* 68: 24-37) emphasised the possibilities of confusing Glaucous *Larus hyperboreus* and Iceland Gulls *L. glaucoides* with aberrant or hybrid individuals of these and other gulls. Between 15th February and 29th March



28 & 29. Left, first-winter leucistic Herring Gull *Larus argentatus*, or Glaucous *L. hyperboreus*/Iceland *L. glaucoides* × Herring Gull hybrid; right, normal first-winter Herring Gull for comparison. Aberdeen, February-March 1975 (Martin Davies)

1975, such a gull frequented Aberdeen docks and the nearby Don estuary. On the water, it resembled an immature Iceland or small immature Glaucous, but the head shape, size, proportions and bill were typical of a first-winter Herring Gull *L. argentatus* (cf. plates 28 and 29). I obtained the following details:

Bill largely blackish, slightly paler at base, very similar in size and shape to those of nearby Herring Gulls; eyes dark; legs pale flesh. Head and neck noticeably paler than rest of plumage, streaked greyish-brown, fading to whitish on throat; mantle and wing-coverts pale biscuity-brown, narrowly barred darker brown. Underparts mottled brown, somewhat darker and more uniform than upperparts; undertail-coverts narrowly but boldly barred brown. Primaries distinctly paler than adjacent coverts, pale coffee-coloured, with faint pale brown arrow-marks towards tips evident at close range; secondaries darker than coverts, but not so contrastingly as on immature Herring Gull. Pale rump merging into indistinct, but broad, dark-streaked tail-band, apparent only in flight (fig. 1).

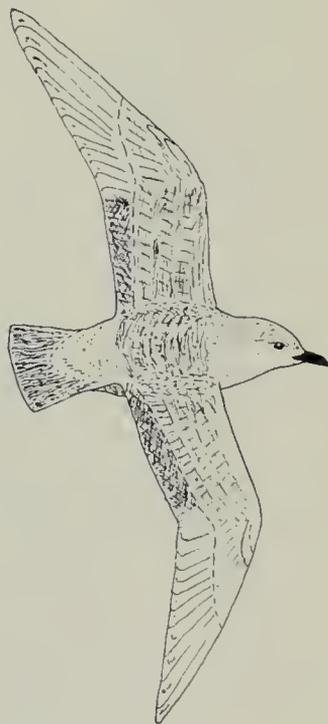


Fig. 1. First-winter leucistic Herring Gull *Larus argentatus*, or Glaucous *L. hyperboreus*/Iceland *L. glaucoides* × Herring Gull hybrid, Aberdeen, February-March 1975 (Martin Davies)

This gull was apparently either a leucistic first-winter Herring or a first-winter Glaucous/Iceland × Herring Gull hybrid, most probably Glaucous × Herring Gull.

Detailed descriptions of leucistic large gulls are lacking in the literature. Proven hybrids are better documented: Dr Agnar Ingolfsson (*Ibis* 112: 340-362) noted a complete range of variation between Glaucous and

Herring Gull wing-tip patterns in adults; presumably the same occurs in the immature stages. At a distance, a gull such as the Aberdeen one could easily be mistaken for a Glaucous or Iceland, which serves to emphasise the need for caution and a good flight view.

MARTIN DAVIES

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**Free-winged Budgerigars in the Isles of Scilly** Dr J. T. R. Sharrock (1976, *The Atlas of Breeding Birds in Britain and Ireland*, page 452) summarised the status of feral Budgerigars *Melopsittacus undulatus* in England. For several years, I have observed those on Tresco, Isles of Scilly, and their history seems worth recording. In 1969, four pairs were introduced to Tresco from Windsor Lodge, Berkshire; in autumn 1970, six more pairs were added (Mrs P. Dorrien Smith *in litt.*). These and some of their progeny bred in all 16 nestboxes in an aviary in the abbey gardens. In 1972, however, the aviary was permanently open and they bred away from it, although visiting it daily for food or for roosting in poor weather; many also fed on food thrown to tame geese (Anatidae) in the meadows, from nearby chicken pens, or on seeds of wild plants. At first, these Budgerigars nested in holes in cordylines *Cordyline* and palms (Palmaceae); later, they occupied holes in elms *Ulmus*, sycamores *Acer pseudoplatanus* and other tall trees, all, I believe, in the vicinity of the abbey gardens. Because of the amount of foliage, I could not ascertain whether they excavated the holes or enlarged existing ones. By 1974, about 35 nests were in use, with 30 or more non-breeding Budgerigars in the area. During the summer, they separated into two main, discrete flocks which came together very late in the afternoon and stayed in and near the breeding trees in the wood, where they no doubt roosted. One flock, of 20 to 30 individuals, consorted with Starlings *Sturnus vulgaris* in the fields, but neither the latter nor the ubiquitous House Sparrows *Passer domesticus* showed any aggression towards the Budgerigars. Whenever the Starlings took flight and flew around at heights, the Budgerigars would accompany them, both species calling loudly. They would take brief refuge in the bushes and then return slowly in small groups to the seed fields.

I sent a few specimens of the Budgerigars' food plants to the keeper of botany at the British Museum (Natural History), who identified the following: annual meadow-grass *Poa annua*, toad rush *Juncus bufonius*, slender sandwort *Arenaria leptoclados*, pearlwort *Sagina* (possibly annual pearlwort *S. apetala*) and swine-cress *Coronopus*. I also observed some Budgerigars perching on the side of the abbey wall and methodically pecking out pieces of the prostrate leaves of navewort *Umbilicus rupestris*. J. E. Lousley (1971, *The Flora of the Isles of Scilly*, page 181) mentioned that this grows where salt concentration is high; perhaps the Budgerigars were obtaining certain beneficial mineral residues. On occasions, groups picked up grit from the ground.

Mrs Dorrien Smith, who had provided artificial food for the birds, left the island in 1974, after which regular food may not have been put out.

During April 1975, I found the population greatly depleted, and during ten days in October that year failed to see a single Budgerigar on Tresco.

BERNARD KING

*Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall*

**Robins feeding young at night** In July 1973, in the garden of a suburban house in Liverpool, Merseyside, I watched a pair of Robins *Erithacus rubecula* feeding their six nestlings after normal feeding hours. I had previously seen them catch flying insects around a nearby street lamp, and, at dusk on 10th, I watched them snatch moths by the light through

30. Robin *Erithacus rubecula* taking earthworm to nestlings at 21.30 GMT, Merseyside, July 1973 (Dennis Green)



the french windows, which partly illuminated the nest, and fed them to their almost fledged brood; the adults were still active at 22.00 GMT, even though it was dark. At 21.30 hours on the following evening, from a hide, I secured a photograph of one parent about to take an earthworm to its young (plate 30); ten minutes later, it returned with what appeared to be a yellow underwing moth (Noctuidae). The Robins continued to feed until 22.00 hours, catching moths at the window and foraging among the illuminated flower-beds.

DENNIS GREEN

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A letter on the subject of birds feeding by artificial light appears on page 88. EDS

**Robin-like feeding by Stonechat** On 17th January 1976, while turning sods in my vegetable garden at St Ives, Cornwall, I noticed a male Stonechat *Saxicola torquata* watching me closely from a vantage point on a nearby hedge. After a few moments, it flew down to within 2 m of where I was digging and began to feed on, presumably, invertebrates in the freshly turned earth; I was not able to see what it was taking. It continued to forage close to me, in the manner of a Robin *Erithacus rubecula*, on and off for about half an hour, and then flew out of sight. On the following day, what was presumably the same bird again fed near me; this time it was, if anything, even more confiding. Stonechats are common breeding birds in the area, and are present throughout the year.

SHEILA BOTTOMLEY

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**Spectacled Warbler in Cornwall** On 17th October 1969, at Porthgwarra, Cornwall, P. W. Burness, A. P. Goddard and I discovered a very striking, bright-looking scrub warbler. As it emerged from low gorse *Ulex* at only 7 m range, with only its head and shoulders visible, it superficially resembled a Dartford Warbler *Sylvia undata*, but this resemblance ceased when it hopped out of cover into full view. We obtained the following description.

In bright sunlight, most handsome: very bright and clean-looking. Crown, nape and mantle clear bluish-grey, darker on head. Darker area through lores, reminiscent of Lesser Whitethroat *S. curruca*. Very prominent white eye-ring and dark iris; eye-ring narrower but just as prominent as those of two Ortolan Buntings *Emberiza hortulana* watched few days previously. Secondaries as brightly coloured brown as those of Whitethroat *S. communis*; whole of throat

clearly defined white, although not so 'puffed out' as Whitethroat's. Breast pinkish off-white, extending down to gorgeous pink on flanks. Undertail-coverts dirty off-white. Tail grey, with white outer tail feathers. In flight, whole bird looked exceedingly bluish-grey. Very noticeable straw-coloured legs, looking long for small bird. About size of Whitethroat (looking slightly smaller in flight).

As we watched it feeding for 1½ hours in the gorse, the warbler seemed to combine the best features of Whitethroat and Lesser Whitethroat, in

addition to being brighter and having pink flanks. We identified it as Britain's second Spectacled Warbler *S. conspicillata*, the first having been trapped at Spurn, north Humberside, in October 1968 (*Brit. Birds* 71: 53-58).

G. J. JOBSON

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**Goldcrests killed by edible frogs** On the Danish island of Christiansø, in the Baltic Sea, the edible frog *Rana esculenta* is a common resident, and the Goldcrest *Regulus regulus* a very numerous spring and autumn migrant. Goldcrests often feed on the muddy shores and among branches in the shallow water of one of the small ponds; they are often very tame and can be watched closely by members of the bird observatory. On 21st September 1976, we observed a Goldcrest 'swimming', with a medium-sized frog anchored to its tail. The Goldcrest protested a little, but otherwise it just appeared to be wondering what was happening. At this moment, a large frog swam vigorously towards the two; when about 10 cm ahead of the Goldcrest, it pushed forward and grasped the bird from the front; with a splash, the frog dived with its victim, both remaining submerged for several minutes. Two days later, we observed a similar incident, in which a Goldcrest was grasped very proficiently by its head and breast; before it went under, we had the pathetic last sight of a little tail between two legs, one of them bearing one of our observatory rings. On a third occasion, we observed a medium-sized frog 'playing' with a Goldcrest, which eventually drowned, while on a nearby shore two large frogs were resting with a drowned Goldcrest between them. The impression of the frogs as miniature crocodiles was striking. It was not established whether the frogs swallowed the birds, but the big ones would certainly be able to do so. Although we have no observations of frogs preying on other bird species, we once saw them following a Siberian Chiffchaff *Phylloscopus collybita tristis* with great interest.

JØRGEN RABOL

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**Starlings imitating Cetti's Warbler** The note on a Starling *Sturnus vulgaris* imitating a Cetti's Warbler *Cettia cetti* (*Brit. Birds* 70: 36) prompts me to record the following. On 19th May 1974, in Beddington Park, Surrey, Mrs E. W. West, Miss M. W. R. West and I heard what we thought was a Cetti's Warbler (*Surrey Bird Rep.* 22: 43). We had all had much experience of this species in Kent and were, therefore, surprised to discover that the song was being produced by a Starling. Since spring 1975, a loud, abrupt phrase, similar to that of Cetti's Warbler, has appeared in the song of a number of Starlings in the suburbs adjacent to the park; although no longer identical, I suggest that this arose from the original mimic.

DEREK WASHINGTON

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D. B. Rosair has also written as follows: 'On 23rd January 1977, along the Lampen Wall at Stodmarsh, Kent, I heard the "tchik, tchik" note of

a Cetti's Warbler coming from a hawthorn *Crataegus monogyna* about 20 m away, but on closer inspection could see only a Robin *Erithacus rubecula*; I therefore looked very carefully at the floating vegetation directly below the Robin and saw a Cetti's Warbler very discreetly picking food.' Further comment on the need for caution is provided by C. Bignal and W. Harvey, who write: 'The note in *Brit. Birds* 70: 36 should serve as an even more salutary warning to inebriated editors. There is no evidence that the song was not uttered by a Cetti's Warbler, which can be very difficult to see, often moves away immediately on completion of its song and frequently sings from a site where other species are singing. There is every reason to believe that Starlings might learn to imitate Cetti's Warblers in east Kent (if they do not already do so), but the evidence in the published note is insufficient for this conclusion to be reached. The site of the observation is within an area which had a large population of singing Cetti's Warblers in May 1975.' We thank all observers concerned; the point has been well made and the subject is therefore now closed. EDS

**Twites wintering in woodland** During the winter of 1975/76, unprecedented numbers of Siskins *Carduelis spinus* and Redpolls *C. flammea* were present at Belfairs Nature Reserve, a 37-ha wood predominantly of silver birch *Betula pendula* 2½ km from the coast near Southend-on-Sea, Essex. Weekly ringing was carried out and, during late February, Twites *C. flavirostris* were occasionally caught, usually among the Redpolls. They were present in small flocks for a further five weeks, ground-feeding with a few Redpolls or Siskins in the more open areas. The maximum seen together was 25 on 29th February. A few were trapped in the depths of the more established birch, where the wood is dense and gloomy, with a leaf-covered floor. So few were retrapped that there may have been more in the wood than was realised, or a succession of small parties may have stayed for short spells. During the five weeks from 22nd February, 40 were ringed; one trapped had been ringed at Glossop, Derbyshire (280 km northeast), in summer 1975. The Redpolls and Siskins developed direct 'corridors' among the boughs and the floor of the wood, although the Twites did not and were less decisive in their movements.

From mid October 1976 to early March 1977, Twites were again present, parties of five to ten frequenting the paths approaching and within the wood. It was estimated that there were up to 50 at any one time: 15 new birds were trapped; four were retrapped from the previous winter; and one, ringed on Two Tree Island (2½ km south) in the previous winter, was retrapped in the wood. No association was noted between the Twites and the few other finches present.

Woodland is not mentioned in the standard literature as a winter habitat of Twites, and their appearance at Belfairs may have been due to an abundant food supply.

J. H. SMART

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# Reviews

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**Guide to the Young of European Precocial Birds.** By Jon Fjeldså. Skarv Nature Publications, Tisvilde, Denmark, 1977. 285 pages; 75 drawings; 39 colour plates. £19.50

This book is aimed mainly at helping the fieldworker to identify downy young of precocial birds, but it achieves far more. There are full descriptions of the chicks of all the European species and a large number of excellent text figures illustrating their dorsal patterns in black and white. A series of 'morphoclines' shows the transformations from one pattern to another; they are of some value for identification purposes, but there is the risk that they might be misinterpreted as phylogenetic trees, although it is only fair to mention that the author points out that they 'are not precisely the same'. Having made this statement, however, it is a little puzzling that the similarities between the chicks of sandgrouse and of coursers and pratincoles are stressed (in fig. 9) in terms of the possible derivation of the former from the latter: surely this is convergence?

In some cases, fledging periods are given with a precision which is not justified by the present state of knowledge (e.g. 28 days for the Redshank, which in fact may vary from 27 to 36 days). It is also a pity that the text is marred by numerous typographical errors (e.g. 'tinging' for 'ringing', 'night' for 'nigh') and some curious English (e.g. 'biologic', 'sandgrouses'). Perhaps the book is a little expensive, even by present day standards, which will discourage people from taking it into the field, where it would have its greatest value.

These are, however, minor criticisms of what is on the whole a very good, well produced book on a difficult subject. The most impressive part of the book is the series of 39 colour plates, each showing the chicks of several species: these are beautifully and accurately depicted. The book is well worth buying for these alone.

W. G. HALE

**Birds as Builders.** By Peter Goodfellow. David & Charles, Newton Abbot, 1977. 168 pages; 8 colour photographs; 80 black-and-white photographs; over 20 line-drawings. £4.95.

This compilation of other people's work brings together information on the great variety of birds' nests. Examples are drawn from all over the world and grouped by chapters with such headings as 'No nests', 'Simple nests', 'Hanging and woven nests', 'Ground nesting' and 'Edible nests'. Each chapter has one or two introductory paragraphs, followed by quite detailed accounts of nests, nest sites and methods of construction. The number of species covered is small, barely 300, while an appendix lists another 70 species or groups 'whose nesting is worth reading about, and details of which would fill another book'. Perhaps time or money ran out, but, with a text of only 40,000 words, one wonders why these additional species were not included. The author (or compiler) has also made little or no attempt to discuss the evolution of the different types of nests, nor the adaptations involved: for example, in the chapter on ground nesting, no mention is made of whether the young are nidifugous or nidicolous.

Thus far, the book is unexceptional. What lifts it out of the ordinary is the quantity and quality of the photographs, especially taken in conjunction with the modest price. The eight full-page colour and 80 black-and-white photographs scattered through the text are well chosen and very well reproduced. Lithographic printing of bird photographs is rarely perfect, but these are much above average and only some dust spots mar the generally high standard. Delightful line-drawings by Dr C. J. F. Coombs supplement the photographs.

This firm of publishers has been criticised in the past by reviewers (myself included) for overpricing their books; it is pleasant to be able to commend this one as excellent value.

M. A. OGILVIE

# Letters

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**Birds living transfixd by arrows and twigs** With reference to Nick Riddiford's note on a Willow Warbler *Phylloscopus trochilus* living transfixd by a thorn (*Brit. Birds* 70: 459) and the editorial comment, it is worth drawing attention to Ernst Schüz's letter in *The Ostrich* (40: 17-19), which included a line-drawing and a photograph of White Storks *Ciconia ciconia* transfixd by whole Central African arrows. He added that he knew of 19 records of storks living despite being pierced by arrows, and also instances of arrowheads in Bewick's Swan *Cygnus columbianus*, King Eider *Somateria spectabilis*, Black Kite *Milvus migrans*, Short-toed Eagle *Circaetus gallicus*, Herring Gull *Larus argentatus*, an immature gull and a 'hawk', as well as the Honey Buzzard *Pernis apivorus* mentioned in the editorial comment. Other examples have included photographs and an X-ray of an Abdim's Stork *Ciconia abdimii* with an arrowhead from Central Africa (*Ostrich* 38: 231-233) and a Song Thrush *Turdus philomelos* living with a pointed twig through its body (*Brit. Birds* 58: 511-513). As Dr Schüz remarked, many birds appear to have a remarkable resistance to wounds.

CHRIS HODGSON

*Unit of Applied Zoology, Wye College, near Ashford, Kent*

**Birds feeding by artificial light** In a village near Neatishead, Norfolk, sodium street lighting extending about 4 km along the main street is left on all night. On certain days, I motor along this road shortly after 05.00 GMT, when, for a considerable part of the year, it would otherwise be dark. Even in midwinter, I have seen Blackbirds *Turdus merula* and, especially, Robins *Erithacus rubecula* feeding on the road and adjacent areas at this early hour. Although such behaviour is well-known, it is interesting to speculate whether the birds ever retire to roost and, if so, for how long. As an aviculturist, I use time-switches to extend the winter feeding hours of delicate tropical birds, but have noticed that many species fail to take advantage of this and roost either at the same time as during the rest of the year or when it becomes dark outside. A 10-watt light left on all night also has little apparent effect on the birds.

M. D. ENGLAND

*Mashobra, Neatishead, Norwich NR12 8BJ*

**Daylight hunting by Long-eared Owls** In their paper on field identification of Long-eared *Asio otus* and Short-eared Owls *A. flammeus* (*Brit. Birds* 69: 281-287), A. H. Davis and Robin Prytherch mentioned that northern-breeding Long-eared would be forced into the daylight by the extremely short summer nights. In southeast Bavaria the hours of darkness are considerably more, but, in the second week of June 1975, near Aigen on the River Inn, I observed Long-eared Owls hunting from 16.00 hours over open fields of cut hay, and over crop fields close to the riverain area of the Inn. Local ornithologists assured me that this behaviour was not unusual.

J. M. BAYLTON

*9 Birchen Close, Bessacarr, Doncaster, South Yorkshire*

**Roosting behaviour of migrant House Martins** For some years I have tried to solve the mystery of where House Martins *Delichon urbica* roost when not at their home colonies. I doubt if they roost to any significant extent in reed-beds or in the nest-holes of Sand Martins *Riparia riparia*. They may sometimes sleep at a House Martin colony where they are not themselves resident; in certain circumstances this may be habitual, but it is definitely not the regular practice of the whole transient population. I am now convinced that most House Martins, when on migration, sleep in trees, in a way which could be described as loosely communal.

On 2nd May 1962, at Burnley, Lancashire, L. E. Bouldin and I saw a House Martin which had settled for the night in a tall horse-chestnut *Aesculus hippocastanum*; there was no colony nearby. On two evenings in July 1970, also at Burnley, a parent returned to its nest so late that it could not see to enter; it then settled to roost in a nearby sycamore *Acer pseudoplatanus*.

On a typical summer evening, after the first broods have fledged, a feeding flock of adult and young House Martins assembles during the hour before sunset, flying high but not travelling far in any one direction. When overhead they are clearly visible, but if they deviate much from the vertical they can be followed only with the aid of binoculars. About 12 minutes after sunset, they suddenly become excited; their flight is accelerated and there is a certain amount of alarm-calling, for no apparent reason; then, either the whole group or a part of it comes sweeping down the sky to treetop level. At this point, the local martins probably disperse to their nests, but some, presumably migrants or independent young, will fly very closely for a few more minutes, in ones and twos, silently around the high foliage, into which they suddenly vanish at great speed. Dr K. E. L. Simmons (*in litt.*) saw two House Martins suddenly alight in an ash *Fraxinus* in a similar fashion in Leicester, in August 1975; and Dr J. T. R. Sharrock (*in litt.*) observed tree-roosting at Neusiedl, Austria, in August 1976.

One clump of trees (there seems to be some predilection for poplars *Populus*) may hold ten to 15 roosting martins, and the same trees are used for several weeks, no doubt by a shifting population. I know of three such roosts within 1 km of my house and, assuming a comparable distribution throughout the species' summer range, the total number of birds involved must be immense.

K. G. SPENCER

3 Landseer Close, off Carr Road, Burnley, Lancashire

**Tail-cocking by Moustached Warblers** I read the letter by Dr J. T. R. Sharrock (*Brit. Birds* 70: 349-350) with great interest, since I have had the same experience at, for instance, a number of localities in Turkey (e.g. Amik Gölü, Bas-Göl). On only a few occasions did I observe a degree of tail-cocking by Moustached Warblers *Acrocephalus melanopogon*, but in most instances none at all. I even went so far as to suggest to Prof. Günther Niethammer that the mention of tail-cocking should be deleted in the German translation of Peterson *et al.* (1974, *A Field Guide to the Birds of*

*Britain and Europe*, 3rd edition). The identification of the Turkish birds was, incidentally, confirmed beyond question, since I had to collect a few specimens for the Museum (see *Alauda* 31: 122-123). H. KUMERLOEVE *Zoologisches Forschungsinstitut und Museum Alexander Koenig, 53 Bonn 1, Adenauerallee 150-164, FDR*

**Photography of birds in the hand** We are concerned to see the increasing publication of photographs of birds held in the hand with their legs trapped between two fingers. This practice was condemned by us at our Holme Bird Observatory Reserve many years ago, since it was considered to be dangerous: birds held thus are liable to flap their wings at any second, which could lead to muscle strain or even damage to the heart or lungs. With a rarity, there is always the temptation to secure a picture at all costs, thus increasing the danger to the bird as it struggles to escape.

Photographs of birds in the hand can be secured without resorting to these harsh methods: a small bird held gently in the closed hand will almost invariably stay put—not realising that it is free to go—if the hand is carefully opened. Occasionally, a photograph is lost when an alert captive escapes; but which has priority: the photograph or the bird?

PETER R. CLARKE

*Secretary/warden, Norfolk Ornithologists' Association,  
Aslack Way, Holme next Sea, Hunstanton, Norfolk PE36 6LP*

Robert Spencer, expressing his personal views, has commented: 'I do not particularly like these "bird in the hand" photographs, but for aesthetic reasons: there is always more hand than bird. Some years ago, I published, in *The Ringers' Bulletin*, details of a photographic box which was, I suppose, the precursor of the studio portrait technique. It is, however, bulky, and one can hardly expect ringers to carry such an item with them in the field.

'I personally doubt whether holding a bird by its legs is dangerous, provided that it is done correctly: the legs should be held as close to the body as possible and, with very small birds, it is important to hold one finger between the legs.'

We applaud Mr Clarke's concern for the birds and endorse his sentiments that the bird should be valued above the photograph. We do, however, agree with Mr Spencer's expert opinion that careful handling for photography by trained ringers does not endanger the bird. EDS

## Requests

**Mute Swan breeding census** As part of a European survey, the BTO is organising a census of breeding Mute Swans *Cygnus olor* in summer 1978. The fieldwork will take place from 1st April to 31st May and will be based on complete counts for a large sample of 10-km squares. The national organiser is Malcolm Ogilvie, Wildfowl Trust, Slimbridge, Gloucester GL2 7BT, but offers of help should be made to the BTO's Regional Representatives and, in Northern Ireland, to Ian Forsyth, Department of Extra-Mural Studies, Queen's University, Belfast BT7 1NN.

**Corncrake breeding census** Following an apparent decline in numbers of the Corncrake *Crex crex*, the Irish Wildbird Conservancy is organising a census in Ireland and Britain in summer 1978. It will be carried out in the late evenings and nights from late May to the end of July and will be based on 10-km squares. All records are required, including negative ones for western areas. Offers of help will be welcomed by the three organisers: REPUBLIC OF IRELAND Michael O'Meara, 153 St John's Park, Waterford; NORTHERN IRELAND Ian Forsyth, Department of Extra-Mural Studies, Queen's University, Belfast BT7 INN; BRITAIN Dr C. J. Cadbury, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

## News and comment

*Peter Conder and Mike Everett*

**Bardsey Island Trust appeal** The newly-formed Bardsey Island Trust, a company registered with the Charity Commissioners, has obtained an option to purchase the island within three years for £103,000; a further £100,000 is needed for a capital endowment fund. Bardsey is a 160-ha island, 3 km off the coast of north Wales. In addition to six 18th century farmhouses, one of which has been the headquarters of the Bardsey Bird and Field Observatory for the past 25 years, there is the remains of an Augustinian abbey. The Trust will establish a nature reserve and maintain the island as a place of Christian pilgrimage and Welsh cultural tradition, and continue the ancient farming system. Some 40 species of birds breed there, including Manx Shearwaters and Choughs. Due to the island's position in the Irish Sea, large numbers of migrants arrive in the spring and autumn; the research programme, including studies of methods of reducing casualties at the notorious 'killer' lighthouse, will continue.

It is urgent that islands such as Bardsey, so important to our national heritage, should be owned, managed and protected by trusts. For further information, please contact Susan Cowdy, Appeal Organiser, The Lee, Great Missenden, Buckinghamshire; donations should be sent to Bardsey Island Trust, M'ldland Bank, Bangor, Gwynedd.

**BTO honours Robert Gillmor** At its annual conference at Swanwick, Derbyshire, during 2nd to 4th December, the BTO paid tribute to Robert Gillmor by making him an honorary member, in

gratitude for the many ways in which he has quietly helped the Trust by providing illustrations for its journals, Christmas cards, publicity material and so on. For many years—except once or twice in his breeding season—Robert has attended this conference and organised the sale of bird pictures, which always produces a useful sum for the Trust's funds.

One of the major features of the conference was the tenth Witherby Memorial Lecture. This year, Dr David Snow of the British Museum (Natural History) took as his title 'The relationship between the African and European avifaunas'. Following in the traditions of R. E. Moreau and Mrs B. P. Hall, the lecture was a memorable account of a subject which gains in interest the more that one travels. Among other amusing and instructive lectures, we must mention the account by Dr Arne Nørrevang of the University of Copenhagen of fowling on the Faeroe Islands; his excellent English put us to shame. Having studied the ecology of fowling for many years, he considers that the cropping of the seabirds was beneficial to them and is concerned, now that fowling has stopped, that the seabird populations will not maintain themselves at the same high levels as when the colonies were managed.

*British Birds* held its usual light-hearted competition. The mystery birds shown in five photographs were correctly identified by no fewer than ten people and the winners of the bottle of champagne and free subscriptions to *British Birds* had to be selected by a draw: Crispin Fisher (1st), Muriel Lovett (2nd), Andy Lowe (3rd); the other experts were Peter Grant, A.

Grieve, Chris Harbard, S. T. Holliday, Steve Madge, Steve Rooke and Graham Walker.

**SOC honours Irene Waterston** Irene Waterston retired from the staff of the Scottish Ornithologists' Club on 4th August 1977, after many years dedicated to the Club and its members. She joined the SOC in 1949 and became the first full-time secretary, shortly after becoming Mrs George Waterston. She brought to the post her very considerable administrative skills and ably organised the running of the SOC Bird Bookshop, opened in 1963; its growth and international reputation reflect her organisational ability. The success of the Scottish Bird Islands Study Cruise before the International Ornithological Congress of 1966 remains a reminder of her skill and energy: ornithologists who were lucky enough to be on it remember it as one of the major events of their ornithological lives. The debt owed to her by the SOC and many ornithologists from all over the world is a large one. As a token of its esteem and gratitude, the SOC unanimously elected Irene an honorary member and many members contributed to a gift which was presented to her in the autumn.

**The Richard Richardson Appeal** It is hoped that the permanent memorial to Richard Richardson, the well-loved Norfolk bird artist and ornithologist whose obituary appeared last December (*Brit. Birds* 70: 541-543), will take the form of a sea-watching hide at Cley: negotiations to this end are in progress. Donations will be welcomed, but, to save administrative expenses, they will not be acknowledged unless accompanied by a stamped and addressed envelope. They should be sent to Miss Elizabeth Forster, Secretary, The Richard Richardson Appeal, The Double House, Wiveton, Holt, Norfolk.

**Conservation of wildlife and natural habitats** The government experts, instructed by the Committee of Ministers of the Council for Europe to draw up a draft Convention on the conservation of wildlife and natural habitats, met in Strasbourg on 28th to 30th September. They established the guidelines for the substantive part of this legal instrument and decided that the operational part should take the form of a Council for Europe Convention, open for

accession by as many non-member states as possible, and giving special powers to the Contracting Parties. They also agreed to admit the International Union for the Conservation of Nature and Natural Resources, the International Council for Bird Preservation, the International Waterfowl Research Bureau and the International Council for Hunting and Game Conservation as observers at future meetings.

**Welcome 'Irish Birds'** A new journal, *Irish Birds*, will be greatly welcomed by all ornithologists in Britain and Ireland. Volume 1, number 1 contains six papers, on the status of Bewick's Swans, auks on Inishtearaght, Mallard migration, seabird ringing in Kerry, a Northern Ireland census of Great Crested Grebes, and gulls on Lough Corib; three short notes; the ringing report for 1976; a register of ornithological research in Ireland; reviews of seven books, 12 papers and four local reports; and incorporates the twenty-fourth Irish Bird Report, covering 1976.

The design is pleasing to the eye; the photographs—scattered in the text—are well reproduced and relevant (except for one of a Kingfisher); and the 120 pages are on good quality paper with a stiff card cover. It seems surprising, however, that there are no decorative drawings, when there are talented bird-artists such as Killian Mullarney in Ireland. Regrettably, the text contains so many obvious literals that one must doubt whether the printers ever supplied proofs for checking: this fault should, however, be regarded as only a minor teething problem.

In his editorial, C. D. Hutchinson states that, '*Irish Birds* is not intended to be a heavy, off-putting journal': he has succeeded admirably; it deserves to thrive (the aim is to have one issue each year) and seems certain to have an enormous influence on the continued development of ornithology in Ireland. Published by the Irish Wildbird Conservancy, *Irish Birds* may be obtained, price £1.50, from K. W. Perry, 11 Magharana Park, Waringstown, Craigavon, Co. Armagh, Northern Ireland. (Contributed by JTRS.)

**America's wetlands** *Audubon* reports that the first nationwide census of America's wetlands was launched by federal agencies in June. Wetland areas

in the United States have been reduced by 40% since the 1950s and are still being lost at the rate of 120,000 ha annually.

**Fowlmere** Formerly called Fowlmire, shadowed on every side by the chalk of the Gog Magog Hills, waste sedgy pools, with alder woodlands and reed swamp: this 26-ha reserve, part of a Cambridgeshire water-cress bed, was purchased by the RSPB, thanks to the efforts of the Young Ornithologists' Club, which raised about £10,000 for the purpose. Fowlmere is the second reserve which has been purchased entirely by members of the YOC, who will also contribute to the cost of wardening and management and will also help with the work involved.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

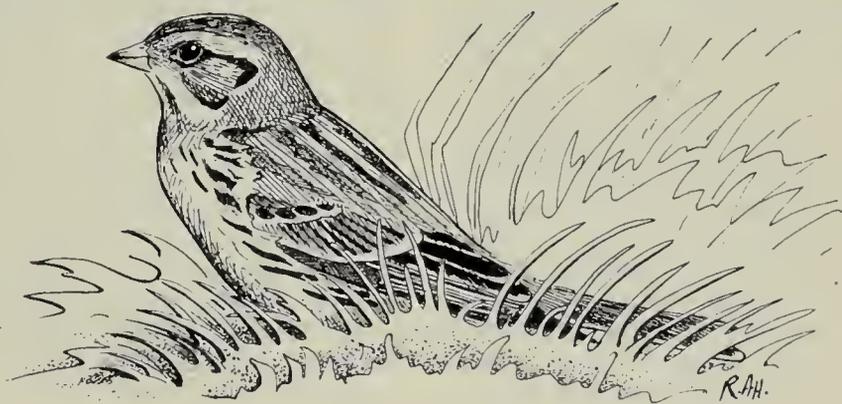
**These are largely unchecked reports, not authenticated records**

This report covers November and the first part of December; except where otherwise stated, all dates refer to November.

The first week of November was wet and windy with a fresh westerly airstream over

**Larks** *Eremophila alpestris* were found in ones and twos on the coast of Aberdeenshire, at a time when record numbers of

**Lapland Buntings** *Calcarius lapponicus* were also there. A number of east coast



the whole country. At Dungeness (Kent), the autumn finch passage was in full swing, with peak counts on 10th, when 3,200 **Greenfinches** *Carduelis chloris*, 6,200 **Goldfinches** *C. carduelis* and 5,100 **Linnets** *C. cannabina* moved south; on 13th, 2,000 **Tree Sparrows** *Passer montanus* were counted there. There was little change in the weather for the following week. **Shore**

sites reported large numbers of **Snow Buntings** *Plectrophenax nivalis*: a considerable contrast to last winter. There were small influxes of **Waxwings** *Bombycilla garrulus* into East Anglia on 13th and northeast England in early December, but there were very few **Great Grey Shrikes** *Lanius excubitor* or **Rough-legged Buzzards** *Buteo lagopus*.

**Fieldfares** *Turdus pilaris* came in two main influxes: Dungeness had a movement of 30,000 (with 10,000 **Redwings** *T. iliacus*) towards the northwest on 18th, and there was a big influx in northeast England from 27th.

Shetland produced a few rarities in the first part of the month: we have received no details, but hear of a **Black-throated Thrush** *T. ruficollis*, a **Rose-coloured Starling** *Sturnus roseus* and an **Arctic Redpoll** *C. hornemanni*. A **Red-rumped Swallow** *Hirundo daurica* spent most of the 13th at Spurn Point (Humberside), completing a series of late autumn records of this southern vagrant. **Richard's Pipits** *Anthus novaeseelandiae* continued to appear, with singles at Weybourne (Norfolk) on 5th-7th and Dunster (Somerset) on 27th, while two 'large pipits' at Walney (Cumbria) on 13th were also probably of this species. More surprising, however, was a very approachable **Tawny Pipit** *A. campestris* near Aber (Gwynedd) from about 27th. Perhaps the strangest record of the month concerned a **Chough** *Pyrhocorax pyrrhocorax* that appeared at Heysham (Lancashire) on 18th after strong gales; possibly an Irish bird?

#### Late summer migrants

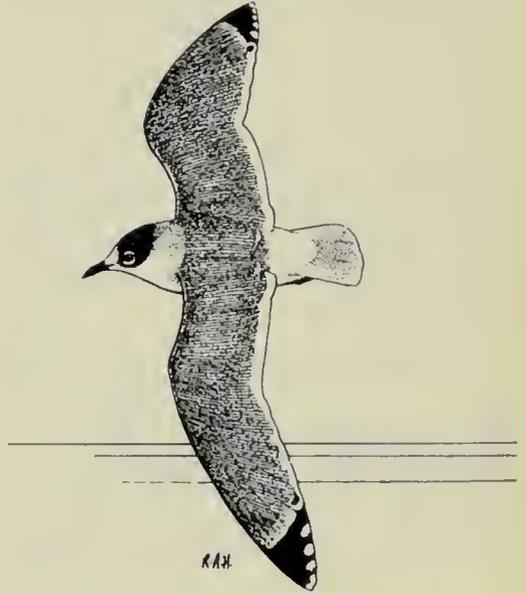
There were a few reports of late terns during the month, with a **Black Chlidonias** *nigra* remaining at Hornsea Mere (Humberside) until 8th, a **White-winged Black** *C. leucoptera* at Wexford (Co. Wexford) on 13th, and single **Common** *Sterna hirundo* or **Arctic Terns** *S. paradisaea* at Heysham on 17th and off Weybourne on 21st; a definite Arctic had been identified at Heysham on 12th. A **Hoopoe** *Upupa epops* that had been found at Arnold (Nottinghamshire) on 31st October remained until the stormy weather of 12th, while there was a late **Swift** *Apus apus* at Goole (Humberside) on 9th, a **Yellow Wagtail** *Motacilla flava* at Wheldrake Ings (North Yorkshire) on 27th and **Willow Warblers** *Phylloscopus trochilus* at Fairburn Ings (North Yorkshire) on 20th and Kempton Park (Middlesex) on 3rd December.

#### Seabirds

There was a spate of single **Great Northern Divers** *Gavia immer* inland during the month, from Surrey to Derbyshire: an influx comparable with that of **Black-throated Divers** *G. arctica* at the same

time in the previous year (see *Brit. Birds* 70: 507).

The severe gales in mid month were caused by depressions tracking over the Atlantic in quick succession, bringing some fascinating sca-watching for gull enthusiasts. A **Franklin's Gull** *Larus pipixcan* was found at Lowestoft (Suffolk) on



13th and a **Laughing Gull** *L. atricilla* at St Ives (Cornwall) on 10th December; earlier, a Laughing Gull had been identified flying south at Filey Brigg (North Yorkshire) and another possible Laughing was seen at Felixstowe (Essex) on 8th December. Large gulls moved down the east coast, with **Great Black-backed** *L. marinus* passing at the rate of 250 per hour off Weybourne on 21st, with 6 **Glaucous Gulls** *L. hyperboreus* associated with them. There was a small 'wreck' of **Leach's Petrels** *Oceanodroma leucorhoa* at this time, with two in Co. Cork, singles in Cos. Dublin and Tipperary, and ones and twos at a number of English east coast watch points. **Little Auks** *Alle alle* appeared on the east coast at the same time in very small numbers, and there were reports of many around Shetland earlier in the month.

#### Latest news

**Black Vulture** *Aegypius monachus*, Builtth Wells—New Radnor (Powys): if accepted, new species for Britain and Ireland (but escape possibilities need thorough investigation); **Lesser White-fronted Goose** *Anser erythropus* with 750 **Greylags** *A. anser* in Bridle Bay—Holy Island area (Northumberland); **Serin** *Serinus serinus* at Littlehampton (West Sussex).

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(continued on page iv)

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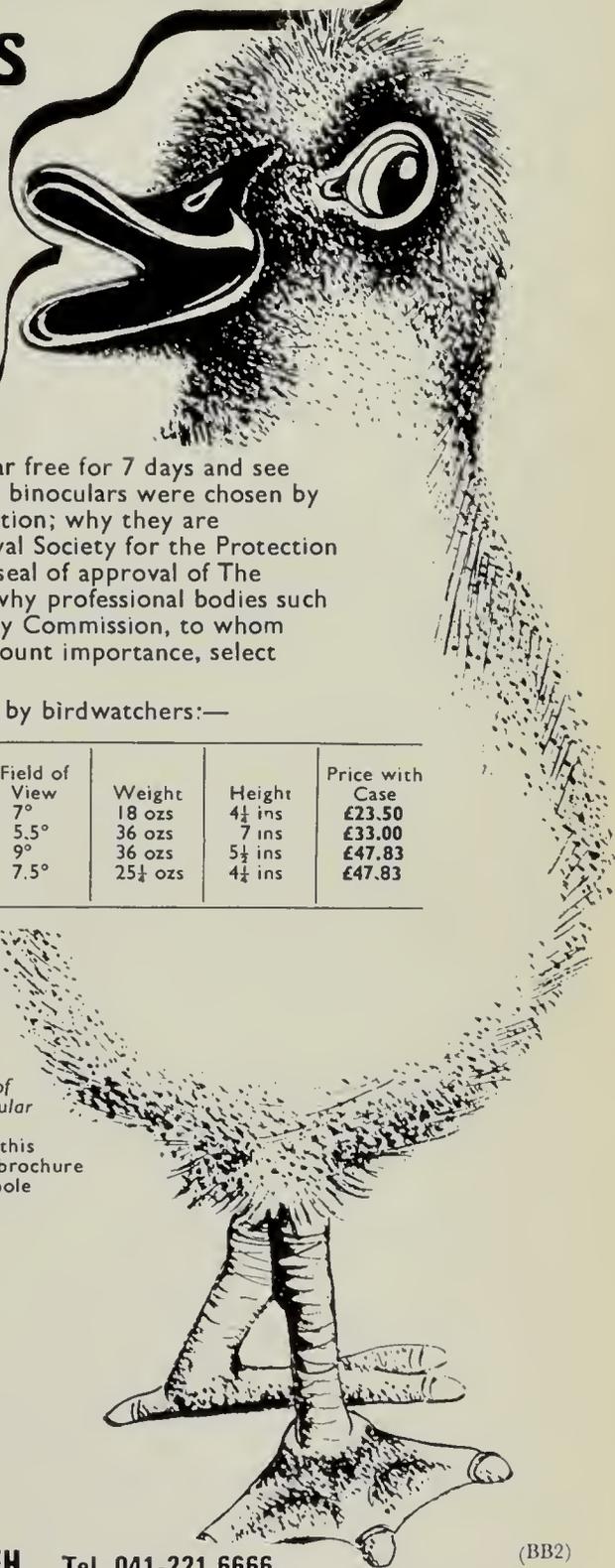
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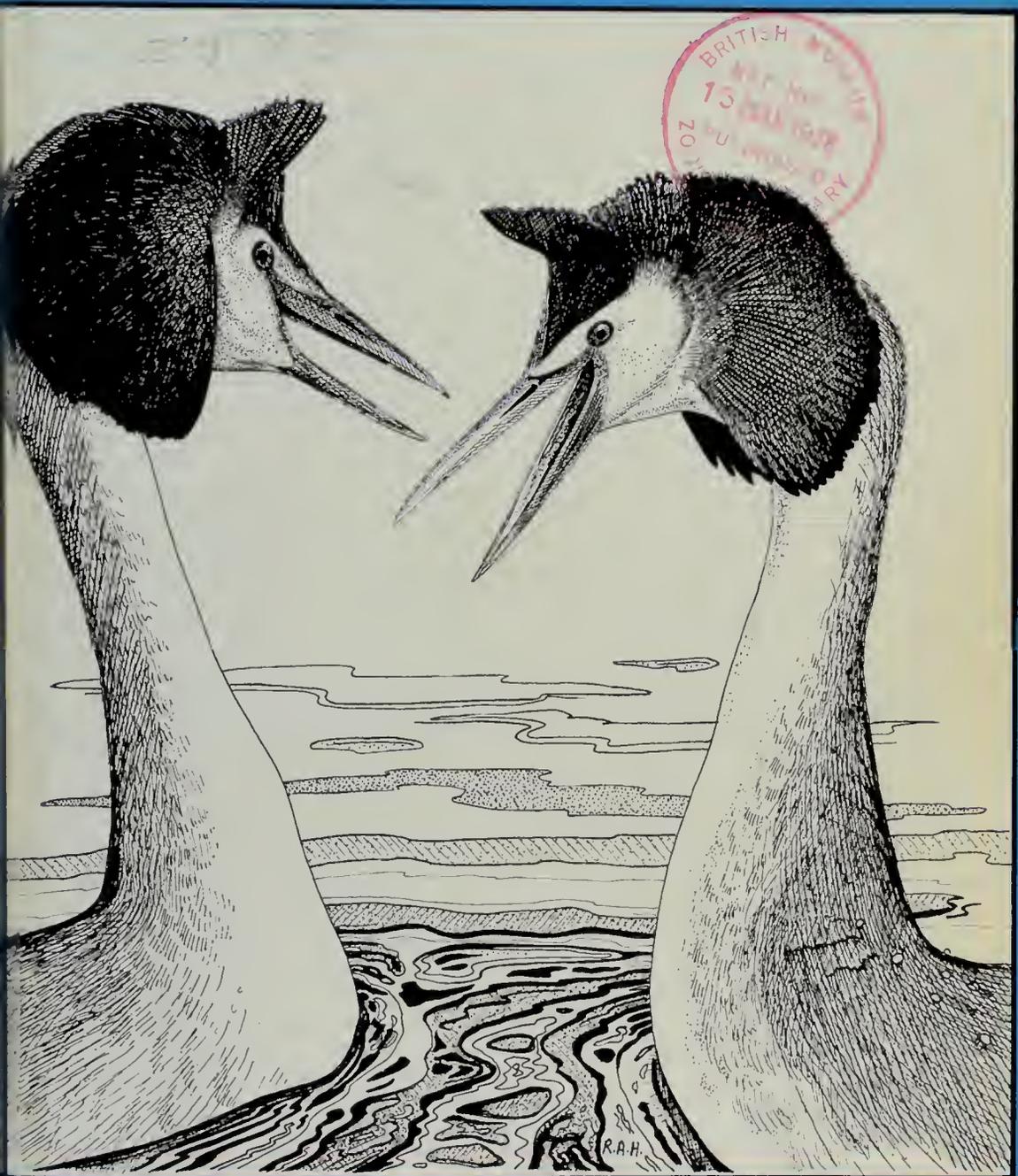
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# British Birds

Volume 71 Number 3 March 1978



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**Spring and breeding season summary**

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# British Birds



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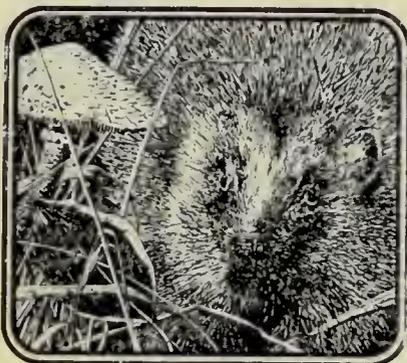
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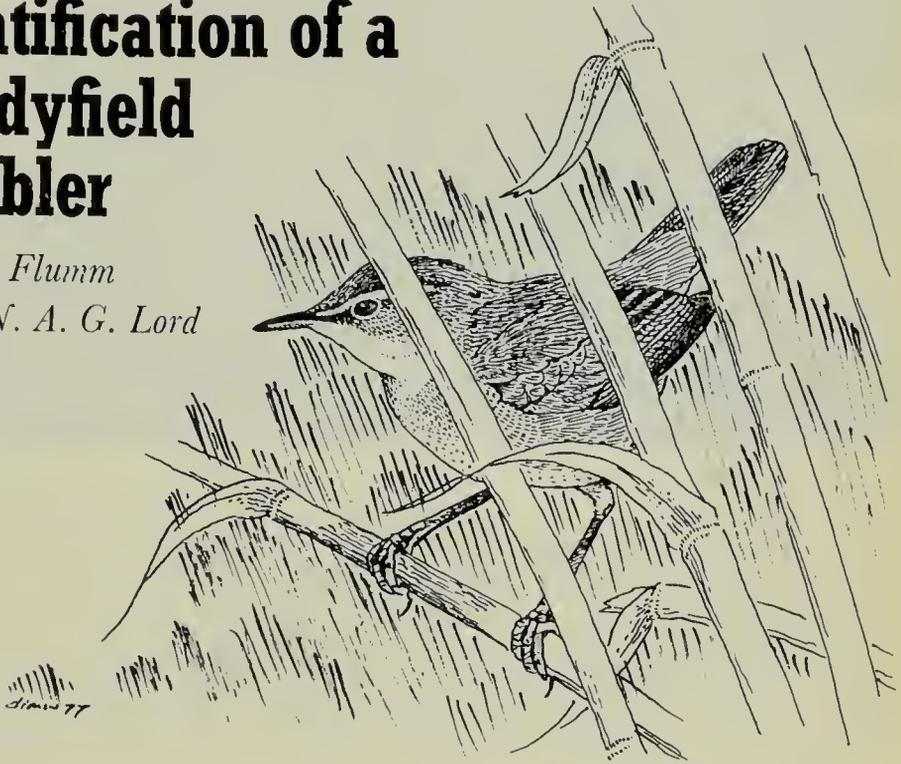
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# British Birds

VOLUME 71 NUMBER 3 MARCH 1978

## Identification of a Paddyfield Warbler

*D. S. Flumm  
and N. A. G. Lord*



**F**rom 30th September to 15th October 1974, a pale adult Paddyfield Warbler *Acrocephalus agricola* was present on St Mary's, Isles of Scilly. It was seen on only seven of the 16 days, but was trapped on 15th October, and the record was eventually accepted by the Rarities Committee. Because of considerable identification difficulties and the 60 to 80 observers involved—many of whom considered the bird to be a leucistie Sedge Warbler *A. schoenobaenus*—a thorough, day-by-day account is presented here.

### 30th September

At 16.00 GMT, DSF located the warbler feeding actively in common reeds *Phragmites australis* at the seaward end of Porth Helliek pool; with NAGL, he watched it for two hours in good light at very close quarters. The following is a summary of the field notes.

The initial impression was of a very pale, 'washed-out' Sedge Warbler, especially as the head pattern, although much less obvious, was reminiscent of that species: a dark line through the eye, and a distinct whitish supercilium bordered by a dark line. Without other species for direct comparison, size was difficult to estimate, but was considered to be near that of a Sedge Warbler. There, however, the resemblance ended. The nape and mantle were unstreaked pale grey-brown; the rump was a paler



31. Paddyfield Warbler *Acrocephalus agricola*, Isles of Scilly, October 1974 (D. B. Hunt)

and warmer brown, but the uppertail-coverts were noticeably brighter ('rufous': NAGL). The rather short, rounded wings were a shade darker than the upperparts, with paler edges to the primaries and secondaries. The underparts looked pure silky-white. The tail was rather abraded, but strikingly pale, round-ended and looking much longer than that of a Sedge Warbler: the central feathers were grey-brown, tipped pale buff, and the outer ones pale buff. The bill appeared too slight for a Sedge Warbler, and

32. Paddyfield Warbler *Acrocephalus agricola*, Isles of Scilly, October 1974 (D. B. Hunt)



certainly did not have the proportions of that of a Reed Warbler *A. scirpaceus*: it was dark, noticeably blackish at the tip, with a pale flesh area at the base of the lower mandible (plates 31-33). The bird's behaviour was extraordinary: it constantly flicked its tail, which was invariably held cocked, the body feathers were rather fluffed out, and the folded wings were always slightly drooped. It spent the entire time flycatching from the tops of the reeds or feeding on the ground, and on occasion would 'crash' through the vegetation like an Icterine Warbler *Hippolais icterina*; even so, its movements from stem to stem, and its manner of climbing, were strongly indicative of an *Acrocephalus*. We heard it call 14 times: a very soft, yet affirmative 'check' or 'chac', quieter than the note of a Sedge Warbler.

At 18.00 hours, DSF fetched M. J. Rogers and T. W. Parmenter, who watched the warbler for a further 20 minutes until dark and confirmed the details recorded above. We did not, however, establish a specific identification; after reference to Witherby *et al.* (1938) and Hollom (1960), the possibilities of Paddyfield Warbler and even Booted Warbler *H. caligata* were discussed, but no conclusion was reached.

### 3rd, 8th-9th and 13th-14th October

The warbler was seen by only a few other observers, but prevailing strong northerly winds kept it in the thick of the reed-bed. On 8th, after discussion with various observers, the possibility of Booted Warbler was dismissed because the head and general coloration were unlike those of that species. Opinions on the precise colour of the legs varied: on 30th September, DSF, NAGL and MJR had thought them to be dark (although the colour may have been obscured by mud when feeding on the ground); but on 9th, MJR said that they were medium-brown in front and grey-green behind, looking highly translucent against the light, thus explaining other observers' beliefs that they were pale. By the evening of 13th, there was a growing conviction that the bird was a Paddyfield Warbler, a view supported the following day by R. B. H. Smith, who had seen that species in southern India 20 months previously.

### 15th October

Calm, sunny conditions ideal for observation prevailed. The bird was in view for most of the day and seen down to 4-5 m by many observers; only two or three appeared to take field-notes, the majority dismissing it as a leucistic Sedge Warbler. DSF, NAGL and MJR agreed that the warbler, although still strikingly pale, now appeared noticeably browner. The darker line bordering the rather narrow supercilium broadened across the crown, only the forehead looking paler; this was best seen head-on and was hardly perceptible at any distance. A slight yellowish wash to the sides of the breast was also detected, and it was confirmed that the legs were pale. In the sunlight, the uppertail-coverts appeared quite rufous. By now, only two or three tail feathers were left, but these were still held cocked. DSF and D. B. Hunt noted also that the crown feathers were occasionally raised, as they are by some *Hippolais* warblers. The bird fed exclusively

in the reeds, and was never seen to enter the adjacent grey willow *Salix cinerea*, soft rush *Juncus effusus*, sea rush *J. maritimus*, bramble *Rubus fruticosus* or honeysuckle *Lonicera periclymenum*. In view of the controversy and doubts which remained, it was decided that the identification should be confirmed in the hand. Permission to trap the warbler was obtained and it was mist-netted at 16.55 hours. It was retained in the hand for 25 minutes, photographed in rather poor light (plates 31-34), and released; it returned to the reed-bed, but was not seen subsequently. The following description and measurements were recorded by RBHS:



33. Head of Paddyfield Warbler *Acrocephalus agricola*, Isles of Scilly, October 1974 (D. B. Hunt)

Initial impression of small size, small body, short wings and thin legs.

**UPPERPARTS** Forehead, crown and nape uniform mousy-brown with olive cast and some paler feathers in centre of crown; mantle and back sandy-olive colour (difficult to describe, neither yellowish nor greyish, but certainly pale); rump and uppertail-coverts fulvous, tending towards orange-brown rather than chestnut-brown, and contrasting markedly with remainder of upperparts and tail; supercilia off-white and fairly prominent, extending about 9 mm behind eyes and terminating in point; slight dark eye-streak, marginal on lores; ear-coverts slightly browner than upperparts.

**WINGS** Generally pale greyish-brown, darker than mantle and back; primaries and primary coverts uniform and darkest, slightly paler on outer webs; secondaries with sandy-olive fringes to outer webs, greater coverts tipped sandy-olive; alula dark brown, with buffish-white outer fringes (two of these feathers missing on left wing); most remiges heavily abraded.

**TAIL** Single remaining feather (which one not determined) sandy-brown, paler than primaries (new feathers in pin not noted

when tail measured, but this point not checked specifically).

**UNDERPARTS** Chin, throat, centre of breast and belly silvery-white, with greyish feather bases showing through on breast and belly, and slight buff wash on sides of breast and flanks; undertail- and underwing-coverts off-white.

**BARE PARTS** Upper mandible blackish-horn, pale pink on cutting edge; lower mandible pinkish-horn, with tinge of yellow at base; terminal 0.5 mm of bill pink. Interior of mouth yellowish; three prominent, blackish rictal bristles. Tarsus fleshy-brown or pale purplish-brown, slightly paler to the rear; soles yellow. claws pale horn. Iris olive-brown.

**WING FORMULA** 4th primary longest, 3rd—0.5 mm, 5th—1.0 mm, 6th—2.0 mm, 7th—4.0 mm, 8th—5.0 mm, 2nd—6.5 mm, 10th—10.0 mm; 1st reached tip of longest primary covert; 3rd, 4th and 5th emarginated on outer webs; notch on inner web of 2nd 10.5 mm, and on 3rd 9.0 mm.

**MEASUREMENTS** Wing 53 mm; bill (from skull) 13.5 mm, (from feathering) 8.5 mm; bill width (at feathering) 4.0 mm; tarsus 19.5 mm; hind claw 4.0 mm; tail (single remaining feather) 46 mm.

## Discussion

The lack of available literature was a problem, as were the conflicting opinions of observers with previous experience of Paddyfield Warbler abroad, who thought that the bird was 'not rufous enough' for that species; it also appeared a lot paler than the illustrations in Bruun &

Singer (1975) and Heinzel *et al.* (1974). Subsequent research revealed considerable confusion. The abraded plumage showed that the bird was an adult, and the progressive loss of its tail feathers that it was in moult. Unfortunately, time did not permit a full examination for moult when the bird was trapped, but the photograph of the spread wing (plate 34) shows that the inner primaries were definitely old, since abrasion of the tips is quite prominent: the typical sequence of primary moult in small passerines is from the innermost primary outwards (Snow 1967), so, although the second and perhaps the 3rd and 4th appear to be in good condition, it is most likely that all the primaries were old. If so, the *relative* lengths of individual feathers should have been unaffected, unless wear had occurred differentially.

According to Williamson (1968), the Paddyfield Warbler's wing and tail moults take place in the wintering area very soon after arrival, but it must be unusual for all the tail feathers to be lost so rapidly, without replacements appearing sequentially and in advance of any primary moult. One may speculate whether this was caused by physiological stress associated with displacement, or whether the bird was simply 'overtaken by events' and prevented by onset of tail moult from continuing its migration.

Whatever the explanation, it is unlikely that moult affected the measurements: with the aid of Svensson (1975) and Williamson (1968), these were used to demonstrate that virtually all possible species but Paddyfield Warbler could be excluded. Four points, however, did not entirely support this diagnosis: (1) the tip of the second primary fell between the 8th and 10th, instead of between the 5th and 8th primaries; (2) the length of the notch on the 2nd primary was 0.5 mm and 1.5 mm shorter than the minima given by Svensson and Williamson respectively; (3) the bill to feathering measurement was 1.0 mm shorter than Svensson's minimum; and (4) the tarsus was 0.5 mm shorter than Williamson's minimum recorded measurement, although within his calculated theoretical range for the species. These last two points are not necessarily very significant since, together with the wing length, they may merely indicate that the bird

34. Spread wing of  
Paddyfield Warbler  
*Acrocephalus agricola*,  
Isles of Scilly, October  
1974 (D. B. Hunt)



was a particularly small individual; this, or excessive abrasion of the feather, could account for the short notch on the 2nd primary. More importantly, the relative position of the tip of the 2nd primary is the chief diagnostic feature of Swinhoe's Reed Warbler *A. concinens* (also known as Blunt-winged Warbler), which is said to be 'probably indistinguishable in field from Paddyfield' (King *et al.* 1975). It is treated as conspecific with Paddyfield by some authorities (e.g. Dementiev & Gladkov 1954), who recognised six subspecies, but Vaurie (1959) and Williamson (1968) considered it a separate species. Three races are recognised: *concinens* from north China, wintering in southeast China; *stevensi* from Assam, wintering in Burma; and *haringtoni* from north Afghanistan and Kashmir, wintering in northwest India. The colour differences, however, are rather slight, and there are considerable overlaps in wing lengths and wing formulae (Williamson 1968).

The probability of *stevensi* reaching western Europe must be negligible, but the possibility of vagrancy of the other two races, although remote, cannot be dismissed. The 1st primary of *haringtoni* is 4.8 mm longer than the primary coverts, and the 2nd 7-10 mm shorter than the wing point, so this race can be excluded. In *concinens*, the length of the notch on the 2nd primary (13-14.5 mm) exceeds that of the Scillies bird, and other, even more marginal, differences in length of bill, tarsus and 10th primary can be detected by careful study of the details in Williamson (1968).

The remaining three forms, *agricola*, *brevipennis* and *tangorum*, were considered by Vaurie to be races of the Paddyfield Warbler. Williamson, however, believed this to be a monotypic species with two colour phases: *agricola*, a bright rufous; and *brevipennis*, of a worn duller appearance; he considered *tangorum* to be a race of yet another species, Schrenk's Sedge Warbler *A. bistrigiceps* (also known as Black-browed Reed-warbler). Doubtless, the Scillies individual was Williamson's *brevipennis* phase.

It seems that part of the initial difficulty with the Scillies bird in the field was due to a lack of awareness on the part of observers—ourselves included—of just how pale an adult Paddyfield Warbler can appear in autumn. Illustrations in the current field guides, while adequate for plumages during most of the year, could be misleading for a worn autumn adult.

Wallace (1973) discussed the separation of Paddyfield from Blyth's Reed Warbler *A. dumetorum* in the field. The possibility of the latter was raised, but later rejected, because that species has a longer bill and less conspicuous head pattern. Leucistic Sedge Warbler was dismissed by some observers for reasons already stated, and leucistic Moustached Warbler *A. melanopogon* was similarly rejected since that species has a louder call, shorter tail and darker legs. We concluded that the bird was a Paddyfield Warbler because, together with the hand measurements, our field observations on (a) the general paleness, (b) head pattern, (c) short bill, (d) short wings and long tail and (e) general behaviour eliminated all other *Acrocephalus* warblers.

After prolonged study, the Rarities Committee accepted the record (Dymond *et al.* 1976); although described as the fifth British record, its discovery on 30th September actually preceded that of the other individ-

ual in 1974, an immature at Low Hauxley, Northumberland, on 12th October (Smith *et al.* 1975). The three previous records were on Fair Isle, Shetland, from 26th September to 1st October 1925 (Stenhouse 1925) and on 16th September 1953 (Williamson 1954), and at Hartlepool, Durham (now Cleveland), from 18th to 21st September 1969 (Smith *et al.* 1972). As the first was collected and the other three trapped, all records of Paddyfield Warbler in Britain have hitherto concerned birds solely examined in the hand; we believe that there is no reason why the next should not be identified in the field.

### Acknowledgements

We wish to thank P. Z. Mackenzie and the Nature Conservancy Council for allowing us to trap the bird and for information on the local plant community. D. B. Hunt kindly provided the photographs. We thank B. A. E. Marr and M. J. Rogers for their constructive criticisms of an earlier draft and, especially, R. B. H. Smith for supplying the hand description and measurements, in addition to most of the 'Discussion' section. MJR helped in the field and typed the final draft.

### Summary

A Paddyfield Warbler *Acrocephalus agricola* was present on St Mary's, Isles of Scilly, from 30th September to 15th October 1974, when it was trapped. A day-by-day account is presented of the difficulties encountered in its identification. Details of this process, and that of eliminating other possibilities, are given. The head pattern, short bill, short wings, long tail and behaviour were important points, and the general paleness (in worn autumn plumage and moulting) indicated that it belonged to the pale phase *brevipennis* (Williamson 1968). The record has been accepted by the Rarities Committee.

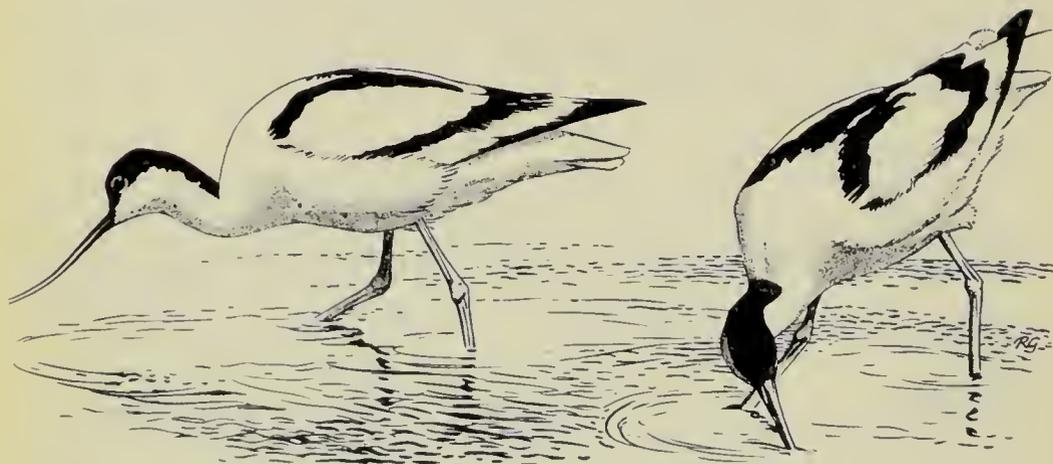
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# Avocet population dynamics in England

*G. J. Cadbury and P. J. S. Olney*



**Emblem of the RSPB and almost wholly confined as a British breeding bird to two of that society's reserves, the Avocet has been much studied since its recolonisation of Suffolk in the 1940s**

**U**ntil the early 19th century, Avocets *Recurvirostra avosetta* bred regularly—but perhaps not commonly—on the east coast of England, from the Humber to Kent, and in southeast Sussex. In 1818, they still nested on Orfordness, Suffolk, close to the present-day breeding site on Havergate Island (Ticehurst 1932). Breeding apparently ceased in Norfolk in the mid 1820s (Riviere 1930); at the mouth of the Trent, north Lincolnshire (now Humberside), in about 1840 (Smith & Cornwallis 1955); and on Romney Marsh, Kent, in the mid 1840s (Harrison 1953). The collecting of eggs and specimens may have been ultimately responsible for this temporary extinction (Axell 1977). Then, for about 100 years, there were only two or three breeding records: an attempt in Suffolk in 1882, and possibly another in 1893; and, unexpectedly, one in Co. Wexford in 1938. Recolonisation of eastern England began in the early 1940s, when public access to coastal areas was restricted. Avocets bred in Norfolk in 1941 (Scago 1967), and in Essex in 1944 and probably in 1953 (Hudson & Pyman 1968). Suffolk was recolonised in 1947, when four pairs nested at Minsmere and four or five on Havergate Island (Brown & Lynn-Allen 1948). Most of the English population continues to breed at these two sites: during the 1968-72 *Atlas* survey, Avocets were confirmed breeding in five 10-km squares in Suffolk, with possible breeding in Norfolk and Lancashire (Sharrock 1976).

The Avocet has a disjunct breeding distribution, mainly in the steppe regions of the southern Palearctic, with pockets in the west, including the Mediterranean. It now breeds regularly in Cape Province, South Africa,

and irregularly in East Africa, where large numbers winter (Voous 1960, Mackworth-Praed & Grant 1962). In 1969, the estimated breeding population in northwest Europe was 10,280 pairs, with most in the Netherlands (41%), the German Federal Republic (27%) and Denmark (24%); Sweden held 6%, and 130 pairs in England represented 1.3%, while the German Democratic Republic and the Atlantic coast of France had even smaller proportions (Tjallingii 1970). The recolonisation of England can possibly be related to an increase in the northwest European population: in Denmark there was a 200% increase from 750 pairs in 1920 to 2,300 in 1970 (Dybbro & Jørgensen 1971). In Estonia, breeding was first suspected in 1962, and by 1972 there were 42 pairs (Kallas 1974).

Apart from accounts covering the first few years after the recolonisation of Suffolk (Brown & Lynn-Allen 1948; Brown 1949, 1950), the only detailed published information on this relatively well recorded population has been by Conder (1962) and Olney (1965). This paper aims to collate the data available for the 31 years 1947-77 on the breeding numbers and fledging success of Avocets in Suffolk, and to consider the dynamics of this population.

Havergate and Minsmere are only 21 km apart. The former is situated on the estuary of the River Alde and its embanked lagoons are subject to some flooding with saline water. At Minsmere, the shallow water areas frequented by Avocets are largely artificially created by excavation and manipulation of water levels; the 'Scrape', a series of shallow, brackish pools with islands, has no adjoining estuary.

## **Methods**

Since it was assumed that most failed nests were replaced, the annual breeding population was calculated by subtracting the number of failures up to mid June from the total nests. In the three breeding seasons 1970-72, a total of 125 half- or three-quarter-grown young Avocets was ringed at Minsmere; a further 24 were ringed at Havergate between 1971 and 1973. All but nine were marked with a plastic (darvic) ring above the tibio-tarsal joint of the left leg and a monel BTO ring in the same position on the right leg, different colours distinguishing young from the two colonies and in the different year groups. Almost all fledged successfully.

## **Breeding population and productivity**

The numbers of Avocet pairs breeding at Havergate and Minsmere since 1947 are shown in fig. 1 and table 1. The Havergate population increased steadily to 97 pairs in 1957, declined to 48 by 1964 and then recovered to reach 118 pairs in 1969; subsequently, it has fluctuated between 84 and 112 pairs. The initial colonisation of Minsmere in 1947 was associated with flooding of the area; conditions, however, became unsuitable and, although eight birds returned in 1948 (Axell 1977), none bred there again until 1963, following the creation in the previous year of the first 5 ha of the Scrape; thereafter, there were annual increases and the total reached 53 pairs in 1977. The rate of increase at Minsmere ranged from

**Table 1. Breeding population and breeding success of Avocets *Recurvirostra avosetta* in Suffolk**

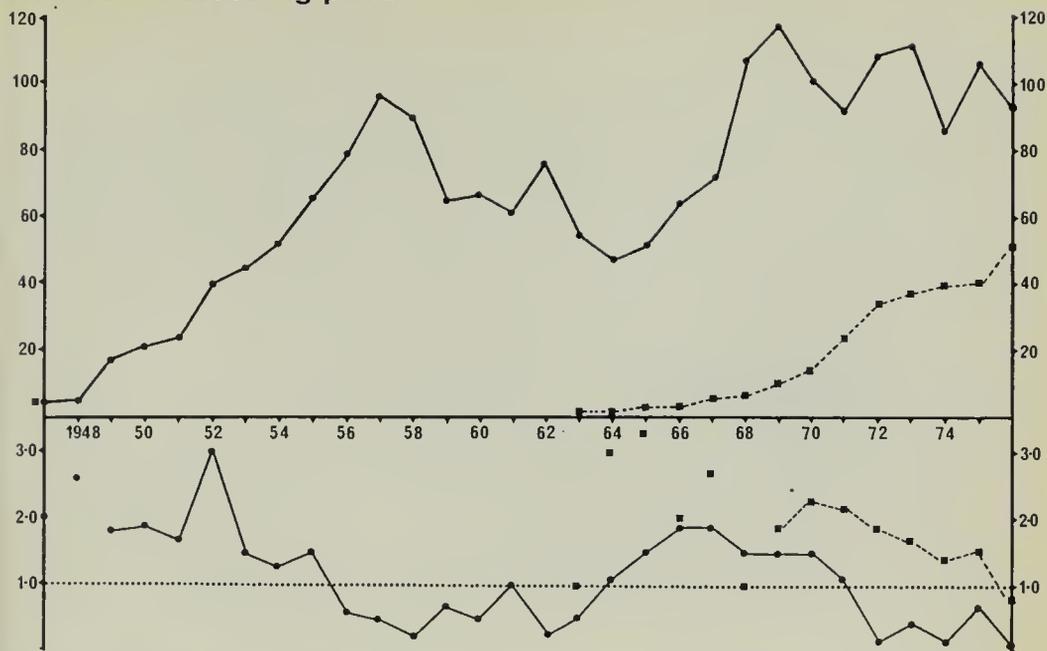
H = Havergate; M = Minsmere

	BREEDING PAIRS (+NON-BREEDERS)				YOUNG REARED			AV. YOUNG REARED/PR	
	H	M	Others	Total	H	M	Others	H	M
1947	4	4		8	8	1		(2.0)	(0.3)
1948	5		1	6	13			(2.6)	
1949	17			17	31			1.8	
1950	21			21	40			1.9	
1951	24			24	40			1.7	
1952	40			40	120			3.0	
1953	45			45	67			1.5	
1954	52			52	c.70			1.3	
1955	66			66	c.100			1.5	
1956	79			79	c.50			0.6	
1957	97			97	c.50			0.5	
1958	90			90	31			0.3	
1959	65			65	44			0.7	
1960	67			67	35			0.5	
1961	62			62	60			1.0	
1962	77		1	78	20			0.3	
1963	55	1		56	29	1		0.5	(1.0)
1964	48	1 (+1)		49	52	3		1.1	(3.0)
1965	52	3 (+1)		55	78	10		1.5	(3.3)
1966	65	4		69	124	8		1.9	(2.0)
1967	73	6		79	139	16		1.9	(2.7)
1968	108	7 (+2)	1	116	162	7	1	1.5	(1.0)
1969	118	11 (+2)	3	132	178	21	1	1.5	1.9
1970	102	15	4	121	175	34	2	1.5	2.3
1971	93	25	7	125	103	55	3	1.1	2.2
1972	110	35 (+3)	4	149	25	66		0.2	1.9
1973	112	38	4	154	50	66	1	0.4	1.7
1974	86	40	7	133	6	57	2	0.1	1.4
1975	107	41	9	157	80	62	4	0.7	1.5
1976	95	51	3	149	12	46		0.1	0.9
1977	84	53	1	138	1	3	4	0.1	0.1

36% to 67% during 1969-72, but between 1972 and 1975 declined markedly to less than 10%. Displacement from drought-affected areas may have accounted for the 24% (ten pairs) increase in 1976, when little rain fell over much of northwest Europe during the first eight months of the year.

Table 2 shows the number of Avocets breeding at Minsmere compared with the availability of suitable feeding and nesting habitat resulting from developments on the Scrape. The most rapid growth occurred between 1968 and 1973, when the Scrape was enlarged from 10.3 ha to 20.5 ha and the number of islands increased from 31 to 50. Subsequently, there has been little increase in either (Axell 1974, 1977); other possible effects of this are discussed later. Elsewhere on the Suffolk coast, one pair probably bred in 1948 and another in 1962. Since 1968, Avocets have bred at five sites in Suffolk away from the two reserves—at some regularly—but the

## Number of breeding pairs



## Average number of young reared per breeding pair

Fig. 1. Breeding populations of Avocets *Recurvirostra avoetia*, and average number of young reared per pair, at Havergate (dots and solid lines) and Minsmere (squares and broken lines), Suffolk, 1947-76. Average annual rates of change of whole Suffolk population: 1949-57,  $+25\% \pm 17\%$ ; 1957-64,  $-8\% \pm 11\%$ ; 1964-77,  $+9\% \pm 12\%$ . Average number of young reared per pair: 1949-77,  $1.1 \pm 0.7$ ; 1969-77,  $1.5 \pm 0.7$

**Table 2. Population of Avocets *Recurvirostra avoetia* at Minsmere in relation to area of the 'Scrape' and number of islands**

Under 'Total area', figures are approximate, since earthmoving in some areas took more than one year; number of islands not known for all years

	Total area (ha)	Total no. of islands	Breeding pairs (+ non-breeders)
1962	Started		
1963	4.9	6	1
1964	5.7	25	1 (+1)
1965	9.0	25	3 (+1)
1966	10.3		4
1967	10.3		6
1968	10.3		7 (+2)
1969	12.3	31	11 (+2)
1970	13.9		15
1971	15.6		25
1972	16.4		35 (+3)
1973	20.5	50	38
1974	20.5		40
1975	20.5	55	41
1976	20.5		51
1977	20.5		53



total number of pairs has not exceeded nine in any year (table 1). By 1975, the Suffolk breeding population had reached 157 pairs. The average annual rate of change was +25% during 1949-57, -8% in 1957-64 and +9% in 1964-77; over the whole period, there was an annual increase of  $10 \pm 14\%$ . The greatest change between years (excluding 1948-49) was an increase of 37 pairs (47%) from 1967 to 1968.

Details of the total number of young fledged and the average number reared per breeding pair each year are shown in table 1. The mean annual average for the Suffolk population as a whole was 1.1 (1949-77), with 1.1 for Havergate (1949-77) and 1.5 for Minsmere (1969-77). At Havergate, there were two periods (1956-63 and 1972-77) when the average number of young reared per breeding pair did not exceed 1.0; in 1958 and 1962, and five of the six years 1972-77, it was below 0.5. By contrast, at Minsmere, the only years since 1969 in which it fell below 1.4 were 1976, a summer of exceptional drought, and 1977, when there was a prolonged spell of cold weather in May and June and particularly heavy predation of the young. Reasons for the differences and fluctuations will be discussed by Cadbury *et al.* (in prep.). An average output of 1.1 young per pair has been exceeded at Havergate in only 13 of the 29 years (1949-77) in which more than ten pairs bred, but has been achieved in all but two of nine years since 1969 at Minsmere (table 1).

## Ringing results

### *Age of first breeding*

Details of ringed Avocets seen at the Suffolk colonies in the breeding season are shown in table 3. Of the 140 young colour-ringed in Suffolk,

**Table 3. Colour-ringed Avocets *Recurvirostra avosetta* summering in Suffolk**

Numbers expected alive are calculated assuming a survival rate of 0.40 in the first year and 0.90 in subsequent years; nb = non-breeders

	AGE CLASS						
	1-yr	2-yr	3-yr	4-yr	5-yr	6-yr	7-yr
No. of ringed birds (no mortality)	140	140	140	140	140	87	22
Ringed birds expected alive	56nb	50 (8nb)	45	41	36	21	5
Ringed birds observed in Suffolk	10nb	13 (2nb)	13 (2nb)	9	9	15	4
Ringed birds observed at natal colony							
Havergate	1nb	1nb	2nb	1nb	1	—	—
Minsmere	5nb	9 (1nb)	7	4	5	10	2
% observed Suffolk expected alive	17.9	26.0	28.8	22.0	25.0	71.5	
% observed natal colony expected alive	10.7	20.0	20.0	12.2	16.7	47.6	

**35 & 36.** Top, part of large flock of Avocets *Recurvirostra avosetta* in flight, Netherlands, September 1975 (*Jan van de Kam*); bottom, Avocet, Havergate Island, June 1976 (*Michael W. Richards*)



37. Adult Avocet *Recurvirostra avosetta* feeding, Netherlands, April 1973 (Jan van de Kam) only 7% returned in their first summer after fledging and none bred. Unless they had overwintered, these immatures arrived later (end of April to late May) and departed earlier (before mid June) than the majority of established breeders, which tended to arrive between mid March and mid April and depart in July and August; some paid only fleeting visits to the colonies, but others formed a temporary pair bond and even attempted copulation. Evidence of their somewhat nomadic life is provided by a Minsmere-ringed Avocet which spent the first week of June with five unringed individuals on the north Norfolk coast, 106 km northwest of Minsmere (*Norfolk Bird Rep.* 1972). It is possible that six Avocets observed in June 1976 on the Tamar estuary, Cornwall/Devon, normally a wintering area, were immatures (F. Edwards *in litt.*).

The proportions breeding in their second, third and fourth summers were only 8%, 8% and 6% respectively of the total ringed as young; there were also two second-summer non-breeders. Of a minimum of 17 that returned to Suffolk when two to four years old, 11 (65%) bred for the first time in their second summer after fledging. At Minsmere, a third-year male paired with a second-year female. Boyd (1962) considered the age of sexual maturity to be between two and three years.

#### *Fidelity to natal and breeding sites*

Colour-ringing demonstrated that there was some interchange between Havergate and Minsmere. Of the Avocets ringed as young at the latter site, at least eight returned there to breed for the first time, while a minimum of four moved to Havergate. In addition, one was first recorded breeding at Havergate when five years old, but it may have already bred at Minsmere; another bred in a small satellite colony nearby. Of those ringed at Havergate, only one has bred there. One moved to Minsmere for its initial breeding attempt when three years old. On this evidence, Avocets seem not to exhibit strong attachment to their natal site when breeding for the first time. Edelstam (1971) recorded the recoveries of four adults in the breeding season 140-310 km from where they had been

ringed in Sweden as young.

Without markings to facilitate recognition of individuals in the field, it has not been possible to collect much information on tenacity to breeding site. At Minsmere, however, what was almost certainly the same ringed male occupied a particular feeding and nesting territory for six summers in succession from the age of two. Moreover, on limited evidence, there was little change in the numbers of certain year groups breeding at Havergate and Minsmere in their second, third, fourth and fifth years after fledging. In 1977, however, there was an influx of 11 six-year-olds that had been ringed at Minsmere: only four of this age class had been recorded in 1976, and the maximum for any previous breeding season was seven when four years old.

#### *Passage and wintering areas*

The presence of colour-ringed Avocets in the high-tide roost on Havergate Island between early July and the end of October indicated that both adults and juveniles from Minsmere joined those from Havergate in the post-breeding period to feed in the Alde estuary and Butley Creek.

Besides one local recovery of a first-autumn bird, there have been four recoveries from the Continent (fig. 2): from the Netherlands (first-autumn); and (in autumn or early winter) from north Spain, south Spain and Portugal. The Netherlands recovery was from Zuidelijk Flevoland, where up to 4,500 Avocets have been recorded during the autumn passage (van Poelgeest & Osieck 1974). So far, there is no evidence that the English population uses the Dollart in northeast Netherlands, where up to 25,000 Avocets—75% of the northwest European population—congregate in late summer and autumn (Braaksma *et al.* 1969, Spitz 1969).

Ringing recoveries have shown that Avocets from Sweden (Edelstam 1971) and the Netherlands (Bannerman 1961, Speek 1973, and annual reports of the Vogeltrekstation, Arnhem, published in *Limosa*) winter

38. Avocet *Recurvirostra avosetta* with nest and four eggs, Havergate Island, June 1950  
(Eric Hosking)



★ Natal site   ● Recovery   ⊛ Sighting

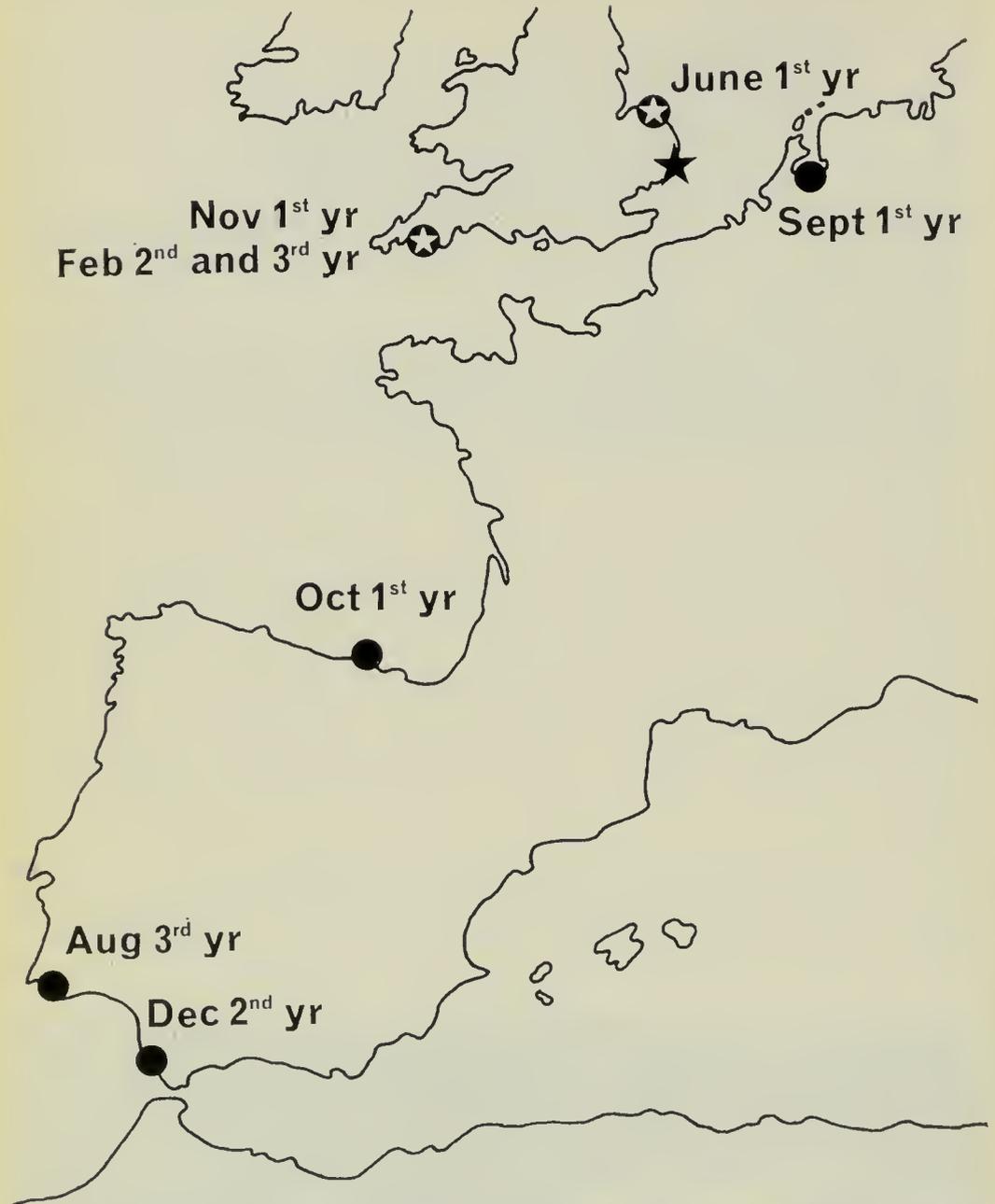


Fig. 2. Movements of Avocets *Recurvirostra avosetta* ringed as unfledged young in Suffolk (data for 1970-77)

mainly on the Atlantic coast of France and southwestern coast of Iberia, although there are a few recoveries from North Africa and one from West Africa: 10,900 recorded by Prater & Grieves (1975) in January 1975 on the coastal marshes of Portugal represented about 80% of those wintering in Europe. It might be expected that some—if not most—of the English population winter in the same region.

A few Avocets overwinter in northwest Europe. In the Netherlands, about 100 were recorded in midwinter in the Delta area in the southwest

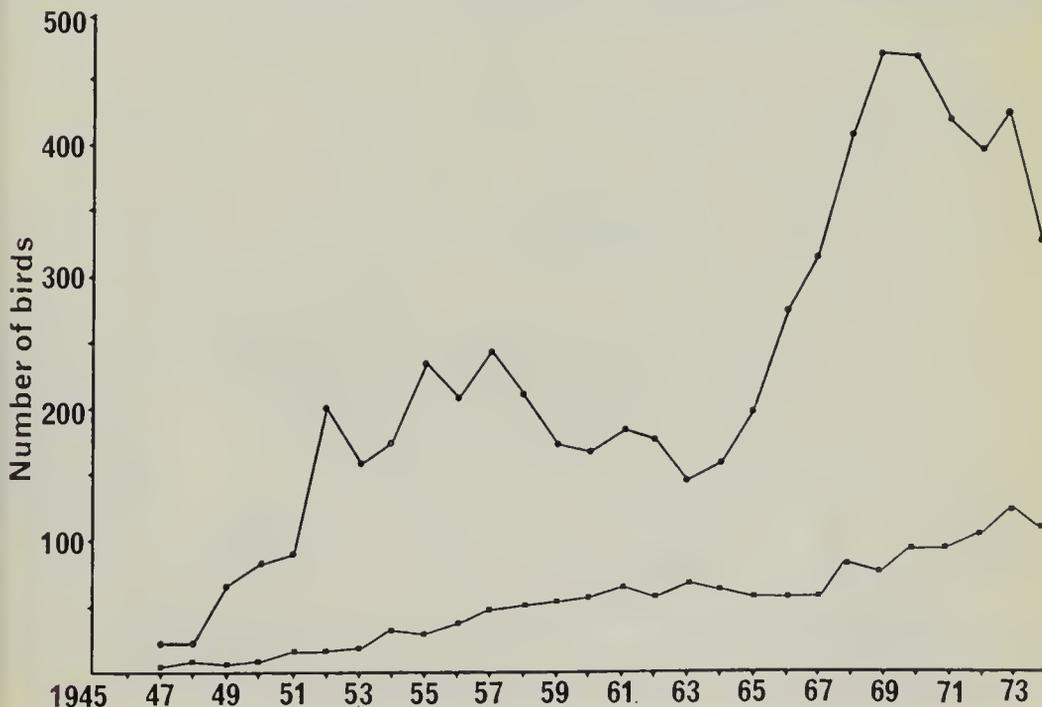
**Table 4. Avocets *Recurvirostra avosetta* wintering in Suffolk**

At Havergate, in 1972/73 two first-winter individuals, and in 1973/74 one second-winter, had been ringed as young at Minsmere

	1968/69	69/70	70/71	71/72	72/73	73/74	74/75	75/76	76/77
Havergate	3	3	3	6	9	10	15	20	15
Minsmere	1	—	—	1 Jan	2	1 Nov & Dec	1 Nov & Dec	—	—

during 1912-19 (van Oordt 1919); some still winter there (Woolf 1968) and in Zuidelijk Flevoland (van Poelgeest & Osieck 1974). One ringed as a chick in Denmark in 1941 was recovered freshly dead near the River Itchen, Hampshire, in January 1942 (BTO Ringing Office), but Avocets did not winter regularly in Britain and Ireland until 1947/48, when four were recorded; a trend for the number to increase has been accelerated by a succession of mild winters during 1971-76 (fig. 3). Of the total of 123 in winter 1973/74, 79 (64%) were on the Tamar and Tavy estuaries; 29 (24%) elsewhere in southwest England; two in Sussex; one each in Kent, Norfolk and Ireland; and 10 (8%) in the vicinity of Havergate, where there have been small but increasing numbers since 1968/69 (table 4). Havergate is the only area on the east coast of England where Avocets regularly winter: in 1972/73, two of the nine were in their first winter, and what was probably one of these reappeared in the following winter; colour-ringed first- and second-winter Avocets have been recorded on 55 and 77 bird-days respectively between 1st November and the end of February, while a known older individual has been identified only once within that period.

Fig. 3. Post-breeding (upper line) and wintering (lower line) populations of Avocets *Recurvirostra avosetta* in Britain and Ireland, 1945-76. Minsmere was recolonised in 1963



Colour-ringing of Avocets in Suffolk has confirmed a link between this breeding population and that wintering on the Tamar and Tavy. A Minsmere-ringed Avocet was observed in the November of its first winter (1971) on the Tamar, and one (if not the same individual, at least of the same year group) was recorded there in February of its second and third winters; in 1971, it was accompanied by two others which may also have been reared at Minsmere, judging from the position of a metal ring on their right legs (*Devon Bird Reps.* 1971, 1973, 1974).

#### *Immigration*

Between 1911 and 1974, a total of 7,722 Avocets was ringed in the Netherlands, the majority as young; of these, 1,722 were marked in the five years 1970-74 (Speek 1973, and annual reports of the Vogeltekstation). In 1964 and 1965, on Vlieland and in Noordholland, 91 adults were marked with celluloid or anodised metal colour rings above the tibio-tarsal joint. Some colour rings slipped below the joint and many of the celluloid ones were soon lost or discoloured, but, nevertheless, an Avocet with a celluloid ring was observed in the Netherlands in 1972 and one with an anodised ring in 1976 (A. A. Blok *in litt.*).

In spite of the relatively large numbers of Avocets ringed in the Netherlands, only seven provide evidence of immigration into the Suffolk population. One, identified through a telescope by its ring number, had been ringed as a chick on Vlieland and was breeding at Havergate in 1974, when 11 years old. Another, with a black or tarnished metal ring below the joint on the left leg (a position not used in Suffolk), bred at Havergate in 1972 and was observed there again at the beginning of the 1973 breeding season; it may have been one of the colour-marked birds from the Netherlands, since certain anodised rings appeared blackish in the field (black celluloid rings were also used, but the chances of one remaining in place until 1972 are small). A third possible immigrant, with an orange ring (a colour not used in Suffolk), was observed once in 1972 (red celluloid rings used in the Netherlands discoloured to orange: A. A. Blok *in litt.*). In 1977, at least four Avocets ringed abroad bred at Minsmere; two had what appeared to be yellow or gold anodised metal rings. The occurrence of what were probably Continental birds coincided with the breeding of additional Suffolk-ringed Avocets not present in previous years (table 3). Apart from an individual ringed as a chick in the Camargue, France, in May 1934 and shot in Essex in August of that year (Witherby 1936), there is no evidence of immigration from breeding populations in southern Europe.

#### **Causes of mortality**

At least two of the ringing recoveries from Iberia resulted from Avocets being shot, while an adult was shot in September on the River Alde. From an analysis of the recoveries of Avocets ringed as young in Sweden, Edlestam (1971) showed that shooting accounted for 32 of the 33 for which cause of death was recorded, most from wintering areas in France and Iberia. Such shooting pressure may be influencing the English and other northwest European breeding populations. Lack of protection may have



39, 40 & 41. Above, adult Avocet *Recurvirostra avosetta* with two young, Minsmere, June 1976 (Michael W. Richards); below, Avocet chasing Ringed Plover *Charadrius hiaticula*, Minsmere, June 1974 (Richard Hunt); bottom, interaction between Avocet and Shelduck *Tadorna tadorna*, Netherlands, July 1972 (Jan van de Kam)



prevented the species from breeding in Britain during much of the 19th and early 20th centuries.

At the end of March 1972, a first-year Avocet died of lead poisoning at Havergate, having ingested no fewer than 55 shot pellets. Presumably, it had picked these up when feeding in an area that had been heavily shot over. Olney (1960) and Thomas (1975) have shown that a number of species of waterfowl are subject to lead poisoning in Britain, mostly ducks (Anatidae) which grub for food in mud in shallow fresh water. Birds feeding in generally softer estuarine sediments appear to be little affected, possibly because pellets tend not to lie near the surface.

At least three Avocets wintering on the Tamar are known to have had fatal collisions with the 400-kv power lines which span the estuary in two places; another was injured. Overhead wires situated across flight paths used by waterfowl are well known to present hazards to them; most casualties on 400-kv lines appear to result from collisions with a single earthing wire suspended above the more visible conductors (Scott *et al.* 1972).

### Population dynamics of the Suffolk population

To assess whether the reproduction of the Suffolk Avocets is alone sufficient to sustain the population levels without immigration, the observed and expected numbers of breeding adults are compared (table 5). In calculating the expected figures, it was assumed that 65% of the birds bred for the first time when two years old and the rest when three.

Three different pairs of figures are used for first-year and adult survival rates. From 92 recoveries of Avocets ringed in northwest Europe, Boyd (1962) calculated a survival rate of 0.36 between fledging and the end of the first year, and one of 0.62 for adults. Using these figures, the observed population consistently exceeds the expected one to a significant extent; even though most Suffolk Avocets spend five or six months of the year in regions where they receive considerably less protection than in Britain, Boyd's figure for adult survival is clearly too low. A. J. Cavé (unpublished),

**Table 5. Observed and expected numbers of adult Avocets *Recurvirostra avosetta* breeding in Suffolk (1950-77) and at Minsmere (1969-77)**

It was assumed that 65% of the birds bred for the first time when two years old and the remainder at three. \* =  $P < 0.05$ ; \*\* =  $P < 0.01$

SURVIVAL RATE		AVERAGE % OBSERVED ÷ EXPECTED BREEDING ADULTS			
		Suffolk			
1st-yr	Adult	1950-57	1958-67	1968-77	1950-77
0.36	0.62 (Boyd 1962)	158.8 ± 20.9**	139.2 ± 26.6**	137.2 ± 20.7**	144.1 ± 24.1**
0.41	0.78 (Cavé unpub.)	110.8 ± 15.8*	102.4 ± 19.3	98.7 ± 14.3	103.5 ± 16.7
0.40	0.90	111.6 ± 15.1*	97.8 ± 18.6	97.0 ± 21.7	101.5 ± 19.3
		Minsmere			
		1969-72	1973-77	1969-77	
0.41	0.78	137.7 ± 23.3**	98.6 ± 8.5	115.9 ± 23.2	
0.40	0.90	134.0 ± 12.6**	92.6 ± 9.4	111.0 ± 24.1	

42. Avocet *Recurvirostra avosetta* calling in flight, Havergate Island, June 1950 (Eric Hosking)



incorporating more recent data for Dutch Avocets ringed as young, calculated a survival rate of 0.41 in the first year and 0.78 in subsequent years for birds found dead; for those shot, his corresponding rates were 0.50 and 0.72. When the first two survival rates (0.41 and 0.78) are used, the expected figures agree much more closely with the observed than do those computed from Boyd's. Limited information from colour-ringed Avocets in Suffolk (table 3) suggests that the adult survival rate exceeds 0.78: the observed numbers of six- and seven-year-old birds are higher than would be expected from 78% survival. Moreover, even at 0.78, each pair would have to rear an average of 2.4 young to compensate for adult mortality over two years, considerably more than the mean annual fledging success of 1.1 between 1949 and 1977. An average of 1.1 would achieve compensation when the adult survival rate is 0.90; when this figure is used, there is again fairly close agreement between observed and expected numbers over the 1958-77 period.

Over the 28 years 1950-77, the observed breeding population in Suffolk exceeded the expected one (assuming no emigration or immigration, and first-year and adult survival rates of 0.40 and 0.90) by an average of 1.4% per annum, and in only ten years was the difference significant ( $P < 0.05$ ). It appears that, at least in recent years, the Suffolk population has the potential to be self-sustaining.

At Minsmere, there was an excess of observed birds in all four years during 1969-72, and the difference is significant ( $P < 0.01$ ). By contrast, in four of the five years 1973-77, there was a deficiency of observed birds, and a significant difference ( $P < 0.05$ ) between observed and expected populations for the period (table 5), during which there was only a small increase in the availability of suitable habitat (table 2). This, and a tendency for both the average number of young reared per pair and the rate of increase of breeding pairs to decline (fig. 1), suggest that the Serape at its present extent may be reaching its carrying capacity for breeding Avocets.

Young reared at Minsmere in recent years have probably fledged at, on average, heavier weights than those at Havergate and may, therefore, have a higher survival rate (Cadbury *et al.* in prep.). Non-breeding two-year-olds may have a lower survival than breeders, although, for the Herring Gull *Larus argentatus*, differential survival does not extend to the second- and third-year immatures (Chabrzyk & Coulson 1976). There is

also likely to be some variation in adult survival.

Of the Avocets marked as young in Suffolk, only 18% of those expected to be still alive were recorded in the region when one year old. Many immatures may, however, spend their first summer after fledging south of the breeding area, as do immature Grey Plovers *Pluvialis squatarola*, Bartailed Godwits *Limosa lapponica* and Knots *Calidris canutus* (Minton 1976). The proportion of ringed Avocets that returned to Suffolk in their second to fourth summers represented about a quarter of those expected to be alive, and between 12% and 20% returned to their natal colony (table 3). These figures suggest that about three-quarters of the surviving Suffolk-reared two-year-olds breed outside Britain.

Ten out of 12 years in which an average of at least 1.4 young were reared per pair were followed by an increase of more than 20% in the Suffolk breeding population two years later; but only three out of ten years in which fledging success was less than 0.8 per pair were followed by a decrease of over 20% two years later (table 1). The Suffolk population as a whole has shown a general tendency to increase, in spite of apparent considerable emigration of immatures and, at Havergate, an average annual fledging success of less than 1.1 young per pair in 13 of the 29 years. It is probable, therefore, that immigration from the Continent has supplemented recruitment from locally reared young to maintain the population at its observed level, although so far there is little evidence of this from ringed birds. Boyd (1962) recognised a discrepancy between observed and expected populations of Avocets in Suffolk but was unable to ascertain whether this was due to adult survival being higher than he had calculated or to immigration. About 65% of the Herring Gulls fledged on the Isle of May, Fife, did not return there to breed, yet this colony was increasing at a mean rate of 13% a year between 1950 and 1971 (Chabrzyk & Coulson 1976). A rather similar situation may occur in the Suffolk Avocet colonies.

### Comparisons with other waders

#### *Site fidelity*

Soekkeli (1970a) has compared site tenacity in seven species of waders, and subsequently it has been studied in several others, but not the Avocet. This species appears to conform most closely with the Oystercatcher *Haematopus ostralegus*, the Ringed Plover *Charadrius hiaticula* and the Kentish Plover *C. alexandrinus*, which do not show a particularly strong attachment to the natal site, but tend to return to an area once they have bred there. In the case of the Little Ringed Plover *C. dubius*—a species with an ability to exploit newly created habitats—site fidelity is low among young and only moderate among adults. Young Lapwings *Vanellus vanellus* may breed for the first time some considerable distance from where they were reared. In contrast, several *Calidris* species exhibit strong site fidelity, at least among males, when first breeding (Hildén 1975).

#### *Adult survival rate*

Adult survival rates of waders, determined by studies of marked birds on

the breeding grounds, range from 0.59 in the Ringed Plover to 0.90 in the Oystercatcher. In several small *Calidris* species, it is between 0.75 and 0.79 (Boyd 1962, Harris 1967, Soekkeli 1970b, Hildén 1972). When size is taken into account, the estimated adult survival rate for Suffolk Avocets of between 0.78 and 0.90 is not markedly out of line with that of other waders, and comparisons support the view that Boyd's (1962) figure for adults of 0.62 is too low.

#### *Average lifespan and expectation of further life*

Assuming an adult mortality of 0.22, the average lifespan of breeding Avocets in Suffolk would be about seven years, but at only 0.10 it would be 12.4 years (average age =  $[1/\text{adult mortality}] + \text{age of first breeding}$ ). Since at least four of the breeding birds in 1977 were seven years old, a longer lifespan is probable. Two 13-year-olds have been recorded in the wild, in Sweden (Edelstam 1971) and in the Netherlands (A. A. Blok *in litt.*). The limited number of larger wader species for which data have been published show quite a wide range in average lifespan: Ringed Plover 3.5 to 4 years; Kentish Plover 4 years; Redshank *Tringa totanus* 4 to 4.5 years (Grosskopf 1964); and Oystercatcher 11.8 years on Skokholm, Dyfed (Harris 1967), and 15 years in Germany (Grosskopf 1964).

Expectation of further life of an adult Avocet is 4.1 or 9.5 years, depending on whether the survival rate is assumed to be 0.78 or 0.90 (when  $e = [1/\text{adult mortality}] - 0.5$ ). This compares with 8.3 years for the Oystercatcher (Harris 1967).

#### *Age of first breeding*

The Lapwing, Ringed, Little Ringed and Kentish Plovers all breed when one year old, while the Golden Plover *Pluvialis apricaria* and Redshank do so when two (Boyd 1962). In Suffolk at least, about 65% of the Avocets first breed when two years old, only a small proportion starting at three or four. For the Oystercatcher, Boyd gave the age as three, but Harris (1967) showed that most of the Skokholm population did not breed until four years old.

### **Relationship between breeding and wintering populations in Britain**

Although limited ringing recoveries of Suffolk-reared Avocets indicate that their main winter quarters are in Iberia, their relationship with the wintering population in Britain and Ireland, particularly with the flock on the Tamar and Tavy estuaries, is of interest. It may be fortuitous that Avocets were first recorded wintering on the Tamar following the 1947 breeding season in which they recolonised Suffolk. Both breeding and wintering populations have tended to increase (fig. 3). For all but one of the 12 winters between 1947 and 1959, the number wintering in Britain and Ireland represented less than 25% of the total of adults and juveniles in Suffolk at the end of the previous breeding season; for the next seven winters (1959-66) this figure was between 30% and 47%, subse-



43. Juvenile Avocet *Recurvirostra avosetta* feeding, Minsmere, August 1973 (G. StJ. Hollis)

quently falling to between 30% and 16%. There appears to be no clear relationship between post-breeding and winter population numbers. The growth in the proportion of Avocets wintering during 1959-66, and again in 1971-75, may be merely a reflection of relatively low fledging success at Havergate.

Of 140 Avocets colour-ringed as unfledged young in Suffolk, single individuals have been seen in only three winters on the Tamar/Tavy. Also, although most Avocets have left Suffolk before mid October, the first arrivals on the Tamar and Tavy are not until the end of that month and the flock does not build up until mid November; most have departed by mid February, about a month before the first return to Suffolk. In most years since 1950, transient parties of up to 25 have been observed on the south coast of England, particularly in Sussex, from mid March to the end of June (*Hampshire, Sussex and Kent Bird Reps.*), but these had probably wintered on the Continent.

### **The value of conserving the British population**

The Avocet cannot be considered a threatened species, when its world population is taken into account, and those breeding in England represent only about 1.5% of the northwest European population. It may, therefore be reasonable to question whether the British population merits high priority in conservation terms (Gooders 1976). Drury (1974), however, has argued that, for a species' long-term welfare, a number of fairly discrete populations, even at the edge of its range, may be important. Less hypothetical is the fact that estuary reclamation schemes could have a con-

siderable impact on the northwest European Avocets: Tjallingii (1970) considered that 75% of the Dutch population of 4,200 pairs were breeding in threatened areas. Since then, there have been some major changes, particularly in the Delta area of the Netherlands, but, fortunately, the threat to construct a canal across the Dollart has been averted for the time being.

Not only may the relative importance of the British population increase, but Avocets displaced by reclamation on the Continent may increasingly supplement Suffolk stocks. Since there is apparently considerable emigration from Suffolk, as well as continuing immigration, it is somewhat surprising that the two sites recolonised in 1947 still hold the majority of the British population and that breeding has occurred on few occasions in recent years outside Suffolk. Suitable breeding sites exist on the Norfolk and Essex coasts, if not elsewhere; indeed, one pair bred successfully in Essex in 1975 (Ferguson-Lees *et al.* 1977), and five pairs nested in Norfolk (two sites) in 1977. The present localisation may reflect how few areas are sufficiently free from human disturbance and protected from mammalian predators to support Avocets, a situation paralleled in the present distribution of *Sterna* terns in Britain (Bourne & Smith 1974, Lloyd *et al.* 1975).

Although relatively few Avocets reared at Havergate and Minsmere return there to breed, the production of fledged young at these two reserves may facilitate the founding of new colonies in Britain, should suitable sites become available. Indeed, the establishment of a regular breeding population at Minsmere in 1963 is likely to have been influenced by the close proximity of the Havergate colony, the creation of favourable habitat in the form of the Scrape, and the protection afforded by the reserve.

### Acknowledgements

This paper relies to a considerable extent on the meticulous records of Herbert Axell, warden of Minsmere Reserve from 1959 to 1975, and Jeremy Sorensen, his successor; and those of the late Reginald Partridge, warden of Havergate from 1949 to 1974, and John Partridge, his successor. They and their assistants are gratefully acknowledged for allowing us the use of data collected over such a long period. Frank Edwards kindly provided information on the Avocets wintering on the Tamar and Tavy. We acknowledge the BTO Ringing Office for providing data on ringing recoveries, and we thank Dr A. J. Cavé for allowing us to use results of his unpublished analysis. We are indebted to Mrs Penny Richards, who drew the figures, and to Mrs Annette Carlisle, Mrs Pamela Garner and Mrs Anne Smith, who typed from the manuscript.

### Summary

Details are given for the 31 years 1947-77 of the population size and fledging success of Avocets *Recurvirostra avosetta* breeding on the Suffolk coast. The average annual rate of change of the population was an increase of 25% during 1947-57, a decrease of 8% in 1957-64 and an increase of 9% between 1964 and 1977. The population in 1975 was 157 pairs, which represented all but one pair of the British stock, but only about 1.5% of that in northwest Europe. The two RSPB reserves, Havergate and Minsmere, where recolonisation first occurred, still hold the majority of the British breeding population. The ringing of 140 young with both BTO and colour rings, the latter indicating the year

group and natal colony, resulted in a number of field identifications of individuals and four recoveries from the Continent. From these and other calculations, the following conclusions are drawn:

(1) About 65% of Avocets in Suffolk breed for the first time in their second year after fledging, although 18% of those expected to be alive when a year old returned to Suffolk as non-breeders. (2) They do not exhibit strong attachment to the natal colony when first breeding: not only is there interchange between Havergate and Minsmere, but about three-quarters of the surviving two-year-olds apparently do not return to Suffolk to breed; once breeding has taken place, site fidelity is probably stronger. (3) Avocets from the two main Suffolk colonies intermingled in a post-breeding flock that roosted at high tide on Havergate Island. (4) British-reared Avocets winter in Iberia, where shooting may be an important cause of mortality. (5) Although Suffolk Avocets may occasionally winter on the Tamar/Tavy estuaries, Cornwall/Devon, there appears to be no clear relationship between the fluctuations of this wintering population and the breeding numbers in Suffolk.

It is estimated that the Suffolk Avocets would have to rear, on average, 1.1 young per pair each year to compensate for adult mortality, considered to be 10% per annum. Such productivity has been attained regularly at Minsmere (average 1.5), but in only about half the years at Havergate (average for 1949-77, 1.1). Excluding the effects of emigration and immigration, the Suffolk population has the potential to be self-sustaining.

The total Avocet population in Suffolk is increasing by an average of 10% a year. Immigration appears to be more than compensating for considerable emigration of immatures and the relatively low fledging success in many years at Havergate, but in recent years, at Minsmere, both the rate of growth of the colony and immigration appear to have declined, indicating that the area is reaching its maximum carrying capacity for breeding Avocets.

Attachment to breeding site, adult survival rate, lifespan of breeding adults, life expectancy, and age of first breeding of the Avocet and other waders are compared.

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# Mystery photographs

**15** It is June on the bank of a placid river. The Reed Warblers *Acrocephalus scirpaceus* sound characteristically grumpy and the Sedge Warblers *A. schoenobaenus* are swearing. Suddenly, a warbler produces a torrent of astonishingly melodious song, including phrases from other birds, such as Goldfinch *Carduelis carduelis* and Blackbird *Turdus merula*, but mostly with a rhythm quite different from any common British species. It has a green plumage tone and its bearing is rather reminiscent of a Blackcap *Sylvia atricapilla*, but on bill-shape alone it is obviously not a *Sylvia*. The choice seems to be



between another *Acrocephalus* and one of the *Hippolais* warblers. Since the throat is noticeably white, the rest of the underparts lack any clear yellow, and the green in the otherwise olive-brown upperparts is actually more a suffusion than a tone, both Icterine *H. icterina* and Melodious *H. polyglotta* can be ruled out. Perhaps it is a Marsh Warbler *A. palustris*, but some Reed Warblers are vastly superior songsters to most. So, it is back to colour and structure. The front of the supercilium and the eye-ring are more noticeable than is normal on Reed, and the fringes of the tertiaries and primaries are unusually sharp and bright; the legs and feet are pale flesh-brown rather than the usual grey-green of Reed. The differences do not form an obvious pattern, but they are there. Further, the wings are obviously long, with their folded points reaching to the end of the uppertail-coverts, and, in a very close view, at least seven well-spaced primary tips are visible: since Marsh has the longest and least fan-shaped wings of any small *Acrocephalus* in Europe in summer, the identification is at last complete. Even a vagrant Blyth's Reed Warbler *A. dumetorum* can be safely excluded: it has a reputedly finer voice than Marsh and an olive tone to its plumage, but its wings are decidedly short. A nearby Reed Warbler looks distinctly warmer in colour; its crown is more peaked and its belly less plump; its calls are full of 'r' and 'z' consonants, its song far more repetitive and hardly melodious; its wings are short, with only five close-spaced primary tips visible. Useful comments on the separation of Reed and Marsh Warblers were published in 1965 (*Brit. Birds* 58: 181-188, 473-478). Most field guide plates are unhelpful; those in *The Handbook* are trustworthy. The magnificent study of a Marsh Warbler on a stump (plate 27 on page 76 and shown reduced here) was obtained in the Netherlands by Hans Schouten in June 1972. DIMW

44. Mystery photograph 16. What is this species? Answer next month



## Personalities

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### 12 Dr W. R. P. Bourne

**H**aving known Bill Bourne for up to 30 years and having had the experience of working with him—continually being educated, often having to placate and sometimes being alarmed—how can we refuse to write a piece about him? The man is a legend and has been for years; there is certainly more, and possibly worse, to come. Stories of his energy, knowledge, eccentricity and unpredictability are probably mostly true.

He is reputed to have been interested in birds at primary school, but few of us had heard of him before he went to Cambridge. There, in the early 1950s, he was involved in the resurgence of the Cambridge Bird Club, which then included many well-known in ornithological circles today. Bill was one of the architects of an exploration phase involving studies of the fens and washes, and also of the club's interest in visible migration. He became involved in a major project on Skylark migration, and still looks forward to the day when Dr Ian Nisbet fulfils an undertaking to eat a copy of any published results. At Cambridge he read medicine and zoology, then finished his medical training at St Bartholomew's Hospital. Conscripted on completing his studies, he was declared unfit for service overseas, but—in typical Bourne manner—managed to get this decision reversed and was sent to the Middle East in time for the contretemps at Suez. There, he spent more time watching lark migration, and noted the ecological significance of Azraq in Jordan, before being transferred to Cyprus, where he became the co-founder and first recorder of the Cyprus Ornithological Society. In Cyprus, he discovered for himself that migrating birds could be seen by radar and, on his return to the UK, was invited by Dr David Lack to be 'a pair of eyes on the east coast' as part of a co-ordinated programme of the study of migration by radar. This was the beginning of Bill's acquaintance with Aberdeen, which in the long run has proved more profitable for him than his academic stint at Oxford. Although Oxford rejected his thesis on migration when he declined to write up the results in an acceptable form, it did provide him with Sheila, whom he wed after a prolonged courtship.



45. Dr W. R. P. Bourne (Mike Craig)

Bill returned to his medical career and became a dedicated and sympathetic geriatrician in Watford. This post allowed him time to continue his studies of birds, and that period, in the early 1960s, saw the ripening of a long-standing and profound interest in seabirds. He proposed the formation of the Seabird Group in 1961 and saw it launched in 1965, becoming its first secretary. This group of then mainly young enthusiasts owes much to Bill, who provided stimulus, knowledge, imagination and scholarship. He was frequently irascible and verbose, but his own enthusiasm and energy put seabirds on the map and provided a focus and guide for the activities of others in the field. People who remember Bill mainly for his diatribes and apparent introversion often forget, or may not know about, his whole-hearted and genuine interest in others, especially those who are young or newcomers to the field. This interest has produced an unusually wide and international circle of real friends and acquaintances, and has contributed substantially to the success of a number of surveys, notably the ornithological investigation of the *Torrey Canyon* disaster and the planning and execution of the fieldwork of Operation Seafarer, as well as the production of *The Seabirds of Britain and Ireland* (1974). In 1970, he was employed on a Natural Environment Research Council grant for five years to carry out studies of the distribu-

tion and ecology of birds at sea. This work, which was difficult in the extreme, was based in the Zoology Department at Aberdeen University and was in many ways a pioneer study demanding exceptional qualities of enthusiasm and persistence. For the last two years, Bill has been working again as a geriatrician, this time in Aberdeen.

Ever impatient and intolerant of what he considers to be ineffective leadership, he secured his uninvited elections to the Councils of the BTO (who asked him back) and the BOU (who did not) and, when nominated to the BOU Records Committee and the RSPB Scottish Committee, he resigned for similar reasons. He has considerable achievements to his credit: he proposed the Birds of Estuaries Enquiry, the Garden Birds Enquiry, a Winter Bird Survey (which he still thinks could be very successful), the Yorkshire Gull Enquiry, the Register of Ornithological Sites, the BTO's Witherby Lecturc series, and the publication by the BOU of its current series of national check-lists. He was a leading witness against the proposals to establish a military base on Aldabra and to build the Third London Airport at Foulness. He has found it difficult to accept that the ornithological studies which were initiated as a result of these protests should not have found a place for his own personal contribution. Islands are one of his main interests, and his knowledge of them and their birds is encyclopedic. This, and his deep involvement in the taxonomy of petrels, among other bird groups, are genuine reasons for his international reputation in both amateur and academic circles.

Bill has been in Aberdeen during the major phases of development of the North Sea oil-fields. Their potential effects on birds, especially seabirds, are clear to all, and Bill has been an indefatigable opponent of thoughtless proposals which might endanger valuable natural assets. He has been to see for himself many of the developments offshore and onshore. Desperately anxious to maintain and demonstrate his independence of action, he instantly changed the monogram on an anorak provided for him during a visit to BP's offshore installations to BB (Bill Bourne, not *British Birds*). His views are freely given in letters to the local and national press, in television and radio interviews, and in critical commentaries in editorials and correspondence columns of professional journals. He continues to be a thorn in the flesh of the Establishment, but recipients of his caustic comments are unwise to dismiss them lightly.

People tend to love or to hate Bill. They may try to ignore him, but this usually works only if he ignores them too. His very real qualities of compassion and generosity are often hard to find, but they are always there. He didn't speak to one of us for months until, when in hospital for an operation, Bill was his most frequent visitor, sometimes coming twice daily, often armed with booze with which to bribe the night nurses so that he could stay long after visiting hours. His friends know that, when they are in trouble, Bill will do all he can to help.

Bill Bourne is an enigma, a classic stormy petrel, but an original and commanding character in an era when it is fashionable to conform.

DAVID JENKINS and GEORGE DUNNET

# Notes

## Diving times of Great Northern Divers on the sea

On 24th January 1977, at Tronda, Shetland, I recorded the almost synchronous diving times of two Great Northern Divers *Gavia immer*. The sea was completely calm and the light conditions ideal for making observations. The second bird always dived and surfaced within five seconds of the first, except once, when they dived ten seconds apart. Because I could not distinguish the two individuals, I timed dives to the nearest five seconds from when one dived until one surfaced. Observations were continuous between 11.00 and 11.50 GMT, except for a few minutes when the birds moved into shadow. The diving rates and times are set out in table 1. When compared with P. Carter's observations on fresh water at Chew Valley Lake, Avon (*Brit. Birds* 69: 495-497), the rate is lower by over two-thirds, the median dive is three to four times longer, and the median period between dives about four times longer. From casual observations in Shetland over the last few winters, the times I recorded seemed about normal for this species on the sea: my impression has been that dives of up to two minutes are not unusual.

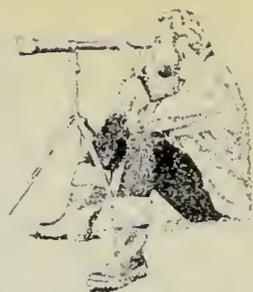


Table 1. Diving rates of two Great Northern Divers *Gavia immer* at Tronda, Shetland, in January 1977

	Duration (mins.)	No. of dives	Diving rate (no./hr)	% time submerged	Median dive (secs.)	Median between dives (secs.)
Period 1	16.25	9	33	72.8	90	30
Period 2	30.42	18	35	62.7	60	35

The diving rates for the two periods in table 1 are similar, but there is a difference in length of median dive and amount of time spent on the surface; dives ranged from 15 to 95 seconds, with frequency peaks around 50 and 90 seconds. The duration of periods between dives ranged from 15 to 85 seconds, with a peak around 35. The longest dives always occurred when the two birds remained over a particular spot for several dives; shorter ones were accompanied by movement of up to 28 m between them. If the duration of dives and periods between are plotted sequentially, a pattern emerges (fig. 1): a period of dives with short rests, followed by a series of shorter dives, then several longer rests before a gradual increase in longer dives. The six consecutive long dives at the start were in the same area; the birds then moved continuously between dives until after the first rest of over 60 seconds. Of the subsequent longer dives, which were less regular, fewer were made over one position, and the birds appeared to be sampling every 10 or 20 m. Repeated diving over the same spot would seem to indicate concentration of food, and the number of dives may relate to the amount or to the difficulty in attaining it.

The first bird to dive (possibly the same one consistently) spent part of the time on the surface before each dive with its head submerged, but the second one never did; it would be fairly easy for the latter to find its partner which had already located an interesting spot. Apart from

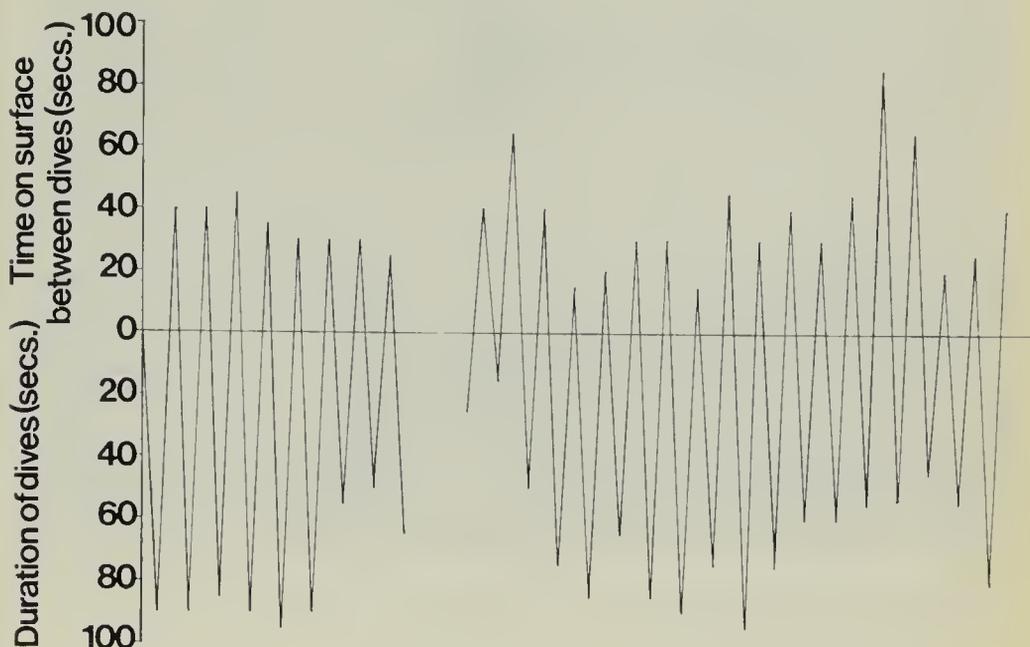


Fig. 1. Pattern of dives and periods between dives of two Great Northern Divers *Gavia immer* at Tronda, Shetland, in January 1977. The gap indicates a break of several minutes in the observations

social considerations, synchronised diving might be a clue that the two actively co-operate under water to obtain food. It was noticeable that the first to surface appeared to look for the second, that the two then moved closer together, and that the first to dive again did so in front of the second.

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**Bill colour of Great Northern Diver** An adult Great Northern Diver *Gavia immer* was present at Pembury Reservoir, Kent, from 3rd to 10th November 1977, when it was found dead; it was photographed by GH on 4th. For most of the time, it appeared to have an all-pale bill, which even appeared uptilted at times (plate 46), initially raising the possibility of White-billed Diver *G. adamsii*. At some angles, however, and especially at close range, the bill colour and shape looked typical of Great Northern (plate 47). The bill colour of the dead specimen (now in the collection of the Harrison Zoological Museum, Sevenoaks, Kent) was blackish, with a slightly greyer base, and the apparent paleness in the field was clearly an illusory effect of light on the rather glossy surface. Photographs of two immature Great Northern Divers in the paper on White-billed Divers in Britain by D. M. Burn and J. R. Mather (*Brit. Birds* 67: 257-296) show largely pale bills, but it seems of interest that this can also be apparent in



46 & 47. Great Northern Diver *Gavia immer*, Kent, November 1977. Top, bill appearing wholly pale and tip-tilted; bottom, bill appearing typically dark (Guy Harrison)

adults, and that even the dark culmen ridge may not always be obvious. This emphasises the need for caution when identifying White-billed Divers on bill colour alone: clearly the other field marks of the species (described in the paper by Burn and Mather) should also be carefully checked.

P. J. GRANT and GUY HARRISON  
14 Heathfield Road, Ashford, Kent TN24 8QD

**White-tailed Plover resting on its tarsi** With reference to Geoffrey Boyle's note on Lapwings *Vanellus vanellus* resting on their tarsi (*Brit. Birds* 70: 458), I noticed similar behaviour by the White-tailed Plover *Chettusia leucura* at Packington, Warwickshire, on 14th July 1975 (*Brit. Birds* 70: 465-471). When resting in this way, the White-tailed Plover's tarsi and toes stretched in front of it to about the level of the tip of its bill and its body was kept far enough off the ground by its fibulae for it not to look unusual. Could resting in this manner be regular among other related plovers?

RICHARD J. FAIRBANK  
5 Nizells Avenue, Hove, Sussex BN3 1PL

**Mediterranean Gull dropping bivalves** On 29th September 1976, on a beach near De Panne, Belgium, I observed an adult Mediterranean Gull *Larus melanocephalus* dropping bivalves. Flying at a height of about 9 m, the gull drooped its head and released a mollusc from its beak; it then swooped to the sand below and rose again with, apparently, the same mollusc. The whole action was repeated and, on the fifth occasion, the contents of the bivalve were consumed. I visited the exact site, a

hard sand bank, and found many broken shells of common cockles *Cardium edule* and tellins *Tellina*. Although the larger gulls commonly drop bivalves, I can find no mention in the literature of this behaviour by Mediterranean Gulls.

JACQUES VAN IMPE

130 Dr Van de Perrelei, 2200 Borgerhout, Belgium

**Head pattern of Sabine's Gull** On 12th June 1976, at Frodsham, Cheshire, Peter Campbell and I picked up a sick, adult, full summer-plumaged Sabine's Gull *Larus sabini*. It died the same day and was submitted for analysis to the Department of Agriculture: it proved to be a female with egg-bearing ovaries. I was surprised that its grey hood did not extend onto the nape, but terminated on the crown (see plate 48).



48. Adult female Sabine's Gull *Larus sabini*, Cheshire, June 1976 (P. Campbell)

All the literature I consulted, including *The Handbook*, stated that adult Sabine's Gulls of both sexes have complete hoods in full summer plumage.

KENNETH A. DUMMIGAN

14 Alexandra Drive, Aigburth, Liverpool L17 8TD

P. J. Grant has commented as follows: 'Despite the implication that there may be a difference in head pattern between the sexes of Sabine's Gull, it is much more likely that hooded gulls can affect the extent of the hood by the attitude in which they hold their heads, altering the relative extension or contraction of their nape feathers.' Eds

**Herring Gulls obtaining mussels by flight-plunging and submerging** Although flight-plunging and submerging by gulls *Larus* is well known (e.g. *Brit. Birds* 36: 59; 37: 79; 42: 222; 52: 93-94, 198), the following seems worth recording since it involved a large number of individuals. On 27th November 1976, on an ebbing tide at St Ives, Cornwall, I noticed about 70 adult and immature Herring Gulls *L. argentatus* feeding at a shallow, seaweed-covered rock-bed containing a large colony of blackish mussels *Mytilus* about the size of the palm of a man's hand. They were flying up from the sea to heights of 2-3 m, then plummeting head first, with wings partly open, at angles of 80-90 degrees. They sometimes 'rebounded' from the surface or immersed their heads, but equally often submerged completely for three or four seconds, reaching the mussels by upending or diving to the bottom. The gulls seldom retained the slippery shells in their bills for very long; when attacked, those with food escaped by taking flight, but they invariably dropped the mussels, which were immediately caught by other gulls in flight. A few Great Black-backed Gulls *L. marinus* waited to snatch edible items from the Herring Gulls. In 20 minutes, at least 100 mussels were obtained, the

gulls on the outskirts of the mêlée succeeding once in every three or four complete dives. The behaviour was not repeated on the following day.

BERNARD KING

*Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall*

**Kingfisher diving through ice to catch fish** On 15th January 1977, from the hide at Birdholme Wildfowl Reserve, near Chesterfield, Derbyshire, several friends and I saw a Kingfisher *Alcedo atthis* settle on the top of a willow *Salix* about 3 m high. The water in front of the hide, about 17 m<sup>2</sup> in extent, was free of ice, but the rest of the 1.6-ha lake was frozen over and lightly covered with snow. We anticipated that the Kingfisher would take a fish from the open water, as it had done many times before; but it suddenly dived from the top of the willow straight through the snow-covered ice some 9 m from the front of the hide and disappeared under the ice; after about one second, it emerged from the very small entry hole with a fish about 6½ cm long and returned to the willow bush.

PHILIP SHOOTER

*153 Market Street, Clay Cross, Chesterfield, Derbyshire*

**High diving by Kingfisher** Miss K. M. Hollick reported a Kingfisher *Alcedo atthis* diving 4.8 m from a wall into a brook (*Brit. Birds* 66: 280-281). During cold weather on 18th December 1976, near Newton Solney, Derbyshire, M. E. Taylor and I saw a Kingfisher perched on an electricity cable which passed at about 11 m over the River Trent. It was watching the water intently and, after about four minutes, dived steeply into the shallows about 1 m from the bank and caught a fish; it ate its catch on a stone on the bank, returned to the cable and resumed its watchful position.

R. A. FROST

*66 St Lawrence Road, North Wingfield, Chesterfield, Derbyshire S42 5LL*

**Late Swallow associating with House Sparrows** On 29th November 1968, in Regent's Park, London, I observed a Swallow *Hirundo rustica* associating with a flock of House Sparrows *Passer domesticus* which were feeding on natural and provided food on a bench-lined path overhung with trees. The Swallow would swoop down with small groups of sparrows, but not actually land on the ground, and then retire to the vicinity of the branches, where it flew persistently close to the sparrows, which intermittently took refuge or waited there for the next distribution of crumbs.

L. J. DAVENPORT

*4 Church Street, Betchworth, Surrey*

**Wren dust-bathing** At 13.20 GMT on 17th June 1976, in my garden near Deal, Kent, I saw a Wren *Troglodytes troglodytes* dust-bathing in the shade of a *Camellia* bush. It burrowed and rotated with vigorous wing-flicking and fluffed body feathers, pausing at times with its head lifted and its tail cocked. After barely two minutes, it flew out of sight. The well-watered compost that lined the shallow (2-3 cm) hole left by the Wren felt soft, slightly moist and cool. House Sparrows *Passer domesticus*

were also dust-bathing some 3 m away, on an exposed, south-facing flower-bed where the earth was gritty, bone dry and slightly warm. Neither species made any move to join the other. The weather at the time was quite hot, with bright sun and occasional breaths of breeze.

Although Wrens are among the few passerines which are known to dust-bathe, little has been recorded of the circumstances in which the activity occurs; Dr K. E. L. Simmons (in A. Landsborough Thomson 1964, *A New Dictionary of Birds*) gave two references to it, and E. A. Armstrong (1955, *The Wren*) stated that he had seen it only once. It is, however, easily overlooked and may be more common than is suggested. J. M. STAINTON  
Dove Cottage, Church Lane, Ringwould, near Deal, Kent CT14 8HR

**Robins nesting in disused Blackbirds' nests** The note on Robins *Erithacus rubecula* nesting in a disused nest of a pair of Blackbirds *Turdus merula* (*Brit. Birds* 69: 452) made me look up some old papers. I found a letter dated 27th April 1921 from the late Richard Kearton, to whom I had reported finding a Robin sitting on eggs in a disused Blackbirds' nest in Golders Green Cemetery, London. DOUGLAS CARR  
27 Monks Road, Virginia Water, Surrey GU25 4RR

In May 1954, at Frocester, Gloucester, a Blackbird nested on a brick buttress inside an open shed, close under the tiles. The nest was used twice, by Blackbirds, in 1955, but not again until April 1957, when a Robins' nest containing two eggs was found inside it; five eggs were laid, but the nest was robbed by 3rd May. SYBIL M. BUTLIN  
Frocester Cottage, Frocester, Stonehouse, Gloucestershire GL10 3TE

It is clear that Robins use the nests of other species more often than has been recorded. Three instances involving nests of Blackbirds have now been put on record, and the subject is now closed. EDS

**Blackbird eating slow-worm's tail** In very warm, dry conditions at 10.30 GMT on 24th June 1976, in my father's garden at West Cross, Swansea, West Glamorgan, I watched a male Blackbird *Turdus merula* at a distance of about 2 m struggling with a slow-worm *Anguis fragilis* on a stone path. It passed the slow-worm, which was about 20-25 cm long, several times through its mandibles, but the reptile finally escaped down a deep crevice in the stonework. At this point, the Blackbird noticed the 4-5 cm shed tail section of the slow-worm, which was still moving a short distance away; it seized it, passed it through its mandibles and then ate it whole. R. J. FOOTE

13 Lyncroft, Albrighton, Wolverhampton, West Midlands

Although *The Handbook* does not mention reptiles in the food of Blackbirds, there are several previous records of their attacking, killing or eating slow-worms (*Brit. Birds* 37: 116, 157; 55: 445), and one of a female taking the severed tail of a slow-worm to its nestlings (*Cornwall Bird Watching and Preservation Soc. Rep.* 1932). There are also records of other reptilian prey being taken by Blackbirds (*Brit. Birds* 48: 185; 53: 32). EDS

**Head pattern of Icterine and Melodious Warblers** During field study of many Icterine Warblers *Hippolais icterina* and Melodious Warblers *H. polyglotta*, I have noticed that they have a distinctive head pattern which does not appear to have been described previously. Both have pale lores, forming a continuous pale area joining the supercilium and throat, giving a distinctive 'bare-faced' expression in which the dark eye is prominent. This head pattern is not shared by the possible confusion species among the *Acrocephalus* and *Phylloscopus* warblers, which have a dark line joining the bill and eye (fig. 1). I have found this feature—in combination

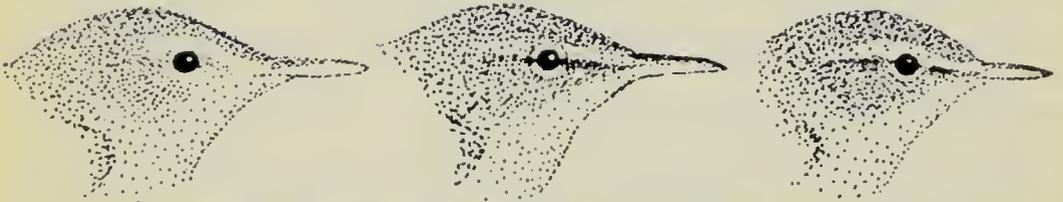


Fig 1. Head patterns of *Hippolais*, *Acrocephalus* and *Phylloscopus* warblers. Left, Icterine *H. icterina* or Melodious Warbler *H. polyglotta*; centre, Reed Warbler *A. scirpaceus*; right Willow Warbler *P. trochilus* (P. J. Grant)

with the long and mainly pale bill—a most striking character of the two: it is particularly useful when only the head is visible. The Garden Warbler *Sylvia borin* can at times suggest a similar head pattern, but its short, stubby bill should rule out the slight misidentification risk, and it never has the wash of yellow on the throat, lores and supercilium shown by even the drabest 'grey-and-white' Icterine and Melodious Warblers. I have not seen Booted Warbler *H. caligata* or Olivaceous Warbler *H. pallida*, but photographs of the latter show that it has a similar head pattern, and Lars Svensson (1975, *Identification Guide to European Passerines*) described both as having 'lores, orbital ring and usually short supercilium whitish'.

P. J. GRANT

14 Heathfield Road, Ashford, Kent TN24 8QD

**Blackcaps killed by striking window panes** During late October and early November 1976, there was an exceptional influx of passage Blackcaps *Sylvia atricapilla* in and around Dornoch, Sutherland. On 27th October, a dead male was brought to me, followed on 3rd November by another male, which appeared to have been stunned, but which soon recovered; on 6th November, I was handed yet another dead male. All three had been picked up below the windows of a house in Dornoch, opposite which stood two large sycamores *Acer pseudoplatanus*. I was informed that male and female Blackcaps had been foraging in these trees. When I stood below the sycamores, I immediately became aware of the clarity with which they were reflected in the upper windows of the house, the panes of which were each composed of one large sheet of glass. It would appear that the birds mistook the reflections for open space and, flying the 15 m or so across the road, struck the glass sufficiently hard to be killed or stunned. On 11th November a female Blackcap was picked up dead at the same spot. All the birds appeared in good condition and, so far as I could ascertain, no other species were found dead or injured

there. At this time, I received a letter from Professor T. B. Mitford who, on the morning of 24th October, observed a male and two female Blackcaps in the trees beside Altnaharra Hotel, north Sutherland; when he returned in the evening, a female Blackcap was found dead below one of the hotel windows.

D. MACDONALD

*Elmbank, Dornoch, Sutherland IV25 3SN*

Dr C. H. Fry has informed us that, during the same period, two Blackcaps were killed by flying into the windows of his house on the coast of Aberdeen; both were heavy with migratory fat. Many birds are, of course, killed by flying into windows, but the main interest in this case lies in the multiplicity of migrants of one species. EDS

**Pied Flycatcher hammering snail on road** On 23rd September 1976, at Kilnsea, Humberside, I watched a migrant Pied Flycatcher *Ficedula hypoleuca* with a snail in its bill. It was attempting to smash the shell by repeatedly hammering it on the tarmac road. Unfortunately, it was disturbed by a passing car and flew to a nearby ploughed field, still carrying the snail in its bill. I can find no reference in the literature to Pied Flycatchers eating snails.

DOUGLAS PAGE

*5 Colvin Close, Arksey, Doncaster, South Yorkshire*

**Blue Tits and Robin eating snowberries** On several occasions during November 1976, in my garden at Brentry, Bristol, I saw Blue Tits *Parus caeruleus* feeding on snowberries *Symphoricarpos rivularis*. They selected only the dark, over-ripe berries, from which they pulled out and swallowed portions of pulp; the seed was not eaten, and I found no invertebrates in the berries. On 12th December 1976, at the same place, a Robin *Erithacus rubecula* perched on a snowberry bush, tugged at several over-ripe berries and swallowed portions of pulp, before flying off.

A. P. RADFORD

*2 Wyck Beck Road, Brentry, Bristol BS10 7JE*

We do not recall ever seeing a bird eating snowberries and have found no reference to this in the literature. EDS

**Magpies drying themselves on grass** The note by K. E. Vinicombe on a Yellow Wagtail *Motacilla flava* apparently drying itself on dead weed (*Brit. Birds* 69: 410-411) prompts me to record the following. On the afternoon of 25th March 1950, I watched two Magpies *Pica pica* bathing at the edge of Clough Bottom Reservoir, Lancashire. When they came out of the water, they deliberately dried themselves on the bank by ducking forward and pushing their underparts against the dry turf.

K. G. SPENCER

*3 Landseer Close, off Carr Road, Burnley, Lancashire*

**Display of Magpie** On 20th February 1977, at Berrow, Somerset, I watched a Magpie *Pica pica* at 20 m; although it appeared to be feeding,

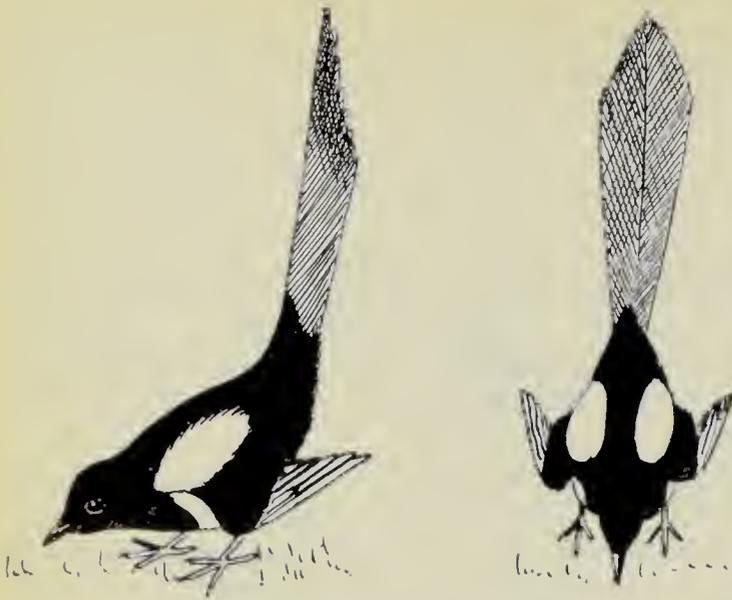


Fig. 1. Magpie *Pica pica* holding tail vertical and flicking wings while apparently feeding (Brian E. Slade)

I saw no food items. Its tail was held vertically above its back and its wings were flicked rapidly in short bursts, the primaries producing white flashes, especially when viewed head-on (fig. 1). During this display, it uttered a soft 'chook-chook' note. After about four minutes, two other Magpies flew over and disturbed it, although it flew only a short distance.

BRIAN E. SLADE

40 Church House Road, Berrow, Burnham-on-Sea, Somerset TA8 2NQ

Derek Goodwin has commented: 'The description seems to agree with the common wing-flirting display (cf. *Brit. Birds* 45: 113-122; *Crows of the World* 1977, page 180), except for the tail being held up vertically. I have never seen a Magpie hold its tail in a vertical or even near-vertical position (as distinct from momentarily jerking it up): this may have been an idiosyncrasy or abnormality of the individual bird.' Eds

**Alpine Chough retrieving and re-hiding piece of orange** On 22nd June 1976, below the Schilthorn peak, Switzerland, I saw an Alpine Chough *Pyrrhocorax graculus* alight at a deep crevice in a rock slope, extract a number of stones, withdraw a section of orange with peel attached and take this to another crevice 10 m from the first. It thrust the orange deep into the second hole and pushed eight to ten stones in afterwards, concealing the orange as before.

J. FITZPATRICK

18 Edwick Court, High Street, Cheshunt, Hertfordshire

Other crows (e.g. Carrion Crows *Corvus corone* and Jays *Garrulus glandarius*) often retrieve and re-hide food, but this is apparently the first recorded instance of this behaviour by the Alpine Chough, which does, of course, frequently hide food. There are many records of Alpine Choughs taking fruits (see D. Goodwin, 1976, *Crows of the World*). Eds

**Carrion Crow attempting to catch flying Dunlin with foot** On 20th November 1976, at high tide by Cliffe Pools, Kent, some friends and I

observed a Carrion Crow *Corvus corone* intercept a fast-flying Dunlin *Calidris alpina* by gripping it behind the head with one foot. The crow then noticed us and dropped the Dunlin, which fell about 10 m into the water. After about five minutes, the wader managed to extricate itself and flew away, with its wings in a normal flight position, but its head hanging limply downwards.

PETER C. HEATHCOTE

21 Dickens Close, Hartley, Dartford, Kent DA3 8DF

**Bullfinch feeding young Greenfinches** At about 08.40 GMT on 12th July 1974, a friend called me to a window overlooking a garden in Southwick, West Sussex, where two fully fledged young Greenfinches *Carduelis chloris* were being fed by a male Bullfinch *Pyrrhula pyrrhula*. They had apparently been fed once before I arrived. The Greenfinches were perched 3-4 m up in a pear tree, calling continually and quivering their wings and tails vigorously. On two occasions while I was watching, I saw food pass from the Bullfinch's bill to that of one of the young; on the first occasion the immature pecked at the edges of the Bullfinch's bill before the pass. After several minutes, the Bullfinch flew off; 15 minutes later, the two young Greenfinches also left. While Greenfinches may well breed in the town in small numbers, this is the only breeding season observation I have made of Bullfinches in nine years here. Dr Ian Newton has informed me that, despite his extensive researches into the group, he knows of no other instance of interspecific feeding among finches.

IAN WILLIS

59 The Green, Southwick, West Sussex BN4 4FX

We suspect that the Bullfinch had recently lost its own brood, perhaps by predation. Eds

## Reviews

**The Handbook of British Mammals. Edited by G. B. Corbet and H. N. Southern.** Blackwell Scientific Publications, Oxford, London, Edinburgh and Melbourne, second edition 1977. 520 pages; 49 black-and-white photographs; 135 line-drawings and maps. £9.75.

Although this is supposed to be the second edition of the Mammal Society's 1964 *Handbook*, it is really quite a different book and one far better suited to the needs of naturalists, including ornithologists. Less than half of the first edition was devoted to individual species accounts in accepted handbook-style, compared with 84% of this second edition; photographs of most species are now included, happily with their relevant texts and not as a central block of plates; there are some new drawings; and—a most welcome new feature—there are 8 cm × 7 cm species distribution maps. Each species account is clearly subdivided into paragraphs with headings such as 'Recognition', 'Description', 'Measurements', 'Distribution', 'Variation', 'Habitat', 'Behaviour', 'Food', 'Breeding', 'Population', 'Predators', 'Parasites and disease' and 'Relations with man': these make it easy to find the information that is sought.

Whether or not you own a copy of the 1964 edition, I thoroughly recommend the acquisition of this new volume.

J. T. R. SHARROCK

**The Ethology of Predation.** By Eberhard Curio. Springer-Verlag, Berlin, Heidelberg and New York, 1976. 250 pages; 70 figures; 16 tables. \$29.60, DM72.00.

No-one with even the most meagre interest in wildlife can avoid being concerned with predation, that ubiquitous phenomenon which has done so much to shape the behaviour, coloration and structure of birds and other animals. Scientifically, studies of predation constitute a large and rapidly growing field, which has for decades been developed almost independently by animal-behaviourists on the one hand and by ecologists on the other, with much less cross-fertilisation than one might have hoped. A notable exception to this restricted approach was provided by Professor Niko Tinbergen, to whom this book is dedicated. Because of the general dichotomy, however, predation studies have long been in need of review by someone versed in the ideas and literature of both groups. In this book, Dr Curio has successfully drawn together a wide and scattered literature from the two main fields, and has also provided an organised framework of ideas. Coverage of the literature in both German and English is very thorough, and both the facts and ideas are presented accurately and objectively.

This book is part of a series intended primarily for students and researchers. It is organised in five main chapters. The first covers the 'Internal factors' such as hunger, providing for families and diurnal rhythms which control predation. Subsequent chapters are entitled 'Searching for prey', 'Prey recognition', 'Prey selection' and 'Hunting behaviour'. Examples are drawn from the whole animal kingdom. The approach is described as 'inductive rather than hypothetico-deductive', and the author warns at the outset that 'where possible, conclusions are driven home by sheer weight of examples'. This is certainly true, and I for one might have benefited from fewer examples and more comment by way of introduction and discussion under each subject.

The very features that help to make the book useful for research workers may also make it hard going for any birdwatcher lacking the necessary biological background. Especially in the early chapters, one's mind is constantly having to switch from one kind of animal to another, and one situation to another, as each topic is briefly reviewed. Also, birds form a relatively small part of the book, although they figure in all the chapters. There are, for example, descriptions of food-storage by crows (*Corvidae*) and other birds; of communal fishing by pelicans (*Pelecanidae*); the mechanics of prey capture by raptors; food-searching by Blackbirds *Turdus merula* and Carrion Crows *Corvus corone*; and the specialised feeding behaviour of individual Oystercatchers *Haematopus ostralegus*. Less well known behaviour is also described, for instance the use of stone-throwing for egg-breaking by Egyptian Vultures *Neophron percnopterus* and the kite *Hamirostra melanosternum*; the ability of certain Panamanian falcons to make sounds which lure their prey species within reach; and co-operative hunting by Lanners *Falco biarmicus*, the larger female driving doves out from a cliff, so that the more agile male can easily catch them.

While this book provides a good summary of a complex field of particular help to the student-specialist, the general reader might have benefited from fewer examples and more discussion. My only other complaint is the price.

I. NEWTON

## Letters

**Personalities** It is a well known fact that the nature of most human beings is partly good and partly bad, and that entirely good ones or entirely bad ones are rather scarce. This should apply equally to ornithologists.

However, since *British Birds* started its series on 'Personalities', statistics seem to have run wild: within a year I have, to my increasing astonishment, been introduced to no less than ten men who, through their

genuine kindness, infectious sense of humour, inexhaustible enthusiasm, boundless energy, high moral standards and extreme general competence, all seem to qualify for more or less instant beatification. This has restored my faith in humanity!

In contrast, some ornithologists which I have personally come to know—admittedly, here in Sweden—sometimes drink too much, one or two may have a taste for other people's wives, and a few even write papers of less than eternal value. At least in most cases, however, their bad manners are partly offset by virtues of one kind or another, which makes them reasonably acceptable as human beings. But of course, how much nicer would it not have been if they had all been pure white, like their colleagues presented in *British Birds*!

For a change, why not let the next ten 'Personalities' be treated by their worst enemies. Would that make any difference?

CHRISTIAN HJORT

Hessle, Munkarps, 243 00 Höör, Sweden

We do ask the biographers to emulate Lely's portrait of Oliver Cromwell, but, on the whole, we have tended to avoid featuring incompetent, drunken ornithologists in 'Personalities'; regrettably, we do not always know of our colleagues' extra-marital activities. We do, however, note that we have already included profiles of people (1) who criticised inefficiency bluntly; (2) who failed an interview to become a dustman; (3) who regards spotting watchable women as good sport on long car journeys; (4) who often delivers manuscripts late and becomes impatient at unnecessary delays; (5) who may seem somewhat overbearing; and (6) who eats MPs' pot-plants and whose driving skill is to be avoided at all costs. We do admit that this leaves four personalities featured in 1977 who were apparent paragons; only one of them is actually faultless, and he has blackmailed us into not revealing his name. JTRS

**Co-ordination of migratory studies** Recently, when I read Kumari (1976) and the abstract in *Ibis* (119: 570) in which the final sentence reads, 'Migration studies in the Baltic are an impressive example of intensive work and international co-operation', I was reminded of the Viewpoint 'Migration in the doldrums' by D. I. M. Wallace (*Brit. Birds* 68: 202-203), who suggested that wider implications of migration in western Europe needed urgent consideration.

Although there is a certain amount of interchange of information between Britain and the Continental countries on specific happenings after the event, nothing tangible has—so far as I know—been done to develop Wallace's plea.

Are we, and our contemporaries on the mainland of Europe, still so parochial that we are unable to put together a similar grouping to that formed by the Baltic Commission for the Study of Bird Migration? I should have thought not, and I suggest that it would be a fitting tribute to the memory of the late Ken Williamson if the Establishment of British ornithology took an immediate and positive lead to promote the co-

ordination of migratory studies, at least in the North Sea area. Six of the eight countries bordering the North Sea are members of the European Economic Community (the other two are Norway and Sweden), and, if a properly argued case were to be put to the EEC Commission in Brussels, the funds to establish a group might be forthcoming.

At present, each observatory accumulates data like a voracious vulture, with only the occasional disgorged literary pellet. The immediate need is for them all to be pointed one way at a common migrant for a couple of years (it need not interfere with their individual studies); the results would soon be obvious and the amateurs who contribute the mass of data which accrues each year might again start to feel that all their efforts are not just going to end up in a filing cabinet.

Please let there be action now!

PHILIP S. REDMAN

*Redwings, Crowhurst, Battle, Sussex*

#### REFERENCE

KUMARI, E. 1976. *Bird Migration*. Tallinn.

**Pigeons swimming** J. R. Ogle's note concerning a feral Rock Dove *Columba livia* swimming and the accompanying editorial comment (*Brit Birds* 68: 467-468) prompt me to record the following. I have twice seen a feral Rock Dove, and not uncommonly Woodpigeons *C. palumbus*, swimming on the lake in St James's Park, London. Both species paddled, sometimes helping to propel themselves by flapping their wings slowly. An immature feral Rock Dove swam after falling into the water; the other, an adult, swam some 20 m across the lake to an island. Woodpigeons often wade deeply and sometimes become waterborne; they may then float for a few seconds before turning back to the shore, but sometimes swim out for a few metres first. When in flight, they often drop towards the surface of the lake, at times touching it before rising again; occasionally they land on the water, float briefly, then fly off without apparent effort.

J. M. STANTON

*Dove Cottage, Church Lane, Ringwould, near Deal, Kent CT14 8HR*

J. R. Ogle's note reminded me of the following passage by Frank Finn (1919, *Bird Behaviour*): 'and I have seen a Woodpigeon in St James's Park on a hot day pitch on water out of its depth, and have a splash or two before flying out, and this habit seems to be well established both in this bird and the House Pigeon [feral Rock Dove]'.

DAVID G. P. CHATFIELD

*3 Cyncoed Close, Dunvant, Swansea SA2 7RS*

Many years ago, on a journey up the Nile, I recollect frequently seeing small flocks of semi-domesticated Rock Doves settle lightly on the surface of the water for a few seconds to drink; I concluded that, in the more arid parts of Egypt, this was perhaps their normal way of satisfying their thirst. The briefness of their stay on the surface was presumably to prevent their breast feathers from becoming saturated.

COLLINGWOOD INGRAM

*The Grange, Benenden, Cranbrook, Kent TN17 4DN*

Derek Goodwin has commented that both of the feral Rock Doves observed by Miss Stainton may have got into the water by accident, perhaps some illness, plumage defect or weakness preventing their flying up again; he added that the behaviour of the Woodpigeons when bathing is unusual and possibly unrecorded, although very similar to that of Ruddy Ground Doves *Columbina talpacoti* (*J. Orn.* 103: 125-139) mentioned in the editorial comment with J. R. Ogle's note. Eds

**Unusual song of Grasshopper Warbler** The note by A. S. Norris (*Brit. Birds* 70: 502-503) was of great interest to me, since I heard a migrant Grasshopper Warbler *Locustella naevia* singing in this way, in a small gully 200 m south of the lighthouse at Cap Gris Nez, France, in September 1971. I have been unable to find any reference to this jingling song in the French literature.

THIERRY MILBLED

105 rue Saint Gabriel, 59000 Lille, France

## Announcements

**YOC cover design competition** Members of the Young Ornithologists' Club are being invited to paint or draw a coloured cover for *British Birds*. The winning design will be used on an issue later this year and the artist will also receive a year's subscription to *British Birds* and a copy of *The Atlas of Breeding Birds in Britain and Ireland* (1976). Full details of the competition appear in the latest issue of the YOC magazine *Bird Life*.



**1977 rarities** Since it takes several weeks for even the most straightforward rarity description to circulate the ten members of the Rarities Committee, observers are now reminded that any outstanding 1977 records should be submitted before the end of March if they are to have any chance of inclusion in the 'Report on rare birds in Great Britain in 1977'. They should be sent to John O'Sullivan, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

**Best recent work by British bird-photographers** The closing date for entries for the nineteenth annual selection in this series is 31st March 1978, as previously announced (*Brit. Birds* 70: 373). As usual, the following details should be written on the back of each print: photographer's name and address, species, county (or country, if taken abroad), month, year, and technical details, such as make and size of camera, make and focal length of lens, type of film material, exposure and approximate distance from the subject. Black-and-white prints submitted for the 'Bird Photograph of the Year' competition will automatically be considered and need not be resubmitted. We hope that last year's entry of 194 prints by 30 photographers will be exceeded this year. Prints should be addressed to: Best recent work, Fountains, Park Lanc, Blunham, Bedford MK44 3NJ.

# Spring and breeding season summary

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*K. Allsopp and S. C. Madge*

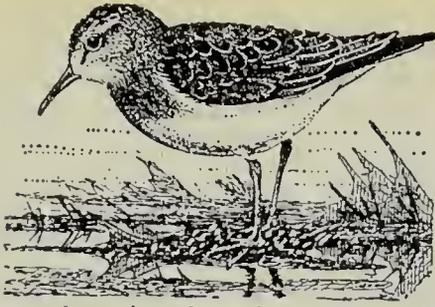
In recent years, mild winters have been followed by cold springs dominated by cold northerly winds, which have often delayed the return of summer visitors and inhibited breeding by resident birds. The usual meteorological feature responsible has been a persistent area of high pressure in mid-Atlantic, its wind system bringing cold air down from the Arctic. In late February 1977, this familiar pattern began to evolve, but did not persist, and in the first days of March the pattern changed completely. An anticyclone developed over western Europe and the Mediterranean and the temperature rose dramatically as warm air was drawn in from the south. Early spring passerine migrants were widespread in England during the first half of March. In Devon, Chiffchaffs *Phylloscopus collybita* arrived on 2nd and were commonly reported throughout the Midland counties by 12th. Wheat-eaters *Oenanthe oenanthe* had reached as far north as Fair Isle (Shetland) by 14th, after many records throughout the country; and Ring Ouzels *Turdus torquatus* also



featured strongly among these early arrivals. The hirundines were not so common: Sand Martins *Riparia riparia* appeared at most waters in small numbers, and in Kent a House Martin *Delichon urbica* was seen on 6th and a Swallow *Hirundo rustica* on 9th. Other notable records included a Yellow Wagtail *Motacilla flava* at Sandwich Bay (Kent) on 8th, a Garden Warbler *Sylvia borin* in Buckinghamshire on 12th, a Willow Warbler *Phylloscopus trochilus* in Lancashire on 16th and two Cuckoos *Cuculus canorus* in Derbyshire on 24th.

From 19th March, the high pressure over southern Europe declined and colder air reached us from the north and east. Migration slowed considerably and hopes of an early spring were quickly forgotten in the severe night frosts of late March. The familiar mid-Atlantic high became established in early April, giving another extended period of cold northerlies. On 16th, the winds changed to southerly and the first major influx of migrants poured across the country. Hirundines became much commoner and were followed by falls of Willow Warblers, mainly in the west and Ireland. The weather conditions did not improve: cool wet westerlies, often strong, remained until the end of April. On the calmer days, the birds managed to get through and, by the end of the month, most summer visitors had arrived, albeit a few days later than average.

High pressure to the west again brought cold, mainly northerly weather for the first three weeks of May. The lack of airborne insects caused many hirundines to delay nesting, and Swifts *Apus apus* remained over the reservoirs and lakes, where they could obtain sufficient food for their survival. The general lack of insect food during early spring probably lowered the breeding success of most passerines. One good piece of news was the widespread impression that White-throats *Sylvia communis* had returned to many of their old breeding areas, deserted since the crash of 1969. During the last week of May, temperatures rose well above average, as a strong easterly wind brought much warmer air from Europe. Terns, especially Black Terns *Chlidonias niger*, were reported at many inland waters on 26th and 27th. Scandinavian-bound migrants were displaced across the North Sea, the most numerous being Red-backed Shrikes *Lanius collurio* in Shetland and eastern coastal areas. Nightingales *Luscinia megarhynchos*, Bluethroats *L. svecica* and Icterine Warblers *Hippolais icterina* were also found and many hundreds of hirundines were



reported moving along the east coast. This warm spell did not last, however, and northerly weather returned for the whole of June. Mean temperatures were 2° to 3°C below average, which seriously affected breeding: deserted nests containing full clutches of eggs were reported from several counties. Except for one hot week, the weather in July was also indifferent,

bringing a rather frustrating season to a close for both the migrating and breeding birds.

The spring wader passage was unexceptional. There were, however, nine Temminck's Stints *Calidris temminckii* in Yorkshire during the easterlies in late May and Whimbrels *Numenius phaeopus* were observed inland more often than usual. Ospreys *Pandion haliaetus* and Hoopoes *Upupa epops* featured frequently: we received 45 reports of the former species, from all over the British Isles, and 36 sightings of the latter, as usual mainly from southern England. Their arrivals did not coincide with particular weather systems, which may suggest a tendency to extend their breeding ranges. On that exciting prospect, we close this summary.

## News and comment

*Peter Conder and Mike Everett*

**New Year Honours** We congratulate Cyril Eyre, one time chairman of the Gambian Ornithological Society, who was created an OBE for services in the development of agriculture in the Gambia.

**YOC summer migrants 'phone-in'** For the third consecutive year, the Young Ornithologists' Club is arranging for its members and other observers to telephone details of the arrival of summer migrants, so that an up-to-date record of this year's migration can be prepared and observers can quickly compare their observations with those by birdwatchers in other parts of the country. The phones will be manned from 14.00 to 19.00 hours each Monday (except Easter Monday) from 20th March to 15th May. All records will be welcomed: telephone Sandy (0767) 80551.

**Nature Conservancy Council's third annual report** In its report, the NCC called on ministers 'to accept the need for a national rural land-use strategy, to set in hand interdepartmental discussions to formulate it, and to provide the machinery to bring it into operation.' The report points out that no general guidelines exist for reconciling conflicting priorities in the planning and management of the country-

side. Such a strategy 'would provide the framework within which Government Departments and other bodies could determine their priorities, and it would give constructive encouragement to managers of land and water to do what had been judged best for the nation.' It is good to see the NCC showing its independence and making this call upon the ministers; the call should be supported by the voluntary organisations.

The NCC intends to publish a policy paper on the pressures on the wildlife of British wetlands. Inevitably, much attention is also paid to protecting the coastline of the British Isles from the effects of oil exploration, by identifying features of importance for wildlife and for the study of geology and geomorphology. Recommendations for treatment of these areas in the event of oil pollution have been revised. Commissioned research in 1976/77 included the surveillance of sea-duck and waterfowl populations in Shetland.

**The USA/USSR Convention for the Protection of Migratory Birds and Their Environment** This Convention has been tabled for ratification in the American Senate. It provides for rigorous protection of wetlands, in order to ensure

the survival of migratory birds, and contains provisions for multilateral accession. (*Council for Europe Newsletter*)

**Bald Ibis breeding** Work has started on construction of special cages for captive breeding of the last Bald Ibises *Geronticus eremita* in Eurasia, at the Turkish village of Birecik. The cages, which are being constructed by the Turkish National Parks and Wildlife Directorate with World Wildlife Fund aid, will be on cliffs by the River Euphrates; the hope is that wild individuals will settle near the captives and establish a new breeding colony safe from human disturbance. (*WWF News*)

**'Bird's Eye View'** The enterprising Malta Ornithological Society has produced yet another publication, called *Bird's Eye View*. *Il-Merill* is well known as the scientific arm of the MOS, and the society's council has decided to 'purify' this publication even further: *Bird's Eye View*, edited by John Azzopardi, will carry news about MOS activities.

**Oystercatchers and shellfish** The Institute of Terrestrial Ecology has published a short study of the predator/prey relationship between Oystercatchers *Haematopus ostralegus* and shellfish. The report describes the current research—started in 1976—on the ecological processes involved, which aims to improve understanding of the impact wading birds have on commercial stocks of shellfish. In the study area on the Exe estuary in south Devon, Oystercatchers feed mostly on mussels (Mytilidae), which are found there in extensive beds. The booklet contains a number of graphs illustrating the relationships involved and gives an outline of some of the models being constructed; it is available, price 60p, from the ITE, 68 Hills Road, Cambridge CB2 1LA. (*Habitat*)

**Burnley's birds** *The Status and Distribution of Birds in the Burnley Area* by K. G. Spencer, published by Turner and Earnshaw, Burnley (price £1), is another in the series of books describing the avifaunas of small areas, which are being produced more and more frequently: a reflection of the large number of birdwatchers now sending in their records to local recorders.

This 64-page booklet surveys the avifauna within a radius of six miles (9.7 km) of Burnley, Lancashire. The area has produced a number of energetic ornithologists in the last 80 years, so that the historical record is good. The booklet has a one-page introduction and a map, a systematic list, four pages of references and an index. Sadly, there are no descriptions of bird habitats in the area, even though the systematic list links changes in bird population levels with habitats. There are no scientific names, but some subspecies (e.g. Northern and Southern Golden Plovers) are given headings as prominent as those for full species, which could be confusing to the less knowledgeable. Nevertheless, a useful book.

**'Birdwatching in the Cotswold Water Park'** This excellent 36-page booklet, written by S. C. Holland and D. V. Mardle and published by the Gloucestershire County Council (no price marked), is a useful account of the numerous pits that make up the Cotswold Water Park and the events that led to its establishment. A list of the 179 bird species recorded in the area indicates the status of most species by symbols, with an occasional longer note. There is a map of all the pits, accompanied by a warning that most are privately owned. The GCC is preparing a map of public rights of way.

**Californian seabirds** A series of useful field notes on 47 species of seabirds, with ten photographs, is to be found in Richard W. Stallcup's paper 'Pelagic birds of Monterey Bay, California' (*Western Birds* 7: 113-136). Reprints are available, price \$1.50 post paid, from Western Field Ornithologists, 376 Greenwood Beach Road, Tiburon, California 94920, USA.

**Romanian atlas** We greatly welcome the news that Romania is the twenty-first nation to be represented on the European Ornithological Atlas Committee. Atlas fieldwork, on a 10-km square basis, was started in 1977 and the aim is to complete the project by 1981. The delegate on the EOAC is Dr V. Cioclia, Str. Pavilioanele CFR 30, Brasov R2200, Romania.

**'Seabird Group Report 1976-77'** In its latest report, the Seabird Group asks for help from its members to organise or assist

with some of the following activities: more voyages on research ships and observations from oil platforms and production installations; the collation of regional observations during ferry passages and at sea-watching stations; and further investigations of the patterns of attendance of seabirds at their breeding colonies throughout the year (since recent oil pollution incidents have revealed a widespread ignorance of the extent to which colonies are tenanted outside the breeding season).

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

**Bird conference organisers please note** A bird-call whistling contest sponsored by the Audubon Naturalist Society was one of the highlights of Audubon Week in Bethesda, Maryland, during 24th-29th October. The competition was judged by a panel headed by Chandler S. Robbins, internationally known ornithologist and co-author of the popular field guide *Birds of North America* (1966). Contestants had to whistle three to five bird imitations for the experts.

## Recent reports

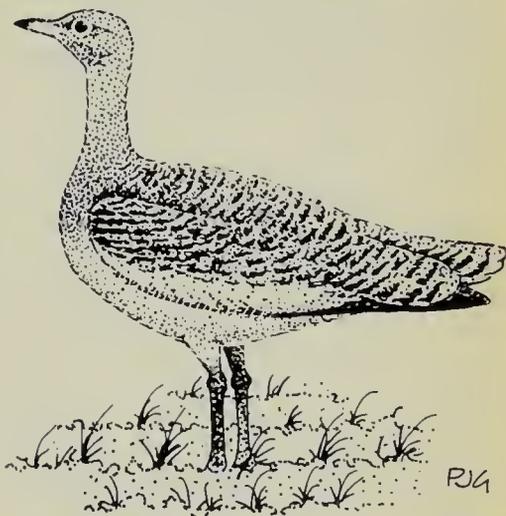
*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers December 1977 and the beginning of January 1978; except where otherwise stated, all dates refer to December.

### Christmas presents

The report of a **Sociable Plover** *Chettusia gregaria* near a public house at Sudbury (Suffolk) on Christmas Day was probably treated with some caution at first, but proved to be quite genuine. A **Black Vulture** *Aegyptius monachus* at Builth Wells (Powys), also reported during the festive season, remains to be confirmed. The



'twitching' season started very early in the New Year, when a **Great Bustard** *Otis tarda* was discovered near Canterbury (Kent) on 6th January. The next day, fog dampened the spirits of the pilgrims, but most managed to see the vision. The bird was last seen on 9th January. This species is now a very rare winter vagrant.

### Wild weather and wild fowl

During the first three weeks of December, mainly southerly winds brought fairly mild, but damp and uneventful, weather. A change to a more mobile westerly flow occurred before Christmas and extended into the New Year. On 23rd, gale force





49. Mediterranean Gull *Larus melanocephalus* (left) and two Black-headed Gulls *L. ridibundus*, Surrey, January 1978 (R. J. Chandler)

winds swept the country, and afterwards quite a marked drop was noted in duck numbers at some Midland reservoirs. Another severe gale occurred on 3rd January, with some spectacular effects: 87 **Pink-footed Geese** *Anser brachyrhynchus* were found killed by lightning near Castle Acre (Norfolk), with a further 18 picked up still warm nearby; a **Bean Goose** *A. fabalis* was a further victim of this storm. A similar incident was recorded on the north Norfolk coast, in the winter of 1905, involving Pink-footed Geese and White-fronted Geese *A. albifrons*. Such natural disasters demonstrate how precarious is the existence of some of the smaller wintering flocks, such as the 86 **Bean Geese** near Norwich (Norfolk). This latter species was also found in small numbers in other parts of the country, with two at Wetmore (Somerset) and one at Hornsea Mere (Humberside). Two **Lesser White-fronted Geese** *A. erythropus*—always a challenge to find—were reported at Amble (Northumberland), and one at Crosby (Lancashire). **Ring-necked Ducks** *Aythya collaris* have reappeared this winter after last winter's exceptional numbers: four were reported at Carrigadrohid (Cork), and singles at Draycote Reservoir (Warwickshire), Eye Brook Reservoir (Leicestershire) and Fairburn Ings (West Yorkshire). The Irish had a monopoly on **Surf Scoters** *Melanitta perspicillata*, with five reported, three of them together at Brandon Bay (Kerry), and the others at Bundoran (Donegal) and Clogher Head (Louth).

### Gulls

The Lowestoft (Suffolk) **Franklin's Gull** *Larus pipixcan* stayed into the New Year, as did the **Laughing Gull** *L. atricilla* in Cornwall, which, however, moved from St Ives to Newlyn. An **Ivory Gull** *Pagophila eburnea* was seen at Brancaster (Norfolk) during 6th to 8th January. For the second successive winter, a **Mediterranean Gull** *L. melanocephalus* appeared inland at Epsom (Surrey). Last winter it was present from 25th December to 10th March; this winter it was first seen on 5th December and stayed at least into January (plate 49). Inland gull roosts and feeding places provide not only a chance to find the unusual but opportunities for rewarding studies of the birds' behaviour and movements.

### English Choughs

Following last month's report of a **Chough** *Pyrrhocorax pyrrhocorax* in Lancashire, we have heard of another at St Bees Head (Cumbria) on 6th. Even the most apparently sedentary species occasionally exhibit a degree of vagrancy, such wanderings sometimes leading to colonisation of new breeding areas . . .

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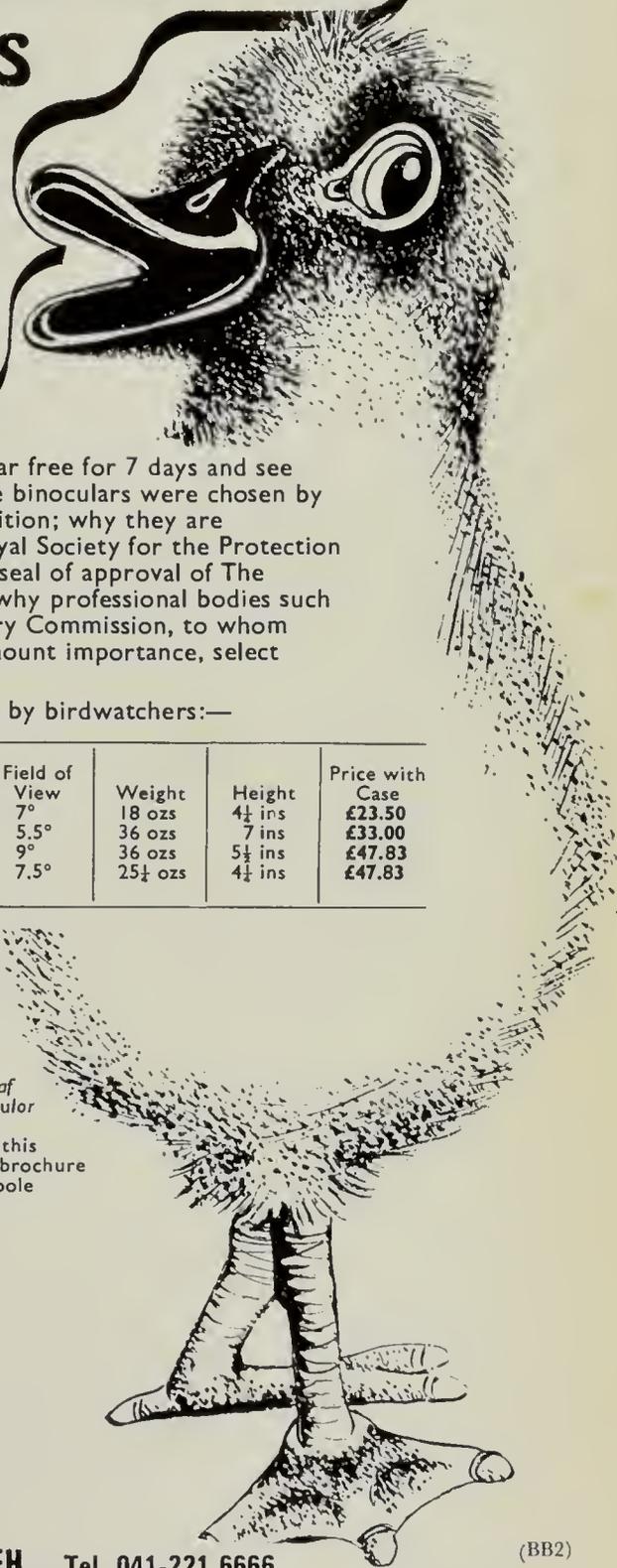
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# British Birds

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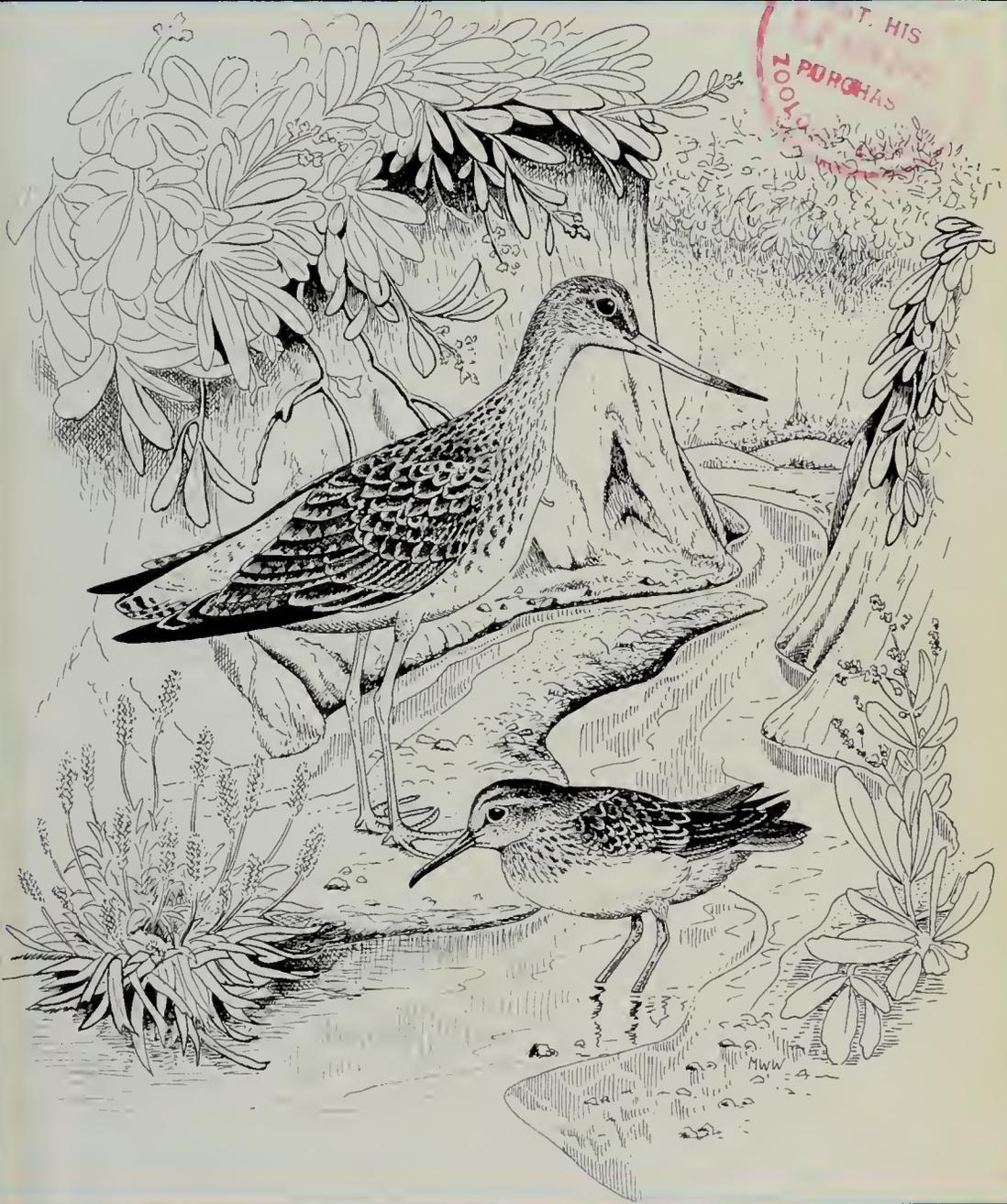
**Line-drawings:** Paddyfield Warbler on page 95 (*D. I. M. Wallace*); Avocets on page 102 (*Robert Gillmor*); Ring Ouzel on page 140 (*Brian E. Slade*); Temminck's Stint on page 141 (*P. J. Grant*); Sociable Plover on page 143 (*R. A. Hume*); Great Bustard on page 143 (*P. J. Grant*)

**Front cover:** Great Crested Grebes (*R. A. Hume*)

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# British Birds

Volume 71 Number 4 April 1978



**Field identification of gulls**

**Personalities: R. J. Tulloch**

**Mystery photograph**

**Notes · Reviews · Letters**

**News and comment · Recent reports**

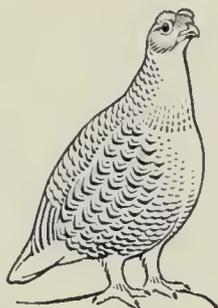
Henry Burt & Son Ltd apologise to readers of *British Birds* for the accidental omission of 'Latest news' from page 144 in the March issue. In case subscribers wish to paste the missing section into their March issue, it is printed below:

### **Latest news**

Two **Lesser White-fronted Geese**, Caerlaverock (Dumfriesshire); **Blue-winged Teal** *Anas discors*, Overcote (Cambridgeshire); the **Black Vulture** (see page 143) moved to RSPB Gwenffrwd reserve (Dyfed) during 11th to 18th February; **Killdeer** *Charadrius vociferus*, Pwll (Dyfed).



# British Birds



## News and comment

Peter Conder, 12 Swaynes Lane,  
Comberton, Cambridge CB3 7EF

## Rarities Committee

John M. O'Sullivan, RSPB,  
The Lodge, Sandy, Beds. SG19 2DL

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**British Birds** publishes material dealing with original observations on the birds of the west Palearctic or, where appropriate, on the species of this area as observed in other parts of their ranges. Except for records of rarities, papers and notes are normally accepted only on condition that the material is not being offered in whole or in part to any other journal. Photographs and sketches are welcomed.

Papers should be typewritten with double spacing and wide margins, and on one side of the sheet only. Shorter contributions, if not typed, must be clearly written and well spaced, and notes should be worded as concisely as possible. Authors of papers and notes should consult this issue for style of presentation (especially for systematic lists, reference lists and tables). Tables must either fit into the width of a page or into a whole page lengthways, and should be self-explanatory. English names of birds should have capital initials for each word, except after a hyphen, but group terms and names of other animals and plants should not. Both English and scientific names of birds, and the sequence, follow *The 'British Birds' List of Birds of the Western Palearctic* (1978). English and scientific names of plants follow John G. Dony *et al.* (1974, *English Names of Wild Flowers*). Scientific names (underlined) should appear immediately after the first mention of the English name. Dates should always take the form '1st January 1978', except in tables where they may be abbreviated.

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Authors of main papers (but not notes or letters) receive 25 reprints free (15 each to two authors and ten each to three or more).

Jon Fjeldså

Guide to  
the Young of European  
Precocial Birds



The motivation for writing this book was the almost complete absence in ornithological literature of compiled descriptions of bird chicks sufficiently detailed to enable identification. Bird chicks are, in general, hard to identify – those of some groups have been given up as hopeless. Nevertheless, meticulous studies by the author of this book have revealed some, though often slight, differences between any species studied. It is possible to distinguish, with certainty, between most species from their very day of hatching.

The need for a guide on bird chicks may be most strongly felt by bird-ringers and bird-ecologists who have worked in mixed gulleries or terneries, or in wetland with numerous breeding waterfowl or waders.

The text is divided into two main parts: first a general discussion of precocial breeding in birds; then a systematically arranged treatment of the individual families and species.

The book covers all 178 birds of Europe (including Russia and European dependencies in the Arctic) which have precocial or nidifugous young. The main aim of the book is to provide a description of the young, and means of identification. This will be especially useful for bird-ringers and museum-people. To make the book useful to a wider spectrum of ornithologists, from amateurs to wild-life ecologists, all our present knowledge of the family life and ecological relations of these species during the period, when they have their young has also been collected here. The book also gives suggestions to the pure taxonomist.



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# British Birds

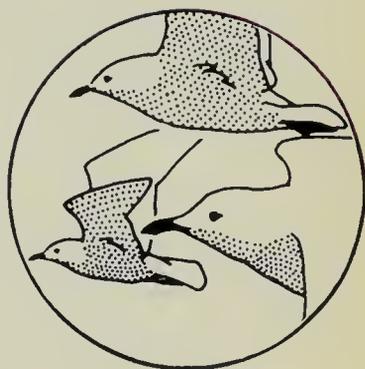
VOLUME 71 NUMBER 4 APRIL 1978



## Field identification of west Palearctic gulls

P. J. Grant

**The west Palearctic list includes 23 species of gulls: more than half the world total. Field guides—because of their concise format—provide inadequate coverage of identification and ageing, which has probably fostered the indifference felt by many bird-watchers towards gulls. This five-part series aims to change that attitude**



**I**nterest in identifying gulls is growing, as part of the recent general improvement in identification standards, but doubtless also stimulated by the addition to the British and Irish list of no less than three Nearctic species in little over a decade (Laughing Gull *Larus atricilla* in 1966, Franklin's Gull *L. pipixcan* in 1970 and Ring-billed Gull *L. delawarensis* in 1973). The realisation is slowly dawning that regular checking through flocks of gulls can be worthwhile.

Just as important as identification is the ability to recognise the age of individual immatures. This is obviously necessary in studies of population, distribution and migration, but is also a challenge in its own right to the serious bird-identifier. Indeed, identification and ageing go hand-in-hand, for it is only by practising his recognition skills on the common species—of all ages—that an observer will acquire the degree of familiarity necessary for the confident identification of the occasional rarity.

The enormous debt owed to D. J. Dwight's *The Gulls of the World* (1925) is readily acknowledged. That work, however, has long been out of print and its format was designed for the museum and taxonomic worker; the present series of papers will provide a reference more suited to field observers.

Each of the five parts in this series will bring together species which share similar characters, especially in their immature plumages where the possibility of confusion is greatest.



## PART ONE

Black-headed Gull *Larus ridibundus*Slender-billed Gull *L. genei*Bonaparte's Gull *L. philadelphia*Grey-headed Gull *L. cirrocephalus*

## PART TWO

Common Gull *L. canus*Mediterranean Gull *L. melanocephalus*Laughing Gull *L. atricilla*Franklin's Gull *L. pipixcan*Ring-billed Gull *L. delawarensis*

## PART THREE

Lesser Black-backed Gull *L. fuscus*Great Black-backed Gull *L. marinus*Herring Gull *L. argentatus*Audouin's Gull *L. audouinii*Great Black-headed Gull *L. ichthyæetus*

## PART FOUR

Ivory Gull *Pagophila eburnea*Sabine's Gull *L. sabini*Kittiwake *Rissa tridactyla*Little Gull *L. minutus*Ross's Gull *Rhodostethia rosea*

## PART FIVE

Glaucous Gull *L. hyperboreus*Iceland Gull *L. glaucooides*White-eyed Gull *L. leucophthalmus*Sooty Gull *L. hemprichii*

Small to medium size, with extensive white on leading edge of outer wing at all ages, least developed in Grey-headed. All except Slender-billed have dark hood in adult summer plumage, reduced to a dark ear-spot in winter.

Medium size, with first-year wing pattern of dark outer primaries and secondary bar, and tail pattern with more or less defined dark terminal band. Adult Mediterranean, Laughing and Franklin's have black hoods in summer when other two are white-headed.

Large size. All have four-year period of immaturity, producing wide variety of plumages, which are particularly similar in first-year, when separation of Lesser Black-backed, Great Black-backed and Herring provides very difficult identification test.

Small to medium size, all except Ivory having, in first-year, striking W pattern across wings in flight, formed by dark outer primaries and inner wing-coverts. Ivory, Sabine's and Ross's among most sought-after and beautiful of arctic rarities.

Glaucous and Iceland: large size, wings and tail without black at all ages. White-eyed and Sooty: medium size with extensively dusky plumage at all ages and black hood in summer adults. White-eyed confined to Red Sea, while Sooty also found on north-east African coast and east to India. Part Five will also include comment on albinistic, leucistic and hybrid gulls.

This series will undoubtedly focus attention on gaps which still exist in our knowledge: any suggestions for revisions or new photographs will be greatly appreciated. It is intended to publish these papers as a book at a future date, when such new material may be included. The wealth of information and photographs received in response to published appeals have been of great assistance, and will be fully acknowledged in part 5.

### General information

The identification of adult gulls—especially those in breeding plumage—is relatively straightforward. Immatures are more difficult, since they can look quite unlike the adults and the specific differences are much less obvious. Each species takes a different length of time to acquire adult plumage, largely depending on its size. Most small species reach adult plumage in their second winter, most medium-sized species in their third winter, and most large species in their fourth winter. Fig. 1 shows the

sequence of plumages from juvenile to adult of typical small, medium and large gulls.

Use of the age-terminology shown here is recommended. It avoids the imprecision of such terms as 'immature' or 'sub-adult', which are unhelpfully used in many field guides and local bird reports: even 'first-year' (instead of the more exact 'first-winter' or 'first-summer'), 'second-year', and so on, are inadequate in late summer or autumn, since they do not indicate whether the bird has undertaken its complete autumn moult and, therefore, do not fix its exact age. When a gull is in a transitional stage of moult, it is useful to record this fact. A thorough understanding of the sequence of immature plumages and the terminology used to describe them is essential when identifying and ageing gulls. Familiarity with the mechanics of gull moult and the effects of plumage wear and fading is also most important, since it will greatly clarify a seemingly complex field situation.

Gulls have two moults annually. In spring, a partial moult renews the head and body feathers, usually a few inner wing-coverts, and sometimes the tertials and central tail feathers. In autumn, there is a complete moult, but juveniles replace only their head and body feathers. Franklin's Gull is exceptional in apparently having a complete moult in both spring and autumn.

Adults usually start the complete autumn moult near the end of breeding activity; immatures begin the autumn moult earlier. Large species can take as long as four months to complete this moult, whereas small species take four to six weeks, but there is much individual variation, both in the length of moult and in the starting time. Some immature large gulls may start their wing moult as early as May, while some adults may not complete it until December or January. The moult periods given in the text refer to extreme dates between which moult can be expected: most individuals will start and complete their moult within this period.

The timing of the moult sequence is related to the timing of the breeding season. In the southern hemisphere, this is the reverse of that in the northern hemisphere. In equatorial regions, the seasonality of breeding is much less marked: the moult sequence there does not always follow the same temporal pattern as in Europe and northern Asia.

Broadly speaking, the moult of the primaries provides the yardstick by which progress of the autumn moult is measured. (Gulls have eleven primaries, but the vestigial outer one is ignored here.) The moult commences with the shedding of the inner (10th) primary, and progresses outwards. The moult of the rest of the plumage takes place mainly within the period when the primaries are being renewed, so that the full growth of the outer (1st) primary comes at or near the end of the moult. The rate of renewal of the primaries is slow, with usually only one or two adjacent feathers growing at any one time.

The secondaries and tail feathers are moulted in a much less regular pattern, and large gaps are often visible where groups of feathers have been shed simultaneously. Wing-coverts are shed in groups, revealing the whitish bases of the underlying feathers, producing the whitish patches

and lines on the upperwing which are often noticeable in late summer and autumn.

When a feather is lost accidentally, its replacement usually resembles that which would normally have grown at the next moult. Individuals with one or more replacement tail feathers are particularly frequent: on immatures this shows up as a white break in the otherwise complete tail band.

Sick or injured birds are likely to have their moult sequence retarded. Adults which, for example, are unable to return to the breeding colony or are unable to participate in the colonial breeding activity, may lack the stimulus which produces breeding plumage. Captive birds are sometimes similarly retarded, and it is possible that vagrant gulls which have spent a long time outside their breeding range may also be affected.

First-year gulls have rather pointed primaries and rounded tail feathers; at subsequent ages (second-winter onwards), the primaries are more rounded and the tail feathers squarer, although these differences are rarely discernible in the field.

The effects of wear and fading are always most obvious in the summer, when the wing and tail feathers are at their oldest, just before the autumn moult. White plumage is more prone to wear than dark, and the white tips and fringes may disappear completely. Brown plumage, especially the wing-coverts of immatures, fades markedly with age, and black or blackish areas become progressively browner.

By late summer or early autumn, when the wing and tail moult is under

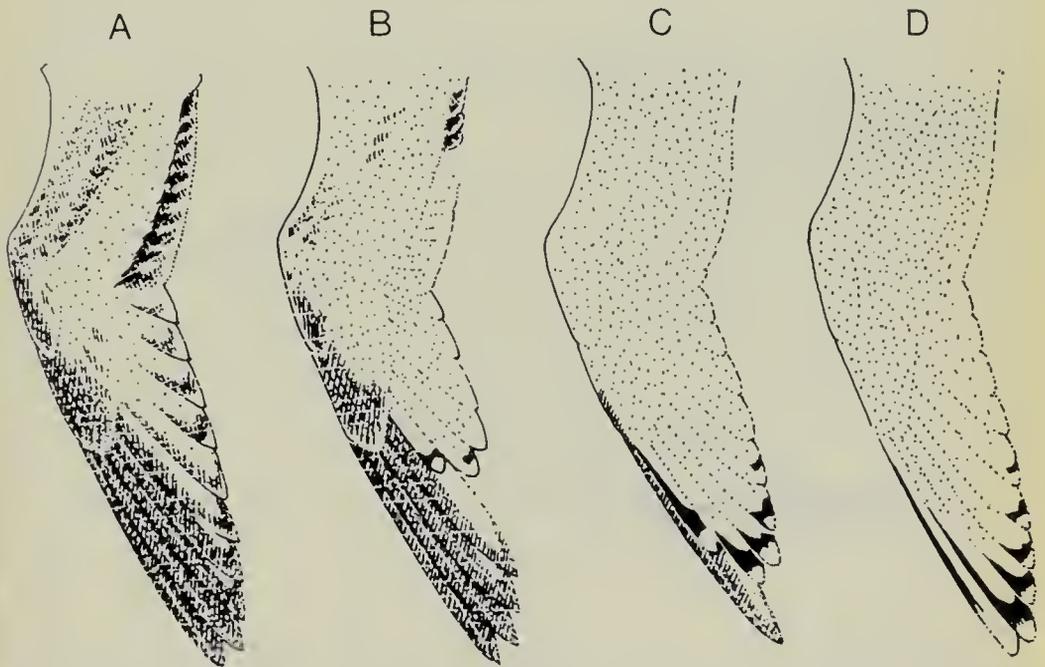


Fig. 2. Wing of Mediterranean Gull *Larus melanocephalus* in moult from first-summer to second-winter. (A) first-summer wing pattern; (B) moult half complete, inner four primaries new, 5th and 6th partially grown, and 4th about to be shed; (C) moult three-quarters complete, outer primary about to be shed, white patches on inner wing indicate that coverts not yet fully grown, and note that primary tips are more rounded in second-year (and subsequent) plumages than first-year; (D) second-winter wing pattern

way, the mixture of faded old feathers and complete and growing new ones often presents a most bedraggled appearance and produces wing patterns which may be unfamiliar; further, while the outer primaries are still growing, the wing-tip may appear more rounded than normal, and the wing-beat is quicker than usual until the full extent of the wing area is restored. It is impossible to illustrate the endless variations of wing pattern exhibited by gulls in wing moult, but their appearance can be visualised by comparing the wing patterns of the two adjacent ages involved. As an example, fig. 2 shows the wing patterns of a typical Mediterranean Gull in transition from first-summer to second-winter.

### Format

Each part in this series will have an introduction covering general points relating to its group of species, with a table of comparative measurements from Dwight (1925) and a page of drawings depicting standing birds in first-winter plumage to aid size and structure comparisons.

Much of the wing area shown in these drawings may—in the field and especially when swimming—be obscured by the overlap of body feathers: often only the tertials and primary tips are visible.

This general introduction is followed by the species accounts, including flight drawings of adults and immatures of each species, in which the wing length and tail spreads have been slightly exaggerated to show the flight patterns clearly.

### DEFINITIONS

*Ear-spot* more or less well defined area of dark feathers on ear-coverts, appearing as dark spot behind eye: feature mainly of hooded species in winter.

*Eye-crescent* semicircular, dark area immediately in front of eye: feature of many hooded species in winter plumage.

*Carpal-bar* contrasting dark band of feathers diagonally across inner wing, formed by brown or blackish median and lesser coverts and tertials.

*Scapular-crescent* small, white, crescentic area formed by white tips to scapular feathers, readily visible on standing adults of several species, positioned about two-thirds of the way down back and contrasting with otherwise grey or black mantle.

*Tertial-crescent* often broad, white crescent, formed by white fringes to tertials, positioned to rear of scapular-crescent on standing birds, immediately in front of projecting wing feathers.

*Mirror* often prominent, rounded, white area near tip of otherwise black, outer one or more primaries.

**Table 1. Measurements in mm of four gulls *Larus* (from Dwight 1925)**

	Sample size	Wing	Tail	Bill	Tarsus
Black-headed Gull <i>L. ridibundus</i>	12	280-315	104-124	30-37	42-47
Slender-billed Gull <i>L. genei</i>	24	278-320	110-125	35-46	46-54
Bonaparte's Gull <i>L. philadelphia</i>	27	246-271	99-108	27-32	33-37
Grey-headed Gull <i>L. cirrocephalus</i>	22	305-338	120-134	35-42	48-60

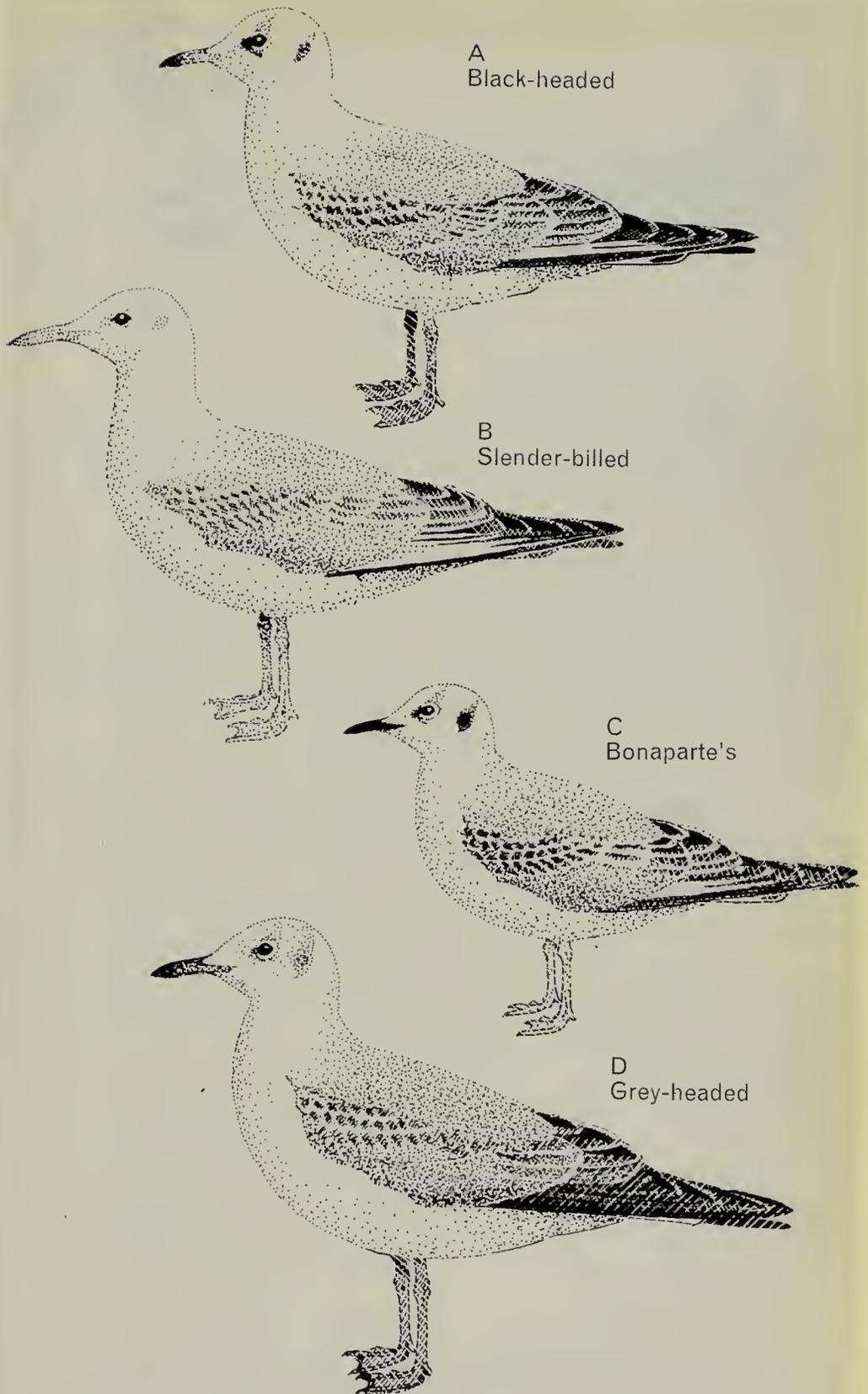
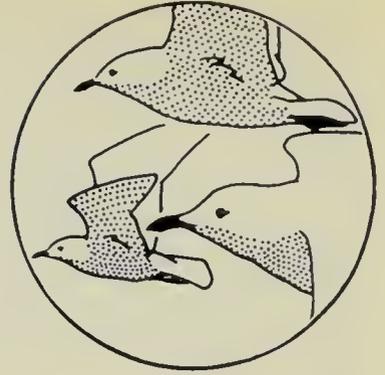


Fig. 3. First-winter Black-headed *Larus ridibundus*, Slender-billed *L. genei*, Bonaparte's *L. philadelphia* and Grey-headed Gulls *L. cirrocephalus*, showing comparative sizes, shapes and stances

**Part. 1 Black-headed, Slender-billed,  
Bonaparte's and Grey-headed Gulls**



These four small- to medium-sized species form a distinct group among west Palearctic gulls. Their most striking common feature is the extensive white on the leading edge of the outer wing in flight. This is more extensive on adults than on immatures, but is readily visible at all ages. It is least extensive on Grey-headed Gull, which also has mirrors on the outer two primaries when adult, giving a diagnostic wing pattern; on this species—unlike the other three—the white leading edge is not visible from below.

Immatures of all four have dusky head markings of varying strength, wing patterns of brownish carpal-bar and blackish secondaries, as well as the white on the leading edge, and white tails with a thin, clear cut, blackish subterminal band. These characters in combination are not shared by any other west Palearctic gull.

All except Slender-billed have dark hoods in adult summer plumage, but—surprisingly—even that species usually has a dark ear-spot in winter and immature plumages, although it is much more faint than on the others.

Black-headed, Slender-billed and Bonaparte's normally reach adult plumage in their second winter; some Grey-headed probably do so as well, but others have identifiable second-year plumages and do not become fully adult until their third winter. The proportion of Grey-headed Gulls having this longer immaturity is not known, but it is clearly much greater than for the others in this group, in which second-years are rarely identifiable in the field.

Throughout most of its range, the Black-headed is the commonest and most familiar small gull (fig. 4). Slender-billed is rare anywhere north of its localised Mediterranean and southwest Asian breeding areas (fig. 6). Bonaparte's is a rare vagrant from America (fig. 8), with only one or two records annually in Britain. Grey-headed is the typical gull of some African coasts and inland lakes (fig. 10), and has been recorded only once in Europe (Ree 1973).

For European observers, the abundance of the Black-headed Gull makes it the key species for identifying the others in this group. Complete familiarisation with its appearance, especially in immature plumages, from different angles and in varying light conditions, will greatly aid recognition of the others, and avoid the dismissal of one of them as an odd-looking Black-headed.

**Black-headed Gull** *Larus ridibundus* (figs. 3A and 5, plates 50-58)

Fig. 4. World distribution of Black-headed Gull *Larus ridibundus*, showing approximate breeding range (solid black) and approximate southern limit of winter/non-breeding range (black line)

## IDENTIFICATION

This is the smallest of the abundant west Palearctic gulls. It is noticeably smaller than the European race of the Common Gull *L. c. canus*, and this is accentuated in flight, when the slimmer, more pointed wings and quicker wingbeats are discernible. It is easily separable from all gulls except the other three species in this group, the best point being the white along the leading edge of the outer wing in flight—more extensive on adults than immatures—visible at long range from both above and below. The brown hood of summer adults and some first-summer birds is diagnostic among west Palearctic gulls (the others having black or grey hoods), but it invariably looks blackish at a distance. In winter, the head is mainly white, with a neat blackish ear-spot and eye-crescent; bill and legs are red in breeding plumage, duller in winter, and dull flesh or yellowish-flesh in immatures.

The separation of Black-headed from the other three species in this group is less straightforward: the brown hood colour is the only wholly diagnostic character, so a combination of factors involving size, structure and plumage must be used. With practice, a quick scan through flocks of Black-headed Gulls—checking characters of size, head pattern and shape, and wing pattern—is sufficient to eliminate the possible presence of one of the other species: Bonaparte's is smaller, with a neat blackish bill and translucent white underwing; Slender-billed has a diagnostically elongated forehead and bill, and head all white or with a very pale grey ear-spot; Grey-headed is larger and more heavily built, with a wholly dusky underwing and a distinctive wing pattern.

## AGEING

*Juvenile*: extensive ginger-brown on head, mantle and sides of breast (summer to late September).

*First-winter*: brown carpal-bar, blackish secondaries and tail band, winter head pattern (July to April).

*First-summer* : faded pale brown carpal-bar, blackish secondaries and tail band, hood developed to variable extent (March to October).

*Second-winter and second-summer* : very few can be aged in their second year (see detailed description under second-winter), but vast majority inseparable from adults.

*Adult winter/second-winter* : adult wing pattern, all-white tail, winter head pattern (August to March).

*Adult summer/second-summer* : adult wing pattern, all-white tail, fully developed hood (March to October).

#### DETAILED DESCRIPTIONS

*Juvenile* (fig. 5A, underwing and tail similar to first-winter, 5F)

HEAD white, washed buff when recently-fledged, with dark markings forming partial hood, separated from mantle by white collar. BODY underparts and rump mainly white. breast faintly washed buff when recently-fledged. Mantle, lower nape and sides of breast mainly rich ginger-brown,

with pale-fringed feathers giving scaled effect on lower back. WINGS brown carpal-bar, tertials broadly fringed paler. Secondaries mainly blackish, forming dark subterminal trailing edge to inner wing. Greater coverts mainly pale grey, forming pale mid-wing panel. Typical primary



50. Juvenile Black-headed Gull *Larus ridibundus*, South Yorkshire, July 1970 (Richard Vaughan)

51. Black-headed Gull *Larus ridibundus*, moulting from juvenile to first-winter, Kent, August 1976 (Pamela Harrison)

patterns shown in 5A and 5B: exceptionally, black on outer primaries more extensive, reducing white to two elongated mirrors as in 5C. Primaries may have tiny white tips from 4th inwards. From below, primaries and secondaries appear mainly blackish, with narrow white translucent

leading edge to outer wing. TAIL white, with clear-cut narrow subterminal band, broadest in centre, outer pair of feathers sometimes all-white. BARE PARTS eye dark brown; bill dull flesh or yellowish-flesh with extensive dark tip; legs dull yellowish-flesh.

The striking ginger-brown appearance at this age is lost fairly quickly after fledging, but dispersing juveniles may occur far from breeding colonies.

*First-winter* (figs. 3A, 5B and 5F) Acquired by post-juvenile head and body moult, which starts at fledging and is usually complete by late September.

HEAD white, with dusky eye-crescent and prominent blackish ear-spot. BODY mantle uniform pale grey, sometimes a few brown juvenile feathers retained. Rump and underparts white. WINGS as juvenile, but brown and blackish areas faded paler, and white tips on primaries and secondaries reduced or lacking. TAIL as juvenile, but band faded, and terminal whitish fringe reduced. BARE PARTS much as juvenile.

52. First-winter Black-headed Gull *Larus ridibundus*, USSR, November 1976 (Pamela Harrison)



53. First-winter Black-headed Gull *Larus ridibundus*, North Humberside, February 1971 (Richard Vaughan)



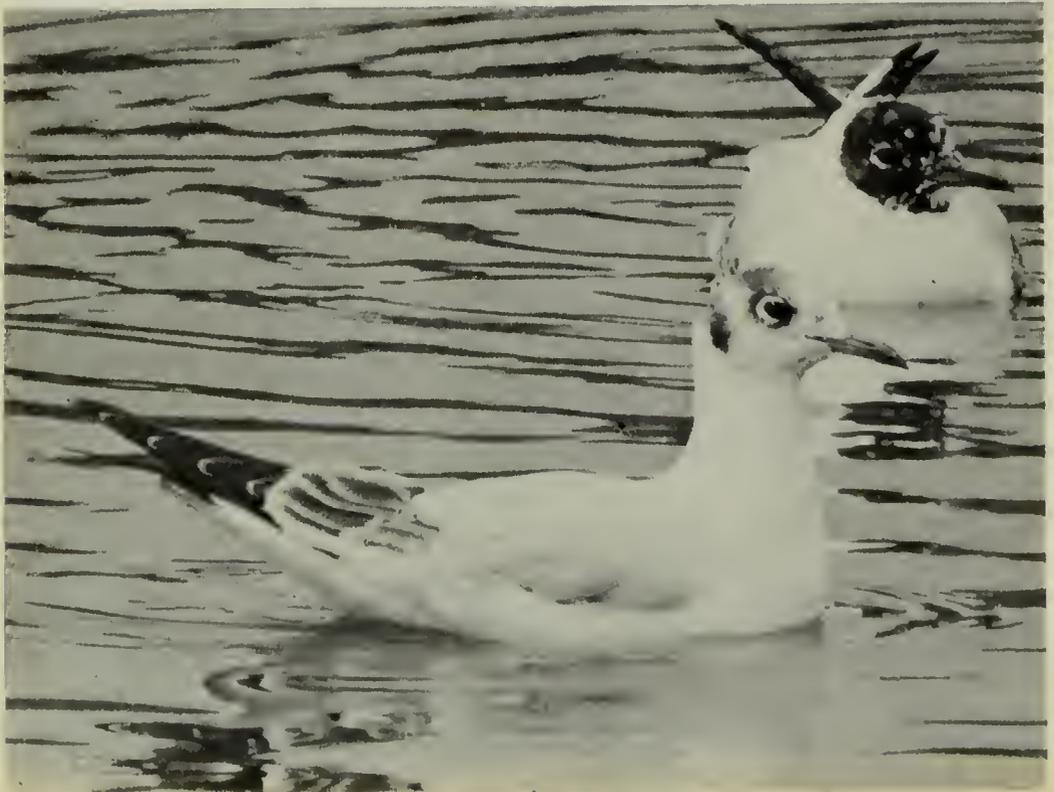
*First-summer* (fig. 5C, underwing and tail similar to first-winter, 5F. When standing, similar to first-winter, 3A, but hood usually more extensive) Acquired by head and body moult, February to April.

As first-winter except: HEAD chocolate-brown hood of varying extent (field sample of 90 in May in southeast England showed 7% full hood; 58% white-flecked full hood; 24% more white than brown; 11% winter

head pattern. WINGS AND TAIL becoming extremely worn and faded on some by mid summer. BARE PARTS bill and legs more orange, less flesh-coloured; prominent dark tip to bill.



54, 55. First-summer Black-headed Gulls *Larus ridibundus*, Kent, April 1976 (Pamela Harrison)



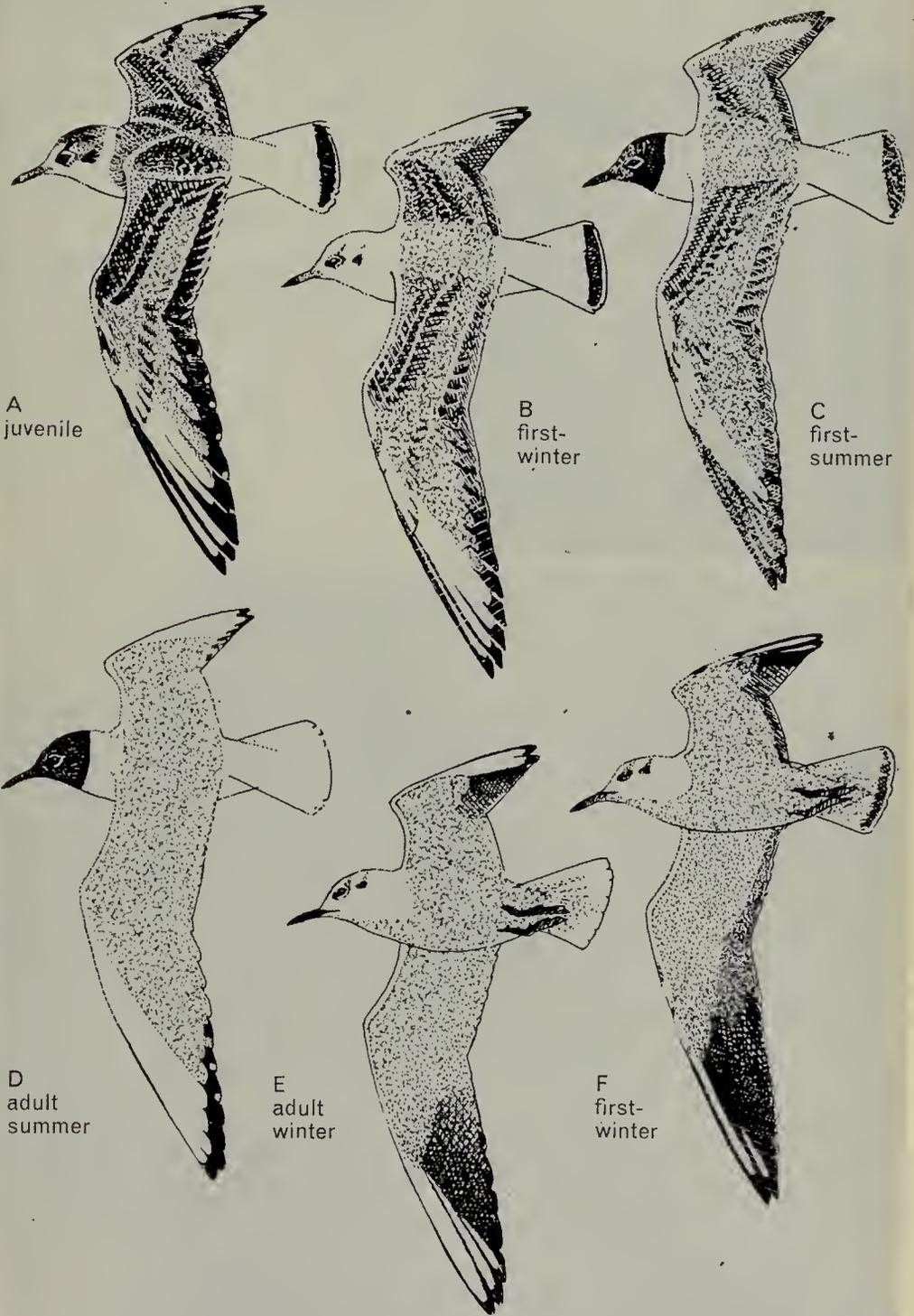


Fig. 5. Black-headed Gulls *Larus ridibundus* in flight

*Adult winter/second-winter* (fig. 5E, upperwing and tail patterns similar to adult summer, 5D.) Acquired by complete moult late summer to October.

HEAD AND BODY usually as first-winter, but exceptionally with extensive dark markings or even full summer hood in

mid winter. WINGS primaries and primary coverts with more white than in first-year plumages, black restricted to primary tips



56. Adult winter Black-headed Gull *Larus ridibundus*, North Humberside, October 1970 (Richard Vaughan)



57. Adult winter Black-headed Gull *Larus ridibundus*, London, December 1967 (David and Katie Urry)

inwards as far as 6th to 8th: pale grey tips to primaries usually from the 5th inwards. Remainder of wing pale grey, with thin white leading and trailing edges. From above and below, white leading edge to outer wing more extensive than in first-

year plumages, and blackish area on underside more restricted, not extending onto secondaries. Underwing-coverts white or very pale grey. TAIL all white. BARE PARTS bill dull red, with dark tip; legs dull reddish.

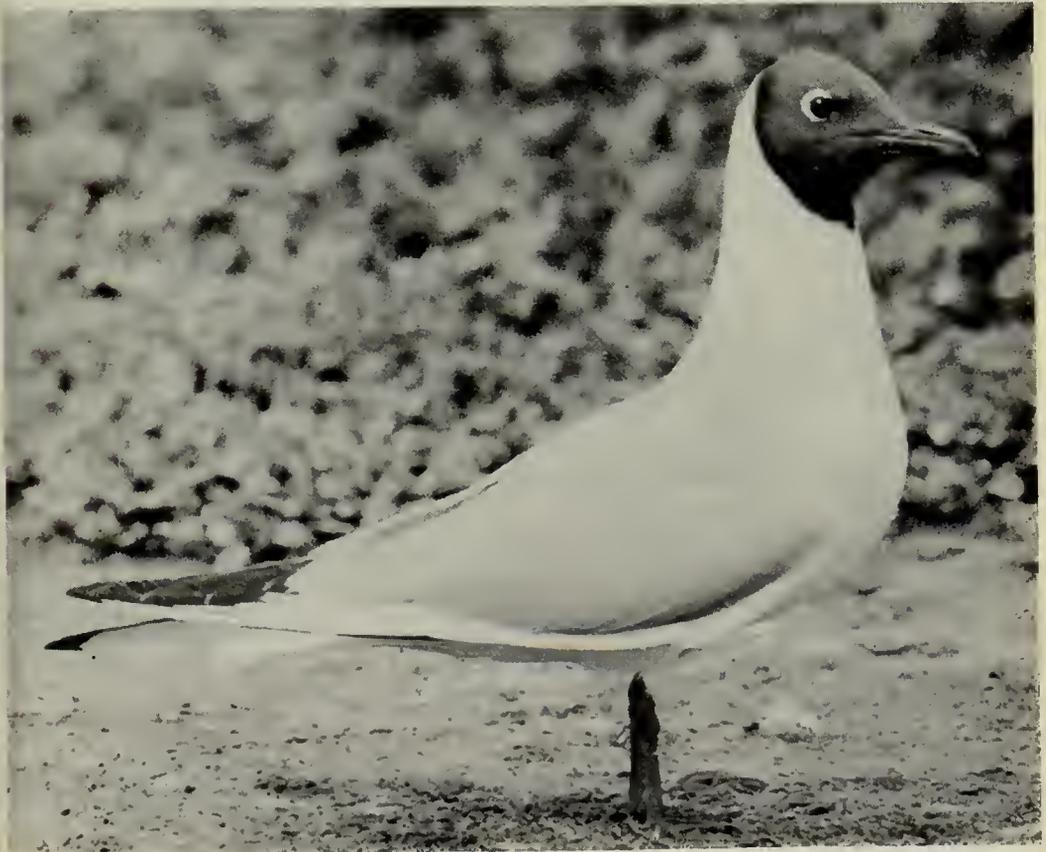
A few fail to acquire full adult plumage in their second winter, showing dark markings, especially on the primary coverts, undetectable in the field. Individuals with orange-yellow bill with dark tip, and orange-flesh legs, may be confidently aged as second-years which have yet to acquire the adult bare part colour. Variation in the number of primaries with black and the number and extent of the pale grey tips does not seem to be connected with age. Individuals with normal adult summer plumage except for white flecks in the brown hood and paler bare parts are probably in second-summer plumage.

*Adult summer/second-summer* (fig. 5D, underwing and tail similar to adult winter, 5E) Acquired by head and body moult, January to April.

As adult winter except: HEAD brown hood fully developed, darker around rear margin, with thin white eye-ring. BODY some show pale pink flush on underparts. WINGS pale grey tips to inner primaries

reduced or missing. BARE PARTS eye brown; eye-lids red. Bill wholly dark red, only slightly paler in tone than brown of head; gape red. Legs dark red.

58. Adult summer Black-headed Gull *Larus ridibundus*, German Democratic Republic, summer 1952 (*Ilse Makatsch*)



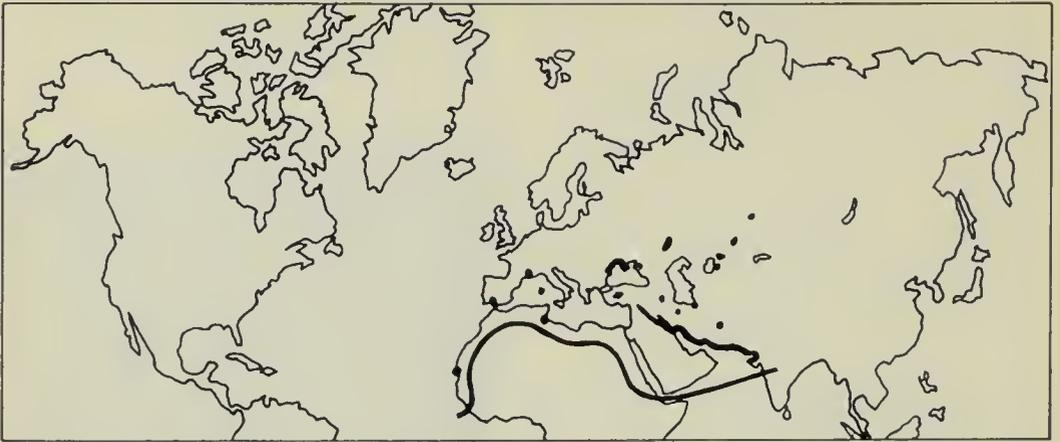
**Slender-billed Gull** *Larus genei* (figs. 3B and 7, plates 59-64)

Fig. 6. World distribution of Slender-billed Gull *Larus genei*, showing areas of proved breeding (solid black) and approximate southern limit of winter/non-breeding range (black line). Rare vagrant anywhere north of breeding areas; three records in Britain and Ireland, all in coastal southeast England, in 1960, 1963 and 1971

**IDENTIFICATION**

The slightly longer wings, longer legs and heavier body than Black-headed Gull are noticeable only when the two species are together. In flight, the tail looks slightly longer and fuller, as if to counterbalance the elongated head and neck: the tail is not wedge-shaped, contrary to some statements in the literature. The peculiar shape of head, neck and bill is perhaps the most important field mark at all ages: Black-headed can look long-necked at times, but they never have the almost grotesque, 'giraffe-necked' look of Slender-billed when its neck is fully extended. The distance from the eye to the bill is greater than in the case of Black-headed, and the forehead is strikingly elongated, producing a peculiar 'snout' effect, which is further exaggerated by the longer bill: Black-headed rarely even suggests this appearance, having a more rounded head profile and shorter bill.

The first-year wing pattern differs from Black-headed by usually having a paler brown carpal-bar and less extensive black. The lack of any prominent dark head markings—except for a pale grey ear-spot (if any at all)—and the paler bill (without extensive dark tip) and legs are further differences. The adult is instantly separable from Black-headed by the lack of any dark head markings or hood, the pale eye, and—in summer—by the strongly pink-flushed underparts.

Grey-headed Gull has a head shape intermediate between Black-headed and Slender-billed, and, like the latter, has a long neck when alert, pale eyes when adult and pale head markings in winter; but its larger size, extensive black on the outer primaries at all ages, mainly dusky underwing without white and the darker grey tone of the wings are the most obvious differences.

**AGEING**

*Juvenile*: extensive grey-brown on head and mantle (summer to late September).

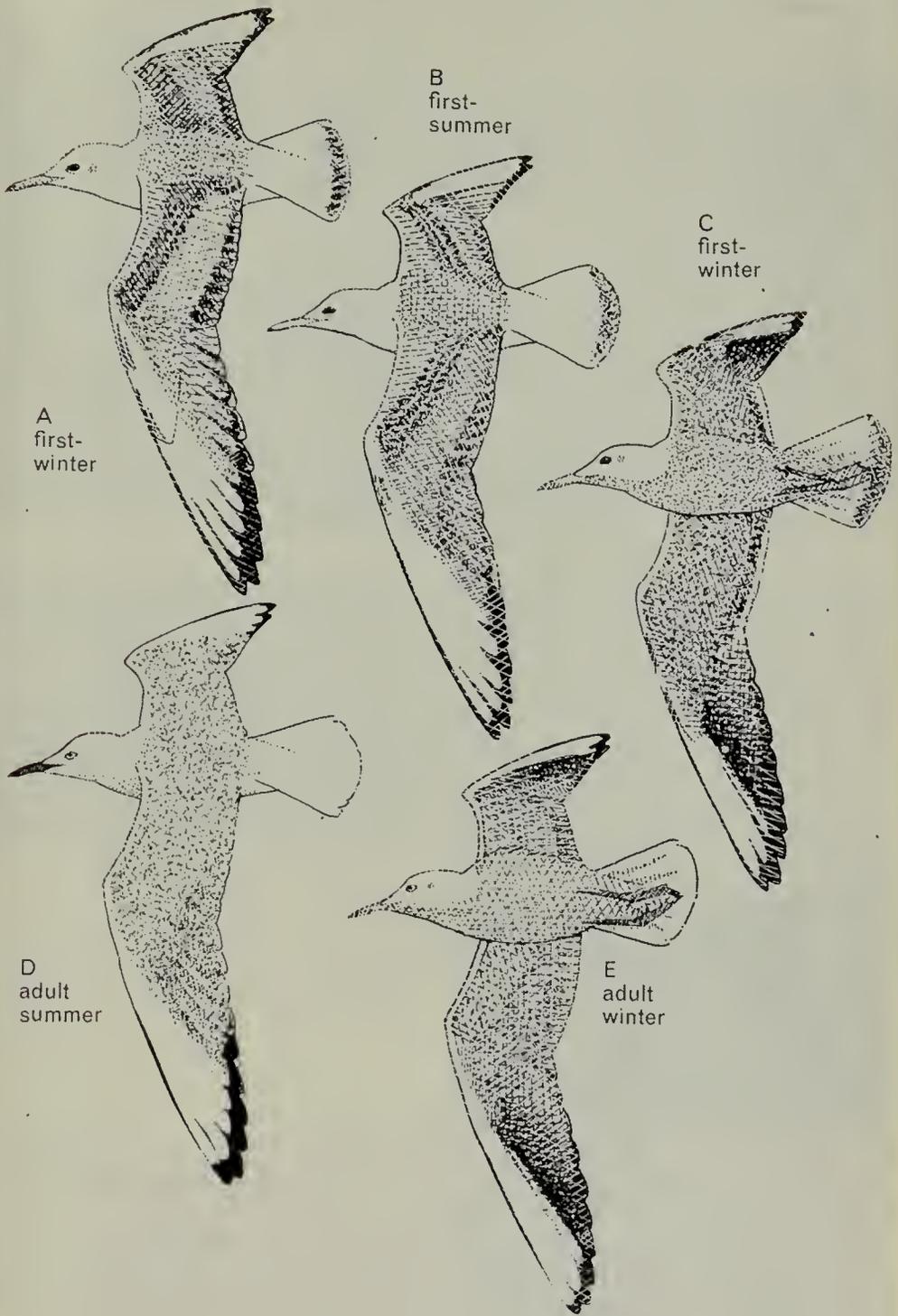


Fig. 7. Slender-billed Gulls *Larus genei* in flight

*First-winter*: pale brown carpal-bar, blackish secondaries and tail band, pale grey ear-spot, pale bill and legs (July to April).

*First-summer*: faded, very pale brown carpal-bar, faded blackish secondaries and tail band, pale bill and legs (March to October).

*Adult winter/second-winter*: adult wing and tail pattern, pale grey ear-spot usually present, white underparts, pale eye, dark bill and legs (August to March).

*Adult summer/second-summer*: adult wing and tail pattern, all-white head, pink underparts, pale eye, dark bill and legs (March to October).

#### DETAILED DESCRIPTIONS

*Juvenile* (not illustrated, but wing and tail pattern similar to first-winter, 3B, 7A and 7C: head, body and bare parts as described below).

Basic pattern of plumage similar to juvenile Black-headed except: HEAD white, with pale buff and grey markings. Ear-spot and partial hood effect much less defined or lacking. BODY mantle and sides of breast grey-brown, lacking rich ginger-brown coloration. WINGS carpal-bar paler brown, and blackish areas at tips of inner primaries less extensive, hence dark

trailing edge to middle wing less prominent. White on outer primaries and primary coverts usually more extensive and black never so extensive as on some Black-headed (cf. fig. 5C). BARE PARTS eye dark brown. Bill pale orange-flesh, with dark tip small or lacking. Legs pale orange-flesh.

*First-winter* (figs. 3B, 7A and 7C). Acquired by post-juvenile head and body moult, which starts at fledging and is usually complete by late September.

Basic pattern of plumage similar to first-winter Black-headed except: HEAD white, with indistinct dark eye-crescent and pale grey ear-spot. BODY underparts sometimes faintly tinged pink. WINGS as juvenile, but

brown and blackish areas faded paler. BARE PARTS much as juvenile; some may show pale eye at close range. (See summary at end of first-summer description.)



59. First-winter Slender-billed Gull *Larus genei*, Turkey, October 1977 (S. G. Madge)

*First-summer* (fig. 7B, underwing and tail similar to first-winter, 7C. When standing, similar to first-winter, 3B, but carpal-bar paler and ear-spot usually lacking.) Acquired by head and body moult, February to April.

Appearance as first-winter, except: HEAD pale grey ear-spot usually lacking. WINGS AND TAIL invariably becoming very worn and faded, so that pale brown carpal-bar (and sometimes even dark secondaries)

appear hardly darker than grey of mantle and rest of wings. BARE PARTS eye usually becoming pale by late summer. Bill and legs pale orange, and some may acquire hint of adult coloration by late summer.

Because of their general paleness, some distant perched first-year birds are separable from adults only by paler bill and legs, and (in summer) by lack of strongly pink-flushed underparts; in flight, first-year wing pattern and banded tail are more obvious.

Adult winter/second-winter (fig. 7E, wing and tail pattern similar to adult summer, 7D.) Acquired by complete moult, late summer to October.

HEAD AND BODY as first-winter, but grey ear-spot sometimes lacking. WINGS AND TAIL as adult Black-headed, but white on outer primaries more extensive, giving more prominent white leading edge to

outer wing. BARE PARTS eye white or pale yellow. Bill dark red or orange-red, looking black at distance. Legs not so dark as bill, with more orange tone.



60. Adult winter Slender-billed Gull *Larus genei*, Iran, February 1971 (Pamela Harrison)



61. Adult winter Slender-billed Gulls *Larus genei* with one adult winter Black-headed Gull *L. ridibundus* (right), Iran, February 1971 (Pamela Harrison)

62. Adult summer Slender-billed Gull *Larus genei*, Spain, April 1969 (C. E. Wheeler)



*Adult summer/second-summer* (fig. 7D, underwing and tail as adult winter, 7E.) Acquired by head and body moult, February to April.

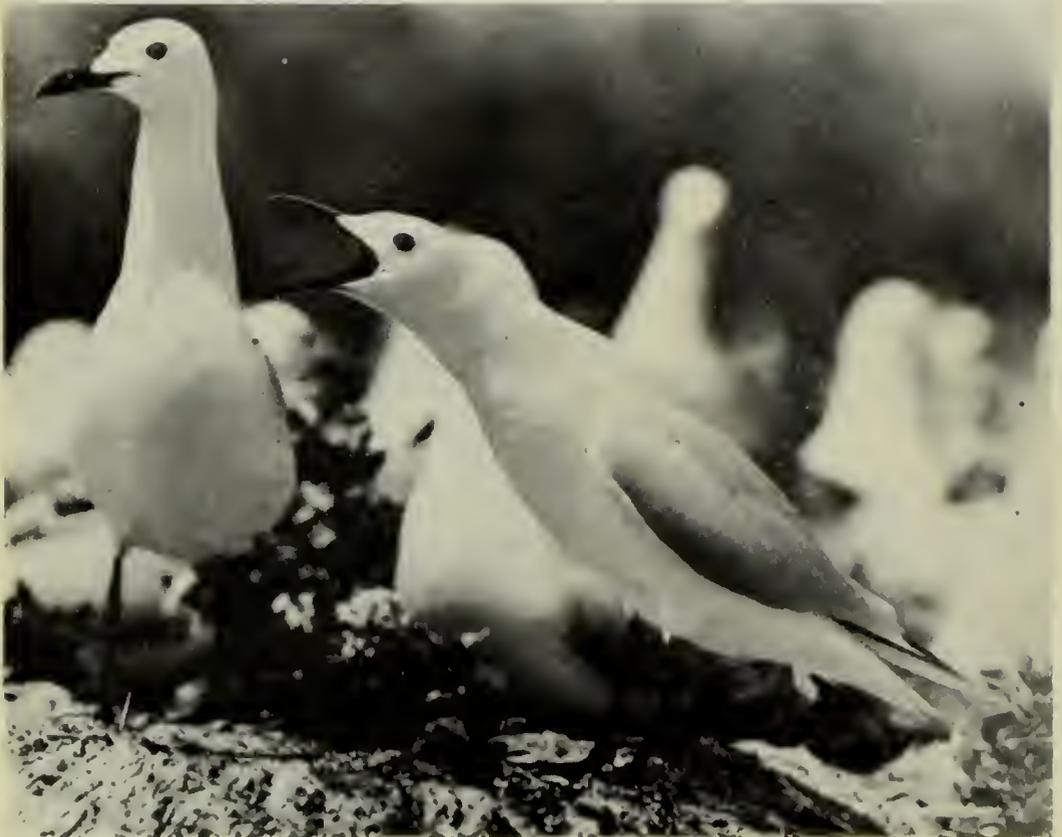
As adult winter, except: HEAD all white, sometimes with pale pink flush. BODY whole underparts with usually strong pink flush, strongest on breast and belly. BARE PARTS eye white or pale yellow; eye-

lids red. Bill all dark blood-red, darker than adult summer Black-headed and looking black at distance. Legs slightly less dark than bill.



63. Adult summer Slender-billed Gull *Larus genei*, France, June 1977 (J. G. Prins)

64. Adult summer Slender-billed Gulls *Larus genei*, USSR, May 1976 (V. D. Siokhin)



**Bonaparte's Gull** *Larus philadelphia* (figs. 3C and 9, plates 65-68)

Fig. 8. World distribution of Bonaparte's Gull *Larus philadelphia*, showing approximate breeding range (solid black) and approximate southern limit of winter/non-breeding range (black line). Vagrant to western coastal Europe, with average of one or two records annually in Britain and Ireland

## IDENTIFICATION

This attractive small gull is a miniature version of Black-headed, lying between Black-headed and Little Gull. Size and the combination of quicker wingbeat, whiter underwing, neat blackish bill and surface-picking feeding suggest a tern-like appearance, although this is more illusory than actual in terms of wing shape and flight action. The small size and the neatly black-bordered, extensively translucent white underside to the primaries (not extensively dusky as on Black-headed) are the best distinctions from the others in this group. Some worn and faded first-summer Black-headed can seem to have a translucent underwing at times, but this impression is usually fleeting.

In first-year plumages, there are several other differences from Black-headed. The smaller bill is black, sometimes with a reddish base (pale with dark tip in the case of Black-headed). The carpal-bar is darker brown and looks blackish at a distance. Unlike Black-headed, the inner primaries have neat white terminal spots (although these are subject to wear), and the subterminal black forms a thinner, neater black rear border to the middle wing. The mantle is a shade greyer, and, in first-winter, this colour extends forward onto the nape.

Adults, as well as having the size and underwing differences, are further distinguished from Black-headed by all-black bill, black (often appearing dark grey) hood in summer, with more prominent white crescents above and below the eye, and usually stronger pink flush on the underparts.

First-year Little Gull is much smaller than Bonaparte's and has a rounded wing tip. The carpal-bar is blackish and the upperwing lacks the prominent white leading edge, although, when the wing is fully spread, the white inner webs of the outer primaries give a lined black-and-white appearance. From below, the wing is mainly white, lacking the translucent area on the primaries. Little Gull normally has a neat dark cap in winter and first-summer plumages, which Bonaparte's lacks.

## AGEING

*Juvenile*: extensive blackish head markings and rich brown on mantle and sides of breast (summer to late September).

*First-winter*: dark brown carpal-bar, blackish secondaries and tail band, winter head pattern (July to April).

*First-summer*: faded brown carpal-bar, blackish secondaries and tail band, hood developed to variable extent (March to October).

*Adult winter/second-winter*: adult wing pattern, all-white tail, winter head pattern (August to March).

*Adult summer/second-summer*: adult wing pattern, all-white tail, fully developed hood (March to October).

## DETAILED DESCRIPTIONS

*Juvenile* (fig. 9A shows an individual in moult from juvenile to first-winter. Underwing and tail similar to first-winter, 9F).

Basic pattern of plumage similar to juvenile Black-headed except: HEAD markings blacker with less brown. Ear-spot darker and more defined, and often with clear-cut cap. BODY mantle and sides of breast brown, without ginger tone. WINGS carpal-bar darker brown, looking blackish at distance. From above, pattern of primaries and secondaries is similar, but primaries from 3rd inwards usually prominently tipped white, and less black on 4th inwards, giving thinner trailing edge to

middle wing: figs. 9A (with most black) and 9B (with least black) show extent of normal variation. Inner web of all primaries white (except for black tip), and lacks complete broad dusky border: this difference not visible on upperwing, but, from below, wing white, neatly bordered along rear edge by thin black line, with area of translucent white in triangle along leading edge. BARE PARTS eye dark brown. Bill black, paler at base. Legs pale flesh.

*First-winter* (figs. 3C, 9B and 9F) Acquired by post-juvenile head and body moult, which starts at fledging and is usually complete by late September.

Basic pattern of plumage similar to first-winter Black-headed except: HEAD ear-spot usually blacker and more defined. Nape, and sometimes crown, grey, (extension of mantle colour), not white as

Black-headed. BODY mantle uniform grey, slightly darker than Black-headed, sometimes with a few retained brown juvenile feathers. WINGS as juvenile, but white primary tips reduced. BARE PARTS much as juvenile.



65. First-winter Bonaparte's Gull *Larus philadelphia*, USA, March 1975 (Alan Brady)

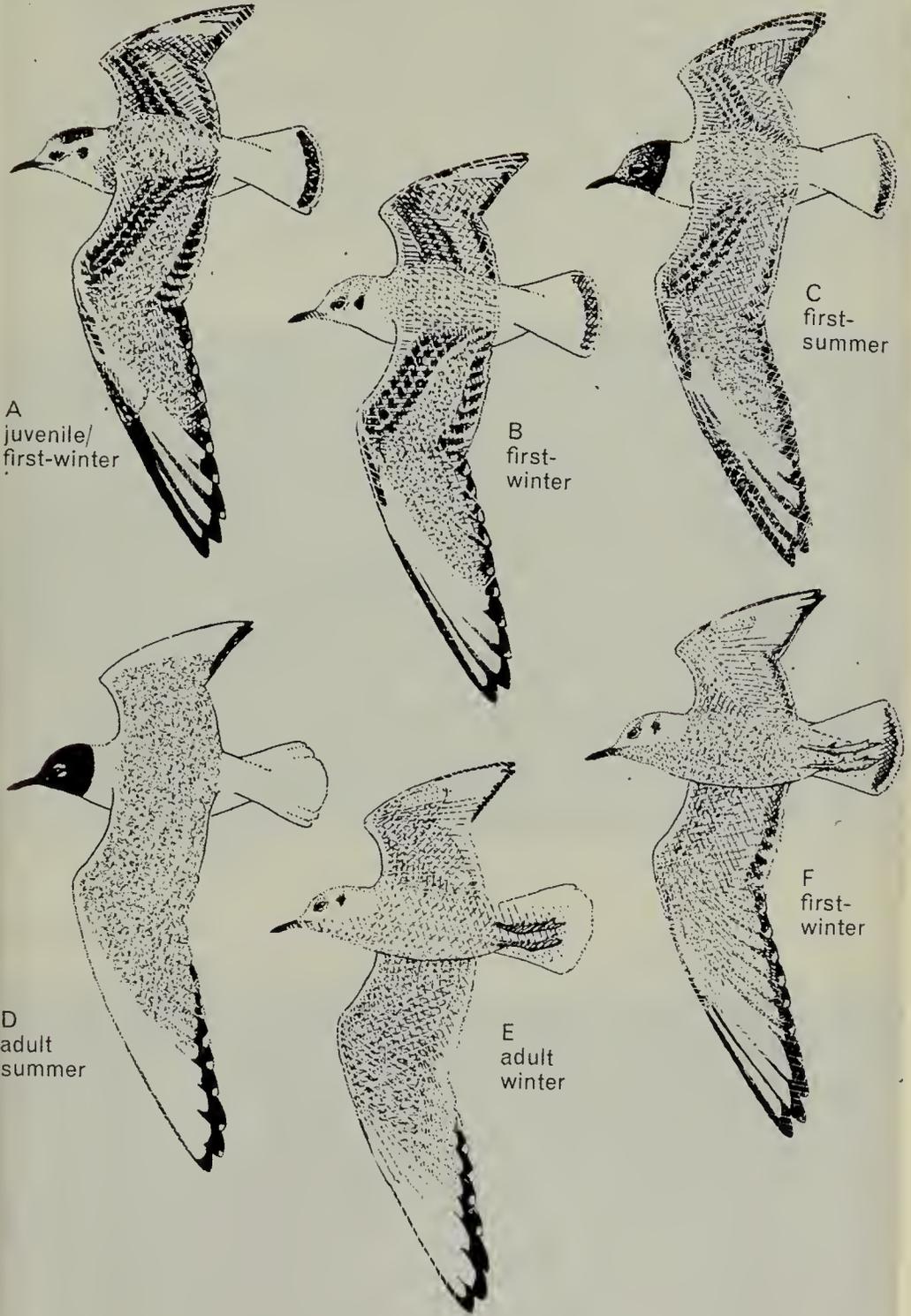


Fig. 9. Bonaparte's Gulls *Larus philadelphia* in flight

*First-summer* (fig. 9C, underwing and tail similar to first-winter, 9F. On the ground, similar to first-winter 3C, but hood usually more extensive) Acquired by head and body moult, February to April.

As first-winter, except: HEAD black more extensive, and a few may acquire full hood and lose grey nape. WINGS AND TAIL becoming worn and faded by late

summer, white primary tips and tail fringes may disappear. BARE PARTS much as juvenile.

*Adult winter/second-winter* (fig. 9E, wing and tail pattern as adult summer, 9D) Acquired by complete moult, late summer to October.

HEAD AND BODY as first-winter, but underparts may be slightly flushed pink. WINGS upperwing similar to adult Black-headed, but, from below. primaries lack extensive blackish: instead they are white with translucent triangle along

leading edge, bordered along rear edge by thin black line formed by tips to outer six to nine primaries. TAIL white. BARE PARTS eye dark brown. Bill black, sometimes with some red at base. Legs flesh to reddish-orange.



66. Adult winter Bonaparte's Gull *Larus philadelphia*, Cornwall, March 1968 (J. B. & S. Bottomley)

67. Adult winter Bonaparte's Gull *Larus philadelphia* with adult summer Black-headed Gull *L. ridibundus*, Cornwall, March 1968 (J. B. & S. Bottomley)



A few fail to acquire full adult plumage at this age, showing dark markings especially among primary coverts and rarely on tail: these faint marks probably rarely visible in field.

*Adult summer/second-summer* (fig. 9D, underwing and tail as adult winter, 9E) Acquired by head and body moult, January to April.

As adult winter except: **HEAD** full blue-black hood, sometimes appearing dark grey in field, with prominent white crescents above and below eye, thickest at rear. **BODY** variable pink flush on underparts. **WINGS** as adult winter, but whitish tips to primaries reduced or lacking. **BARE PARTS** eye-lids black. Bill black. Gape orange-red. Legs orange-red.

**68.** Adult summer Bonaparte's Gull *Larus philadelphia*, Canada, summer 1971. The inner primaries are being renewed, the start of the complete autumn moult into winter plumage (*Alan Kitson*)



**Grey-headed Gull** *Larus cirrocephalus* (figs. 3D and 11, plates 69-77)

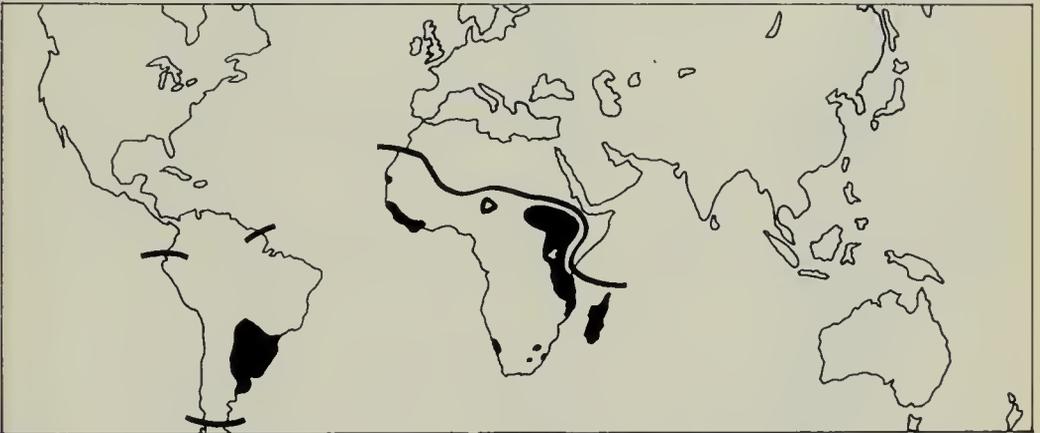


Fig. 10. World distribution of Grey-headed Gull *Larus cirrocephalus*, showing approximate breeding range (solid black) and approximate southern and northern limits of winter/non-breeding range (black line). Only one European record: adult at Las Marismas, Spain, 30th June to 15th August 1971 (Ree 1973)

#### IDENTIFICATION

The Grey-headed Gull is unfamiliar to most European observers, yet the record of one in Spain (Ree 1973) shows that it may occur elsewhere in southern Europe or even Britain.

It is the largest member of this group, lying between Common Gull and Black-headed. Compared with Black-headed, it is broader-winged and, when gliding, the wings are held flatter and less angled, giving a 'sail-plane' appearance. On the ground, it has a more upright carriage, with longer legs, and, when alert, has a 'head up, tail down' posture. It is longer-necked than Black-headed, with a sloping forehead and heavier

and longer bill, recalling Slender-billed Gull. These size and structural differences are among its best field marks at all ages.

In first-year plumages, other differences from Black-headed are the darker grey of the wings and mantle, all-black outer primaries and less extensive white on the upperwing, wholly dusky underwing, thinner black tail band and less well defined head markings.

Grey-headed is the only one in this group which regularly takes an extra year to reach adult plumage, as might be expected in view of its larger size: second-years are fairly readily distinguishable in the field, as described in the detailed descriptions of second-winter and second-summer.

To European eyes, adults recall Common Gull rather than Black-headed because of the larger size, broader wings, darker grey upperparts and the prominent mirrors on the outer two primaries. The combination of extensive white on the leading edge of the upperwing and prominent mirrors gives a pattern diagnostic among west Palearctic gulls: this and the wholly blackish underwing, pale eye, and pale dove-grey, white-faced hood, as well as the size and structural differences, give a strikingly distinctive appearance. Black-headed Gulls pass through a white-faced phase in autumn as the head moult progresses, giving a head pattern similar to that of Grey-headed.

#### AGEING

*Juvenile*: extensive grey-brown on head, mantle and sides of breast. (See comments under detailed description of first-winter about timing of moults.)

*First-winter*: brown carpal-bar, blackish secondaries and tail band, head mainly white with pale grey markings and ear-spot.

*First-summer*: brown carpal-bar, blackish secondaries and tail band, hood developed to variable extent.

*Second-winter*: dusky markings on secondaries and tertials forming darker trailing edge to inner wing. More black than white on upperwing, and white primary tips and mirrors small or lacking. Eye darker than adult and bare parts dull flesh. Hood as first-winter or pale and ill-defined.

*Second-summer*: as second-winter, but bare parts nearer or matching colour of summer adult. Hood often fully developed.

*Adult winter/third-summer*: adult wing pattern, pale ill-defined hood, obvious white eye, bare parts duller than adult summer.

*Adult summer/third-summer*: adult wing pattern, full hood, dark red bill, red legs.

#### DETAILED DESCRIPTIONS

*Juvenile* (not illustrated, but wing and tail pattern similar to first-winter, figs. 3D, 11A and 11C; head, body and bare parts as described below)

HEAD white, with extensive grey-brown clouding, darker ear-spot and eye-crescent, forming partial hood, separated from HEAD white, with whitish collar. Thin white crests above and below eye. BODY underparts white, with grey-brown breast

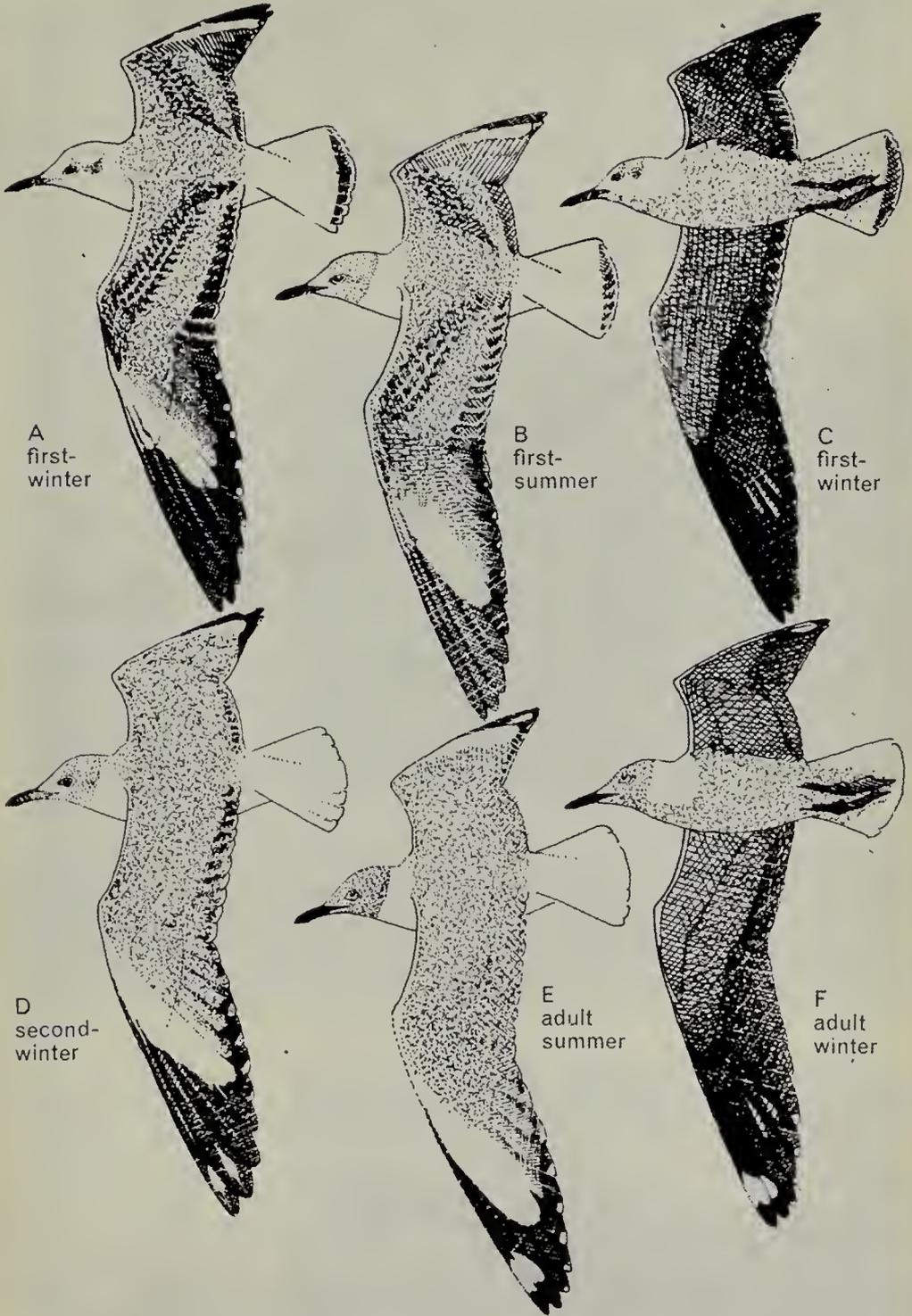


Fig. 11. Grey-headed Gulls *Larus cirrocephalus* in flight

sides extending from mantle. Mantle brown, with pale feather fringes giving scaled effect, most obvious on lower back. Rump pale grey. WINGS pattern similar to juvenile Black-headed, but grey areas on inner upperwing slightly darker: outer wing has less white, outer two or three primaries wholly black. White on outer webs at base of 3rd or 4th to 5th or 6th primaries form patch in middle of outer wing which extends onto outer primary coverts. Inner four or five primaries and their coverts mainly grey, with blackish areas at tips which join with blackish secondaries to form dark trailing edge. All

but outer two or three primaries have tiny white spots at tips, increasing in size inwards. Inner web of all primaries blackish, and underwing-coverts grey, so that, from below, underwing appears wholly dusky (but not so dark as adult's), except for two or three translucent spots which correspond with white area on upperwing. TAIL white with neat black subterminal band, usually thinner than Black-headed's and often not extending to outer feathers: when tail fully spread, black may appear as separate spots. BARE PARTS eye brown. Bill pale flesh or yellowish-flesh, with extensive dark tip. Legs dull flesh or yellowish-flesh.



69. Juvenile Grey-headed Gull *Larus cirrocephalus*, South Africa (Gerry Nicholls)

*First-winter* (figs. 3D, 11A and 11C) Acquired by post-juvenile head and body moult, which starts at fledging and is usually complete within about two months. Published breeding records from Africa refer to the period April to September, but breeding may take place outside this period. The timing of the post-juvenile and later moults is fixed by the fledging date, so temporal limits cannot be fixed for the moults of this or other equatorial breeding species which have a variable season.



70. First-winter Grey-headed Gull *Larus cirrocephalus*, Botswana, October 1972 (Peter Steyn)

HEAD white, with pattern of dusky markings similar to Black-headed Gull, but paler and less defined. Nape pale grey. BODY underparts and rump white. Mantle uniform grey, without white scapular-erectus, and darker than Black-headed, sometimes with a few brown feathers

*First-summer* (fig. 11B, underwing and tail similar to first-winter, 11C. When standing, similar to first-winter, 3D, but carpal-bar paler and hood usually more extensive) Acquired by head and body moult, which starts about six months after fledging.

As first-winter except: HEAD grey usually more extensive, and some may acquire adult hood and lose pale grey nape. WINGS AND TAIL dark areas become

retained from juvenile plumage. WINGS as juvenile, but brown and blackish areas faded, and white primary tips and secondary fringes reduced. TAIL as juvenile, but band faded and whitish terminal fringe reduced or lacking. BARE PARTS much as juvenile.

much faded, especially brown carpal-bar, and white primary tips and terminal secondary and tail fringes often disappear.



71. First-summer Grey-headed Gull *Larus cirrocephalus*, Namibia, July 1975 (Pamela Harrison)

*Second-winter* (fig. 11D) Acquired by a complete moult, which starts about 12 months after fledging. Some may reach adult plumage at this age, but probably the majority take an extra year.

72. Second-winter Grey-headed Gull *Larus cirrocephalus*, South Africa, February 1974 (J. C. Sinclair)



As adult winter except: WINGS black usually more extensive than white on outer primaries, and white primary tips usually small or lacking. Mirrors, if present at all, usually smaller than on adults, or confined to outer primary. Tertiaries and secondaries with dusky centres, forming

*Second-summer* (wing and tail patterns similar to second-winter, fig. 11D) Acquired by head and body moult, which begins about 18 months after fledging.

As second-winter except: HEAD full adult hood usually acquired. BARE PARTS

darker trailing edge to inner wing. Sometimes a few brown feathers among primary, median and lesser coverts. BARE PARTS eye usually becoming pale, but lacking full adult colour and looking dark at distance. Bill and legs dull flesh.

much as adult summer, but eye may remain darker.



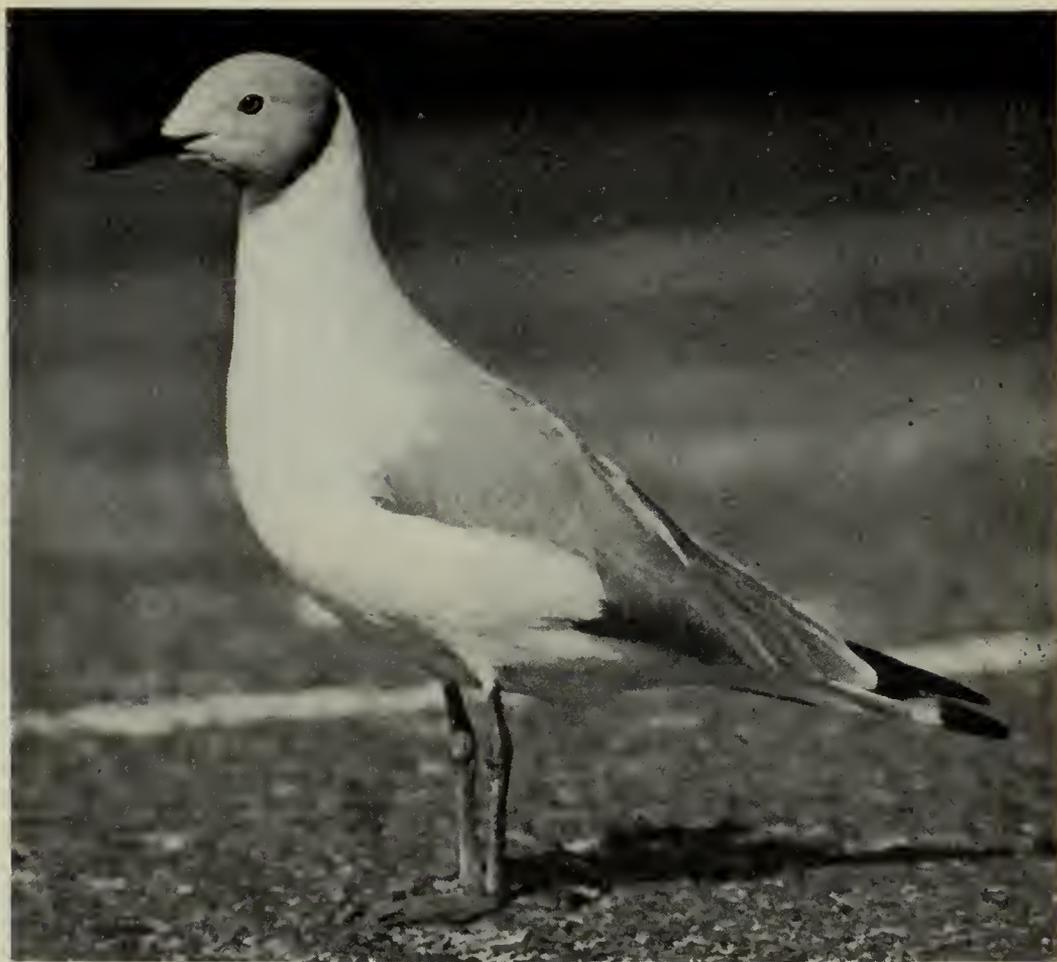
73. Second-summer Grey-headed Gull *Larus cirrocephalus*, Kenya, July 1976 (T. Källqvist) *Adult winter/third-winter* (fig. 11F, wings and tail as adult summer, 11E) Acquired by complete moult, which starts towards the end of breeding activity. Some, probably a minority, may reach adult plumage in their second winter.

HEAD hood as adult summer in extent, but paler and less defined, sometimes with ill-defined ear-spot. BODY mantle uniform grey, without prominent scapular- or tertial-crescents, a shade darker than Black-headed Gull. WINGS inner wing uniform grey, darker than Black-headed. White more extensive than black on outer primaries, with prominent pear-shaped white mirrors on outer two. White tips, usually prominent, on 3rd or 4th to 7th or

8th primaries. Inner webs of primaries (except mirrors) wholly blackish and underwing-coverts grey, whole underwing thus appearing dusky, apart from a few translucent spots showing through fully spread wing, corresponding to white on upperside. TAIL white. BARE PARTS eye pale yellow or whitish. Eye-lids red. Bill duller than adult summer, with variable subterminal dark tip. Legs paler than bill, duller than adult summer.

74. Grey-headed Gulls *Larus cirrocephalus* including one first-winter (right), South Africa, August 1976 (Gerry Nicholls)





75. Adult summer Grey-headed Gull *Larus cirrocephalus*, South Africa, June 1973 (Gerry Nicholls)



76. Adult summer Grey-headed Gull *Larus cirrocephalus*, South Africa, July 1964 (Peter Steyn)

*Adult summer/third-summer* (fig. 11E, underwing and tail as adult winter, 11F) Acquired by head and body moult, which starts before the beginning of breeding activity.

As adult winter, except: HEAD hood fully developed, extending farther down throat and nape than on Black-headed Gull, darkest posteriorly and shading from dove-grey to whitish on forehead and chin. Nape white. BODY sometimes with faint pink flush on underparts. WINGS whitish tips on primaries reduced or lacking. BARE

PARTS bill red, much darker than hood and looking black at distance. Legs red, brighter than bill.



77. Adult summer Grey-headed Gull *Larus cirrocephalus*, Kenya, July 1976 (T. Kättqvist)

(To be continued)

P. J. Grant, 14 Heathfield Road, Ashford, Kent TN24 8QD

## Personalities

### 13 R. J. Tulloch

**B**obby Tulloch is a Shetlander, whose name is also synonymous with Snowy Owls and whose ready smile and enjoyable company are known to many.

Born on a croft at Aywick, Yell, he can trace his ancestry to the Norse occupation. His interest in birds began with a dead Puffin which he used as a teddy bear, and was fostered by his primary teacher at East Yell School. Bobby became a baker, and his travels in the trade throughout the island gave him the opportunity to see birds, although he had little contact with other birdwatchers.

After National Service, spent mainly in Hong Kong, he returned to Yell. His interest in birds increased and he met visiting ornithologists in the summer and often took them to exciting islands, such as Hascosay. On a visit to Shetland, George Waterston, then Assistant Director (Scotland) of the RSPB, suggested that he work for the Society: Charlie Inkster, the RSPB watcher in Yell, was 90 years old and it was appropriate that another Yell man should take over. Bobby started in 1964 and is now Shetland Officer. His wife, Betty, is the district nurse for Yell; Mid Yell has always been their home and they recently moved a short distance to an imposing manse overlooking Hascosay Sound.

Bobby first visited Fair Isle in 1964 and our families have been friends ever since. We showed him new birds and trained him to ring and use mist-nets: his first recovery was a Starling drowned in custard at Yell School. We had great fun when Bobby was one of a group of up-and-

coming Shetland birdwatchers: each summer, I visited Bobby and Betty in Mid Yell, we explored islands by boat, ringed Gannets at Hermaness, trapped Storm Petrels in the cliffs, and watched migrants on Skerries, where he first went in 1965, in the footsteps of Sammy Bruce. One day he sailed into the harbour there as two birds came flying across the water: one settled on the mast and proved to be a superb Ortolan Bunting. Another time, he was lying face down on a recently manured 'tatty' field, inching towards singing Lapland and Ortolan Buntings, when a hen Greenfinch appeared: a new species for him.

Snowy Owls have been part of his life for over a decade. In the early 1960s, several of these owls arrived in Shetland, and Bobby and Dennis Coutts tried to photograph them, using ingenious hides, such as peat stacks and, once, a pantomime horse, with Dennis and his camera in the front; but Bobby's heart was not in this latter exercise, since the local Shetland stallion was too close for comfort. In 1967, Bobby experienced one of his most exciting ornithological moments, on Fetlar with 11 Swiss birdwatchers: a male Snowy Owl looked rather aggressive and, while looking for pellets on a rocky outcrop, Bobby disturbed the female off three eggs. Keeping this secret, he glided home, hardly hearing the Swiss queries about Whimbrels and Red-necked Phalaropes; a few trusted friends received a brief phone-call, '*Nyctea scandiaca* c/3'; this was the start of the Snowy Owl story and the Fetlar reserve.

These are part of Bobby's work for the RSPB, but at the same time he has tirelessly studied the distribution and numbers of birds on the different islands throughout the year, and the effects of tourism and, more recently, of the tremendous changes brought about by North Sea oil. Throughout, Bobby has kept his finger on the pulse of bird conservation in Shetland; the RSPB is indeed fortunate to have a Shetlander on the scene, a man of the islands with a ready ability to get on with his fellows and put over the wildlife point of view.

78. Bobby Tulloch (left) with bearded seal *Erignathus barbatus* (Andy Gear)



Talented as a lecturer and a broadcaster, Bobby's skill with the camera is also well known. His early interest in photography was encouraged by Dr Ian Brooker, and he now has a fine series of photographs. His popular lectures about Shetland are always beautifully illustrated and have taken him throughout Britain. He is an esteemed member of the National Trust for Scotland Cruises and has visited many countries in northern Europe. Since 1968, he has been the Scottish Ornithologists' Club recorder for Shetland; he is also president of the Shetland Bird Club and a member of the Sullom Oil Terminal Environmental Advisory Group. With the late Fred Hunter, he wrote *A Guide to Shetland Birds* (1970) and is now compiling a Shetland mammal guide. His interest in mammals is great and he was delighted to photograph—in Yell in 1977—the only bearded seal recorded in Britain this century.

As a Shetlander, he is an expert seaman, a competent fisherman and a dab hand at dredging up clams and catching 'spoots' (razorshells) at low tides. He is keenly interested in local history and the traditional music of Shetland and Norway; his ability with the fiddle and piano-accordion have been a delight to many and he is in great demand as a songwriter. To all of us, he is a special friend: our birdwatching visits to the Northern Isles are enriched by his knowledge, companionship and humour.

R. H. DENNIS

## Mystery photographs

**16** In non-breeding plumage, the Red-necked Grebe *Podiceps grisegena* can be rather variable, with the dingiest individuals looking dusky on cheeks, neck and flanks, these areas contrasting with a whitish breast. At the other extreme, those with whitish cheeks, neck, breast and flanks resemble Slavonian *P. auritus* and Great



Crested Grebes *P. cristatus*, although they have a more brownish cast than either (particularly on the neck), a larger bill than Slavonian, and a less elegant look than Great Crested, which has a more restricted black cap, but a longer bill. Red-necked has a rather stout bill with variable amounts of yellow: on some it is restricted to the base, whereas on others it covers most of the lower mandible, with black solely on the culmen and tip. Slavonian and Red-necked usually have flattish crowns, but both may sometimes show more rounded profiles. Apart from the general size difference, Slavonian has a smaller, neater bill (often with an obvious pale tip), a curved—rather than straight—division between the black crown and whitish cheek, and a shorter, more blunt-ended body. Black-necked Grebes *P. nigricollis* may be similar in plumage, and lone individuals can sometimes be rather puzzling, although typically they show a

small bill, a smallish, almost pin-head with a high crown, and daintier appearance, compared with the Red-necked Grebe's chunky, almost wedge-shaped head and prominent, stout bill. Red-necked, Black-necked and Slavonian all occasionally jump clear of the water when diving—in the manner of Shags *Phalacrocorax aristotelis*—particularly when feeding in choppy water or on the sea. Last month's mystery bird (plate 44, repeated here) is clearly a Red-necked Grebe; it was photographed in Lincolnshire by Keith Atkin in November 1972. S. C. MADGE



79. Mystery photograph 17. What is this species? Answer next month.

## Notes

### Possible polygamy by Red-throated Divers

On larger lochs, breeding pairs of Red-throated Divers *Gavia stellata* usually defend an area around their nests of about 0.5 ha, where the young remain until fledging; they seldom mix together. On the much-favoured smaller waters, especially those up to 0.5 ha in extent, they rarely tolerate a third individual. They often endure visiting non-breeders on larger lochs, for part of which they claim possession, but, when territory or individual distance is violated, one—or more usually both—of the pair drives away the intruder. In 1976, I monitored 148 sites on small waters in Shetland; unusual circumstances at three suggested





80. Nest and three eggs of Red-throated Diver *Gavia stellata*, Shetland, June 1976 (Graham Bundy)

possible polygamy, an unlikely situation for a species with a strong pair-bond.

On a small, secluded hill lochan of about 350 m<sup>2</sup> on Unst, a diver was incubating two eggs on a grassy islet on 20th May, but these had disappeared on 27th; a replacement clutch, laid by 4th June, was reduced to one egg on 17th, when I saw a male with two females on the lochan. When I next visited, on 15th July, I found, instead of chicks, two eggs clearly visible on the islet and all three adult divers on the water. Since third clutches are unknown for this species, I assumed that a second female had laid this latest clutch. On 29th July, the three birds were still present, but the nest was empty; on 19th August, I saw just a lone female.

In both 1973 and 1974, on another secluded hill lochan of about 3 ha on Unst, what was probably the same pair of Red-throated Divers laid single-egg clutches twice, but failed to hatch them. On 3rd June 1976, a diver was incubating one egg and a male and two females were swimming about 30 m away. On 30th, the nest was empty, but again a replacement clutch of one egg had been laid on the same bank. The other divers were present and I searched the opposite bank; the presence of a nest with eggshell fragments confirmed that a second pair had attempted to breed there; on the same bank, I found yet another nest scrape with eggshell fragments and, in a stretch of about 30 m, four more obvious and well-built nest platforms. In addition to the original pair, which had failed again by 16th July, it seems likely that a second pair had attempted to breed, with apparently a second female. The trio was swimming together on every visit up to 19th August, but no young were seen.

In 1976, two pairs of Red-throated Divers bred on a narrow moorland loch of about 4 ha on Yell. One occupied the north end, where one of the pair was usually present; a single egg was found there on 22nd July, possibly replacing an earlier, undiscovered, lost clutch, but by 2nd August this had disappeared. The first pair located at the southern end frequently had a third individual (a female) in close attendance when I

first checked the site on 28th May. On 14th June, an empty nest with eggshell fragments was found, and three divers left the loch together. I checked the site again on 29th June and found a rare clutch of three eggs in the original nest (plate 80) and three divers together at the south end. Two of these eggs were almost identical, but the third was paler, with smaller, sparse spots, suggesting that it had been laid by a different female. Three eggs were present on 14th July, but on 22nd only two were in the nest, and three females—one at the north and two quite close together at the south—were each showing distress symptoms, while no male was present. On 2nd August, I found two seven- to ten-day-old young accompanied by a male and a female; only one survived. The second female was not seen on the last two visits in August.

GRAHAM BUNDY

90 Cauldwell Lane, Monkseaton, Whitley Bay, Tyne and Wear

### **Differing reactions of adult Mute Swans to intruding juvenile**

On 4th January 1977, a pair of Mute Swans *Cygnus olor* and a juvenile, presumably their own, were present on Alexander Lake, Wanstead Flats, east London. At the same time, an adult female, without a mate but accompanied by another juvenile, was on a nearby small water 2 km to the northwest; a week later, this female was found dead, and the following day its orphaned young landed on Alexander Lake. The reactions of the two adult swans on the lake differed: the male showed marked territorial aggression, making repeated attempts to drive away the intruder by water-treading flights with neck fully extended in front, while the female more than once swam between the two disputing swans, preventing the male from completing his attack, and often swam with both juveniles to the exclusion of her mate. After about one week, however, the intruding juvenile would accompany the other three swans about 4 m behind them or to one side, although once, when swimming towards bread thrown into the water, it led the party. The other young appeared totally indifferent, swimming quite happily alongside the intruding one and taking no notice of its male parent's aggressive behaviour. This, and the fact that the intruding cygnet was never seen to defend itself against attack, perhaps suggest that territorial behaviour does not develop in Mute Swans at least until they are beyond their first winter, regardless of whether or not they are still accompanied by their parents.

When the swans were approached for examination of their rings, both adults adopted the aggressive posture and uttered a loud hissing note when their own offspring was investigated; only the female did so when the intruder was approached. On 20th February, only the orphaned swan remained on the lake.

COLIN W. PLANT

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**Hobbies hatching four eggs** On 2nd August 1975, in east Berkshire, I found that a nest of a pair of Hobbies *Falco subbuteo* almost 20 m up in the canopy of a Scots pine *Pinus sylvestris* contained four young. The

young had fairly well-grown primaries, but varied in size, two being smaller than the others. From the feathers in the nest and around the tree, it appeared that they were being fed almost exclusively on Swifts *Apus apus*. Although there are records of Hobbies' nests with four eggs, these are very rare, and I. J. Ferguson-Lees (*in litt.*) knows of no record of four young being hatched, let alone being reared to this stage.

R. E. YOUNGMAN

53 Seymour Park Road, Marlow, Buckinghamshire SL7 3ER

**Green Woodpecker with bill wedged in tree** The note on a Great Spotted Woodpecker *Dendrocopos major* found dead with its head trapped in a hole in a tree (*Brit. Birds* 69: 410) prompts me to place on record the following observation by the late Cyril Gordon Ward. In 1964, near Radlett, Hertfordshire, Mr Ward noticed a Green Woodpecker *Picus viridis* on a tree; he was surprised a short time later to see it in exactly the same position, so he investigated and found that the woodpecker's beak was firmly wedged. He released the bird.

DOUGLAS CARR

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**Swallow caught by sheep's wool** On the morning of 18th July 1976, in a field by the River Lliw near Lake Bala, Gwynedd, I noticed a small bird making unnatural flapping movements on a fence about 20 m away. On approaching, I found an adult Swallow *Hirundo rustica* suspended upside down beneath a strand of barbed wire, its right tarsus securely fastened to the wire by about 2 cm of sheep's wool. It took me several minutes to untangle the tarsus and release the Swallow, which flew away.

C. K. CATCHPOLE

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**Dunnocks feeding gregariously** On 16th January 1977, at Marlow Low Grounds, Buckinghamshire, I saw a party of 14 Dunnocks *Prunella modularis* feeding together in close association among weeds at a field edge. When I approached to about 15 m, they flew into a nearby hedgerow, but within half a minute returned and resumed feeding; I watched them for some time. Dunnocks are variously described in the literature as being not really gregarious, generally solitary, and unsociable both among themselves and with other species.

R. E. YOUNGMAN

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I. J. Ferguson-Lees, who has studied this species in depth, has commented that—although wing-waving parties of up to ten or more are not uncommon and loose bonds are formed between pairs, which feed each other's females and young in the nest in certain circumstances—he has never seen a feeding 'flock' such as that described in this case. EDS

**Dartford Warbler associating with Stonechat** On two occasions in mid November 1976, at the Grasslands Research Institute farm at Hurley, Berkshire, we observed a Dartford Warbler *Sylvia undata* apparent-

ly associating with a male Stonechat *Saxicola torquata* in a field of red clover *Trifolium pratense* overgrown with sow-thistles *Sonchus*. It spent much time foraging among the thistles, frequently near the ground but often quite conspicuously in the upper foliage, and once among the bare branches of a hawthorn *Crataegus monogyna*. If the Stonechat had moved off while it was feeding, the warbler would perch on a thistle head, call and look round, apparently trying to locate the chat. Once it had succeeded, it would fly directly to it and the two would usually then perch conspicuously side by side on adjacent thistle heads. The Dartford Warbler normally resumed feeding close to the Stonechat, but also made several sorties of up to 70 m.

J. TALLOWIN and R. E. YOUNGMAN  
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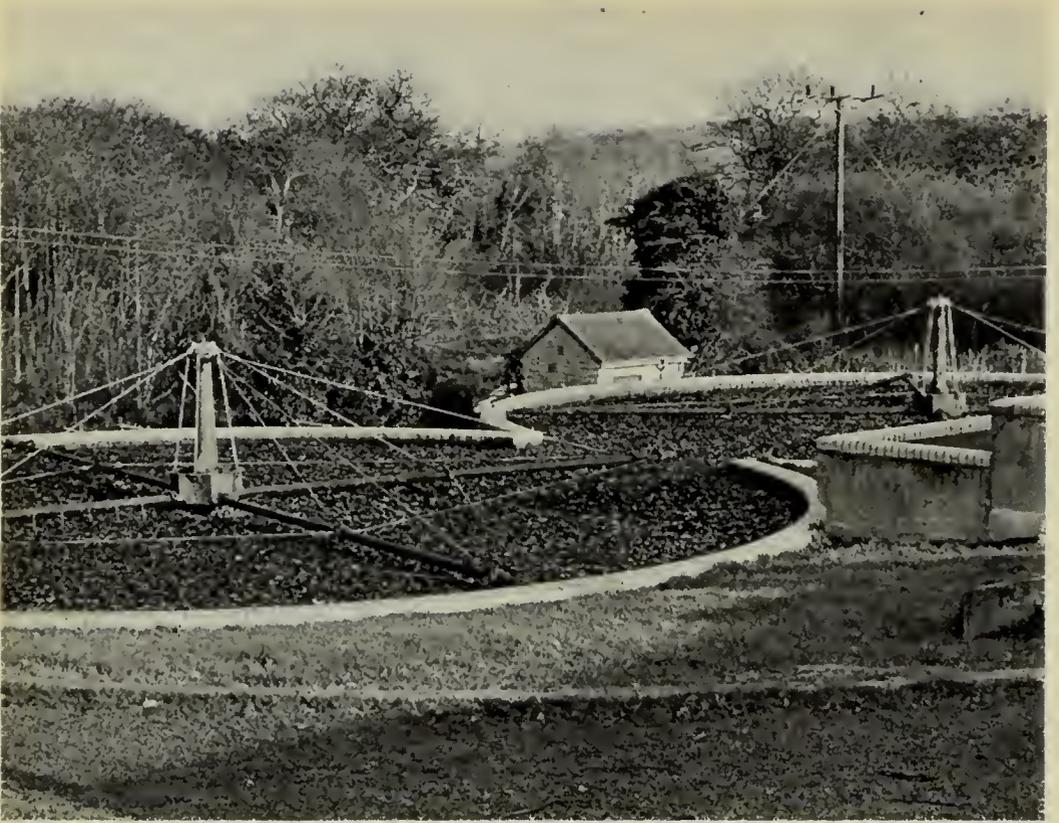
C. J. Bibby has commented: 'The same curious relationship is frequent in Dorset, as described by Dr N. W. Moore (*Brit. Birds* 68: 196-202) and observed on numerous occasions by myself. Although the two species frequently occur in the same places, they are unlikely to compete for food because of gross differences in their hunting methods and the locations of their food items. I can only propose that the skulking Dartford Warbler takes advantage of the vigilance of the Stonechat, which has a good view from its feeding perches, is decidedly wary and is noisy when alarmed.'

EDS

**Dusky Warbler feeding in open canopy** Although *The Handbook* mentions that, in its winter quarters, the Dusky Warbler *Phylloscopus fuscatus* will pursue insects in tree-tops and occasionally flutter into the air, almost all references note its skulking habits and preference for low, dense cover, where it feeds on or near the ground; the majority recorded in Britain and Ireland have behaved in this way. On 29th September 1976, at Flamborough, north Humberside, I observed a Dusky Warbler feeding in the open canopy of a small group of sycamores *Acer pseudoplatanus*, approximately 5 m above the ground. It moved through the foliage with great ease, in the manner of a Chiffchaff *P. collybita*, with much wing- and tail-flicking and brief spells of fluttering to pick insects off leaves. It constantly uttered the persistent 'tac-tac' call.

DOUGLAS PAGE  
*5 Colven Close, Arksey, Doncaster, South Yorkshire*

**Chiffchaffs wintering at sewage-works in west Cornwall** More Chiffchaffs *Phylloscopus collybita* winter in Cornwall than in colder parts of Britain, with regular parties of up to six in reed-beds and wet woodlands at such localities as Marazion Marsh, Treloweth Woods in St Erth, Loe Pool near Helston, and Swanpool, Falmouth. 'Fifty or more at Falmouth' from 20th December 1940 to 25th February 1941, however, seemed hardly credible until almost equalled in 1976-77. On 24th December 1976, at the small sewage-works adjoining Treloweth Woods, I found 12 Chiffchaffs feeding on the two bacteriological oxidisation filters (circular beds sprayed by revolving arms), which were joined and each about 13 m in diameter.



On 27th December, I counted 23, while on 29th J. B. and Mrs S. Bottomley saw at least 37 (plates 81-83); also, about six were present in the wood. They did not roost at the works: at 16.45 GMT on 25th, I watched them disperse into the wood. A census was hampered by their constant movement: some shifted from one filter to the other as the arms started their intermittent spraying, while small groups constantly commuted between the filters and the boundary hedge; if alarmed, they flew en masse to the hedge but quickly returned, at first slowly but soon in a rush.

I subsequently visited all sewage-works west of Truro. Most of the very tiny beds looked unsuitable and were searched only once; these included all those west of Penzance except St Buryan (fig. 1). Numbers were regulated not by the size and number of filter beds but by the suitability of surrounding natural habitat: the largest flocks were all close to traditional wintering areas. Gwennap was the bleakest site to harbour Chiffchaffs and Praze the highest (about 80 m); at St Buryan (100 m), none was on the filters, but two were in scrub by a stream at the bottom of the same field.

In 1977, numbers at Treloweth decreased to 12 on 16th January, four on 31st, and two (in the boundary hedge) on 6th February, when none was at Angarrack. The Treloweth works closed in the summer and a very large plant opened on the other side of the wood; by the end of December, no birds of any species had been observed on the new beds. On 21st

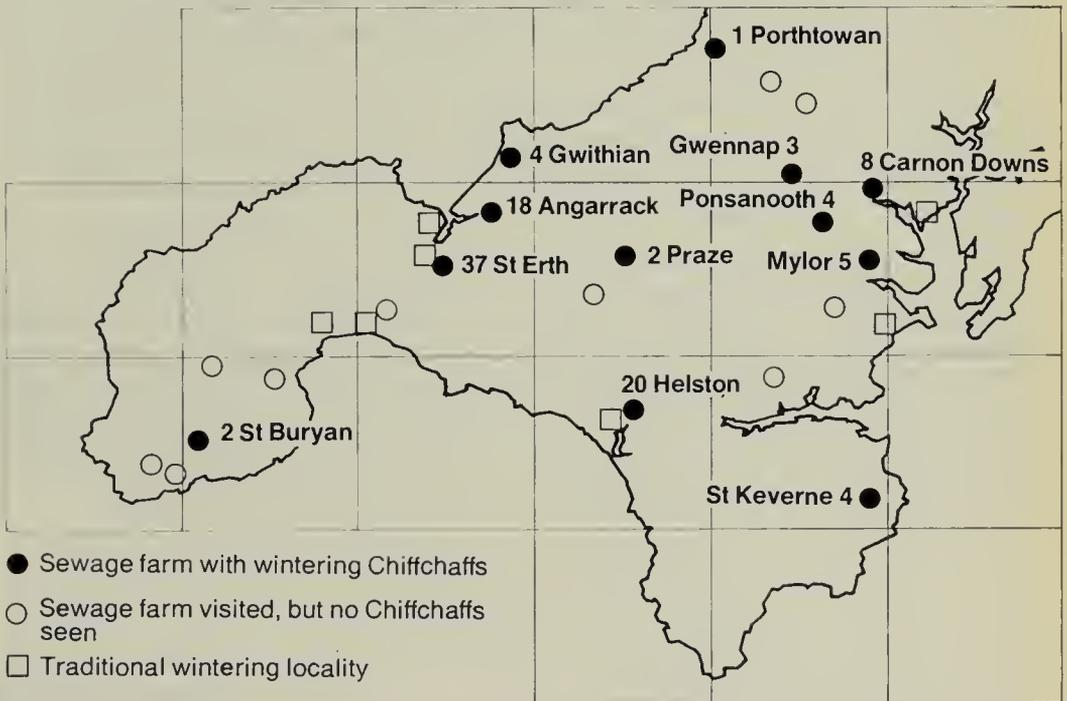


Fig. 1. Chiffchaffs *Phylloscopus collybita* at sewage-works in Cornwall in winter 1976/77. The grid shows 10-km squares

81, 82 & 83. Sewage-works at St Erth, Cornwall, and filter beds with feeding Chiffchaffs *Phylloscopus collybita*, December 1976 (J. B. & S. Bottomley)

November (maximum temperature about 2.7°C), one Chiffchaff fed on the Angarrack filters, and on 1st December two were at Gwithian, but, up to 24th December, where present at all, they mainly hawked for insects in the hedgcs. The largest numbers were on 24th December (maximum about 12°C): of nine at Angarrack, only four fed on the filters.

At Helston, the average maximum daily temperature from 1st to 23rd December 1977 was 10.5°C, but only 8.37°C for the same period in 1976. In 1976, most occurred during a cold spell from 24th to 31st December (average 6.6°C).

Most Chiffchaffs at sewage-farms appeared to belong to one of the brown-and-white northeastern races. Similar concentrations in the past may have been overlooked: A. G. Parsons (verbal report) has counted 12 or more at the Helston works periodically since the early 1960s.

I much appreciate the co-operation of B. D. Cook of the South West Water Authority, Truro; the staff of the Meteorological Office at RNAS Cudrose, Helston; and Mr and Mrs Bottomley for their enthusiasm in photographing a difficult subject.

R. D. PENHALLURICK  
County Museum and Art Gallery, River Street, Truro, Cornwall

**Yellow-rumped Warbler in the Isles of Scilly** During 22nd to 27th October 1968, a Yellow-rumped Warbler *Dendroica coronata* was present on St Mary's, Isles of Scilly. It was found by D. P. and Mrs R. A. U. Carthy and, later, independently by R. S. Brown and A. Greensmith, who showed it to me. It was feeding in tree-mallows *Lavatera arborea* about 1 m high beside the shore, and was extremely easy to observe as it foraged for insects with other migrants, including Blackcap *Sylvia atricapilla*, Garden Warbler *S. borin* and Lesser Whitethroat *S. curruca*. It remained in this one small area for the whole of its stay. The following notes were compiled:

At first sight, obviously an American wood warbler of the genus *Dendroica*, about size of Garden Warbler or Blackpoll Warbler *D. striata*. Mantle brown, with some darker streaking. Underparts white, with some small, dark streaking on flanks. Tail, wings and primaries darker than rest of plumage: tail almost black. Two white bars on wing: not so distinct as on Blackpoll Warbler.

Head grey; throat white. Thin white supercilium; small, but broken, white eyering. Yellow patch on crown, normally visible only when bird preening. Upper flanks suffused yellow; bright yellow rump obvious in flight. White patches on black near tips of outer feathers: best seen when tail fanned. Legs and bill black; bill pointed, rather big and strong-looking.

The white throat suggested that—as would be expected—this individual was of the eastern race *D. c. coronata* and not the western *D. c. auduboni* (formerly regarded as specifically distinct, with the names Myrtle Warbler and Audubon's Warbler). This was the third record for Britain and Ireland, both the previous ones having been in Devon, in 1955 and 1960 (*Brit. Birds* 48: 204-207; 54: 250-251).

G. J. JOBSON  
54 Churchill Crescent, Wickham Market, Woodbridge, Suffolk

**Blackpoll Warbler in the Isles of Scilly** At about 15.00 GMT on 19th October 1975, I was standing outside the parsonage on St Agnes, Isles of

Scilly, gossiping to P. W. Burness about the general lack of interesting migrants, when an American wood warbler (Parulidae) appeared on the edge of the trees. The following features were noted:

Typical American wood warbler, with very long, wide, pure white wing-bars high up on closed wing. Yellowish throat and breast; light greenish back, lightly streaked. Some light streaks on sides of

breast and on flanks. Whitish belly. Darkish tail, with white spots on sides and near tip, slightly notched. White undertail-coverts. Legs brown.

We had both seen the Blackpoll Warbler *Dendroica striata* on St Agnes in 1968 (*Brit. Birds* 63: 153-155), and identified this as the same species, the fourth record for Britain and Ireland. We eliminated two similar species, Bay-breasted Warbler *D. castanea* and Pine Warbler *D. pinus*, for various reasons, the main ones being that the former has buffish undertail-coverts and the latter has an unstreaked mantle.

The bird was seen for a short time on the next afternoon and—what was considered to be the same individual—again on 31st October and 1st November. The ten-day gap between sightings is, in my experience, not unusual: the Blackpoll Warbler during 11th to 25th October 1968, and others subsequently, moved around and were sometimes 'lost' for days at a time, before reappearing at the opposite end of the island to that at which they had first been found.

G. J. JOBSON

54 Churchill Crescent, Wickham Market, Woodbridge, Suffolk

**Reactions of Goldfinches and Linnets to newly hatched frogs** On 9th July 1970, on Bromley Common, Greater London, I observed about six Goldfinches *Carduelis carduelis* and as many Linnets *C. cannabina* in a small clump of gorse *Ulex* overlooking a narrow, well-worn pathway through an area of long grass and thistle adjoining a young plantation of larch *Larix*. They behaved in an agitated manner, continually dropping to the ground, but the long grass concealed any possible source of food. As I neared, they dispersed, and the object of their interest became apparent: large numbers of newly emerged common frogs *Rana temporaria* were crossing the pathway just below the gorse bush. I collected 39 within two minutes, and many more must have escaped detection. They ranged from 0.5 cm to 1.5 cm in length and presumably could have been swallowed whole fairly easily, although I did not establish for certain that the finches were eating them.

D. C. GILBERT

64 Tivoli Park Avenue, Margate, Kent

## Reviews

**The Miracle of Flight.** By Stephen Dalton. Sampson Low, Maidenhead, 1977. 168 pages; 100 illustrations, 56 in colour, 90 diagrams. £5.95

This is a companion work to the author's earlier *Borne on the Wind* (1975) which dealt mainly with insects in flight. In this new book, the view has been broadened: it now

includes the general mechanics and theory of flight, insect and bird flight, the evolution of manned flight, and its development from the Wrights' *Flyer* to the jumbo jet and supersonics.

The book is attractively produced, well printed and, above all, has about 90 of Stephen Dalton's quite superb photographs of insects and birds, the majority in colour. Unfortunately, the text is too often as dull and opaque as the photographs are vivid and enlightening. This is especially true of those sections which attempt to explain the fundamentals of aerofoil flight and the much more complex aerodynamics of insect flight. The latter was too much for me and I question the accuracy of some passages in the former. Nevertheless, one should persevere with the chapter on bird flight and, in particular, try to assimilate the sequence of wing movements and feather control which confers lift and propulsion in flapping flight. Handsome diagrams are provided, but here and elsewhere they are not always as helpful as they should be.

It is a pity about the text and diagrams, since an elementary knowledge of the principles of winged flight (not much understood by the average birdwatcher) heightens the wonder and delight to be found in the photographs. It is not only that they are pin-sharp and brilliantly lit, but they reveal and explain so much: particularly those of birds. I found myself returning to them again and again, studying the details of wings, feathers and postures, and having a humble respect for my favourite animal expanded and re-honed. What ponderous things we are, all brain and too little grace and dexterity.

The text, however, is better at recounting history than expounding aerodynamics. There are some gems to brighten the history, such as the attempted vertical take-off by an early Persian king who attached four starving eagles to a lightweight throne and, with legs of lamb dangling overhead, presumably fastened his seatbelt and rang for a stewardess.

But it is the photographs that make this book so very worthwhile. I have some favourites: the landing droop-snoot Mute Swan, the hurtling ball of Coal Tit, and the sequence of Little Owl exposures. And I almost forgot the insect shots: they are if anything even more remarkable as photographic achievements, thanks to the patience, skill and ingenuity of Stephen Dalton.

TREVOR POYSER

**Saltees—Islands of Birds and Legends. By Richard Roche and Oscar Merne.** O'Brien Press, Dublin. 152 pages; 62 black-and-white photographs; 7 maps. £5.40 (UK), £5.94 (Republic of Ireland).

That two small islands should be the subject of two books in a few months is remarkable, but, by any standards, these are indeed remarkable islands.

While Kenneth Perry and Stephen Warburton (1977, *The Birds and Flowers of the Saltee Islands*, reviewed in *Brit. Birds* 70: 558-559) devoted the greater part of their book to a species-by-species account of birds and flowers, with appropriate maps, Richard Roche uses the first two-thirds of this book to give a historical and sociological account of the islands. The second chapter is headed 'As old as the Saltees': appropriate enough, since the first occupants are thought to have arrived between 3500 and 2000 BC. Since then, the islands have been home to pirates, smugglers, rebels—up to the present-day Prince—and have seen the wrecking of hundreds of ships. It is difficult to imagine anyone—*island fanatic or not, birdwatcher or not*—failing to enjoy such a fascinating story.

Part Two—where, for serious birdwatchers, the story really starts—is Oscar Merne's account of the birds of the islands. Facts, figures and narrative are usefully and readably mixed, under three headings: breeding seabirds, other breeding birds, and migrants. It is sad that, in a book of this nature, more space could not have been devoted to an analysis of the work of the observatory on Great Saltee—conceived by Major R. F. Rutledge, founded by him and John Weaving, and manned annually from 1950 to 1963—and of various groups of ringers subsequently: surely there would have been much to interest both general and specialist reader?

The production is as elegant as the texts, and excellent photographs and documentary facsimiles enliven and amplify the whole. Thoroughly enjoyable!

JIM FLEGG

# Letters

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**Golden Eagle killing red deer calf** I am prompted by C. J. North-east's note (*Brit. Birds* 71: 36-37) to draw attention to A. Baxter Cooper's excellent first-hand account of an immature Golden Eagle *Aquila chrysaetos* killing and attempting to lift a young red deer *Cervus elaphus* weighing 20.5 kg (*J. Zool. Lond.* 158: 215-216).

IAN D. PENNIE

5 Badcall, Scourie, Sutherland IV27 4TH

**Hobbies hovering** Iain Robertson's note on a specific feeding technique of a Hobby *Falco subbuteo* (*Brit. Birds* 70: 76-77) brings to light a characteristic of the species' flight that is, I believe, far more common than is documented. R. F. Porter *et al.* (1974, *Flight Identification of European Raptors*) stated that Hobbies hover only very occasionally. My experience suggests otherwise, and I give two examples. First, in May 1975, in the vicinity of Lake Neusiedl, Austria, I observed several Hobbies hovering with Red-footed Falcons *F. vespertinus*; the wind was rather strong and the period of hovering lasted for a minute or more; on at least two other occasions, I saw single Hobbies hovering, but never saw prey taken. Secondly, in July 1976, at Harrietsham, Kent, a Hobby flew past me at close range; on passing over a nearby wood, it hovered at least twice, for 20 seconds each time, but made no attempt to take prey.

B. D. HARDING

66 Salters Way, Dunstable, Bedfordshire LU6 1BT

**Do Blackcaps have a Wryneck-call?** Surely, the sounds heard by R. M. Curber and David E. Paull (*Brit. Birds* 62: 543-544; 70: 458) were just examples of the well-known mimicry by Blackcaps *Sylvia atricapilla*, and not separate calls? I believe that half the trouble people experience in separating the songs of Blackcaps and Garden Warblers *S. borin* is due to the Blackcaps imitating the Garden Warblers.

R. S. R. FITTER

Drifts, Chinnor Hill, Oxford OX9 4BS

# Announcement

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**'The "British Birds" List of Birds of the Western Palearctic'** All subscribers should have received their free copy of this list with either the March or this April issue of *British Birds*.

# Request

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**Breeding birds of British and Irish islands** Information is sought for a study aimed at identifying the major factors influencing island bird populations and species

distributions. Any previously unpublished details of breeding birds (especially landbirds) on British and Irish islands will be most welcome. Breeding records for Scottish plantations will be used for comparison, and observations from such 'islands' will also be most welcome. Information, which will be acknowledged, should be sent to T. M. Reed, Edward Grey Institute of Field Ornithology, Department of Zoology, South Parks Road, Oxford.

## News and comment

*Peter Conder and Mike Everett*

**SOC conference** The Scottish Ornithologists' Club annual conference—always one of the year's highlights for those attending—took place during 20th-22nd January. After many years at The Hydro, Dunblane, and then a move to Stirling University, this conference (the thirtieth) returned to the Marine Hotel, North Berwick. The thirty-first SOC conference will be held at the same place in October 1978: a welcome return to a time of year when travelling is generally easier. The excellent atmosphere and good service at the hotel helped to make the conference a great success. The theme of 'Birds on islands' was introduced in masterly fashion by Professor George M. Dunnet and fascinatingly illustrated, in relation to the Galapagos Islands and Fiji, by Dr M. P. Harris and Dr Martin Gorman; the last of these contributions was also greatly enlivened by a sparkling discussion period, with Dr Jeremy Greenwood crossing intellectual swords with Dr Gorman. Those who survived the late night Scottish dancing received short, sharp glimpses of wintering sea-fowl in Scapa Flow, the breeding ecology of Gannets on Ailsa Craig and the history and habits of the Great Skua, by David Lea, Sarah Wanless and Robert Furness respectively. The usual *British Birds* mystery photograph competition was held: 12 entrants correctly identified all five photographs and a draw was necessary to determine the winners: 1st Mrs Jean Burton, 2nd David J. Bates and 3rd Alan Brown; also Mrs Sylvia Bates, Keith Brockie, Ian G. Cumming, Martin Davies, Nick Dymond, Raymond Hogg, Iain H. Leach, Ray Murray and David Thorogood.

**Wheelchair record** We have just heard from David Glue that he has seen his

230th species from his wheelchair: a Hen Harrier. As he says, he has only 170 to go before he catches up with Ron Johns (*Brit. Birds* 70: 512).

**London's scarce migrants** Normally, we do not review the numerous county bird reports, even though, through the generosity of the clubs and societies concerned, most of them find a place in the *British Birds* library. We must, however, make an exception for the latest *London Bird Report* (No. 41, for 1976) which includes a paper on 'Scarce migrants in the London area, 1955-74' by R. J. Chandler and K. C. Osborne. Records of over 130 species are analysed by seven-day periods, and the two decades covered are compared. The results are fascinating and this good use of the London Natural History Society's records should serve as a model for other county bird clubs. The *London Bird Report* is obtainable (£1.50) from Mrs H. Housego, 110 Meadvale Road, London W5 1LR; reprints of the scarce migrants paper may be obtained (65p) from P. J. Oliver, 1 Albany Court, Palmer Street, London SW1. (Contributed by JTRS)

**Portuguese atlas** We are delighted to hear that a breeding bird atlas project will be carried out in Portugal during 1978-84, organised by the Centro de Estudos de Migrações e Protecção de Aves. Anyone interested in helping should contact the BFO, or Rui Rufino at the CEMPA, rua de Lapa no. 73, Lisboa 2, Portugal.

**Estonian atlas progress** We hear from Professor Dr Erik Kumari that the Estonian project, which started in 1977, has had 166 amateur ornithologists participating. So far, they have recorded information for 140 of Estonia's 558 10-km squares. The

aim is to complete the mapping project by 1980.

**Coto Doñana news** There has been so much argument and controversy over the future of Spain's most famous wetland during the last decade or so that it gives us very great pleasure to announce an important step forward by the Spanish government's conservation agency 'ICONA', involving the conservation of large areas for posterity and the channelling of very considerable human pressures into specially designed access and viewing areas. At the time of writing, Max Nicholson (who has been helping ICONA in an advisory capacity) has just returned from Spain, and he reports good progress on the first phases of development; Bert Axell has been seconded from the RSPB to get things started on the ground, and hopefully we shall get the full story from him for this feature on his return. So, all Coto devotees . . . watch this space!

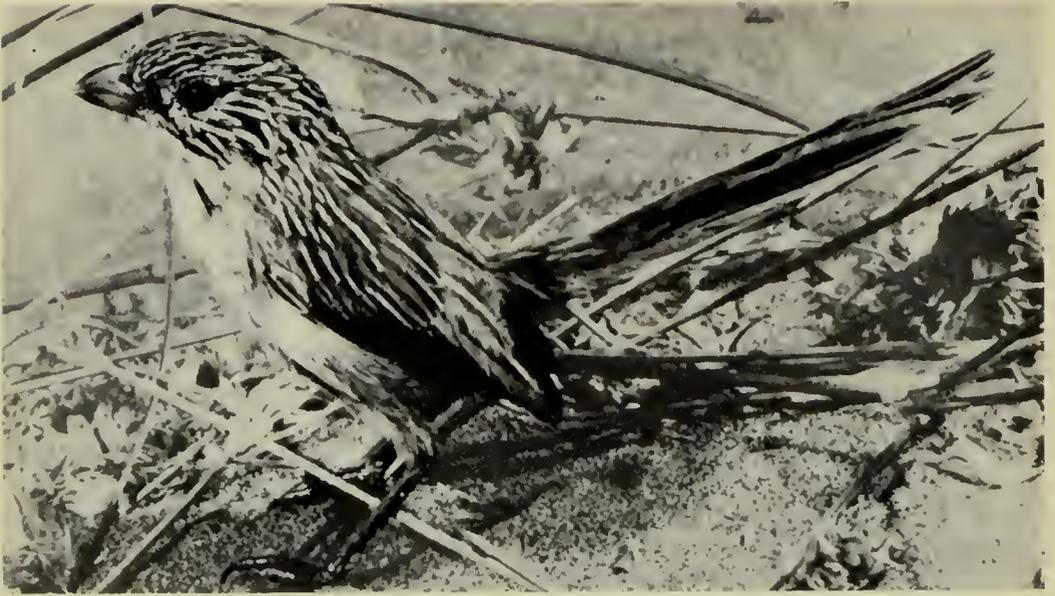
**Well done, Jo** Another item which gave us great pleasure comes from Scotland. As many readers will know, our old friend George Waterston has been bedevilled by kidney trouble for some years, and is at present restricted in his movements by the need to use his home kidney dialysis machine. Through the good offices of George's old friend Jo Grimond, British Airways and Loganair have been persuaded to transport the kidney machine to Fair Isle, thus enabling George to have a holiday there this June.

**Swiss Red List** One of the best small publications to come our way from Continental Europe for a long time is the 'Swiss Red List', the *Liste Rouge des Espèces d'Oiseaux Menacées et Rares en Suisse*. This gives an excellent summary of the present status of 83 of the 190 recent or former breeding species in Switzerland, explains the threats they face and suggests how these should be tackled. It is required reading for anyone interested in European birds, and a model which could well be copied by other European nations, including our own. Copies are obtainable in German, French or Italian (Swiss Fr. 3.20) from the publishers, La Ligue Suisse pour la Protection de la Nature, Case postale 73, CH 4020 Basle; or the Station Ornithologique Suisse, CH 6204 Sempach.

**Twitchers beware!** As if Red-and-black Kites and large gulls of doubtful parentage are not enough—to say nothing of the offspring of certain waterfowl—another hybrid is on the loose . . . we notice a reference (*J. Orn.* 118: 1977) to a hybrid Collared × Pied Flycatcher: a male Collared bred with a female Pied in southern Finland in 1972 and 1973. We leave it to our friends on the Rarities Committee to sort that one out.

**Siberian Crane news** The Siberian White Crane *Grus leucogeranus* is one of the world's rarest and most endangered cranes. We notice from the October 1977 Bulletin of the International Union for the Conservation of Nature (IUCN) that the latest count of the population which winters in India is only 56 individuals, 15 fewer than in 1970. It is thought that as many as 300 may still winter on the River Yangtze in China, but nothing is known of their true status at the moment. It is heartening, then, to see that the Iranian and Soviet governments have combined to help the International Crane Foundation (ICF) in their attempts to establish a new wintering ground in Iran. Last spring, eggs from ICF headquarters in Wisconsin, USA, were transferred to the nests of the Cranes *G. grus* which nest in western Russia and winter in Iran. We await news of the results with interest. Turning back to the Indian wintering birds, there is some good news: Lake Ab-i-Estada in Afghanistan—a stopping-off place for the cranes on their return migration—should shortly become a wildlife sanctuary. Hopefully, this will be in time to save the lake itself, which is losing its inflow to irrigation projects, and to help the cranes, which always run the risk of being shot and sold for food.

**Ring-necked Parakeets** At a time when the future of this exotic escapee is in doubt and arguments are beginning as to whether it should or should not be classed as a pest species, it is vital that as much information as possible should be collected together on its present status: much has happened since the *Atlas* (1976) was compiled and a lack of adequate information meant that the Ring-necked Parakeet *Psittacula krameri* was not included in the *Atlas of Breeding Birds of the London Area* (1977). The LNHS announces in its January 'Newsletter' that it would like as much information as possible on this species, which will be



84. Eyrian Grasswren *Amytornis goyderi*, Australia, December 1977 (*Australian Information Service*)

included in all future annual reports. If anyone has any records of breeding in the LNHS area (within a 20-mile radius of Charing Cross), or of any other sightings not already submitted, please send them to D. J. Montier, 6 Cloonmore Avenue, Orpington, Kent.

**More overseas news** We learn that four students from the North East London Polytechnic are off to the tiny Andoman island of Narcondam in the Bay of Bengal next August. Their task: to research the status and ecology of the Narcondam Hornbill *Aceros narcondami*, a virtually unknown species confined to this tiny island and apparently threatened by timber extraction in the Narcondam forests. From Australia, news comes of the capture and photography of one of the country's rarest and least-known species, the Eyrian Grasswren *Amytornis goyderi*, and of an allocation of \$285,000 by the Australian National Parks and Wildlife Foundation to help in the protection of four endangered species, two of them birds: the Lord Howe Woodhen *Tricholimnas sylvestrias*, of which only 20 are believed to survive on one small island, and the famous Mallec Fowl *Leipoa ocellata*, a semi-desert species much threatened by scrub clearance and sheep grazing pressures which incubates its eggs in mounds of vegetation.

**New National Nature Reserve** The Nature Conservancy Council has an-

nounced the establishment of Scotland's fiftieth NNR, Tokavaig Wood. This 80-ha reserve in Sleat, Skye, is reckoned to be one of the finest mixed oak and ash woods in Scotland, and is said by the BTO to contain the finest bird community of any on Skye.

**Cagebird exhibition** The thirty-fourth (Silver Jubilee) National Exhibition of Cage and Aviary Birds, organised by the magazine *Cage and Aviary Birds*, was held at Alexandra Palace on 2nd, 3rd and 4th December 1977. At a first glance, it seemed to be all Canaries and Budgerigars, but a closer look revealed a large selection of British birds (mainly finches) and a number of other interesting species, including Siberian Thrushes and another thrush which defied identification. There were also some massive Asian grosbeaks, beside which the Hawfinches on show looked positively delicate. While it was fascinating to hear from a learned judge how half-a-dozen superb cock Yellowhammers were assessed for First Prize, it was also a little sad to see species such as Nuthatch, Grey Wagtail and *Sylvia* warblers in cages, not to mention a couple of Little Stints. But perhaps the oddest find of all was that drabest of birds, a Rock Pipit, running up and down his artificial rock as if he were in some avian marathon. No doubt many field ornithologists would have found the whole thing a little depressing, but it is equally certain that they would

have been impressed by the care lavished on most of the birds and by the very real love of birds shown by many of the exhibitors. Anyone within reach of next

year's exhibition ought to take time off to go and see for himself: if nothing else, some of his preconceived ideas about cagebirds will be shattered.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers January and the first part of February; except where otherwise stated, all dates refer to January.

The year started with a fury of gales causing havoc and extensive flooding in coastal and low-lying areas. The effects of such storms on bird-life are rarely documented, but may be echoed by 'wrecks' of seabirds or, as in this case, by strange 'kills'. A flock of **Pink-footed Geese** *Anser brachyrhynchus* was struck by lightning in Norfolk (see December summary), with the final total of 157 found killed.

There were further reports of **Lesser White-fronted Geese** *A. erythropus* as the winter progressed: one turned up at Slimbridge (Gloucestershire) on 5th February, and there were three there a week later.

### **Nearctic waterfowl and waders**

The remarkable influx of **Ring-necked Ducks** *Aythya collaris* for the second successive winter was mentioned last month, but others came to light during January: at least two in the West Midlands, three, including two females, at Alton Water (Suffolk), two in Yorkshire and one in Bedfordshire. The interesting feature of this, the largest influx to date, involving about 13 individuals, has been the lack of records from more traditional sites. Surely this species is now a likely breeder on this side of the Atlantic?

Drakes of the American race of **Teal** *Anas crecca carolinensis* wintered on the Hayle estuary (Cornwall) (two) and at Chew Valley Lake (Avon). Two **Surf Scoters** *Melanitta perspicillata* appeared in

Findhorn Bay (Morayshire), complementing the five in Ireland; and, for the second successive winter, a **King Eider** *Somateria spectabilis* was reported from Loch Ryan (Wigtown).

Overwintering **Long-billed Dowitchers** *Limnodromus scolopaceus* are of almost annual occurrence now; this winter, two stayed at Blagdon Lake (Avon) from the autumn to 11th, with one until 15th; singles were then reported from Steart (Somerset) on 13th and Chew Valley Lake on 21st: perhaps the Blagdon birds. **Killdeers** *Charadrius vociferus* were reported from Co. Kerry in mid January and from near Llanelli (Dyfed) in early February.



### **Inland divers**

Spates of inland diver occurrences are most interesting and would no doubt repay a more detailed analysis; invariably they are connected with adverse weather conditions. In November, there was a series of reports of **Great Northern Divers** *Gavia immer* in ones and twos from English reservoirs; many remained to overwinter and were joined by others in a second influx

over Christmas, after strong westerly winds. A number of **Black-throated Divers** *G. arctica* also turned up during the same gale, and in some places excellent opportunities for comparison were available: Siblyback Lake (Cornwall), Rutland Water (Leicestershire) and Draycote Reservoir (Warwickshire) each had both species together.

### Black Vulture

The New Year started with a bang when a **Black Vulture** *Aegyptius monachus* was discovered near Built Wells (Powys) early in January, although local people considered that it had been around for some time before then. Although this species seems an unlikely candidate for the British and Irish list and is kept in captivity, it should be remembered that most of the Central Asian population (where it is the most northerly breeding vulture) wanders in winter and stragglers have turned up as near to us as Denmark and the Netherlands. Many car-loads of birdwatchers went to see it and few were disappointed: whatever its origins, it was a magnificent bird to see at large in Britain; it was reported regularly up to mid February.

### Overwintering summer migrants

There was the usual scattering of reports of wintering **Chiffchaffs** *Phylloscopus collybita* and **Blackcaps** *Sylvia atricapilla* from many parts of the country, although no particularly interesting or large concentrations were noted. A **Cuckoo** *Cuculus canorus* reported to have been seen and heard near Reepham (Norfolk) in mid December and a **Hoopoe** *Upupa epops* in a garden at Ramsey (Cambridgeshire) in early February were both very unusual. A **Yellow Wagtail** *Motacilla flava* that wintered near Netherfield (Nottinghamshire) was well-fed: it spent much of its time at a local maggot factory.

### Woodland birds

The hot, dry summer of 1976, followed by the cool, wet one of 1977, must have had dramatic effects on insect populations and, presumably, on insectivorous woodland and garden birds too. In Leicestershire, there were reports of fewer **Greenfinches** *Carduelis chloris* and **tits** *Parus* at bird tables, and several **Coal Tits** *P. ater* overwintered for the first time at Fairburn Ings (North Yorkshire), suggesting that the species may have forsaken woodland habitats unusually early in the winter. It would be of interest to hear from ringers regarding the ratios of young birds of the commoner species from last autumn.

Many parts of the country have reported more **Siskins** *Carduelis spinus* this winter, often after a complete lack of the species during the previous winter. **Bramblings** *Fringilla montifringilla*, however, seem to have been very thin on the ground, but it is possible that the hard weather during late January and early February had shifted many into the southwest, since 1,500 (with 4,500 **Chaffinches** *F. coelebs*) were reported near Helman Tor (Cornwall).

### Plenty of Lapland Buntings

Following an exceptionally good autumn for **Lapland Buntings** *Calcarius lapponicus* (see *Brit. Birds* 71: 51), many remained for the winter, and good counts were received from a number of coastal localities during January: 30 in cliff-top fields at Filey (North Yorkshire), 25 by the Ythan (Aberdeenshire) on 15th and 14 at Steart; inland, there were up to four at Bodymoor (Warwickshire).

### Latest news

Kentish **Great Bustard** *Otis arda* still present, and early March **Crane** *Grus grus* reappeared Holt (Norfolk) mid month; summer migrants arriving south coast, including **Stone-curlew** *Burhinus oedipnemus*.



## HOLIDAY EXCHANGE

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## HOLIDAY

### ACCOMMODATION

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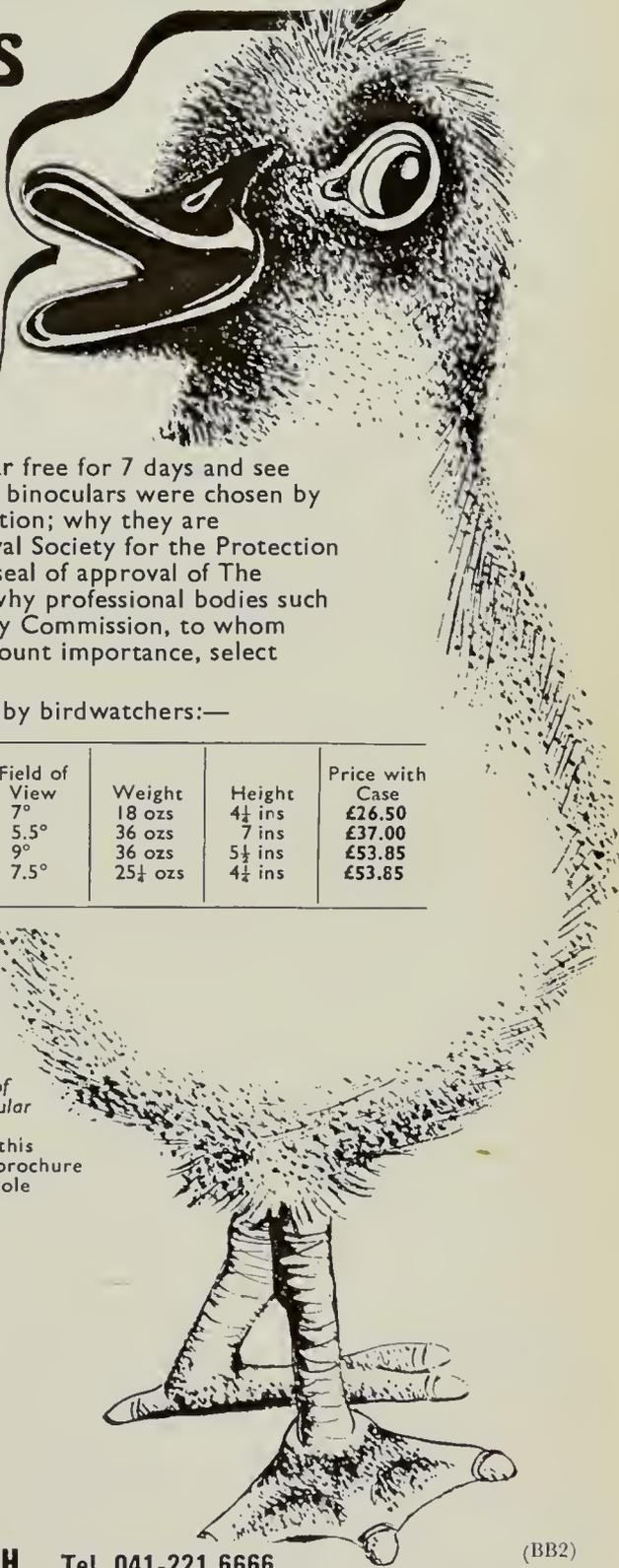
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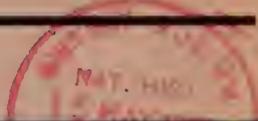
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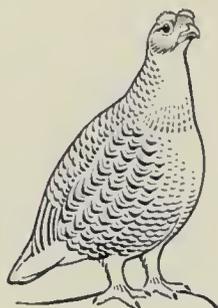
Bird Photograph of the Year

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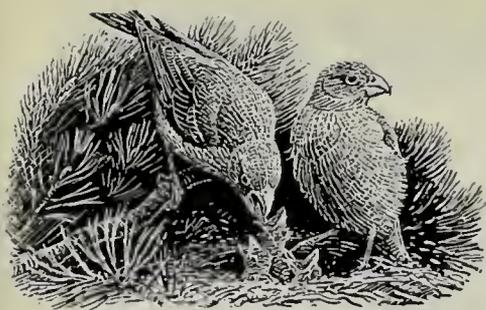
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# British Birds

VOLUME 71 NUMBER 5 MAY 1978



## Bird Photograph of the Year



185. BIRD PHOTOGRAPH OF THE YEAR, 1977. Female Sparrowhawk *Accipiter nisus* alighting at nest, North Yorkshire, May 1977 (technical details: Pentax SP500, Vivitar zoom 75-260 lens, Clive Courteney Power Pack with two flash heads, Kodachrome 64) (P. Lowes)



86. Snipe *Gallinago gallinago* reacting to overflying Starling *Sturnus vulgaris*, Netherlands, September 1977 (35 mm transparency) (Oene Moedt)

87. Female Grey Partridge *Perdix perdix* backing off nest and posturing at threatening stoat *Mustela erminea* (out of picture), Lancashire, May 1977 (2¼ inch transparency) (Dennis Green)



The 160 entries for the 1977 competition were judged by Eric Hosking, Michael W. Richards, I. J. Ferguson-Lces and Dr J. T. R. Sharrock.

The winning photograph and six runners-up were as follows:

1. Sparrowhawk *Accipiter nisus* (Peter Lowes, North Yorkshire)
2. Snipe *Gallinago gallinago* (Ocne Moedt, Netherlands)
3. Grey Partridge *Perdix perdix* (Dennis Green, Merseyside)
4. Cory's Shearwater *Calonectris diomedea* (Keith Pellow, Devon)
5. Ptarmigan *Lagopus mutus* (Miss S. L. Hastings, North Yorkshire)
6. Barn Owl *Tyto alba* (Donald A. Smith, Ayrshire)
7. Little Owls *Athene noctua* (Derick Scott, South Yorkshire)

The award of an inscribed salver and a cheque for £100 were presented to Peter Lowes by Mrs Joyce Grenfell at a press conference on 4th April 1978. The female Sparrowhawk (plate 85), alighting at her nest 6 m up in an oak *Quercus* with a twig in her bill, is a most unusual head-on study. Mr Lowes built a high tower from which to photograph the nest. Five eggs were laid, but one disappeared, probably taken by a grey squirrel *Sciurus carolinensis*; one of the young died when small, but three fledged.

Ocne Moedt wanted to record the reactions of feeding and resting Snipe to Kestrels *Falco tinnunculus*, gulls (Laridae) and crows (Corvidae), so he erected a pole as a perch for these predators 10 m from his hide. It was, however, a Snipe which settled on the pole and provided him with his most interesting photograph (plate 86): it bent forward with fanned tail—a characteristic posture towards aerial intruders—as a Starling *Sturnus vulgaris* flew over.

After beginning to fidget nervously, jerking her head to and fro as she hissed, the female Grey Partridge (plate 87), being photographed on her nest in the early afternoon by Dennis Green, pecked forwards violently and spread and unspread her tail, revealing her orange feathers; she then slid backwards until half off her eggs. The cause of this reaction was a stoat *Mustela erminea*, which was standing bolt upright, swishing its tail and screaming a metre or so to the right of the nest.

Whether from the shore or from a boat, seabirds are seldom easy to photograph well in flight away from their breeding colonies, since the largest movements are usually on the most windy days, in heavy seas. Keith Pellow's Cory's Shearwater (plate 88) was accompanying vast numbers of Great Shearwaters *Puffinus gravis* on their northward post-breeding migration.

Some photographs capture a moment. The male Ptarmigan (plate 89), photographed at 900 m in the Cairngorms by Miss S. L. Hastings, had just been feeding with his mate on lichen and heather shoots, and this unusual flight shot is a triumph against the difficult white background.

Unlike the previous five, which were all colour transparencies, the photographs of Barn Owl by Donald A. Smith and Little Owls by Derick Scott were black-and-white prints. We shall, therefore, include them with the selection of 'Best recent work by British bird-photographers' later in this volume. EDS



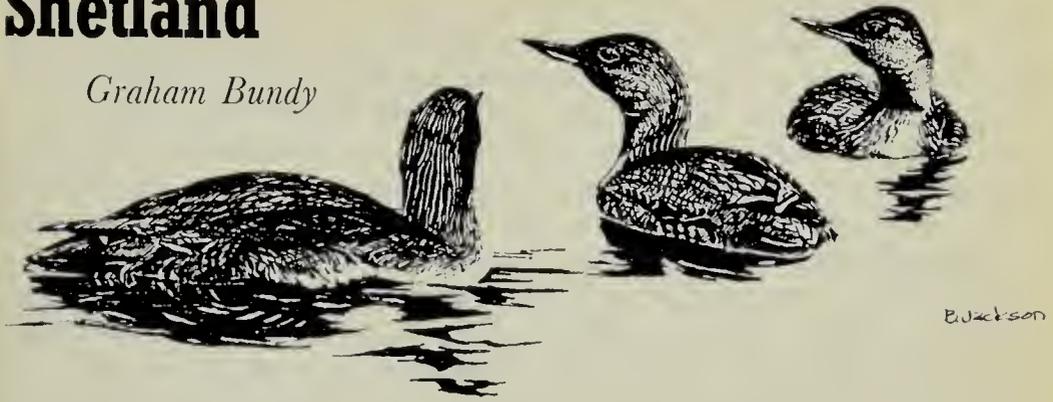
88. Cory's Shearwater *Calonectris diomedea*, 5 km off Bermuda. May 1977 (35 mm colour transparency) (Keith Pellow)

89. Male Ptarmigan *Lagopus mutus*, Inverness-shire, May 1977 (35 mm colour transparency) (S. L. Hastings)



# Breeding Red-throated Divers in Shetland

Graham Bundy



## In what ways does disturbance affect the divers nesting at remote hill lochans?

Following an earlier study (Bundy 1976), I surveyed the breeding Red-throated Divers *Gavia stellata* in the northern part of the Shetland archipelago during 14th May to 24th August 1976. The main aims were (a) to provide base-line data on numbers so that the impact of environmental changes on the population and on its breeding success could be assessed; (b) to identify the important breeding areas in Shetland; and (c) to put the Shetland population into national perspective. I surveyed the populations of Unst, the whole of Yell, and North Roc, Mainland; some coverage of north Mainland around Sullom Voe was also attempted, but most sites in this area were visited only once. The breeding population on Fetlar was surveyed by Martin Robinson.

### Methods

In the three main survey areas, all waters were visited and a search made for nests, eggs or young. Since divers have a protracted laying period, sites were investigated several times if initial visits proved negative. Wide areas of open moorland and hill country were also covered in search of unmapped lochans and tarns. Thus, the whole survey area was covered at least once in an attempt to find all the breeding divers.

The first priority was to find as many breeding pairs as possible, the second to monitor the sites so that evidence of hatching or fledging could be obtained. Especially during the first half of the period, much of the time was spent searching wide areas for new sites; it soon became evident that divers were laying and then suffering predation, in some cases twice, between visits. Consequently, the criteria for recording breeding pairs had to be extended, so that more accurate figures on the size of the breeding population could be obtained; thus, nest-sites which had obviously been used but abandoned were considered sufficient evidence to register a breeding site. Breeding pairs were recorded only on the following evidence: (i) nest and eggs; (ii) unfledged young; (iii) used but empty nest-site. The mere presence of a pair or pairs on a loch was not considered sufficient evidence of breeding.

If eggs were lost and a later clutch found at the same loch, it was assumed that the original pair had laid a replacement clutch. Of 207 waters known to have been used in Unst and Yell, only 13 held more than one pair. Evidence for a second or third pair had to be established in the course of the same visit, to avoid confusion with an original pair or with replacement clutches laid in second nests; in five cases, such additional pairs were suspected, but not proved to breed. Once breeding had been established, visits were kept to a minimum, follow-up checks being made at the appropriate times to record hatching or fledging success.

First clutches are laid from mid May until late June. In most instances, laying dates have been assessed from the estimated age of unfledged young (with experience, diver chicks can be aged in the field with a reasonable degree of accuracy, using a combination of factors, principally colour of down and size: Bundy 1976). The age of young  $\pm$  two days, plus the average incubation period of 27 days, is subtracted from the date when the chicks were first seen. Visits were not frequent enough, especially in the first half of the survey period, to establish laying dates more accurately. In a few cases, the laying date was known by chance upon a site at the appropriate time; in one such case, the incubation period of 24 days proved to be the shortest I have recorded (of 39 pairs on Unst in 1974, 20 incubation periods averaged 27 days), but, despite this, I have not altered the formula for calculating laying dates.

### Main areas covered

#### Unst

Nine visits were made; coverage was complete and involved 18 days (170 hours) in the field. Fieldwork was devoted almost entirely to divers, which is probably why the number of pairs located was greater than in the two previous surveys, in 1973 and 1974. In addition, as mentioned above, abandoned but used nest-sites are included, and waters with negative early results were followed up by more visits than in previous years. As I was familiar with the island, I could cover the higher ground and less accessible areas with comparative ease, even on wet and misty days; this reduced considerably the need to search widely for unmapped lochans on the hills and moors. Results showed that 54 pairs bred on 52 waters; 15 of these reared a total of 17 chicks to the flying stage. Six sites (11%) held only empty, used nests. Of the 52 waters, 11 (21%) are not marked on the current Ordnance Survey map (1:50,000). Table 1 shows breeding success at sites monitored for more than one season during 1973-76.

**Table 1. Breeding success of Red-throated Divers *Gavia stellata* at sites monitored for more than one season on Unst, Shetland, 1973-76**

	Sites monitored	
	1973, 1974, 1976	1974, 1976
Successful three seasons	1	
Successful two seasons	3	4
Successful one season	11	6
Failed each season	8	10
TOTALS	23	20

*Yell*

This, the second largest island in Shetland, consists mostly of gently undulating, peaty, gneiss moorland, giving rise to numerous small, black-watered, grass-banked tarns that are favoured by divers for nesting. Many of the large lochs, especially in the northern half, have shallow margins and wide stony shores, unsuitable for breeding divers. Whereas human disturbance is negligible, pressure from avian predators is probably heavier than ever before, following the recent, very considerable increase in the numbers of moorland-breeding gulls (*Laridae*) and skuas (*Stercorariidae*). The growth in numbers of Great Skuas *Stercorarius skua* has been well documented, but the spread of Great Black-backed Gulls *Larus marinus* has received less attention. An attempt to provide some basic data on the latter was made and the results appear at the end of this paper (pages 207-208).

A total of 69 days (587 hours) was spent surveying the island, and 170 breeding pairs of Red-throated Divers were located on 154 waters. Altogether, 56 sites were discovered that are not marked on the current OS (1:50,000) map; this represents 35% of waters supporting breeding pairs. Four sites where breeding was not recorded are known to have been used in the recent past (R. J. Tulloch *in litt.*). Yell is conveniently divided by the long voes of Whale Firth and Mid Yell, which meet almost in the centre. In north Yell, 72 pairs bred, of which 22 reared 25 juveniles; in south Yell, 98 pairs bred, of which 31 raised 37 young to the flying stage. In the north, empty nests totalled 15 (21%) and in the south 12 (12%); in many of these, eggshell fragments were found close to the nest, and in five cases complete eggs in the water below the nest.

*Mainland*

North Roe proved difficult to cover adequately: not easy of access and with wide tracts of undulating terrain and innumerable waters: misty weather inhibited work on two of the five visits. All areas were, however, visited at least twice, and, between 8th June and 7th August, 12 days (96 hours) were spent in the field. Many of the mapped waters proved unsuitable for breeding divers, having rocky margins; most pairs were found in three strips of peaty grass-moor where there were a number of small lochans with suitable banks. A total of 67 pairs was found, but no attempt was made to monitor these for breeding success.

Between 24th June and 16th July, observations and single-visit searches were made in the Sullom Voe area, where there is now considerable development in connection with the North Sea oilfields; 23 pairs were found, chiefly on the undeveloped west side, but it is doubtful whether all pairs were located.

*Fetlar*

Martin Robinson wardened the island in the summer for the RSPB and reported a total of 20 breeding pairs of Red-throated Divers, six of which reared a total of nine young (0.45 per pair).

### Loch-types and dispersal

Red-throated Divers often gather on larger waters (not necessarily breeding lochs), where they rest, preen and roost away from the pressures of territory defence and aggression. Individuals probably use regular assembly waters (up to 24 have been seen on a single loch). The composition of these assemblies is not known; the divers are often in pairs and may be failed breeders, sub-adults, or unpaired birds unable to gain possession of a breeding territory or loch. Off-duty and disturbed breeders are certainly involved, having been watched leaving their 'home territories' and descending to a communal water nearby. Non-breeding or off-duty divers sometimes favour waters at which a pair or two are breeding, a situation which often stimulates much complex posturing and communal display when territory or 'individual distance' is violated. Smaller waters, up to about 1 ha in extent, are usually guarded against intruding divers. On larger ones, nesting divers seem to require up to about 0.5 ha around the nest-site, and, especially if a second pair is present, the young usually keep within this; additional visiting divers are often tolerated, but generally only away from the home territory.

#### *Breeding waters*

Sites may be divided into three types according to the area of water: I estimated this in the field for the smaller lochans, and from the OS (1: 50,000) maps for larger waters: type A, small lochans of up to 1 ha; type B, lochs of from 1 to 5 ha; and type C, lochs of more than 5 ha in total area.

In the case of the most favoured lochans (type A), it is not practicable to assess the proportion of breeding waters in relation to those potentially available; there are so many small, unmapped pools and tarns on the moors, and especially on the grassier plateaux, that any estimate of their number would be difficult, and possibly meaningless since many are clearly unsuitable for nesting. The loch-types B and C could potentially be shared by more than one pair of divers but, in fact, only 13 were known to have been shared in Yell and Unst combined. It appears from this that, if breeding numbers were limited by the number of sites available, more of the seemingly suitable space on larger waters would be utilised. Two lochs on Yell each supported three pairs: a type B of about 3 ha, where all three pairs were successful; and a type C, where all failed to rear young. Table 2 gives details of breeding pairs on loch-types B and C

**Table 2. Number of larger lochs available and number used by breeding Red-throated Divers *Gavia stellata*, Unst and Yell, Shetland, 1976**

	Loch-types are: B, 1-5 ha; C, more than 5 ha		
	Lochs available	No. used	No. of pairs
UNST			
Loch-type B	10	9	10
Loch-type C	9	7	7
YELL			
Loch-type B	45	31	40
Loch-type C	20	12	19
TOTALS	84	59	76

**Table 3. Waters selected by Red-throated Divers *Gavia stellata* in relation to breeding success, Unst and Yell, Shetland, 1976**

Loch-types are: A, up to 1 ha; B, 1-5 ha; C, more than 5 ha. Numbers of young seen not necessarily same as those actually hatched

	No. of lochs used	No. of pairs	% of total	Young seen	Young fledged (av./pr)
UNST					
Loch-type A	37	37	68.5	22	14 (0.37)
Loch-type B	9	10	18.5	3	3 (0.3)
Loch-type C	7	7	13.0	1	0
TOTALS	53	54		26	17 (0.31)
YELL					
Loch-type A	111	111	65.3	79	43 (0.39)
Loch-type B	31	40	23.5	27	18 (0.45)
Loch-type C	12	19	11.2	5	1 (0.05)
TOTALS	154	170		111	62 (0.36)
GRAND TOTALS	207	224		137	79 (0.35)

on Unst and Yell in 1976. There were 148 pairs breeding on as many type A lochans; these are too small to be shared and this total is probably very close to the maximum number of suitable pools.

Breeding waters must be sufficiently free of vegetation and deep enough to enable chicks to dive when disturbed. The banks must be easy of access, suitable for nesting and preferably grassy. The distance and height from the water at which the eggs are laid apparently depends on the nature of the bank. Water-levels dropped slightly during the present survey, more noticeably on the larger lochs on impermeable substrates with shallow, stony margins, but no exact data are available. Rainfall was below average and only one pair of divers lost eggs through a rise in water-level. This pair laid two clutches in an unusually low nest, a shallow scrape on a sandy shore where typical grass-bank sites were available. Details of loch-types and breeding success on Unst and Yell are given in table 3.

### Some aspects of breeding biology

#### *Nest-sites*

At laying time, Red-throated Divers do not always build a nest; often, a scrape or flattened grass on the bank of a loch is sufficient. Such scrapes are usually lined during incubation with dry grasses, decayed vegetation or lichens, and most used nest-sites are easily recognisable. Some pairs build a grebe-like nest before laying, usually at the water's edge, but sometimes raised above shallow water several metres from the shore. In Shetland—unlike in arctic Europe—mammalian predators are not a serious threat, and islets on breeding waters, although preferred, are not invariably used. Islets usually have longer, ungrazed vegetation, which often helps to conceal the eggs, but loch-bank sites in Shetland normally lack this. In six cases, eggs were laid in soft rush *Juncus effusus*, but vegetation is probably not important in egg-concealment. It is more likely that, at open sites, protection is afforded to a large extent by the cryptic colour of the eggs, which, while sometimes glossy, often get stained during incubation, especially on peaty nests, and this helps to conceal them.

*Reaction to human beings*

As Yeates (1948) also noted, individual Red-throated Divers vary a great deal in their reactions to human intrusion. Behaviour may sometimes be influenced by the area of water available, but it becomes predictable after several visits. Most of the Unst sites have been monitored for three summers (table 1) and it is considered that, in nearly all cases, the same individuals were present each time, such was the high degree of consistency in response to intrusion as well as in other small behavioural differences. This evidence requires confirmation by marking, but divers are not ideal subjects for ringing; no attempt was made to capture either adults or young. Some individuals were shy during incubation and readily left the loch, but during the fledging period they often became tamer and loath to leave their chick(s). Some adults became very demonstrative, croaking and wailing; some were silent; some dived or 'sank'; some flew and left the area, and some flew and circled overhead croaking; several have performed what might be termed a threat-posture at the observer in a croaking display a metre or so from the bank, while a few, especially if nesting on islets, remained on eggs throughout my visit. Each behaved in the same, individualistic, predictable way at every visit; there was no general rule for all.

An attempt was made to assign each pair to a simple 'tame' or 'shy' category, to see if any significant advantage or survival value was apparent in tameness, at least during the fledging period when adults are more reluctant to leave. It is likely that predation of chicks is reduced or inhibited by the presence of an adult. At some sites, at least one of the pair was present at every visit, while, at others, adults were often absent during the fledging period, leaving chicks unguarded even during the short nights of mid summer. The criteria used were: shy, an adult with chicks readily leaves a loch at the approach of human intruder(s); tame, at least one adult remains with young during visits. Cases where divers left eggs unguarded and flew off, but usually remained with chicks, were categorised as tame, since the cryptic colour of eggs gives some measure of protection.

Of 224 pairs monitored on Unst and Yell, 115 were recorded as tame, 101 as shy, and eight were assigned to neither category. Of the successful pairs on both islands, 23 (33.8%) were shy and 45 (66.2%) tame. Of the grand total of tame birds/pairs, 39.2% reared young successfully; of those categorised as shy, 22.8% did so. Thus, shy pairs were significantly less successful than tame ones. The only Unst site monitored for three years

**Table 4. Success of Red-throated Divers *Gavia stellata* at sites where human disturbance high, Unst and Yell, Shetland, 1976**

Figures in parentheses indicate number of sites at which there was also high incidence of potential avian predators

	NATURE OF HUMAN DISTURBANCE			
	General and regular	Mainly fishing	Mainly peat-cutting	From nearby road
No. of sites	19 (7)	3 (1)	2	8
Successful pairs	3 (0)	0	0	2

that was successful each time was occupied by a pair categorised as shy.

There were no successful nests at sites where disturbance from both human beings and avian predators was considered high. Pairs subjected to either one or the other appeared less successful than those at sites where disturbance was negligible, but the difference is not significant for either ( $0.3 > P > 0.2$  and  $0.1 > P > 0.05$ ). When the data for pairs subjected to human and gull or skua disturbance are pooled, however, the breeding success of disturbed pairs was significantly less than that of undisturbed ones ( $P < 0.01$ ) (see table 4).

### Egg-laying

The normal clutch of Red-throated Divers is two eggs. Of a 1974 sample, the average was 1.8 for known first layings and 1.5 for known replacement clutches. On Yell, a rare clutch of three was found in 1976 (Bundy 1978). Pairs almost certainly return to the same water each year; presumably, any time saved in pair-formation and the re-possession of disputed breeding territory during the pre-laying stage could mean earlier laying and, thus, a better chance of eventual success. Pairs arrive in the breeding area at least two months before laying, and the earlier ones are on average more successful (Bundy 1976). For reasons unknown, the laying period at this latitude ( $60^{\circ}\text{N}$ ) is protracted, first clutches being laid from mid May until late June. Incubation starts with the first egg, and hatching is asynchronous. Fig. 1 shows laying dates, where these could be calculated, by five-day periods, for Unst and Yell. The peak appears to have been in a six-day period between 30th May and 4th June, with a second one in late June, caused by replacement of lost clutches. There is some evidence that breeding starts sooner on the favoured type A lochans, where more clutches were found by the end of May than on larger B and C waters

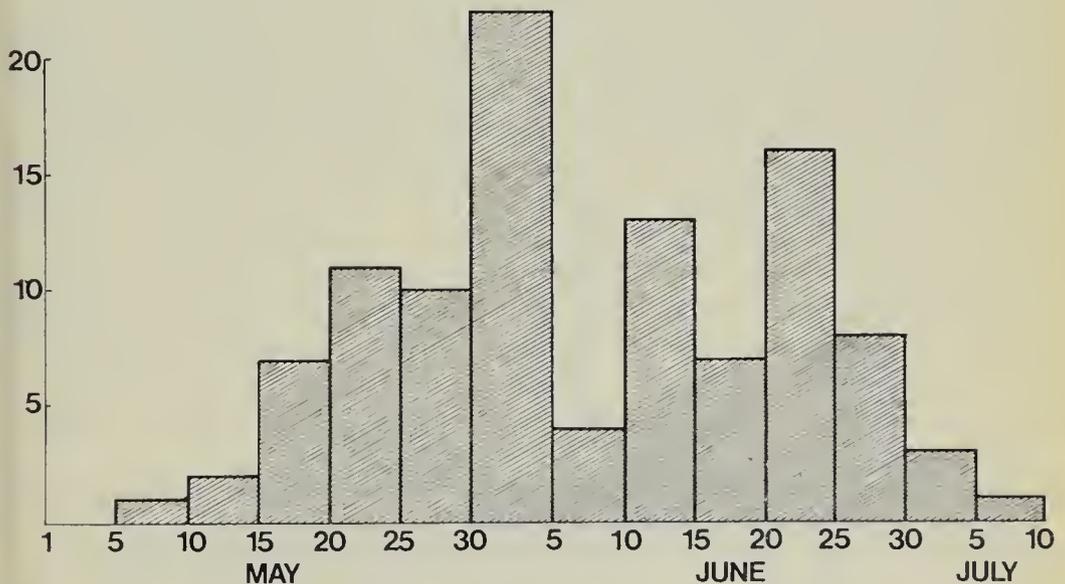


Fig. 1. Laying period of Red-throated Divers *Gavia stellata*, Unst and Yell, Shetland, 1976. Number of clutches laid includes replacements. Note that peak is in six-day (not five-day) period

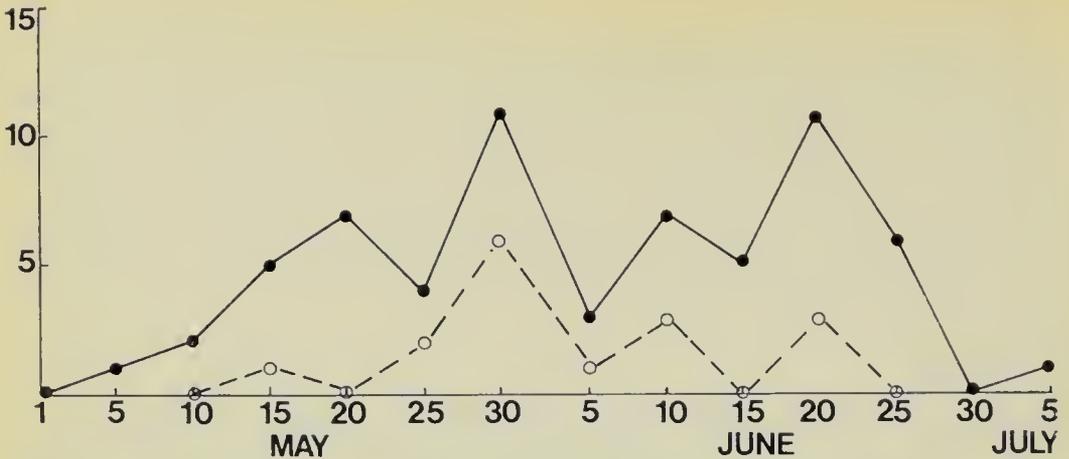


Fig. 2. Number of clutches laid by Red-throated Divers *Gavia stellata* on loch-types A and types B and C combined, Unst and Yell, Shetland, 1976. Solid line = type A (up to 1 ha); dotted line = types B and C (more than 1 ha)

combined (fig. 2). At higher latitudes, Red-throated Divers arrive on their breeding grounds as the ice melts, in late May or early June, and apparently do not have a protracted laying period (Palmer 1962).

#### *Fledging and breeding success*

Details of breeding success on Unst and Yell in 1976 are given in table 5. Fledging, and the time chicks remain on breeding waters, were dealt with earlier (Bundy 1976); the same criteria are used here to record success: that is the acquisition of juvenile plumage after all down has been discarded (at 38-42 days). Although eggs are cryptically coloured and chicks can dive well from the time they enter the water, losses of both are considerable. There appears to be survival value in constant parental care at the breeding loch, since the presence of an adult is more likely to deter would-be predators. The most hazardous period of a young diver's life is the first two weeks, but predation may occur at any time in the first 25 days. The chance of survival improves after 25-28 days, when the chick, although still down-clad, is almost fully grown. Since my visits were kept to a minimum—especially at sites more sensitive to disturbance—exact times of predation were never established. Two chicks known to have reached 30 days, however, suffered predation: in both instances, a heap of feathers and some down at the loch-side indicated that the young had been dragged from the water and consumed on the spot (normally, no trace of predation is left). No capture was actually witnessed, but it seems unlikely that any avian predator, other than a Great Skua or a Great

**Table 5. Numbers of pairs of Red-throated Divers *Gavia stellata* unsuccessful owing to predation, Unst and Yell, Shetland, 1976**

	No. of pairs	Pairs failing to hatch eggs	Pairs hatching eggs but losing chicks	Successful pairs
Unst	54	29 (53.7%)	10 (18.5%)	15 (27.8%)
Yell	170	88 (51.7%)	29 (17.1%)	53 (31.2%)
TOTALS	224	117 (52.2%)	39 (17.4%)	68 (30.4%)

Black-backed Gull, could have taken a full-grown diver chick.

While two chicks frequently hatch, it is less usual for both to be reared to the flying stage; the younger one often disappears soon after hatching, but, normally, only a single chick is located. During the present survey, the average number of young reared per pair was 0.31 on Unst and 0.36 on Yell. On Unst, in 1974, only two pairs from a sample of 39 reared 'twins' to the flying stage; and again, in 1976, two (at different sites) out of 54 pairs did so; all were on small, type A lochans. On Yell, of the 53 pairs that were successful in 1976, nine reared twins, five of them on type A lochans; of the other four pairs, all on B lochs, two were sharing the water with further successful pairs.

### Effects of Great Black-backed Gulls

A large growth in moorland colonies of gulls has taken place in Shetland during the past 30 to 40 years, while the increase and spread of Great Skuas since the 1890s is well known (in 1974, I estimated the Unst population at 1,075 pairs). The known extent of these increases, potentially important in further limiting the breeding success of Red-throated Divers, is worth noting. Venables & Venables (1955) wrote that, as late as 1952, Great Black-backed Gulls were confined largely to offshore stacks and sheep holms, but bred also on some islets on freshwater lochs; they mentioned specifically three pairs at Swabie Water in North Roe, and quoted Reaburn, who found three or four pairs there in 1885. Although I did not survey North Roe in detail, it was at once evident that a large increase had taken place: between Roer Water and the sea, including Swabie Water, the Great Black-backed Gull is now possibly the dominant species; numbers are greater nearer the sea around Lang Clodie and at Birka Water south to around Sandy Water, where I conservatively estimate 80-100 pairs breed. On Unst, the largest breeding colony is of about 30 pairs on Vord Hill, but a complete census was not attempted. In 1974, moorland colonies of Common Gulls *L. canus* on Unst were estimated at 565 pairs; in the previous year, colonies of Lesser Black-backed Gulls *L. fuscus* were put at over 145 pairs, with most of the Herring Gulls

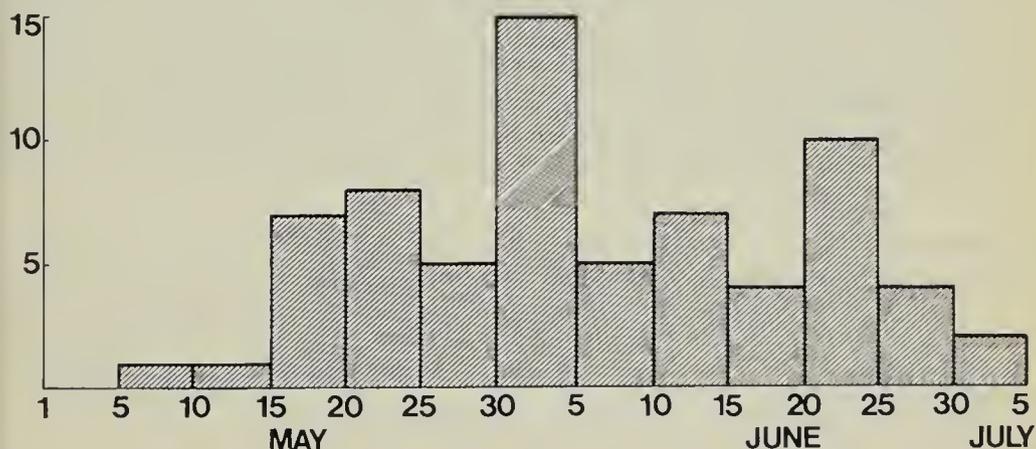


Fig. 3. Laying dates of Red-throated Divers *Gavia stellata* which successfully reared young to flying stage, Unst and Yell, Shetland, 1976. Note that peak is in six-day (not five-day) period

*L. argentatus* around the coast. The large gulls, in particular Great Black-backed, have regular assembly lochs, and the divers breeding on these have not been known to succeed: the banks become polluted by gull-droppings, feathers and refuse, the vegetation is often eroded, and the lochs become less attractive to the species.

Yeates (1948) confirmed that, during the 1930s and 1940s, on Yell, Great Black-backed Gulls were generally scarce and confined mainly to the coast. In 1976, I estimated 146 pairs on the whole of this island, most on flat-topped hills within sight of the sea, but some by freshwater lochs supporting divers (one nest was in fact only 3 m from a diver's). While no data were obtained, the gulls' fledging success appeared to be good, many juveniles being on the wing by mid July. From about fledging time, which coincides roughly with the first flying Great Skua juveniles, there is a partial exodus from moorland areas by both species; further study may reveal some correlation between this and the success of some divers breeding later in the season (fig. 3).

### Acknowledgements

I wish to thank Dr James Cadbury for the opportunity to return to Shetland for this survey and for the support given by his department at the RSPB. My thanks are also due to Bobby Tulloch for his customary hospitality, and to Mr and Mrs J. Henshall for their fieldwork in the Sullom Voe area.

### Summary

During the 1976 breeding season, I surveyed Red-throated Divers *Gavia stellata* in northern Shetland. For Unst, some results of an earlier study in 1973 and 1974 are also included. In 1976, a total of at least 334 pairs bred on Unst, Yell, Fetlar, in North Roe and the area surrounding Sullom Voe. On Unst and Yell, sites were monitored for breeding success: 224 pairs reared 79 chicks to the flying stage (0.35 young per pair). Hatching and laying dates, calculated mainly from estimated ages of chicks, revealed a protracted laying period with two peaks; none of the chicks which hatched after 4th July fledged successfully. With one known exception, water-levels did not influence breeding success.

Red-throated Divers preferred smaller waters of up to 1 ha, where, on average, they tended to lay earlier and generally have more success in rearing young. Some evidence is given to show that individuals reluctant to leave chicks unattended are more successful. On suggestive evidence of individualistic behaviour, noted in some divers on Unst for three successive seasons, it is thought highly probable that pairs return to the same site each year. Larger lochs were not fully exploited, which suggests that the numbers of divers able to breed are not being limited by the numbers of sites available.

A recent large increase in the numbers of moorland-breeding Great Black-backed Gulls *Larus marinus* is discussed: a survey revealed about 146 pairs on Yell.

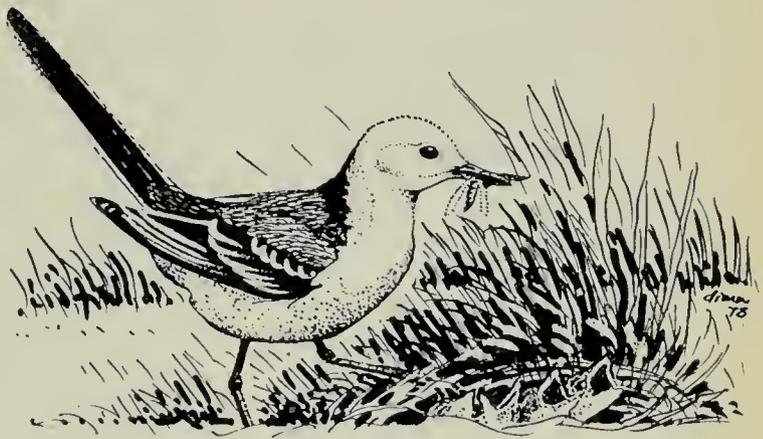
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# Male Citrine Wagtail feeding young wagtails in Essex

Simon Cox  
and  
Tim Inskipp

**Nobody had anticipated these extraordinary events concerning an Asiatic wagtail**



**O**n 4th July 1976, Mr and Mrs H. Huggins discovered an unfamiliar wagtail carrying food to a nest at an Essex coastal locality; they considered that it resembled a male Citrine Wagtail *Motacilla citreola*. At their invitation, SC went to look at it on 7th; he agreed with the identification and also readily located the nest, situated in an area of common saltmarsh-grass *Puccinellia maritima* on a small muddy peninsula in a saline lagoon. The nest contained four young wagtails, about one week old. SC watched the birds on eight more occasions up to 24th July, for a total of at least 16 hours; the fledged young were observed being fed by the adult male on 18th and 24th. On the last date, TI—who had been invited in view of his special interest in wagtails—also had excellent views of the male and the young. At the request of the landowner, and to safeguard a rare breeding bird, it was decided not to circulate widely details of the locality at the time. It was, however, visited by G. B. Brown, M. Coath, Mrs P. A. Cox, P. Davis, Miss P. Harris, G. J. and Mrs V. Jobson, P. Loud, C. J. Mackenzie-Grieve, R. V. A. Marshall, P. Newton, J. K. and Mrs D. Weston and M. Wright, several of whom had observed the species elsewhere in Britain previously. At no stage was an adult female seen definitely associated with the nest or young, although, on 11th July, a female Yellow Wagtail *M. flava* (at least two pairs of the race *M. f. flavissima* were regular in the vicinity) alighted close to the nest, inspected the area, flew off, returned a few minutes later, and then was apparently chased away by the male Citrine.

## **Description of adult male**

Size and shape, including tail length, were similar to Yellow Wagtail and, in common with that species in July, the whole plumage was worn and abraded, becoming noticeably more so during the three-week observation period. The following details were noted:

**PLUMAGE** Face and forehead pale yellow, with crown faded whitish-yellow, becoming palest on upper nape immediately above dark 'shawl'. No contrasting eye-stripes or dark marks on face, although feathers at base of bill very worn. Mantle, back and rump grey, comparable in colour with back of female Pied Wagtail *M. alba yarrellii*, or trifle paler, with rump marginally purer or paler grey. Darker grey collar or shawl extended on to nape from grey mantle; it darkened to black along leading edge (contrasting with very pale nape above) and continued on to sides of neck. Dark shawl appeared quite extensive when bird walking with neck extended, although at other times and in flight it appeared more as linear black collar. Tail mainly black, with outer pair of feathers appearing entirely white. Scapulars and lesser coverts grey, comparable with mantle. Median coverts darker grey distally, with whitish tips; greater coverts very dark grey, with slightly broader white tips, so lower wing-bar slightly broader than upper one. Tertiaries dark brownish-grey, contrasting with paler grey of mantle, back and rump; when bird facing away, showed narrow,

abraded white edgings to tertiaries. Primaries and secondaries browner grey, with indication of paler edgings. Chin, throat, breast and belly uniform primrose-yellow (paler than male *M. f. flavissima*) fading to whitish along flanks and under-tail-coverts. When wings raised, tinge of grey visible on flanks.

**BARE PARTS** Bill appeared black and 'stronger' than that of Yellow Wagtail, perhaps fractionally longer and broader-based. This, together with steeper forehead and more peaked crown, gave head slightly different jizz from Yellow Wagtail. Legs black and seemed comparatively longer than those of Yellow Wagtail, giving bird more erect stance and more deliberate, striding gait.

**VOICE** Striking and invariably distinctive. Principal call: monosyllabic 'dzzip' or 'dzzcep', altering neither in quality nor in pitch, with rasping quality reminiscent of Tree Pipit *Anthus trivialis* and some notes of Reed Bunting *Emberiza schoeniclus*; shorter than normal Yellow Wagtail call. Occasionally uttered double call, consisting of two short notes in quick succession (still with rasping quality).

### Description of young

The young basically resembled juvenile Yellow Wagtails:

**PLUMAGE** Forehead pale buff, contrasting with browner crown and very dark coronal stripes. Pale supercilia, broad behind eyes and extending well back on to nape, nearly joining. Back and rump brown, with no noticeable grey. Pale wing-bars were broad, as were pale edgings to tertiaries.

Underparts brownish-white, with no visible grey on flanks; but well-marked, dark throat gorget.

**VOICE** Call had same rasping quality as male Citrine, but terminated slightly higher in pitch, more like typical Yellow Wagtail call.

### Distribution

The normal breeding and wintering areas of Citrine Wagtails are shown in fig. 1. Wilson (1977) referred to a recent westerly expansion of the breeding range, and, following the Essex record, it was of great interest to learn that Citrine Wagtails had bred in Sweden, in the province of Jämtland, in 1977 (*Brit. Birds* 70: 496).

Of the three races described by Vaurie (1959), the Essex bird most closely resembled *M. c. citreola*. Males of *M. c. werae* are paler yellow, rarely have a black collar and have little—if any—grey on the flanks; males of *M. c. calcarata* are darker yellow and have a black back.

Published records of vagrant Citrine Wagtails in western Europe are mapped in fig. 2. Elsewhere, in addition to the USSR and Iran, others have been recorded in Turkey (Ornithological Society of Turkey 1975), Iraq (Moore & Boswell 1957), Jordan (I. J. Ferguson-Lees *in litt.* and Nelson 1973), the United Arab Emirates (M. A. Hollingworth *in litt.*),

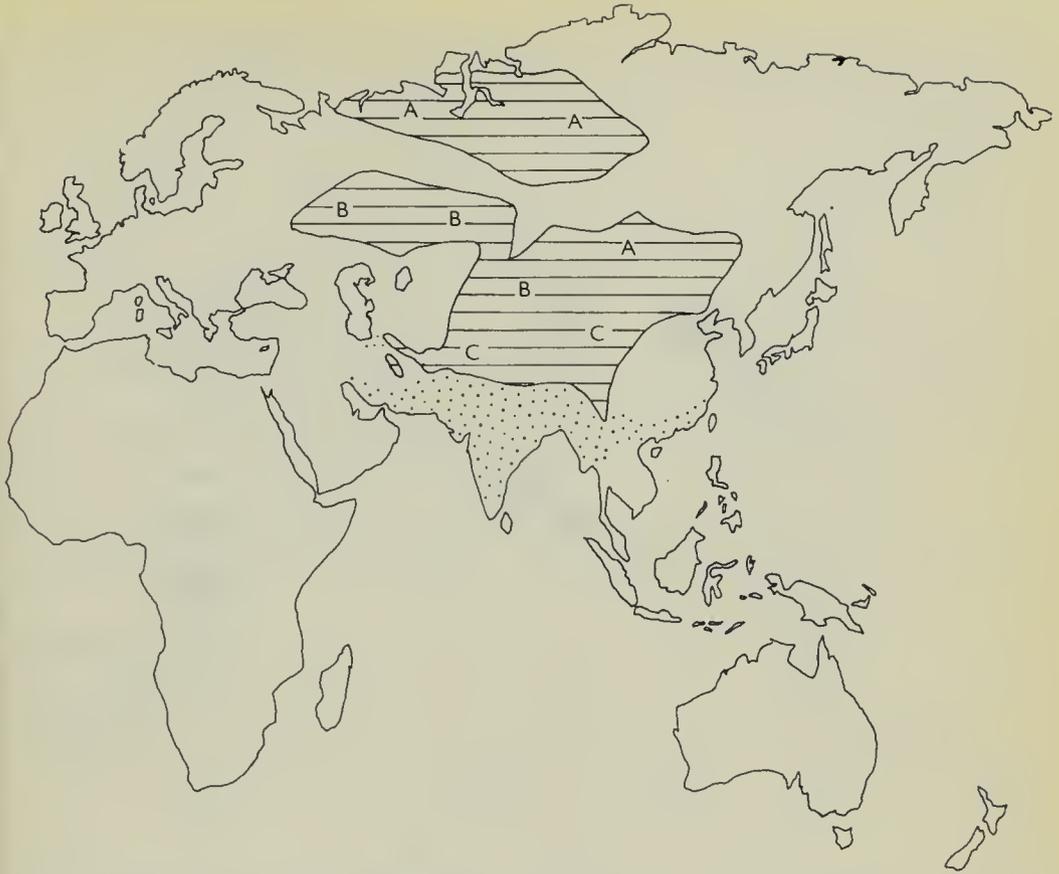


Fig. 1. Breeding (hatched) and wintering (stippled) ranges of Citrine Wagtail *Motacilla citreola*. Breeding range based on Voous (1960), with amendments according to Flint *et al.* (1968), Cheng Tso-hsin (1976), Hüc & Etchécopar (1970) and D. A. Scott (*in litt.*); wintering range based on Ali & Ripley (1973), with amendments according to Cheng Tso-hsin (1976), King *et al.* (1975) and Scott *et al.* (1976). A = *M. c. citreola*; B = *M. c. werae*; C = *M. c. calcarata*

Sri Lanka (Phillips 1975) and Australia (McGill 1963). An old record for Egypt, however, was subsequently discredited (Meinertzhagen 1930), and the statement of its occurrence in Israel (Dementiev & Gladkov 1951) cannot be substantiated.

The first British record was on Fair Isle, Shetland, in September 1954 (Williamson 1955). Of the accepted records of 24 individuals up to the end of 1976, all except the one under discussion were in immature plumage (with the general colouring of the Continental race of the Pied Wagtail, *M. a. alba*) and occurred in autumn between 2nd September and 17th October (one staying until 14th November). This paper, therefore, documents the first in Britain outside the autumn period and the first adult.

The Australian record was also of an adult male (probably of the nominate race), near Sydney on 1st-3rd July 1962: at least 7,000 km southeast of any other record, it illustrates the ability of this species to wander and to appear—even in its breeding season—far outside its normal range.

## Discussion

As already noted, the adult male Citrine Wagtail in Essex was feeding unfledged young when first seen, and no female was ever proved to be

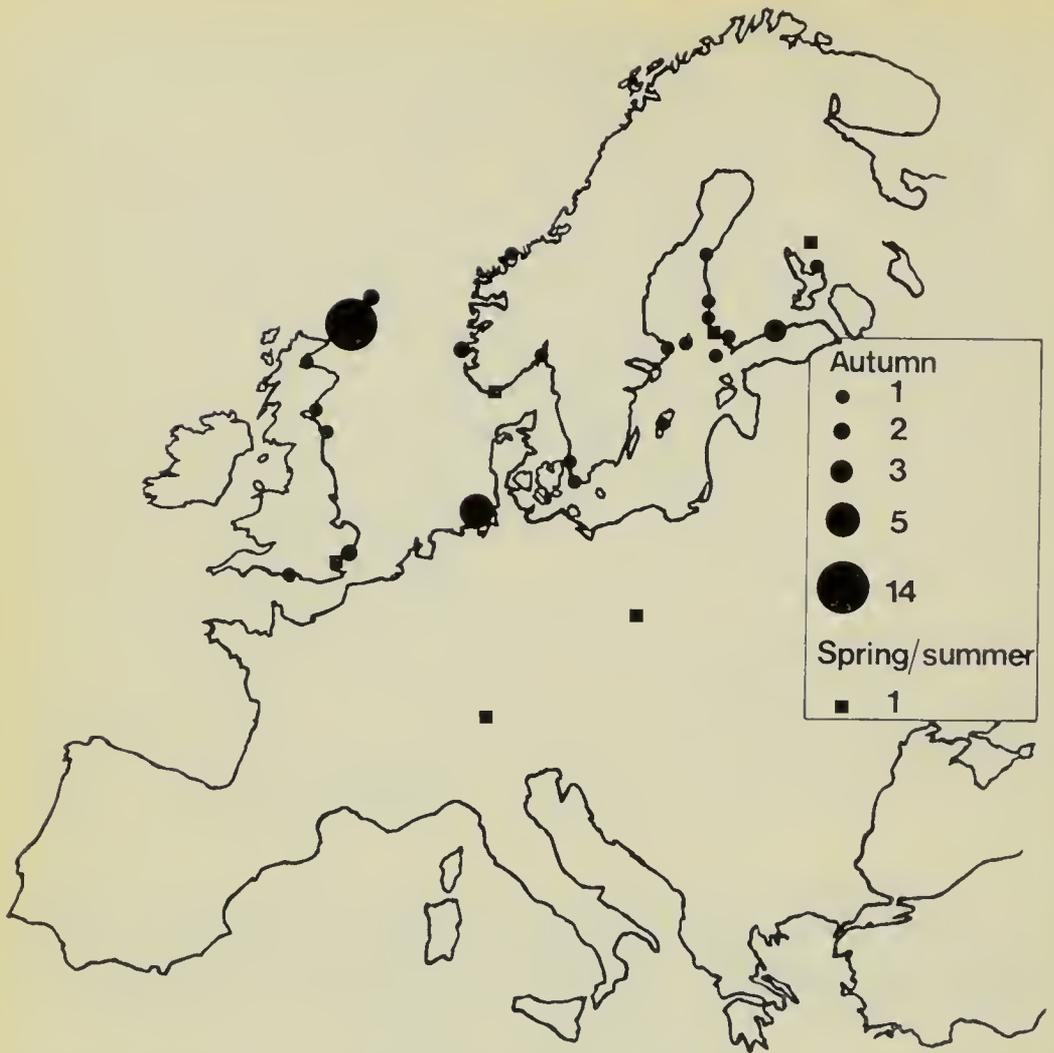


Fig. 2. Records of vagrant Citrine Wagtails *Motacilla citreola* in western Europe. Three records (Hampshire, Poland and southwest Finland) concerned two individuals together. Vague reference to 'rare Italy' (Wardlaw Ramsay 1923) not included

associated with him or the young. There are three possible explanations for this situation: the male may have (1) mated with a female Citrine Wagtail, or (2) mated with a female Yellow Wagtail (in either case, the female subsequently dying or ceasing to be involved with the brood) or (3) assumed the role of foster parent to a brood of Yellow Wagtails deserted by their parents.

Experiments by Löhrl (1963) demonstrated that location calls of many passerines are inherently species-specific and not learnt from the parents; it seems reasonable, therefore, that an intermediate location call (see page 210) indicates a hybrid origin. We know of no adequate published description of the plumage of a juvenile Citrine Wagtail; P. J. Morgan (*in litt.*), however, has described to us an early August specimen from Siberia, which is similar to first-winter birds, but dull brownish-grey above, brownish-white below and with a pronounced gorget like a Yellow Wagtail's; further, A. R. Kitson (*in litt.*) observed in Mongolia a juvenile Citrine Wagtail with pure white wing-bars. The Essex juveniles, which

had pale buff wing-bars, seem most unlikely to have been pure Citrine Wagtails, but in points of fine detail (e.g. the supercilia) differed slightly from typical juvenile *M. f. flavissima*. We consider that the likeliest explanation is that the nestlings were hybrid Citrine × Yellow Wagtails.

The field identification of Citrine Wagtail remains difficult. Williamson & Ferguson-Lees (1955) discussed the problems, recently further clarified by Folkestad (1976) and Svensson (1977). Aberrant Yellow Wagtails, however—possibly commoner in Britain than in Scandinavia—may be extremely similar to Citrines, and it is uncertain to what extent hybridisation occurs: Wilson (1977) quoted an account of suspected hybrids between *M. c. citreola* and *M. f. flava* in an area near Voronezh, USSR. We urge, therefore, that a detailed description, photographs and tape-recordings should be obtained of any suspected Citrine.

### Acknowledgements

We are grateful to M. A. Hollingworth, A. R. Kitson, P. J. Morgan, R. F. Porter, A. J. Prater and D. A. Scott for their assistance in various ways.

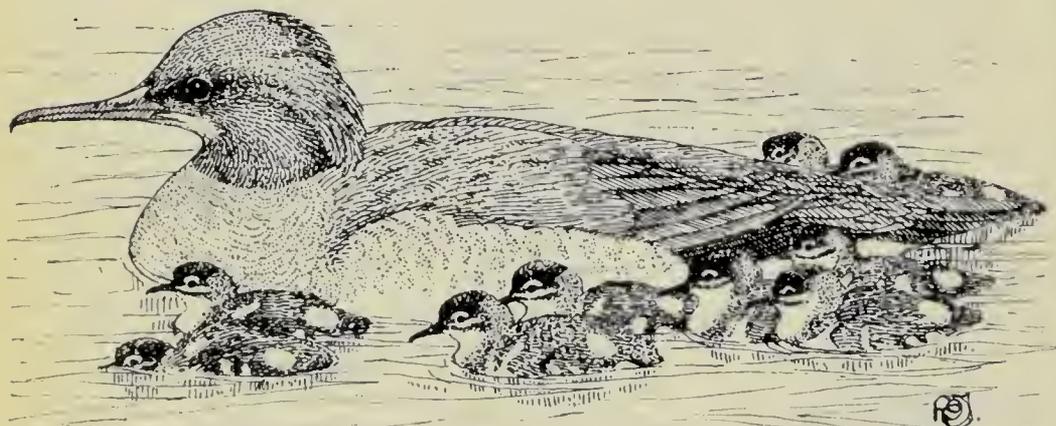
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# Breeding status of Goosanders in Wales

Roger Lovegrove



## Goosanders probably first bred in Wales ten years ago. How well established is the colonisation now?

**I**n their account of the spread of the Goosander *Mergus merganser* in Britain and Ireland, Meek & Little (1977) referred to proved breeding in Wales in 1972, and the possibility that 'one or two pairs may breed annually'. Colonisation is, however, more extensive than they implied and, since the species now has a reasonably secure foothold in Wales, it is timely to place on record a more accurate picture.

Much of upland Wales produces the fast-flowing, relatively unpolluted rivers and streams which characterise the Goosander's breeding habitat in Scotland and northern England. Many of these rivers are known to hold high populations of fish such as trout *Salmo trutta*, Atlantic salmon *S. salar*, miller's thumb *Cottus gobio*, minnow *Phoxinus phoxinus*, roach *Rutilus rutilus*, perch *Perca fluviatilis* and eel *Anguilla anguilla*, which are known to comprise the main items of diet elsewhere in Britain (Collinge 1924-27).

Upland reservoirs in Wales, of which there are many, seem to have a special attraction to Goosanders, increasingly in the breeding season, but particularly in winter, when many of them are frequented by small parties. The Goosander has long been recognised as a winter visitor in small numbers to Wales (e.g. Forrest 1907, 1919); in the early decades of the present century, most records were from north Wales. Since the end of the Second World War, the number of records generally has increased, almost certainly to a greater extent than can be attributed to the concurrent increase in birdwatching and methodical recording. Several waters have become the regular haunts of wintering parties, including some in south Wales, such as Talybont and Pentwyn reservoirs (both Brecon, Powys) and Llandegfedd (Gwent).

The former county of Montgomery has been the centre from which Goosanders have spread into those parts of central Wales which, with one exception, currently comprise its restricted breeding range in the principality. As long ago as 1952, a pair was present on the Afon Vyrnwy until the end of May (Montgomeryshire Field Society 1953), giving rise to speculation that breeding might take place. No evidence was offered, however, although, in subsequent years, records of wintering at this site became more and more regular, and Goosanders were increasingly recorded well into April and May. This area of Wales is notoriously poorly covered by birdwatchers and the true situation in the 1950s and 1960s will probably never be known.

The first published breeding record (that referred to by Meek & Little) was in Radnor in 1972, but Goosanders had by this time been established at a breeding site in Montgomery for several years, certainly breeding annually from 1970 and almost certainly for at least two years before then. Both the Radnor and Montgomery sites were at upland reservoirs, but, from the mid 1960s onwards, one or two pairs were becoming established on rivers, such as Afon Dyfi, where D. Smallshire (*in litt.*) watched an adult female and juvenile, and saw what he presumed to be the remainder of the brood nearby, in late July 1968.

**Table 1. Summering and breeding records of Goosanders *Mergus merganser* in Wales, 1952-77**

MONTGOMERY (POWYS)

1952	Pair present until late May (site A).
1953-63	Increase in numbers wintering; regularly seen until late April and May at site A.
1968	Probable brood on Afon Dyfi (site B), 25th July.
1968 & 1969	Broods reported at site A, but not confirmed.
1970	Breeding proved at site A; annual thereafter.
1977	Five pairs at separate sites (A, B, E, F, G); further probable pair at sixth site (H).

RADNOR (POWYS)

1972	One pair bred on reservoir (site C); annual thereafter.
1975	At least two pairs at site C.
1977	Three pairs at site C; one brood on River Wye (site I).

GWENT

1975	One pair believed to have bred (site D).
1976 & 1977	One pair proved breeding each year (site D).

In an attempt to ascertain the present breeding numbers as accurately as possible, the whole or most of the lengths of several of the principal rivers in Powys were surveyed on foot in July 1977. The results are included in table 1, but the method employed (location of family parties) may underestimate the total, since pairs which may have attempted to breed and failed are not included; a scattering of such birds was encountered on several rivers and other waters.

## Conclusions

The minimum numbers of pairs breeding in Wales in 1977 was ten. These were pairs known to have bred successfully, and it is probably safe to assume that the actual number involved was higher. Numbers have built up slowly over at least the past ten years; the species is probably now firmly established in Wales.

The Gwent breeding records—the most southerly ever recorded in Britain—represent a considerable southward extension from the mid Wales sites and suggest that the southerly range expansion is continuing. Already, the species is being shot quite extensively on game fishing rivers such as the Wye and Severn, and the relative slowness of colonisation can in some part be attributed to this. Nonetheless, as in northern England (I. H. Armstrong *in litt.*), Goosanders appear to be remarkably resilient in withstanding quite determined, illegal attempts to exterminate them.

## Acknowledgements

During 1977, T. R. Clceves, R. A. Hume and P. Dunning gave invaluable help by covering long lengths of rivers and other waters in mid Wales. M. Moss, A. Merritt and C. Walker carried out a breeding bird census of the River Wye for the RSPB (under a Nature Conservancy Council contract) and I am grateful for their information. Dr A. Venables and P. E. Davis have provided data for Gwent and Radnor respectively.

## Summary

A pair of Goosanders *Mergus merganser* stayed until late May in 1952, but breeding was not suspected in Wales until 1968 and not proved until 1970. The species is probably now firmly established in Wales. The minimum number of pairs breeding in 1977 was ten.

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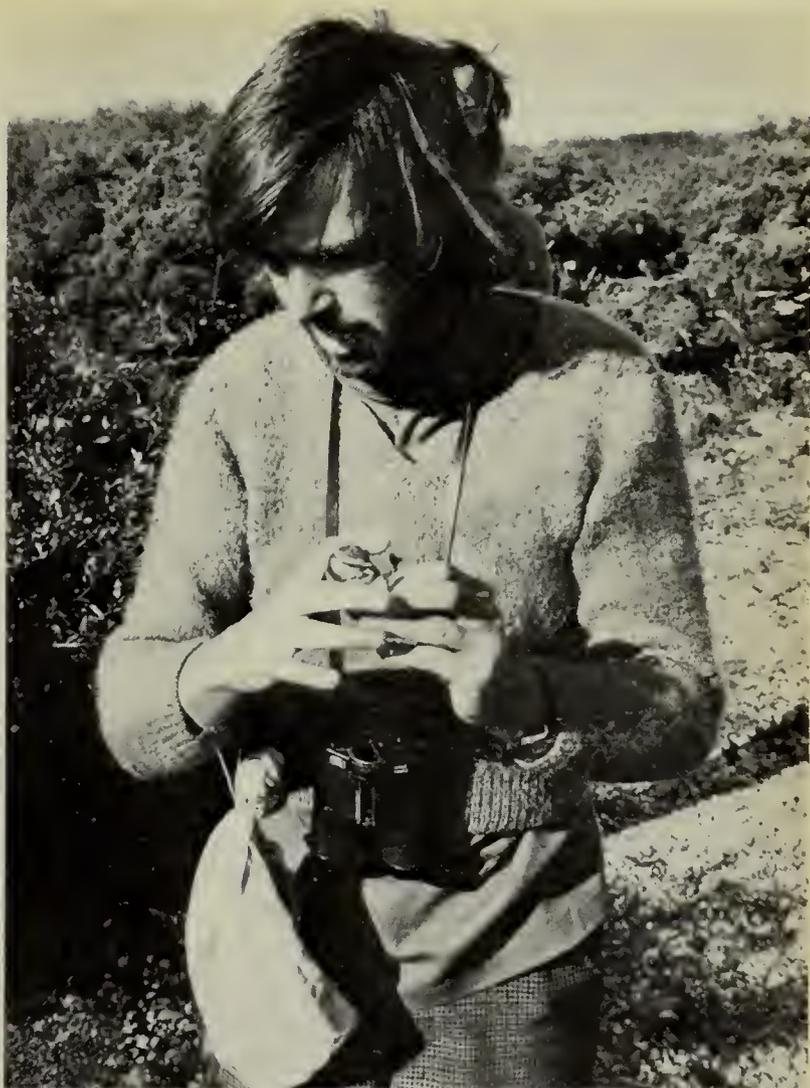
Roger Lovegrove, RSPB Wales Office, Newtown, Powys

# Personalities

## 14 Nick Riddiford

**A**nyone who has ever stayed at a bird observatory knows that wardens tend to be slightly eccentric. Perhaps this is an occupational disease, or it may be that such places provide fertile ground for the flowering of latent tendencies. In the case of Nick Riddiford, warden at Dungeness (Kent) since early in 1974, one can only hazard a guess, but eccentricity there certainly is. How else does one explain a fervent belief that Gloucestershire is the best cricketing county; or a penchant for the most

90.  
Nick Riddiford  
(*René-François de  
Fontanges*)



excruciating puns? And how many other people can—or would—admit to being debagged by a wild boar while birdwatching? Perhaps the fact that Nick came into the world on Christmas Day—at Stroud, Gloucestershire, in 1948—has something to do with it all.

After leaving school, he followed in his father's footsteps and set out to be a teacher. He gained his Certificate of Education at St Paul's College, Cheltenham, and then went on to take a Bachelor of Education degree, but his subsequent teaching career, in France and England, was a brief one. He had been bitten by the bird bug, and he used his fluency in French to get a temporary post at the Tour du Valat in the Camargue in 1971; he was invited back the following year, then had a season as assistant warden on Fair Isle in 1973 before his appointment at Dungeness.

There, Nick quickly came to the notice of both regulars and vagrants: in fact, notices blossomed everywhere, on walls, doors and cupboards. But they effectively put over the message that he was a well-organised person and that he wanted a well-organised observatory, both scientifically and domestically. Since then, and despite those puns, he has won the regard and support of a host of new and old friends of Dungeness, who have

recognised his keenness, ability and integrity. His teaching experience has stood him in good stead when handling parties of children and his linguistic talents have come in useful in coping with the observatory's increasing numbers of Continental visitors: for example, in explaining to a young Italian who spoke no English that, in this country, we cook bacon before eating it for breakfast. The photograph makes a physical description unnecessary, but it has been noted that Nick's plumage variations—beard or no beard—seem geared to the state of the battery in his electric shaver rather than to the time of year.

Birds are not Nick's only interest. He is a better-than-average botanist and a keen entomologist, with bumblebees and dragonflies as his latest targets. And somewhere, lurking in the background, is an embryo author with a prize-winning—but as yet unpublished—novel to his credit.

He has his likes and dislikes. Among the likes may be mentioned food, a taste for Pernod acquired in France, and a delight in showing his speed as a winger in kick-about on birdless days. And among the dislikes are parachutists: born of an incident when an Action Man, viewed from a distance through a telescope as it descended on the beach at Dungeness, led to his alerting the air-sea rescue services. Sanderlings, too, are a sore point: somehow or other, all his schemes for adding them to the observatory's ringing list go sadly astray. Nick also has a love-hate relationship with secondhand cars, which break down with monotonous regularity on the way to and from conferences. If offered a lift, be prepared to push. And, on the subject of lifts, who but Nick, having broken down in central France, could thumb one which took him all the way home to the observatory's doorstep?

Despite his seven-day-a-week job, and the ringing in the past year of more than 10,000 birds, Nick serves as secretary of the Bird Observatories Council. He is also engaged in the daunting task of writing a report summarising the work at Dungeness during the past 25 years.

Perhaps eccentricity is not such a bad thing after all.

HARRY CAWKELL

## Mystery photographs

**17** The white face, generally grey-and-white appearance and long neck are all noticeable features, but perhaps the most striking characteristic of the elegant wader in plate 79 (shown reduced here) is its long, very thin and delicate, straight bill. Taking this together with its whitish underparts and relatively unmarked mantle, one may be forgiven for thoughts of Wilson's Phalarope *Phalaropus tricolor*.

The bill, however, lacks the slightly wider base and tip of that species,



the head is more rounded, and the wing shows less contrast. The bill is proportionately even thinner and longer than that of Lesser Yellowlegs *Tringa flavipes* (which also differs by having finely speckled upperparts). Indeed, head-shape and bill of the mystery bird almost recall Black-winged Stilt *Himantopus himantopus*. So, too, would the proportions of its legs and its feeding actions if it were not shown wading deeply, in a still photograph: the legs are long (although not grotesquely so) and the species runs swiftly through the water when feeding. Flight pattern, leg colour and call would, of course, be important features to note in any field observation, but are not needed to identify the subject here: the delightful wader is a Marsh Sandpiper *Tringa stagnatilis* in winter plumage. Some books describe it as looking like a miniature Greenshank *T. nebularia*. Eric Hosking's photograph, obtained in Rhodesia in December 1972, shows how unflattering is this comparison: the Marsh Sandpiper is one of the most distinctive, graceful and attractive of waders, compared with which the Greenshank may seem positively coarse and cumbersome.

JTRS



91. Mystery photograph 18. What is this species? Answer next month

## Notes

**Mutual cartwheeling by Sparrowhawks** At 08.25 GMT on 6th June 1976, at Rostherne Mere, Cheshire, I observed a pair of Sparrowhawks *Accipiter nisus* soaring over a wood, the male (identified by his much smaller size) above the female. They gained height, soaring and slow wing-flapping, and then indulged in steep dives with closed wings. At the end of one dive by the male, the female rolled on her back and interlocked talons with the male; the two



instantly somersaulted several times, so rapidly that they became a blur, although I noted that their wings were held horizontally and slightly crooked at the carpal joints. The hawks separated just above the treetops, when the male chased the female at breathtaking speed through the trees. Both then resumed the sedate wing-flapping and soaring, but the female seemed to lose interest after about half-an-hour. At 09.10 hours, the cartwheeling display was repeated, again preceded by slow wing-flapping and display-diving and terminating in a high-speed chase through the trees, although on this occasion I did not determine which sex was the pursuer. All displaying ceased at 09.20, when both hawks dropped into a woodland ride. L. Brown & D. Amadon (1968, *Eagles, Hawks and Falcons of the World*, page 99) reported a similar whirling or cartwheeling display by eagles *Haliaeetus*, by kites *Haliastur* and *Milvus*, occasionally by the Upland Buzzard *Buteo hemilasius* and, rarely, by the Tawny Eagle *Aquila rapax* and the Verreaux's Eagle *A. verreauxii*. I can find no reference to this display by Sparrowhawks.

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We are grateful to Dr Ian Newton for the following comments. Talon-grappling has been recorded for Sparrowhawks, but always by two females in aggressive conflict; two birds fighting and gripping talons in the air are forced to spin round and round. The undulating display and the chasing through the trees are both aggressive behaviour, and the most likely interpretation of this cartwheeling, therefore, would be that of two Sparrowhawks of the same sex fighting over a nesting territory. It is very interesting that, in this case, a pair seems to have been involved. Eds

**Kestrels 'playing' with airborne cardboard sheet** On a fine day in midsummer 1969, while seated near a high office window in the City of London, I watched two Kestrels *Falco tinnunculus* 'playing' with a drifting, airborne sheet of rigid cardboard roughly  $1\frac{1}{2}$  m<sup>2</sup>. The thermal airflow over the hot city had raised this heavy sheet to a height of about 100 m; it drifted slowly northwards while I watched for some three minutes, and it must have already been in the air for at least two minutes before I noticed it. It moved at a steady height, with slow oscillations, and the Kestrels' play was similarly languid, swooping slowly low above its upper surface or making more rapid, upcurving approaches almost to touch it with their beaks or wing-tips; they immediately soared high away when the sheet suddenly tumbled downwards and out of sight below building level. Aerial play between certain crows (Corvidae), or between Kestrels and, for example, Jackdaws *Corvus monedula*, is well known; and the sometimes amazingly rapid pursuits to relatively high altitudes made by House Sparrows *Passer domesticus* after wind-blown feathers, easily recognisable as nest material, are also familiar. It seems surprising, however, that Kestrels should have so readily played with what must have been to them an alien object, perhaps 20 times their own size.

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**Further hard-weather concentration of Snipe** In an earlier note, I recorded 2,800 Snipe *Gallinago gallinago* at Kings Moor, Long Load, Somerset (*Brit. Birds* 63: 173). On 26th December 1976, at the same locality, A. J. Bundy and I estimated a concentration of 6,500 Snipe in soggy grass at the edge of shallow frozen floodwater. The less frozen grassy surrounding area—the only soft ground in the vicinity—afforded ideal feeding conditions. The numbers had built up rapidly during hard weather—a week earlier, only 50 were seen—and on 3rd January 1977, when the frost was more severe and feeding conditions less attractive, the flock had decreased to about 1,000.

DAVID E. PAULL

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It is clear that very large concentrations of Snipe may occur and we shall not, therefore, be publishing any more notes on the subject. Eds

**Continuing immigration of Collared Doves** At 15.40 GMT on 5th May 1977, on board a car-ferry 2 km out from Seaford Head and 5 km from Newhaven, off the East Sussex coast and heading northwest, I noticed two Collared Doves *Streptopelia decaocto* approaching from directly astern. They quickly caught up with the ship (which was travelling at 20 knots), briefly checked their speed and flew off strongly northwards, towards Seaford. Robert Hudson (*Brit. Birds* 58: 105-139) showed that this species' dispersal, more or less northwest, occurs mainly between April and June. While it is possible that these two were displaced British birds, the weather was unlikely to have caused such a movement, and continued immigration from the Continent seems probable.

P. F. BONHAM

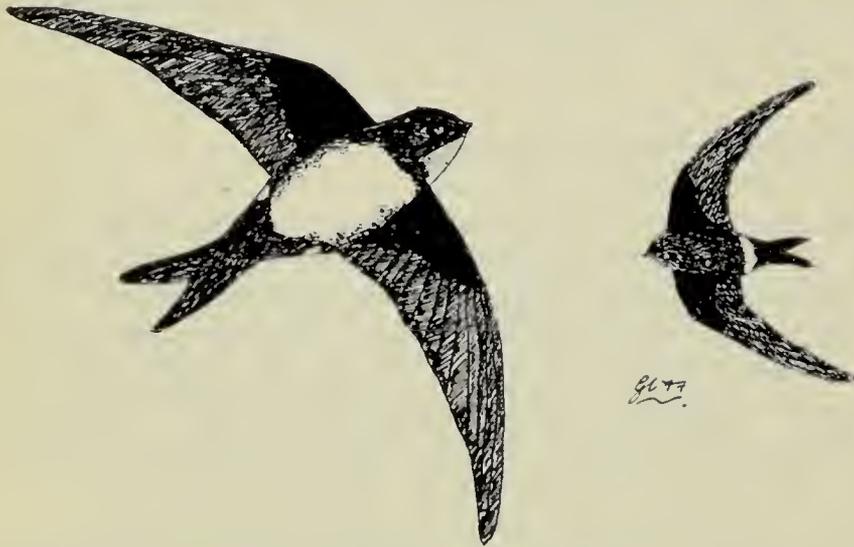
Rosetta, Sea Road, Winchelsea, East Sussex TN36 4LG

**Birds mobbing Collared Dove** On several occasions in April, May and June 1977, at Blunham, Bedfordshire, the cause of a commotion among the resident Blackbirds *Turdus merula*, Song Thrushes *T. philomelos*, Greenfinches *Carduelis chloris* and Chaffinches *Fringilla coelebs* in a 3½-m hedge of yew *Taxus baccata* was not the expected domestic cat *Felis* or Tawny Owl *Strix aluco*, but a Collared Dove *Streptopelia decaocto*. When surrounded by the noisy, mobbing group, the dove hung precariously on the side of the hedge in a near-vertical position, with wings and tail spread, in a submissive, apparently cowering or cringing attitude; on each occasion, it flew off unpursued after two or three minutes and the mobbing birds immediately became silent. The first time that I investigated, I expected to find a predator and, seeing a medium-sized pale grey bird being mobbed, called to my family to come and see the Cuckoo *Cuculus canorus*, although I realised my error almost at once. I assume that the mobbing birds were making the same mistake.

J. T. R. SHARROCK

Fountains, Park Lane, Blunham, Bedford MK44 3NJ

**Partially albino Swifts** On 28th June 1977, at Barrow Haven, Humberside, during a heavy passage of Swifts *Apus apus*, I observed a partially albino individual which could, at a distance, have been mistaken from below for an Alpine Swift *A. melba* or from above for a White-rumped Swift *A. caffer*. When first seen, approaching with other Swifts at a distance of 200 m, it showed a prominent white patch on its breast and belly, and, when banking, also a narrow white rump patch. On closer observation, the white on the belly was seen to be mottled with brown on the sides, but ended abruptly on the upper breast; the throat was a paler brown than the upper breast, like normal Swifts; and the narrow white rump patch extended round, onto the flanks, and could be seen from the side. In all other respects—plumage (other than that mentioned),



shape, size and behaviour—it resembled the normal Swifts with which it was associating. The bird, which is illustrated in my sketches, was observed again at the same locality on 2nd July 1977. G. P. CATLEY  
Southend, Goxhill, South Humberside

On 30th April 1968, I received a telephone call informing me that a Little Swift *Apus affinis* had been seen at Wilstone Reservoir, Tring, Hertfordshire. Only 11 months previously, I had seen the first Little Swift in Britain and Ireland (*Brit. Birds* 61: 160-162), so I went to Tring on the following day. There were up to 700 Swifts *A. apus* and 4,000 hirundines (mainly Sand Martins *Riparia riparia*) over the reservoir and this made location of the bird very difficult. My first view was for only 30 seconds at 100 m, but my immediate reaction was that it certainly was not a Little Swift, but might be a White-rumped Swift *A. caffer*, since the white rump patch appeared to be a narrow stripe and not a square patch. In the next seven hours, I had just one more view of the bird, for 20 minutes, but never closer than 300 m (low over the water for eight minutes and then overhead as a silhouette for 12 minutes). It was virtually the same size as the Swifts and the tail-shape was the same, but, as it flew low, it appeared to have pale patches on the upperparts, as if these had a strong gloss.

Meanwhile, about a dozen other observers had seen the bird and several claimed that it had a very deeply forked tail like a Swallow *Hirundo rustica*, so identified it positively as *A. caffer*; whereas others said that it had a large square rump patch and claimed that it was *A. affinis*. All who saw it (including myself) felt quite certain that it could not be an albino *A. apus*, since the white patches on the throat and rump and a pale patch on the forehead all seemed to be completely clear-cut and symmetrical, and it had the apparent gloss on the upperparts. Later, however, it was closely seen by Dr D. W. Snow and H. Mayer-Gross, who identified it as a partial albino *A. apus*; this was confirmed later when it was mist-netted. The 'gloss' was actually an illusion, caused by pale flecking on the upperparts. The experience was an object lesson in showing that features noted in brief views by several observers cannot be dovetailed together to form a convincing whole: in retrospect, it is obvious that we all ought to have realised that we were just having poor views of a partial albino Swift.

J. T. R. SHARROCK

Fountains, Park Lane, Blunham, Bedford MK44 3NJ

These observations, and another of a partial albino Swift resembling an Alpine Swift (*Brit. Birds* 63: 384-385), are, as P. J. Grant has commented, 'cautionary tales'. EDS

**Song flight of Pied Wagtail** On 25th March 1977, in Cyncoed, Cardiff, South Glamorgan, I noticed a male Pied Wagtail *Motacilla alba* descending slowly from a height of about 15 m on hovering wings, with its tail stretched up vertically behind it, in much the same type of song flight as that of pipits *Anthus*. It was singing a fairly loud song, which stopped when it landed on the roof of a nearby house. Describing the display of the Pied Wagtail, Henry Boase (*Brit. Birds* 20: 20-22) stated that: 'The song seems to be reserved as an expression of well-being and is not used as a means of advertisement for the male'; he made no mention of its being given on the wing. B. W. Tucker's only comment in *The Handbook* was: 'Delivered on wing or ground or from perch'.

D. J. FISHER

RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL

In *Songs of Wild Birds* (E. M. Nicholson & L. Koch, 1936), EMN described Pied Wagtails singing in flight: 'In April I have seen two singing with a dancing, hovering flight against each other for a considerable period in the presence of four other birds . . .'. The song flight with its parachute descent observed by Mr Fisher is, however, quite different from this and unfamiliar to us; it is of particular interest regarding the relationship of the genera *Motacilla* and *Anthus*. EDS

**Jackdaws reacting to Tawny Owl calls** Towards midnight on 16th June 1977, in Benarth Hall Wood, Conway, Gwynedd, I was attempting to decoy Tawny Owls *Strix aluco* with an Acme owl decoy-call. None was in the wood, but eventually the trees above were suddenly invaded

by about 30 calling Jackdaws *Corvus monedula* from a nearby roost; after a short time, they quietened down and left. I resumed 'owling' and soon the same thing happened again; this was repeated at intervals. I finally decoyed two Tawny Owls to call from outside, but the Jackdaws had by then left. The large, round head of the Tawny Owl is well known to incite mobbing by birds, which recognise the stuffed head on a stick, but not a headless stuffed decoy; the above incident suggests that they also recognise the species' 'kee-ick' call.

ERIC HARDY

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**Yellow-rumped Warbler in Co. Cork** On 7th October 1976, on Cape Clear Island, Co. Cork, J. F. Dowdall, J. E. Fitzharris and I discovered a striking, colourful warbler. As it emerged from a thicket at 10 m range, we identified it as a Yellow-rumped Warbler *Dendroica coronata*. The following description was obtained:

Larger and stouter than Chiffchaff *Phytoscopus collybita*, with slightly longer, heavier bill. Crown, lores and nape uniform dark brown. Vivid yellow crown spot displayed only once, during period of anxiety. Mantle rusty, streaked with darker brown, forming obscure lines extending towards chrome-yellow rump. White eye-ring complete, but reduced to thin lines at corners of eye. Chin off-white, with buff band below, progressing along sides to form inverted horseshoe as far as two clear lemon-yellow patches near bend of wing. Breast buff, with dark streaks along sides towards buff undertail-

coverts. Flight feathers all very dark brown, primaries edged yellowish, secondaries edged white, forming distinct patch on closed wing. Greater and median coverts dark brown, with greater coverts tipped white to form conspicuous wing-bar. Scapulars as mantle, but with hint of purplish-grey. From above, all tail feathers black, finely edged with white, but outermost three pairs with distal third of inner webs white, forming subterminal patches. From below, inner webs of outermost tail feathers formed white subterminal ovals. Bill and legs black, eye dark.

The bird was extremely restless when discovered, but was comparatively tame next day, when it was feeding in short grass with Meadow Pipits *Anthus pratensis*. It frequently called in flight: a hard 'pitt' or 'pitt-pitt'.

On 9th October, a pile of its feathers was found near its favourite feeding area, leading us to conclude that it had been killed by a Sparrowhawk *Accipiter nisus*. This was the first Irish record of Yellow-rumped Warbler and the fifth for Britain and Ireland.

IAN BURROWS

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## Reviews

**The Golden Eagle.** By Michael Everett. William Blackwood & Sons Ltd, Edinburgh, 1977. 60 pages; 10 black-and-white photographs. 95p.

This booklet will be ideal for the many visitors to the Scottish Highlands who hope to see a Golden Eagle. They are given some valuable hints on how to achieve this, without the

unnecessary disturbance caused by visiting an eyrie. In addition, they are presented with a vast amount of up-to-date information on this bird—its behaviour, distribution, breeding success, and conservation—all presented in a very readable style, and interspersed with numerous details from the author's own field experiences. The text is complemented by ten vintage black-and-white photographs by C. E. Palmar. The serious raptor enthusiast probably already owns alternative books which treat the subject in greater detail, albeit at much higher cost than this modestly priced work. M. J. P. GREGORY

**Die Vogelwelt Mecklenburgs. Edited by G. Klafs and J. Stübs.** VEB Fischer, Jena, 1977, 358 pages; 17 diagrams, 41 distribution maps, 32 black-and-white plates. DDR 32.00 Marks.

This first volume of the planned five-volume avifauna of the German Democratic Republic covers the northern provinces Rostock, Neubrandenburg and Schwerin. Part 1 is composed of detailed and interesting sections surveying: the history of ornithological research in the area; landscape; vegetation; sub-fossil records; the development of land-use and effects upon the birds; nature conservation, bird protection and hunting—the present position. Here, and elsewhere, it is interesting to note the authors' contention that, in comparison with the West, the political system in the DDR gives a better prospect for co-operation in the realm of environmental protection and the wise exploitation of natural resources.

The photographs—although perhaps not consistently of the highest quality—I found superbly atmospheric: memories of my own happy stays on the quite beautiful Baltic islands of Rügen and Hiddensee came flooding back. Importantly, the pictures give a clear idea of habitats and man's dominant influence; several typical birds are represented.

It is worth reading the introductory section to Part II before perusing the systematic list, in which there is a truly remarkable amount of detail. Some of the fascinating stories can be traced in the distribution maps, although these would have benefited from the use of a simple colour system.

A very full bibliography completes this excellent work, which sets a high standard for future volumes. We can learn much from the fortunes of birds in eastern Europe and from our colleagues there who study them. MICHAEL WILSON

## Letters

**Field identification of Black-throated Diver in winter** Mystery photograph 14 (*Brit. Birds* 71: 34) was very interesting and instructive. It illustrated clearly the distinctive white thigh patch of Black-throated Diver *Gavia arctica*, which I have always found very useful as a field character, especially of distant birds on the sea, although it is noticeable even in flight. It is not always obvious, but is a sure way of identifying winter-plumaged Black-throated Divers in the field.

Surprisingly, I cannot find a reference to the importance of this field character in the literature: it is not noted in *The Handbook*, *BWP* or the various field guides; in fact some illustrations are positively misleading. D. I. M. Wallace did not mention this special feature in his text (*Brit. Birds* 71: 75-77), yet the white thigh cries out clearly that it is a Black-throated Diver.

The Black-throated Diver tends to be under-recorded in winter, since Red-throated *G. stellata* and Great Northern Divers *G. immer* are easier

to identify than is this intermediate species: it takes a brave observer to identify a distant Black-throated Diver at sea; but, if the diagnostic white thigh is visible, it can be easy.

ROY H. DENNIS  
RSPB, Landberg, North Kessock, Inverness IV1 1XD

An important identification point of winter-plumaged Black-throated Diver is clearly shown in mystery photograph 14 (plate 8), but is not referred to in D. I. M. Wallace's explanatory text (*Brit. Birds* 71: 75-77), nor, apparently, in any handbook or field guide, although, over the past 25 years, it has been mentioned in my presence by many observers as we watched divers together. This feature is an upward extension of the white flanks at the rear of the body, creating a noticeable white patch. I find it surprising that this should not have been noted in the literature until now.

J. FITZPATRICK  
18 Edwick Court, High Street, Cheshunt, Hertfordshire

Mystery photograph 14 (plate 8) and a diver at Combs Reservoir, Derbyshire, in October 1975 (plate 92) both showed a white blaze on the rear flanks. Although this feature is apparently not noted in the



92. First-winter Black-throated Diver *Gavia arctica*, Derbyshire, October 1975 (Stephen Jackson)

literature, I consider that it is diagnostic of Black-throated. Further, attention should perhaps be drawn to the blackish border between the whitish throat and dark grey hind neck, and the dark patch in front of the eye.

STEPHEN JACKSON  
16 Kerry Drive, Smalley, Derbyshire DE7 6ER

We hope that 'Mystery photographs' will frequently reveal or provoke comment on such new or previously unpublicised recognition characters, and we shall always welcome relevant correspondence. EDS

**Great Crested Grebes breeding on rivers** R. E. Youngman (*Brit. Birds* 70: 544-545) stated that the first recorded instance of Great Crested Grebes *Podiceps cristatus* breeding on a river in Buckinghamshire was on the River Ouse in 1970. In the Buckinghamshire entry in 'The Great

Crested Grebe Enquiry, 1931' (T. H. Harrison & P. A. D. Hollom, 1932, *Brit. Birds* 26: 62-92, 102-131, 142-155 and 174-195), however, B. W. Tucker (page 69) noted that there was one pair and two young on the River Thames at Marlow in October 1926.

Of those on the Thames, Mr Youngman remarked that, 'the grebes are remarkably tolerant of pleasure craft passing within a metre or two; this contrasts with their reaction to disturbance on standing water.' Messrs Harrison and Hollom (page 123) stated that: 'Boating is the only thing, short of direct interference, which really disturbs the Grebes. They are curiously alarmed by boats of any sort; one rowing boat on a lake may upset them to an extraordinary degree. Two or three boats are far worse than fifty bathers . . . Yet on the Broads boats are everywhere, Grebes numerous. Probably they have got used to them there.'

It is interesting to compare these observations, made about 45 years apart: Great Crested Grebes seem to have begun to accept boats in those areas—such as relatively narrow rivers—where disturbance is inevitable.

D. H. GANTZEL

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**Effects of poisoning on Ravens, Buzzards and Golden Eagles in Scotland** During 1977, for the first time since 1964-68 and using essentially the same methods as before, I censused breeding Ravens *Corvus corax* in much of Speyside and the neighbouring areas. The results for 22 breeding territories indicated a spectacular recent decline, both in numbers and in performance (table 1). The widespread use of modern poisons on meat baits in this area began in 1969 and their impact on a

**Table 1. Numbers and breeding performance in 22 territories of Ravens *Corvus corax* in Speyside and Findhorn, Scotland, in 1964-68 and 1977**

	1964-68 average	1977
Pairs found April-June	16-17	5
Pairs which fledged young	10-11	1-2

breeding population of Buzzards *Buteo buteo* has been quantified (Picozzi & Weir 1976). Since 1969, dead Ravens, moved or concealed by man or lying near whole or part carcasses of rabbits *Oryctolagus cuniculus* or hares *Lepus*, have been found in eight of these 22 Raven territories. Dead Golden Eagles *Aquila chrysaetos* have been found in similar circumstances, on one occasion at the same carcass as a dead Raven; this bird, and some other Golden Eagles, had been poisoned by Mevinphos ('Phosdrin').

Although they misquoted the Buzzard data, Dennis *et al.* (1977) expressed well the present concern about the widespread poisoning of raptors. The Buzzard data, and those for Ravens in table 1, comprise the only quantitative information on the impact of poisoning on raptor populations; and it should not be assumed that poisoning is worse on Speyside than elsewhere: it has not been studied elsewhere. The need to determine the actual effects of poisoning on raptor populations is

evident, and no aspect of it is more pressing than the need to undertake a national Golden Eagle survey.

D. N. WEIR

*Creagdhù, by Newtonmore, Inverness-shire*

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 PICOZZI, N., & WEIR, D. 1976. Dispersal and causes of death of Buzzards. *Brit. Birds* 69: 193-201.

**Birds sitting on their tarsi** I was interested in Geoffrey Boyle's note concerning Lapwings *Vanellus vanellus* sitting on their tarsi (*Brit. Birds* 70: 458) and Richard J. Fairbank's observation of similar behaviour by a White-tailed Plover *Chettusia leucura* (*Brit. Birds* 71: 128), but feel that these records should be viewed against the usual ecological situation in which birds take up this stance.

As I have discussed elsewhere (*Scopus* 1 (3): 57-68), tropical birds of open country often have to lose heat in order to maintain a constant body temperature, whereas temperate birds more often have the opposite problem. During the hottest parts of the day, tropical plovers crouch over their eggs, which they thereby shade from direct solar radiation; at the same time, heat can be lost from their legs. When conditions are less extreme, the birds sit on their tarsi; in cool conditions, the eggs are brooded in nearly 'normal' fashion. My own observations have shown that sitting on the tarsi is normal during incubation for at least ten African plovers (seven *Hoplopterus* and three *Charadrius*). Coursers also often brood sitting on their tarsi, as shown in my photographs of Cream-coloured Coursers *Cursorius cursor* (*Brit. Birds* 65: plates 20-22), although they usually rest standing up.

Sitting on the tarsi when resting is particularly common behaviour by storks (Ciconiidae) and ibises and spoonbills (Threskiornithidae), but is also frequently adopted by plovers, including Caspian *C. asiaticus* and Spur-winged *H. spinosus*, and is also a very common stance of White-backed *Gyps bengalensis* and Rüppell's Vultures *G. rueppellii*.

J. F. REYNOLDS

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**Common and Black-headed Gulls feeding on road corpses** With reference to the note by P. K. Kinnear (*Brit. Birds* 71: 80), I should perhaps record that, shortly after the publication of my paper on 'Feeding habitats and food of Black-headed and Common Gulls' (*Bird Study* 19: 173-186), Dr J. I. Meikle wrote to me pointing out that, during 1971 and 1972, he had, for the first time, noted Black-headed Gulls *Larus ridibundus* feeding on the carcasses of mammalian road casualties around Galashiels in southwest Scotland. Hares *Lepus* and hedgehogs *Erinaceus europaeus*, as well as the more frequent rabbits *Oryctolagus cuniculus*, were eaten. As P. K. Kinnear pointed out, this food source was not mentioned in my

paper, but I have noted Black-headed Gulls feeding on rabbit carcasses on two occasions in Scotland in recent years. Common Gulls *L. canus* are known to feed on animal carrion on the shoreline, so perhaps it is less surprising that they have taken to feeding on mammal corpses on roadsides, particularly in summer, when their natural foods may be scarce.

J. D. R. VERNON

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**Spread of the Fan-tailed Warbler** In their paper on the recent spread of the Fan-tailed Warbler *Cisticola juncidis* in Europe, I. J. Ferguson-Lees and Dr J. T. R. Sharrock (*Brit. Birds* 70: 152-159) quoted the earlier conclusion of L. Yeatman (1974, *L'Oiseau* 44: 333-334) that the range of this species was delimited by the January 5°C isotherm, in which case the possible nesting areas north of the Channel might be confined to the south and west coasts of England and Wales, and Ireland.

It seems worth pointing out that the recent spread in Spain from the Catalan coast into Aragon (and, for that matter, to Castile as well), which they also mentioned, has already resulted in the colonisation of areas with quite severe winter climates. The species is, for example, quite a common breeder around Gallocanta Lagoon, a large steppe lake lying at 1,000 m above sea level on the border of the provinces of Zaragoza and Teruel. The city of Teruel, reputedly the coldest in Spain, which lies at a comparable altitude some 75 km to the south, has January and February isotherms of 3.7°C and 3.5°C, and night temperatures in winter not infrequently fall to -10°C. Although it is possible that some of the Fan-tailed Warblers at Gallocanta may move elsewhere in winter, local ornithologists have reported the species there throughout the year. It should, however, be borne in mind that recent winters in this part of Spain have been milder than usual and that snowfall, although fairly frequent, tends not to lie for long periods due to the relatively strong midday sun, which may be a crucial difference between Aragon and the colder parts of Britain.

JEREMY BROCK

Maestro Serrano 1-4°C, Zaragoza-5, Spain

## Announcements

### 'The "British Birds" List of Birds of the Western Palearctic'

Established subscribers received their free copy of this list with either the March or April issue of *British Birds*. New subscribers should claim their copy by sending their latest address sheet and a request to Betsy Gibson, Macmillan Journals Ltd, 4 Little Essex Street, London WC2R 3LF.

**Rarities Committee: new secretary** Following the resignation of John M. O'Sullivan for professional reasons, Michael J. Rogers has taken on the secretaryship of the Rarities Committee. Submissions should now be sent to him at 195 Vicarage Road, Sunbury-on-Thames, Middlesex TW16 7TP.

# News and comment

*Peter Conder and Mike Everett*

**An enormous Atlas . . .** Think of some 3 million square miles, habitats as diverse as tropical forest and true desert, with all sorts of stages between; then think about 720 species of birds, many of them rare and some of them almost unknown; and then think about 'atlassing' all that. It seems a daunting task, but it is one which the Royal Australasian Ornithologists' Union is attacking with gusto as they set about compiling the first Australian bird atlas. When published, the first part will cover the fieldwork carried out in 1977-81; and the second part will be a historical record, in atlas form, of changes in bird distribution since European colonisation began in 1788. In their fourth *Atlas Newsletter* (December 1977), the RAOU reported that information sheets were coming in at the rate of 1,000 per month and that at least some cover had been achieved in 60% of the 1° grid blocks which form the basis for recording.

**. . . and one with a difference** Readers interested in the distribution of European birds should have a look at an atlas of a different sort, just published by the Centre Ornithologique Rhône-Alpes (CORA). Entitled *Atlas Ornithologique Rhône-Alpes: Les Oiseaux Nicheurs Rhônalpins*, it deals with 210 breeding species found in the upper valley of the Rhône, from near Mâcon southwards to some 100 km beyond Valence, the eastern edge of the Massif Central and the French Alps. A grid system is not used, the whole of this large region being divided into 'natural districts', 60 in all. Each species has a very detailed account to itself and the book is crammed with interesting data on climate, habitat and so on. For further details, write to CORA, Université Lyon 1, 69621 Villeurbanne, France.

**Declining storks** Perhaps we should count ourselves lucky that some vagrant White Storks *Ciconia ciconia* come our way from time to time. According to a note in the December 1977 issue of *Oryx* (the journal of the Fauna Preservation Society), the International Council for Bird Preservation (ICBP) has reported a sharp decline

in the species' numbers in Spain, Alsace, southwest Germany, Hesse, Lower Saxony, Rhineland-Westphalia, the Netherlands, Schleswig-Holstein and Denmark, and possible extinction on the Rhine between Holland and Basle. Declines are also reported from central Europe, especially Romania, the Baltic States (except Estonia), the Maghreb and parts of the Middle East. The only areas with increases were in parts of the German Democratic Republic, Poland and Czechoslovakia.

**World Conservation Strategy** For more than 20 years, the International Union for the Conservation of Nature (IUCN) has promoted conferences to examine the needs of the world's natural ecosystems and some of its animal groups, putting forward exhaustive guidelines for conservation action. Their latest and most ambitious effort to date is the drafting of a World Conservation Strategy, the first draft of which has been circulated for comment. Pulling no punches, the draft states that many species and habitats are being unreasonably depleted, degraded or destroyed. No fewer than 891 species and subspecies of vertebrates appear in the Red Data Books, with habitat destruction and degradation heading the list of reasons for their inclusion there, followed by over-cropping of wild populations. On the basis of the number of threatened vertebrate taxa in each, the most endangered ecosystems are, in order, freshwater wetlands, small islands, tropical forests and deserts, coastal wetlands and mountains.

In the birds section, we find a list of 401 threatened taxa (two-thirds of them full species) which will feature in the current revision of the Aves Red Data Book. The six basic threats to them are excessive killing of migratory birds, habitat destruction, pollution, trade in live birds and their plumage, accidental slaughter and the effects of introduced predators and competitors. Compared with, say, the Neotropical and Oceanic bird faunas, that of the Western Palearctic includes very few threatened taxa. The list runs to five full species: Bald Ibis *Geronticus eremita*,

Audouin's Gull *Larus audouinii*, White-tailed Eagle *Haliaeetus albicilla* (tentatively at present), Long-toed Pigeon *Columba trocas* and Raza Short-toed Lark *Alauda razae*. Subspecies included are Arabian Ostrich *Struthio camelus syriacus*, Spanish Imperial Eagle *Aquila heliaca adalberti*, Cantabrian Capercaillie *Tetrao urogallus cantabricus*, Italian Grey Partridge *Perdix perdix italica*, Azores Woodpigeon *Columba palumbus azorica*, São Miguel Bullfinch *Pyrrhula pyrrhula murina* and two British birds, the Fair Isle and St Kilda Wrens *Troglodytes troglodytes fridariensis* and *T. t. hirtensis*. Not all, of course, are endangered in the strict sense and some are included because of their extremely limited ranges. Appropriate conservation measures have so far been suggested for only a fraction of the species included in the draft strategy, but the main proposals are more reserves, better wardening and hunting regulations, legal protection and more population survey work. Captive breeding and relocation have relatively low priority.

IUCN realises the great difficulties in promoting a global strategy because of 'divisions within the conservation movement . . . among governments, and between governments and non-governmental organisations'. The cynics may sneer at a global strategy ever becoming a reality, but thank goodness IUCN has had the courage to try. At the very least, this work should help us to sort out our international responsibilities in an area where resources fall far short of requirements. And can we really allow species extinction by indifference? (Contributed by Anthony Chapman)

**'Birds International'** Still on the global front, we were saddened to hear of the demise of *Birds International*, which for nearly three years has been the official magazine of the British Section of the ICBP. Alas, the membership of the ICBP has not increased as much as was hoped and the British Section can no longer devote its scanty funds towards producing this excellent little journal.

**'The Severn Estuary—A Heritage of Wildlife'** Recently published by the Severn Estuary Conservation Group, this attractive 40-page booklet aims to increase public awareness of the wildlife importance of this major estuary, and thereby to widen support for the conservation drive against

developments which threaten the area. It describes the habitats and wildlife—especially the birds—and discusses the future prospects, in particular the threat of a barrage scheme. The profusion of colour photographs, drawings and maps gives the book impact and interest for the general audience. Although intended mainly for local distribution, this example of a joint conservation effort by 16 local and national organisations deserves wider recognition, as an example which could usefully be followed in threatened wildlife areas elsewhere. Copies may be obtained (price 35p, plus 10p postage) from the Severn Estuary Conservation Group, RSPB, 10 Richmond Road, Exeter, Devon. (Contributed by P. J. Grant)

**Birds and Farmland, 1978** With the bulk of the British landscape devoted to agriculture, it was hardly surprising that the BTO February Conference at Swanwick (17th-19th) should be concerned with the birds of this habitat. The opening film 'The Vanishing Hedgerows' made one wonder if too much had been said about the threats to the environment in the late 1950s and early 1960s, but, as the weekend progressed, we learned of the declining Rook, decreasing Grey Partridges, increasing drainage, fewer hedges and more and more herbicides and fungicides. The application of the last two must be approaching megaton proportions. One was left with a feeling that something should be done, but unfortunately the Conference suggested nothing, although Mike Shrubb had opened with a masterly basis for discussion and Dick Potts rounded off with some fascinating studies and results. We learned a lot, however: gulls eat worms, Skylarks have a highly efficient digestive system, Tawny Owls establish their territories in autumn and (which surprised nobody) the Conference dinner and the disco were as enjoyable as ever. (Contributed by Bob Scott)

**Three new RSPB reserves** The new reserves announced in the February issue of *Birds* were North Hill, Papa Westray; Nairn Bar, Culbin Sands (on the Moray Firth); and Rough Knipe, Staffordshire. The 200-ha Orkney reserve on Papa Westray is famed for its seabirds and includes, among other things, a staggering 6,000 pairs of Arctic Terns. It is also well

known historically as the place where one of the last Great Auks was seen alive (and was promptly shot) in 1813. With oil developments in the Moray Firth threatening birds and their habitats, the acquisition of Nairn Bar is particularly appropriate: an offshore ridge of sand and shingle, it provides an important refuge for thousands of wildfowl, geese and waders. Rough Knipe, very close to the existing Coombes Valley reserve, is woodland with a good variety of typical birds, as well as badgers and an interesting flora.

**Dutch Herons rule, OK?** The October issue of the Dutch journal *Het Vogeljaar* revealed some interesting statistics of Grey Herons in the Netherlands. Over 2,000 observations by some 300 observers were evaluated by A. A. Blok and M. Roos in their paper on Dutch Grey Heron census work in 1970-76; these showed that by 1975 there was a record number of 232 colonies, with 10,890 occupied nests. Although there was an 18% decline in the number of occupied nests in 1976, it was clear that the Dutch population is of international importance. Comparing their results with those from other European censuses, the authors point out that the Dutch population is three times higher than the highest German figure, and eight times that for England and Wales.

**Dr Canning Suffern** Hampshire ornithologists will be saddened to learn of the death on 29th January of Dr Canning Suffern, at the age of 85. He began reading medicine at Cambridge in 1911, completing his studies at St Thomas's, London, after an interruption during the First World War, when he served for four years in the Royal Naval Volunteer Reserve. After holding several hospital posts, he turned to medical journalism and later joined the staff of *The Lancet*. During the Second World War, he served, from 1940, as a Controller (operations officer) in the RAF. From the age of 10, he was an enthusiastic birdwatcher and kept detailed records, which have fortunately been preserved. For 50 years, he was closely associated with Titchfield Haven and gave much of his time to conducting parties of birdwatchers around the marshes. He always strove to foster an interest in ornithology, particularly among young people.

His success can be judged by the many birdwatchers—in Hampshire, Britain and overseas—who will always be grateful for the way in which he stimulated and encouraged their interest. (Contributed by F. N. Clay)

**Sandwich Bay Bird Observatory** Following the recent mention in *British Birds*, SBBO experienced the biggest membership increase over the last five years of any British bird club (excluding universities): 108%. The president, Bill Oddie, has pledged his full support for all the plans for 1978, which include seasonal birdwatching weekends, when young people will be made especially welcome. Looking back, 1977 was an excellent year for 'the Bay': the annual SBBO report was augmented by regular quarterly news bulletins, members were actively involved in the local East Kent Lowland Survey and the national Golden Plover Survey, and ringing and ringing tuition flourished. A one-day sponsored birdwatch in September raised no less than £600. Finally, 'home comforts' improved, with the installation of central heating. This year, a further membership drive is planned and a 50% increase is the target: until June, new members will be eligible for a free night's accommodation (two free nights for juveniles). Full details from the Secretary, Sandwich Bay Bird Observatory, Guilford Road, Sandwich Bay, Kent. (Contributed by David Rosair)

**Cape Clear Bird Observatory revival** After a spell in the doldrums, the observatory on Cape Clear Island, Co. Cork, is due to receive a welcome wind of change. Maintenance work on the observatory's house will be carried out this spring by a group of apprentices, under professional supervision; a resident warden has been appointed for an eight-month period; the 'Friends of Clear' scheme will resume regular newsletters; and it is hoped that a somewhat overdue *Report* will be published soon. Anyone interested in supporting this welcome revival should get in touch with C. D. Hutchinson, 20 Dundanion Court, Blackrock, Co. Cork, Ireland.

**Mystery photograph competitions** The usual *British Birds* competitions were held at conferences in January, February

and March. The winners were as follows. BTO RINGING AND MIGRATION CONFERENCE Of 100 entries, 17 were all correct. As a result of a draw: 1st Dorian Buffery, 2nd John Marchant, 3rd Martin Davies; also D. Carr, Angela Cook, David J. Cooksey, David Harris, Jerry Lewis, Brian Little, B. Marshall, E. R. Meek, P. S. Morgan, Steve Morgan, Iain S. Robertson, Peter Rock, Dr Stephanie Tyler and Peter Wilkinson. BTO BIRDS AND FARMLAND CONFERENCE Eight all correct; draw results: 1st R. A. Morgan, 2nd John Mar-

chant, 3rd John Wolstencroft; also, Nick Dymond, Miss Steph Elliott, Chris Harbard, Richard Porter and A. J. Prater. ALL-IRELAND CONFERENCE 1st Stuart Housden; with four out of five named correctly: Linda Bennett and David Lloyd.

**Young Ornithologists** The presentation to the three winners of the title Young Ornithologists of the Year, sponsored jointly by the Young Ornithologists' Club and *British Birds*, was made in London on 11th February (plate 93).

93. Young Ornithologists of the Year. Left to right, Danny Markey (10-12 age group), Neil Dummigan (9 and under) and Rachel F. Warren (13 and over), with JTRS (*Macmillan Journals Ltd*)



*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers February; except where otherwise stated, all dates refer to that month. The first week stayed fairly mild, but on 8th very cold continental polar air arrived from the east as an anticyclone became established to the north. Temperatures dropped below freezing during the following week and heavy snowfalls occurred in Scotland. The severe night frosts continued for a second week and a front, backed by much warmer air, remained slowly moving across the southwest, resulting in heavy snowfalls in that region. The westerly weather finally broke the cold spell on 22nd. Surprisingly, extensive hard-weather movements were not very evident. On most days, temperatures

rose above freezing, enabling the birds to find some food. Towards the end of the period, however, many **Redwings** *Turdus iliacus* and **Fieldfares** *T. pilaris* were close to starvation. These thrushes rapidly demolish the crops of berries by early winter and rely more on animal food, which can be very scarce if the ground becomes frozen for long periods in late winter.

### **Gull movements**

A southward displacement of northern gulls in response to weather conditions was traceable. On 25th January, 27,000 gathered on Coatham Marsh (Cleveland), where previously a few thousand had been



reported. These included an adult **Mediterranean Gull** *Larus melanocephalus* and two **Glaucous Gulls** *L. hyperboreus*. The weather conditions had deteriorated badly over Scandinavia immediately before the invasion, but it was still mild over this country. Subsequently, during mid February, when the cold weather arrived in Scotland, Glaucous Gulls were reported scattered throughout Cornwall where few had been seen earlier. After the arrival of the mild weather from the west and south on 22nd, flocks of gulls were noticeably commoner inland, presumably starting their spring migration to the north; and at Folkestone (Kent) a total of five Mediterranean Gulls was counted on one day during late February.

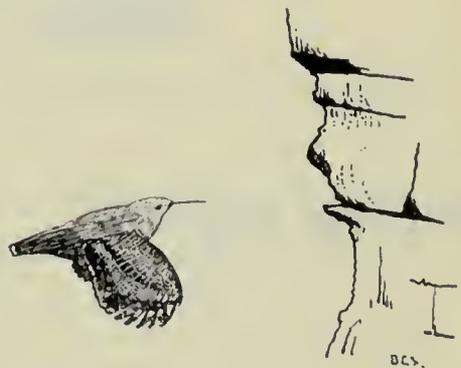
#### Additional winter records

The divers which have frequented the larger Midland reservoirs in unprecedented numbers this winter stayed for a further month. Some interchange occurred and at one time there were five **Great Northern Divers** *Gavia immer* and two **Black-throated Divers** *G. arctica* at Draycote Reservoir (Warwickshire). On the Solway geese grounds, two **Lesser White-fronted Geese** *Anser erythropus* appeared in mid-month, and three **Snow Geese** *A. caerulescens*, including two of the blue phase, accompanied a flock of **Pink-footed Geese** *A. brachyrhynchus*. Nearctic waterfowl continue to be found, this month's discovery being a **Blue-winged Teal** *Anas discors* at Over (Cambridgeshire). Two more **Long-billed Dowitchers** *Limnodromus scolopaceus* were reported wintering at Havergate Island (Suffolk), in addition to those seen in

Somerset and reported last month. At Royden Common (Norfolk), the late afternoon raptor-watchers have not been disappointed, with up to five **Merlins** *Falco columbarius*, **Hen Harriers** *Circus cyaneus* and **Sparrowhawks** *Accipiter nisus* showing their paces.

#### The Mendip magpie

On looking through a field guide, certain species immediately appear very attractive, but almost impossible to anticipate seeing here in this country. Such a bird is the **Wallcreeper** *Tichodroma muraria*. On 26th, however, 250 birdwatchers gathered in a quarry near Cheddar (Somerset) to watch one of these beautiful birds. News of its presence had been withheld—understandably—since November, when the bird returned after wintering in the same area in 1976/77. Whether it had returned to its Alpine breeding areas or stayed in Britain is not known, but, if the former were the case, then ornithologists would have to give this species a little more credit for its migrational abilities.



#### Hints of spring

Even when the temperatures rose and the wind turned to the south, a week earlier than last year, early migrants seemed only a remote possibility. On 25th, however, Devon reported its first spring migrants, a **Wheatear** *Oenanthe oenanthe* and a **Hoopoe** *Upupa epops*.

#### Latest news

Second week April: **Wallcreeper** still present, singing; **Long-billed Dowitchers** Radipole (Dorset), Pennington (Hants); **Alpine Accentor** *Prunella collaris* Portland (Dorset); **Little Bunting** *Emberiza pusilla* Poyle (Surrey).

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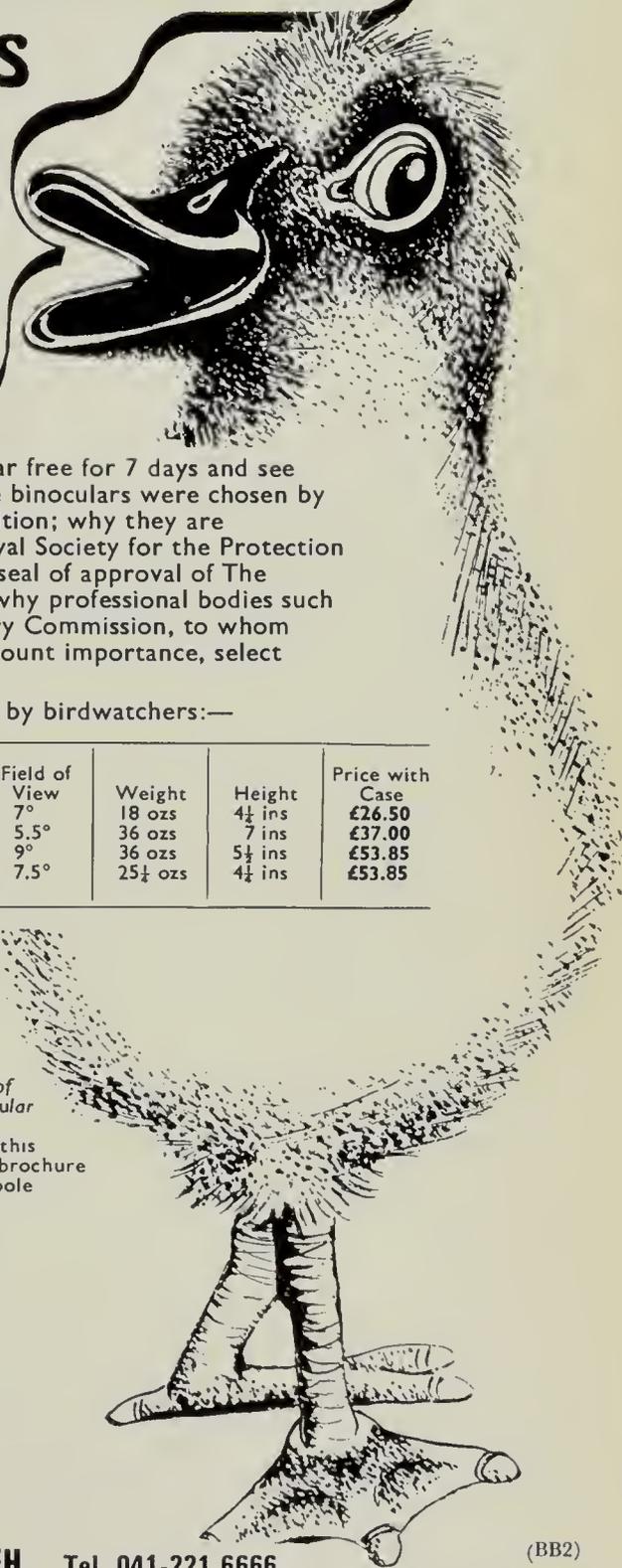
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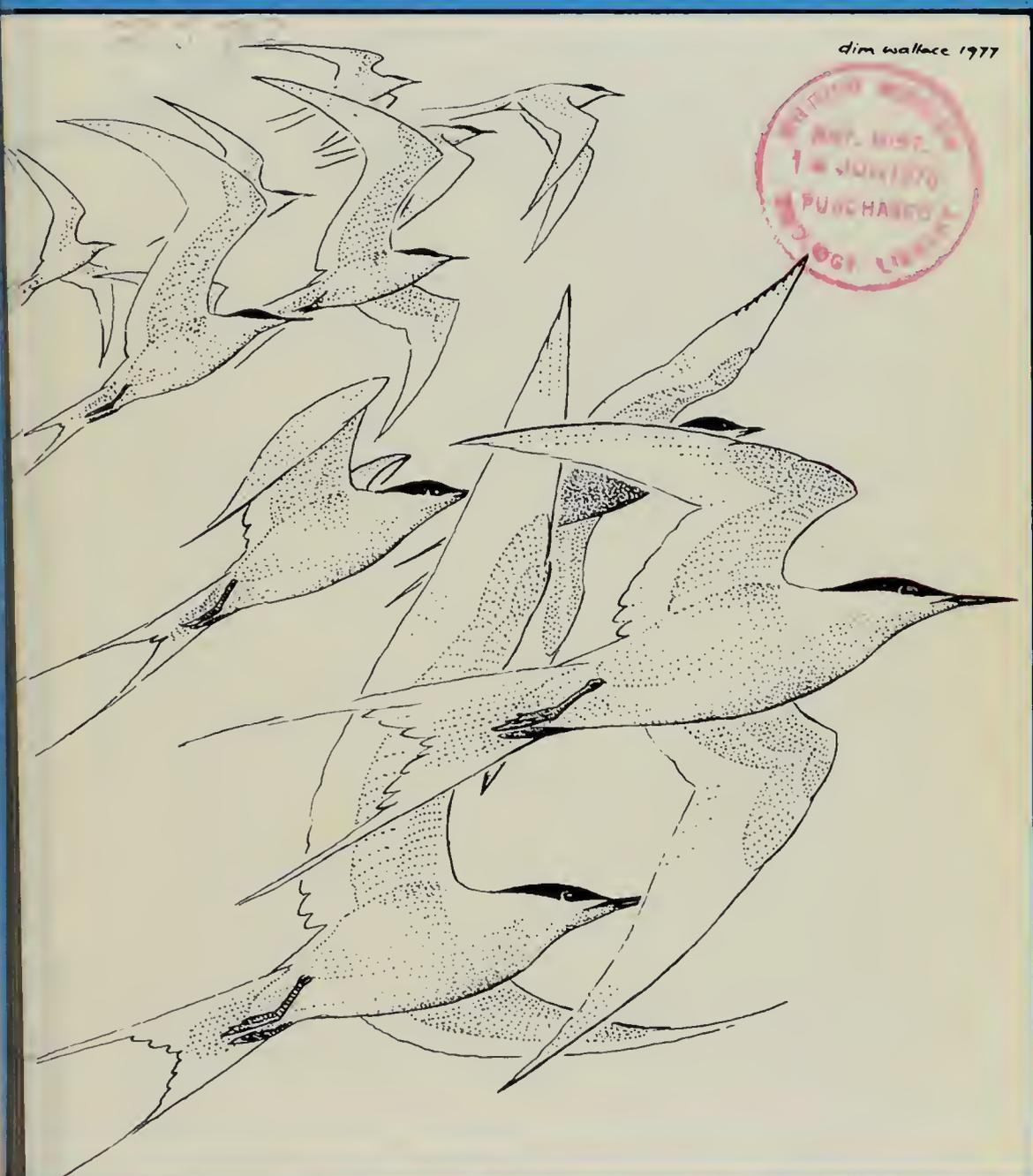
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**Birds at a sewage-works**

**European Atlas: pipits**

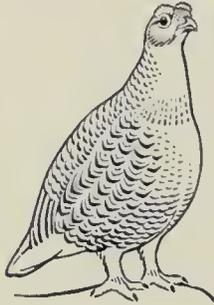
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## News and comment

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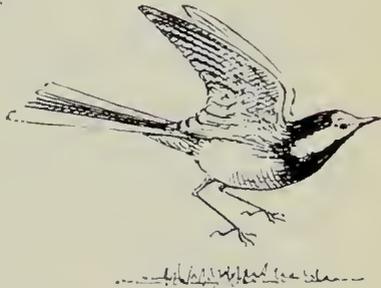
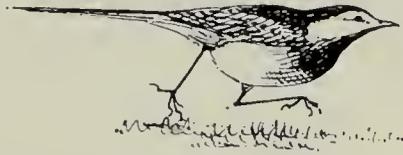
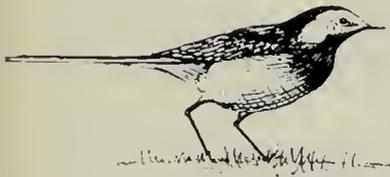
# British Birds

VOLUME 71 NUMBER 6 JUNE 1978



## Seasonal activity of birds at a sewage-works

*R. J. Fuller and D. E. Glue*



**Traditional sewage-farms were havens for birds. Does a modern sewage-works provide a comparable attraction ?**

**A**ston Clinton sewage-works is a compact 3.4-ha works, situated in the Vale of Aylesbury, Buckinghamshire, where it serves a small local village with a population of 3,000. The site was chosen for a study of the numbers and behaviour of birds using a small modern sewage-works throughout the year. The layout (fig. 1) is typical of many such sewage treatment plants in Britain, although it is destined soon to act merely as a collection point for a larger central works at Aylesbury.

Over the 20-month period September 1974 to April 1976, 74 one-hour visits were made during 12.00 to 14.00 GMT, at approximately weekly intervals. The position and numbers of all birds, and relevant details of behaviour, were recorded on large-scale outline maps; weather conditions and any habitat changes were noted. Working together, two

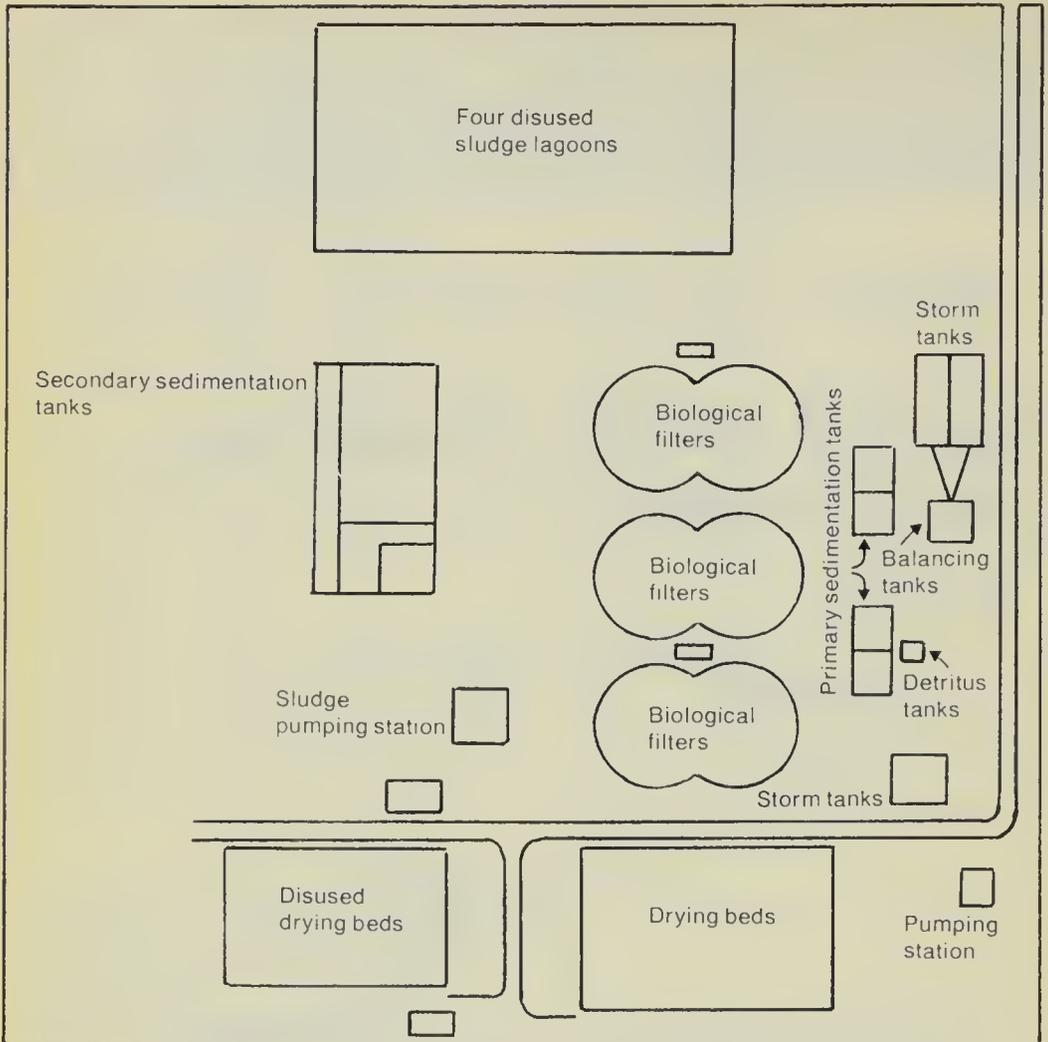


Fig. 1. Plan of sewage-works at Aston Clinton, Buckinghamshire

observers were able to assess with confidence information on the absolute numbers of birds frequenting the site.

There were considerable differences in the weather of the two winters covered by the study. The 1974/75 winter was generally milder and was exceptionally wet, with particularly high rainfall in October, November, January and March; in 1975/76, rainfall was well below average in every month from October to March.

### **The study area**

A brief description of the method of sewage treatment and the habitats at Aston Clinton is essential before any discussion of the birdlife. Untreated sewage enters the works and passes by gravity to detritus tanks (fig. 1) and is also pumped to balancing tanks: these tanks remove heavy particles such as grit. Then, in the four primary sedimentation tanks, the heavy solids (sludge) settle out; this sludge is drawn off and pumped to the drying beds, which act as open storage tanks; later, the sludge is collected for treatment elsewhere.

Liquid sewage from the sedimentation tanks passes to the two dosing

siphons, which control flow on to the six biological filters, each of which is circular, approximately 9 m in diameter and built at ground level. The medium of the filters (clinker or granite chippings) is coated with a film containing bacteria and fungi. Organisms on this surface film feed on and oxidise the sewage percolating through. The effluent from the filters passes to four horizontal flow humus (secondary sedimentation) tanks and one small hydrostatically desludged tank. Sludge from the horizontal flow tanks is pumped back to the inlet works and resettles in the primary sedimentation tanks. The effluent from the humus tanks collects at the final discharge point and is piped to a nearby watercourse.

The area between the various tanks and filters consists mainly of mown grass. The northwest and northeast sections of the works are covered with rank vegetation, including grasses (Gramineae), sorrels *Rumex* and nettles *Urtica*. Four disused sludge lagoons are situated there and, during periods of heavy rainfall, these beds become quite sodden. Hedgerows surround the works.

## Results

### Community structure

During the study, 51 species were recorded using the works. Birds flying

**Table 1. Relative abundance of most numerous species at Aston Clinton sewage-works, Buckinghamshire, during September 1974 to April 1976 (and, in parentheses, during 1975)**

Species	WHOLE WORKS				FILTERS ONLY			
	Total bird-days		% of total		Total bird-days		% of total	
Black-headed Gull <i>Larus ridibundus</i>	232	(102)	1.53	(1.02)	0	(0)	—	(—)
Carrion Crow <i>Corvus corone</i>	409	(184)	2.70	(1.85)	5	(2)	0.08	(0.05)
Meadow Pipit <i>Anthus pratensis</i>	398	(156)	2.62	(1.57)	143	(70)	2.23	(1.60)
Yellow Wagtail <i>Motacilla flava</i>	195	(164)	1.29	(1.65)	63	(53)	0.98	(1.22)
Pied Wagtail <i>M. alba</i>	1,812	(1,187)	11.95	(11.91)	1,132	(783)	17.68	(17.95)
Duncock <i>Prunella modularis</i>	189	(129)	1.25	(1.29)	1	(1)	0.02	(0.02)
Starling <i>Sturnus vulgaris</i>	8,905	(5,897)	58.73	(59.16)	4,777	(3,313)	74.62	(75.95)
House Sparrow <i>Passer domesticus</i>	915	(828)	6.03	(8.31)	62	(40)	0.97	(0.92)
Tree Sparrow <i>P. montanus</i>	152	(108)	1.00	(1.08)	28	(26)	0.44	(0.60)
Chaffinch <i>Fringilla coelebs</i>	247	(149)	1.63	(1.49)	9	(3)	0.14	(0.07)
Goldfinch <i>Carduelis carduelis</i>	173	(112)	1.14	(1.12)	2	(2)	0.03	(0.05)
Linnet <i>C. cannabina</i>	280	(110)	1.85	(1.10)	3	(3)	0.05	(0.07)
Other species	1,255	(842)	8.28	(8.45)	177	(66)	2.76	(1.51)
Total	15,162	(9,958)	100.00	(100.00)	6,402	(4,362)	100.00	(100.01)

**Table 2. Early morning and midday counts of Pied Wagtails *Motacilla alba* and Starlings *Sturnus vulgaris* at Aston Clinton sewage-works on three midwinter days**

Date	Start of count (GMT)	TOTALS COUNTED (NUMBER ON FILTERS IN PARENTHESES)		Weather
		Pied Wagtails	Starlings	
16.12.75	08.00	61 (47)	600 (366)	Freezing
16.12.75	13.00	72 (72)	350 (140)	Very cold
16.1.76	08.15	68 (68)	100 (30)	Mild
16.1.76	13.00	66 (66)	120 (60)	Mild
27.1.76	08.30	60 (40)	80 (30)	Cold, but not freezing
27.1.76	12.45	65 (50)	184 (64)	Cold

over the area were disregarded unless they were hunting for food (e.g. Swallow *Hirundo rustica*, Kestrel *Falco tinnunculus*). Twelve species comprised more than 90% of the birds counted (table 1); two—Starling\* and Pied Wagtail—made up 70%. The bird community structure of the sewage-works was therefore dominated by a small proportion of the species that used the area. Although Black-headed Gulls and Carrion Crows are probably characteristic of such works, their numbers were somewhat inflated by the periodic dumping of edible refuse at the site.

The most important part of the works, in terms of numbers of birds using it, were the six biological filters. The surface film on the clinker of these filters supports numerous invertebrates, particularly redworms *Lumbricus rubellus* and larvae of owl-midges *Psychoda*: both known to be important foods for birds (Parr 1963). A total of 20 species of birds was recorded feeding on the filters; relative abundances of many of them are also shown in table 1. The pattern is similar to that for the whole works, with Starling and Pied Wagtail forming more than 90%. Parr (1963) found a similar spectrum of species feeding on the biological filters at Weylands sewage-works in Surrey.

The following species were the most frequent feeding on the filters (the numbers in brackets being the proportions of total individuals counted throughout the study on the filters): Reed Bunting (63%); Pied Wagtail (62%); Grey Wagtail *M. cinerea* (61%); Starling (53%); Meadow Pipit (36%); Yellow Wagtail (32%); Song Thrush (30%). A more accurate indication of the importance of the filters to different species would have been obtained by observing the times spent feeding there by marked birds: most individual pipits, wagtails and Starlings probably make use of the filters during the course of a winter day.

In addition to the midday counts, three early morning visits were made in the second winter period. The highest Starling and Pied Wagtail numbers were on the coldest day and much higher early morning Starling numbers were recorded (table 2). This shows that there may sometimes be diurnal changes in the numbers of the most abundant species using the works.

\*Scientific names are listed in tables 1 and 3.

No other part of the works consistently attracted such high numbers of feeding birds as the filters. The following areas, however, were important to some species at certain times:

1. PRIMARY SEDIMENTATION TANKS Utilised by Pied Wagtails and Starlings, nearly always in conjunction with filters. Black-headed Gulls, Magpies *Pica pica*, Carrion Crows and Rooks *Corvus frugilegus* frequently scavenged these tanks for edible particles.

2. DRYING BEDS Finches and sparrows fed on weed seeds in disused sections; sludge normally used by only very small numbers of pipits, wagtails and Starlings, although in late summer 1975 exceptional wagtail numbers counted.

3. SECONDARY SEDIMENTATION TANKS Used

by small numbers of wagtails, usually in conjunction with filters.

4. DISUSED SLUDGE BEDS When dry, attracted finch and sparrow flocks. In November 1974 and August 1975, held moderate numbers of pipits, wagtails and Starlings, which tended to move between beds and filters.

5. OTHER AREAS Short grass around filters extensively used, in conjunction with filter surfaces, by Yellow Wagtails and Starlings; finches, sparrows and sometimes Starlings used areas of rank vegetation; Starlings and finches resorted to hedgerows when disturbed from other parts of works.

### Seasonal activity

The number of birds using the works was lowest in April and May 1975 (fig. 2a). Numbers rose sharply in June, due largely to an influx of fledged Starlings, but the two winter periods (November to March) both consistently held high numbers. The exceptional peak in December-January 1975/76 was not caused by particularly severe weather: the major freeze-up of the winter occurred later, at the end of January and in early February.

The number of birds using the filters was greatest in winter, building up to peaks in February-March 1975 and November-December 1975 (fig. 2a); the proportion using the filters showed peaks in February-March 1975 and November 1975 (fig. 2b). A relatively high proportion continued to use the filters during the breeding season, but the filters

**Table 3. Breeding birds at Aston Clinton sewage-works in 1975**

Species	Territories occupied	Density (pairs/km <sup>2</sup> )
Skylark <i>Alauda arvensis</i>	2	58.8
Yellow Wagtail <i>Motacilla flava</i>	1	29.4
Pied Wagtail <i>M. alba</i>	2	58.8
Wren <i>Troglodytes troglodytes</i>	5	147.1
Dunnock <i>Prunella modularis</i>	6	176.5
Robin <i>Erithacus rubecula</i>	1	29.4
Blackbird <i>Turdus merula</i>	4	117.6
Song Thrush <i>T. philomelos</i>	1	29.4
Blue Tit <i>Parus caeruleus</i>	1	29.4
Great Tit <i>P. major</i>	1	29.4
House Sparrow <i>Passer domesticus</i>	2	58.8
Goldfinch <i>Carduelis carduelis</i>	1	29.4
Linnet <i>C. cannabina</i>	2	58.8
Bullfinch <i>Pyrrhula pyrrhula</i>	1	29.4
Yellowhammer <i>Emberiza citrinella</i>	1	29.4
Reed Bunting <i>E. schoeniclus</i>	2	58.8
Total	33	970.6

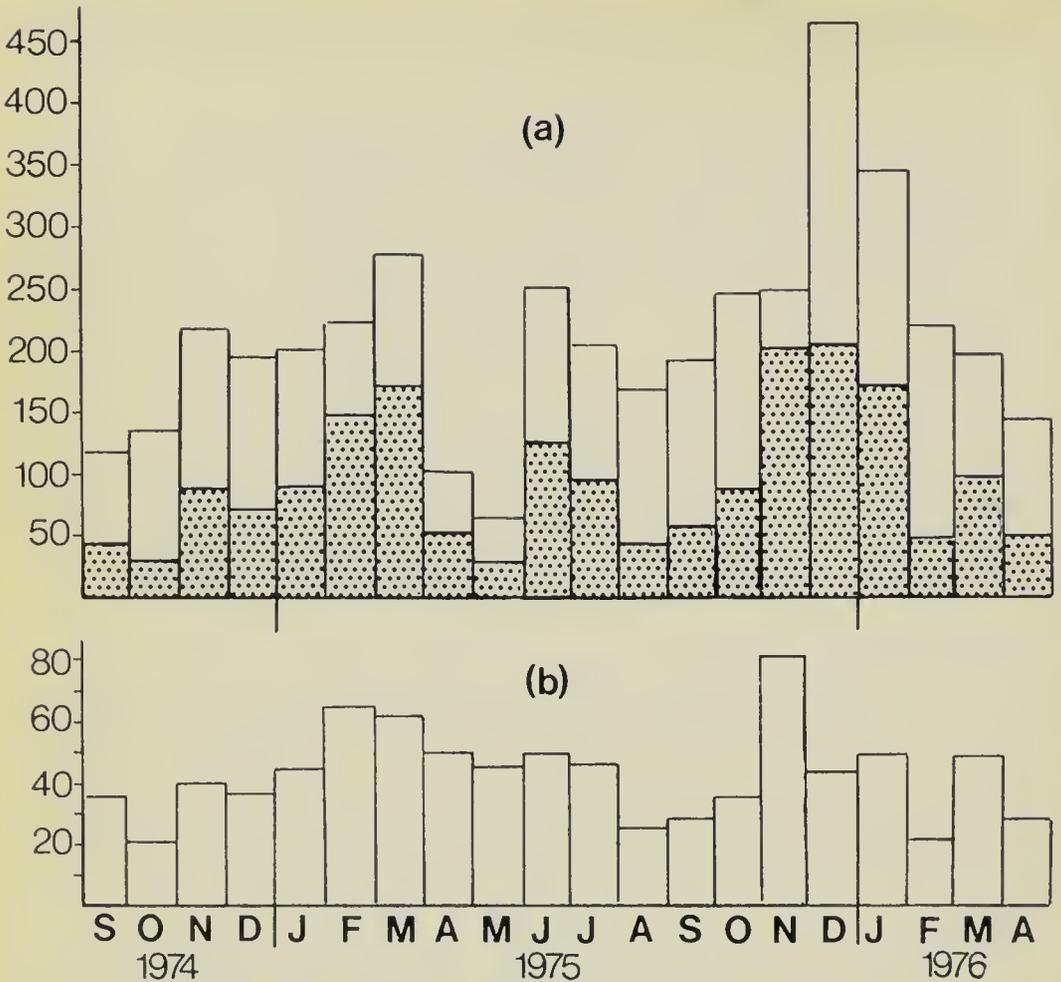


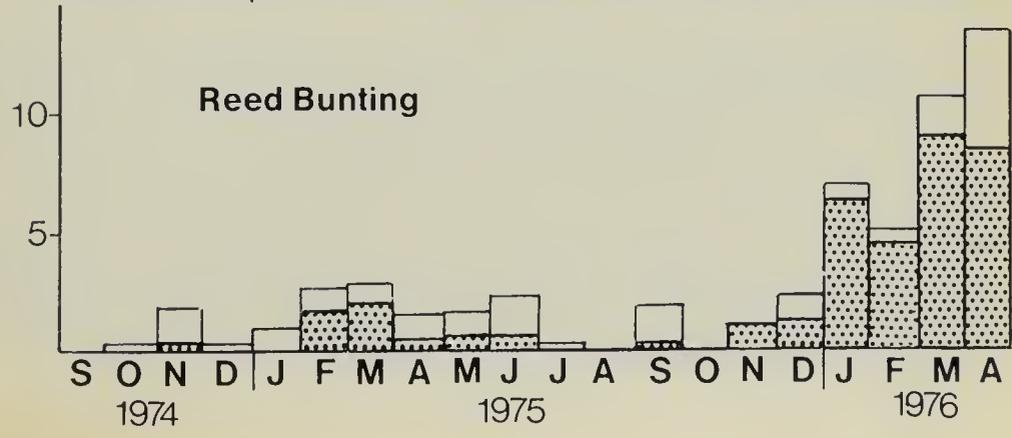
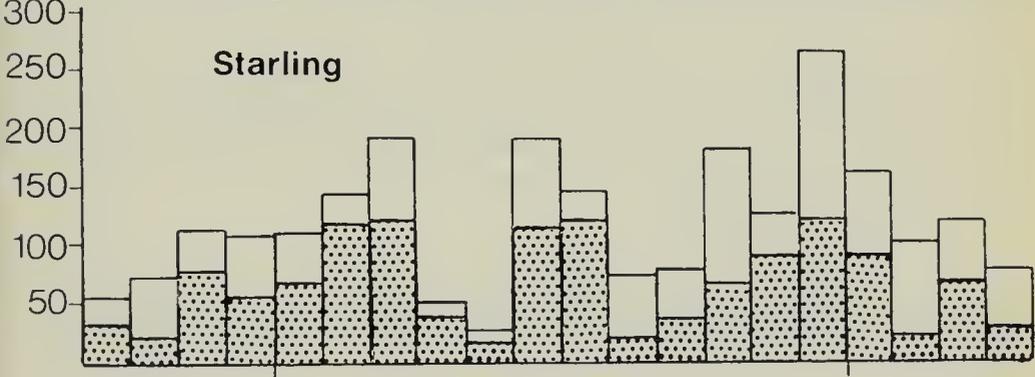
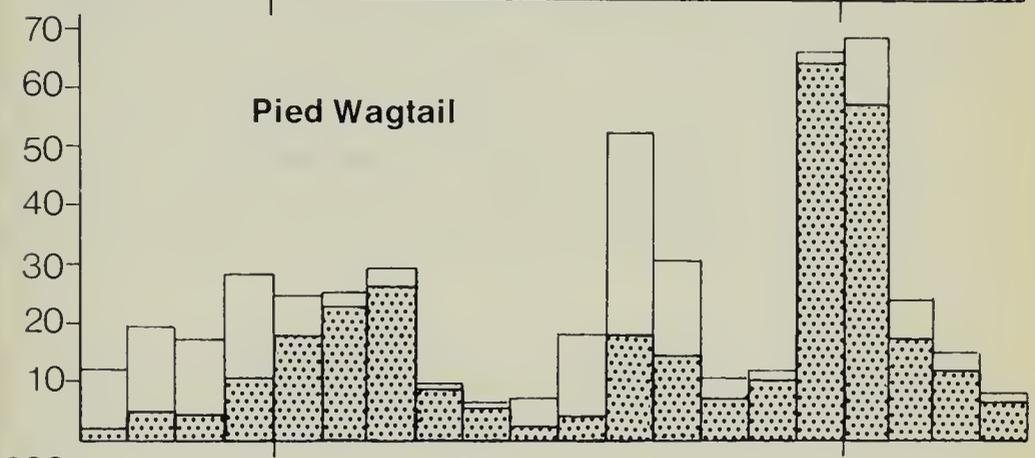
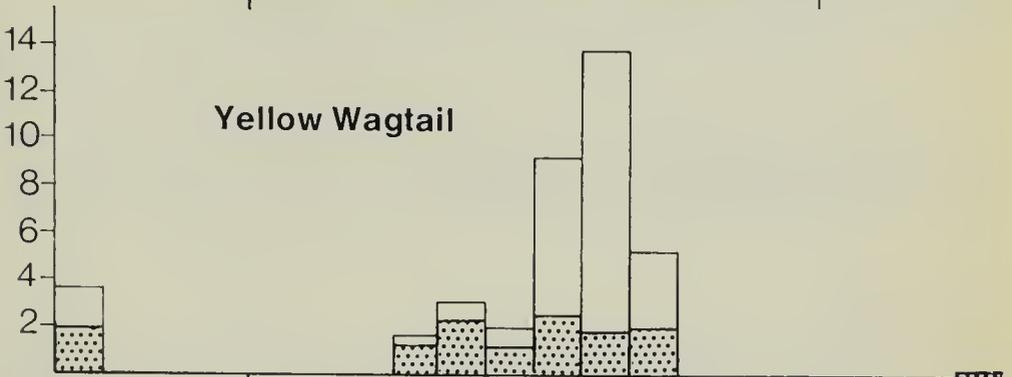
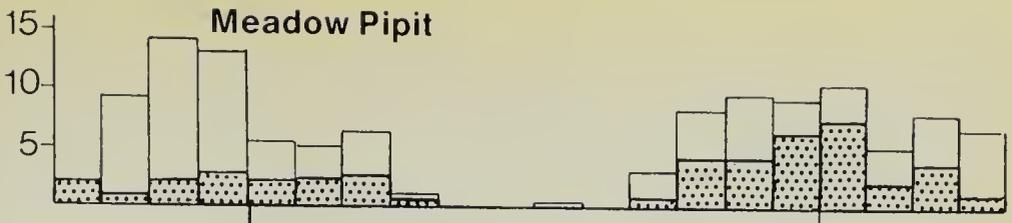
Fig. 2. (a) Average monthly counts of all birds at Aston Clinton sewage-works, and (shaded) those frequenting biological filters; (b) average monthly percentage of birds frequenting filters

assumed most importance in certain winter months, in terms of both absolute numbers and the proportion of birds using them.

The breeding community was assessed by applying the criteria used in the Common Birds Census (International Bird Census Committee 1969) to the maps of 12 visits in April, May and June 1975 (table 3). During these three months, birds breeding nearby were attracted to the works for feeding: in particular, Yellow Wagtails and Tree Sparrows were frequently seen flying to or from the works.

Average monthly counts for the five species which most regularly used the filters are shown in fig. 3. The highest numbers of Meadow Pipits, Pied Wagtails and Starlings were in midwinter; Pied Wagtails, Yellow Wagtails and Starlings increased significantly in numbers in the immediate post-breeding period; newly-fledged and adult Starlings

Fig. 3. Average monthly counts during September 1974 to April 1976 at Aston Clinton sewage-works of five species which rely heavily on filter areas: Meadow Pipit *Anthus pratensis*, Yellow Wagtail *Motacilla flava*, Pied Wagtail *M. alba*, Starling *Sturnus vulgaris* and Reed Bunting *Emberiza schoeniclus*. Shaded portions show average numbers frequenting filters



appeared in large numbers in early June, although the first juveniles were recorded in late May; both wagtails increased in numbers in August. The proportion of Pied Wagtails feeding on the filters was far higher in the midwinter peak period than during the post-breeding increase, when many of them fed on the drying and disused sludge beds.

Among the finches and sparrows (fig. 4), Chaffinches and House Sparrows showed winter increases, in contrast to Goldfinches and Linnets, which were most numerous in autumn (particularly September) and virtually absent throughout the winter. The 'waste' areas of the works provided food plants which allowed flocks to remain for a few weeks immediately before their autumn migration out of the country (Newton 1972).

### **Discussion**

Set in an agricultural area, Aston Clinton sewage-works presents a concentrated food source to those birds which have the ability to exploit it, particularly in winter, when natural foods (especially insects) are limited: at this time, large flocks use the artificial feeding areas. Clearly, such small, modernised works are not of sufficient size or diverse habitat structure to support very varied breeding bird communities or large numbers of migrant waders and wildfowl. Their importance, however, in maintaining high winter populations of certain passerines (especially on the rotating filters) should not be overlooked: Penhallurick (1978) has documented one example.

Counts of some species showed considerable variation between the two winters covered. In particular, those for Pied Wagtail, Starling and Reed Bunting were lower in the much milder and wetter winter of 1974/75 than in 1975/76; the difference probably reflects food availability. In winter, Pied Wagtails congregate at wet areas where insect food is temporarily abundant (Davies 1976) and Starlings may find their invertebrate food more easily in damp grassland. One might, therefore, expect these two species to make more use of the sewage-works in drier and colder periods, because the filters guarantee a food supply irrespective of weather conditions.

There was some indication that early morning Starling numbers were particularly high on very cold days. Tait (1973) showed that roosting Starlings sustained considerable overnight lipid and water losses, which would presumably increase in severe weather. Following very cold nights, early morning Starling activity at sewage-works is likely to be higher than normal, because other feeding areas, especially grassland, remain frozen until later in the day.

The two most numerous birds using the works, Pied Wagtail and Starling, can both be regarded as particularly successful species. The Pied Wagtail adjusts its social behaviour according to the distribution of available food, allowing it to maintain an insectivorous diet throughout the winter (Davies 1976); similarly, the Starling has a far more flexible winter diet than most species, at times relying almost wholly on artificial food supplied by man (Dunnet 1956, Tait 1973). The utilisation of the

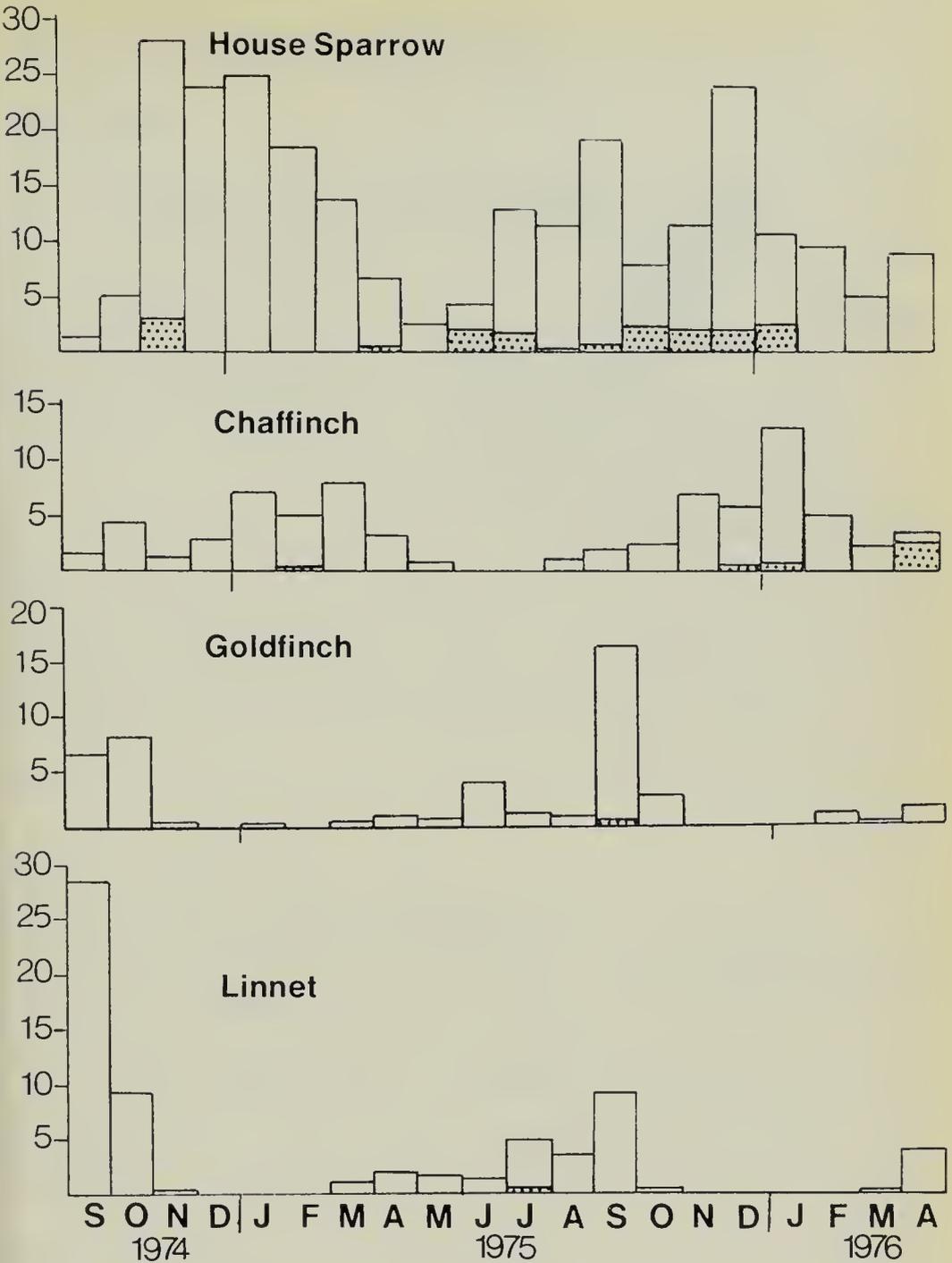


Fig. 4. Average monthly counts during September 1974 to April 1976 at Aston Clinton sewage-works of House Sparrow *Passer domesticus* and three finches, Chaffinch *Fringilla coelebs*, Goldfinch *Carduelis carduelis* and Linnet *C. cannabina*. Shaded portions show average numbers frequenting filters

artificial feeding conditions at modernised sewage-works by large numbers of these birds is another indication of their adaptability.

Undoubtedly, the ornithological interest of such modernised works could be enhanced if wet irrigation areas were included in the final phase

of the purification system. Glue & Bodenham (1974) described the value of such a wet grassland area: it provided suitable wetland habitat for breeding, passage and wintering species.

### Acknowledgements

John Hayward kindly supplied details on the functioning of the Aston Clinton sewage-works. We are grateful to Brian Milne for his comments on the first draft. We also thank the works attendants for their tolerance; Mrs Angela Fuller for assistance with the diagrams; and Miss Stella Woodman for typing from the manuscript.

### Summary

A small, modernised sewage-works near Aston Clinton, Buckinghamshire, was visited during the midday period on 74 occasions between September 1974 and April 1976. The numbers and distribution of birds were recorded on large-scale maps, which allowed the community structure and seasonal activity of the birds to be described. Although 51 species were recorded, Starlings *Sturnus vulgaris* and Pied Wagtails *Motacilla alba* accounted for 70% of the birds counted. The six rotating biological filters consistently attracted more feeding birds than any other part of the works. A total of 21 species was recorded feeding on the filters, where Pied Wagtails and Starlings comprised more than 90% of the birds counted. The total number of birds using the works was greatest during November to March, and lowest in April and May. Feeding on the filters was most frequent in winter. The breeding bird community consisted of 33 pairs of 16 species.

Numbers of Pied Wagtails, Yellow Wagtails *M. flava* and Starlings showed notable increases in the immediate post-breeding periods. Meadow Pipits *Anthus pratensis*, Pied Wagtails, Starlings, Chaffinches *Fringilla coelebs* and House Sparrows *Passer domesticus* were present in greatest numbers in winter. Goldfinches *Carduelis carduelis* and Linnets *C. cannabina* were most numerous in autumn.

The importance of such modernised sewage-works to winter feeding by certain passerines is discussed.

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# The European Atlas: pipits

*I. J. Ferguson-Lees*

**A further selection of maps derived from fieldwork by 15 of the member nations of the EOAC**



**T**he background to the production of certain provisional maps by the European Ornithological Atlas Committee has already been described by Sharrock (1977) in connection with those for the woodpeckers (Picidae). It need only be stated here that they show breeding season records during 1968-76, that the three sizes of dots are those standard in bird atlas mapping, and that the shaded parts have not yet been surveyed. This paper draws attention to some of the interesting features of western Europe's five breeding pipits *Anthus*. Two other species — Pechora *A. gustavi* and Olive-backed *A. hodgsoni* — also nest in Europe, but are confined to northeast Russia, eastward from the Pechora region, and no atlas mapping has yet been attempted there.

The true pipits are a homogeneous group in both form and appearance, but they have an almost cosmopolitan range, with representatives in all six continents, and their habitat requirements differ widely. Thirteen species breed in the Palearctic, in such diverse places as tundras, mountains, moors, heaths, hillsides, marshes, meadows, cultivation, light woodlands, forests, steppes, desert edges, dunes, and rocky coasts. Thus, it is not surprising that one pipit or another is present in almost every part of Europe.

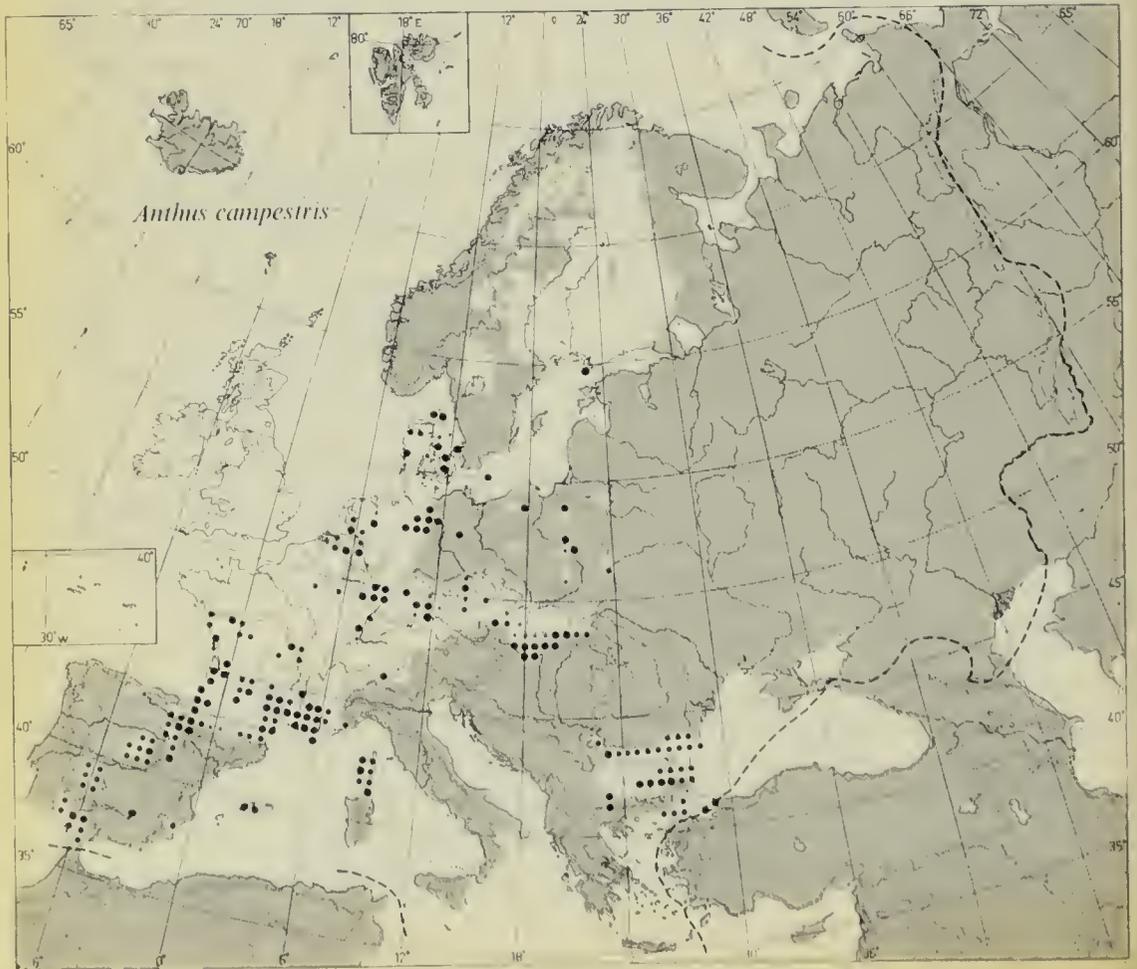
In the notes which follow, all unqualified references to Britain and Ireland, Denmark, Finland, France, the German Federal Republic and Poland relate respectively to Sharrock (1976), Dybbro (1976), Merikallio (1958), Yeatman (1976), Rheinwald (1977) and Tomiałojć (1976).

## **Tawny Pipit** *A. campestris*

The Tawny Pipit nests in a fair range of mainly lowland and level habitats, from arable fields, dry pastures and heaths, all with low, thin or scattered vegetation, to dunes and desert edges. Sandy, arid and relatively bare ground seems almost essential, which limits the species in Europe largely to the centre and south. Its northern limits have long been Denmark, southernmost Sweden and Gotland (still shaded here,



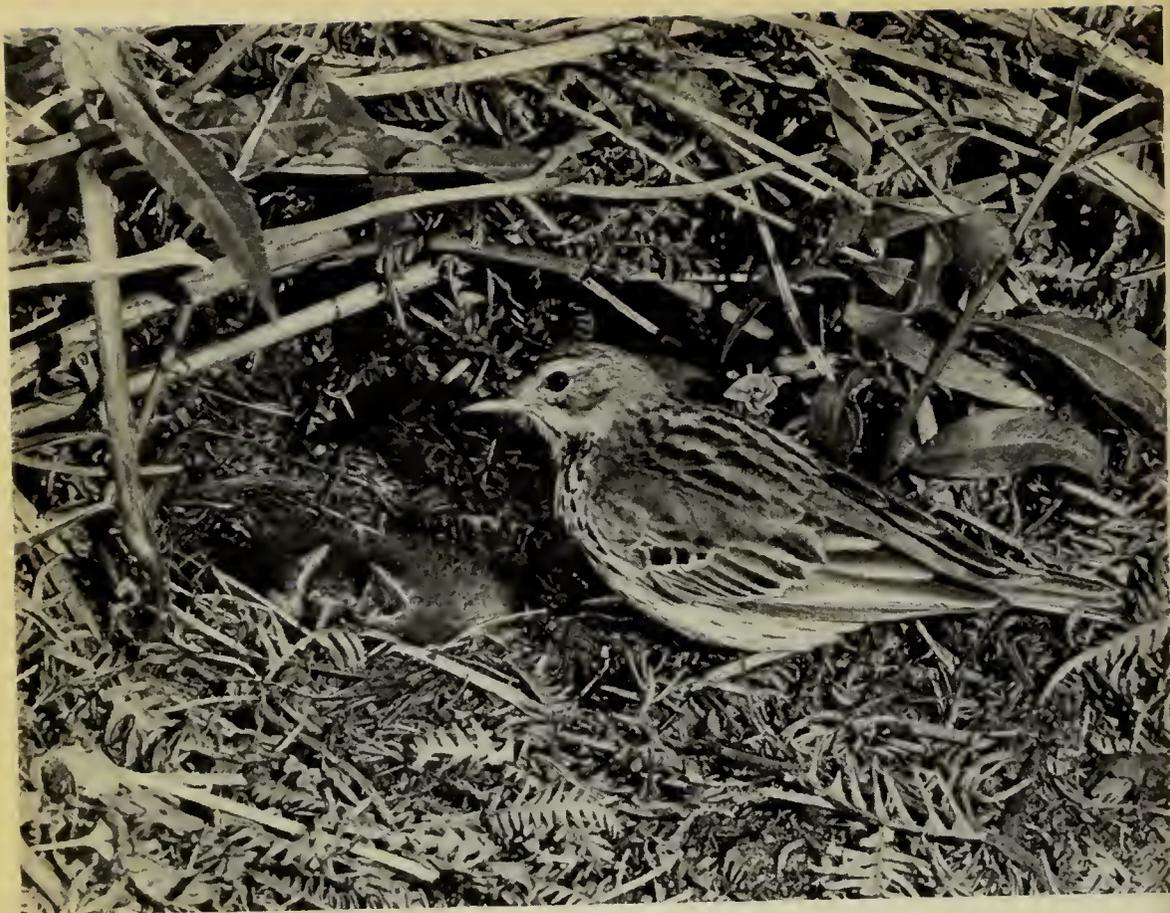
94. Tawny Pipit *Anthus campestris* at nest, Sweden, June 1951 (P. O. Swanberg)



as unsurveyed) and the Baltic States, but the proved breeding in southwest Finland apparently represents a recent extension, though nesting was thought possible on the Hankoniemi peninsula in 1939-40. On the other hand, there has been some retraction of range in the last 100 years towards the south—for example, in France—and the Tawny Pipit is generally scarce, local and unevenly distributed in northern France, the Low Countries, Denmark, Germany and Poland. It was found in 24 of 116 50-km squares in the German Federal Republic (20.7%), in only 141 of 1,092 rather smaller squares in France (12.9%) and in a mere 36 of 2,160 5-km squares in Denmark (1.7%). Even where common, it avoids mountains, though nesting up to 1,000 m on, for instance, the plateaux of southern France. The map, though so incomplete for Europe as a whole, illustrates this scattered and discontinuous distribution much better than the solid colouring in the various field guides; it is sometimes suggested that habitat loss due to increased cultivation may be part of the cause, but the species is often absent from suitable areas, even in southern Europe. There has never been any evidence of breeding in Britain and Ireland—apart from the 1905 claim of a nest and eggs in southeast Sussex, now rejected (Nicholson & Ferguson-Lees 1962)—but this species is a medium-distance migrant that winters in Africa, in the arid belt between the Sahara and the equator, and in southwest Asia east to Afghanistan, so not surprisingly it is an annual vagrant here, which amassed 342 records during 1958-76 (*Brit. Birds* 70: 437), an average of 18 a year.

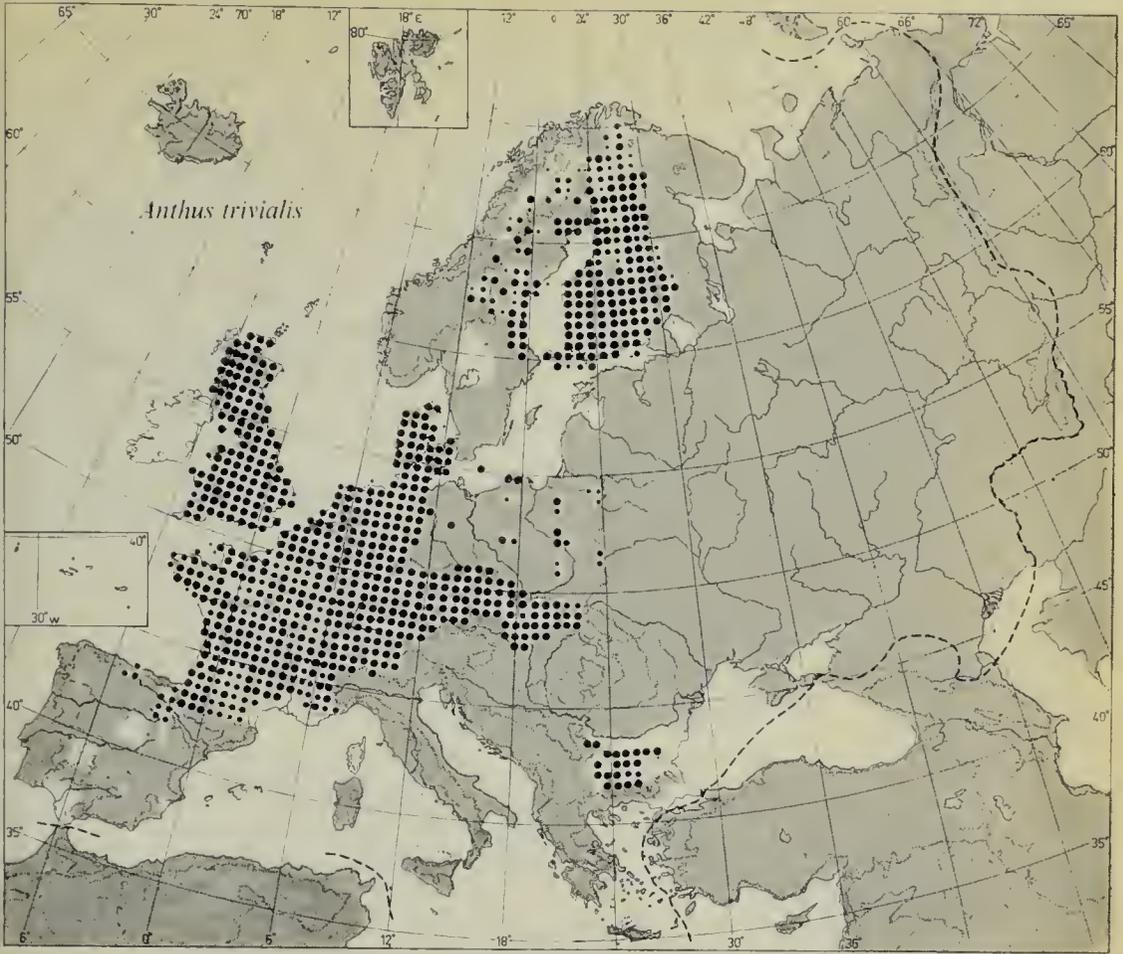
### **Tree Pipit** *A. trivialis*

The Tree Pipit nests in a variety of habitats with trees or tall shrubs, including open woodland, wood edges, parkland, scrub and heaths, both in the lowlands and on hillsides in the north, but largely (though not entirely) in mountains in the south, from 1,000 m to the tree limit (reflected on the map by the distribution in Bulgaria). It has a wider breeding distribution in Europe than any other pipit, being absent only from Iceland, Ireland, the backbone of Scandinavia, northeast Russia and, in the south, much of Iberia (note the spaces on the map), lowland Italy/Balkans and the Mediterranean islands. Though in Britain it is greatly outnumbered by the Meadow Pipit *A. pratensis* (their respective populations were estimated under 100,000 and over 3 million pairs, and the Meadow was recorded in almost twice as many squares), it is also the most numerous species in many parts of Continental Europe. In much of Fenno-Scandia, for example, it is one of the commonest of all birds: in 1958, it was the third most abundant species in Finland after the Willow Warbler *Phylloscopus trochilus* and the Chaffinch *Fringilla coelebs*, with a population of over 1,650,000 pairs (compared with a mere 230,000 for the Meadow). It was found in 60.6% of the 5-km squares in Denmark, in 82% of the larger squares in France (only 33% for the Meadow), and in 98% of the 50-km squares in the German Federal Republic, and it is fairly numerous and generally distributed in Poland to the upper timber line.



95 & 96. Above, Tree Pipit *Anthus trivialis* at nest, North Yorkshire, June 1972 (A. Butler); below, Meadow Pipit *A. pratensis* at nest, Westmorland, May 1964 (J. B. & S. Bottomley)

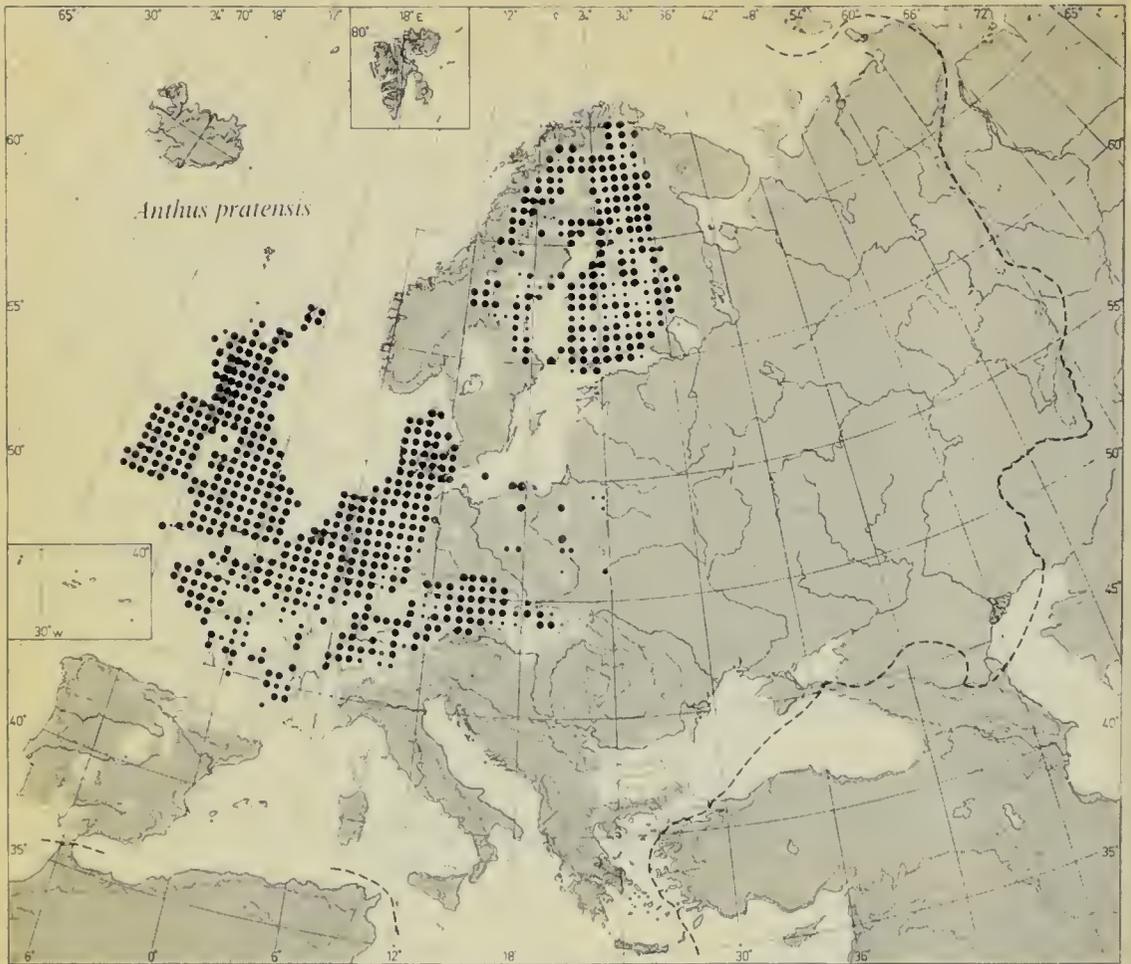




The obvious continuing surprise is its apparent total absence from Ireland, which raises a variety of topics, such as the origins of transequatorial migrants, the effects of the last Ice Age and the species-poverty of islands, but its spread northwards in northern Scotland (Parslow 1973) and Norway (Haftorn 1958) during the last 90 years perhaps indicates that even its colonisation of Britain is comparatively recent. Whereas there are fossil records of Rock Pipits *A. spinoletta* in England and of Meadow in both England and Ireland, the historical evidence for Tree Pipits in Britain dates back only to 1738 (Fisher 1966). In fact, during the summers of 1974-76, singing males were recorded at five places in four Irish counties, one locality being occupied in two successive years (*Irish Bird Reports*), so perhaps colonisation of the plentiful apparently suitable habitat is beginning. The Tree Pipit is entirely a summer visitor to Europe, being a long-distance migrant that winters in tropical Africa and southern Asia.

#### **Meadow Pipit** *A. pratensis*

The Meadow Pipit breeds essentially in open country, such as tundra, moors, rough pastures and dunes, where the vegetation is low. It has a more restricted Eurasian range than the other species, being confined largely to the western Palearctic west of the Urals, but it alone has colonised Iceland and even the coast of southeast Greenland, and in Britain and Ireland it is easily the commonest pipit with an estimated



population of over 3 million pairs. Elsewhere, except in northern Fennoscandia and arctic Russia, and in the open, low-lying areas of Denmark where it was found in 65.8% of 5-km squares, it is usually outnumbered by the Tree Pipit. It commonly nests from sea-level to over 1,000 m, and locally to 2,000 m or more, but it is not typically a high montane species: this and the fact that it becomes scarcer and more scattered in southern France and is absent from southern Europe are demonstrated by the plotting available for the map. The various field guides have long shown central France as solid, but there is nothing new in this discontinuous distribution: the French atlas findings were not so different from the distribution summarised by N. Mayaud in his *Inventaire des Oiseaux de France* (1956) and confirm the conclusion of an enquiry in 1961. In many areas in west and south Poland, on the other hand, the species has become very scarce as a result of the drainage of marshlands. Like all pipits, the Meadow feeds essentially on insects, but it is far less of a migrant than the other European species except the Rock *A. spinoletta*: perhaps this is because they both winter on wet grasslands, marshes, lake edges and coasts, where invertebrate food remains more readily available at that season. Nevertheless, the northern and eastern populations of Iceland, Fennoscandia, Russia, the Baltic States and Poland move southwest and down into southern Europe and North Africa south to Ahaggar, while some even cross the Sahara.

**Red-throated Pipit** *A. cervinus*

The Red-throated Pipit breeds in the Eurasian tundra from arctic Norway to the Chukotski peninsula in northeast Siberia, and throughout much of this range is the only pipit, but it is not numerous in Fennoscandia: in 1958, the Finnish population was roughly estimated at a mere 300-350 pairs. It favours swampy areas and damp grasslands, with scrub willow *Salix* and birch *Betula*, and coastal swards, and in Lapland has a strong association with wet meadows and cultivation near settlements. The map also shows neatly how the southernmost populations in Scandinavia inhabit upland fells. The Red-throated Pipit is a long-distance migrant, which winters mainly in waterside habitats and wet cultivation in Central Africa south of the Sahara and in southern Asia, but small numbers travel only as far as northwest Africa. The species is a vagrant to Britain and Ireland, with 82 records during 1958-76, two-thirds of them in autumn: this represents an average of 4.3 records a year, but in 1975 there were as many as 14 and half of those came in April-June (*Brit. Birds* 69: 352; 70: 449). In this connection, it is interesting to note that, after an unusual number of migrants also in Norway that spring, nesting was proved in the county of Hedmark at 62°20'N, probably the most southerly breeding record ever in Europe (*Brit. Birds* 70: 219); this does not appear on the map, of course, as no Norwegian atlas data are yet available.

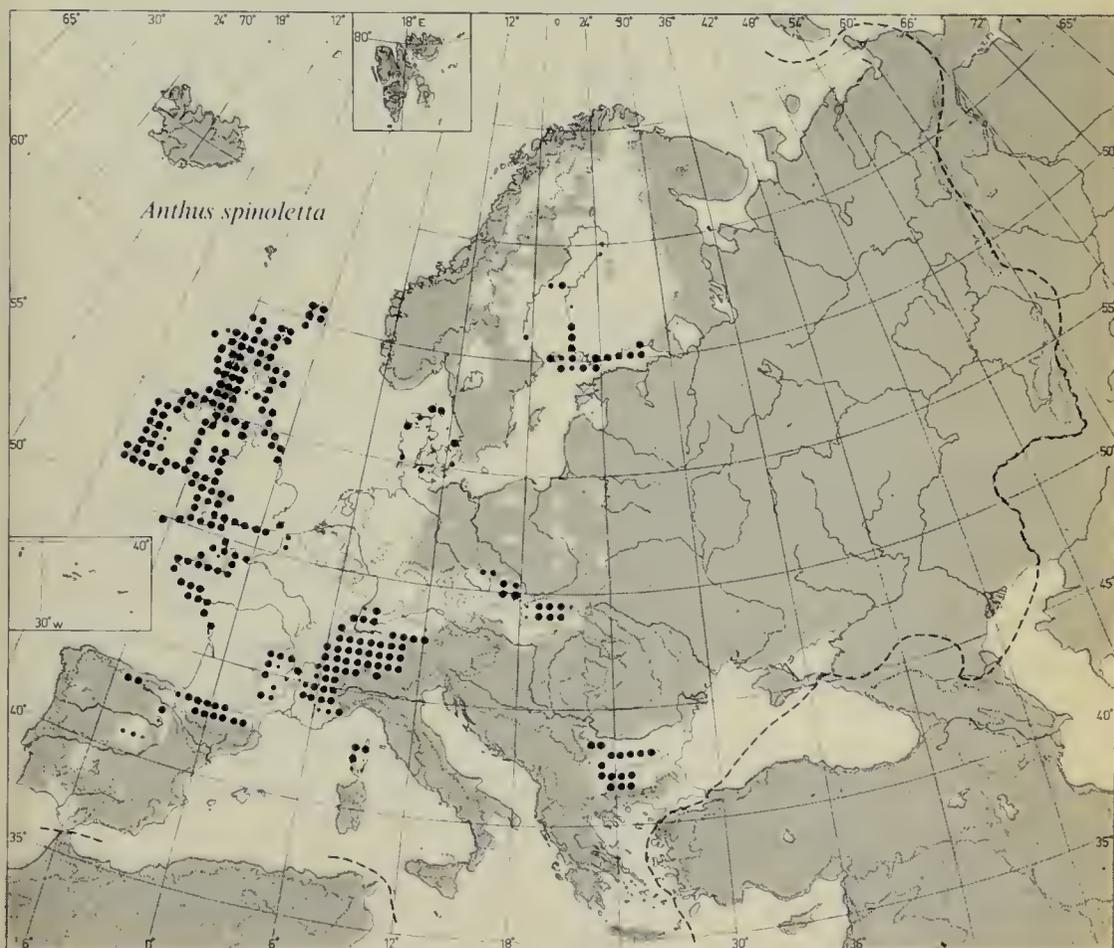




97 & 98. Top, Red-throated Pipit *Anthus cervinus* at nest, Sweden, July 1968 (J. B. & S. Bottomley); bottom, Rock Pipit *A. spinoletta* at nest (J. T. Fisher)

**Rock Pipit** *A. spinoletta*

Unlike the others, the Rock Pipit has a Holarctic distribution, but this is markedly discontinuous in the Palearctic, with a clear ecological division between montane and coastal groups. The mountain forms, known as Water Pipits, breed on alpine tundras and pastures and on rocky, grassy slopes and plateaux with or without scrub, especially near streams, from about 1,000 m to the snow-line; in contrast, the coastal races are confined to rocky shores and islands, locally extending to adjacent moorland. The map clearly demonstrates the altitudinal division between the two groups, with nominate *spinoletta* in the mountains of central and southern Europe, and *petrosus* and *littoralis* round the coasts of northwest France, Britain, Ireland and Fenno-Scandia. At first sight, the dots may indicate more extensive distributions of *spinoletta* in the Massif Central of France and of *littoralis* in Denmark and southern Finland than those shown in the field guides, but the French findings confirm those of Mayaud's *Inventaire* (1936) and the Danish atlas in fact proved breeding in only 10 of 2,160 5-km squares, which tend to look larger when converted to a 50-km grid. As for Finland, the population in 1958 was put at a mere 500 pairs and this form is still not very numerous around the Baltic. Another subspecies, *kleinschmidti*, is confined to the Faeroe Islands. Much the commonest coastal race is *petrosus*, in Britain, Ireland, northwest France and Norway:



the British and Irish population was estimated at over 50,000 pairs. Most of the Fenno-Scandian *littoralis* and *petrosus* move southwest in winter and the *spinoletta* vacate the mountains for lowland marshes and flooded grasslands, but as a species this is only a partial migrant which barely crosses the Mediterranean.

### Acknowledgements

The dot-distributions were plotted by Dr J. T. R. Sharrock, by courtesy of the atlas organisations in the EOAC member countries and the delegates who supplied the data: Dr Z. Bogucki, Dr P. Devillers, Dr S. Donschev, T. Dybbro, K. Hyytiä, R. F. Porter, Dr F. Purroy, Dr G. Rheinwald, Dr A. Schifferli, D. Scott, Dr J. T. R. Sharrock, Dr K. Šiastný, Dr S. Svensson, Drs R. M. V. Teixeira and L. J. Yeatman. The base map is reproduced by permission of the secretariat of the European Invertebrate Survey.

### Summary

Provisional atlas data from 15 member countries of the European Ornithological Atlas Committee are shown for the five of the seven European pipits *Anthus* that breed west of Russia. The text describes habitats, ranges and migrations, and draws attention to points brought out already by these early maps.

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## European news

This is the third summary of interesting recent records on the Continent. It is pleasing that 15 nations have supplied data, compared with six for the first summary (*Brit. Birds* 70: 218-219) and nine for the second (70: 494-496). We hope that still more countries will participate in future.

Unless otherwise stated, all dates refer to 1977

**Great Northern Diver** *Gavia immer*  
 NETHERLANDS Total of 12-14, including seven or eight inland, in winter 1977/78 (usually only two or three a winter, none in 1976).

**White-billed Diver** *Gavia adamsii*

FRANCE First record: oiled bird found dying near Brest, October 1976.

**Little Grebe** *Tachybaptus ruficollis*  
 NORWAY After first breeding in 1973, now about ten pairs in Møre og Romsdal, one or two pairs each in Østfold and Hedmark,

and probably also in several other countries.

**Great Crested Grebe** *Podiceps cristatus*  
ITALY Several adults and broods in summers 1976-77 on reservoir in northern Apulia, where previously only migrant and winter visitor. PORTUGAL Apparently breeding in south since 1973.

**Sooty Shearwater** *Puffinus griseus*  
MALTA Second record: one, regrettably shot, off southwest coast in October.

**Black Stork** *Ciconia nigra* FRANCE First breeding: four young reared in Jura (adults had been seen by foresters in 1976 and nest discovered winter 1976/77).

**Greater Flamingo** *Phoenicopterus ruber*  
SPAIN Exceptional breeding season (about 2,000 nestlings), despite high water levels in spring and drought in summer.

**Bewick's Swan** *Cygnus columbianus*  
POLAND Increasingly common on Baltic coast since 1961, especially since 1971; also more frequent inland.

**American Wigeon** *Anas americana*  
NETHERLANDS First record: male, 6th-26th November.

**Scaup** *Aythya marila* POLAND First proof of breeding: three pairs with nests on peat-bog lake near Minsk Mazowiecki, east of Warsaw.

**Steller's Eider** *Polysticta stelleri* FINLAND Regular winter flock at Lågskär, Åland Islands, having grown during 1970s, with increasing proportion of males, reached 77 (34♂♂ 43♀♀) in February 1978. POLAND Rediscovered wintering on Baltic coast after 120 years: four records, January 1974 to March 1977.

**Black-shouldered Kite** *Elanus caeruleus*  
PORTUGAL Population thought to be increasing: more and more birds seen and nests found. SPAIN More common than previously supposed: six nests in west-central Spain, in open forest of evergreen oak *Quercus ilex*.

**White-tailed Eagle** *Haliaeetus albicilla*  
ESTONIAN SSR Nests with fledged young: two in 1973 (seven occupied territories), one in 1974 (ten), none in 1975 (nine), one in 1976 (nine), and five in 1977 (eight) (studied by T. Randla). MALTA First record: immature, regrettably shot, 25th November.

**Griffon Vulture** *Gyps fulvus* SPAIN Counts at Strait of Gibraltar and ringing returns of nestlings from Pyrenees show that part

of Iberian population (mainly immatures) migrates to Morocco.

**Red Kite** *Milvus milvus* NETHERLANDS Two pairs breeding, one successful, but other's eggs shot at in nest.

**Marsh Harrier** *Circus aeruginosus*  
GERMAN FEDERAL REPUBLIC Slight increase in number breeding in Lower Saxony and Hesse.

**Buzzard** *Buteo buteo* FINLAND Many in south, winter 1977/78.

**Rough-legged Buzzard** *Buteo lagopus*  
FINLAND More than usual, winter 1977/78.

**Imperial Eagle** *Aquila heliaca* PORTUGAL Only recent evidence of nesting: pairs in possible habitat and, after breeding season, nest seen.

**Booted Eagle** *Hieraetus pennatus*  
NETHERLANDS Second record: Groeneken, 9th July.

**Quail** *Coturnix coturnix* CZECHOSLOVAKIA Observers engaged in atlas mapping in 1977 reported the highest numbers in recent years. SWITZERLAND Numbers particularly high: many calling in June.

**Crane** *Grus grus* GERMAN FEDERAL REPUBLIC Autumn migration four or five weeks later than usual: departure not until mid November, some apparently wintered.

**Avocet** *Recurvirostra avosetta* NORWAY After first breeding, in Rogaland in 1974, two or three pairs have nested annually.

**Sociable Plover** *Chettusia gregaria*  
NETHERLANDS One at Smilde, 1st October.

**Long-toed Stint** *Calidris subminuta*  
SWEDEN First record in west Palearctic: Ottenby, 4th October to at least 5th November.

**White-rumped Sandpiper** *Calidris fuscicollis* NETHERLANDS Sixth record: 20th October.

**Black-tailed Godwit** *Limosa limosa* ITALY Breeding in Piedmont: two colonies, each of four pairs with Lapwings *Vanellus vanellus*, but at one ploughing disrupted nesting.

**Little Gull** *Larus minutus* NORWAY First breeding: pair nested successfully in Rogaland, 1976 (not yet officially verified).

**Sabine's Gull** *Larus sabini* NETHERLANDS Unusually high number (90% or more first-year) from mid September to late November.

**Slender-billed Gull** *Larus genei* GERMAN FEDERAL REPUBLIC One near Cuxhaven, 2nd October.

**Common Gull** *Larus canus* FRANCE Two nests in colonies of Black-headed Gulls *L. ridibundus*.

**Lesser Black-backed Gull** *Larus fuscus* SPAIN Breeding in northwest: about 20 pairs each on the Sisargas and Cíes Islands.

**Herring Gull** *Larus argentatus* FRANCE Pink-legged race *argentatus* has for some years nested south to Ile d'Oleron in Charente and yellow-legged *micahellis* has recently colonised southwest coast north to there, so for first time breeding alongside each other. POLAND Breeding only since 1968 (despite incorrect maps in various field guides), now increasing and spreading, commonest on Gardno and Labsko Lakes.

**Sandwich Tern** *Sterna sandvicensis* ESTONIAN SSR Summering in 1960, but first proved breeding not until 1973; in 1975 and 1976, breeding population 300 pairs, all on southwest coast of Saaremaa Island; in 1977, three pairs nested in Väinameri (Moonsund), northeast of Saaremaa and Muhu islands. POLAND Recolonised north of River Vistula after 50-year absence: 53 nests in June.

**Little Tern** *Sterna albifrons* ITALY Two new breeding colonies of 100 pairs and six pairs in northern Apulia: apart from one other colony of 27-28 pairs, these are only ones known in central and southern Italy.

**Wryneck** *Jynx torquilla* NETHERLANDS Two breeding records at Wassenaar, north of The Hague.

**White-backed Woodpecker** *Dendrocopos leucotos* GERMAN FEDERAL REPUBLIC One at Donau, near Offingen/Kreis Günzburg, Bavaria, 20th November.

**Hoopoe Lark** *Alaemon alaudipes* MALTA Three recorded singly, July, August, September.

**Dupont's Lark** *Chersophilus duponti* SPAIN Singing males discovered in grassy steppes of central and south Spain, and first breeding record in Bellver de Cinca (Illicea).

**Calandra Lark** *Melanocorypha calandra* NETHERLANDS Second record: 18th August (first was 2nd-15th October 1960).

**Richard's Pipit** *Anthus novaeseelandiae* NETHERLANDS Heavy invasion from third week September to end October, maximum eight together at Katwijk aan Zee.

**Olive-backed Pipit** *Anthus hodgsoni* MALTA First record: one ringed, October.

**Grey Wagtail** *Motacilla cinerea* ESTONIAN SSR First nesting in 1975 (north Estonia).

**Waxwing** *Bombycilla garrulus* GERMAN FEDERAL REPUBLIC Only very few small parties.

**Dipper** *Cinclus cinclus* ESTONIAN SSR Proved breeding in 1971 (south Estonia) and 1975 (north Estonia): first records of nesting since 1915.

**Siberian Accentor** *Prunella montanella* SWEDEN First record: Ottenby, 29th October 1976 (*Vår Fågelv.* 37: 69-72).

**Thrush Nightingale** *Luscinia luscinia* NETHERLANDS Male near Amsterdam, late May to mid June, seen, heard, trapped (possibly also female present).

**Stonechat** *Saxicola torquata* NETHERLANDS At least five of one of the eastern races *maura* or *stejnegeri*: three at Katwijk aan Zee and two at Wassenaar, from second week October. NORWAY After nesting in 1974, species now breeding in four or five counties from Vest-Agder in south to Møre og Romsdal in west.

**Black Wheatear** *Oenanthe leucura* GERMAN FEDERAL REPUBLIC One at Knock, on Ems estuary west of Emden, 23rd June 1976.

**Fieldfare** *Turdus pilaris* FRANCE Range expansion continues: group of nests in Champagne, 100 km west of nearest colony near Nancy.

**Fan-tailed Warbler** *Cisticola juncidis* NETHERLANDS Total of 25 singing males at Verdrongen Land van Saaftinge; others elsewhere.

**Savi's Warbler** *Locustella luscinioides* ESTONIAN SSR At least seven singing males discovered in territory from 10th May to 16th June in delta area of Kasari River at Matsalu Bay in west Estonia: first Estonian report, but species probably reached area in earlier years. In Latvian SSR (studied by J. Lipsbergs), discovered in southwest in 1970 and breeding proved in 1972; by 1975, expanded to many new areas to northeast, with total of several hundred pairs.

**Reed Warbler** *Acrocephalus scirpaceus* MALTA First breeding record: pair at Salina.

- Subalpine Warbler** *Sylvia cantillans* NETHERLANDS Fifth record: 16th October.
- Radde's Warbler** *Phylloscopus schwarzi* NETHERLANDS Second record: Castricum, 8th October. POLAND First record: caught near mouth of River Vistula, 27th September 1976.
- Dusky Warbler** *Phylloscopus fuscatus* GERMAN FEDERAL REPUBLIC One at Oststeinbeck, Hamburg, 21st November.
- Bonelli's Warbler** *Phylloscopus bonelli* NETHERLANDS Singly in July at Groenekan (singing) and Leidschendam; may breed in central Netherlands. POLAND Adults feeding fledged young in Carpathians near Czechoslovakian border, 14th July 1976.
- Bearded Tit** *Panurus biarmicus* BELGIUM Noted in several parts of province of Hainaut in autumn.
- Long-tailed Tit** *Aegithalos caudatus* FINLAND Large invasion in autumn: about 5,000 ringed, most on coast of Gulf of Bothnia. POLAND Total of 2,144 ringed during 'Operation Baltic' (2,500 and 5,174 in 1972 and 1973 irruptions).
- Coal Tit** *Parus ater* BELGIUM Irruption in autumn: very abundant in east Belgium.
- Wallcreeper** *Tichodroma muraria* PORTUGAL Second record: two in Peneda-Gerês National Park, winter 1975/76 (first record about 1950).
- Red-backed Shrike** *Lanius collurio* NORWAY Increasing numbers breeding in southwest, where formerly very scarce (cf. nesting in Scotland, *Brit. Birds* 70: 511).
- Jay** *Garrulus glandarius* BELGIUM Large passage during September and October. SWITZERLAND Invasion from late September, including 1,000 passing south over the Albis, 28th September, and over 1,000 at Eggerstanden, 9th October; larger movements in Monthali 11 October.
- Nutcracker** *Nucifraga caryocatactes* BELGIUM Unusually tame individuals noted outside normal range in autumn: considered to be immigrants from east. GERMAN FEDERAL REPUBLIC Small invasion of slender-billed *macrorhynchos* to Schleswig-Holstein and Lower Saxony, October and November, some staying until February 1978. NETHERLANDS Small invasion of parties of up to 20 from second week October, but many fewer than in 1968. POLAND Small irruption during 'Operation Baltic', half the numbers of autumn 1968.
- Starling** *Sturnus vulgaris* SPAIN Breeding range extending westward in Cantabrian area and southward in Cataluña, where now overlaps Spotless Starling *S. unicolor* without interbreeding.
- Brambling** *Fringilla montifringilla* FINLAND Usually few winter, but over 1,000 on Åland Islands in 1977/78. GERMAN FEDERAL REPUBLIC Very large numbers in south in November; few in north. SWITZERLAND Main concentrations at Röserental and Kerns, at roosts derived from estimated radius of 20-25 km; of 748 examined in the hand, 53% adult males, 21% first-year males, 14% adult females, 13% first-year females.
- Siskin** *Carduelis spinus* NETHERLANDS After great scarcity or absence in winter 1976/77, very numerous in autumn 1977. SPAIN Good breeding in 1976-77, coinciding with plentiful cone crops of Scots pine *Pinus sylvestris* and Corsican pine *P. nigra*. SWITZERLAND Heavy invasion; at Col de Bretolet, main influx from 20th October, over 3,000 trapped (on several days 200-400).
- Redpoll** *Carduelis flammea* GERMAN FEDERAL REPUBLIC Small invasion in West Berlin and parts of Lower Saxony, with larger numbers than usual in December-January 1977/78. SWITZERLAND More than usual at Bretolet in October.
- Trumpeter Finch** *Bucanetes githagineus* MALTA Large influx, flocks of up to 50, in July (usually very scarce visitor).
- Hawfinch** *Coccothraustes coccothraustes* FINLAND Usually seldom seen in winter, but over ten records in 1977/78. SWITZERLAND Apparently exceptionally numerous throughout Switzerland in winter 1977/78. For example, flocks of up to 100 around Geneva in January and February; 55 at Bassins; about 50 on 1st January near Lenzburg; 130 on 28th January near Muttentz; 120 on 5th February near Allschwil; 600 on 11th February near Basle.
- Lapland Bunting** *Calcarius lapponicus* NETHERLANDS High numbers in autumn from early September (as in Britain, cf. *Brit. Birds* 71: 51, 93, 194).
- Bobolink** *Dolichonyx oryzivorus* NORWAY Female or immature near Oslo, 6th-8th November.

## Correspondents

BELGIUM René de Liedekerke, L'Agaric, 5371 Pailhe

CZECHOSLOVAKIA Dr Karel Štastný, Institute of Landscape Ecology, Czechoslovak Academy of Sciences, Bezručova 927, 251 01 Ríčany

ESTONIAN SSR V. Lillecht, Institute of Zoology and Botany, 21 Vanemuise St., SU-202400-Tartu

FINLAND Kalevi Hyytiä, Kimokuja 4 C 43, 01200 Vantaa 20

FRANCE Laurent Yeatman, 69 rue Claude-Bernard, 75005 Paris

GERMAN FEDERAL REPUBLIC Alistair Hill, Albrecht-Haushofer-Str. 10, 3200 Hildesheim (some rarity records not yet formally accepted)

ITALY Dr Stefano Allavena, Via degli Estensi 165, 00164 Rome

MALTA Joc Sultana & Charles Gauci, Malta Ornithological Society, PO Box 498, Valletta

NETHERLANDS C. J. G. Scharringa, van der Waalsstraat 28, 6706 JP Wageningen (records also supplied by Adri Reemeus and Arend Wassink)

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# British bird-photographers

## 20 A. N. H. Peach

**I** was not asked to write these notes about Nowell Peach: I requested the opportunity. All too often, it is not until they are past hearing our words that we have the chance to write pleasant things about our friends.

Nowell Peach and I have made many happy trips together, but the notes which he gave me as being 'all anyone is likely to want to know about my past' fell far short of what I needed. They told me that he qualified as a doctor of medicine at Bristol in 1937 and became a FRCS in 1948, but carefully omitted the intervening period, much of which was spent in a Japanese prisoner-of-war camp, where he must have been a great asset to his companions; while there, he devoted what little spare time he had to the book-work necessary to obtain his Fellowship. He seldom talks about what must have been a pretty grim period in his life, but I continually admire the facts that it left very little obvious mark upon him, certainly did not sour him and that his shoulders are remarkably free from chips. He is now in general practice in Horsham, with a surgical appointment at Horsham Hospital, which he cheerfully says goes a long way towards mitigating the disappointment that he qualified as a surgeon at a time when a post as surgical registrar leading to a consultancy was virtually unobtainable. Anyone who has seen him disentangle a small bird from a mist-net cannot fail to agree that neurosurgery is the poorer for Nowell being in general practice, however true it undoubtedly is that GPs are the foundation-stones of medicine.

Although he often says that his bird photography is—for family reasons—

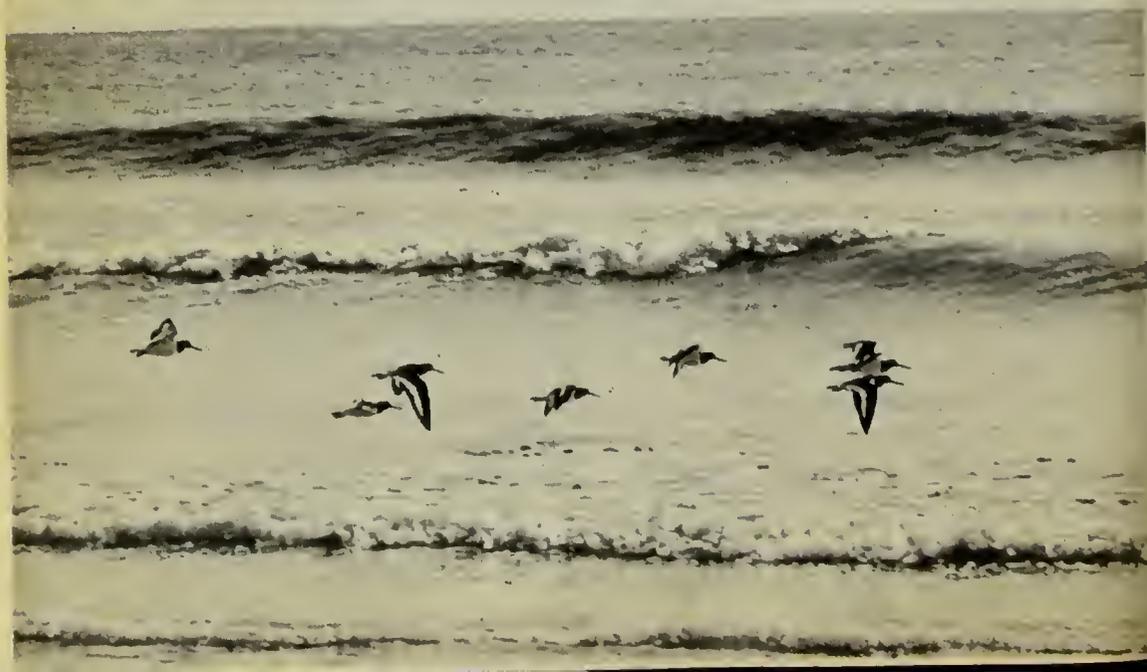
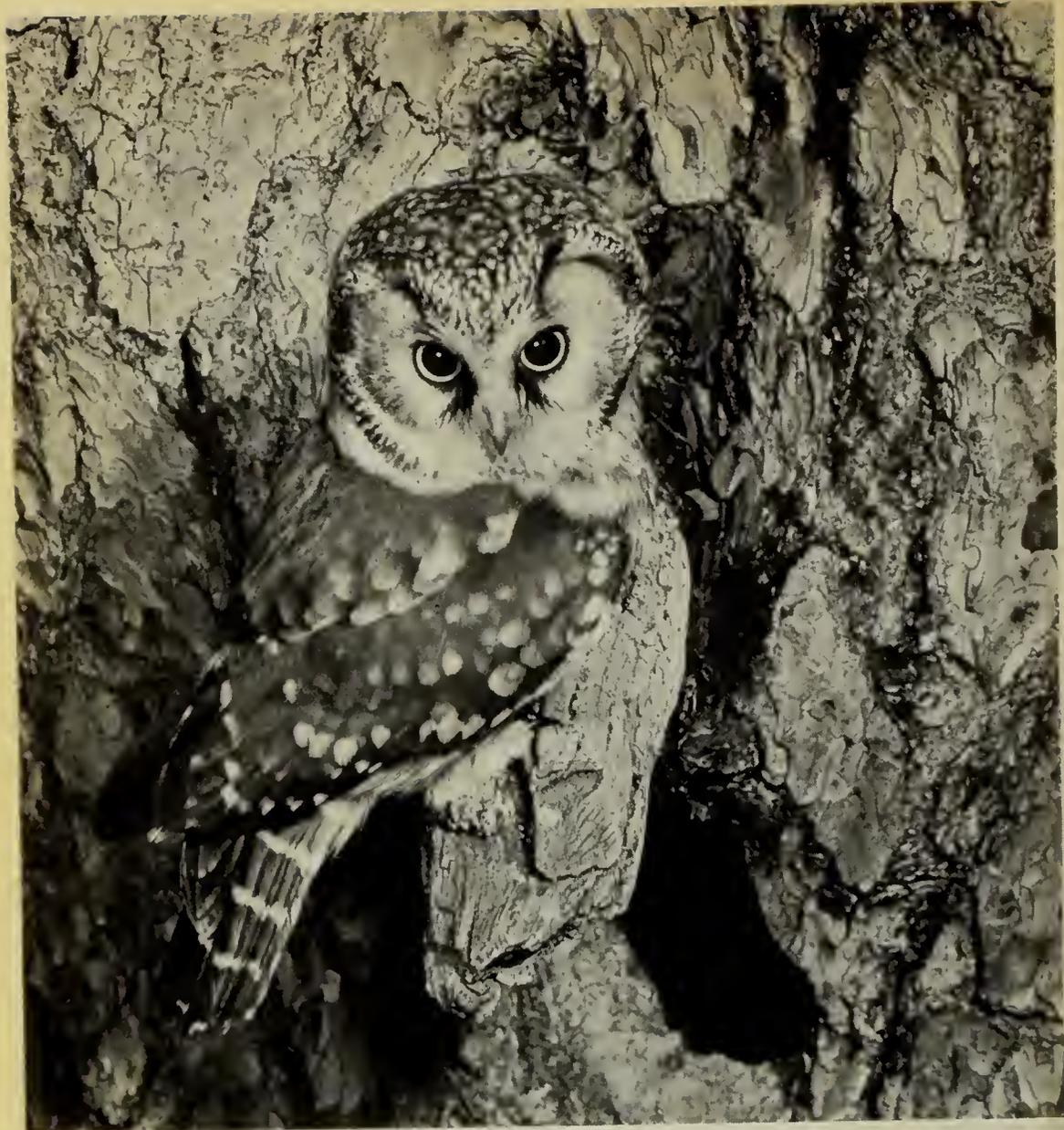


99. Above, Whinchat *Saxicola rubetra*, Somerset, June 1962 (A. N. H. Peach)

virtually restricted to an annual fortnight's 'birding holiday', I envy the enthusiasm which urges him to spend what free time he has in tackling (often from elaborate hides) his local birds, and I have long had the impression that patients are admitted to his list only if they agree to tell him about any nests suitable for photography.

In the field, he is not only an indefatigable worker and tireless erector of difficult hides, but is a most cheerful companion who, while contribut-

100, 101, 102 & 103. Pages 260 & 261: top left, Tengmalm's Owl *Aegolius funereus* at nest, Norway, June 1966; bottom left, Oystercatchers *Haematopus ostralegus* in flight, Sussex, October 1976; top right, Little Owl *Athene noctua* at nest, Sussex, June 1968; bottom right, Shelducks *Tadorna tadorna* with brood, Sussex, July 1971 (A. N. H. Peach)



# British Birds

*Please help us by detaching and completing this questionnaire. It can be returned FREE in an unstamped envelope addressed to: British Birds Binoculars and Telescopes Survey, FREEPOST, Macmillan Journals Ltd, 4 Little Essex St, London WC2R 3BR.*

## Binoculars and Telescopes Survey

The reasons for this survey are given in an 'Announcement' on pages 280-281.

**For how long have you  
subscribed to British Birds?**

**YEARS**

OPTIONAL (This form may be returned anonymously if you wish, but it is useful to have your address in case we have any queries)

Name .....

Address .....

.....

.....

# Binoculars

What do you use at present?

MAKE  1

MODEL  2 DIALYT? YES  3 NO  4

MAGNIFICATION  5 ×  6 DIAMETER

How long have you had them?

7 YEARS

What was your MAIN reason for choosing them? (tick one)

ADVERTISEMENT  8

RECOMMENDATION  9

SEEING SOMEBODY ELSE'S  10

AFTER TRYING OTHERS  11

AVAILABLE IN SHOP AT RIGHT PRICE  12

Were you a spectacle-wearer when you bought them?

YES  13 NO  14

If 'yes' did this influence your choice? YES  15 NO  16

Did you buy a case with them?

YES  17 NO  18

Do you use it? YES  19 NO  20

Are you satisfied with your binoculars? (tick one)

COMPLETELY  21

FAIRLY  22

NOT REALLY  23

How often do you intend to replace your binoculars?

EVERY  24 YEARS OR SO  
(put X if no foreseeable intention)

If you bought a new pair of binoculars now, what size would you choose?

MAGNIFICATION  25 ×  26 DIAMETER

Would you buy the same make again?

YES  27 NO  28

If 'no', what make would you now choose? (leave blank if you don't know)

MAKE  29

At today's prices, how much would you be prepared to spend on a new pair of binoculars?

£  30

# Telescopes

What do you use at present?

NONE  31 OR MAKE  32  
(tick)

MODEL  33

MAGNIFICATION  34  
Fixed

35  -  36 Variable 37  -  38 Zoom

How many draw tubes does it have?

39  40  41  42  43  
0 1 2 3 4

Is the eyepiece

STRAIGHT?  44 ANGLED?  45

How long have you had it?

46 YEARS

What was your MAIN reason for choosing it? (tick one)

ADVERTISEMENT  47  
RECOMMENDATION  48  
SEEING SOMEBODY ELSE'S  49  
AFTER TRYING OTHERS  50  
AVAILABLE IN SHOP AT RIGHT PRICE  51

How much do you use it?

FREQUENTLY  52 FAIRLY OFTEN  53  
OCCASIONALLY  54

Do you use a tripod?

ALWAYS  55 SOMETIMES  56  
RARELY OR NEVER  57

Did you buy a case for your telescope?

YES  58 NO  59

Are you satisfied with your telescope? (tick one)

Do you use it? YES  60 NO  61  
COMPLETELY  62 FAIRLY  63  
NOT REALLY  64

If you bought a new telescope now, what magnification would you choose?

FIXED  65 VARIABLE 66  -  67  
ZOOM 68  -  69

Would you buy the same make again?

YES  70 NO  71

If 'no', what make would you now choose? (leave blank if you don't know)

72  
MAKE

At today's prices, how much would you be prepared to spend on a new telescope?

£  73

# Readership Survey

Main papers will continue to be of their present standard, number and length. To help us to adjust the other contents of *British Birds* to suit the tastes of you, our readers, we ask you to complete this brief questionnaire. Please tick the appropriate box in each case.

	Give more space	About right	Give less space	Discon- tinue
Notes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Letters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
News and comment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quarterly migration summaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mystery photographs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Viewpoints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personalities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diary dates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
European news	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Periodic reviews of discs and tapes, 'Palearctic bird sound recordings'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Photographic/literature review features of single species, 'Studies of less familiar birds'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality photographic features such as 'Best recent work by British bird-photographers'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General photographic features such as 'Birds in action'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small photographs (sometimes poor quality) of rarities or interesting behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sketches of birds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

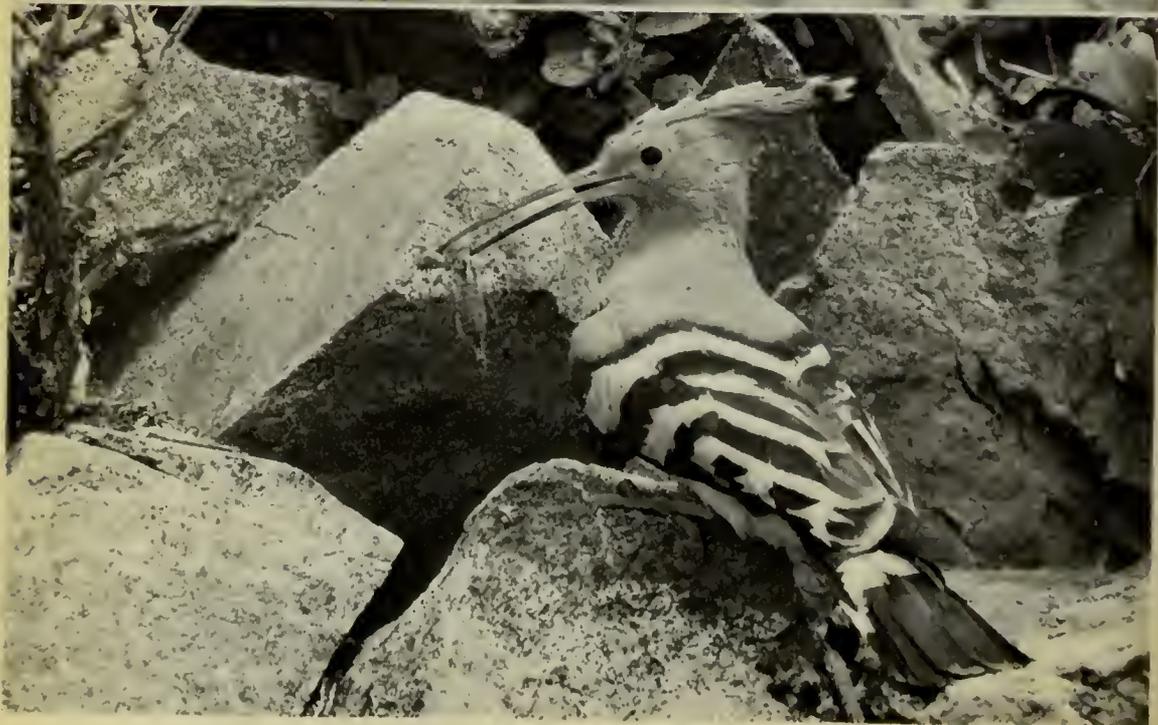
Suggestions for new features.....

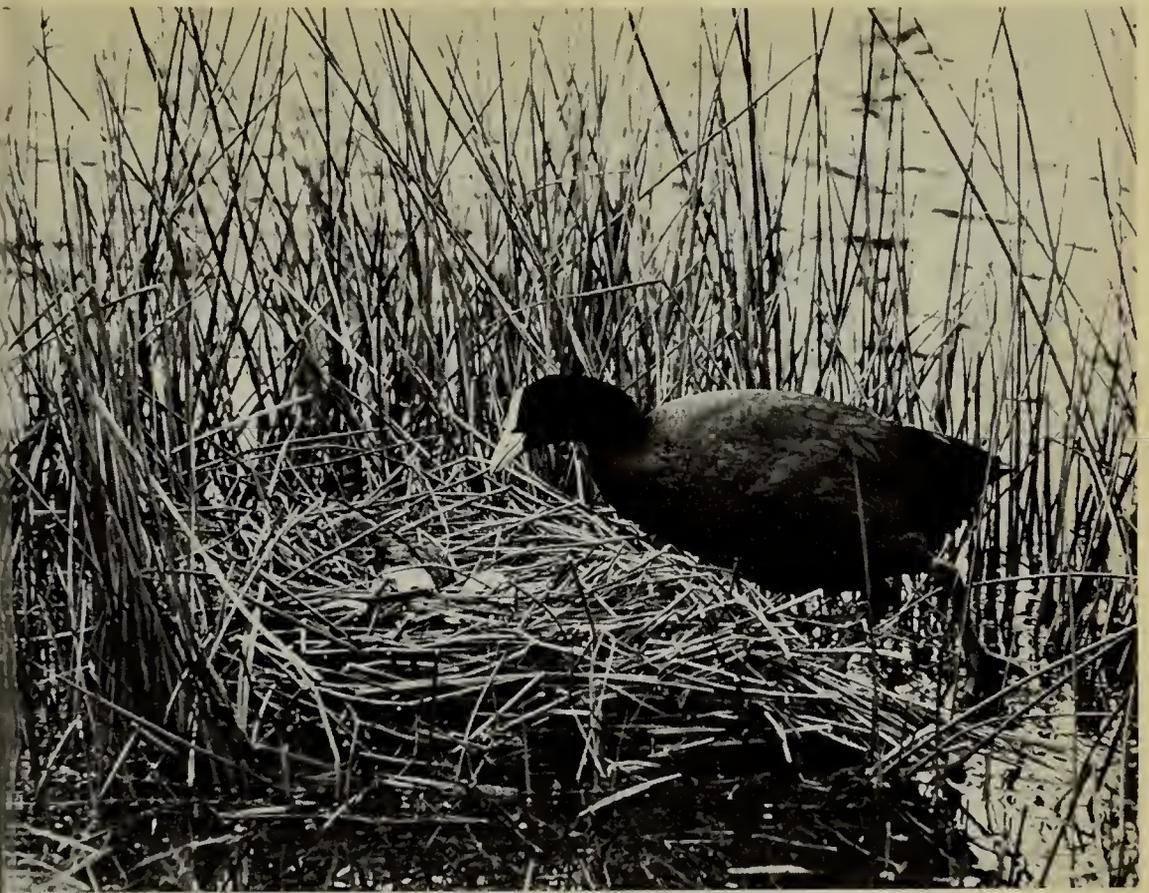
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104, 105, 106 & 107. Top left, Penduline Tit *Remiz pendulinus* at nest, Austria, June 1972 (A. N. H. Peach); bottom left, Hoopoe *Upupa epops* at nest, Spain, June 1961 (A. N. H. Peach); above, Coot *Fulica atra* at nest, Wales, May 1971 (A. N. H. Peach); below, pair of Great Crested Grebes *Podiceps cristatus* at nest, Sussex, April 1971 (A. N. H. Peach)



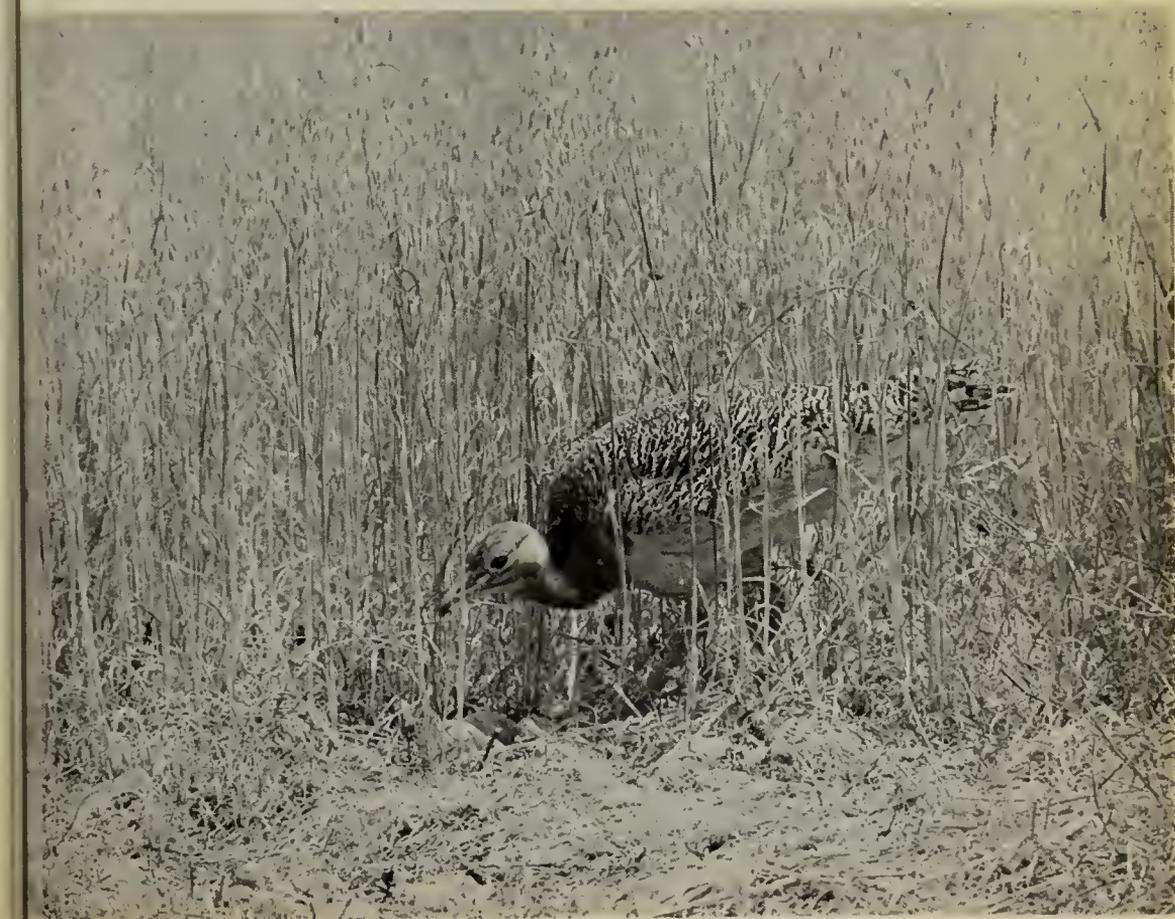


108 & 109. Above, Booted Eagle *Hieraaetus pennatus* at nest, Spain, May/June 1970 (A. N. H. Peach);  
below, Woodcock *Scolopax rusticola* at nest, Sussex, April 1968 (A. N. H. Peach)





IIIO & IIII. Above, female Cirl Bunting *Emberiza cirlus* at nest, Portugal, June 1969 (A. N. H. Peach);  
below, female Great Bustard *Otis tarda* at nest, Portugal, May 1965 (A. N. H. Peach)



ing his fair share of blasphemy about failures and inefficient 'helpers', seems able to bring home more good results than expected from what appeared to be few opportunities.

Like so many other photographers, he is doing an increasing amount in colour, and I suspect that he comes near to sharing my own old-fashioned view that 'real' monochrome photography ceased with glass plates, and that expensive miniature cameras—although wonders of mechanics and electronics—are at best unreliable and at worst an absolute menace.

Nowell's interest in birds is not confined to photography: he is a collector of 'fine bird books', and has a collection to make anyone envious. He adopts the very sane attitude that one gets little pleasure from savings invested with a building society, whereas a set of Gould or Thorburn is not only an investment, but a continual joy.

He has been a valued member of the Zoological Photographic Society for many years and has always greatly appreciated the fact that Rudolf and Kevin Carlson originally sponsored his membership. Bristol Royal Infirmary, where all three were trained, seems to have evolved a subspecies of *Homo sapiens* with energy far beyond that of normal men. Although their joint ages cannot be far from two hundred years, each can carry heavier weights farther, walk uphill faster, climb more easily to impossible places, and work longer hours in the field than anyone else I know of any age. I shall never forget Nowell's energetic contribution to the hide which resulted in us both being successful with the Booted Eagle (plate 108). It is not surprising that he achieved one of his great ambitions: his county badminton colours.

I envy him his seldom-photographed Penduline Tit and his standing Woodcock (plates 104 and 109). The Shelduck family (plate 103) is delightful, and the depth of focus in the photograph extraordinarily good. The excellent picture of a Hoopoe (plate 105) is notable for the fact that, during a long session in the hide, Nowell became aware of an increasing state of alarm on the part of the bird, which refused to go down into the nest. This became so marked that he was forced to take a step which all conscientious bird-photographers are loth to do: despite the absence of an assistant, he got out of the hide to investigate the trouble. He found that, shortly after the photograph was taken (or even while it was being taken), a large snake had entered the underground nest and had swallowed two of the youngsters. Violent action on Nowell's part resulted in the regurgitation of two very bedraggled objects, which he brought back to me at our base. One was considerably paralysed and seemed beyond hope; the other appeared remarkably fit. Even the paralysed one, however, recovered after some weeks of forced feeding and they not only turned out to be male and female, but actually bred in one of my aviaries two years later.

I have left the best to last. The portrait of Tengmalm's Owl (why can't we call it, as the Swedes do, the Pearl Owl?) is, I think, one of the loveliest bird photographs ever taken: photographically, plate 100 has *everything*. By contrast, what a vicious little brute the Little Owl looks!

M. D. ENGLAND

# Mystery photographs

**18** The identification of small waders can be tricky: plumages vary according to age and time of year, with breeding, non-breeding, juvenile and intermediate stages. Learning to know each species by 'jizz' is important, and the ubiquitous Dunlin *Calidris alpina* is a useful yardstick. Indeed, lone, juvenile Dunlins are traps for the unwary. Identification of the mystery bird is complicated by the hidden bill, but the clear whiteness of the underparts (with a suggestion of a suffused wash on the breast), contrastingly marked upperparts, more rounded tips to the scapulars and more prominent supercilium all rule out Dunlin. The scaly upperparts recall a Baird's Sandpiper *C. bairdii*, but that species has much longer wings and a breast-band of streaks. All stints, or 'peeps', have streaking on the sides of the breast and less scalloped upperparts. The whiteness of the plumage might bring a juvenile Sanderling *C. alba* to mind, but that species is spangled with pale spots on the upperparts, has markings on the sides of the breast and does not normally wade. The head-pattern is far too strong for a Ruff *Philomachus pugnax*, even a pale example of that variable species, which in any case would not be confused in the field. This really leaves only one solution: a juvenile Curlew Sandpiper *C. ferruginea*, which not only fits all the points mentioned so far, but is also confirmed beyond doubt by the hint of white on the uppertail-coverts. The Curlew Sandpiper in plate 91 and repeated here was photographed by Dr R. J. Chandler in Dyfed in August 1976.



S. C. MADGE

**112.** Mystery photograph 19. What is this species? Answer next month



# Notes



**Cattle Egrets feeding on refuse tip** During a study of scavenging by birds in Uganda, D. E. Pomeroy (*Ibis* 117: 69-81) observed considerable numbers of Cattle Egrets *Bubulcus ibis* feeding on Natate refuse tip in Kampala. Although they were probably attracted by the large numbers of insects associated with the refuse and were unlikely to have been scavenging in the strictest sense, the species was absent from other tips and the habit had not been recorded previously. Subsequently, Dr C. J. Feare (*Ibis* 117: 388) reported similar behaviour by the endemic Seychelles Cattle Egret *B. i. seychellarum*, but there are apparently no other published observations. On 16th April 1976, E. S. Clare, P. D. Hyde, J. Ridley and I visited a refuse tip near Tetouan, north Morocco, and found, along with Jackdaws *Corvus monedula*, Ravens *C. corax* and Black Kites *Milvus migrans*, at least 100 Cattle Egrets randomly scattered over the tip and clearly feeding among the refuse; we could not, however, identify their food.

A. R. DEAN  
2 Charingworth Road, Solihull, West Midlands B92 8HT

Although this behaviour is common, there appear to be very few published records. EDS

**Brent Geese on the Wash in late spring** Dark-bellied Brent Geese *Branta bernicla bernicla* usually leave their wintering grounds on the south-east coasts of England by early April. The 1970-75 BTO/RSPB/Wildfowl Trust 'Birds of Estuaries Enquiry' has shown that considerable numbers remain on the Wash, Lincolnshire/Norfolk, in late May; in 1974, nearly 500 were still there in early June (table 1). Although small numbers return from mid September (or even late August), large numbers do not arrive until early October. During 1970-76, winter maxima on the Wash (2,450-8,280) occurred in late December or early January; these, and spring numbers, reflect the recent increases in the whole population (M. A. Ogilvie and A. K. M. St Joseph 1976, *Brit. Birds* 69: 422-439). Age counts made in Essex following good breeding seasons have shown a very high proportion (at least 75%) of juveniles after the main departure in March, and it seems likely—although there is no direct evidence—that the Brents on the Wash in May are non-breeders.

**Table 1. Populations of dark-bellied Brent Geese *Branta bernicla bernicla* on the Wash, Lincolnshire/Norfolk, and on the Essex coast in late spring**

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
THE WASH						
Winter maxima	2,500	2,450	3,460	5,930	3,860	8,280
Late April/May (Date)	880 (23 May)	690 (13 May)	610 (6 May)	1,330 (5 May)	1,910 (27 April)	no count
ESSEX COAST						
May			16	80		

**Table 2. Distribution of dark-bellied Brent Geese *Branta bernicla bernicla* on the Wash, Lincolnshire/Norfolk, in relation to season**

The figures represent the average percentage of monthly totals in 1972-75

	WEST ←-----→ EAST			
	Gibraltar Point-Welland	Welland -Nene	Nene -Ouse	Ouse -Titchwell
November	77	17	2	4
January	84	6	4	6
March	63	23	9	5
May	41	54	3	2

The west shore of the Wash, particularly between Wrangle and Fries-ton, has traditionally been the area most favoured by the geese (table 2); during the winter, those on the east shore north of Wolferton (probably part of the north Norfolk coast population) remain relatively discrete from the rest. In the second half of the winter, the Brents on the west side tend to disperse to the southwest and south shores, where there are 1,400 ha of saltmarsh. By late spring, in 1974 and 1975, this coast between the rivers Welland and Nene held a higher proportion of the total than the west shore (table 2); the dispersion occurred earlier in the 1976/77 winter. Dr D. S. Ranwell and B. M. Downing (1959, *Anim. Behaviour* 7: 42-56) showed that, in late winter and spring, Brent Geese fed increasingly on saltmarsh plants such as sea aster *Aster tripolium* and common salt-marsh-grass *Puccinellia maritima*. This seasonal change of feeding sites from intertidal mudflats, where *Enteromorpha* is an important food, to salt-marsh has been apparent on the Wash; that extensive saltmarshes still exist on this estuary may be one reason why Brents have taken to feeding on farm fields there only to a minor extent compared with the situation in Essex (Ogilvie & St Joseph 1976) and West Sussex (*Sussex Bird Rep.* 1975: 49-56).

The Wash is the only British estuary which regularly holds appreciable numbers of dark-bellied Brent Geese in late spring, when most of the population is on the North Sea coasts of the Netherlands, the German Federal Republic and Denmark; in the Netherlands, counts of 16,750 and 21,610 were made in May 1974 and 1975 respectively (data from International Waterfowl Research Bureau). The Wash marks the south-western limit of the area used during this pre-migration period; that very few remain in May elsewhere on the south and east coasts of Britain may be due in part to the dearth of undisturbed saltmarsh feeding areas.

C. JAMES CADBURY and ANDREW K. M. ST JOSEPH  
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*The Wildfowl Trust, Slimbridge, Gloucester GL2 7BT*

**Female Sparrowhawk with male plumage characters** In November 1976, the Booth Museum, Brighton, was given what appeared to be a very large male Sparrowhawk *Accipiter nisus* from West Sussex. Its measurements were as follows: length (crown to tail) 367.4 mm; wing 237.5 mm; tail 178 mm; bill 14.7 mm; weight 244 g. It had the normal red-brown barred underparts, but lacked the whitish spot on the nape. The specimen

was prepared for a cabinet skin and, on examination for confirmation of sex, I was surprised to find that it was a female.

JEREMY ADAMS

*The Booth Museum of Natural History, Dyke Road, Brighton, East Sussex*

Derek Goodwin, who examined the skins of Sparrowhawks at the British Museum (Natural History), has commented that there is a lot of individual variation in adults and juveniles of both sexes. Many females of the nominate race show some approach to male colours, with some reddish suffusion and/or reddish-tinged barring on the underparts, and bluer grey on the upperparts than more typical females. One specimen is much closer to typical males than typical females, although a little paler above and below and with not quite the 'right type' of barring for a male. In all the other races, there are some females which closely approach the male in colouring, but none quite so close as Mr Adams's specimen. He added that the lack of a white spot on the nape does seem to be unusual. EDS

**Kestrel persistently following plough and feeding mainly on earthworms**

Between 28th February and 14th March 1977, while I was ploughing two fields in a semi-intensive arable area near West Tanfield, Ripon, North Yorkshire, an immature male Kestrel *Falco tinnunculus* followed the plough and fed on any sizeable earthworms that were upturned. On many occasions, I saw it very close to the moving tractor, pulling at and eventually eating a recently caught worm. It usually ate its prey on the upturned soil, but sometimes flew off to the nearest tree. The Kestrel fed on all weekdays except one, and for most of the day between 09.00 and 16.00 GMT, so earthworms obviously formed a large part of its diet. *The Handbook* noted that, from an analysis of 80 stomachs by W. E. Collinge, earthworms formed 2.5% of this species' diet. In Nottinghamshire, J. Staton (*Brit. Birds* 36: 245) recorded a Kestrel following a plough for most of the day, but this individual fed on 'field mice' whose nests had been exposed.

COLIN SLATER

*4 Bridge View Road, Ripon, North Yorkshire HG4 1JM*

**Kestrel and Grey Heron associating with plough** On 29th January 1977, while ploughing on my farm at Easingwold, North Yorkshire, I saw a male Kestrel *Falco tinnunculus* standing on a recently turned furrow and clawing at the soil, presumably in search of invertebrate food; at the approach of my tractor, it flew off. The following day, again while ploughing, a Grey Heron *Ardea cinerea* alighted on freshly turned furrows. When disturbed by the tractor, it flew in an arc and landed about 40 m behind the plough; on being disturbed again, it flew into an adjoining field, but returned about 15 minutes later and appeared to be eating earthworms. Interrupted a third time, it flew away.

R. HOULSTON

*Manor Farm, Oulston, Easingwold, North Yorkshire*

**Young Hobbies killed in nest** On 19th June 1970, in Surrey, I found the nest of a pair of Hobbies *Falco subbuteo* with three eggs in an old nest built by Carrion Crows *Corvus corone* about 17 m up in a Scots pine *Pinus sylvestris*. On 26th July, I ringed two 14-day-old young. On the morning of 1st August, when these should have been about three weeks old, I found both adults flying around calling anxiously, but when I reached the nest it was covered with the black and brown barred feathers of the young, of which there was no other sign. I sifted through the feathers and found two femurs of Hobbies and three breast feathers of a Tawny Owl *Strix aluco*; I did not find the rings, either in the nest or on the ground. I concluded that the owl had probably killed and eaten the young Hobbies, which would have been conspicuous in such an open nest, on the previous evening. Tawny Owls have been recorded taking a wide variety of prey, including adult Kestrel *F. tinnunculus* and Little Owl *Athene noctua*; Heimo Mikkola (*Brit. Birds* 69: 144-154) mentioned one record of their eating a Hobby, although he did not state whether this was adult or young.

T. A. WADDELL

9 Woodcut Road, Wrecclesham, Farnham, Surrey GU10 4QF

Although not proved that a Tawny Owl was the predator, this seems the most likely explanation. EDS

**Hobby apparently brooding chick on ground** On 21st July 1972, in Berkshire, I climbed to the eyrie of a pair of Hobbies *Falco subbuteo* in a dilapidated old nest of a pair of Carrion Crows *Corvus corone* at the very top of an exposed 20-m Scots pine *Pinus sylvestris*. As the nest, with two eggs, was in imminent danger of falling out, I supported it more firmly with string and by bending some branches under it. One of the falcons was in attendance. When I returned on 2nd August, a Hobby flew up from the bare, stony ground about 28 m from the tree. Nearby, its mate also arose, from or close to a live three-day-old chick in perfect condition. Nothing remained of the nest, and there was no sign of another chick or egg. The weather during the previous 24 hours had been thundery, but not particularly hot (12°C to 19°C). The wind had presumably destroyed the nest and parachuted the chick on to the ground. I know of no other record of Hobbies brooding young on the ground, which had apparently been the case in this instance.

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Unless the nest had been blown down very shortly before these observations, the chick would almost certainly have died if it had not been brooded. Records of birds brooding nidicolous young away from the nest site are rare. EDS

**Aberrant Golden Plover** On 20th November 1976, at Loch Indaal, Isle of Islay, Strathclyde, I noticed, among a flock of Golden Plovers

*Pluvialis apricaria*, one smaller, slighter individual. It was very greyish, with a dark crown and a conspicuous pale supercilium; its bill and legs were the same colour as those of the rest of the flock, but thinner, giving it a long-legged appearance. I thought that it might be a Lesser Golden Plover *P. dominica*, but, when it stretched its wings, the undersurfaces were the same as those of the other plovers and lacked the grey axillaries of a Lesser. Its gait and flight were also identical with those of the rest, and it stayed within the flock both on the ground and in the air.

KEITH VERRALL

35 Weston Bank, Weston-under-Lizard, Shifnal, Salop

P. J. Grant has suggested that this individual may have been a small, exceptionally dull, first-winter Golden Plover among normal winter adults: this note is a most useful cautionary tale. EDS

**Apparent immature Glaucous × Herring Gull hybrids** The field identification of immature hybrid large gulls is often only speculative, since there is much individual variation in plumage and the ever-present, well-known problems of leucisic and worn-plumaged birds (Hedgren & Larsson 1973, Hume 1975 and Davies 1978). On two occasions now, however, I have seen first-winter large gulls which fit very neatly into the category of Glaucous *Larus hyperboreus* × Herring Gull *L. argentatus*



Fig. 1. Typical bill patterns of Glaucous Gull *Larus hyperboreus* (top left) and Herring Gull *L. argentatus* (top right) in first winter, with bill of presumed hybrid at Scarborough, North Yorkshire (bottom)

hybrids. I managed to photograph one of these (plates 113 & 114) in the harbour at Scarborough, North Yorkshire, on 13th December 1977. The bird had the basic appearance of a first-winter Glaucous Gull, but with strong influences of Herring Gull in the colour and pattern of its flight and tail feathers:

**SIZE AND SHAPE** A Glaucous Gull seen briefly alongside was roughly same size and build; hybrid was hefty, with stocky head, neck and bill; considerably larger

and bulkier than accompanying Herring Gulls (cf. plate 114). Head and bill shape perhaps a little less imposing than those of Glaucous.

**PLUMAGE** Rather like first-winter Glaucous Gull, with small spotting and barring on upperparts, compared with Herring Gulls' coarser markings; these markings, however, more prominent than usual on Glaucous Gull. Outer primaries medium brown, with paler fringes, shading paler on inner webs, which could be matched by occasional very worn, faded, first-year Herring Gulls. Secondaries paler brown, with whiter tips and notches around edges, rather like very faded Herring Gull.

Central tail feathers also pale brown, of same shade as secondaries; outer tail feathers barred right to tip, as on Glaucous Gull (see plate 113). Not seen in flight, but, when wings briefly lifted, inner primaries looked paler than outer ones.

**BARE PARTS** Eye dark; legs and feet apparently flesh-coloured, but exact tone not determined as bird on water; bill very pale flesh, with blackish tip and dusky distal half of lower mandible (see fig. 1).



113. First-winter gull, presumed Glaucous *Larus hyperboreus* × Herring *L. argentatus* hybrid, North Yorkshire, December 1977 (S. C. Madge)

114. First-winter gulls: left, presumed Glaucous *Larus hyperboreus* × Herring *L. argentatus* hybrid; right, Herring Gull, North Yorkshire, December 1977 (S. C. Madge)



Thus, this bird was intermediate in many respects between Glaucous and Herring Gulls, and the bill pattern approached Glaucous rather than Herring (see fig. 1): the former having an extremely heavy, very pale bill, with distinct gonys and neat black tip, the latter having a duskier bill, with blackish distal half and paler base. The Scarborough gull had a very pale upper mandible, with neat black tip, which extended slightly back on culmen, and a rather duskier distal third to its lower mandible, with dark extending back along the cutting edge. The size of the bill seemed intermediate between the two species.

I had seen a similar bird at Bridlington, Humberside, on 7th April 1975. It differed from the Scarborough gull only in having less brown on the outer primaries and tail and in being more heavily blotched along the scapulars, like a Herring Gull. The Bridlington gull had the build of a small Glaucous, with a very pale, black-tipped, heavy bill, finely barred tail and brown wedges on the outer primaries. As in the later instance, there was a first-year Glaucous present for comparison.

These two gulls looked markedly different from the bird described by Davies (1978). From the combination of characters, it seems reasonable to assume that they were the offspring of Glaucous and Herring Gull parents, especially in view of the known fairly extensive hybridisation between the two species in Iceland (Ingolfsson 1970) and elsewhere, and on two occasions in Britain (*Brit. Birds* 70: 13-14; 71: 23).

S. C. MADGE

2 Springholme, Caudle Hill, Fairburn, Knottingley, West Yorkshire WF11 9JQ

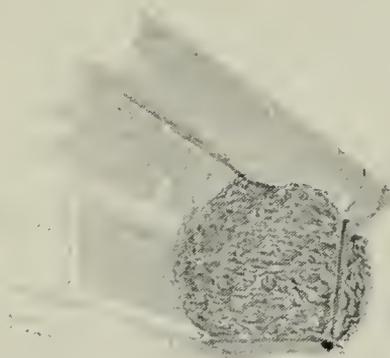
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 HUME, R. A. 1975. Identification and ageing of Glaucous and Iceland Gulls. *Brit. Birds* 68: 24-37.  
 INGOLFSSON, A. 1970. Hybridization of Glaucous Gulls *Larus hyperboreus* and Herring Gulls *L. argentatus* in Iceland. *Ibis* 112: 340-362.

A letter on the identification of hybrid gulls appears in this issue (page 279) and the subject of hybrids will be covered in general terms in part 5 of P. J. Grant's 'Field identification of west Palearctic gulls'. Notes on this topic, if covering new points and accompanied by good photographs, are, however, still welcome, although they may be included in a summary rather than be published separately. They should be sent to P. J. Grant, 14 Heathfield Road, Ashford, Kent TN24 8QD. EDS

**Unusual House Martin nest-sites** During a study of House Martins *Delichon urbica* in Leicestershire in 1974, we examined two unusual nests. The first site (left) was at Belton, near Uppingham, on the village shop which faces south, with the roof slightly overlapping the wall. The brackets supporting the guttering consist of a horizontal metal bar, with

a vertical one to the clamp on the gutter. In one such bracket, a martin built a hemispherical nest, using the horizontal bar as a base support and the gutter as part of the roof. Two broods were raised. Of over 700 nests inspected, we found only two similar sites, both out of use.



DALM



DALM

The second site (right) was on the old Oakham police station. Again, the front faced south; the roof sloped over the wall, the rafters forming compartments. A drainpipe, rectangular in cross-section, ran back horizontally from the gutter against one of the rafters. The open end had been plastered up, the nest material placed on the pipe, and four eggs laid on this. Unfortunately, the building was demolished the next day. This was the only site of this type that we found.

While House Martins will use pipes and hinges as supports for their nests, they tend to adopt sites needing a minimum of mud in the nest construction; so exposed a site as the first appears distinctly rare. Although they may utilise shelves for replacement nests, we have been unable to find any reference to the deliberate acquisition of such a site as the second at an early stage in the breeding season.

D. A. C. McNEIL and FRANK CLARK

44 Sandown Road, Leicester

Department of Zoology, School of Biological Studies, The University, Leicester

**Fan-tailed Warbler in Norfolk** Just after 06.00 GMT on 24th August 1976, I was walking along the East Bank at Cley, Norfolk, when suddenly I heard a loud, penetrating and repetitive 'tsip-tsip-tsip . . .' call, which rang bells in my not-long-woken mind. I spotted the source of the call, some 30 m ahead and to my left, over a small, reed-fringed pool not far from the bank: it was a tiny, fluttering bird which appeared to be suspended on a yo-yo some 4-6 m over the reeds. By now, it had dawned on me that it was a Fan-tailed Warbler *Cisticola juncidis* in full song-flight: a species with which I had become very familiar during visits to the Camargue in southern France and to the Gambia. I moved along the bank, level with the bird; after perhaps a minute, it dropped into the sparse, short reeds at the back of the pool, about 20 m from me, and landed on a bent reed, about 15 cm above the mud, completely visible, with its upper-

side towards me. It had pale brown upperparts, strongly streaked darker, without any bold white or buff supercilium. Its tail and rump looked rather rufous, particularly as it landed; its tail was very short and rounded. The warbler was turning its head from side to side, showing its thin bill and pale throat. There were several Bearded Tits *Panurus biarmicus* and a begging juvenile Reed Warbler *Acrocephalus scirpaceus* close by, affording good size comparisons: the stranger was markedly smaller than either of the local species. I turned away to test the dampness of the grass and, in that brief moment, the warbler vanished.

Feeling somewhat bemused, I ambled towards a spot near the north drain, where an Aquatic Warbler *A. paludicola* had been seen the previous evening, and stood watching and listening; I then heard again the distinctive 'tsip' call-notes, this time more spaced out. I could not see the bird and was certain that it was perched in the vegetation. As I hurried 60 m along the bank, the Fan-tailed Warbler suddenly appeared over the grass and reed area in front of me, doing its characteristic yo-yo flight and uttering its monotonous song. It was facing away from me, and was some 6-10 m above the reeds about 35 m from the bank. With the sun behind me, I could clearly see the rufous rump and uppertail; the short, rounded wings; and, as the bird reached the top of each rise, the half-fanned tail, which appeared dark underneath, with white at the sides. After a seemingly lengthy display of its characters—at least a minute—it suddenly ceased singing and flew purposefully away from me, towards the west, at a height of about 12 m. I watched it through my binoculars until the speck vanished, which in the early morning haze I estimate to have been about 500-600 m. After it had gone, I compared it with a Blue Tit *Parus caeruleus* which seemed similar in body size and wing length, but had a bigger, rounder head and much longer tail.

Despite continuous searching for the rest of the day, by myself and at least a dozen other birdwatchers, the bird was not relocated at Cley. It or another, however, was seen at Holme, Norfolk (35 km west), from 29th August to 5th September 1976 (see note by Peter R. Clarke, below).

A Fan-tailed Warbler was observed on Cape Clear Island, Co. Cork, on 23rd April 1962 (*Brit. Birds* 65: 501-510), but the record described here is the first for Britain. I. J. Ferguson-Lecs and Dr J. T. R. Sharrock (*Brit. Birds* 70: 152-159) predicted that Fan-tailed Warblers would soon colonise and breed in Britain.

J. N. DYMOND

c/o RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL

At about midday on 29th August 1976, I was standing outside the bird observatory's ringing laboratory at Holme-next-Sea, Norfolk, when I heard a penetrating, sharp, treble call-note which was quite new to me. Despite a frantic search of the sky, I could not locate the bird responsible and sadly concluded that some obscure bunting or finch had eluded me.

About one hour later, I. Moore came running to tell me that a Fan-tailed Warbler had been seen, in an area of small hawthorns *Crataegus* at the rear of the reserve car park, by himself and J. Campton, M. Dale, P. Lee, O. Marks, G. Parker and G. W. Want. J.C., who had first identified

the bird, had had numerous sightings of the species a few weeks previously in southern France. By the time of my arrival, the warbler had disappeared, but halfway back to the ringing laboratory someone shouted, 'There it is!' and, with some astonishment, I heard and saw a small bird flying past giving exactly the same call-note that had puzzled me earlier in the day; it kept flying eastwards until lost to sight.

The following description was compiled on the spot by JC:

Attention drawn by high, jerky song flight, diminutive size and fanning of very short tail. After song flight lasting about 30 seconds, landed in top of small hawthorn bush and observed down to 10 m for

15-20 seconds: streaked upperparts, lack of prominent eye-stripe and very short tail. For next ten minutes, observed flying and uttering typical, evenly-spaced, monosyllabic call-note 'zip, zip' or 'zeep, zeep'.

The following additional notes were later received from IM:

'High, jerky flight with regular "zip, zip" monosyllabic call and fanning of distinctly short tail at each bound of flight'; and 'from about 20 m for about 10-15 seconds,

obvious field marks . . . small size, short tail and streaked brown upperparts with no prominent eye-stripe.'

The bird was rediscovered in the original area the next day and remained there until 5th September. The favoured marshy habitat was at sea-level and comprised sedge *Juncus* interspersed with common reeds *Phragmites australis* and stunted hawthorn bushes. The bird was sighted daily during its stay, although for long periods it could not be located. The best chances of seeing it were between 07.00 and 09.00 GMT and again around noon. Despite being in the area daily, I failed to obtain any close views of the bird at rest and my only non-flight sighting was for only a few seconds at over 200 m through 10 × 50 binoculars: when perched halfway up a bent reed stem, it was very similar in shape and colour (but not size) to a juvenile Whinchat *Saxicola rubetra*: the underparts were unstreaked and the head appeared to have a darkish cap. The song was difficult to describe, but was a rasping 'dzeep, dzeep, dzeep' rather than 'zip, zip, zip' or 'chip, chip, chip'. The irruption into song flight was often preceded by a single sharp 'tew'.

In view of the statement by I. J. Ferguson-Lees and Dr J. T. R. Sharroek (*Brit. Birds* 70: 157) that 'There is some evidence that autumn wanderers, possibly including birds of the year, sing and even build nest frameworks in areas remote from those in which breeding has occurred', it is interesting that the individual at Holme was once seen carrying what appeared to be nesting material.

PETER R. CLARKE

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## Reviews

**Bird Sounds and their Meaning.** By Rosemary Jellis. Foreword by Frank Fraser Darling and drawings by Derek Goodwin. 256 pages; 90 sound spectrograms and numerous marginal drawings of birds. Also,

double-sided long-playing record which gives sounds illustrated in the spectrograms. British Broadcasting Corporation, London, 1977. £4.95; record (OP 224) £3.00 plus VAT.

It is now over 15 years since the publication of any concise general guide to the study of bird song and bird utterances as communication systems. The appearance of this book by Rosemary Jellis is therefore an event of real importance to naturalists and biologists of many different persuasions. The author has risen magnificently to her opportunities and almost every aspect of the topic is covered. Thus, there is a chapter on the communication system, followed by one on the sounds made by birds; the latter includes sound-production and the sense of hearing, together with the methods for their analysis and interpretation. Then, there is an excellent chapter on the nature of 'full song' and its information content; on song-patterns and the way in which song is used at times other than the breeding season. Under the title 'Moods and Events', there is a general discussion of the function of call-notes in alarm, anxiety and aggression, and the use of calls for maintaining contact with other members of the species. This section concludes with a brief summary of the value of certain types of bird call for the purposes of echo-location, in the same way that the supersonic cries of bats enable them to find their way and catch their prey—even in the most complete darkness—by microsecond recognition of their own echoes. From this, we proceed to the early stages of vocalisation: noises made by the chick while still within the egg, and by newly-hatched nestlings and fledglings, up to the elaborate process of song learning by juveniles. Next comes a highly effective and lengthy chapter on the intriguing problem of local dialects in bird voices, especially songs. Striking examples are cited for the Chaffinch *Fringilla coelebs* and the Great Tit *Parus major* in this country and on the Continent; the songs of the Cardinal *Richmondia cardinalis* in North America; the extraordinary calls of the Hazel Grouse *Bonasa bonasia* and Black Grouse *Lyrurus tetrix*; and finally the modern and fascinating work on the dialects of the Saddle-back *Philesturnus carunculatus* of New Zealand.

This chapter raises many further topics of great interest, such as individual recognition, the evidence that vocalisations offer on evolutionary relationships between species, on imitation both within and between species, and, finally, on the capacity of certain species and individuals for great elaboration in their songs. These topics occupy four substantial chapters, and the book ends with a perspicacious discussion on the question of the 'musicality' of certain bird songs and on the 'How?' and 'Why?' of bird vocalisations in general.

This indeed is a formidable programme for a popular book of moderate size. Yet the ordinary birdwatcher need not be in the least put off by the technicalities discussed, for the writing is so simple, so plain and so interesting (and above all so well illustrated by the accompanying gramophone record) that even the veriest beginner in bird study will be led along easily. The book is scientifically fully up-to-date and is so thorough that the professional zoologist will, in his way, get as much out of it as will the newcomer to the subject.

W. H. THORPE

**Evolutionary Ecology.** Edited by Bernard Stonehouse and Christopher Perrins. Macmillan, London, 1977. 310 pages, diagrams and photographs. £12.95.

This stimulating book is a tribute to one of Britain's greatest ornithologists, David Lack. Although trained as a zoologist at Cambridge in the 1930s, such was then the shortage of ornithological posts that he did not become a professional biologist until he was 35 years old, by which time he had carried out vital research on Nightjars, Robins and the Galapagos finches, as well as formulating his first ideas on two important topics: the adaptations of closely-related species and the significance of reproductive rates, both of which he later developed in detail.

These 21 papers are by biologists from all over the world who either worked with him or were influenced (sometimes to strong disagreement) by his astonishing flow of ideas on basic problems. The papers are divided into four main sections: population regulation

and the functions of territory; feeding adaptations and ecological segregation; breeding adaptations and reproductive rates; and behaviour, adaptation and taxonomic relationships. They cover a large part of Lack's many interests, with the notable exception of his migration studies. With so many distinguished contributors, it is not possible in a short review to discuss or even list individual papers; suffice to say that, although most do not make easy reading, few are dull and many are highly stimulating, dealing trenchantly with some of the key issues of modern ornithology. All royalties have been dedicated to the David Lack Studentship of the British Ornithologists' Union. STANLEY CRAMP

## Letters

**Divers and ornithologists** C. J. Booth's note regarding disturbance of Red-throated Divers *Gavia stellata* (*Brit. Birds* 71: 44) prompts me to suggest that, as ornithologists, we should accept that divers are shy and need to be left in peace. In particular, there are already many pictures of divers and, surely, further photography of them at the nest can not be justified?

ARNO MAGNUSSON

*Ramsays Strand 5A, 00330 Helsinki 33, Finland*

**Identification of hybrid gulls** The note by Martin Davies (*Brit. Birds* 71: 80-82) documented an interesting immature gull, but no definite conclusion was reached regarding its identification: the distinction between a hybrid Glaucous Gull *Larus hyperboreus* × Herring Gull *L. argentatus* and a leucistic Herring Gull remains a problem. These pale birds show a good deal of variation (cf. Davies' Aberdeen bird with, for instance, that described by me in the *West Midland Bird Report for 1976*, pp. 16-17). In view of the frequency of mixed pairings in Iceland, hybrids are to be expected in Britain, and the Aberdeen gull seems to me more likely to have been a hybrid than a leucistic Herring Gull. The neat rows of spots and bars on the wing-coverts and scapulars suggest Glaucous influence, but, in particular, this probability is supported by the pattern of 'arrow-marks' on the primary tips: this is a normal feature of immature Glaucous and Iceland Gulls *L. glaucoides*, but not of Herring. The hybrid offspring of the mixed pair in Shetland (*Brit. Birds* 70: 13-14; 71: 23) have been colour-ringed (R. J. Tulloch *in litt.*), so perhaps a more definite idea of their appearance may eventually become available.

R. A. HUME

*31 Lime Grove, Burntwood, Walsall WS7 0HA*

## Diary dates

This list covers events taking place during July 1978 to June 1979. We welcome the submission of details of events for possible inclusion in the next list, covering January to December 1979.

**21st June-8th July** SOCIETY OF WILDLIFE Galleries, The Mall, London SW1. Open  
ARTISTS ANNUAL EXHIBITION. The Mall 10-5 Mon.-Fri.; 10-1 Sat.

**17th July** BRITISH ORNITHOLOGISTS' CLUB. M. W. Woodcock on 'The birds of Oman'. Central London. Non-members should write to the hon. secretary, c/o P. Hogg, 33 Vine Court Road, Sevenoaks, Kent.

**19th September** BOC. Sir Hugh Elliott, Bt, OBE, on 'Some problems of the heron family'. Central London.

**23rd September** RSPB SOUTHEAST ONE-DAY CONFERENCE. University of Sussex, Brighton. Applications to Conference Secretary, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

**29th September-1st October** BTO COMMON BIRDS CENSUS CONFERENCE. Pendley Manor, Tring. Applications to BTO, Beech Grove, Tring, Hertfordshire HP23 5NR.

**7th October** RSPB SCOTTISH ONE-DAY CONFERENCE. Octava Hotel, Edinburgh. Applications to Conference Secretary, RSPB.

**14th October** RSPB LONDON DAY/AGM. Cunard International Hotel, London. Applications to Conference Secretary, RSPB.

**21st October** RSPB BRISTOL ONE-DAY CONFERENCE. University of Bristol. Applications to Conference Secretary, RSPB.

**27th-29th October** SCOTTISH ORNITHOLOGISTS' CLUB ANNUAL CONFERENCE. Marine Hotel, North Berwick, East Lothian. Applications to SOC, 21 Regent Terrace, Edinburgh EH7 5BT.

**4th November** THE HAWK TRUST ONE-DAY CONFERENCE ON CURRENT RESEARCH AND BEHAVIOURAL ECOLOGY OF BIRDS OF

PREY. Meeting Rooms of the Zoological Society of London, Regent's Park, London NW1 4RY. Preliminary enquiries to The Hawk Trust, PO Box 1, Hungerford, Berkshire.

**21st November** BOU AUTUMN SCIENTIFIC MEETING (jointly with BRITISH ORNITHOLOGISTS' CLUB). Imperial College, London SW7. E. M. Nicholson CB on 'British ornithologists in Europe' and Peter Conder OBE on 'British ornithology in Europe'. Applications to BOU Office, c/o Zoological Society of London, Regent's Park, London NW1 4RY.

**1st-3rd December** BTO ANNUAL CONFERENCE. Hayes Conference Centre, Swanwick, Derbyshire. Applications to BTO.

**6th-8th January** BTO RINGING AND MIGRATION CONFERENCE. Hayes Conference Centre. Applications to BTO.

**9th January** BOC. J. H. R. Boswall on 'Mutual mimics, men as birds and birds as men—an ornithological frolic'. Central London.

**16th-18th February** BTO CONFERENCE. Hayes Conference Centre. Applications to BTO.

**Mid March to mid May** YOUNG ORNITHOLOGISTS' CLUB SUMMER MIGRANTS PHONE-IN.

**6th-8th April** RSPB MEMBERS' WEEKEND. Warwick University. Applications to Conference Secretary, RSPB.

**21st April** BOU AGM AND VISIT TO THE WILDFOWL TRUST, SLIMBRIDGE, GLOUCESTER.

## Announcement

**'British Birds' Binoculars and Telescopes Survey** The choice of a pair of binoculars has to be made at least once—and probably two or three times—in the life of any birdwatcher. Currently, the range of models on the market is as wide as it has ever been, both in quality and in price (which are not always as closely linked as perhaps they should be). Clearly, price is one of the most important factors governing selection, but, within any price bracket, there can be a bewildering choice of makes and models, while other influences, such as personal recommendation, advertising and articles or booklets on the subject, may still not be enough to make the final decision any easier.

With our eyes wide open, we hope, *British Birds* is going to enter the difficult arena of offering advice on the choosing of binoculars and telescopes. But first, we want to find out what our readers—who include, we

believe, many of the more experienced and active birdwatchers in the country—use themselves, why they chose that model, and whether they would select the same one again if replacement became necessary. With this knowledge behind us, we shall be able to base our subsequent recommendations not only on our own experience, but also on what birdwatchers are actually using.

Telescopes are much less common than binoculars, although they are almost essential for seawatching and long-distance observing on estuaries and large reservoirs. While binoculars have undoubtedly improved over the last 30 years, with lighter materials and straight-through (Dialyt) viewing, the revolution in telescope design has been far more dramatic. Gone are the old 'brass-and-glass' monsters of four draw-tubes extending several feet, and in their place have come short, comparatively light instruments with zoom magnification. The choice is less than for binoculars, but making the correct decision is, if anything, more important, since the cost is likely to be higher and the life longer. Again, we are asking for information from readers before making our recommendations.

A leaflet questionnaire is included in the centre of this issue, and may be easily detached. The completed form may be returned to us free of charge: put in an unstamped envelope and address to British Birds Binoculars and Telescopes Survey, FREEPOST, Macmillan Journals Ltd, 4 Little Essex Street, London WC2R 3BR. We hope that all subscribers will take part in this survey. EDS

## News and comment

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*Peter Conder and Mike Everett*

**Westray mink farm enquiry** Following a growing chorus of protests from local and national individuals and conservation organisations, the Secretary of State for Scotland held a public local enquiry under the Town and Country Planning Act at Kirkwall on 21st-24th February 1978, to determine whether he should put into effect draft orders cancelling local planning permission for the establishment of a mink farm on Westray: a new device used for the first time to obtain a public discussion of a debatable issue. The enquiry was conducted by the senior Scottish reporter, A. J. Hunt, who had already inspired much respect when he took the local enquiries for the Commission on the Third London Airport. It transpired that the applicant, George Drever, was a Westray man who had acquired experience of mink farming while living in Edinburgh, and

hoped in this way to provide three new jobs on depopulated Westray; his wife was particularly bitter at the way outsiders were obstructing this. Mike Matthew (Nature Conservancy Council), David Lea (RSPB Orkney representative) and I gave evidence that the farm would be situated close to a new RSPB reserve of international importance, containing one-third of the breeding seabirds in Orkney, over 5% of those in Britain and over 1% of those in northwest Europe (including 2% of the world population of the Razorbill); and Ian Linn of Exeter University, who first found mink breeding wild in Britain, testified that it is impossible to contain them. Papers and letters were also produced reporting that they have slaughtered wildfowl and seabirds where introduced in Iceland and Scandinavia and can swim at least 5 km, so that they

could spread throughout Orkney. The Chief Executive, G. Lapsley, replied for Orkney Council that our evidence was contradictory, that additional precautions imposed by the Council reduced the risk of escapes to a minimum, and that the damage if they did escape would be small; he complained that we were asking offensive personal questions when we enquired whether, even after grants from the Council and Highlands and Islands Development Board, the farm would be economically viable, although 11 out of 12 other farms started in northern islands have gone out of business within ten years. Unfortunately, a key witness for the Fauna Preservation Society, J. H. F. Stevenson, a former chairman of the Fur-farmers' Association, was prevented by the snow from attending to discuss this, and will be testifying by post. We are promised an early report. (Contributed by W. R. P. Bourne)

**1,000 birdwatchers at York** Over 1,000 members of the RSPB attended its 6th Annual Conference, held at York University from 31st March to 2nd April 1978. Derek Barber, after welcoming those attending, reminded them that, although the £1 million Appeal was officially closed, money was still coming in and the total received by 31st March was £1,212,000. John Crudass then described the reserves that he had been able to buy with the money. After Ian Prestt had introduced the 30 or so RSPB staff attending the conference, Michael Clegg, curator of the Yorkshire Museum, rounded off the first evening with a hilarious talk entitled 'Birds for Pleasure'.

On the Saturday, Frank Hamilton gave a sensitive talk 'Enjoying Scotland's Birds', Dr Derek Ratcliffe presented a scholarly, illustrated talk on 'Mountains and their Birds' and, in the evening, after the conference dinner, Richard Porter (fez-capped) entertained his audience with an account of the 'Big Migration' of raptors over Europe and the Middle East.

Sunday was devoted to RSPB matters: short talks by Ian Prestt, Peter Robinson (Investigations Officer) and police officer RSPB member David Davis on 'International and National Bird Protection', following which, members were given the floor to ask questions about RSPB policy, and, naturally, many questions centred on

the Amoco Cadiz disaster and its repercussions.

There were excursions to some of Yorkshire's famous birding places on both Saturday and Sunday. The usual *British Birds* mystery photograph competition was won by Michael Gibbons.

**Wyre Forest: a new NNR in the Midlands** The NCC has declared a new National Nature Reserve in the Wyre Forest. The Forest is one of the most important wildlife habitats in the Midlands and the woodlands are relicts of the former Royal Forest of Wyre.

The new reserve consists of approximately 240 ha of native broadleaved woodland lying astride the county boundaries of Hereford & Worcester and Salop.

Wyre Forest represents one of the largest surviving areas of native woodland in Great Britain. It is of particular interest as a meeting point for a number of native woodland types. The woodland of the plateau areas has as its main tree sessile oak *Quercus petraea*, the oak of northern and western Britain; pedunculate oak *Q. robur*, more typical of the south and Midlands, also occurs. In the valleys, the service-tree *Sorbus domestica* and small-leaved lime *Tilia cordata*, which have affinities with the limestone woodlands of the south and west, occur.

Wyre Forest contains many scarce and interesting plants including columbine *Aquilegia vulgaris*, lily-of-the-valley *Convallaria majalis* and wood crane's-bill *Geranium sylvaticum*. The Forest is famous for its animal life—fallow deer, otter, dormouse and several species of bats—and it is a refuge for a number of nationally rare insects, including the terrestrial caddis fly. Over 320 species of fungi have been recorded. Breeding birds include Pied Flycatchers, Wood and Grasshopper Warblers.

The public are asked to keep to the footpaths throughout the reserve. A permit is required to collect specimens or to carry out research.

**An observatory down under** Undoubtedly one of the world's more remote observatories has just been established at Twilight Cove, Eyre, on the Nullarbor coast of Western Australia. This, the

continent's first bird observatory, is situated just off the new trans-Australia highway, at a formerly deserted telegraph office. On this stretch of uninhabited coast, the semi-desert Nullarbor Plain meets the Great Australian Bight some 1,000 km southeast of Perth. Here, Eyre Bird Observatory is being developed by the Royal Australian Ornithologists' Union in conjunction with the WA Department of Fisheries and Wildlife.

The Australians are keen to encourage ornithologists from overseas to visit Eyre. Birds to be found in the immediate vicinity include Emu, Mallee Fowl, Major Mitchell Cockatoo, migrating honeyeaters, pardalotes and silvereyes.

Fairy Penguins breed under the cliffs and, in winter, movements of albatrosses and other southern seabirds occur.

Full board is available at A\$60 (less than £40) per week. For further details about accommodation and public transport from Perth or Adelaide, contact the Warden, Eyre Bird Observatory Outpost, via Kalgoorlie, Western Australia.

**'Birdwatching in the Cotswold Water Park'** This booklet was noticed earlier (*Brit. Birds* 71: 142); we are now informed that it can be obtained from R. O. B. Garnett, Rowan Cottage, Dog Lane, Crickley Hill, Witcombe, Gloucester (price 60p, inclusive of postage).

**Research on tuberculosis in badgers and other wildlife** The NCC, as statutory adviser to the Government on

wildlife conservation, has commissioned a programme of research aimed at examining the implications of tuberculosis for other species of wildlife, as well as for the badger. The three-year study is being undertaken by the Department of Medical Microbiology at the London School of Hygiene and Tropical Medicine. It will look in particular at the causative organism *Mycobacteria* in all its forms relevant to potential hosts among wildlife. This study parallels the investigations being carried out by the Ministry of Agriculture, Fisheries and Food, whose concern is with the agricultural aspects of bovine TB. There is close liaison and co-operation between the two organisations. The NCC, as a member of the Consultative Panel on Badgers and Tuberculosis, recognises, on the basis of present evidence, that it is necessary to control TB both in badgers and in cattle. TB in badgers is widespread in the southwest, Gloucestershire and Avon, and the NCC is concerned to prevent further spread.

**New director for the BTO** Dr R. J. O'Connor has been appointed director of the British Trust for Ornithology, a post vacated by Dr J. J. M. Flegg in 1976. Raymond O'Connor read Physics at Dublin University and then moved to the Edward Grey Institute of Field Ornithology at Oxford, where he studied growth patterns in birds; in 1974, he went to the Zoology Department of the University College of North Wales, Bangor. He takes up his new appointment on 1st July.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers March and the first half of April; except where otherwise stated, all dates refer to March.

Despite a rather bright start to the month, March was a dreary period for birdwatchers generally. The predominant westerly or northerly airstreams were not conducive to bringing migrants into the country. Those that did appear chiefly

turned up in three periods: the first few days, 10th-11th and 27th-30th, the last period being the most fruitful.

### Seabirds

**Divers** *Gavia* have been relatively scarce on the Yorkshire coast this March, but at Dungeness (Kent) record numbers were counted during a movement on 28th, when

504 (including 460 **Red-throated G. stellata**) moved east, with a further 141 on the following day. Also on 28th at Dungeness, nearly 2,000 **Common Scoters** *Melanitta nigra*, 81 **Sandwich Terns** *Sterna sandvicensis* and ten **Whimbrels** *Numenius phaeopus* moved east among other seabirds. A **Black-throated Diver** *G. arctica* appeared inland at Bartley (West Midlands) on 13th; earlier, on 24th February, a **Red-throated Diver** and nine **Slavonian Grebes** *Podiceps auritus* had turned up at this locality. An **Iceland Gull** *Larus glaucoides* at Ballinasloe (Co. Galway) on 6th was very unusual so far inland in Ireland. An **Arctic Tern** *S. paradisaea* at Filey Brigg (North Yorkshire) on 24th was extremely early and there was a **Little Auk** *Alle alle* at the same point in early April. Notable early April seabird sightings from Flamborough Head (North Humberside) were a **Manx Shearwater** *Puffinus puffinus* of the Balearic race *mauretanicus* on 15th and an adult **Sabine's Gull** *L. sabini* on the following day.

#### Waders and waterside birds

There were few waders of note, with the exception of single **Long-billed Dowitchers** *Limnodromus scolopaceus* at Hayle estuary (Cornwall) and Weymouth (Dorset), the latter on 9th April. A small influx of **Kentish Plovers** *Charadrius alexandrinus* appeared in the southeast in early April, with three at Dungeness, two at Sandwich Bay (also Kent) and one at Staines (Surrey). A **Grey Phalarope** *Phalaropus fulicarius* turned up at Filey Brigg on 2nd, on the same day as a **Crane** *Grus grus* at Stodmarsh (Kent); there was another Crane at Bayfield Hall (Norfolk) over Easter. Two **Spoonbills** *Platalea leucorodia* were seen at Pegwell Bay (Kent) on 29th and a **Spotted Crake** *Porzana porzana* at Flamborough on 10th April.

#### Scarce landbirds

With the start of the spring migration, passerine rarities appear; so far this year there have been some surprises quite early in the season. Yet another **Alpine Accentor** *Prunella collaris* was reported, at Portland (Dorset) on 8th April, and there was a **Little Bunting** *Emberiza pusilla* at Staines on the same day, a male **Black-eared Wheatear** *Oenanthe hispanica* at Dungeness

on 2nd April and two **Serins** *Serinus serinus* at Littlehampton (Sussex) on 6th April, where one is reported to have overwintered. An **American Robin** *Turdus*



*migratorius* which was found near Lee on Solent (Hampshire) in mid March was reported to be still around a month later. Perhaps the most interesting was a small influx of **Hoopoes** *Upupa epops*, with one at Wells (Norfolk) on 9th, two at Winterton (also Norfolk) and four in Bedfordshire in late March.

#### Summer arrivals and passerines

The first wave of arriving migrants came in late February and early March, with single **Wheatears** *O. oenanthe* as far north as Ladywalk (West Midlands) on 26th February. A few **Chiffchaffs** *Phylloscopus collybita* appeared at this time, but some may have been wandering overwinterers. A few **Sand Martins** *Riparia riparia* were also reported at this time: one at Yoxall (Staffordshire) on 4th, and then others north to Yorkshire by 16th, although numbers through the latter half of the month and into April were decidedly low. **Swallows** *Hirundo rustica* were also thin on the ground, from the first at Dungeness on 21st; and the earliest **Garganey** *Anas querquedula* that we heard of were three at Heybridge gravel pits (Essex) on 4th. During the first week of April, **Willow Warblers** *P. trochilus* arrived, but once again numbers of this species, and of **Blackcaps** *Sylvia atricapilla*, were low. Dungeness had its first fall of the spring on 29th, which included 100 **Wheatears**, 12 **Firecrests** *Regulus ignicapillus* and 20 **Black Redstarts** *Phoenicurus ochruros*.

#### Latest news

In mid May, Stodmarsh (Kent) was the place to be: **Pallid Swift** *Apus pallidus* 13th-21st, male **Blue-winged Teal** *Anas discors* 9th-20th, **Crane** *Grus grus* 20th-21st. Also, **Broad-billed Sandpiper** *Limicola falcinellus* at Minsmere (Suffolk) 19th-21st and **Whiskered Tern** *Chlidonias hybridus* at Warsash (Hampshire) on 20th.

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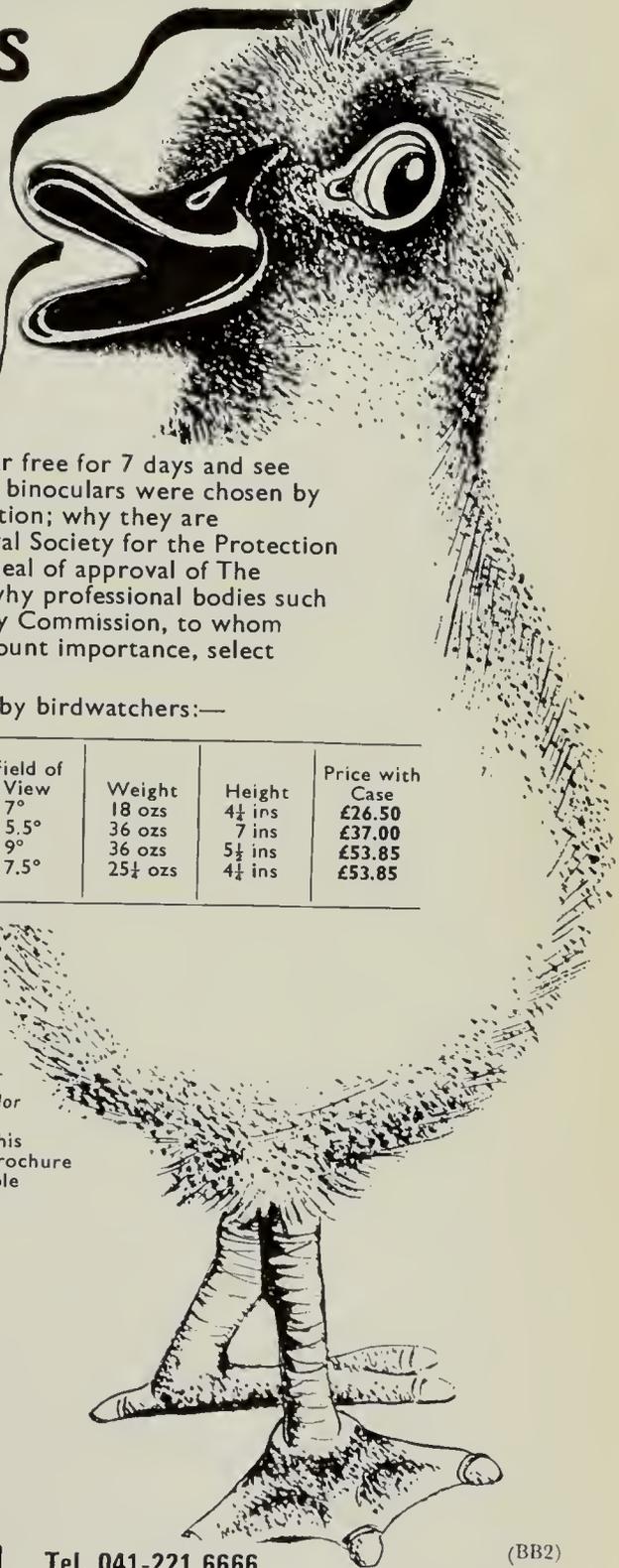
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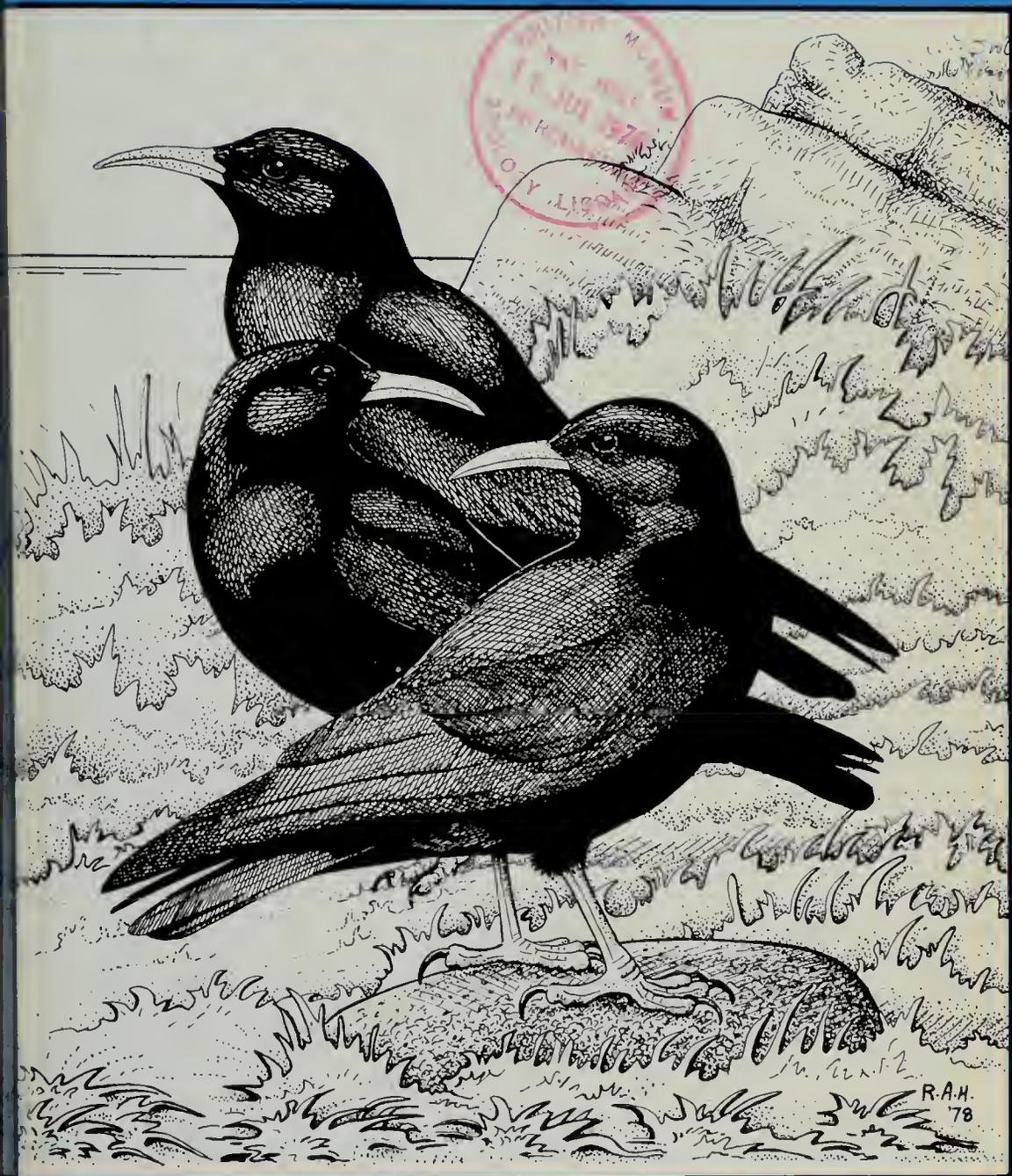
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# British Birds

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**Breeding Bitterns in Britain**

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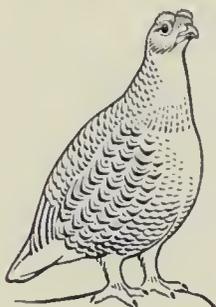
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# British Birds



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# British Birds

VOLUME 71 NUMBER 7 JULY 1978



## Breeding Bitterns in Britain

J. C. U. Day  
and J. Wilson

**There have been reports that Bittern numbers are declining. Do census counts confirm this? What factors are affecting the British populations?**



**T**he Bittern *Botaurus stellaris* was the first of six former breeding birds to recolonise Britain this century, preceding the next, the Avocet *Recurvirostra avosetta*, by 35 years. This paper draws together for the first time the rather scattered references in the literature to the recolonisation and subsequent range and population fluctuations. The results of a national census in spring 1976 are presented, and some of the factors which may have affected—and could still be influencing—Bittern populations are discussed.

### Recolonisation and increase up to 1930

By the last quarter of the 19th century, the Bittern had disappeared as a breeding bird in Britain: the last eggs had been taken in Norfolk in 1868, and the last proof of breeding (the sighting of downy young) had been in 1886, also in Norfolk.

Although Bitterns continued to winter in Britain, it was not until 1900 that booming was again heard in the Broads district of Norfolk (Riviere 1930); and, although it was heard there intermittently, and also in Suffolk in 1901 (Ticehurst 1932), breeding was not proved again until a nest and young were found at Sutton Broad, Norfolk, in 1911 (Turner 1924). For the next 18 years, there were no breeding records outside the Norfolk Broads, apart from an unsubstantiated report from Suffolk in 1916 (Ticehurst 1932). During this time, numbers slowly built up in Norfolk. Breeding was proved next at Hickling in 1917, although there was some evidence of nesting at Sutton in the intervening period (Riviere 1930). In 1918, Turner (1924) estimated the Broadland population at nine pairs (in this paper the terms 'pairs' and 'boomers' are used synonymously): two at Sutton, four at Hickling and three elsewhere, two of them possibly at Horsey and Catfield. By 1919, this number had increased to 12-13 pairs (Gurney 1919) and, apart from the now well-established Hickling/Horsey area (six boomers), the species had spread south down the Ant valley and was recorded for the first time in the Bure valley at Hoveton. In 1921, at least ten pairs bred successfully, and in 1923 Turner (1924) found 11 nests and estimated 16-17 breeding pairs: 11 at Hickling/Horsey and the rest in the Bure and Ant valleys.

For the next few years, the population—still confined to the Broads—continued to increase. Booming was heard for the first time in the Yare valley in 1928, when Riviere (1930) estimated the total Norfolk breeding population at 23-25 pairs. In 1929, despite severe frosts in early spring, breeding was first proved outside Norfolk, at Thorpe Fen, Suffolk; and

115. Bittern *Botaurus stellaris* settling on eggs, Norfolk, May 1940 (Eric Hosking)





116. Bittern *Botaurus stellaris* swallowing eel *Anguilla anguilla*, Norfolk, May 1941 (Eric Hosking)

booming was heard also in Hampshire, although there was no evidence of breeding there.

#### 1931-54

The next 25 years saw a period of consolidation and slow expansion: by 1954, Bitterns were breeding regularly in seven counties and had bred once in an eighth. Since no organised census was carried out until 1954, population levels during the 1930s and 1940s are hard to estimate: the

evidence available from local bird reports seems to suggest, however, that most of the expansion—in both population and range—took place after the late 1930s; and that, up to 1936, the situation remained fairly stable in Norfolk, and in Suffolk there was only a slight increase, with up to six pairs at three sites. Breeding had been suspected in Kent in 1935, although subsequent records suggest that it was probably not until 1938 that the species became established (Harrison 1953).

In 1937, there was the only record of regular booming in Scotland this century (Baxter & Rintoul 1953); and the first regular booming was recorded at Leighton Moss, Lancashire (Coombes 1949): a site which was to become increasingly important. At about this time, booming was first heard in Ireland, but without proof of breeding (Kennedy *et al.* 1954); and, in 1938, breeding was proved for the first time outside Norfolk and Suffolk, at Burwell Fen (Ennion 1949): unfortunately, the first and only breeding record for Cambridgeshire in the last 150 years.

During the 1940s, the same trend continued and, by 1953, 13-14 pairs were breeding in Suffolk, at up to six sites. At Minsmere, where a large reed-bed had become established following wartime inundation of former grazing marshes, nine boomers were recorded, as against three ten years earlier (RSPB). Boomers had become well established in Lancashire, and there was an unconfirmed breeding record in 1946 (Eric Hardy *in litt.*); in the Stour Valley, Kent, breeding was not proved until 1948, probably ten years after the likely date of establishment (Harrison 1953). In Lincolnshire, following an unsubstantiated breeding record in the early 1940s, breeding was finally proved in 1949. An unconfirmed breeding record for Hampshire in 1942 (Cohen 1963), further booming in Ireland in 1945 (Ruttledge 1966) and first booming for Somerset in 1952 (Palmer & Ballance 1968) were signs of a further spread.

Despite all this activity, even by 1950, probably only some 15 pairs were breeding outside Norfolk: nearly 40 years after the original re-colonisation, the bulk of the British breeding population was still on the Norfolk Broads; the only other site in that county was Cley, where, following the first breeding in 1937, the population had increased to two or three regular pairs.

The first attempt to census the Bittern population in Norfolk was in 1954 and it revealed a total of about 60 pairs, including two boomers at Sutton, the original site, and 20 in the Hickling/Horsey complex (Seago 1967). By this time, there were 19-22 pairs outside Norfolk, giving a total British breeding population in 1954 of just over 80 pairs.

### 1955-70

During the 1950s and 1960s, the spread in range continued (albeit at a slower rate), while, at a number of sites first colonised in the 1940s, Bitterns became regular breeders.

In Lancashire, breeding was confirmed at Leighton Moss in 1958 (Spencer 1973), and a steady increase began in that county and continued throughout the 1960s until, by 1970, ten males were booming. Booming was first recorded in north Wales in 1955, but breeding was not



117. Bittern *Botaurus stellaris* removing egg-shell from nest with three chicks, Suffolk, June 1950 (Eric Hosking)

proved until 1968; two years later there were as many as five regular boomers.

In Lincolnshire, the Bittern became established during the 1950s and 1960s, and in 1968 six were booming (J. D. Wright *in litt.*); while, in Somerset, booming was heard regularly during the late 1950s (Palmer & Ballance 1968), and by 1970 probably two pairs were breeding regularly (D. E. Paull *in litt.*). In Kent, numbers built up to as many as nine boomers in the early 1960s, then fell to three or four by 1970.

Breeding was proved in Northumberland in 1956, and possibly also occurred in 1957, 1958 and 1960, indicating continuing spread, but the birds disappeared and there have been no further breeding records for the county (I. Armstrong verbally).

In 1962, booming was heard again in Ireland (Major R. F. Rutledge *in litt.*) and in Yorkshire (J. L. F. Parslow *in litt.*), but these were isolated records. At a new site in south Wales, however, a pair probably bred in 1969 and 1970, when possible breeding was again reported from Hampshire.

During the whole of this period, the Suffolk population was slowly increasing, but, in marked contrast, a serious decline was taking place in Norfolk. In 1970, M. J. Seago organised a second survey of booming males in Norfolk, where, following a fall at Cley from four pairs in the early 1950s to none in 1963, the species was once again confined to the Broads. This revealed an alarming decline, with no regular boomers on the Yare, a reduction almost everywhere on the Bure, and numbers slightly down on the Ant and at Hickling and Horsey: altogether, numbers had dropped by 55%, from 60 boomers in 1954 to 27 in 1970.

This decline in Norfolk seems to have started in the late 1950s and early 1960s, but was partly balanced by increases elsewhere in the country so that, by 1970, the total British breeding population was probably in the region of 70 pairs.

Colonisation and first breeding records from 1900 to 1970 are summarised in table 1.

### The current position

In summer 1976, a national survey of Bitterns, based on the presence of regular booming males during March-April, revealed a state of affairs exceeding the worst expectations. The slow decline in Norfolk has, since 1970, accelerated and total numbers have slumped from 27 boomers to

**Table 1. Summary of recolonisation of Britain by Bitterns** *Botaurus stellaris*  
For references, see text

1900	First booming record on Norfolk Broads
1901	First booming record in Suffolk
1911	Proved breeding at Sutton Broad, Norfolk
1917	First breeding record at Hickling, Norfolk
1919	12-13 pairs on Norfolk Broads
1928	23-25 pairs on Norfolk Broads
1929	First proved breeding at Thorpeness, Suffolk
1935	Unconfirmed reports of breeding in Kent
1937	First bred at Cley, Norfolk; booming at Leighton Moss, Lancashire
1938	Proved breeding at Burwell Fen, Cambridgeshire
1943	First recorded breeding at Minsmere, Suffolk
1948	First proved breeding in Kent
1949	First proved breeding in Lincolnshire
1952	First booming record in Somerset
1955	First booming record in north Wales
1956	Proved breeding in Northumberland
1958	Proved breeding at Leighton Moss
1969	First booming record in south Wales

**Table 2. Numbers of breeding pairs of Bitterns *Botaurus stellaris* in Britain in census years 1954, 1970 and 1976**

	1954	1970	1976
Norfolk	60	27	10
Suffolk	14-15	16-17	21-22
Kent	1-2	3-4	0
Lancashire	1-2	10	10
Lincolnshire	1	5-6	1-2
North Wales	1-2	5	2
Somerset	1?	1-2	1
South Wales	0	1	0
TOTALS	78-83	68-72	45-47

only ten: apart from one at Cley, all these were in the Broads area, but, for the first time since 1917, none was heard at Hickling; the Horsey/Martham/Starch grass area held five and the original 1911 site, Sutton Broad, held one; regular boomers were present at only three other sites.

This decline, although less marked, has been paralleled elsewhere in the country. In north Wales, numbers are down to two boomers, and in south Wales none was present at all in 1976. In Somerset, the species retains a precarious hold, with only one boomer in each year since 1972 (D. E. Paull *in litt.*). In Lincolnshire, there has been a drop from five or six booming males in 1970 to only one, possibly two, in 1976 (J. D. Wright *in litt.*). This pattern is repeated in Kent, where no regular boomers have been heard for three years (P. J. Mountford verbally).

Fortunately, and in marked contrast, the Suffolk population has risen to 21-22 boomers, but the number of sites has dropped from at least six in 1971 to only three in 1976: Minsmere (13 boomers), Walberswick (seven or eight) and one other site. In Lancashire, numbers have remained steady, with ten regular boomers, nine of them at Leighton Moss.

The present situation, therefore, shows a total of 45-47 regular boomers at 16 sites in six counties. The results of the 1976 survey, together with the population estimates for 1954 and 1970, are summarised in table 2.

### Factors affecting numbers

The recolonisation of Norfolk and subsequent spread there owed much to the interest in, and protection given to, the species by enlightened private landowners and naturalists. Despite this, the 19th-century attitudes lingered on: B. B. Riviere collected evidence of 15 Bitterns having been shot between midsummer 1917 and mid 1918, while in 1928 the RSPB took the unusual step of issuing a public appeal to all sportsmen to afford the species special protection.

A greater public awareness of the need to conserve rare birds, possibly helped by a reduction in sporting pursuits during the First World War, helped the Bittern to become firmly established in Norfolk by 1930. During the next 30 years, numbers increased, assisted by the founding of wetland reserves by bodies such as the Norfolk Naturalists Trust and the Nature Conservancy (now Nature Conservancy Council). Despite this, sporadic persecution continued, and there is strong evidence that the Bitterns breeding in Northumberland in the early 1960s were shot.



118. Bittern *Botaurus stellaris* regurgitating food for young, Suffolk, June 1950 (*Eric Hosking*)

The creation of large new beds of reeds *Phragmites*, with old dyke systems, for example at Minsmere in 1940-43 and Stodmarsh in 1935-37, provided ideal conditions for the species to extend its range. Such sites have rapidly grown in importance as the Norfolk population has dwindled during the last 20 years, and today about 64% of the British breeding population is found at only three sites: the RSPB reserves at Leighton Moss and Minsmere, and the NCC reserve at Walberswick. The causes of the recent decline are difficult to establish, but a number of factors may have been—and may still be—relevant, and these are examined below.

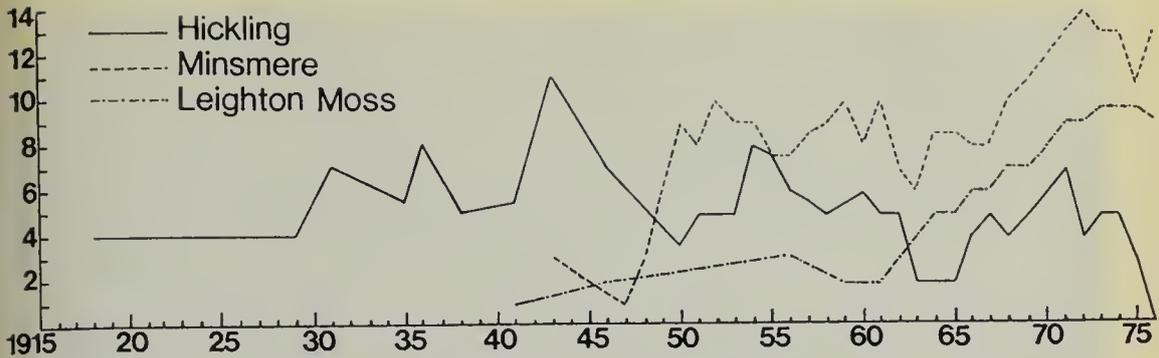


Fig. 1. Numbers of booming male Bitterns *Botaurus stellaris* at Hickling, Norfolk, Minsmere, Suffolk, and Leighton Moss, Lancashire, 1916-76

### Hard weather

There are many records of Bitterns found dead during severe spells of frost and snow (e.g. Riviere 1930, Bannerman 1957, Payn 1962, local bird reports), most in the exceptionally hard weather in early 1923, 1929, 1940-42, 1947 and, especially, 1962-63. It is difficult to know how drastically these winters affected the native population, since many of the dead birds may have been Continental ones wintering here. Foreign-ringed Bitterns recovered in Britain in winter have originated from the breeding populations in the Netherlands, Belgium, Germany and Sweden. In the Netherlands, it was estimated that the 1955/56 winter killed between 11% and 23% of the resident Bitterns (Braaksma 1958); there was probably an even heavier mortality in 1963.

In Britain, hand-feeding of captive, starving Bitterns, which were later released, has helped to maintain numbers at some sites, such as at Minsmere in 1962/63 (RSPB); elsewhere, Bitterns have been observed congregating to feed at open water in the ice: at Leighton Moss, up to six fed where the freshwater springs stayed open even during the severest frosts (J. A. G. Barnes verbally). The evidence available suggests that, even though mortality may be heavy, populations can recover fairly quickly: at Hickling and Horsey, for instance, numbers had recovered to their pre-1963 level by 1970. In contrast, Bitterns did not recolonise Cley, from where they disappeared in 1963, until 1971. Severe winters may affect the species in the short term, but are unlikely to have been a factor in the recent decline.

Regionally, weather patterns can have markedly different effects. Fig. 1 shows population changes at Hickling, Minsmere and Leighton Moss since the date of establishment at each. The two east coast sites show a close correlation until 1970, with a peak in the first half of the 1950s followed by a slight drop in 1956, reflecting the hard winter of that year, and a subsequent increase; at both, the population dropped sharply after the 1963 winter, then recovered steadily until 1970, when the Hickling numbers decreased rapidly. In contrast, at Leighton Moss, although the 1956 winter had a slight effect, Bittern numbers climbed steadily through 1963, when the weather on the western coast was much milder and the hard frosts shorter and less severe.

Since 1969, a succession of exceptionally mild winters has resulted in



119. Bittern *Botaurus stellaris* at nest with five young, South Humberside, June 1951  
(Harold Auger)

high populations of other resident species normally affected by cold (Batten & Marchant 1976); one would have expected Bittern populations to follow this trend, if weather were the main factor affecting their numbers.

#### *Coypus*

Coypus *Myocastor coypus* first appeared on the Norfolk Broads in the early 1940s, as escapes and releases from fur farms set up in the previous decade. They slowly increased in numbers and spread throughout Broadland and into Suffolk; then, following a severe setback in the hard weather of 1946/47, an increase took place until, by 1963, the population had reached an estimated 200,000 (Norris 1967). The winter of 1963 severely affected the

numbers and until 1970 they remained at a much-reduced level, but there is now evidence of another build-up (Gosling 1974, 1975).

It has been suggested that the populations of Bitterns and of some other marshland birds were affected by the large coypu numbers in the late 1950s and early 1960s. At Hickling, large areas of reed-swamp were grazed—in some places to the point where open water was created—by hundreds of coypus (A. Beales verbally): while Marsh Harriers *Circus aeruginosus* declined from three pairs in 1953 to one pair in 1960 and none in 1961, the Bittern population remained remarkably stable at five to seven boomers right up to the 1962/63 winter. Although there is some indication that preening coypus have trampled nesting or display platforms of Great Crested Grebes *Podiceps cristatus* (RSPB) and have disturbed nests of Moorhens *Gallinula chloropus* (G. Atkinson *in litt.*), there seems to be no direct evidence of their affecting Bitterns. Great Crested Grebes do, however, breed in good numbers alongside a high coypu population in the Yare valley (G. Atkinson *in litt.*). Although a large population of these big rodents in a reed-bed must cause a degree of disturbance and varying damage to the vegetation, the available evidence suggests that, as far as Bitterns are concerned, this is possibly a significant factor only at a very local level.

#### *Human disturbance*

Disturbance of Bitterns at the nest is unlikely, since most of the main sites are protected and the nature of the habitat will deter all but the most determined. Disturbance of feeding birds is much more probable. On the Broads, boat traffic has increased enormously. In 1947, 3,400 licences were issued, 1,250 for powerboats; in 1976, the total was 11,644, an increase of 242%, while the number of powerboat licences had risen by nearly 640%, to 9,247. Most of this increase, however, took place before 1967, and since then boat usage has not grown significantly (records of the Great Yarmouth Port and Haven Commissioners). At the same time, other forms of recreation on or around waterways, particularly angling, have increased enormously. While it is difficult to prove that this has directly affected Bitterns, it seems probable that, on the Broads at least, additional human activity on the edges of the reed-beds and on waterway margins has reduced the availability of undisturbed feeding sites.

#### *Reed-cutting and reed-burning*

On the Norfolk Broads, reeds have been harvested for a very long time, but comparative figures for the period under review are difficult to obtain. At Hickling, for instance, a far smaller area is cut now than formerly; the annual amount has remained constant for the last ten years and has been taken largely from places which have not traditionally been used by nesting Bitterns (S. Linsell *in litt.*). On the Norfolk coast, at Cley, about one-third of a very much smaller bed of 30 acres (12 ha) was cut each year between 1938 and 1969, and Bitterns bred right through this period until the hard winter of 1963; regular booming was heard in 1971 and, apart from 1975, every year since; cutting began again in 1976, when 10

acres (4 ha) were cut (P. Stevens verbally). In Suffolk, at Walberswick, reeds have been cut for many years and Bitterns breed around the cut areas (C. Waller *in litt.*), presumably taking advantage of the 'edge' effect and the flooded reed stubble for feeding. The evidence from these three sites suggests that reed-cutting has not directly affected Bittern numbers.

Disturbance may occur if cutting or burning takes place too late, into the breeding season (i.e. after mid March in East Anglia), and uncontrolled burning can also be damaging. This was probably the case at Leighton Moss, where the population increased from five boomers in 1964 to nine or ten by 1972, following the cessation of regular large-scale burning which was carried out each year to improve duck shooting. In the short term, reed-cutting is unlikely to harm Bittern populations at the bigger sites, where large uncut areas are left; but on smaller sites, where a proportionately larger area is cut, they could be affected. In the long term, controlled cutting probably benefits Bitterns, since it results in areas of reeds being kept free from scrub and, at many sites, the dykes are maintained as canals for removing reed bundles. In many reed-bed localities, these dykes are the main open water habitat, providing not only fishing sites for Bitterns, but aquatic pathways along which fish and amphibians can move.

#### *Loss of habitat*

There has been no significant loss by drainage or development in either the number or the area of the larger reed-beds where Bitterns have bred this century, except at Wicken Fen. Indeed, as has been shown, several important new ones have been created. In Norfolk, George (1977), however, has drawn attention to the loss of marginal reed-swamp on the Broads and beside the associated river systems. The reasons for this are not as yet fully understood, but he suggested that several factors, including eutrophication, mechanical damage, and wave action generated by boat traffic, could be responsible. This dieback has reduced considerably the reed cover at the edge of open water, a favoured feeding habitat for Bitterns.

In addition, many beds, especially those on the Broads, have probably become less suitable for Bitterns. This is due in part to a reduction in open water areas, not only from the natural succession of fen vegetation aided by silting, but from a decrease in dyke maintenance and a lowering of coypu numbers. This may have been further aggravated by a series of dry summers since 1970.

It may be significant that Leighton Moss and Minsmere, both previously agricultural land, retain intact the old field dyke systems within the reed-beds, together with substantial areas of open water; whereas at Stodmarsh, for instance, many ditches have become choked and silted (P. J. Mountford verbally). At many sites, the area of open reed has also been severely reduced by encroaching scrub willow *Salix* and alder *Alnus glutinosa*.

#### *Pollution*

Recent publicity has drawn attention to the ecological deterioration of

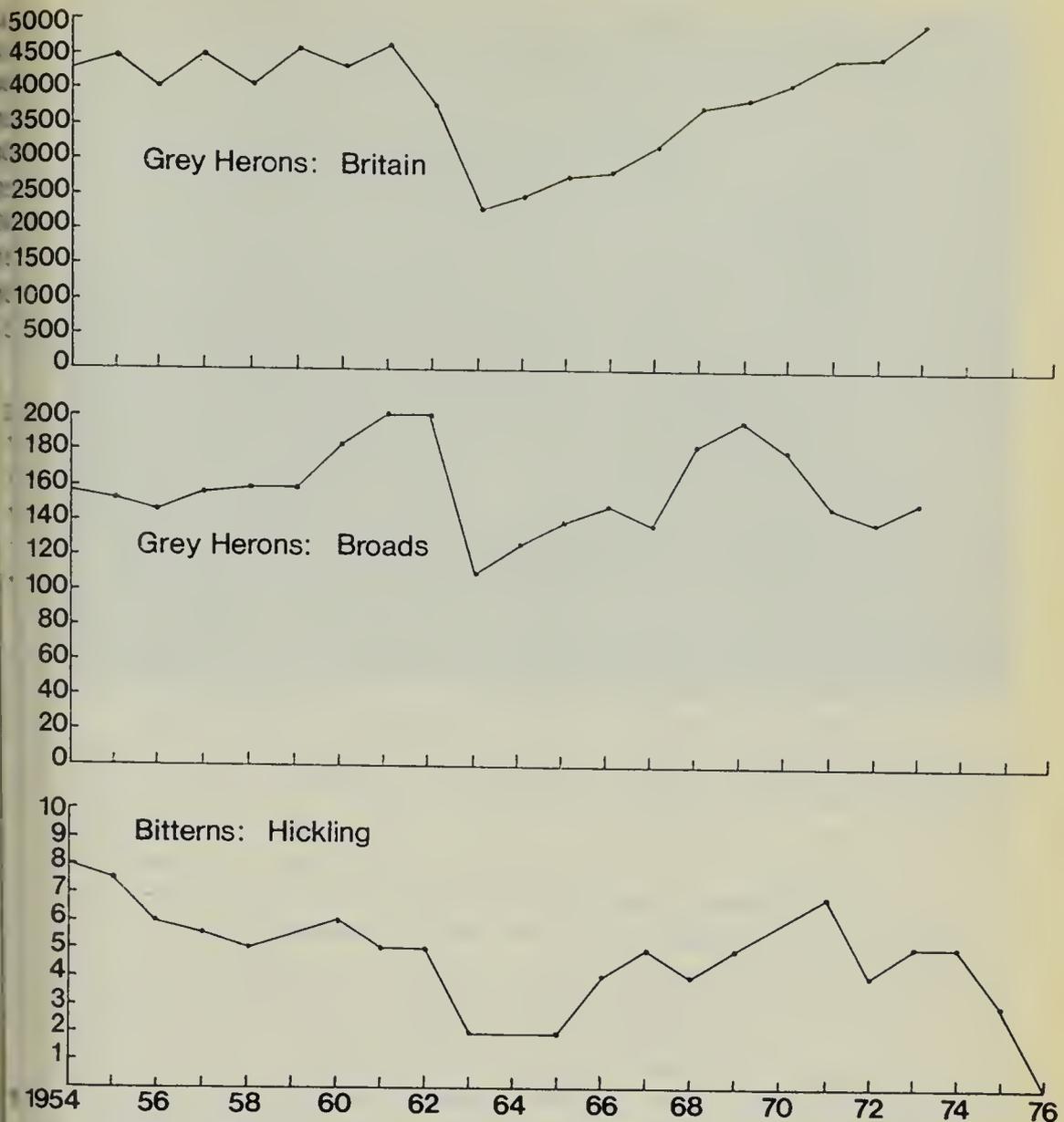


Fig. 2. Upper, national censuses of nests of Grey Herons *Ardea cinerea* (Stafford 1971 and Reynolds 1974); centre, number of nests of Grey Herons in the Norfolk Broads 1954-73; lower, pairs of Bitterns *Botaurus stellaris* at Hickling, Norfolk, 1954-76

the Broads and to the research being undertaken to help identify corrective measures. It has been suggested that eutrophication, caused mainly by nitrates and phosphates, combined with silting and turbidity, have been important factors in the impoverishment of the aquatic flora and benthic (bottom-dwelling) fauna (George 1976). At Hickling and Horsey, salt-water seepage could be a further complication.

This deterioration of the Broadland ecosystem may have affected amphibian and fish populations and, in turn, their predators, including fish-eaters such as the Bittern and the Grey Heron *Ardea cinerea*. Furthermore, the increased turbidity may make it more difficult for these species to locate and catch their prey.

Fig. 2 shows the Hickling population of Bitterns, based on the number



120. Bittern *Botaurus stellaris*, Netherlands, January 1977 (Frits Houtkamp)

of boomers, between 1954 and 1976; this is compared with both the Broadland and the national Grey Heron censuses from 1954 to 1973 (the last date for which figures, based on nest counts, are available). The three graphs show a broad similarity in population fluctuations between 1954 and the late 1960s, with both species responding nationally and locally to the 1955/56 and 1961-63 series of cold winters.

Nationally, heron populations show a steady recovery from 1963; on the Broads, however, numbers decline from 1969, although there is a slight increase in 1973 (unfortunately, we do not know whether this has been maintained). The Bittern shows a similar pattern, but the decline starts two years later, in 1971/72, and, despite a short recovery, continues into 1976. The figures seem to suggest that local factors are affecting populations of both species on the Broads.

Outside Norfolk, for instance in Kent and Lincolnshire, no evidence is available that pollution has caused the decline; in Suffolk, however, the reeds in some coastal beds have been affected by saltwater inundation, and this could explain the fall in the number of sites used by Bitterns in that county.

### Conclusion

It seems probable that pollution has been the main factor affecting Bitterns on the Broads, and that habitat deterioration and increased disturbance could also have played a part. Elsewhere, no clear pattern emerges and the declines are largely unexplained, particularly in Kent, Lincolnshire and north Wales. There is no evidence to suggest that any one factor may be responsible, but further investigation may show that habitat deteriora-

tion has occurred. What seems clear, however, is that, at those sites where the Bittern does still breed, protection by reserve status is not in itself enough; a programme of active management combined with monitoring of water quality, and possible artificial feeding in cold winters, may do much to help maintain numbers

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### Summary

The recolonisation of Britain by the Bittern *Botaurus stellaris*, and its subsequent fluctuations in population and range, are documented from 1900 to 1976. Estimates showed a national breeding population of 79-83 pairs in 1954, 68-72 in 1970 and only 45-47 pairs in 1976. Possible reasons for this decline are advanced and discussed. On the Norfolk Broads, where the decline has been most marked, habitat deterioration caused mainly by pollution appears to be substantially responsible. Elsewhere, the reasons are unclear.

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## Special review

**Handbook of the Birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic. Volume 1. Ostrich to Ducks.** Edited by Stanley Cramp (chief editor) and K. E. L. Simmons, I. J. Ferguson-Lees, Robert Gillmor, P. A. D. Hollom, Robert Hudson, E. M. Nicholson, M. A. Ogilvie, P. J. S. Olney, K. H. Voous and Jan Wattel. Oxford University Press, 1977. 722 pages, 108 colour plates, 199 line-drawings, 168 maps, numerous diagrams. £25.00.

With the publication of the first volume of *BWP*—an acronym already as well established an ornithological household word as *Handbook* before it—the size and scope of the enterprise can at last be fully appreciated. Hitherto its parameters have probably been known to comparatively few of the 283 contributors named in the title-page, introduction and acknowledgements, though doubtless many members of organisations whose support is also acknowledged have been aware of the formidable nature of the task in hand.

By now, volume 1 and its treatment of topics or species of particular interest to each individual will be familiar to the great majority of readers of *British Birds*. Of those who have not yet acquired it, few will have resisted the temptation to start saving up for purchase, thus disposing of the myth that people fight shy of paying for something which, besides being costly, fails to conceal its scientific content. The fact is that a book which, like its predecessor (to whose chief editor, H. F. Witherby, it is dedicated), sets out to 'review and present clearly the entire up-to-date knowledge' of the birds of, in this case, a whole region, can scarcely fail to have very wide appeal. Even at the most primitive birdwatcher's level—often dismissed in opprobrious terms, but usually just a combination of

delight in birds with a relatively harmless display of the hunter's instinct—the 100 plates of volume 1, showing the plumage variations and appearance in flight of 122 species, are surely almost irresistible. No reasonably compendious field guide can compete. Incidentally, the idea of getting each artist to interpret the whole of one or more favourite groups is excellent, since it takes account of the fact that the great painter of an eagle is seldom equally at home with a Goldcrest. It should also please the many for whom a Barruel loon, Hayman shearwater, Coombs cormorant, Gillmor ibis, Scott goose or Cusa duck is the paragon.

An asset of *BWP*'s comprehensive approach is its capacity for feeding the reader's curiosity and setting in train a metamorphosis. The serious student who emerges from the chrysalis will find that it is now possible to check every observation against a summary of what is known or surmised of the particular aspect or activity observed; that, if this is insufficient, the point can be followed up in the references (which are admirably convenient to use despite the fact that the essential details of the works of over 1,600 authors are fitted into 14 pages); and that it will then only need a search of more recent literature (the *BWP* cut-off date ranges around 1975/76) before deciding whether the observation merits publication.

Before a necessarily very summary attempt is made to gauge the success of volume 1 in thus providing a solid basis for future advances in knowledge, two other general points are worth noting. In the first place, *BWP* will—and indeed must—serve as the major source book for ornithologists until well into the 21st century; at best, the seventh and last volume can become available only in about 1987. So, we still have long to wait to be indoctrinated into the Baltimore (now alas Northern) Oriole, which, as recent recipients of *The 'British Birds' List of Birds of the Western Palearctic* (1978) will know, takes over the rearguard from Quail, Tree Sparrow, Snowfinch, Jackdaw or Raven, thanks to *BWP*'s new—and one hopes more stable—taxonomic framework derived from Professor Dr K. H. Voous's Holarctic list. In these circumstances, perhaps one may shed a passing tear that, with this break in tradition, the opportunity was not taken to reverse the entire sequence, if only to redress the gross imbalance in up-to-date and readily accessible baseline material, which looks like hampering passerinophiles for upwards of another decade.

Be that as it may, most people will be happy enough to see the largest living bird once more in the van, even if it retains little more than a toe-hold in the western Palearctic as here defined. That definition is the other general point which needs to be touched on. Although to the west and south it conforms with Dr Charles Vaurie's, except for the omission of Greenland and some justifiable adjustments along the northern borders of the Sahel and Arabian Desert, it is admittedly arbitrary in the east, where the limit is set along the Ural mountains and river to the Caspian, thence following the west coast of the seas and the Iranian frontier south to Kuwait. Reference to the latest classification of Biogeographical Provinces (prepared by Professor M. D. F. Udvardy for the International Union for the Conservation of Nature and Natural Resources in 1975) shows

that, except for a section of the Yenisey valley which separates the west Eurasian and Siberian taiga, there is in fact no convenient north-south dividing line between western and eastern Palearctic. One must conclude that, for practical purposes, the boundary chosen is as good as any. It is perhaps a further point in its favour as the definition of a valid biogeographical unit that, whereas 601 species breed or have recently bred in the region, no more than 11 known to visit it regularly breed beyond its borders.

Of these 601 breeding species, the first 93 are dealt with in volume 1, plus four of the 11 regular non-breeding migrants (Great and Sooty Shearwaters, Wilson's Storm-petrel and Red-breasted Goose) and 25 of the 131 currently listed 'accidentals'. Thus, between one-sixth and one-seventh, just under one-third, and just over one-fifth of the totals in the three categories have already been covered. Some allowance has to be made for species which have not been recorded since 1900 and 'unproven' species, but the volume 1 ration may be taken as average. An idiosyncrasy, however, which is unlikely to be matched in future volumes, is the 34-page introduction. Of this, for example, more than half is taken up by E. M. Nicholson's exposition of the habitat and voice sections of the species accounts. Much of the first is devoted to a brave and mostly successful attempt to pin down the meanings of descriptive terms, though some etymologically sound definitions, such as those of 'pond' and 'pool', may no longer win acceptance in a swimming-pool era. As for voice, I confess that, for one to whom the 'aark-aaww, AARK-aaww' attributed to the Fulmar is more evocative than the equivalent sonagram, the explanatory text and diagrams are heavy going. But there is no doubt that they would repay intensive study, nor of the manifest superiority of modern techniques for recording, reference and comparative analysis.

Several methods of saving space are used in volume 1 and will presumably be standard practice in later volumes: for example, omission where appropriate of the world distribution map (Shag, Bald Ibis) or the regional map (all regular non-breeding visitors or only occasional breeders such as Steller's Eider); the use of small print for the social pattern and behaviour section and for the concluding and partly statistical section on plumages, bare parts, moults, measurements, weights, structure and geographical variation; and the dropping of the sections on population, social behaviour and breeding for all non-breeding species and of the food section also in the case of accidentals. One sometimes wishes that application of the last-mentioned economy was less rigid and that for comparative purposes the rule had been more often waived (as it has been, for instance, by the inclusion of a population section for the Red-breasted Goose). As it is, later volumes, for reasons given, look like being somewhat slimmer, unless the average space given to each species is substantially increased (in volume 1, only four—Great Crested Grebe, Grey Heron, Mallard and Eider—reach or exceed ten pages). But, although one hopes this will help to peg the price, the possibility in future of brief summaries rather than total omission of breeding, behavioural and especially food data seems worth reconsidering. It would avoid the irk of having to look

elsewhere to discover, for example, if the peculiarities of the Surf Scoter's bill are connected with feeding techniques or food preferences or are reflected in its display.

A few points likely to be made by anyone using the book for what has been suggested as one of its prime functions (the checking of observations against what is known of the facts) can be classified as grumbles which almost inevitably plague compilations, especially those on the massive scale of *BWP*. An obvious example is occasional inconsistency, notably between the sections on field characters and plumage and the plates, all of which are to some extent concerned with identification. It is often due to the highly condensed style of the text or, in the case of the plates, to loss of definition or faulty colour reproduction (bill colour of the Wandering Albatross is a good example). In other instances (such as the diagnostic difference between the extension of the black line of the gape under the eye of the Intermediate and of the Great White Egret) authors and artist may have been unable to compare drafts or, more probably, failed (as is only too easy) to spot the discrepancy when it occurred.

For the sections on distribution and, to a lesser extent, on movements (including regular migration), great reliance is placed on the maps. These are very well designed and executed, the cunning projection used for the world map being ideal for its purpose. The regional maps, in conjunction with the larger version reproduced as an end paper, in which country, sea and major river names are inserted, manage, with their two colours (red for breeding, grey for non-breeding range or, in the case of seabirds, total marine distribution), to convey a remarkable amount of information. Some minor inaccuracies are to be expected, especially in the small scale world map, affecting particularly such things as the delineation of wintering range in Africa (of Garganey and Shoveler, for example). One's only serious regret, however, is that, for reasons explained in the introduction, it was impossible to devise a method of indicating the varying reliability of the data. The result is that an unbroken patch of red may, as in the case of the Ferruginous Duck, mean that a large part of the population is to be found in that area or it may, as with the Little Bittern, mean that no atlas, other census, or detailed investigation has ever been carried out in the area concerned. Incidentally, an ingenious annual cycle diagram conveys a great deal of information on the timing of migration, breeding and moult in rather the same way, but, in this case, can only refer to a designated part of the total range of the species.

For sections concerned with feeding, social behaviour, voice and breeding, such convenient shortcuts for conveying information are scarcely available, except for the diagrammatic indication of the timing of breeding and moult already mentioned and—a most valuable feature—a couple of hundred drawings of aspects of display, executed or organised by Robert Gillmor (some of them original drawings, of which J. Fjeldså's of grebes are particularly effective, others based on previously published work or on photographs). As a consequence, these ethological sections tend to take up the lion's share of space and also to look rather indigestible. One wonders whether the sub-headings, particularly in the social pattern and

behaviour section, of which a single half-page column can contain as many as 650 words of solid print, could have been made to stand out more clearly. Certainly, it may be quite a chase, or reminiscent of a maze, to check on a particular point, such as in which (if any) of the geese is the predilection for the 'triumph ceremony' not specifically mentioned (the answer is Pink-footed and Lesser White-fronted!).

By and large, however, and despite some of the minor regrets and cavils that have been mentioned, the editors, other authors and artists of *BWP* volume 1 have had every right to indulge in their own varieties of 'triumph ceremony', before knuckling down to further volumes. The more power to their elbows!

HUGH ELLIOTT

## Mystery photographs

**19** Last month's mystery bird should have presented few problems: there was a simple choice between Ringed Plover *Charadrius hiaticula* and Little Ringed Plover *C. dubius*. The main characteristics of the Ringed Plover are a broad white wing-stripe and long white-sided tail in flight, orange legs, and a mainly orange bill with a black tip. The Little Ringed, on the other hand, as well as being smaller, shows no clear wing-stripe and a less obvious tail pattern in flight, has dull, flesh-coloured, yellowish or greenish-brown legs, a mainly dark bill with a yellowish base, a white stripe over the black of its forehead, and a distinct yellow eye-ring. Of these seven differences, the eye-ring is the only one clearly shown in the mystery photograph, but this is sufficient to identify the bird in plate 112 (page 267), repeated at reduced size here, as a Little Ringed Plover; it was photographed in Cornwall by J. B. & S. Bottomley in April 1968. Such a good view is, however, not always obtainable in the field. Nevertheless, even a distant individual against the light may be readily identified by its



**121.** Adult Ringed Plover *Charadrius hiaticula*. Cornwall, August 1971 (J. B. & S. Bottomley)

structure. As comparison of the mystery Little Ringed with the Ringed Plover in plate 121 reveals, (1) the bill of the Little Ringed is thinner and more pointed, that of the Ringed stubbier and almost bulbous; and (2) the legs of the Little Ringed are proportionately longer, producing a more elegant stance, while the relative shortness of those of Ringed give it a compact, chunky jizz. Further, in a front view, the body of the Little Ringed looks 'boat-shaped', being flattened beneath in comparison with the more rounded breast and belly of the Ringed Plover; this enhances the appearance of greater leg-length. These three structural differences are often discernible at great ranges.

JTRS



122. Mystery photograph  
20. What is this species?  
Answer next month

## Personalities

### 15 C. D. Hutchinson

**T**he history of ornithology in Ireland goes back at least three centuries, but it is only in recent years that it has gained any widespread popularity or scientific credibility. Clive Hutchinson is one of a new breed of Irish ornithologists who has had much to do with the advancement of this science.

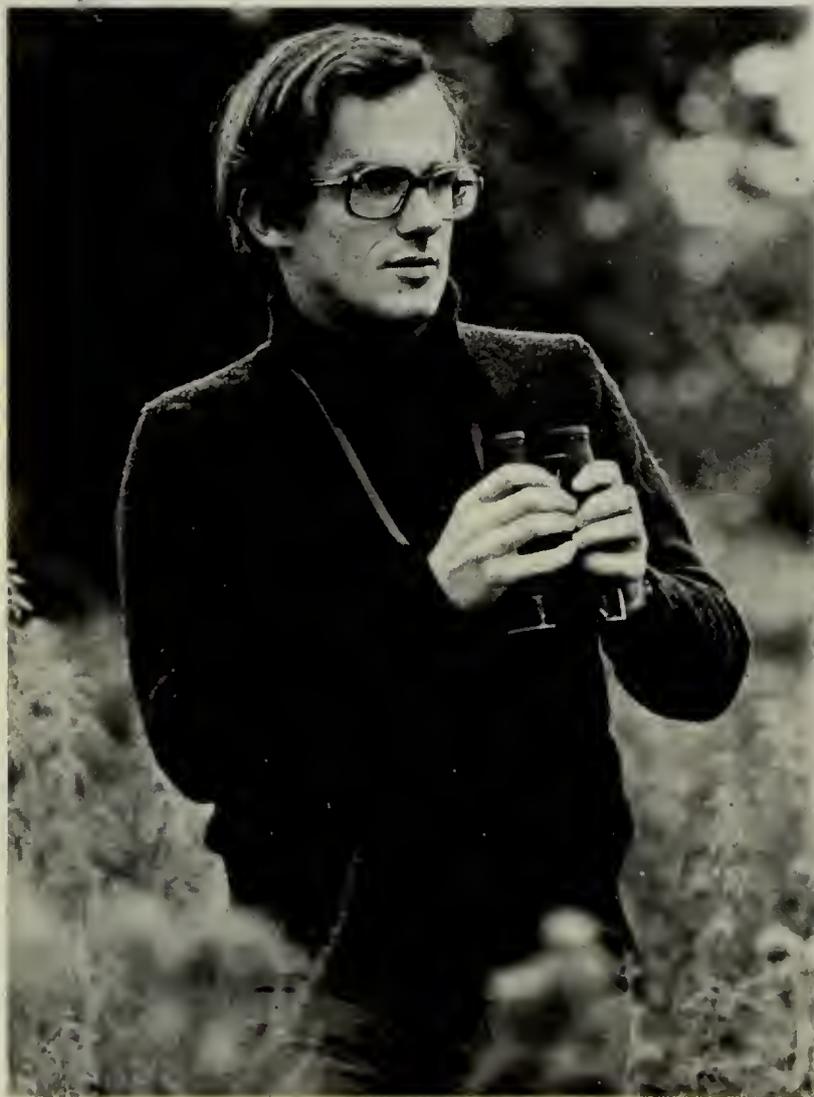
My first meeting with Clive was in Dublin in early 1970. Over a few pints of Guinness, after an evening meeting of the Dublin Field Group, I was roped in to join the editorial panel of *The Dublin and Wicklow Bird Report* which he had recently launched. Even then, he was working on his first book, and *The Birds of Dublin and Wicklow*, the result of more than six years' research and writing, was published in 1975. The first book of its kind in Ireland in recent years, it was a tremendous success, an achievement all the more spectacular as the author had been living in Dublin for less than eight years at the time.

Born in Cork in 1949, the son of a local minister, Clive was educated there at Middleton College. With a number of other well-known Cork birdwatchers of his age, he frequented such famous south coast bird haunts as Ballycotton, Clonakilty, Akeragh Lough and Cape Clear Island during the early 1960s, turning up many interesting vagrants and Nearctic waders galore.

In 1967, however, he moved to Dublin, a trend common among Cork men, where he read history and political science at Trinity College, graduating with honours in 1971. Far too honest, however, to become a politician, he turned his attentions to the financial world, and has been doing very nicely in accountancy ever since. Still, one would do well to avoid raising the subject of politics in his presence, unless of course one has the remainder of the day—and night—to devote to a discussion on the finer points of some 'ism' or other. In ornithology, too, Clive thrives on intellectual debate, whether the subject be a survey method or the identity of some obscure rarity.

Some ornithologists make excellent administrators, whereas others are

123. C. D. Hutchinson (*Richard T. Mills*)



purely fieldworkers; but Clive Hutchinson is one of the very few people who combine both attributes. His contributions to organised ornithology in Ireland over the last ten years, particularly on the Executive and Council of the Irish Wildbird Conservancy, have been invaluable. His advice is ever sought on matters of financial, research and conservation policy, and it is not surprising therefore that he has been appointed as an IWC representative on the newly-formed National Wildlife Advisory Council.

Clive claims, however, that his main interest in ornithology is recreational, and consequently it is in the field that he spends much of his time. An interest in visiting Ireland's many remote and often under-watched bird haunts—particularly wetlands—keeps him fairly busy; but occasionally he ventures abroad in search of more exotic prey. One of his chief regrets is that, during a visit to the United States some years ago, he failed to see his favourite bird species, the Roadrunner, while a close friend, also visiting America that summer, spent much of his time avoiding them . . . literally. Clive's particular interest in wildfowl and waders led him in 1972 to initiate an IWC Wetlands Enquiry, which he then organised until 1975. The data gathered—much of it by Clive himself—is essential for the assessment of the importance of these often threatened habitats; Clive is currently analysing the information for a book on Irish wetlands. On the subject of books and papers, there had long been a need felt in Ireland for a national ornithological journal. The *Irish Bird Report* was filling this role to an extent, but, under Clive's direction and editorship, a new journal, *Irish Birds*, has just been launched.

In 1975, the IWC set up a committee to co-ordinate amateur ornithological research in Ireland, and Clive was the natural choice for its first chairman, a position which unfortunately he has recently been forced to relinquish. With Cape Clear Bird Observatory, however, his involvement goes back to his school days. He joined the observatory's council in 1967, and at present is secretary and acting chairman. He has a great love for the island and its people and is a regular visitor there.

In 1975, Clive returned to his native Cork, where he now lives with his wife Rachel and young son Andrew. I suspect that a *Birds of Cork* cannot be too far off.

JOHN ROCHFORD

## Notes

### Marsh Harrier apparently hunting over the sea

On 19th November 1976, off the Nestos delta, northeast Greece, I saw a Marsh Harrier *Circus aeruginosus* flying low over the water. It joined a group of Manx Shearwaters *Puffinus puffinus* and Black-headed Gulls *Larus ridibundus* feeding some 400 m offshore and began circling about 3-4½ m above the water, occasionally moving lower and hovering. It caused very little alarm to the other birds and, after apparently hunting in this way for about two minutes, circled up into the sky, where



it was quickly mobbed by a mixed group of about 250 Jackdaws *Corvus monedula*, Carrion Crows *C. corone* and Rooks *C. frugilegus* (oddly, Marsh Harriers over the land were seldom mobbed). It rose higher, then descended and flew over the waves in the typical hunting fashion; it paused over another patch of water as before, although no other birds were nearby, then flew back to the delta and out of sight. I had the definite impression that the harrier was hunting.

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**Oystercatchers nesting on roofs** The contribution by Dr W. R. P. Bourne (*Brit. Birds* 68: 302) prompts me to record the following. During 1967-69, new accommodation for the College of Education was constructed on a field site in a residential area of Aberdeen approximately 1½ km from the Foresterhill Hospital and Medical School. Before 1967, at least one pair of Oystercatchers *Haematopus ostralegus* bred regularly on this site, but none attempted to during the construction and early occupation of the new buildings. In 1971, one pair nested successfully on the roof of the tallest teaching block, 20 m high. This has a flat roof covered with granite chips laid in bitumen. The nest was an unlined scrape in the middle of a mound of these small stones, about 30 cm in diameter and 10 cm in height; the stones were collected from the roof of this and other blocks. Three chicks fledged. Subsequently, one pair has nested each year: one chick was raised in 1972, and two in both 1973 and 1974. In 1974, a second pair, present from late February to late March, attempted unsuccessfully to establish territory based on one of the lower blocks. In 1975, one pair attempted to nest in a cultivated part of the grounds: three eggs were laid but these disappeared soon after the onset of incubation; the Oystercatchers then returned to the rooftop site, where they laid two eggs, one of which failed to hatch; the single chick fledged.

The adults behave extremely aggressively towards passing crows (Corvidae) and gulls *Larus*, which tend to pass at rooftop height. Young remain on the roof until almost fully grown; in 1973, a half-grown one was blown from the parapet during a gale and killed. Both parents collect food from grassy areas and from adjacent playing fields; earthworms, carried hanging in the bill, seem to make up a fairly high proportion of the diet. As no natural food is available on the roof, the chicks are entirely dependent during their development on food carried up to them. Adults and young leave the site in early August. P. R. MILLS

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In the Netherlands, a pair of Oystercatchers has bred on the roof of a hospital at Heerenveen, Friesland, since 1950, although not always successfully (*Limosa* 41: 115); and, in May 1968, a pair bred on a flat roof of a school in The Hague; both have returned almost every year since.

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**Snipe apparently using foot to control food** On 31st January 1977, at the New Grounds, Slimbridge, Gloucestershire, I was watching a Snipe *Gallinago gallinago* at a range of 12-13 m, when it pulled up a large, fat earthworm (*Oligochaeta*) 15-17 cm long. It had difficulty swallowing the worm, and about a quarter remained hanging sideways out of its bill. The Snipe raised a foot and straightened the worm lengthwise within its bill, pushing it with ease quickly between its mandibles before swallowing it. I did not notice any contraction or expansion of the foot to suggest that it took hold of the worm, nor any attempt to break it up or hammer it. During my observations, smaller worms were swallowed without difficulty.

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This may have been direct-scratching, or the same movements as those used in normal bill-cleaning, possibly stimulated by irritation from a movement of the worm. EDS

**Woodpigeon fledging in February** On 20th January 1977, in a north London suburban garden, I discovered a Woodpigeon *Columba palumbus* sitting on a recently built nest about 7 m up in a silver birch *Betula pendula*. During the next four weeks, the weather varied from below freezing with thick frost to very heavy rain. In the fifth week, I saw a well-grown young in the nest, jumping and flapping its wings. The adult male, perched 1 m away, eventually fed the nestling, then flew away and was immediately joined by his mate. At 23.00 GMT on 26th February, I saw an adult crouching over the large young; the next morning, all the pigeons had gone.

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**Woodpigeons feeding on oak galls** C. F. Tebbutt's note and Derek Goodwin's comments (*Brit. Birds* 70: 546) are confirmed by data which I obtained during 1975. While carrying out a study of moult, weight variation and juvenile mortality, I also examined the crop contents of 1,842 Woodpigeons *Columba palumbus* shot in Surrey and Sussex.

Not only were Woodpigeons deliberately feeding on oak-leaf spangle galls lying on the ground in the autumn, but in early May 1975 they were taking complete growing leaves from oaks *Quercus*, every one of which had at least one gall on it; leaves without galls were not selected. Crop content items were assessed on a volumetric basis over a complete sample, rather than for individual birds (table 1).

Casual observation of crop contents during the previous four years had not shown galls to be a significant food of Woodpigeons, and it is possible that an exceptionally plentiful supply coincided with a shortage of normal foods in autumn 1975. Acorns and mast of beech *Fagus sylvatica* were taken in significant quantities only during November, and, because of dry weather, stubbles were nearly all ploughed by the end of September. Seed grain was available in the study areas only during late October and late November, and clover *Trifolium* was taken in

**Table 1. Oak-leaf galls in diet of 615 Woodpigeons *Columba palumbus* shot in Sussex and Surrey in 1975 at times when galls were being taken**

		Number of Woodpigeons examined	Mean weight (g)	% of Woodpigeons' crops containing galls	% by volume of galls in diet (adults and juveniles combined)
May 1-15	Ad	59	480	10	18
	Juv	0	—	—	
Sep 16-30	Ad	107	505	1	2
	Juv	11	425	0	
Oct 1-15	Ad	107	510	50	53
	Juv	44	435	34	
Oct 16-31	Ad	11	525	27	32
	Juv	10	465	50	
Nov 1-15	Ad	27	540	59	41
	Juv	12	485	58	
Nov 16-30	Ad	30	545	30	5
	Juv	22	495	18	
Dec 1-15	Ad	27	545	4	15
	Juv	29	485	21	
Dec 16-31	Ad	68	530	12	8
	Juv	51	475	16	

quantity both in early October and again during December, much earlier than usual.

Table 1 indicates that the galls provided an adequate food source, since the weights of adult and juvenile Woodpigeons both increased normally during the period when this food was eaten. Once it was finished, and clover was the major item in the diet, body weight was lost.

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**Passerines eating ladybirds** On 7th July 1976, at Blackdown, Mendip, Somerset, I watched an adult Meadow Pipit *Anthus pratensis* feeding on seven-spot ladybirds *Coccinella septem-punctata* which were migrating westwards over the hill and swarming on an area of burnt ground. In half an hour's observation, I did not see the pipit eat anything other than these insects. Besides having a warning coloration, ladybirds exude a distasteful secretion when seized and are usually avoided by birds. D. WARDEN

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During studies of Dartford Warblers *Sylvia undata* in Dorset in 1974-76, seven-spot and eleven-spot ladybirds *C. undecim-punctata* were abundant throughout the year, especially in gorse *Ulex* where the birds most frequently feed. I identified 771 prey items of adult Dartford Warblers (506 from 62 faecal sacs and 265 from the guts of four road casualties); although methodological errors would have exaggerated the frequency of ladybirds, only one, a seven-spot eaten by a male on 10th February 1976, was found. Further, I identified 2,773 food items of nestlings (1,191

from 147 faecal samples and 1,582 from 16 hours' direct observation at nests); not one was a ladybird. On 4th May 1976, when many ladybirds were flying at heights of tens of metres, I watched a Stonechat *Saxicola torquata* feeding; occasionally it pursued flying insects, and once it chased and caught a ladybird, but I could not ascertain whether or not it ate this. Clearly, however, the Stonechat did not regard this large flight of ladybirds as the optimum prey of the moment: one brood of nestlings that I watched for three hours received 91 identified food items, none of which was a ladybird, although there were 17 woodlice (Isopoda), another taxon apparently avoided by some birds.

On 6th September 1975, in Vienne, western France, I inspected the gut of a first-year Whitethroat *Sylvia communis* found as a road casualty. I identified 23 invertebrates: four were ladybirds, two of a large red species with black spots (probably seven-spot) and two of a smaller, yellow species with black spots; the warbler had also been eating ants (Formicidae), as had three Pied Flycatchers *Ficedula hypoleuca* found in the preceding two days. As all but the sexuals of ants appear to be noxious to most birds, it is possible that these migrants grounded in France were faced with suboptimal feeding prospects.

Many ladybirds taste disgusting to human beings (personal observation). The evil-smelling fluid which they discharge when disturbed has been regarded as defensive in function, although A. D. Imms (1957, *Insect Natural History*) pointed out that ladybirds are eaten by several species of birds. Many ladybirds are brightly coloured and slow-moving and do not seem to possess defences against bird predation other than noxiousness associated with a clearly recognisable appearance; captive young birds usually try them once, but not again. My observations suggest that they are, indeed, avoided by birds to a considerable extent, and, thus, that their defences are effective. The two confirmed instances of bird predation were in circumstances where feeding prospects for the birds might have been poor: a warbler in the depths of winter and a grounded migrant. In such cases, the cost of eating a noxious item might be less than that of not eating at all. Another situation in which ladybird-eating might be expected would be that of young birds learning for the first time. Thus, in spite of some predation, ladybirds have little to fear from birds, unless a persistent predator arises or exists as yet unnoticed.

COLIN J. BIBBY

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**Passerines feeding on tideline** P. G. Goodfellow (*Brit. Birds* 57: 302) detailed 14 species of passerines, including wagtails *Motacilla*, feeding on tidewrack; *The Handbook* mentions Yellow Wagtails *M. flava* taking flies (Diptera) and small molluscs, and one whose stomach contained sandhoppers (Amphipoda). At Marazion, Cornwall, I have seen Yellow Wagtails, as well as other species, feeding on sandhoppers and their larvae, as well as Diptera, among the wet seaweed. This shore-feeding by passerines is greatly facilitated by Turnstones *Arenaria interpres*, Starlings *Sturnus vulgaris* and crows (Corvidae), which excavate the beach

debris; in particular, Ravens *Corvus corax* butt and push the wet seaweed apart with their heads and bills, exposing food both for themselves and for other species.

BERNARD KING

*Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall*

**Landbirds over the Strait of Dover** Little or nothing has been published in recent years concerning landbird migrants at sea in the Strait of Dover. During many crossings of the Strait in the past 20 years, we have seen a few; but, on 19th October 1975, between 15.05 and 16.35 GMT, we observed a total of 88. Sixteen Skylarks *Alauda arvensis*, 40 Redwings *Turdus iliacus*, seven Fieldfares *T. pilaris* and 14 Starlings *Sturnus vulgaris* flew approximately southwest, and a Great Tit *Parus major*, a Brambling *Fringilla montifringilla*, a Reed Bunting *Emberiza schoeniclus* and two Starlings were on or flying around the ferry; the bunting fluttered down to the surface of the sea several times, as if trying to alight, but eventually flew south out of sight, although at the time the English coast was just visible. In addition, four Rooks *Corvus frugilegus* flew east and two more later passed high to the west. All these species are normal autumn migrants in northwest Europe and their occurrence in the Strait of Dover is not unexpected. The numbers and variety observed on this occasion were, however, in our experience exceptional, particularly since the sky at the time was clear (although it had been overcast earlier on the French coast) and the wind easterly, force 2-3; furthermore, most migration visible from the adjacent coasts has usually ceased by midday.

During the morning, at Cap Gris Nez, Pas de Calais, we had seen a fairly heavy migration involving all the above species apart from Reed Bunting, and with Fieldfares, Redwings and Blackbirds *T. merula* dropping out of the sky from a great height; also, 360 Great Tits and many Bramblings were seen migrating northeast, the former passing rapidly from copse to copse on a narrow front.

P. S. REDMAN, D. L. DAVENPORT, R. J. ELVY,  
P. J. OLIVER and C. E. WHEELER  
*Redwings, Crowhurst, Battle, East Sussex*

**Olive-backed Pipit in Shetland** At about 10.30 GMT on 24th September 1973, I was at the southern end of Fair Isle, Shetland, watching a Rustic Bunting *Emberiza rustica* which had been present for several days in a stubble strip. Suddenly, I was aware of a pipit *Anthus* foraging close to me among the roots of a potato crop. The general impression was of a uniform, dark-coloured pipit with the most amazing supercilium, unlike any other pipit I had seen before. After observing that bright-coloured mantle streaks, which are a feature of Pechora Pipit *A. gustavi*, were absent, I took the following notes:

Size about that of Meadow *A. pratensis* or Tree Pipit *A. trivialis*, both of which were present on adjoining grass field for comparison. Very white underparts, with bold black spots on upper breast. White belly.

Broad white supercilium, tinged pink, reminiscent of small Redwing *Turdus iliacus*. Supercilium wide, but not particularly long: starting just in front of and finishing just behind eye. Back very dark

olive-coloured, appearing almost uniform. Conspicuous white outer tail feathers. Call harsher than that of Tree Pipit, inter-

mediate with Red-throated Pipit *A. cervinus*.

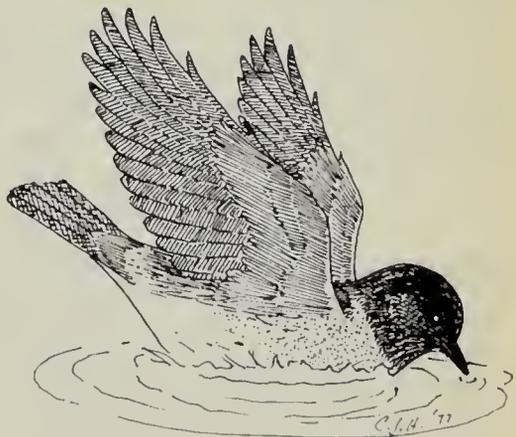
Rather abruptly, the pipit towered into the air, and a search of the adjoining fields failed to relocate it. I subsequently identified this pipit as an Olive-backed *A. hodgsoni*, the fourth for Britain and Ireland.

The wind had been southeast for several days, with an anticyclone over northern Europe. Associated arrivals on 24th September included a Little Bunting *E. pusilla*, an immature White's Thrush *Zoothera dauma* and seven Yellow-browed Warblers *Phylloscopus inornatus*. G. J. JOYSON  
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**Dunnock apparently finding food on dead House Sparrow** On 30th December 1976, in my garden at Aldershot, Hampshire, I noticed a Dunnock *Prunella modularis* on the vegetable patch tugging at something, with both wings spread in the manner of a Blackbird *Turdus merula* when 'anting'. Through binoculars, I saw that it was pulling something out from the snow, which was 5-7½ cm deep but patchy. I then noticed a leg sticking up through the snow. While I watched for ten minutes, the Dunnock succeeded in pulling out a dead bird, which it stood on and pecked; later investigation showed that the corpse was a House Sparrow *Passer domesticus* with a few feathers missing from the underside of its body, which appeared unmarked. Adequate food was available at the time, and none of the other birds in the garden showed any interest in the Dunnock's activities. I concluded that the Dunnock had probably been taking some kind of parasite from the sparrow's body.

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**Stonechat taking food from water** On 11th January 1977, I watched a female or immature Stonechat *Saxicola torquata* feeding from the edge of a reed-bed along the Lampen Wall, Stodmarsh, Kent. On three occasions in the space of about two minutes, the bird dropped from a reed into the water and appeared to pick something up in the tip of its bill. The action was quite rapid, and on each occasion the feet and belly were submerged, but only the tip of the bill appeared to touch the surface of the water, as shown in my sketch; the Stonechat seemed to bounce off the surface, and returned to its original perch. Through × 12 binoculars at a range of about 25 m, I could see no food on the water, but the actions did not suggest that the Stonechat was drinking. Later, it was hopping about on some partially submerged reeds with its feet in several milli-



metres of water; it was picking at something on the water surface.

C. J. HODGSON

*The White House, Hastingleigh, Ashford, Kent*

**Willow Warblers nesting close together** On 18th May 1976, in Whitwell Wood, Derbyshire, I was shown two nests of Willow Warblers *Phylloscopus trochilus* only 6 m apart; they were hidden by long grass and a light cover of bramble *Rubus fruticosus* on a small bank bordering a wide ride. The first had been found, complete but empty, by H. A. Pigott on 14th May; the second, with six eggs, by J. Ellis on the following day. On 4th June, there were newly hatched young in the first nest, and four young, which I ringed, in the second. No animosity was noticed between the two pairs of adults. Strangely, on 11th June, after the young of the second nest had fledged, a chick from that nest was with those in the first. About the same time, three other, more normally spaced Willow Warbler nests were found along a 400-m section of the ride.

R. A. FROST

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I. J. Ferguson-Lees has commented that Willow Warblers often nest on the edges of their territories and he has seen two nests 9 m apart; D. J. May (*Brit. Birds* 40: 2-11; *Ibis* 91: 24-54) twice recorded nests 'only a few yards' apart. EDS

**Behaviour and water-carrying of Goldcrests at nest in drought**

In the exceptionally hot, dry summer of 1976, in my garden in Omagh, Co. Tyrone, a pair of Goldcrests *Regulus regulus* nested in an exposed position about 2½ m up in a Norway spruce *Picea abies*. At 14.00 GMT on 30th June, when the temperature reached 28.2°C, the chicks appeared very exhausted, even though the nest was out of direct sun except from 15.30 to 17.00. At 15.50 hours, I saw one of the adults standing on the edge of the nest pecking the young vigorously for about 20 minutes. When I returned at 17.00, this or the other parent was bringing water to the young, a drop at a time, each clearly visible on the end of the beak, until by 20.00 hours all six young had revived and appeared strong. By 9th July, the first fledgling was on the edge of the nest, scratching and stretching; and, by 15.00 hours on 10th, all had flown.

AURIOLE ARCHDALE

*The Strule Pottery, 97 Carrigans Road, Omagh BT79 7TN*

**Pine Bunting in Dorset** At about 17.45 GMT on 15th April 1975, while walking through Reap Lane on the way to Portland Bill, Dorset, I heard what I presumed to be a Yellowhammer *Emberiza citrinella*. Then, however, I located the bird sitting on a bramble stem, and realised that it was something unusual. On raising my binoculars, I found that I was looking at a male Pine Bunting *E. leucocephalos*. It flew a short distance and perched on a barbed-wire fence, constantly flicking its tail and calling softly. I obtained excellent views down to about 15 m for about five minutes, noted details of its salient features, and rushed to the

observatory, but by then the light was failing rapidly. Searches on the next and subsequent days failed to relocate the bird.

The following description summarises my notes taken in the field:

**PLUMAGE** Immaculate, showing no traces of wear. **HEAD** Crown and nape pure white, bordered all round with black, thicker on forehead. White cheek patch, extending from bill through eye. Forehead, chin, throat and rest of head bright chestnut, tapering towards nape, where ended in thin band. Small white patches on sides of neck, and also on throat, where reduced to

point at centre. **UPPERPARTS** Pale grey-brown, quite heavily streaked on upper back. Rump bright chestnut, as Yellowhammer: very noticeable in flight. Wings well-marked, somewhat reminiscent of Ortolan *E. hortulana*, with dark centres to median coverts and pale brown edges to both median and greater coverts. Primaries, secondaries and tertials also broadly edged pale brown. Tail long, colour as upperparts. Outer tail feathers showing large amount of white, penultimate ones to lesser degree. **UNDERPARTS** Breast and sides warm pinkish-brown, finely streaked brown. Rest of underparts off-white.

**BARE PARTS** Bill pale horn. Legs pink.

**STRUCTURE** Build and size as Yellowhammer: slender and long-tailed.

**VOICE** Two quite different calls: soft 'tillip' in flight and metallic 'tick' both when perched and in flight, both apparently identical to calls of Yellowhammer.

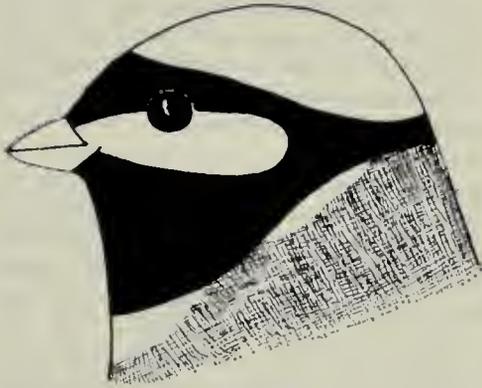


Fig. 1. Pine Bunting *Emberiza leucocephalos*, Dorset, April 1975. Note white cap, cheek patch, sides of neck and lower throat; bright chestnut forehead, chin, upper throat and nape. (Drawn from field sketch by G. Walbridge)

This was the fourth record for Britain and Ireland. The previous ones were all from Scotland in autumn: Fair Isle, Shetland, on 30th October 1911; Papa Westray, Orkney, on 15th October 1943; and North Ronaldsay, Orkney, from 7th to 11th August 1967. G. WALBRIDGE  
11 Poundpiece, Weston, Portland, Dorset

## Short reviews

**Hamlyn Nature Guides: Birds.** By John Andrews. (Hamlyn, London, Sydney & Toronto, 1978. 128 pages; 168 colour photographs. £1.50). Most of the photographs are well chosen and well reproduced; arranged three to a page, with facing texts. The idea of an identification book illustrated by colour photographs instead of colour paintings is excellent, but this one fails by dealing with an inadequate selection of species. Although it includes species which are rarities and vagrants in Britain, such as Melodious Warbler and Crested Lark, it omits others much more likely to be seen (e.g. White-fronted Goose, Pink-footed Goose, Bean Goose, Lesser Whitethroat). **Birdwatching.** By

Neil Ardley and Brian Hawkes. (Macdonald Educational, London, 1978. 96 pages; many colour and black-and-white illustrations. Paperback, £1.25). Crammed with good advice and information about birds and birdwatching. As one would expect with Peter Grant as consultant: reliable. Strongly recommended for beginners of any age. **North American Bird Songs.** By Poul Bondesen. (Scandinavian Science Press, Klampenborg, 1977. 254 pages; 225 line-drawings and sonagrams. DKr 93.00.) Guide to the songs of some 300 North American passerines, using verbal descriptions and sonagrams based on a new technique, with a key and full references.

**How Birds Live.** By **Tony Bremner.** (Usborne Publishing, London, 1978. 48 pages; many colour illustrations. Hardback, £2.95; paperback, £1.25.) Profusely and well illustrated by colour paintings; text clearly aimed at 8- to 11-year-old age-group; Peter Olney's position as consultant editor has ensured that the readable text is also reliable. Good value. **Dangerous to Man.** By **Roger Caras.** (Penguin, Harmondsworth, 1978. 327 pages; 30 black-and-white photographs. Paperback, £1.50.) Only four pages are devoted to birds, but this interesting, authoritative compendium of fact and anecdote relating to dangerous animals (from venomous snails and insects to giant squids and tigers) should leave us all content to remain forever safely in cosy Surbiton. **The Birdman.** By **Henry Douglas-Home.** (Collins, London, 1977. 176 pages; 16 black-and-white plates. £4.95.) Autobiographical anecdotes, including many about birds. Attractive line-drawings by Sir Peter Scott and Robert Gillmor. **Watching Birds.** By **James Fisher; revised by Jim Flegg.** (Penguin Books, Harmondsworth, 1978. 159 pages; 14 black-and-white photographs, many line-drawings. 75p.) Paperback version of the T. & A. D. Poyser revision, reviewed by Dr Jan Wattel in *Brit. Birds* 69: 37. Still excellent value. **Where to Watch Birds in Europe.** By **John Gooders.** (Pan, London & Sydney, 1978. 293 pages; 14 black-and-white photographs; 27 maps. Paperback, £1.75.) When this book first appeared (as a hardback costing 45s od in 1970), R. C. Homes (*Brit. Birds* 63: 394-395) summarised well the opinions that we still hold: 'I view with grave suspicion books of this kind', but nevertheless 'there is no question that this is an extremely useful book for anyone interested in European birds.' **A Guide to Eastern Hawk Watching.** By **Donald S. Heintzelman.** (Keystone Books, Pennsylvania State University Press, 1977. 99 pages. Paperback, \$4.50.) About half of this book is devoted to flight identification of 24 species of raptors likely (or not likely) to be seen in the eastern USA; each has a short paragraph of text, and flight photographs or drawings. Much of the second half is an account of the best places to see raptor migrations in the Eastern States. [R. F. PORTER] **Spotter's Guide to Birds.** By **Peter Holden, illustrated by Trevor Boyer.** (Usborne, London, 1978.

Hardback, £1.50; paperback, 65p.) Suitable for 6- to 12-year-old age-group. Well-illustrated, but only 20-30 words for each of the 175 species covered. Presumably to attract European sales, includes species such as Black Woodpecker and Pygmy Owl; but others, far more likely to be seen (e.g. Garganey and Lesser Whitethroat), are omitted. **Back from the Brink.** By **Guy Mountfort.** (Hutchinsons, London, 1978. 192 pages; 25 black-and-white plates. £5.50.) Twelve examples of conservation successes: Arabian oryx, orangutan, Giant Pied-billed Grebe, Néné and so on. Written in this author's usual highly readable style. **Granivorous Birds in Ecosystems.** Edited by **J. Pinowski and S. C. Kendeigh.** (Cambridge University Press, Cambridge, 1977. 431 pages; maps and line-drawings. £19.50.) The results of studies by 12 specialists, as part of the International Biological Programme, into the populations, energetics, adaptations, impact and control of grain-eating species, especially House and Tree Sparrows. Much will have a relatively limited appeal, but the clear and trenchant analysis of pest control by M. I. Dyer and P. Ward is of importance to a wide audience. **The Courtship of Birds.** By **Hilda Simon.** (Cassell, London, 1977. 190 pages; illustrated in colour by author. £5.50.) Not recommended, even as a popular treatment of the subject, lacking both insight and accuracy; the lavish paintings, however, may appeal to those who collect picture-books of birds. [K. E. L. SIMMONS] **A Bird Watcher's Adventures in Tropical America.** By **Alexander F. Skutch, illustrated by Dana Gardner.** (University of Texas Press, Austin & London, 1977. 327 pages. \$13.95.) Anecdotes from journeys in tropical America during the 1930s and early 1940s, with such interesting chapter titles as 'Through Peruvian Amazonia by gunboat' and 'Birdwatching during a revolution'. **A Colour Guide to Hong Kong Birds.** By **Clive Viney and Karen Phillipps.** (Hong Kong. 122 pages; 48 colour plates; several line-drawings. Paperback, HK\$20.) Illustrates 'all the birds of Hong Kong that are likely to be seen', with three to six lines of text summarising a few field characters and status in Hong Kong. Most species are shown in only one plumage, but Karen Phillipps's paintings are accurate and jizz is often captured

well; reproduction is, however, in rather garish colours. Appendix of 47 species vagrant to Hong Kong. **Der Seggenrohrsänger.** By **Heinz Wawrzyniak and Gertfred Sohns.** (A. Ziemsen Verlag, Wittenberg Lutherstadt, 1977. 109 pages; 32 black-and-white plates; 8 text illustrations. DM 8.80.) A valuable monograph on the Aquatic Warbler, including much original research on its breeding biology in East Germany. **The Gilbert White Museum Edition of 'The Natural History of Selborne'.** By **Gilbert White, preface by Lord Selborne, introduction by David Attenborough, illustrated by Frederick**

**Marns.** (Shepherd-Walwyn, London, 1977. 150 pages; 10 drawings. £9.95.) A fine edition of the book aptly described by David Attenborough as 'modest, unobtrusive . . . truthful . . . enduring'. **Crows, Jays, Ravens and their Relatives.** By **Sylvia Bruce Wilmore.** (David and Charles, Newton Abbot, 1977. 208 pages; 52 text photographs and illustrations. £5.95.) This covers, in a more popular and much less satisfactory way, the Corvidae recently treated magisterially by Derek Goodwin in his *Crows of the World* (reviewed in *Brit. Birds* 71: 43), which, curiously, is not mentioned in the bibliography. JTRS & SC

## Letters

### Diving methods of Great Northern and Black-throated Divers

On inland waters, I have noticed that Great Northern Divers *Gavia immer* always slither under slowly when diving, whereas Black-throated *G. arctica* jump upwards slightly before they dive. Depth of water appears to be irrelevant: in February 1978, I watched a Black-throated Diver and a Great Northern Diver swimming and feeding together on Foremark Reservoir, Derbyshire; several times, they surfaced within a metre or so of each other, yet their diving actions remained distinct enough to enable them to be distinguished even at a distance such that they appeared as mere blobs on the water.

STEPHEN JACKSON

16 Kerry Drive, Smalley, Derbyshire DE7 6ER

J. R. Mather has commented that 'the sliding under of Great Northern is certainly a good character' and he considers that the jump by Black-throated is probably also diagnostic. We shall welcome notes on observations of the diving methods of all *Gavia* species for possible inclusion in a future summary. EDS

### Grey Herons taking Water Rails and young grey squirrels

Regarding the note by Christopher Murphy on Grey Herons *Ardea cinerea* eating Water Rails *Rallus aquaticus* on the Dee marshes, Cheshire (*Brit. Birds* 69: 369), this behaviour has been observed at this locality for many years (see 'Countryside' features in *Liverpool Daily Post*). More unusually, in April 1976, at Combermere, Cheshire, I found two newborn grey squirrels *Sciurus carolinensis* among prey taken by the herons to their nests (see 'Countryside', *Liverpool Daily Post*, 19th April 1976; and *Shropshire Magazine*, June 1976). I can find no reference to squirrels in the diet of Grey Herons.

ERIC HARDY

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**Call-notes of Firecrest and Goldcrest** *The Handbook* describes the call of the Goldcrest *Regulus regulus* as a 'very thin, shrill "zeec, zecc, zeec"', and that of the Firecrest *R. ignicapillus* as '“zit, zit, zit” perceptibly lower in pitch, less thin and feeble, than Goldcrest's and often given singly'. While there is nothing wholly inaccurate in these interpretations, they deal only with the tone and—inadequately—the pitch of the calls.

I have always found that the normal contact or feeding call of the Goldcrest is indeed the familiar 'zeec' or 'zee' sound, but careful listening reveals that the full call consists of five such notes delivered at regular intervals and all at the same pitch. On the other hand, the equivalent 'zit' calls of the Firecrest are not only generally fuller and coarser in tone, but are also linked quite differently. Again, there are five notes, but there is a strong stress on the first and it is noticeably longer in duration than any of the subsequent four, which are of equal length and interval to those of the Goldcrest. These four notes, however, are in fact on a slightly rising scale, which is perfectly easy to discern. Occasionally, only the rising notes, or just two or three of them, may be delivered, but they remain quite characteristic.

MICHAEL J. ROGERS

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**House Sparrows feeding at suspended feeders** House Sparrows *Passer domesticus* eat peanuts in Canada as well as in Britain and Germany (*Brit. Birds* 67: 356; 70: 84-85). In Ottawa, Ontario, I first noticed this on 10th July 1976, when a female clung to our cylindrical feeder, which has a narrow slit, pecked until it extracted a nut and then flew off. This was repeated very many times during the next week and, on 17th, two females fed in this way.

GILLIAN BOYD

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This feeding technique appears now to be widespread among House Sparrows. We feel that it has been adequately recorded and the subject is, therefore, now closed. Eds

**Crossbill evolution** Reading Professor Dr K. H. Voous's paper on crossbills *Loxia* (*Brit. Birds* 71: 3-10), it is difficult to understand his reticence concerning the possible common origin of the Scottish Crossbill *L. scotica* and Parrot Crossbill *L. pytyopsittacus* populations in Continental Europe during early postglacial times. During that period, forests of Scots pine *Pinus sylvestris* were continuously distributed across central Europe, from the Atlantic coast to European Russia (Frenzel 1967, 1968). With postglacial warming, pine forests migrated northwards en bloc, spreading into Britain and Scandinavia across the then dry English Channel and southern Baltic. With such a distribution of pine woodland, there seems no real reason why any pine-feeding crossbill populations should have been geographically isolated in central Europe at that time.

As the pines colonised northwards—presumably taking crossbill populations into Britain and Scandinavia—the pine forests were replaced in central Europe by forests unsuitable for breeding crossbills, thus effectively isolating the ancestors of *scotica* and *pytyopsittacus*. This isolation was later reinforced by the rising sea, which flooded the southern North Sea and Baltic areas. The isolation of the two populations could potentially date from around 8,000 years ago.

Eight thousand years (or generations) is more than enough for the two isolated pine-feeding populations of northern Europe to have diverged genetically from each other and from the geographically isolated pine-feeding crossbills of the Mediterranean area. The differentiation of *scotica* and *pytyopsittacus* was possibly also aided, as Professor Voous suggested, by 'character divergence', due to the presence of spruce-feeding *curvirostra* populations, which probably colonised Europe only in the last 3,000-4,000 years, as the spruce *Picea abies* invaded Scandinavia from Russia (Moe 1970).

Thus, the crossbills were first divided into the western Palearctic pine-feeding and the central and eastern Palearctic spruce-feeding populations during glacial periods. Subsequently, the western Palearctic populations were subdivided, during the postglacial, into three isolated groups that later evolved into the full species *scotica*, *pytyopsittacus* and the less well differentiated Mediterranean forms. The spruce-feeding *curvirostra* populations then reinvaded the western Palearctic as their main food source colonised the area, to give rise to the present complex of populations.

While I warmly applaud the recognition of *Loxia scotica* as a full species, this presents problems when the remaining *curvirostra* populations are considered. Some of the isolated forms, particularly *himalayensis*, are just as morphologically distinct as *scotica* and, if they were studied as intensively as *scotica*, several 'new' species could well appear. The *curvirostra* species complex is a superb example of evolution in action and warrants much closer study than it has hitherto received.

R. D. MURRAY

143 Eskhill, Penicuik, Midlothian

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Professor Voous has replied: 'I was not as reticent in accepting the hypothesis of a common origin, on the lines described above for *Loxia pytyopsittacus* and *L. scotica*, as is suggested by my good friend Ray Murray. In view of the existence of other pine-feeding crossbills with similar adaptations, I found it wise to point to the fact that there is "no proof of a common origin", but I should have added that this is not at all unlikely. The conclusion, that the recognition at species level of isolated south Palearctic crossbill populations is at stake, is likewise perfectly correct, but I found it better only to indicate this and not to elaborate.,

EDS

# Announcements

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**Expeditions** We shall shortly be starting a new, periodic feature dealing with scientific expeditions by British and Irish ornithologists. We hope that this will include notice of forthcoming expeditions, perhaps including invitations to potential new participants, and also brief summaries of the highlights of the results of completed expeditions. We urge interested parties to report details of plans and results for possible inclusion to either of the two authors of this feature: Mark Beaman, Culterty Field Station, Newburgh, Ellon, Aberdeenshire AB4 0AA, or Richard Porter, RSPB, Abinger House, Abinger Road, Portslade-on-Sea, Brighton, East Sussex BN4 1SB. EDS

**'The "British Birds" List of Birds of the Western Palearctic'** Established subscribers should have received their free copy with either the March or April issue of *British Birds*. New subscribers should claim their copy by sending their latest address sheet and a request to Betsy Gibson, Macmillan Journals Ltd, 4 Little Essex Street, London WC2R 3LF.

**Reduced subscription rates** By using special forms obtained from their local organisations, members of the following clubs and societies, as well as those listed in December 1977 (*Brit. Birds* 70: 562), can now or will soon be able to subscribe to *British Birds* at a reduced rate:

Barnsley & District Bird Study Group	Leeds Birdwatchers' Club
Castleford & District Naturalists' Society	Middle Thames Natural History Society
Cornwall Birdwatching & Preservation Society	Norfolk Naturalists' Trust
Derbyshire Ornithological Society	Oxford Ornithological Society
Doncaster & District Ornithological Society	Rotherham & District Ornithological Society
Dorset Bird Club	Scarborough Field Naturalists' Society
Gloucestershire Naturalists' Society	Sheffield Bird Study Group
Great Yarmouth Naturalists' Society	Société Jersiaise
Hampshire Field Club	Suffolk Ornithologists' Group
Harrogate & District Naturalists' Society	Surbiton and District Bird Watching Society
Hertfordshire Natural History Society	Teessmouth Bird Club
Huddersfield Birdwatchers' Club	Wakefield Naturalists' Society
Isle of Wight Natural History & Archaeological Society	Wiltshire Ornithological Society
Kendal Natural History Society	The Wren Conservation Group
Knutsford Ornithological Society	Yorkshire Naturalists' Union.

Enquiries from the chairman, secretary or treasurer of any other ornithological club wishing to obtain a similar concession for its members will be welcomed by Dr Roger Woodham, Macmillan Journals Ltd, 4 Little Essex Street, London WC2R 3LF.

## Request

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**Colour-ringed Purple Sandpipers and Dotterels** During the 1978 Cambridge

Norwegian Expedition, Purple Sandpipers *Calidris maritima* and Dotterels *Charadrius morinellus* will be colour-ringed. The expedition leader, John Innes, has asked that details of any colour-ringed individuals seen in Britain during the autumn or winter should be reported to A. J. Prater, Beech Grove, Tring, Hertfordshire HP23 5NR.

## News and comment

*Peter Conder and Mike Everett*

**Fair Isle news** As recently as last December, we mentioned that Fair Isle Bird Observatory had a problem: namely the need to raise £7,000 quickly to bring the observatory buildings up to the standards required by strict new fire regulations (*Brit. Birds* 70: 563). A letter from George Waterston, received in May, bore the good news that all the money had been found. Another letter was more depressing: soon after his arrival on the island, new warden Iain Robertson wrote to say that a visitor had stolen one of the observatory's most valuable and useful books, the second volume of Charles Vaurie's *Birds of the Palearctic Fauna* (1965). It has often been claimed that birdwatchers come from all walks of life, but it is sad to reflect that this clearly includes the criminal classes. Our congratulations, by the way, to Iain on his new appointment. He and his wife Sally will be sorely missed at Portland; and at least one fairly regular visitor will miss the touch of the north that they brought to that corner of Dorset! Roger Broad has followed Roy Dennis into a pleasant form of exile from the island: he has joined the RSPB staff (and Roy) in the Highlands.

**Nuthatches and guans** The Algerian Nuthatch *Sitta ledanti*—the bird which startled us all when we heard that it had eluded discovery in Algeria until 1976—numbers at least 20 pairs in the areas where it has been found so far, according to *Aves* (14: 240). Only slightly less exciting than the discovery of an entirely new species is the rediscovery of one long thought to be extinct, as in the case of the White-winged Guan *Penelope albipennis*. Once again, those redoubtable birdfinders from Louisiana State University are in the news: their Dr John O'Neill made the discovery, along with local man Gustavo del Solar, in northwest Peru. The species had not been seen since it was collected by a Polish

expedition in 1877 (see *World Pheasant Association Newsletter* No. 6, January 1978).

**The Richard Richardson Appeal** We are pleased to report that the Appeal (see *Brit. Birds* 71: 92) reached £1,000 in April; but more donations are needed if a permanent and suitable memorial to one of Norfolk's best-known and best-loved birders is to become a reality. They should be sent to Miss Elizabeth Forster, Secretary, The Richard Richardson Appeal, The Double House, Wiveton, Holt, Norfolk.

**Dr Gareth Thomas** Although this quiet-spoken man with the whimsical sense of humour may never be excused for being almost the only Welshman we know who Does Not Sing, nobody—least of all we who have worked with him—can doubt his prowess as a scientific ornithologist. It therefore gives us great pleasure to congratulate him on gaining a PhD for his work for the RSPB on the birds of the Ouse Washes.

**Crime and Punishment** While it is true that the penalties for offences against Schedule One birds are a little more realistic today than they were a couple of years ago, most of us would agree that they still provide no really effective deterrent to egg-collectors and other wrong-doers. Sometimes we look in envy at the penalties imposed in other countries. Some years ago, we heard of a prison sentence imposed in Sweden following egg thefts from White-tailed Eagle eyries. Now, we read of two cases from the USA involving big sums of money; these were detailed in *The Raptor Report* (5: 3), the bulletin of the Society for the Preservation of Birds of Prey (Box 89I, Pacific Palisades, California 90272). In one case, a man was fined \$8,000 for trying to smuggle four illegally-taken Peregrine chicks out of Fairbanks



124. BIRD PHOTOGRAPH OF THE YEAR, 1977. Presentation by Mrs Joyce Grenfell to Peter Lowes, at press reception in London, April 1978 (Betsy Gibson)

Alaska. In the second case, a man made an out-of-court settlement of \$2,000 after facing possible fines of \$3,000 for shooting a Peregrine and \$3,000 *per day* for keeping its stuffed remains for almost two years. Comparing these cases with a contemporary one in Britain, the *Report* called the penalty imposed here 'petty'. Small wonder!... the fine and costs together totalled \$168.

**Owl pellets** A most useful publication has come from the Mammal Society: *The Identification of Remains in Owl Pellets* by D. W. Yalden. It costs a mere 25p plus postage (7p with sac, preferably 6" x 8½"), or 15p each plus postage if you order 10-50 copies, or 10p each plus postage for more than 50. It is available from Mrs N. Chapman, Larkmead, Barton Mills, Bury St Edmunds, Suffolk IP28 6AA.

**New Sheffield journal** We welcome the appearance of a new occasional journal, *The Magpie*, produced by the Sheffield Bird Study Group together with the Department of Zoology at Sheffield University. It aims to publish serious papers on birds in the Sheffield area and, judging from the first issue (November 1977), will be thoroughly worthwhile. Fuller details from K. V. Tayles, 160 Tom Lane, Sheffield S10 3PG.

**Bird Photograph of the Year** The winner of the 1977 award, Peter Lowes (see plate 124), was interviewed on Tync Tees Television, and his winning photograph of a Sparrowhawk was included with articles in the *Darlington & Stockton Times*, *Evening Gazette*, *Northern Echo*, *Yorkshire Evening Post*, *Yorkshire Post* and was noted in *The Times* and on Radio Tees.

**Wings and bodies** We see from *BTO News* (92, March 1978) that a reference collection of passerine feathers is being established at the BTO to aid the identification of avian prey remains. Robert Morgan (Beech Grove, Tring, Hertfordshire) would be glad to receive wings and tails from dead birds in good condition, or the whole bodies of less common species.

**Anything goes!** Bird conservationists in Britain differ in their views as to what constitutes 'artificial meddling' with bird populations that are in trouble, but, broadly speaking, we never have to take our measures to extremes. We, however, never have to face a situation in which we are responsible for the last seven individuals left in the world; if we did, would we be prepared to take the bold step of trapping the whole lot and transferring them elsewhere in a last-ditch effort to save them? This is precisely what has happened with

the Black Robin *Petroica traversi* of the Chatham Islands, one of the world's rarest birds. By 1976, only seven of them remained on Little Mangere, the island which had been their last refuge for almost 100 years and where there had been 17 individuals alive only three years earlier. In the New Zealand Wildlife Service's journal *Wildlife Review* (No. 8), we read that the forest habitat favoured by the robins had dwindled and deteriorated rapidly on the 15-hectare island and that they considered the species to be in imminent danger of extinction. So, it was decided that the birds should be transferred to nearby Mangere, where potentially better conditions were available, and

over a five-day period five robins (two pairs and a spare male) were trapped and successfully relocated, leaving two males on Little Mangere. In 1977, the five birds had reorganised themselves, but two pairs nested: one failed and the other reared one young, a female. The spare male had apparently died in the meantime, so it was then decided that the other two males should be translocated also: this was duly done, so that the Mangere population became four males and three females. With three potential pairs and one spare male, the position has in theory improved since 1976, but much will depend on what happens during the 1978 breeding season. We await further news with great interest.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers April and the first part of May; except where otherwise stated, all dates refer to April.



Spring followed the trend of the past few years, with temperatures remaining below average for long periods. During the first half of April, cold northerly air was directed across the country by anti-cyclones centred to the north or west. As a result, summer migrants were few and far between, and winter **thrushes** *Turdus*

remained in eastern counties awaiting favourable flying conditions. **Golden Plovers** *Pluvialis apricaria* were unusually common in the east Midlands, where flocks of several hundreds congregated in the Trent Valley and in Leicestershire. Although the winds were more southerly during 17th to 22nd, temperatures remained low as frontal systems moved slowly over the country bringing prolonged cloud cover. Strong easterlies on 23rd and 24th, sandwiched between cold fronts approaching from the southwest and northeast, brought warmer air from the Continent. Although no spectacular rush of small migrants occurred, **Cuckoos** *Cuculus canorus* were commonly heard announcing their arrival, a **Nightingale** *Luscinia megarhynchos* appeared at Dungeness (Kent) and two **Spoonbills** *Platalea leucorodia* reached Marazion Marsh (Cornwall). Farther west, in Ireland, a **Golden Oriole** *Oriolus oriolus* and a **Night Heron** *Nycticorax nycticorax* arrived at Cape Clear Island (Co. Cork). The most interesting occurrence, however, was a passage of **Swifts** *Apus apus*, accompanied by House Martins *Delichon urbica*, flying northwestwards in Cumbria. Swifts were

very scarce in other parts of the country during late April, and this was probably a migrant group exploiting an unusual windborne food source; local breeding Swifts do not normally arrive in Cumbria until mid May. An **Alpine Swift** *Apus melba* was seen in Dublin on 31st March.

### Inland tern passage

Hopefully, recent papers on the separation of **Arctic** *Sterna paradisaea* and **Common Terns** *S. hirundo* in flight will lead to more information on their migration patterns, especially inland. Large flocks of mainly Arctic terns were reported from Leicester-shire at the end of April, and at Fairburn Ings (West Yorkshire) over 450 moved northeastwards from 5th to 8th May. A **Gull-billed Tern** *Gelochelidon nilotica* was identified at Warsash (Hampshire) on 29th.

### Shetland divers

A boat-trip in the vicinity of Yell, Fetlar and Unst on 3rd May revealed totals of 100 **Red-throated** *Gavia stellata*, 80 **Great Northern** *G. inmer*, one **Black-throated** *G. arctica* and two **White-billed Divers** *G. adamsii*.

### Displaced migrants

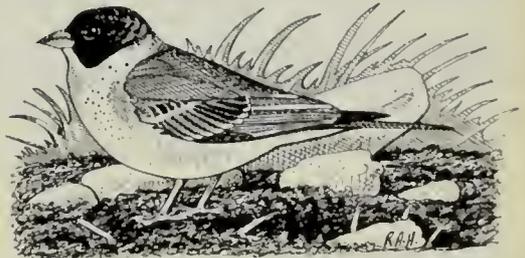
The last few days of April and early May were also rather cold and cloudy, with mainly light, easterly winds: migrants began to trickle in, together with some less regular species. At Flamborough (North Humberside) there was a passage of 42 blue-phase **Fulmars** *Fulmarus glacialis* on 30th, and a **Long-tailed Skua** *Stercorarius longicaudus* and four **Sabine's Gulls** *Larus sabini* on 1st May; ashore, the same day, a **Red-footed Falcon** *Falco vespertinus*, a **Stonechat** *Saxicola torquata* of one of the eastern races and an **Ortolan Bunting** *Emberiza hortulana* added to the excitement. On 2nd May, further arrivals were 23 **Wrynecks** *Jynx torquilla*, 52 **Ring Ouzels** *Turdus torquatus* and two **Hobbies** *Falco subbuteo*. A **Black Stork** *Ciconia nigra* flew over Cley (Norfolk) on 28th, and a **White Stork** *C. ciconia* and a **Little Bittern** *Ixobrychus minutus* were reported in Ireland. A **Greater Yellowlegs** *Tringa melanoleuca* at Ballycotton (Co. Cork) on 27th was probably not a recent transatlantic wanderer, since Palearctic waders were on the move inland during this period.

The English south coast also had its

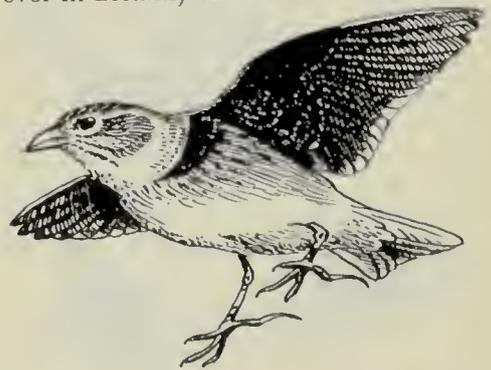
moments. In The Gorge Hotel at Cley, speculation on the next 'twitche' predicted a **Great Spotted Cuckoo** *Clamator glandarius* at Porthgwarra (Cornwall);



to the astonishment of the habitués, a phone call shortly afterwards confirmed the prediction; the cuckoo was first seen on 27th. Portland Bill (Dorset) also attracted many watchers when a **Black-headed Bunting** *Emberiza melanocephala*



arrived on 5th May, to be joined on 6th by a **Red-headed Bunting** *E. bruniceps*, suggesting either that the latter may not have been an escapee, or that both were. The rarest bird, however, was a **Calandra Lark** *Melanocorypha calandra* (only the third ever in Britain) on Fair Isle on 28th.



### Latest news

June: **Black-winged Stilts** *Himantopus himantopus* Chichester (West Sussex) and Dungeness/Rye (East Sussex); **pratincole** *Glareola* Rye; **Great Reed Warblers** *Acrocephalus arundinaceus* Rye and Fair Isle; Fair Isle also: **Red-throated** *Anthus cervinus* and **Tawny Pipits** *A. campestris* and **Rustic Bunting** *Emberiza rustica*.

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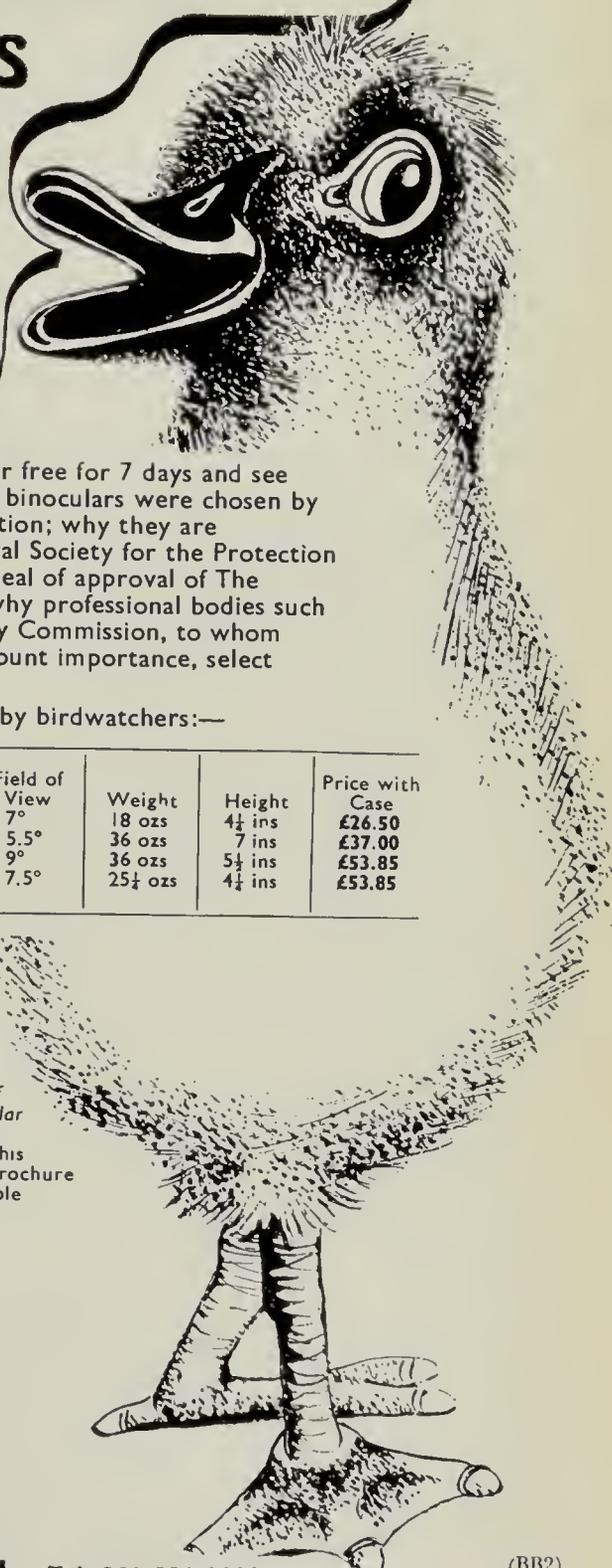
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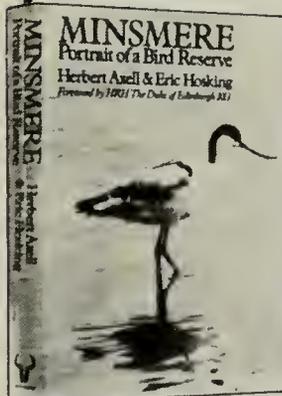
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# British Birds

VOLUME 71 NUMBER 8 AUGUST 1978



## Rough-legged Buzzards in Britain in 1973/74 and 1974/75

*R. E. Scott*



**In the winters of 1973/74 and 1974/75, there were two very large influxes of Rough-legged Buzzards into Britain. In the first winter, 170 may have been present during October, and up to 250 in the same month of the following year. These numbers, and the subsequent wintering populations of up to 80 and 100 respectively, far exceeded those reported during any previous influx**

**S**harrock (1970) detailed records of Rough-legged Buzzards *Buteo lagopus* in Britain during 1958-67, including the then exceptional influx of 1966/67, which was more fully described by Scott (1968). Sharrock's analysis also included a previous, smaller influx in 1960/61. Lists of earlier invasion years will be found in Witherby *et al.* (1940) and Scott (1968). To facilitate comparisons, and since the period covered by this paper partly predates the changes in counties which took effect in the springs of 1974 (England and Wales) and 1975 (Scotland), the new county names and boundaries are not used here.

The arrival in the autumn of 1973 was, in common with earlier influxes, centred on southeast England and was numerically similar to the 1966/67 influx. That the following winter (1974/75) should also produce Rough-legged Buzzards was surprising, since it was apparently the first time that there had been invasions in consecutive years. In the second year, there was an increase of nearly 50% on 1973/74, and far more wintered in the south.

### Autumn 1973 (figs. 1 & 2)

The first two Rough-legged Buzzards in autumn 1973 were well in advance of the main arrival: Banks, Lancashire, on 22nd September and Haxby, Yorkshire, on 28th September. The first main arrival took place on 12th-14th October. Most of those in this first wave probably came on 12th, some of the records on 13th and 14th simply reflecting increased observer activity, since it was then the weekend. At Formby Point, Lancashire, and Eastbridge, Suffolk, Rough-legged Buzzards remained for the weekend, while there were other arrivals in Yorkshire and on the Sussex Downs. On 13th October, two additional birds were recorded in Lancashire, three were noted at Ailsa Craig, Ayrshire, and—perhaps a suggestion

Fig. 1. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during October 1973

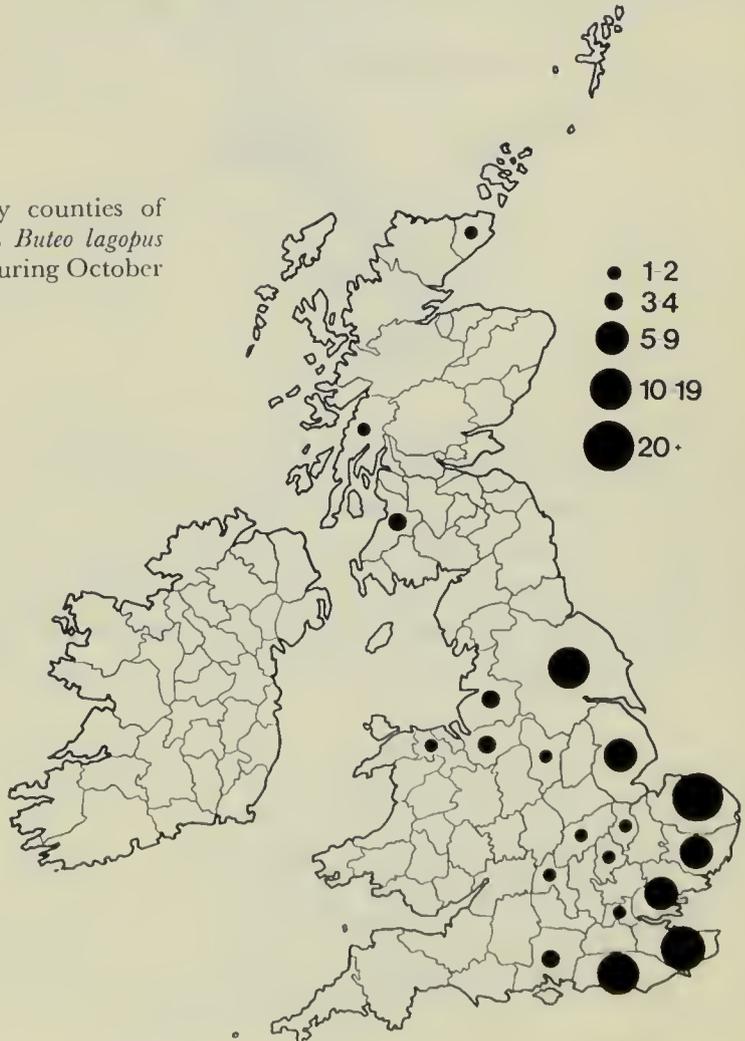
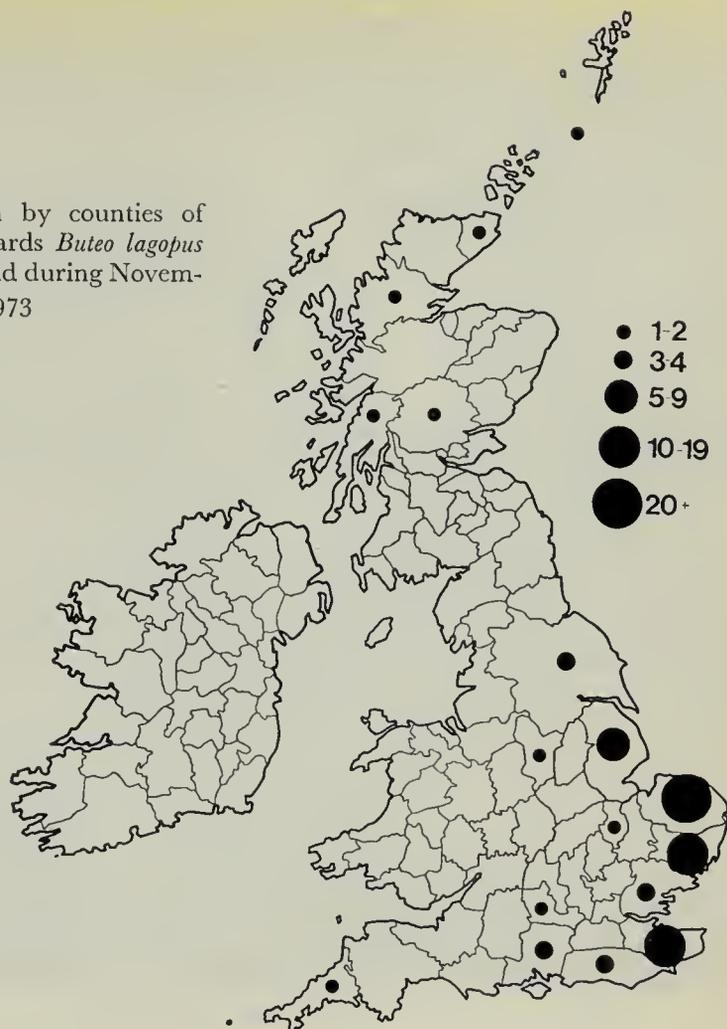


Fig. 2. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during November 1973



of onward passage—one flew north over Harrow, London. There were indications of a more southerly arrival on 14th, when six were noted in the Beachy Head area, Sussex, and the first ones were recorded in Kent and Essex. Inland on this date, onward passage produced records at Shot-over, Oxfordshire, and Brockhall, Northamptonshire, the latter remaining until 21st.

Two days (15th and 16th October) with a lack of records were followed by a marked arrival on the east coast on 17th, involving at least 17 (five in Suffolk and six in Kent) from Guisborough, Yorkshire, south to Beachy Head, Sussex. The position then became less clear-cut because of those established in the country, particularly in east and southeast coastal counties. There were new arrivals on the coast from Yorkshire south to Kent, but no clear passage, except in Norfolk, where there were about 50 sightings between 20th and 31st, with perhaps as many as 45 on the north Norfolk coast. The main arrival there (hardly reflected elsewhere) appears to have been during 26th-27th, with over 30 in the Holme-Winterton area during 20th-27th. No comparable arrival was recorded in Suffolk, although a general increase in November perhaps resulted from onward movement from Norfolk. Certainly, November produced no

**Table 1. Numbers of Rough-legged Buzzards *Buteo lagopus* in Britain in 1973/74 and 1974/75**

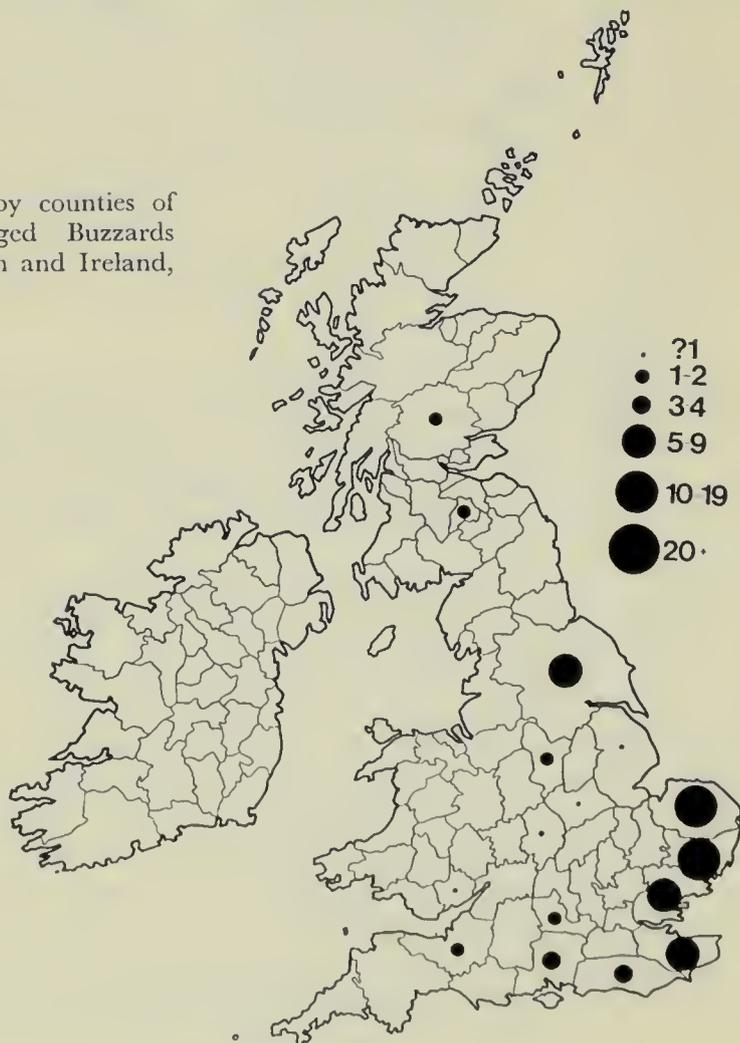
	1973/74	1974/75
September	2	2
October	120-170	210-250
November	70-100	115-135
Wintering (Dec-Feb)	50-80	85-100
March	c30	90-105
April	c20	c80
May	5	c20

pattern of arrivals; rather, a general dispersal. From 31st October, a scattering of reports (involving at least five birds) were received from Scotland, including one at Fair Isle, Shetland, on 29th November.

### Winter 1973/74 (fig. 3)

Any Rough-legged Buzzard which remained, or is presumed to have remained, in one area for at least two weeks in December-February is taken as a wintering individual; those recorded over a shorter period are taken only as possible wintering birds. The bulk of the records were on

Fig. 3. Distribution by counties of wintering Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland, 1973/74





125. Rough-legged Buzzard *Buteo lagopus*, Netherlands, December 1973 (Frits van Daalen)



126. Rough-legged  
Buzzard *Buteo  
lagopus*, Czechoslo-  
vakia, January  
1974 (Ladislav  
Simák)



127. Rough-legged Buzzard *Buteo lagopus*, Netherlands, December 1973 (P. Munsterman)

the east coast between Norfolk and Kent. The total was 50-80, probably 65-70: remarkably close to the upper limit of 67 wintering in 1966/67 (Scott 1968).

### Spring 1974 (figs. 4 & 5)

Inevitably, trying to distinguish spring passage is extremely difficult because of overwintering. Individuals known to have wintered in a

Fig. 4. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during March 1974

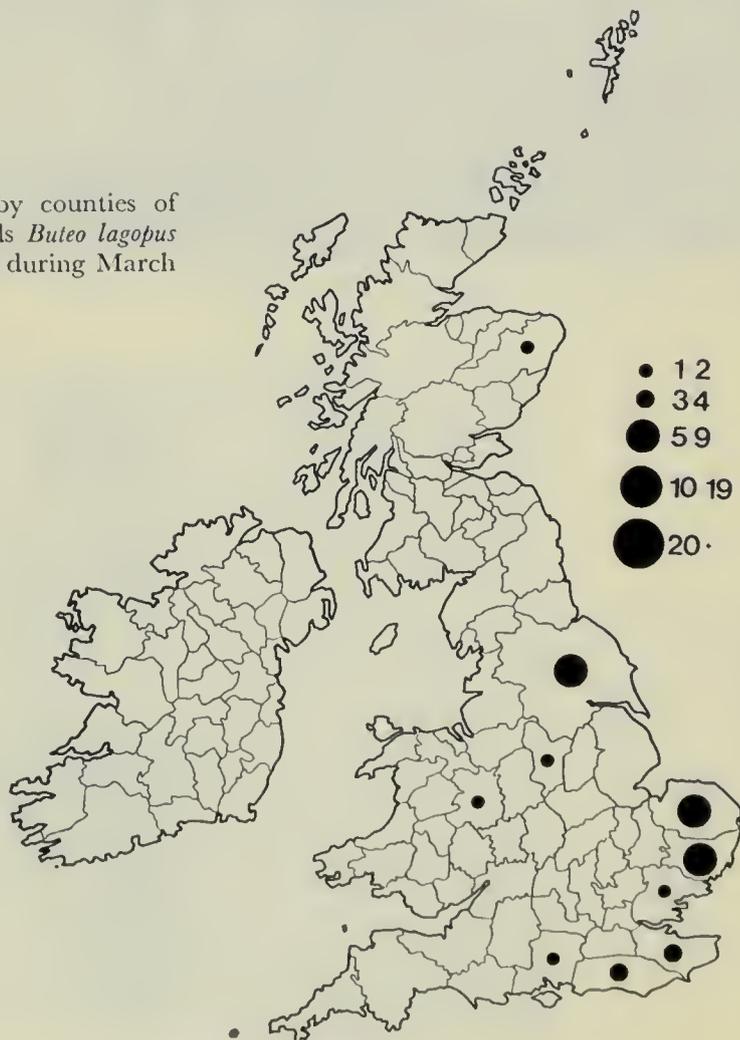
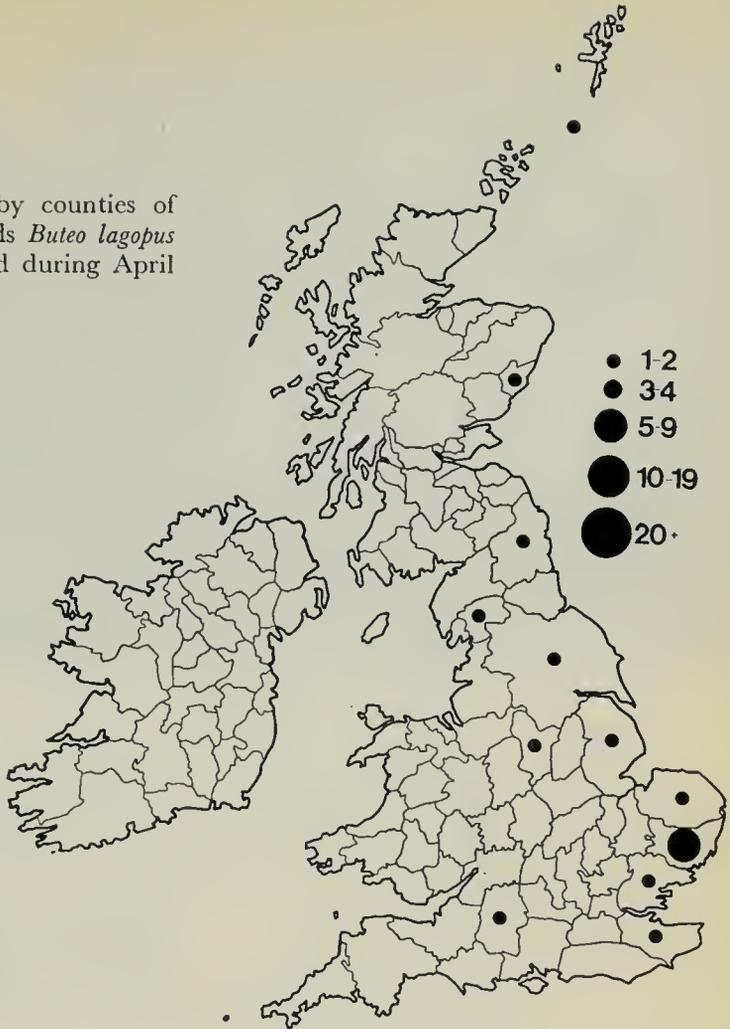


Fig. 5. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during April 1974



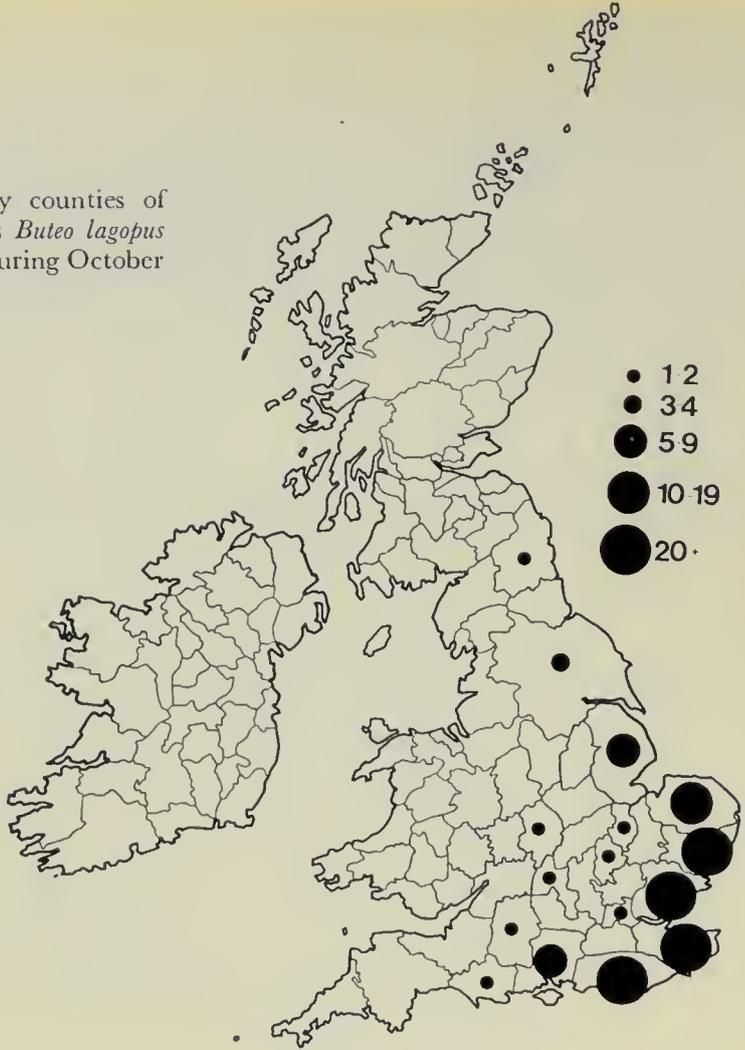
particular area were last recorded on dates varying from mid February to 28th April, perhaps even early May. It is possible, however, from the distribution of records, to deduce that most departures took place in two periods: 27th-30th March and 23rd-28th April. Following each of these periods, there was a scattering of new reports from areas without previous records.

Only five were reported in May: Norfolk on 1st-4th; one attempting to migrate northeast over Coquet Island, Northumberland, on 2nd; Fair Isle on 6th; and Aberdeenshire and Northumberland on 7th.

#### **Autumn 1974** (figs. 6 & 7)

Following two extremely early records surprisingly far west—at Kentmere, Westmorland, on 9th September and flying east at Marazion, Cornwall, on 16th September—there was a scattering of records between 2nd and 18th October on the east coast (Lincolnshire to Suffolk) and south coast (Sussex and Hampshire), with a noticeable gap in Essex and Kent. The pattern then became markedly different from that of the preceding winter, with a sudden marked arrival on 22nd October, concentrated on the Suffolk coast.

Fig. 6. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during October 1974



The October pattern from 22nd onwards is probably best summarised by counties from north to south:

**YORKSHIRE** One at Spurn on 22nd. Small numbers recorded on passage at coastal sites from 31st until 14th November.

**LINCOLNSHIRE** Five at Gibraltar Point on 22nd.

**NORFOLK** No obvious arrival, but widespread from 26th.

**SUFFOLK** In 4½ hours on 22nd, total of 45 came in from sea and headed south at Minsmere; mainly in small groups of one to three, but one party of 11. One flew south over Felixstowe on 22nd. On 24th, total of 40 flew southwest at Walberswick, including 13 in air at once; again, one over Felixstowe on 24th. (There is no way of knowing whether those at Walberswick on 24th were the same as those at Minsmere on 22nd.)

**ESSEX** At least nine in coastal localities on 22nd, including one in from sea at Walton-on-Naze. Further arrival on 24th and 25th was probably onward passage from Suffolk, and this movement apparently continued into Kent.

**KENT** One at Dungeness on 22nd. Marked arrival from 24th onwards, presumably continuation of southward movement in Suffolk, although three arrived from east at Sandwich Bay on 24th.

**SUSSEX** At least 15 watched arriving from sea at Beachy Head on 22nd, Scattered reports of about 18 during 23rd-31st. Five arrived from sea at Beachy Head on 4th November.

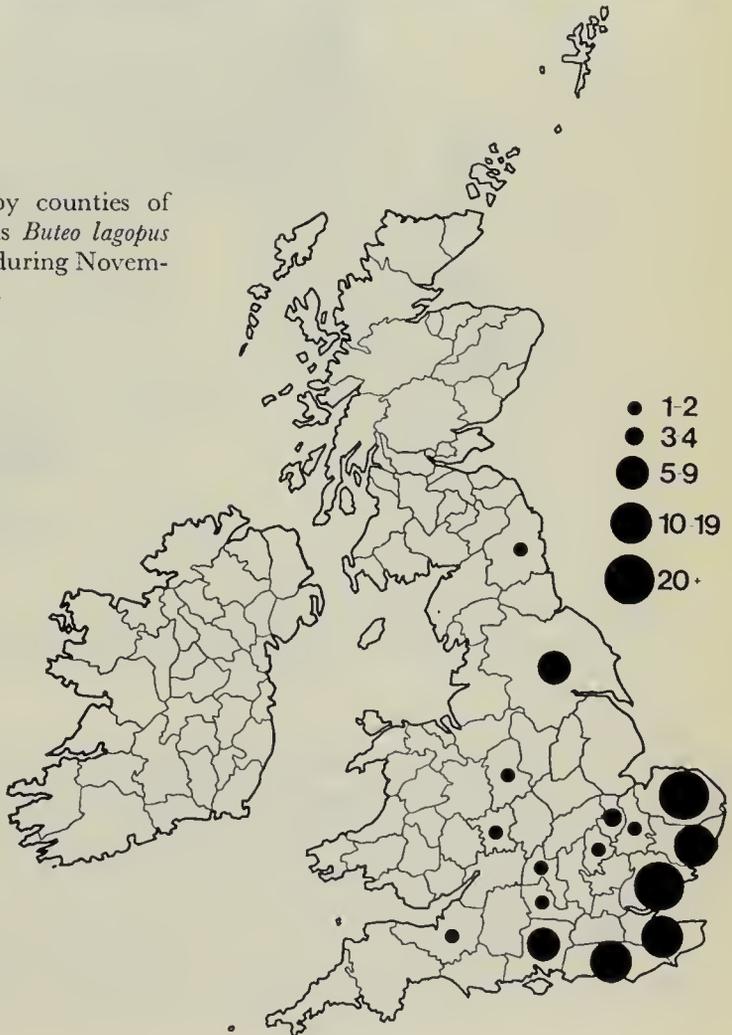
**DORSET** One at Portland Bill on 22nd.

At least 78 were recorded in Britain on 22nd October. From 31st



128. Rough-legged Buzzard *Buteo lagopus*, Netherlands, December 1973 (P. Munsterman)

Fig. 7. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during November 1974

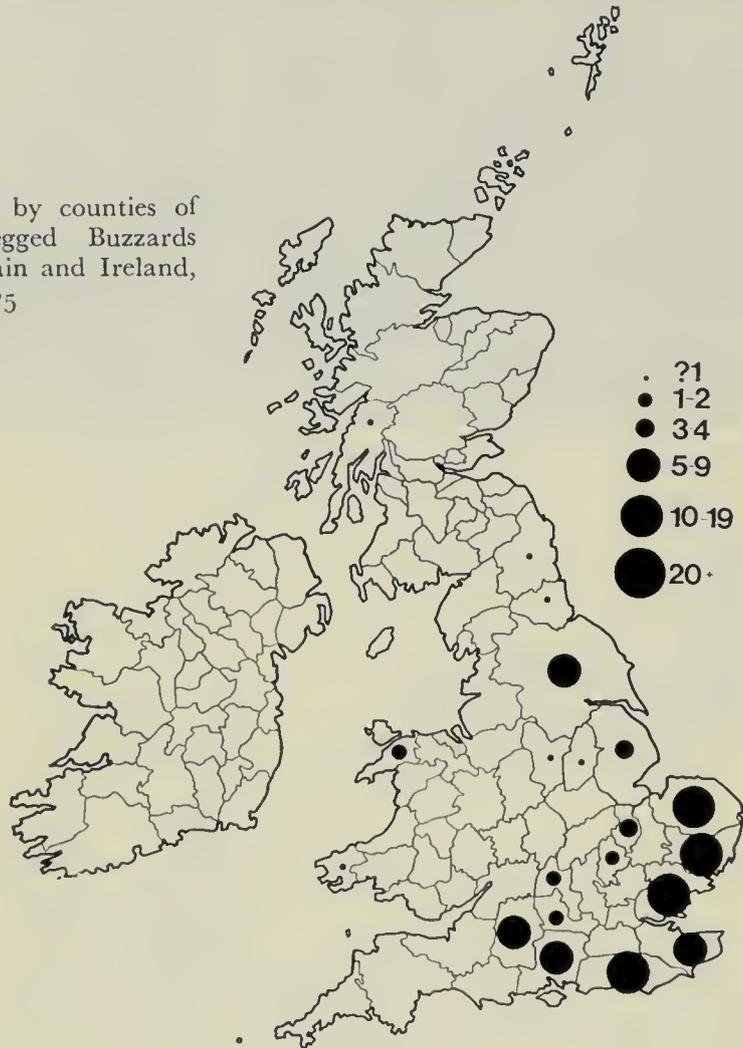


October onwards, they were becoming widespread and settling into their eventual wintering areas.

### Winter 1974/75 (fig. 8)

Generally more numerous than in the preceding winter, with 85-100 (probably 90-95) wintering. As in 1973/74, most were in the east; but

Fig. 8. Distribution by counties of wintering Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland, 1974/75



there were also some spread along the south coast, with a substantial wintering population in Sussex, Hampshire and Wiltshire.

### Spring 1975 (figs. 9 & 10)

Wintering individuals were last recorded between 22nd March (Kent) and 6th May (Huntingdonshire); but the majority left in mid April. There was, however, no standard pattern: in Sussex, for example, all 12 which wintered left between mid March and 8th April.

Compared with the preceding spring, movements were more marked on the east coast (probably the result of the greater numbers wintering) and there was a later departure, including summering individuals. Isolated records, perhaps referring to passage birds, appeared from 14th March

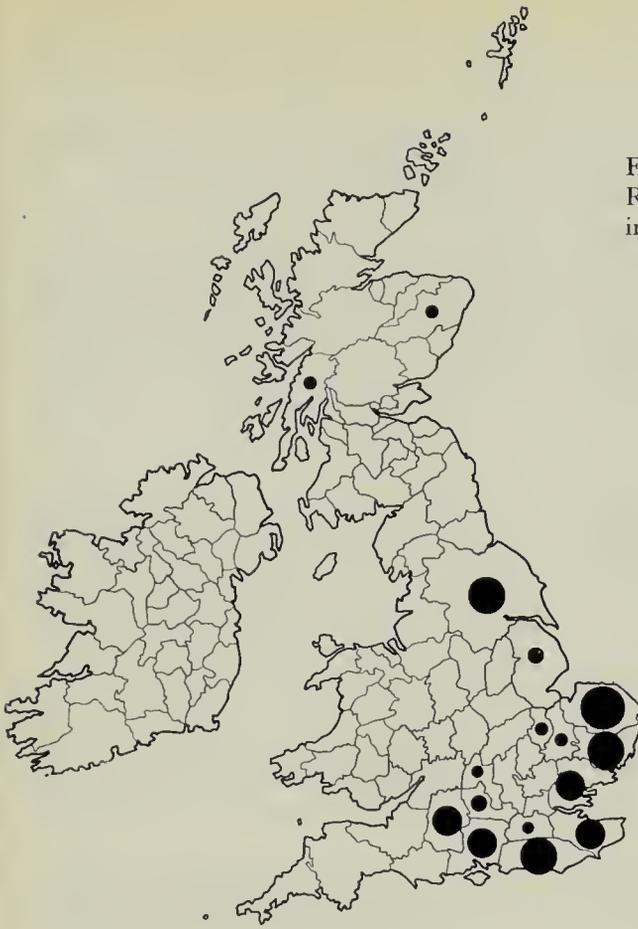


Fig. 9. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during March 1975

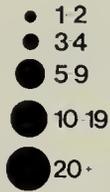


Fig. 10. Distribution by counties of Rough-legged Buzzards *Buteo lagopus* in Britain and Ireland during April 1975

(Argyll) and 15th March (Aberdeenshire) and continued throughout April and into early May. Reports of apparent migrants were recorded from Yorkshire and Norfolk:

- 13th April One flew north, Bempton, Yorkshire.  
 19th April Ten apparently attempting to migrate northeast, Winterton area, Norfolk.  
 28th April 15 arrived from northeast, soared away southwest, Holme, Norfolk.  
 30th April Three flew north, Hornsea, Yorkshire.  
 10th May One flew north, Bempton, Yorkshire.

Other May records included four in Scotland and—the only concentration in the month—a party of 12 at Winterton, Norfolk on 1st. Apart from possible summerers (see below), the only three June records were in Scotland: two in Shetland (Scalloway on 3rd and Fair Isle on 11th) and one in Perthshire (29th).

### Summer 1975

The party at Winterton, Norfolk, on 1st May included a displaying pair; they were noted in display again on 4th and remained in the area until at least 15th. What was presumably one of this pair was reported until at least 22nd June, and perhaps summered in the area, since a single bird was seen on 3rd August, and one at Salthouse Heath on 8th August.

Another may have summered at the Wiltshire wintering site, since there were records there on 3rd July and 26th August.

Three at Caistor, Lincolnshire, in mid April were observed displaying and carrying twigs (see *Brit. Birds* 71: 30).

### Comparison with earlier years

Sharrock (1970) summarised the status of this species during 1958-67; discounting the influx year of 1966/67, only one or two winter in Britain in an 'average' year.

The 1966/67 influx (Scott 1968) provides the only comparable data (see table 2) and was remarkably similar to the 1973/74 influx as regards

**Table 2. Comparison of three influxes of Rough-legged Buzzards *Buteo lagopus* in Britain**

	1966/67	1973/74	1974/75
First record	1st Oct	22nd Sept	9th Sept
Total counties in autumn (Sept-Nov)	28	25	23
Peak passage	27-29 Oct	12, 17, 26-27 Oct	22-24 Oct
Total counties in winter (Dec-Feb)	18	16	20
Total wintering	57-67	50-80	85-100
Total counties in spring (Mar-June)	18	16	24
Last record	29 May	7 May	29 June

both numbers and distribution. In the 1974/75 winter, however, there were not only more individuals, but also a higher proportion wintering in the south and west of Britain (fig. 8).

### Continental data

Ringling recoveries indicate a north-south migration of the Fenno-Scandian Rough-legged Buzzard population (Schüz 1971), with the

wintering area extending no farther north than Denmark and the southern provinces of Sweden. The small numbers in eastern Britain in most winters are some of the most northerly winterers in Europe.

Requests to Continental sources for information relating to 1973/74 and 1974/75 provided the following data:

FINLAND (*Kalevi Hyytiä*) No unusual events in 1973/74 or 1974/75. On 12th October 1974, over 200 flew south near Helsinki, but marked passage occurs most Octobers.

NORWAY (*Geoffrey Acklam*) No unusual numbers in autumn 1973. On 6th October 1974, widespread passage, involving at least 150, including 49 at one site: above-average autumn migration in Norway.

SWEDEN (*Dr Sören Svensson & Christian Hjort*) The small wintering population in southern Sweden apparently stable, numbers in 1974/75 similar to 1975/76. Autumn counts at Ottenby, Öland, were, however, high in 1973 and 1974. 1947-56: From 43 to 340 recorded each autumn, with grand total of 1,583 in the ten years (Edelstam 1972). 1973: First passage 23rd September; total of 661, with peak of 413 on 5th October. 1974: First passage 20th September; total of 1,775, with peak of 842 on 13th October. (On 10th October, about 1,000 passed over Torhamn.) 1975: No reliable total. 1976: First passage 16th September; minimum total of 137: considered to be a

'normal' year.

DENMARK (*Lasse Braae*) In both winters, 'a great deal below the normal figure.' Some above-average numbers were recorded on spring passage in 1974 and 1975, but autumn numbers were 'far below the normal figures', and the larger passage in Sweden was not reflected in Denmark. Only the islands of Bornholm and Mön in the east recorded strong autumn movements.

NETHERLANDS (*M. J. Tekke*) Wintering populations above-average in both 1973/74 and 1974/75, but unfortunately the quantitative data are divided by years and not winters, so much of the significance of the number of records is lost: 1969 28; 1970 50; 1971 37; 1972 26; 1973 71; 1974 62; 1975 50.

BELGIUM (*Dr Pierre Devillers*) None in 1973/74; two records in 1974/75: normal status.

FRANCE (*Laurent Yeatman*) 'Nothing exceptional has been observed in France during the years of invasion in your country.'

From these summaries, one may tentatively suggest that the low numbers in part of the normal wintering range (e.g. Denmark) were counterbalanced by the wintering birds around the southern North Sea (e.g. eastern Britain and the Netherlands). It is possible that, rather than any change in population level or breeding area resulting from a fluctuating food supply, both influxes simply reflected changes of wintering ground, resulting from a more westerly autumn migration, particularly by the more western birds. The generally higher counts in the autumn of 1974, however, suggest that there may have been a higher total population in that year.

### Mortality

During the two winters, there were instances of three shot, five others also found dead, and four picked up weak or injured; almost twice as many were found in 1973/74 as in the following winter, even though the population was only some two-thirds of that in 1974/75. Only one subsequently recovered and was released.

One found dead at Lullington Heath, Sussex, on 1st December 1974 had probably been feeding on a dead rabbit *Oryctolagus cuniculus* injected with phosdrin: an analysis of the crop content showed 120 micrograms of phosdrin (approximately 10 ppm). The oesophagus contained fur, suggesting that the bird had been trying to regurgitate; otherwise, it was

in good condition, with no trace of organochlorine residues (per R. F. Porter).

### Acknowledgements

Thanks are due to Keith Anderson, who undertook the initial collection and some preliminary analysis of the data, especially for the 1973/74 winter.

This paper would not have been possible without the help of the many observers and county recorders who kindly answered my letters of enquiry. Similarly, grateful acknowledgement is made for the data provided by the Continental correspondents.

### Summary

Influxes of Rough-legged Buzzards *Buteo lagopus* occurred in Britain in two consecutive years, 1973/74 and 1974/75. In both cases, autumn arrivals were concentrated in the third week of October and centred on east and southeast England. During October, as many as 170 and 250 individuals were recorded in Britain, with subsequent wintering populations of up to 80 and 100. The larger 1974/75 wintering population had a wider distribution, extending into south-central England. Two apparently summered in 1975 and some aspects of breeding behaviour were noted. Continental data suggest that the more westerly population crossed the North Sea to Britain. Twelve were picked up dead or injured in Britain during the two years, at least three having been shot and one poisoned.

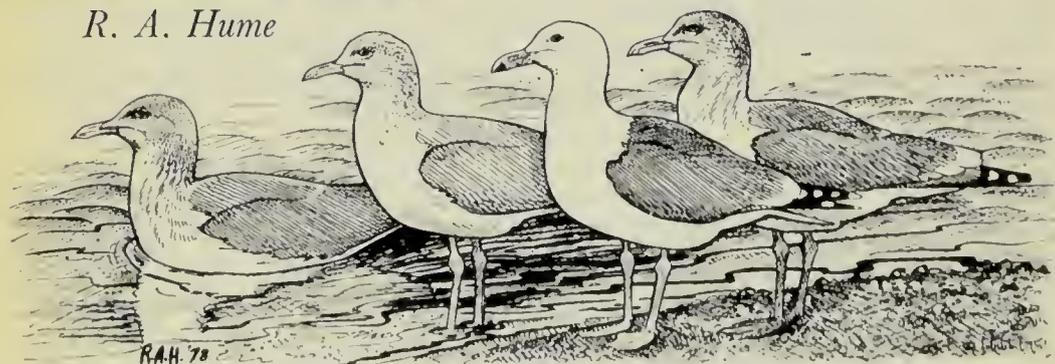
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## Variations in Herring Gulls at a Midland roost

R. A. Hume



The Herring Gulls observed in central England in winter appear to be of at least four distinct types. Can they be related to known races? Where do they originate?

**M**ost species of gull show relatively little individual variation in adult plumage, bare part coloration and size. Lesser Black-backed *Larus fuscus* and, especially, Herring Gulls *L. argentatus* do, however, vary quite markedly. This paper is concerned mainly with the diversity observable in the field among adult or near-adult Herring Gulls in England in winter.

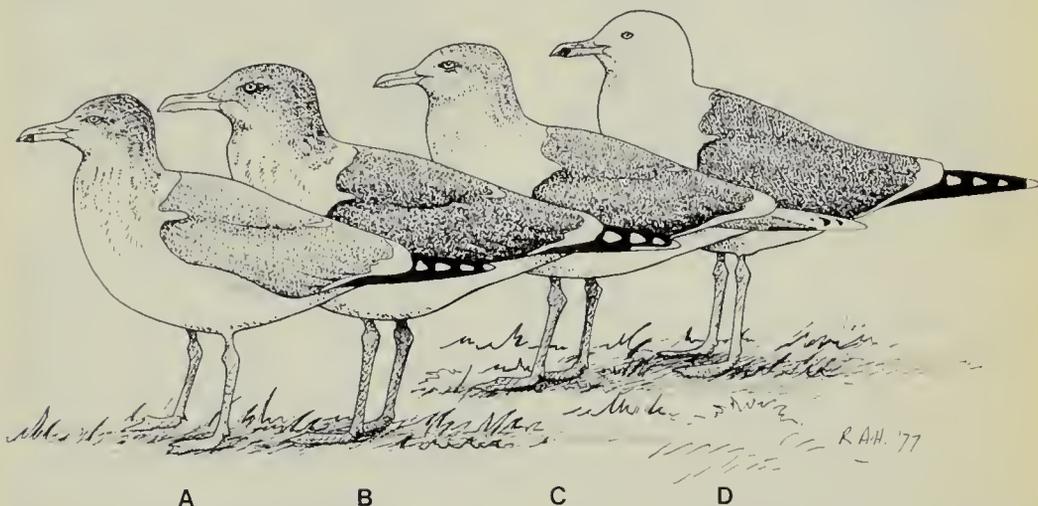


Fig. 1. Four types of Herring Gull *Larus argentatus* observed at Cannock Reservoir, Staffordshire/West Midlands, during winters of 1974/75 and 1975/76. From left to right: type A (*L. a. argentatus*?), type B (*L. a. argentatus*), type C (*L. a. argentatus*: *thayeri*-type variant), type D (yellow-legged type). See text for full details

I have watched winter gull roosts regularly at Cannock Reservoir, Staffordshire/West Midlands, most intensively during the winters of 1974/75 and 1975/76. The Herring Gulls there, which usually number 500 to 1,000, vary considerably, and similar variants occur at other roosts in the West Midland area. Apart, however, from one yellow-legged Herring Gull, I did not notice such frequent differences during regular watching of gulls during 1968-74 in south Wales, where the coastal population is probably essentially local, unlike the purely winter-visiting flocks of central England. Firm conclusions as to the origins and races of these gulls are difficult to draw, but it is worth noting the variety which occurs and relating this to the characters of Herring Gulls elsewhere in Europe.

Four main types, A, B, C and D, are broadly separable. These are summarised in table 1 and illustrated in figs. 1 and 2.

#### TYPE A *L. a. argentatus* (?)

The majority of the gulls are of this type.

**SIZE** Not much larger than Lesser Black-backed Gulls of the British race *graellsii*. **BILL** Pale or rich bright yellow. **HEAD** In winter, dusky, brown-streaked, a small number with whiter heads; increasing numbers develop white head of summer

plumage from February (a few from early January; G. H. Green *in litt.*). **MANTLE** Consistently pale, between Common *L. canus* and Black-headed Gulls *L. ridibundus* in tone. **WINGS** With rather extensive areas of black. **LEGS** Pink.

#### TYPE B *L. a. argentatus*

From the small, pale type A, there is more or less a gradation to the other

extreme. Birds of type B appear at Cannock from early November and may number 100 or more by January.

**SIZE** Large or very large, some equalling small Great Black-backed *L. marinus*. **BILL** Long, often very pale or dull. **HEAD** Long and angular, dusky with heavy streaks. **MANTLE** In most, similar to that of Common Gull or a little darker; small proportion look considerably darker still: matt, neutral grey without silvery-bluish tinge of British race, some even approaching palest Lesser Black-backs in certain light.

**WINGS** Broad with reduced black on tips. Largest and darkest individuals in particular with much reduced black on primaries and extra grey extending from base rather than very much more white at tip; and underside of wing-tips may show very little or no black, but subterminal smudge of grey, and apparently complete white trailing edge to tip. **LEGS** Long, deep pink.

#### TYPE C 'thayeri' type

These more or less distinct individuals have shown noticeably different wing-tip patterns. Type C gulls, seen irregularly from January to March, numbered no more than about five per winter.

**SIZE** Variable, medium-large, from rather large to average type A. **BILL** Medium or rather large; dull coloration. **HEAD** Dusky, streaked. **MANTLE** Darker than in type A (in one case approaching darkest type B). **WINGS** Tips with much white and little black: precise pattern difficult to see in field and varied in detail, but all individuals ap-

peared to have large white tips to two outermost primaries with subterminal black streak on each (probably restricted to outer web); on next two or three primaries, extensive white areas and subterminal black marks; white trailing edge to wing broader than usual on at least one individual. **LEGS** Pinkish.

**Table 1. Different types of Herring Gull *Larus argentatus* observed at Cannock Reservoir, Staffordshire/West Midlands, during winters of 1974/75 and 1975/76**

See text for full details of types A-D

	TYPE A (1,000 individuals)	TYPE B (100 individuals)	TYPE C (5 individuals)	TYPE D (under 5 individuals)
Size	Small, short-winged. Slightly larger than Lesser Black-backed <i>L. fuscus</i>	Large, many half to two-thirds more in bulk than small individuals	Medium-large	Medium, long-winged
Mantle	Palest, between Common <i>L. canus</i> and Black-headed Gulls <i>L. ridibundus</i> in tone	Dark, similar to or shade darker than Common (some darker still)	Dark or very dark	Dark; slaty grey, darker than Common
Wing-tips	Fairly extensive black; small white tips and mirrors	Markedly reduced area of black; more grey rather than extra white; broad	Little black, much more white	Extensive black above and below; small white tips and mirrors; long and pointed
Head in winter	Very dusky, streaked grey-brown; small proportion whiter	Dusky, heavily streaked; long and angular	Dusky, streaked	Typically pure white; large and rounded
Bill	Pale, to rich bright yellow	Large and long; pale, dull	Medium to large; dull	Stout but not especially long; deep bright yellow with large dark red spot
Legs	Pinkish	Long; deep pink	Pinkish	Long; bright yellow

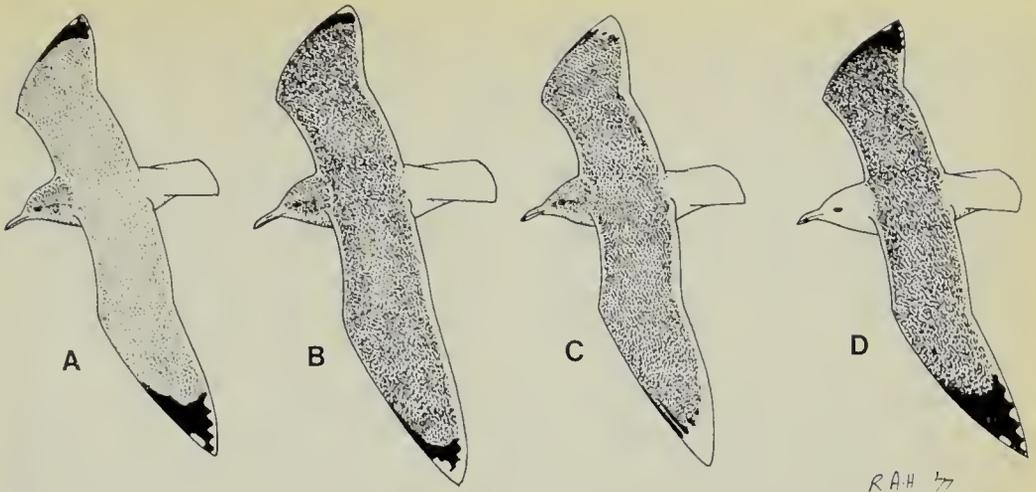


Fig. 2. Flight appearance and wing-tip pattern of four types of Herring Gull *Larus argentatus* observed at Cannock Reservoir, Staffordshire/West Midlands, during winters 1974/75 and 1975/76. From left to right: type A (*L. a. argentatus*?), type B (*L. a. argentatus*), type C (*L. a. argentatus*: *thayeri*-type variant), type D (yellow-legged type). See text for full details

The wing-tip patterns of this type simulate those described for Glaucous *L. hyperboreus* × Herring Gull hybrids; at a distance, they could be mistaken for Glaucous or Iceland Gulls *L. glaucoides*, were it not for their unusually dark upperparts. (During autumn moult, gulls have short or missing outer primaries and much of the black is either absent or, if on part-grown feathers, cannot be seen from above. Black tips are, however, visible on growing feathers part-way along the primaries from below. An apparent lack of black may, therefore, be due to the primary moult rather than a genuine difference in pattern: a more likely source of confusion than the much-discussed effects of wear.)

#### TYPE D Yellow-legged gulls

This most distinctive form has occurred for at least four winters. In November 1973, an adult Herring Gull with yellow legs was detected by A. R. M. Blake. In 1974, a similar one remained from 2nd November until mid winter, with occasional sightings of other, apparently identical gulls; it was watched by many observers, including J. E. Fortey, E. G. Phillips and D. Smallshire. In 1975, an adult, perhaps the same, was first seen on 1st November, and a series of sightings of both adults and sub-adults followed until February 1976. A near-adult appeared on 30th October 1976 and a full adult in November. All showed similar striking features and were generally quite easy to locate.

SIZE 'Average' Herring Gull, not especially large. BILL Not unusually long, but noticeably thick; very bright, deep yellow with large, dark red patch extending slightly onto upper mandible from gonyx (also black spot on sub-adults). HEAD Large and rounded, on thick, smoothly curved neck. Always appeared pure white on adults all winter (or with only faintest of

grey smudging near eye). One sub-adult had small brown marks between eye and bill. Head and bill, together with curved, narrow-based white neck, gave characteristic expression not due solely to whiteness. MANTLE Noticeably dark, slaty grey, darker than Common but not quite so dark as the darkest Herrings. White tips to secondaries always conspicuous. WINGS

Long and pointed; prominent white trailing edge, extensive black on tips. Four white spots showed on closed wing-tip; one white mirror on outermost primary (white lacking on sub-adults). Black extended right to base of outermost primaries; very fine, dark shaft streaks on primary coverts. Sub-adults had various amounts of brown on primaries and coverts. From beneath, band of grey across flight feathers almost as dark as on Lesser Black-backed and extensive black patch

below tips. Upper wing pattern much more contrasted and clear-cut than on Lesser Black-backed. On arrival (end of October/early November), all had new and full-grown primaries, whereas other Herrings had outermost short or missing owing to moult (some not full-grown up to six weeks later). LEGS Long; those of adults, bright, rich yellow, regularly noted as being brighter than average winter Lesser Black-backed; those of sub-adults, paler yellow with brighter webs.

In each case, these type D gulls often remained at the reservoir during the day, which few other large gulls did except in fog or hard weather. On most evenings, they fed and rested on or near the shore among groups consisting mostly of immatures, whereas the majority of the adults were in rafts on the reservoir centre.

Type D gulls differed from all other types by their yellow legs, while only a very small number of pink-legged gulls retained such white heads in winter. The yellow-legged gulls had brighter bills than most, especially the dark type B ones: compared with other dark-mantled Herrings, they had brighter bills, whiter heads, much more black both above and below the wing-tips, and darker grey beneath the flight feathers; they moulted earlier; their whole appearance seemed cleaner, neater and more elegant.

### Discussion

According to the BOU (1971), 'Herring Gulls belonging to other races—notably *L. a. taimyrensis*, *L. a. michahellis* and perhaps *L. a. heuglini*—may have occasionally wandered to Britain and Ireland, but we are unaware of any record definitely assignable to any subspecies other than *L. a. argentatus*.' At present, it seems practically impossible to prove the identity of any race other than *argentatus* in the field; even with a specimen available it may be difficult. Nevertheless, individuals do occur in Britain which appear to have characters associated with other races; this applies particularly to those with yellow legs, although this character alone is not sufficient proof.

### Taxonomy

The taxonomy of the group is notoriously complex, and it is difficult to establish which races are at present acceptable. Some authors still refer to Scandinavian Herring Gulls as *L. a. omissus*; others regard *omissus* as no longer valid (a synonym of *argentatus*), or split it between *argentatus* and *heuglini*. Whereas the BOU treats British individuals as belonging to the race *argentatus*, others consider the Scandinavian *argentatus* as distinct from British/North Sea/Icelandic ones, which thus become *L. a. argenteus* (the nomenclature tentatively followed in this paper). Some authors have placed the various yellow-legged races as subspecies of the Lesser Black-backed Gull rather than the Herring. Alexander (1954), on the other hand, considered them to be a distinct third species, the Yellow-legged

Gull *L. cachinnans*, characterised by its sleek form, yellow legs, slaty mantle and white head in winter; although he recognised this last feature as a constant character, it has received less attention than leg colour and wing-tip pattern. In Sweden, records of *cachinnans* and *omissus* are no longer generally accepted: yellow-legged individuals are treated merely as variants within *argentatus* (L. Svensson *in litt.*). It has been suggested that yellow-legged Herring Gulls in Britain, such as those at Cannoek, are also variants.

Barth (1966, 1967a, 1967b, 1968, 1975) undertook very extensive studies of European Herring Gulls, especially in Scandinavia, where he regarded all as *argentatus* with no subspecific division; the form in the North Sea area, Britain, the Faeroes and Iceland he considered to be *argenteus*, with diagnostic features of paler mantle, short bill and short wings. In Norway, he demonstrated a continuous cline of *L. a. argentatus* from south to north (British birds may be regarded as one end of this). The situation is complicated, but, basically, the Scandinavian individuals are palest in the south and darkest in the north and in Finland; British ones are palest of all. Barth gave pale greyish legs as most common in Norway, but yellow or yellowish legs occur throughout the population, with yellow most common in north Norway and Finland (and perhaps most intense in colour in summer). Eye-ring colour varies from yellow through orange to red; orange or red is found widely, but most frequently in the north. It is not, however, associated with the colour of the legs: both pink/grey-legged birds and yellow-legged ones may have yellow, orange or red eye-rings.

Although there are exceptions, in general the extent of black on the wing-tips diminishes towards the north and northeast. In Norway, a pattern which may be called a 'thayeri-type' (see type C) is found on a small number of gulls, most commonly in the far north. This resembles that of Thayer's Gull *L. thayeri* (or *L. a. thayeri*) of North America, with a reduced amount of black, especially on the inner webs, and extensive areas of white on the primary tips. Primary patterns of Scandinavian Herring Gulls as a whole are, however, very variable (Dr P. I. Stanley *in litt.*).

British Herring Gulls are the smallest: with short bills and wings. All dimensions increase northeastwards, with the largest individuals in Finnmark and Finland. Those in northern Norway are characterised by dark mantles, long bills (except in Finnmark), long wings and tails, and large total size.

### *Geographical origins*

With such extensive variations and the complex taxonomy, it is difficult to suggest with any precision the racial status and geographical origins of all the Herring Gulls observed at Cannoek. It does, however, seem clear that those in winter include a very few of the *thayeri*-type (type C); and others (type B) have exactly those characteristics—large size, dark mantle, little black on the wing-tip—expected of more typical birds from northern Norway or Finland (*L. a. argentatus* rather than *argenteus*).

Harris (1971) suggested that British Herring Gulls should have com-

pleted their moult by October (earlier than the Scandinavians), and recent British catches have provided further confirmation of this. Herring Gulls roosting inland in southeast England appear to include a low proportion of British individuals, although there is a little evidence that both British and Scandinavian ones winter in Worcestershire (G. H. Green and Dr P. I. Stanley *in litt.*). The Cannock gulls of type A may, therefore, include some of southern Scandinavian origin rather than be all British: further observations of their state of moult after October should elucidate this. This may in turn support arguments that all should be regarded as *argentatus*, and that *argenteus* should not be recognised as a valid race; but, again, the southern North Sea section of *argenteus* could be involved.

The yellow-legged gulls present most problems. Yellow legs, dark mantle, white head, bright bill and other features which make them distinctive in the field can all be explained in terms of individual variation. One would not, however, expect all these characters—and extensive areas of black on the wings (positively not associated with yellow-legged Scandinavian gulls)—to occur regularly in combination; nor that each individual should moult rather earlier than Scandinavian *argentatus*. Yellow-legged Herring Gulls trapped in southeast England have in other respects matched type B ones and are therefore likely to have been simple variants as described by Barth (Dr P. I. Stanley *in litt.*).

### Conclusions

Despite the whole spectrum of variations found among *argentatus*, the constant combination of characters of the Cannock Herring Gulls suggests a distinct subspecies rather than individual variants. It is difficult to establish which one. Of the yellow-legged races, *cachinnans* has, according to Witherby *et al.* (1941), extended grey areas (less black) on the outer primaries, with a whitish patch inside the black tip: this does not accord well with the Cannock gulls. The race *michahellis* of Iberia and the Mediterranean has more black, as does the darkest race, *heuglini* of Siberia. Both are larger and darker than *argenteus* and were included by Alexander (1954) in his third species. The race *michahellis* seems liable to occur in southern England, but a gull visiting central England in winter is perhaps unlikely to have come from the south. The race *heuglini* seems a more probable winter visitor than either the very similar *atlantis* of the Azores, Madeira and the Canary Islands or *michahellis*, but the Cannock Herring Gulls may not be sufficiently large to be ascribed to this subspecies.

### Acknowledgements

Lars Svensson helped with references and made comments at an early stage. A. R. Dean, P. J. Grant and E. G. Phillips read drafts and made valuable suggestions and, in later stages, G. H. Green and Dr P. I. Stanley helped to clarify several points. I also thank the observers mentioned in the text for being interested enough to watch and discuss gulls on cold winter evenings beside Midland reservoirs.

### Summary

Variations observed among Herring Gulls *Larus argentatus* wintering in the West Midlands are described and divided into four basic groups according to size, mantle colour, head

colour in winter, wing-tip pattern and leg colour. It is suggested that British and Scandinavian birds are involved, with up to 100 showing characteristics—large size, dark mantles and little black on the wings—consistent with a north Scandinavian origin. Up to five per winter have shown characteristics of a 'thayeri-type' variant. Others (fewer than five, and probably the same individuals in successive years) have shown features which suggest a different area of origin—still unknown—and different racial status, being white-headed throughout the year, dark on the mantle, extensively black on the primaries and yellow-legged.

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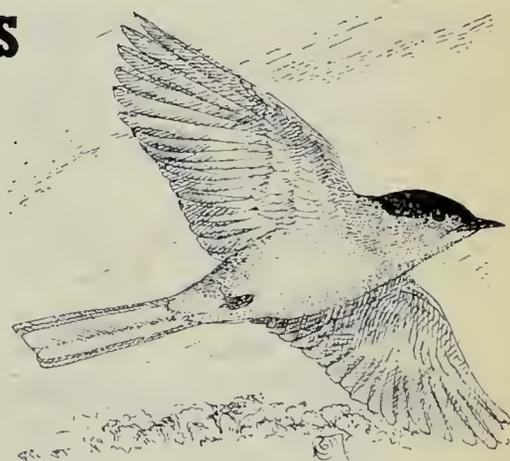
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# Recent increases of Blackcaps at bird observatories

Derek R. Langslow

**Large numbers of migrant Blackcaps have become very noticeable. This trend is quantified and its causes discussed**



**F**ull-time wardening at bird observatories enables annual variations in numbers and long-term population trends of migrants to be assessed. While analysing weights of Blackcaps *Sylvia atricapilla* at British and European observatories (Langslow 1976), I examined the timing and size of migrations during 1970-76. By comparison with Davis's (1967) analysis for 1948-66, it was evident that significant changes had occurred in the abundance of migrant Blackcaps. The aim of this paper is to demonstrate these changes and to discuss possible reasons and consequences.

### Sources and methods

Daily census figures of Blackcaps for the years 1970-76 were provided by the permanent wardens at Fair Isle, Shetland; Spurn, North Humber-side; Gibraltar Point, Lincolnshire; Holme, Norfolk; Dungeness, Kent; Portland, Dorset; Skokholm, Dyfed (1970-74); Bardsey, Gwynedd (1966-70 and 1974); and the Calf of Man, Isle of Man; and also from the volunteer-wardened observatory at Cape Clear Island, Co. Cork (see fig. 1). Most of these observatories are manned throughout the spring and autumn. The data have been analysed according to Davis's (1967) method, estimating migration by five-day periods.

### Results

Daily figures for the four observatories where Blackcaps are commonest (Fair Isle, Spurn, Dungeness and Portland) reveal a marked increase in numbers in 1970-76 compared with those found by Davis (1967) for



Fig. 1. Locations of major bird observatories mentioned in text. 1 Fair Isle, 2 Spurn, 3 Gibraltar Point, 4 Holme, 5 Dungeness, 6 Portland, 7 Skokholm, 8 Bardsey, 9 Calf of Man, 10 Cape Clear Island

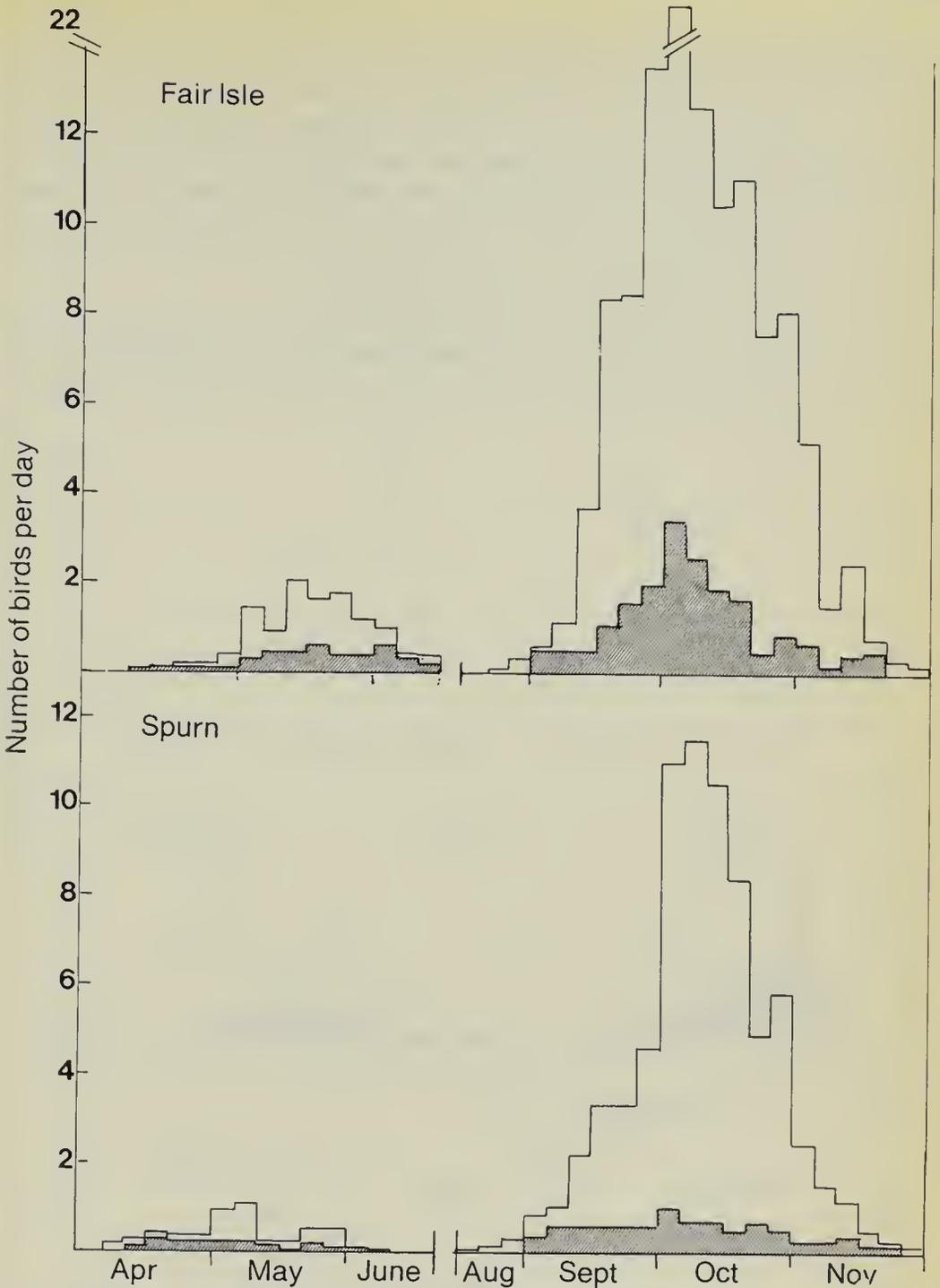


Fig. 2. Migration of Blackcaps *Sylvia atricapilla* at Fair Isle, Shetland, and Spurn, North Humberside, 1948-76. Shaded = 1948-66 (from Davis 1967); open = 1970-76. In spring, the increases were greatest at Fair Isle and Portland, while in autumn they were prominent at all four. Davis, for example, stated that 20 or more in a day in autumn at Fair Isle was exceptional (maximum 30 in October 1960); but during 1970-76 this figure was exceeded on 51 days, with maxima of 75 (2nd October 1972), 70 (30th September 1975), 80 (4th October 1976) and over 100 (1st and 3rd October 1976). Eight was the maximum recorded in a day

at Spurn up to 1966; during 1970-76, however, more than ten were present on 67 days in autumn and over 25 at least once in each year, with a maximum of 80 on 8th October 1974. At both Dungeness and Portland, a similar autumn picture emerges. Before 1966, the Dungeness maximum was ten and at Portland only seven. From 1970 to 1976, the former's record was beaten 27 times, with maxima of 35 on 2nd October 1974 and 50 on 18th and 28th September 1976; and Portland's was exceeded 21 times, with peaks of 25 on 16th and 18th September 1972 and 25th October 1976, and 40 on 13th October 1976.

The increases in Blackcap numbers in spring have not been quite so dramatic as those in autumn. Portland's spring maximum of 80 (Davis) has been exceeded only twice (maximum 150 on 27th April 1972), but

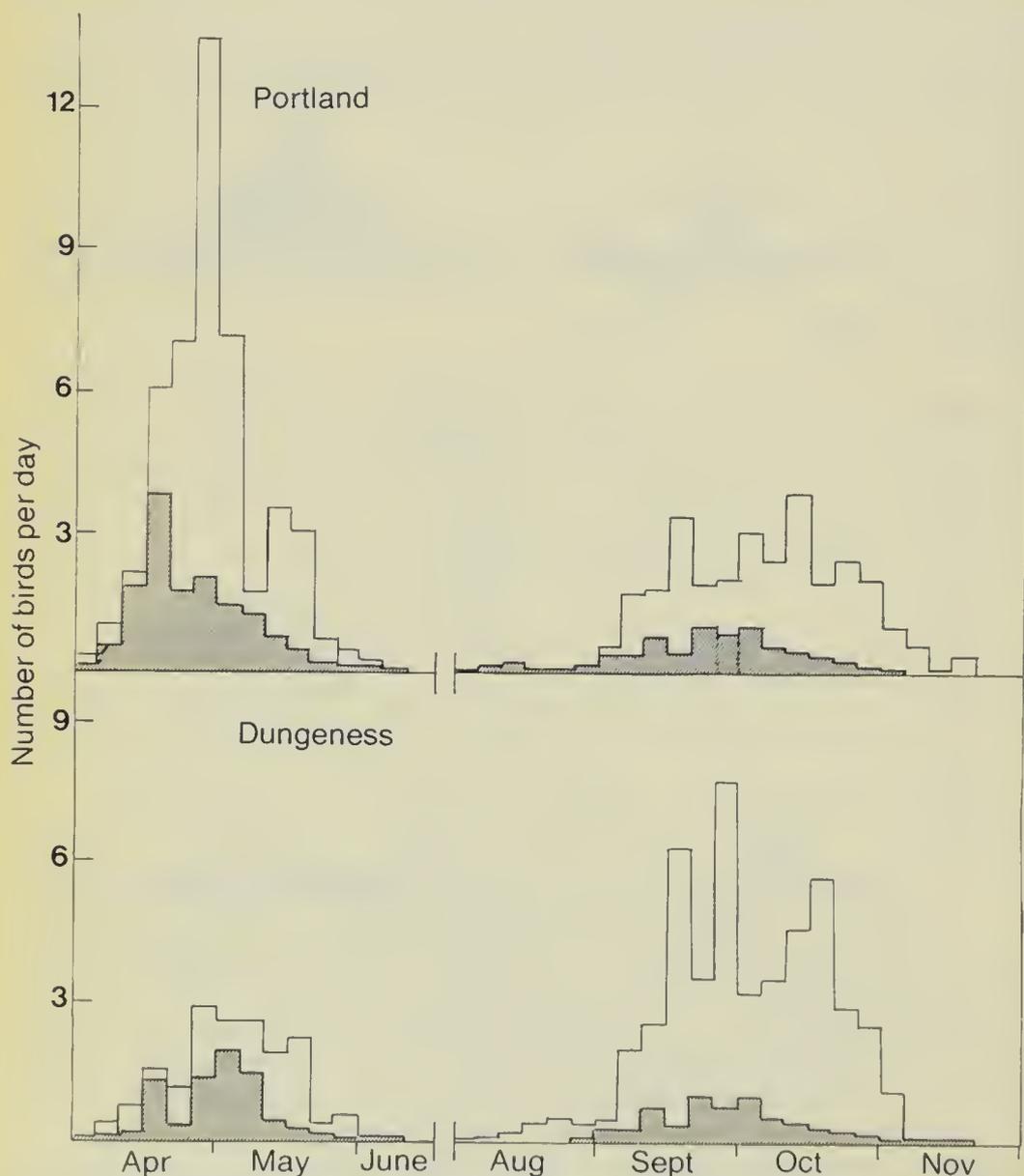


Fig. 3. Migration of Blackcaps *Sylvia atricapilla* at Dungeness, Kent, and Portland, Dorset, 1948-76. Shaded = 1948-66 (from Davis 1967); open = 1970-76

more than 40 have been counted on at least one spring day in each of the last five years. At Fair Isle, spring bird-day totals have doubled in recent years, but without large rises in daily numbers. Dungeness and Spurn show only small spring increases.

The ratios of total bird-days in spring to those in autumn at these four observatories in 1970-76 are as follows (Davis's 1948-66 figures in

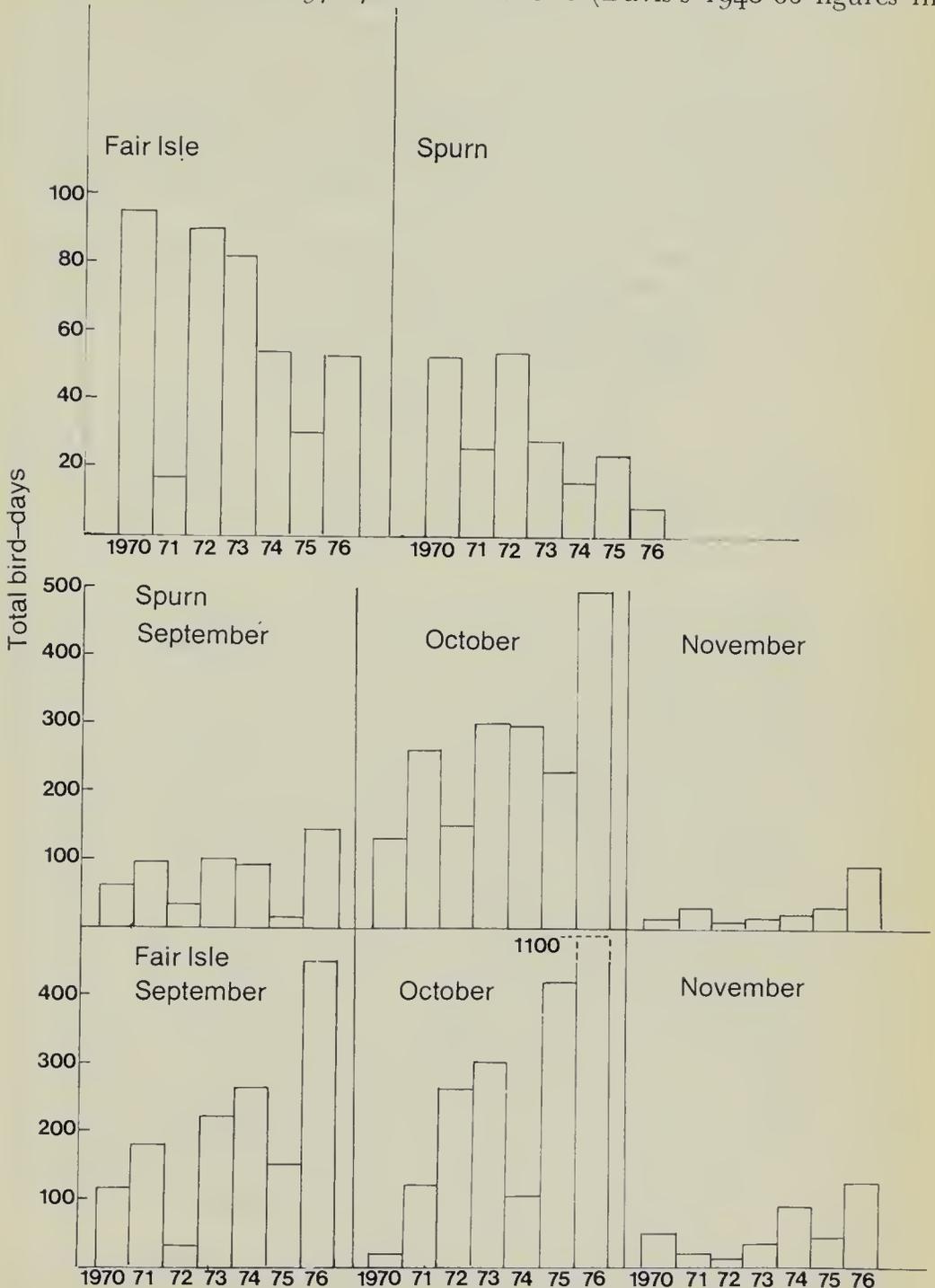


Fig. 4. Migration of Blackcaps *Sylvia atricapilla* at Spurn, North Humberside, and Fair Isle, Shetland, in each year 1970-76. Total bird-days expressed (a) for each spring and (b) for each month, September, October and November

brackets): Fair Isle 1:10 (1:6); Spurn 2:25 (2:7); Dungeness 1:3 (7:4); and Portland 3:2 (7:2). While the quantity of migration has changed, the timing has not altered significantly. Proportionately rather more Blackcaps now appear in October and November, which is emphasised by comparing the ratios of total spring to autumn bird-days.

Year-to-year variation in numbers of migrant Blackcaps at observatories can be considerable, and changes need to be considered over a period of years. The annual pattern of total bird-days for Fair Isle and Spurn during 1970-76 is shown in fig. 4. That 1976 was a bumper year at both these observatories, with record numbers in all three autumn months, is evident: the first few days of October produced especially large numbers (a record peak occurred also on the Isle of May, Fife, on 2nd October).

**Table 1. Mean wing lengths in mm of male Blackcaps *Sylvia atricapilla* trapped at four British bird observatories**

For comparison, the mean wing lengths of 60 Blackcaps trapped inland at Wicken Fen, Cambridgeshire, in summer was 73.5 mm  
Sizes of samples are given in parentheses

	Spring	September	October
Portland	74.3 ± 2.0 (66)	74.0 ± 1.9 (40)	73.5 ± 1.9 (54)
Dungeness	74.2 ± 1.9 (65)	73.5 ± 1.6 (52)	73.6 ± 1.8 (48)
Spurn	74.3 ± 2.3 (29)	74.9 ± 1.8 (42)	73.8 ± 2.3 (64)
Fair Isle	75.6 ± 2.0 (18)	75.2 ± 2.3 (33)	74.0 ± 1.9 (31)

Davis (1967) and Sharrock (1968) analysed Blackcap movements at Bardsey; Lundy, Devon; Skokholm; and Cape Clear Island: the species is not usually a numerous migrant at these stations. Recent counts for Skokholm and Bardsey suggest that Blackcaps are now slightly more common. At Cape Clear Island, they are now more than twice as numerous as they were during 1959-66. Numbers are, however, often so low that a single substantial fall can seriously bias the data. Fig. 5 shows the pattern of Blackcap migration at Cape Clear Island, Holme, Gibraltar Point and the Calf of Man during 1970-76. Not surprisingly, the last site has a similar pattern to that at Bardsey, with a peak in the second half of October. Cape Clear Island has a mid-October peak (the 'shoulder' for the last ten days of that month was caused entirely by the 1975 and 1976 records). Between 1959 and 1966, the maximum at Cape Clear Island was eight, but this was exceeded on 14 autumn days during 1970-76; the highest counts were 26 (14th and 16th October 1973) and 23 (23rd October 1975). The two east coast observatories, Holme and Gibraltar Point, differ from each other in their patterns, although they are less than 32 km apart: at the latter, Blackcaps occur principally in late August and September; at Holme, they arrive mainly at the end of September and in October, much as at Spurn.

Although Blackcaps originate from many parts of Europe, especially in autumn, a comparison of mean wing lengths of males at four observatories and inland at Wicken Fen, Cambridgeshire, showed that the population was structurally homogeneous (table 1).

**Discussion**

Observatory records show that Blackcaps are now much more numerous than they were ten to 20 years ago. Williamson & Whitehead (1963) described numbers at British observatories in autumn 1960 as exceptional,

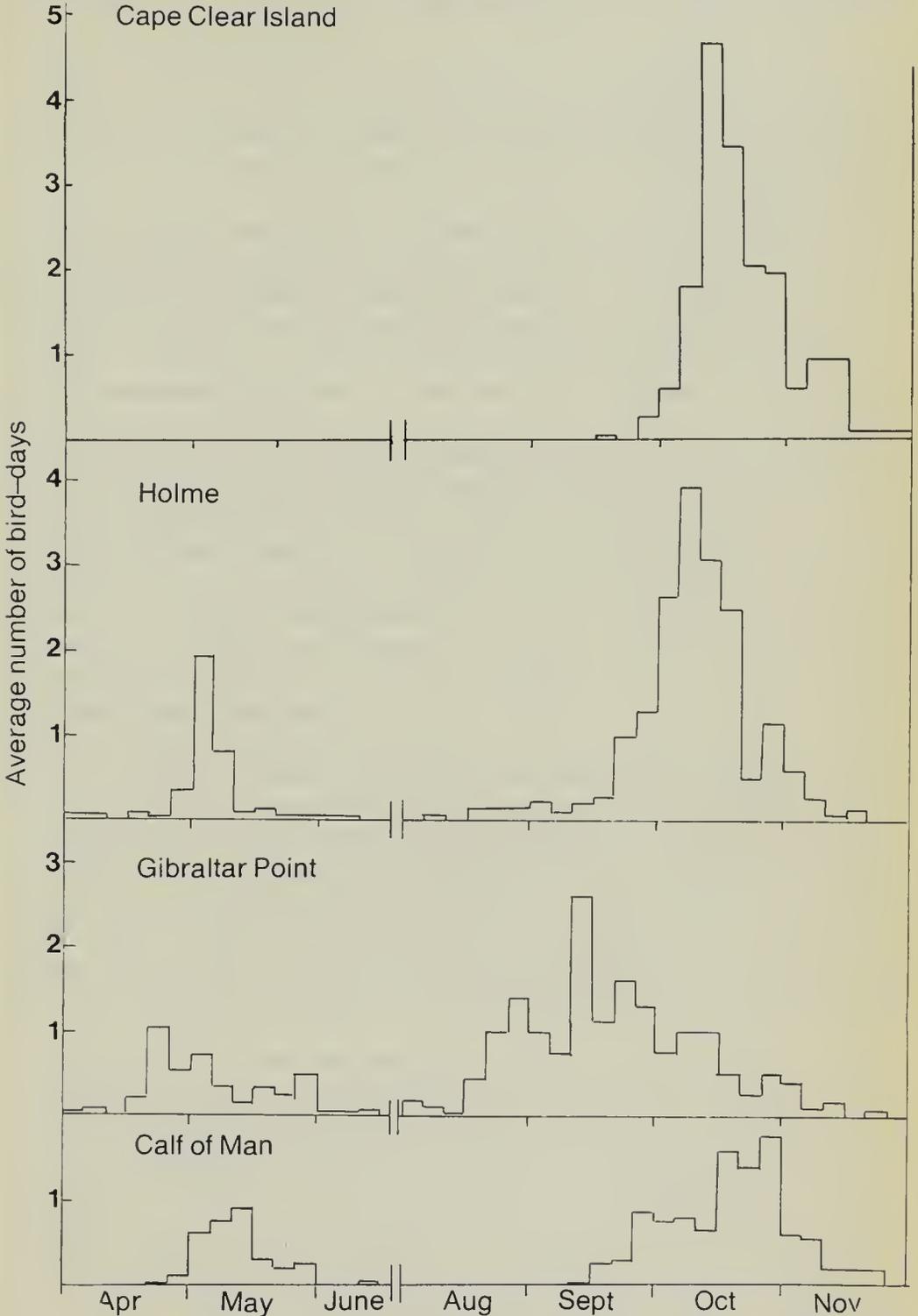


Fig. 5. Migration of Blackcaps *Sylvia atricapilla* at Cape Clear Island, Co. Cork, Holme, Norfolk, Gibraltar Point, Lincolnshire, and Calf of Man, Isle of Man, 1970-76. (Spring records for Cape Clear Island excluded owing to incomplete coverage)

although these would now represent, at best, an average year. They suggested a population explosion in Europe, backed by favourable weather conditions, as the cause of the large falls.

Two features of observatory activities could affect the numbers of Blackcaps recorded. More birdwatchers now visit places such as Fair Isle, and the main observatories are probably better covered in all months; this might improve the efficiency of recording at large stations. More trapping and ringing may also cause larger numbers to be recorded, especially at observatories with dense scrub cover, such as Spurn. The increases are, however, so great that these two factors would account for only a small part.

Blackcaps have a wide breeding distribution in Europe north to about 60-65°N (Voous 1960). In Britain, they are common in England and Wales, but uncommon in Scotland and Ireland (Sharrock 1976). They have a well-established migratory divide at about 12°E, eastern populations moving southeast in autumn and western ones southwest (Zink 1975). Migrant Blackcaps in Britain include both Continental and British breeding stock (Langslow in prep.). In spring, those on the south and west coasts are mainly British breeders, while those on the east north of Spurn are probably mainly Continental birds which have drifted too far west or overshot southern Scandinavia (Davis 1967). British Blackcaps migrate in August and September, and this is reflected by figures at the south coast observatories. Most Blackcaps on the east coast from late September to November will be of Continental origin, as are many October ones on the south and west coasts. Recoveries of Continental-ringed Blackcaps, and of British-ringed ones, conform to this pattern (Langslow in prep.). A single subspecies breeds throughout northern Europe (Vaurie 1959), and there is no way of distinguishing British and Continental Blackcaps in the hand (Williamson 1964, and table 1).

There are three possible explanations for the increase in the numbers of migrant Blackcaps. If weather patterns had changed significantly to produce more easterly winds, then larger numbers of migrants could be drifted across the North Sea, producing more Blackcaps—especially in autumn—on the east and south coasts, and in late spring on Fair Isle. The greater spring numbers at Portland and Dungeness, involving British breeders, are, however, unlikely to occur under similar easterly weather conditions.

Both long-term climatic trends and short-term atmospheric effects can lead to changes in the numbers and distribution of birds. During the past 15 years, blocking anticyclones caused by colder conditions in the Arctic have become more frequent (Lamb 1975): these reduce the frequency of westerly winds in middle latitudes. The number of days with weather classified as generally westerly has, on average, declined steadily since 1950 (Lamb 1975). Blocking anticyclones in spring have probably led to important changes in the avifauna in Scotland: several boreal species have staged a recovery during the past decade, while other species have colonised the country (Williamson 1975, 1976). Hence, while the frequency of easterly winds in autumn at Lerwick, Shetland, and Kilnsea,

North Humberside, has not altered in the last 30 years, easterly airflows over northern and central Europe are probably now more common in autumn as well as in spring. This would bring greater numbers of Blackcaps from Europe to the east coast of Britain.

Williamson & Whitehead (1963) recorded that the largest falls of Blackcaps in 1960 occurred when an anticyclone was centred over Germany and a succession of depressions to the south and west of Britain produced a strong easterly airflow. Conditions producing a strong easterly airflow over the southern North Sea prevailed during the major falls of Blackcaps on the east coast on 1st-5th October 1971, 2nd-3rd October 1972, 4th-5th October 1973, 8th-9th October 1974, 17th-18th October 1975, and 1st-4th and 25th-31st October 1976. Furthermore, the evidence, both from ringing recoveries and from the species usually associated with falls of Blackcaps, suggests that they originate from south of 52°N and east of 5°E in the autumn. Blackcap numbers at the observatories have, however, increased not only during these large falls but throughout the autumn, suggesting that more of the population is dispersing or migrating through western Europe.

A second explanation is a significant growth in the total Blackcap population. There is some evidence of this in Britain: the Common Birds Census index for Blackcaps on farmland has almost doubled since 1966, although the woodland index increase is only slight (Batten & Marchant 1976); there is also subjective evidence for higher breeding numbers in Scotland (*Scottish Bird Reports* 1972-75). If a similar increase had occurred over Europe, a significantly greater migration volume might be expected. The migrant numbers are, however, so much higher that this could provide only a partial explanation.

Many foreign observatories are concerned primarily with trapping passerine migrants; this has been done much more effectively in recent years with the widespread use of mistnets, and, therefore, their pre-1960 records are incomplete. Both Vogelwarte Radolfzell, West Germany (Dr P. Bertholdt *in litt.*), and Falsterbo Fågelstation, Sweden (Dr G. Roos *in litt.*), reported that Blackcaps have not become significantly commoner in the past few years. On the Polish Baltic coast, where the Blackcap is principally a September migrant, the average number trapped per mistnet has been determined by Busse (1973a, 1973b and *in litt.*): the average for 1971-76 is slightly less than for 1961-66, although the years 1974-76 were especially good ones for the species.

A third possibility is a change in the Blackcap's habits. If fewer now go to West Africa (Moreau 1972) and more winter in the Mediterranean Basin, the spring migration may be earlier, the autumn one later, and incomplete migration by some individuals more likely. During the last decade, there has been an increasing tendency for Blackcaps to overwinter in Britain. This was especially marked in the 1976/77 winter when, for example, 58 were trapped in one Irish orchard in December and January (H. McBride *in litt.*). The evidence from recoveries of several foreign- and observatory-ringed birds in winter in Britain and Ireland, and the complete lack of recoveries of British-breeding Blackcaps in

winter in Britain (Langslow in prep.), confirm their Continental origin. This increase in the numbers of wintering Blackcaps coincides with the increase in late autumn migration (see fig. 4b). It is difficult to know whether late migration discourages further movement, or whether a real change in the wintering range of Continental Blackcaps is occurring through either climatic change or a growth in numbers.

Thus, several factors are probably involved in this change in Blackcap migration. Whether this is a temporary or permanent feature can be ascertained only by examining, over the next decade or so, the numbers of Blackcaps overwintering, occurring at observatories and breeding in Britain.

### Acknowledgements

I am grateful to Peter Davis, C. J. Mead, and the late K. Williamson for their comments on the draft of this paper, and to the Bird Observatories Council for helping to provide the data.

### Summary

Records from ten major British and Irish bird observatories of migrant Blackcaps *Sylvia atricapilla* during 1970-76 were analysed. This shows that significant increases had occurred, particularly in autumn, compared with 1948-66 (Davis 1967). Comparisons with Continental data are made. Possible reasons for the increases include weather conditions, a rise in the total Blackcap population and changes in the species' habits. Further recording and analysis of breeding, wintering and migrant numbers in Britain are required over a period of time.

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# Mystery photographs

**20** From some tangled bushes, out pops a largish, dull warbler with prominent legs and an apparently enormous bill. It is obviously not a *Phylloscopus* or a *Sylvia*, so it is sensible to consider the genera *Acrocephalus* and *Hippolais*; the wide base to the bill suggests the latter. The warbler has a long flat forecrown (producing a head-shape not far from that of a Starling *Sturnus vulgaris*), a pale face and eye-ring, and olive-grey plumage lacking any obvious mark. The face pattern is characteristic of *Hippolais*, but distinguishing the pale variants of the Icterine Warbler *H. icterina* and the Melodious Warbler *H. polyglotta* and the rather drab Olivaceous Warbler *H. pallida* needs more than a mere glimpse. The half-rear view, however, allows a clear sight of the wing structure. The point of the folded primaries is markedly short, taking up less than a quarter of the visible wing length, and it falls at the end of the uppertail-coverts. So, the long-winged Icterine is eliminated. Both the Melodious and the Booted Warbler *H. caligata* tend to look small in the field and neither persists in showing such a dagger of a bill, such a flat head and such a plump rear body and full tail (in actual observations, most Melodious would also show at least tinges of green above and yellow below). Last month's mystery bird (plate 122, repeated here) was an Olivaceous Warbler; it was photographed in Egypt by R. H. Greaves. DIMW



**129.** Mystery photograph  
**21.** What is this species?  
Answer next month



# Personalities

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## 16 S. C. Madge

**W**hen Steve Madge first saw the light of day at Tor Point, Cornwall, in the winter of 1948, his mother gained what must have been the prototype bundle of joy and British ornithology one of its more colourful characters.

His early days were spent within perambulator distance of the Tamar estuary, where his interest in birds was kindled. On leaving Saltash Grammar School, he became a wages clerk with the Post Office. After five years behind a desk in this steady, protected post he applied for four months unpaid leave, which he spent in Turkey and Iran. On returning to England, he promptly resigned from his job to join an Oxford University expedition to Afghanistan and Kashmir for eight months. Once more back at home, the need to survive led him to take jobs as a high-ways cleansing operative and a refuse disposal officer, but the attractions of birds and natural history in general led him to become assistant warden on the Calf of Man in 1972; in the following year, he moved to Yorkshire and then spent three seasons at Bempton Cliffs as a summer warden for the RSPB. Since 1976, he has been entrenched as the RSPB's full-time warden at Fairburn Ings in North Yorkshire. That is where I first met him, after being aware of his presence in the county for the previous three summers as stories of a jolly fellow from the south of England who 'knew his stuff' filtered through from the coastal birdwatchers.

130. S. C. Madge (*Yorkshire Television*)



Steve's activities are not confined to birds; he takes a keen interest in botany, and his bookshelves contain reference works on most branches of natural history. Large of stature and very fond of good food (two statistics not entirely unconnected), it is always a pleasure to have him round for a meal, appreciation of which he usually shows in the traditional manner of a satiated Turk. Always casually dressed, he would be the first to agree that he is to sartorial elegance what Ivor Novello was to all-in-wrestling. He has many talents: he is an accomplished artist, a stimulating lecturer and has a willingness to co-operate fully with the administrative requirements of modern ornithology, a quality sadly lacking in many people. Those meeting him for the first time could be—and often are—quite misled by his manner; for, behind a rotund, weatherbeaten, gentle, unassuming exterior, there is a lively and imaginative side to his character which is the true Steve Madge. A recent appearance at his local natural history society annual buffet supper dressed as a Chinese emperor in full make-up, complete with eye-glitter, shocked none of us who know him well: his performance deserved a wider audience. This he was to get when featured in the television programme 'Lifestyle' in 1977, which dealt with his life as a nature reserve warden. He has recently been elected to the *British Birds* Rarities Committee. His watching in the Isles of Scilly and elsewhere gained him the respect of his field companions; this, added to his foreign experience, will stand him in good stead for his role on the committee.

Steve has managed to escape any serious involvement with the opposite sex (though I suspect that he is trying); hopefully, this dedicated bird-watcher will be around in an active and unfettered capacity for many years.

JOHN R. MATHER

## Notes

**Storm Petrels chasing albino** At 06.00 GMT on 7th August 1977, on Bardsey, Gwynedd, my assistant warden, Trevor Jones, watched four Storm Petrels *Hydrobates pelagicus* for over 1½ minutes as they flew south close along the west coast. Three were normal, but the other was almost completely albino, off-white with grey flecks on its upperwing-coverts. The latter was constantly being pursued by the other three, which at times chased it vertically into the air and then returned to their normal flight, until the white bird rejoined them.

Bryan L. Sage, in his review of albinism and melanism in wild British birds (*Brit. Birds* 55: 201-225), made no reference to albinism in any species of petrel or shearwater (Procellariidae); and I can find no mention of such aggression towards an albinistic individual by birds of the same or other species.



P. J. ROBERTS

Warden, Bardsey Bird Observatory, Aberdaron, Pwllheli, Gwynedd LL53 8DE

Derek Goodwin has commented that, although birds tend usually to

ignore members of their own species which are conspicuously abnormal, he has seen repeated aggression by Oystercatchers *Haematopus ostralegus* towards a white individual which kept trying to join them. Eds

**Shag's defence against Alsatian dog** R. A. Hume's note on a dog attacking and killing a Cormorant *Phalacrocorax carbo* (*Brit. Birds* 70: 260) reminded me of the following. On 12th September 1966, in Penzance Harbour, Cornwall, the quickly ebbing tide left an immature Shag *P. aristotelis* stranded in the shallows. With exertion, it was making its way fairly well over mud and pools of water towards the open sea when an Alsatian dog suddenly appeared, barking loudly and splashing through the water; with leaping bounds, it tried to grip the Shag by the neck. The Shag mounted a counter-attack and managed to stand upright, with head and neck thrust forward and wings quickly flaying. As the dog bounced this way and that, so the Shag pivoted to face it; sometimes the bird managed to hit the dog with its wings. The Shag then gradually made towards deep water and escaped out of the harbour. BERNARD KING  
*Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall*

**Parasitic worms causing deaths of Mute Swans** On 9th and 10th March 1974, 15 Mute Swans *Cygnus olor*, mostly adults, were found dead along 460 m of shore at the southeast corner of Loch of Stenness, a 780-ha sea loch joined by a narrow channel at the Bridge of Brodgar to Loch of Harray (990 ha) on the Mainland of Orkney. Stenness is slightly tidal and the two lochs show a gradation in salinity from almost pure seawater at the mouth of Stenness to eutrophic freshwater at the inner end of Harray. The winter population of Mute Swans on the two lochs fluctuates between 150 and 200. Excessive numbers were not present in 1974, ample food appeared to be available and the weather had been mild. No ailing swans were seen and a search showed that deaths were confined to the southeast corner of Stenness. Three adults, two females (4.9 kg and 4.8 kg) and one male (5.8 kg), were sent for examination. On 10th April 1974, eight Mute Swans were found dead on the 40-ha North Loch on Sanday, a fairly eutrophic freshwater loch 46½ km northeast of Stenness, which has a regular population of 40 swans. One adult female weighed 5.2 kg.

Examination showed that all four swans were in poor bodily condition: the gizzards held only sand, and the intestines contained excess mucus surrounding numerous thorny-headed worms (*Acauthocephala*), identified as *Polymorphus minutus*. These were in the mid-portion of the small intestine, starting 50 cm above Meckel's diverticulum and finishing 30 cm above the junction of the small intestine with the caeca. The 4.8-kg female and the 5.8-kg male held 232 and 81 worms respectively; at the mid-point of the affected length, three or four worms were attached to each square centimetre of intestinal mucosa (plate 131). Bacteriological examination was negative. The sudden deaths on Stenness and North Lochs were suspicious of poisoning, but chemical analysis using gas chromatography did not reveal the presence of organophosphorus, organochlorine or organosulphur pesticides. Tests for alpha-chloralose were negative and



131. Numerous thorny-headed worms (*Acanthocephala*) attached to intestinal mucosa of Mute Swan *Cygnus olor* (*W. M. Gordon*)

only background levels of mercury were found. The extreme emaciation of the swans ruled out the likelihood of acute poisoning.

Peter Scott *et al.* (1972, *The Swans*) gave the normal weights of Mute Swans as 12.2 kg (males) and 8.9 kg (females). D. W. T. Crompton and J. G. Harrison (*Parasitology* 55: 345-355) included Mute Swans as final hosts of the *P. minutus*, which waterbirds acquire by eating the intermediate host of the parasite, freshwater shrimps of the genus *Gammarus*; 50% of their sample of wild Mallards *Anas platyrhynchos* and Tufted Ducks *Aythya fuligula* carried the parasite, but none appeared adversely affected by the numbers present. H. B. N. Hynes and W. L. Nickolas (*J. Helminth.* 37: 185-198) found that experimental infestations of domestic ducks with 200 to 300 worms retarded growth and caused emaciation; 48 hours' starvation resulted in spontaneous expulsion of the worms. Depressed appetite of the male swan with only 81 worms may have caused such a loss. Hynes and Nickolas believed that, in the wild, ducks constantly exposed to small numbers of worms develop an immunity. On the other hand, when uninfected birds are suddenly exposed to large numbers of infected shrimps, many of the parasites establish themselves in the intestine and the disease becomes manifest. A build-up of shrimps may have taken place during the mild weather of March 1974. The numerous recurved hooks on the proboscis of acanthocephalan worms embed themselves deeply in the wall of the intestine, causing extensive damage; they were probably responsible for the weight loss and death of the Mute Swans at Loch of Stenness and North Loch. We are grateful to Dr C. Rayski for his comments and for identification of the worm.

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**One Little Owl preening another** John W. Fitzpatrick (*Auk* 92: 598-599) reported what was claimed to be the first instance of owls allopreening in the wild. At Heerlen, Netherlands, I made the following observations on Little Owls *Athene noctua* (published, without details, in *Ardea* 34: 214-246). On 13th April 1939, the male alternately nibbled his mate's crown feathers and preened his own feathers. On 27th March 1941, the female started pecking at the male's feet, and he responded similarly; both preened themselves; the female then nibbled the male's crown

feathers, and he reciprocated; after an unsuccessful attempt at copulation, they preened again, alternating this with repeated nibbling of each other's crown feathers; they then copulated.

F. HAVERSCHMIDT

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**Lesser Spotted Woodpeckers apparently dismembering dead nestling to remove it from nest** In 1977, a pair of Lesser Spotted Woodpeckers *Dendrocopos minor* nested almost 2½ m up in an old apple tree in a garden just outside Norwich, Norfolk. After the chicks had hatched, on 22nd May (the date determined by the parents' behaviour), we erected a hide. On 27th, when both parents were feeding the young at regular intervals, the male, who had been in the nest for some time, emerged with a leg, a wing and the body of one of the chicks (plate 132).



132. Male Lesser Spotted Woodpecker *Dendrocopos minor* removing part of dead chick from nest, Norfolk, May 1977 (K. J. Carlson)

The owners of the garden thought that they had seen one of the woodpeckers flying away with a leg the previous day. We do not believe that there was time for much degeneration of the carcase, and consider that the parents had broken up a dead nestling in order to remove it from the nest.

KEVIN CARLSON and CHRISTINE CARLSON

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**Some insect food of nestling Swallows** During the period 10th-18th July 1977, the food dropped by a pair of Swallows *Hirundo rustica* as they fed their nestlings was collected on a sheet of white paper. The nest

was situated behind newly laid tar sheeting under the roof tiles of Lodge Farm, 5 Compton Road West, Wolverhampton (the home of HCFN). The list of insects collected compares well with the only previous accounts of nestling food, given by J. F. Thomas during 1933-39 from Carmarthenshire (*Brit. Birds* 27: 231-232; 28: 171-172; 29: 244-245; 30: 293-294; 31: 234-235; 32: 233-236; 33: 335-336), although our lists of aphids, Lepidoptera and Calyptrate Diptera are more extensive. In 1975, K. R. Gabriel (*Brit. Birds* 68: 248) recorded Swallows feeding wasps *Vespa* to their young.

In the following list of insects, the numbers of each are given as an indication of relative frequency. Swallows are obviously opportunist feeders: insects which frequently occur in swarms or aggregations (e.g. *Empis*, *Fannia*) figure largely in the list. Many of the other species are common (some pest species) and likely to be present in numbers in the air. Of course, food dropped by parent Swallows may not be completely representative of the food brought to the nest by them, nor of the food eaten by the young: it could be that abnormal or less palatable items are more likely to be dropped by the adults or rejected by the young.

HEMIPTERA-HOMOPTERA (plant bugs, etc.) Aphididae (aphids, greenfly): *Sitobion avenae* (7), *Drepanosiphum ?platanoidis* (5), *Macrosiphum euphorbiae* group (1), *Hyperomyzus lactucae/pallidus* (1), *Rhopalosiphum insertum* (1), *Euceraphis* (1).

COLEOPTERA (beetles) Staphylinidae (rove-beetles): *Tachinus signatus* (2); Scolytidae (bark-beetles): *Scolytus multistriatus* (1).

LEPIDOPTERA (moths) Pyralidae: *Chrysoteuchia culmella* (2); Tortricidae: *Clepsis consimilana* (1), *Cnephasia interjectana* (1), *Ditula angustiorana* (3), *Cydia janthinana* (2), *C. populana* (1), indeterminate (1); Gelechiidae: *Bryotropha terrella* (1); Oecophoridae: *Batia lunaris* (1); Coleophoridae: *Coleophora serratella* (1).

HYMENOPTERA (bees, wasps, etc.) Braconidae: *Coeloides scolyticida* (1); Aculeata: head only (1).

DIPTERA (flies) Tipulidae (craneflies): *Nephrotoma flavescens* (1); Sciaridae (lesser fungusgnats): *Bradysia* (1); Stratiomyiidae (soldier flies): *Microchrysa polita* (2), *Beris geniculata* (1); Dolichopodidae: *Chrysotus neglectus* (1), *Sciapus platypterus* (1), *Medetera nitida* (2); Empididae (dance flies): *Hilara litorea* (2), *Empis (Coptophlebia) albinervis* (19); Lonchopteridae: *Lonchoptera lutea* (2); Syrphidae (hover flies): *Melanostoma mellinum* (1); Pipunculidae: *Verrallia aucta* (1); Lonchacidae: *Lonchaea* (5); Pallopteridae: *Palloptera ustulata* (2); Sapromyzidae: *Sapromyza* (2), *Minettia inusta* (1), *Lyciella decempunctata* (1); Sepsidae: *Sepsis cynipsea* (1); Sphaeroceridae: *Copromyza* (1); Fanniidae: *Fannia manicata* (4), *F. polychaeta* (33), *F. canicularis* (less house fly) (1), *F. armata* (5), *F. scalaris* (latrine fly) (1); Muscidae (house flies, etc.): *Helina atripes* (3), *H. depuncta* (1), *H. setiventris* (1), *H. duplicata* (1), *Azelia zetterstedti* (3), *Coenosia lineatipes* (4), *Hydrotaea occulta* (1); Anthomyiidae: *Lasiomma nitidicauda* (3), *L. meadei* (1), *Nupedia infirma* (3), *Pegohylemyia fugax* (1), *Pseudonupedia intersecta* (1), *Delia florilega* (5), *D. platura* (bean fly) (1), *D. coarctata* (wheat bulbfly) (2), *Craspedochoeta pullula* (1), indeterminate (2); Tachinidae: *Actia pilipennis* (1); Calliphoridae (blowflies): *Pollenia rudis* (cluster fly) (1), *Lucilia sericata* (sheep blowfly) (1).

In addition to the above insects, some of which were alive and active when recovered (inevitably some escaped), there were one or two 'pellets' dropped, which consisted of insect fragments. Thomas (*Brit. Birds* 29: 244) noted similar pellets and commented that this was unusual for Swallows; the production of such pellets is, however, now known to be much more widespread among birds than was previously supposed.

We thank the following colleagues at the British Museum (Nat. Hist.)

for help with the identification of insects in their special groups: J. D. Bradley, M. J. D. Brendell, B. H. Cogan, P. S. Cranston, J. P. Dear, E. A. Fonseca, J. H. Martin and A. C. Pont.

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**Roosting of Long-tailed Tits** In January 1965, at Castle Loeh, Loehmaben, Dumfriesshire, I was shown a roost of Long-tailed Tits *Aegithalos caudatus* under the eaves of a house. The occupant, Mrs Hellyer, informed me that the roost had been there for a considerable time; I photographed it (plate 133). As the wind was westerly, the tits were



133. Long-tailed Tits *Aegithalos caudatus* roosting under eaves of house, Dumfriesshire, January 1965 (Robert T. Smith)

sheltered by the eaves; but, when it changed to southeast, they left and presumably found a more suitable site.

ROBERT T. SMITH  
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**Great Grey Shrikes feeding young on peanuts and bread** From 16th to 30th April 1977, in southern Tunisia, I recorded some interesting feeding behaviour by two pairs of Great Grey Shrikes *Lanius excubitor* in the gardens of a hotel. Both pairs were feeding young on a basic diet of striped hawk moths *Celerio livornica*, which were abundant during the period, but on numerous occasions also took food items from around tables on the hotel terrace. They were almost constantly perched on the terrace umbrellas, from where they would fly down to the floor and

pick up peanuts, which they fed to their young; they took bread from as near to the tables as 1 m, and once took it from an open hand.

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**Magpie killing Swift** On the morning of 17th June 1976, in a lane in Aberdeen, I saw a Swift *Apus apus* emerge from a ventilation hole high up in a disused garage. A Magpie *Pica pica* then flew out of a tree a few metres from the building, struck the Swift as it passed under it, beat it to the ground and attacked it with at least three heavy blows of its beak, before I chased it off. The Swift was severely injured and subsequently died. I later found a Magpies' nest in the tree. Although Magpies are known to attack birds which have a fluttering flight (D. Goodwin 1976, *Crows of the World*)—probably usually young, weak or injured individuals—there are few references to their attacking apparently healthy adult birds and I can find none to their killing Swifts.

C. B. PULMAN

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**Starling breaking off leaves to feed on aphids** On 6th June 1977, in my garden at Brentry, Bristol, I saw several Starlings *Sturnus vulgaris*, a Blue Tit *Parus caeruleus* and House Sparrows *Passer domesticus* feeding on a heavy infestation of aphids, probably plum-reed aphids *Hyalopterus pruni*, on the undersides of the leaves of a plum tree. One adult Starling plucked leaves, carried them to the ground and stood on them; as a result, this bird picked off and swallowed the aphids far more efficiently than did the other Starlings which stayed in the tree.

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**Pine Bunting in Highland** On 6th January 1976, we were passing the evening in Golspie, Sutherland, with D. Davies, J. Rossetti and K. Rossetti, where we met G. Birch, R. Breese, B. Goater, R. Goater, D. Halsey, C. Harlow, R. Hobbs and J. Morris. They informed us that, at about 15.00 GMT, RG had noted an unusual bunting among a flock of 20 Yellowhammers *Emberiza citrinella* feeding in lyme-grass *Elymus arenarius* on a narrow strip of shoreline behind a row of cottages; periodically, the flock flew up to sit or preen in nearby young sycamores *Acer pseudoplatanus*. It was on these occasions that they had been able to observe the bunting clearly and in good light for three to four minutes down to 15 m and had identified it as a male Pine Bunting *Emberiza leucocephalos*. In view of the rarity of the species, they asked us to confirm their identification.

We assembled early the following morning and proceeded to search through the mixed flock of 150 finches (Fringillidae) and buntings, but had to wait until mid morning before the Pine Bunting flew in with five Yellowhammers to join the rest of the flock. During a short stay, it fed in the lyme-grass and then flew to one of the sycamores, allowing us clear but brief views. The distinctive head pattern, of which the white cheek patch was the most obvious feature, together with the otherwise black-and-chestnut face and pale crown-stripe, made immediate identification easy.

After a long absence, it reappeared that afternoon and we watched it for

approximately 15 minutes. It was seen again on 8th, but not subsequently. The two drawings by LAT show the bird's distinctive character, and the following description is derived from our joint observations:



**SHAPE AND SIZE** Similar to nearby Yellowhammers, but considered by some observers to be marginally bulkier.

**PLUMAGE** Forehead brownish - black, indistinctly edged with a few white feathers. Crown-stripe broad, extending from above forehead and narrowing at nape, graduating from whitish-buff to pale grey, with faintly darker flecks. Crown-stripe edged by thin pale-flecked black line, ending abruptly at nape, serrated at edges. Lores mottled dusky. Thick black eye-stripe curved round and broadened to end at lower corner of ear-coverts. Thicker white bar extended from base of lower mandible to edge of ear-coverts. Rest of head chestnut, pale grey below nape. Mantle very similar to Yellowhammer, warm buff streaked black. Rump rufous like Yellowhammer, uppertail-coverts slightly darker. Chin black, fading to dusky on throat. Sides of neck chestnut. Clearly demar-

cated crescentic white band on upper breast extended narrowly around neck. Pale cinnamon wash at sides of breast and flanks joined at centre of upper breast to form inverted U, and marked with narrow oval brownish spots slightly thicker and longer on flanks. Rest of underparts whitish, faintly tinged grey, adding to general 'frosty' appearance. Wing-coverts black, edged tawny, with paler tips forming short prominent wing-bar on median coverts and a much fainter bar on greater coverts. Remiges blackish-brown, with broad golden-brown edges to tertiaries and thin buff leading edges to primaries and secondaries. Tail dark with white outer tail feathers, conspicuous from beneath and in flight, notched as Yellowhammer.

**BARE PARTS** Eye dark. Bill typical bunting shape, pale horn faintly tinged pinkish, darker on culmen. Legs pale to medium pinkish-brown depending on light.



This Pine Bunting was only the fifth recorded in Britain and Ireland and the first in winter, three of the previous four being in autumn, in Shetland on 30th October 1911 and in Orkney on 15th October 1943 and 7th-11th August 1967; and one in spring, in Dorset on 15th April 1975 (*Brit. Birds* 71: 314-315).

N. TUCKER and L. A. TUCKER  
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# Review

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**Cruickshank's Photographs of Birds of America.** By Alan D. Cruickshank. Constable, London, 1978. ix + 182 pages; 177 black-and-white photographs. Paperback, £4.25.

This is primarily a set of very fine black-and-white photographs by the late Alan D. Cruickshank, selected and prefaced by his wife Helen G. Cruickshank. The introduction is his, previously included, together with some of the photographs, in *Wings in the Wilderness* (1947). There are, however, 75 new photographs in this attractive volume. On first handling, one immediately gets the impression of a high-quality, glossy publication; although a paperback, it is well bound and opens flat. The 177 photographs depict 150 species on 182 pages: almost one photograph to a page; some are bled right to the edge, giving variety of layout to correspond with the large variety of species portrayed. The subjects are beautifully shown, at a good size, and the quality of the reproductions is excellent: this book is a 'must' for any keen photographer; it is only very slightly marred by one plate (the Verdin in plate 152) being reproduced on its side. The order of species is that of the American Ornithologists' Union. Each plate is accompanied by a very brief text written by the photographer himself, giving general facts concerning the species and a few personal points of his experiences with it. This photographic publication does not aim to be and is not a comprehensive collection of portraits of the birds of America. The photographs, however, represent the work of a dedicated naturalist over a lifetime; although many of them are over 30 years old, most would be difficult to better in monochrome even today. It is a delight to see such an excellent piece of work, which well illustrates the value of good black-and-white photography, all too easily overlooked in these days when all-colour books are not rare. At its low price, many of us will wish to own this fine book.

MICHAEL W. RICHARDS

# Letters

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**Gallocanta Lagoon, Spain: an appeal** We should like to draw the attention of British ornithologists to Gallocanta Lagoon, a wetland in northeast Spain. This lagoon, the very existence of which is scarcely known outside Spain, has in recent years become increasingly important as a breeding and wintering area for wildfowl and other aquatic species.

The lagoon is a brackish steppe lake lying at an altitude of about 1,000 m some 110 km southwest of Zaragoza. It is about 8 km long by 3 km wide, with a maximum depth of only about 2.6 m. One of us (AA) has published some preliminary data (in Spanish) about the lagoon (*Ardeola* 20: 229). Until 1972, there was considerable disturbance by shooting, but in that year the shooting rights were acquired for a ten-year period by the Instituto para la Conservación de la Naturaleza (ICONA), which strictly controlled the shooting and appointed two local guards. Thanks in no small measure to enlightened management by the Zaragoza ICONA chief, Emilio Pérez-Bujarrabal, each subsequent year has seen an increase in the population of breeding and wintering waterbirds. In the former category, the 1977 figures for pairs included: 100 Black-necked Grebes *Podiceps nigricollis*, 300 Gadwalls *Anas strepera*,

250 Red-crested Pochards *Netta rufina*, 200 Black-winged Stilts *Himantopus himantopus*, 100 Avocets *Recurvirostra avosetta*, 20 Gull-billed Terns *Gelochelidon nilotica*, and 100 Whiskered Terns *Chlidonias hybridus* (in 1976, none in 1977). In winter 1977/78, there was a peak count of over 200,000 waterfowl, including 30,000 Red-crested Pochards, which, according to the figures given in *BWP* (in which *Gallocantia* is not mentioned), would represent half the total European population. Other recent developments have been the wintering of 100-200 Greylag Geese *Anser anser* and up to 600 Cranes *Grus grus*.

These figures clearly show the importance of *Gallocantia* once a measure of protection has been achieved. The ICONA lease, however, runs out in 1982 and we are anxious lest what has been achieved so far be lost by lack of further action. Our first objective is to increase our knowledge of the lagoon's avifauna, so that a proposal for future conservation based on sound facts can be made to the Spanish government. We should, therefore, be very pleased to hear from any British ornithologists (or naturalists of other specialisations) who would be prepared to spend some time seriously studying the lagoon. A stone refuge capable of sleeping up to eight persons is available and a few photographic hides and a tower for counting wildfowl have been erected. Anyone interested should contact one of us; we will provide further information and arrange for ICONA to issue the necessary permits. The mere fact that foreign ornithologists are asking for permits will in itself help us to obtain recognition of the site's importance.

ADOLFO ARAGÜÉS and JEREMY BROCK

P<sup>o</sup> Maria Agustin 28-A, Zaragoza-4, Spain; 20 Hamilton Drive, Glasgow

**Insect swarms deterring predation by birds** In calm conditions, at about 19.00 GMT on 21st July 1974, near Stoke Newington Reservoirs, London, I watched several insect swarms above medium-height trees. They resembled twirling plumes of smoke, as if the tree-tops from which they arose were actually on fire. Such social swarming is less familiar than slower-moving, roughly spherical swarms under lower sites such as street lamps, small trees and overhanging hedges. Although not fully understood, it has primarily social and display functions; and, although the swarms may obviously be more or less excited and violent, there seems to be no reason why any of them should resemble small tornadoes. I suggest, however, that any small insectivorous bird would be deterred from flying near to these apparent vortices, and that the resemblance to a dangerous airflow may be an adaptation against predation. It is certainly true that insectivores tend to avoid dense swarms and masses.

Black-headed Gulls *Larus ridibundus*, Swifts *Apus apus* and House Martins *Delichon urbica* were all catching insects over the reservoirs, and a few bats (Chiroptera) were hunting near the trees, but none ventured to the easy and obvious prey at the broad tops of the swarms in the actually calm air above the trees.

L. J. DAVENPORT

4 Church Street, Betchworth, Surrey

# Announcement

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**YOC cover design competition** The competition for members of the Young Ornithologists' Club to design a cover for *British Birds* was won by Paul Spencer, of Horsham, West Sussex. His design 'Lonely sky' appears on the cover and is reproduced in black-and-white here. The judges of the competition, Robert Gillmor (honorary secretary of the Society of Wildlife Artists), Peter Holden (national organiser of the Young Ornithologists' Club) and Dr J. T. R. Sharrock (managing editor of *British Birds*), were unanimous in placing



this striking tern design in first place. The runners-up were, however, of such a high standard that the three judges considered that they all deserved to be mentioned in this announcement: R. Whittlestone of Penistone, South Yorkshire (three designs); Andrew Waddington of East Looe, Cornwall; David Raeburn of Buckhurst Hill, Essex; and Stefan Jordan of Maidstone, Kent (two designs). The winning artist, Paul Spencer, received a copy of *The Atlas of Breeding Birds in Britain and Ireland* (1976) and a year's subscription to *British Birds*. EDS

# Requests

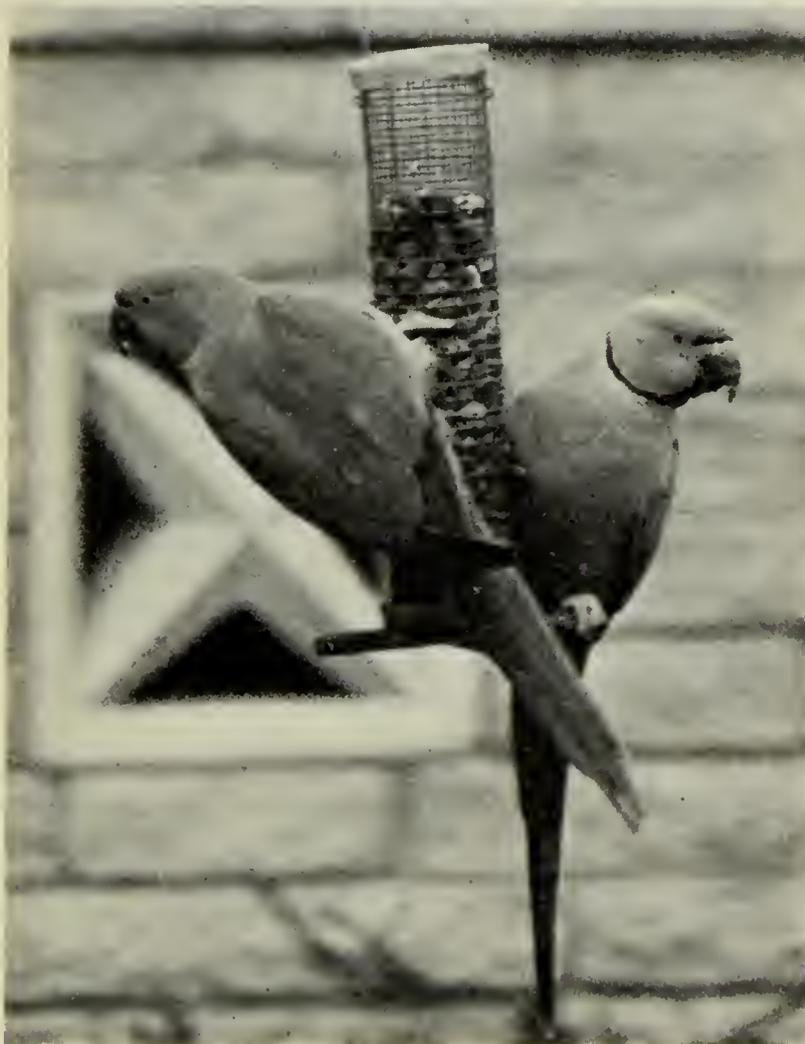
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**Marked gulls** Herring Gulls *Larus argentatus* on the coast from Fife to Durham have been marked as follows: heads dyed yellow (but may have faded), one leg with two colour rings, the other with a BTO ring, and, on adults, a red ring with a yellow stripe. Details of sightings are needed: (1) date, time and precise location; (2) if an adult was sighted, were fledglings present, marked or unmarked, and vice versa for fledglings? (3) Did fledglings beg, and were they fed or attacked? (4) Were the gulls feeding, and if so on what? Please send information to Dr J. Graves and Dr A. Whiten, Gull Research Project, University of St Andrews, St Andrews, Fife.

**Ring-necked Parakeets** The main concentrations of the Ring-necked Parakeet *Psittacula krameri* in Britain are in southeast England, but there is now evidence of breeding elsewhere. Numbers have increased steadily for the last ten years, and in the last two the population in Kent has doubled to 100-200 pairs, with winter flocks of up to 45 on the Isle of Thanet and 69 near Bromley.

The species has been imported in considerable numbers from Asia (and a few from Africa) in recent years; it is the commonest imported parakeet and also the cheapest,

134. Pair of feral Ring-necked Parakeets *Psittacula krameri*, Kent, winter 1977/78 (Brian Hawkes)



with prices as low as £8.00. Some escape; others are deliberately released either because people find that they do not make good pets or to produce attractive free-flying flocks.

So far in Britain, Ring-necked Parakeets are concentrated mainly in the vicinity of human habitations, such as town parks and gardens, but also occur in farmland. There is no evidence that hard winters reduce their numbers, since, in the urban areas where most of them live, they have a choice of ample food put out by bird-lovers. They frequently visit garden bird-tables and nut feeders, usually in the early morning and late afternoon (plate 134). They rarely take food from the ground.

In Britain, the breeding season is from February to June. The nest-site is normally high in a hollow tree or in a hole excavated by another bird, but they also enlarge existing holes with great gusto; they not infrequently take over nest-sites that would otherwise be used by native species later in the year.

Damage in Kent has included eating tree buds and garden rose buds in spring, tearing flowers to pieces in summer and feeding on apples on the trees in autumn (their most frequent destructive habit). The time may come when it is necessary to classify them officially as pests. There are probably about 1,000 living ferally in at least 16 counties in England and Scotland; it is doubtful whether it would now be possible to exterminate them here. In the USA, similar problems have arisen with feral Monk Parakeets *Myiopsitta monachus*, which are proving difficult to eradicate.

An enquiry into the past and present status of the Ring-necked Parakeet in south-east England, including the numbers and damage done to garden and farm crops, is now being launched, with the support of the BTO and co-operation of D. J. Montier (6 Cloonmore Avenue, Orpington, Kent) who is collecting London area records. Please send details of autumn and winter flocks, breeding records (including numbers of young reared and species of tree used), information about feeding from bird-tables and damage done in gardens, parks and agricultural areas to Brian Hawkes, 55 The Street, Newnham, Sittingbourne, Kent MEG 0LN.

**Wintering Blackcaps** During winter 1978/79, the BTO will be conducting a survey of wintering Blackcaps *Sylvia atricapilla* in Britain and Ireland. The following information is needed for each sighting during the period December 1978 to March 1979: place, dates, sex, altitude, habitat (including urban/suburban/rural), food and feeding habits, aggression and song. These details, together with any further relevant information, should be sent to Iain H. Leach, 18 Burness Avenue, Alloway, Ayr.

## News and comment

*Peter Conder and Mike Everett*

**Honours** In the Birthday Honours List, we were glad to note that Charles Tunnicliffe has been created an OBE for his services to painting. He is best known to birdwatchers for his bird paintings, which were featured for many years on the covers of the RSPB's magazine *Bird Notes* and its Christmas cards.

John Barrett, has been made an MBE for his services to conservation. Originally a bird-and-butterfly man, but then, as warden of Dale Fort Field Centre since 1947, he specialised in marine biology and geography. Since retiring from that post, he has been much involved with the National Parks and his lecture-walks, on different

aspects of the Pembrokeshire landscape and its people, on behalf of the National Parks Commission, have been immensely popular.

We were also glad to hear that Stanley Cramp OBE has been further honoured, by the Zoological Society of London, which has presented him with the Stamford Raffles Award for his services to amateur ornithology.

**Captain H. R. H. Vaughan (RN), OBE, DL, JP** Captain Vaughan died on 3rd June at his home at Cilycwm, Dyfed, at the age of 85. He would never have claimed

to have been a birdwatcher, but with his wife, Irene (herself a distinguished botanist), he organised protection for the small population of Red Kites in Wales from 1949 to 1971, when he handed over to the RSPB and the Nature Conservancy (*Brit. Birds* 66: 181-182). With Mrs Vaughan, he is the only person to have been awarded both the Silver and the Gold Medals of the RSPB for services to bird protection. His efforts, and those of his small 'field committee', with the help of the local police headed by the Chief Constable, Rowland Jones, Welsh farmers and local naturalists, who kept tabs on all vehicles entering the valleys, resulted in the increase in the number of pairs of Red Kites recorded breeding in Wales.

**Amberley Enquiry** The end of March saw conservation bodies united at a Public Enquiry in West Sussex. A proposal for an extensive drainage scheme, put forward by the Southern Water Authority, was hotly contested by, among others, the Nature Conservancy Council, the RSPB, the BTO, the Wildfowl Trust, the Sussex Ornithological Society and the Sussex Trust for Nature Conservation.

The ornithological case was put on behalf of all the wildlife conservation bodies by the RSPB. Evidence concentrated on the international importance of the Wild Brooks for Bewick's Swans and Shovelers and the area's national importance for Teal. It established that if the scheme went ahead the essential conditions upon which these species, and many others, depend would disappear. The farmers, it argued, could scarcely be blamed for taking advantage of grant-aided improvement of their land. The real problem lay with a government policy which allowed one public body (the Ministry of Agriculture) to provide cash for the destruction of vital wetlands, while another such body (the NCC) struggled to defend them.

The conservation bodies urged that the proposal be turned down, believing that alternatives could be found which would take account of the farmers' needs, at the same time preserving the vital scientific importance of the Wild Brooks. The Enquiry Inspector's findings will be examined by the Secretary of State for the Environment, whose decision will be announced in due course. (Contributed by John O'Sullivan)

**The Hampshire and Isle of Wight Naturalists' Trust Appeal** This year, the Trust is launching an appeal for £100,000: money needed for it to play an effective part in the wildlife conservation of the two counties. The Trust was established in 1960, and has made great progress towards this aim. It now manages 1,100 ha as natural reserves and employs two full-time wardens, at Farlington Marshes and on the new Lower Test reserve. The area controlled will soon rise to 1,400 ha as a result of a generous gift of woodlands on the edge of the New Forest. Reserves range from large expanses of chalk downland and tidal marsh to small ponds and eopes. A full-time conservation officer was first employed in 1974 to oversee the general management of nature reserves and to co-ordinate the many volunteer helpers. For further information write to Bob Page, Hampshire and Isle of Wight Naturalists' Trust Ltd, Princes Road, Romsey, Hampshire SO5 8DS (telephone Romsey 513786).

**Nylon fishing-line** For several years, the Young Ornithologists' Club has been concerned about the amount of nylon fishing-line discarded by anglers along banks of rivers and around lakes. An amazing number of species are affected by these discarded lines, even Tawny Owl, Stonechat, Robin and Reed Bunting. During the 1975/76 coarse fishing season, YOC members found and burnt 9.1 km of discarded line (*Brit. Birds* 69: 278). To coincide with the start of the next season, the YOC has planned a new project. Members are being asked to search the banks of open water for discarded nylon line or tackle, especially lead shot, to estimate the length of river bank they search, to measure any line found, and to count the number of pieces of lead shot. They should then burn the line, or send it to the YOC headquarters, where a 'Black Museum' will be prepared. The children are also being asked to look for fishing tackle left on the seashore, although these statistics will be kept separate. Since launching this project, the YOC has had the support of the National Federation of Anglers, who are urging their members to be more careful; if the YOC proves that some stretches of river bank are particularly affected by discarded fishing line, the NFA will take the matter up with the club

responsible. Furthermore, the NFA will approach all nylon line manufacturers with a request that every spool carries a warning about the dangers of discarded nylon. Adult birdwatchers are invited to join in this project: the more line that is destroyed, the fewer the number of birds likely to become entangled.

**The 'Cain and Abel' mystery** Why, in an eyrie containing two young Golden Eagles, does the first-born so often kill its younger brother or sister? And why does this also happen with a number of other eagle species? The answer has eluded raptor biologists for years, but at least it is known from the large amount of research carried out so far that the phenomenon does not relate to poor food supply, to extra aggression ensuring survival or to innate aggressiveness or territoriality. A new idea was put forward by Dr Bernd-Ulrich Meyburg a few years ago (*Ibis* 116: 224-228) when he suggested that the second egg acts as a 'reserve' or, in effect, that a species laying two eggs is more likely to breed successfully than one laying only one. This implies that eagles which lay two eggs should have better breeding success than those laying one. Now, three eminent raptor specialists working in Africa, Leslie Brown, Valerie Gargett and Peter Steyn, have tested this theory by comparing a mass of breeding data from ten species of African eagles—five which lay two eggs and five which lay one—and have published their results in *Ostrich* (48: 65-71). They found no significant difference between the breeding success of the two groups, and also noted that, in the case of Verreaux's Eagle *Aquila verreauxii*, probably the best studied eagle in the world, of 120 instances in which two eggs were laid, the second-egg-in-reserve theory would have held up in only three cases: in 110 the second egg was 'wasted'. So, it seems that this theory joins all the others on the reject pile. It is difficult to believe that the 'Cain and Abel' battle is simply biological wastage—as it would seem to be—but the phenomenon is still completely unexplained.

**Golden Eagle killings** A federal judge in San Antonio (Texas) has fined three people a total of \$6,000 for conspiring to kill 70 Golden Eagles from a helicopter. The judge warned that further convictions would result in imprisonment.

**'The Birds of Rostherne Mere National Nature Reserve'** A valuable account of the birdlife of Rostherne Mere and its surrounding area in Cheshire, covering the period from about 1900 to 1976. With 80 pages, eight photographs, seven line-drawings and a map, the publication includes a description of the area's habitats, systematic accounts of each of the 199 species recorded, and biographical notes on two well-known previous chroniclers of birdlife at Rostherne: T. A. Coward and A. W. Boyd. Obtainable, price £1.25 (£1.40 post paid), from Nature Conservancy Council, Calthorpe House, Calthorpe Street, Banbury, Oxon OX16 8EX.

**'The English Sparrow in the American Landscape: a paradox in the nineteenth century wildlife conservation'** Written by Robin Doughty (Research Paper 19, School of Geography, Mansfield Road, Oxford, no price given), this 36-page booklet is a useful survey of the reactions of experts and public opinion to the House Sparrow when it was deliberately introduced into the USA in 1851: everyone welcoming it as, erroneously, a caterpillar-eater, but finally regarding it as vermin. Professor Doughty measures its population growth in relation to developments in America, particularly to the problem of human immigration. Its success as a pest was the origin of a new department of Economic Ornithology.

**Environmental Directory** The Civic Trust has produced a directory of national and regional organisations of interest to those concerned with amenity and the environment. This includes government departments and agencies, voluntary societies, professional institutions and trade associations. Addresses and telephone numbers are given, with a brief description of the function of each organisation and the services available. There are 285 organisations included and the Directory is obtainable (£1.20 plus 20p postage) from the Civic Trust, 17 Carlton House Terrace, London SW1Y 5AW.

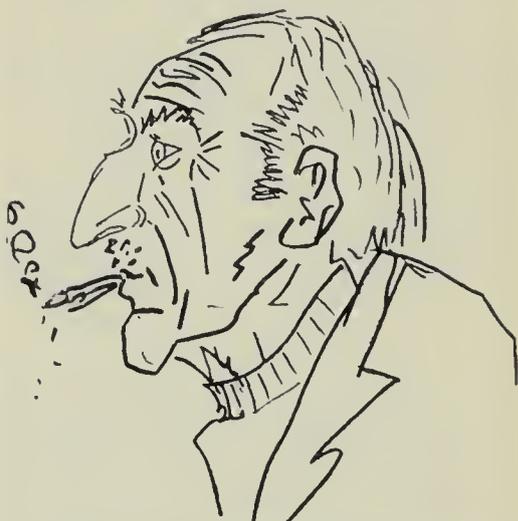
**Recording death on the roads** The Bedfordshire Natural History Society, greatly concerned at the vast number of birds and other animals killed on the road, appealed to its members to scour highways and byways for every animal, even

the squashed bits. Those taking part were warned to be careful: 'We don't want you to end up as a specimen.' Then, in Maulden Woods, where goings-on in 1976 apparently necessitated the presence of the Police (*Brit. Birds* 69: 520), the collection was examined at an all-night meeting followed by a barbecue. Participants were reassured in advance that the specimens would not be barbecued!

**Ups and downs** The BTO staff have just completed analysing the 1977 Common Birds Census returns. On farmland, Goldfinches *Carduelis carduelis* showed the greatest increase (index figures—compared in each case with 100 in 1966—of 140 in 1976 rising to 202 in 1977); both partridges also improved: Red-legged *Alectoris rufa* (126 to 178) and Grey *Perdix perdix* (108 to 141). Although they marginally increased from the previous year, Garden Warbler *Sylvia borin* (30 to 42) and Whitethroat *S. communis* (28 to 33) were both still at very low levels compared with their peak values in 1968 (117 and 110 respectively). In woodland, Great Spotted Woodpecker *Dendrocopos major* (221 to 233), Nuthatch *Sitta europaea* (110 to 145) and Treecreeper *Certhia familiaris* (130 to 164) all increased to their highest levels since the CBC started. Of scarcer species, the largest change was in the index for Redpoll *Carduelis flammea* (313 to 416). The only other species shown to be over four times as numerous now as it was in 1966 is Stock Dove *Columba oenas* (389 to 403). Data for Collared Dove *Streptopelia decaocto*, however, were too few for analysis in 1966, so the index is based

on 100 in 1972: this colonist continues to increase (308 to 353). The largest decrease was shown by Little Owls *Athene noctua*, after their highest level in 1976 (152 to 101). The importance and interest of the CBC are demonstrated even by these few examples. (JTRS)

**L. J. Yeatman** We learn with great regret of the death of the man who achieved the impossible: Laurent Yeatman, mastermind and energy-source of the French *Atlas*.



Laurent Yeatman at the IBCC/EOAC conference in Poland, October 1976 (drawn by Bernard Frochet)

The new French delegate to the European Ornithological Atlas Committee has yet to be named, but his successor as joint secretary of the EOAC is Dr Francisco Purroy, Facultad de Ciencias, Tercer Pabellón (Planta 9), Madrid-3, Spain.

*Opinions expressed in this feature are not necessarily those of the editor of British Birds*

## Recent reports

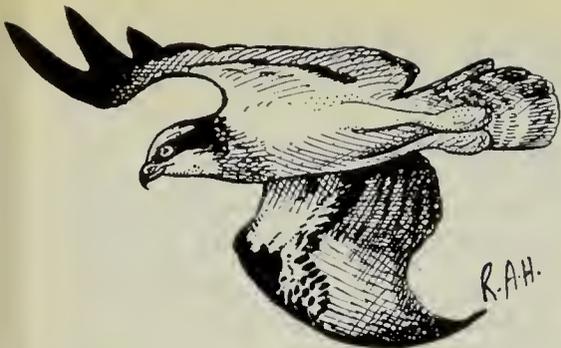
*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers May and the first part of June; except where otherwise stated, all dates refer to May.

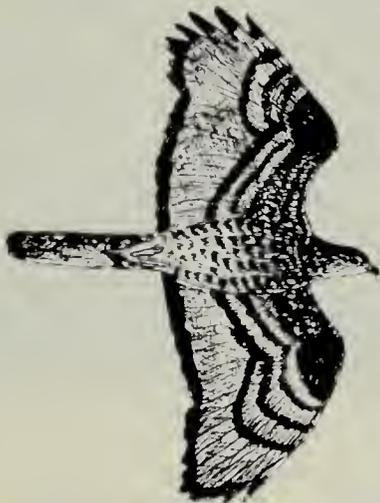
The cyclonic conditions of late April, with light winds and periods of cloud and rain, continued into the first week of May,

producing a scatter of displaced migrants down the east coast of Britain. In contrast, the remainder of the month was anti-cyclonic, with predominantly northeasterly winds, becoming very warm towards the end.



### Raptors

There was a good scattering of migrant **Ospreys** *Pandion haliaetus* through the eastern half of Britain as far north as Fair Isle (Shetland) during the spring, with a late one on the River Seven at Hartoft (North Yorkshire) on 10th June. Other large raptors of note included a **Honey Buzzard** *Pernis apivorus* on Fair Isle on 2nd



June and a **Red Kite** *Milvus milvus* at Prawle Point (Devon) on 20th.

### Terns and gulls

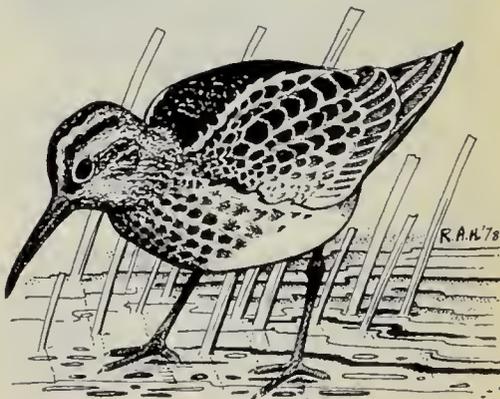
There was an impressive inland passage of **Arctic Terns** *Sterna paradisaea* during the first ten days (see *Brit. Birds* 71: 324). Information received so far indicates that this movement was quite widespread, but we should like to hear from as many areas as possible in order to build a more complete picture for the spring summary. The only odd terns reported to us were a **White-winged Black Tern** *Chlidonias leucopterus* at Hornsea Mere (Humberside) on 13th, a **Caspian Tern** *S. caspia* off Fair Isle on 29th and—a rarity at the latter observatory—a **Sandwich Tern** *S. sandwicensis* on 12th.

May is not normally all that brilliant for

odd gulls and the biscuit must go to the **Laughing Gull** *Larus atricilla* that was on Nant-y-Moch Reservoir on 19th and at Llyn Syfydrin Reservoir (both Dyfed) on the following day: perhaps the individual that overwintered in Cornwall was on the move? A **Sabine's Gull** *L. sabini* was seen off Prawle Point on 20th, and the only inland record of **Mediterranean Gull** *L. melanocephalus* was an immature on Fairburn Ings on 4th June. We have no details of the spring skua passage off the Hebrides as yet, apart from 46 **Pomarine Skuas** *Stercorarius pomarinus* moving north off Balranald on 23rd.

### Wading birds

Many inland areas reported a poor spring passage of waders. There were few reports of **Temminck's Stints** *Calidris temminckii*, although two turned up as far west as Bolton (Lancashire) on 21st. Single **Broad-billed Sandpipers** *Limicola falcinellus* were found at Breydon Water (Norfolk) on 8th and Minsmere (Suffolk) on 19th-21st. Perhaps the wader species of the spring was **Kentish Plover** *Charadrius alexandrinus*, with ones and twos scattered through southeast England as far inland as Oxfordshire and Berkshire in April; farther north, singles appeared at Gibraltar Point (Lincolnshire) on 21st and Filey Brigg (Humberside) on 29th-30th. More exotic was a summer-plumaged **Sociable Plover** *Chettusia gregaria* near Ranskill (Nottinghamshire) on 30th, which was chased off by the resident Lapwings *Vanellus vanellus* almost as soon as it arrived and tried to live up to its name. On the following day, a **Collared Pratincole** *Glareola pratincola* arrived at Fairburn Ings (North and West Yorkshire) for a two-day stay. Two **Spoonbills** *Platalea leucorodia* had flown east over the latter reserve on 29th and were undoubtedly the same as



two at Killingholme Point (Humberside) on the following day. Another had been at Martin Mere (Lancashire) earlier in the month, there had been one at Loch of Strathbeg (Aberdeenshire) in April, and Fairburn had another on 12th-13th June. Single **Cranes** *Grus grus* were found at Marshside (Cheshire) on 7th and at Stodmarsh (Kent) on 20th-21st.

### Passerines

Hirundines arrived in force during May, but there are rumours from many areas that **Swallows** *Hirundo rustica* are down in numbers. An odd bird that arrived at Cruden Bay (Aberdeenshire) on 6th was considered to have been a hybrid Swallow × House Martin *Delichon urbica*.

The eastern origin of scarce migrants on the east coast this May is reflected by more **Pied Flycatchers** *Ficedula hypoleuca* than normal being reported from several sites. **Wood Warblers** *Phylloscopus sibilatrix* are rather scarce on passage: ten at Hornsea Mere on 6th was a quite exceptional record there. Fair Isle had 320 **Wheatears** *Oenanthe oenanthe* on 1st, a day when Flamborough Head (Humberside) reported 55 **Tree Pipits** *Anthus trivialis*. Later, on 24th, Fair Isle had 18 **Red-backed Shrikes** *Lanius collurio* and a **Thrush Nightingale** *Luscinia luscinia*. There was a scattering of singing **Savi's Warblers** *Locustella luscinioides* as far west as south Devon, and a migrant reached Flamborough Head on 6th.

A male **Lapland Bunting** *Calcarius lapponicus* on Cape Clear Island (Co. Cork)



on 27th was followed by an **Alpine Swift** *Apus melba*, two **Golden Orioles** *Oriolus oriolus* and a **Wood Warbler**, all on 2nd June.

### Eastern Stonechats and Pallid Swift

Perhaps the strangest records of the month were three male **Stonechats** *Saxicola torquata* showing characters of one of the eastern races. The first was at Flamborough

Head on 1st, amidst a fall of eastern migrants: this one was considered to be of the race *stejnegeri*, as was the second, which appeared at Donna Nook (Lincolnshire) on 23rd. Flamborough produced another on 25th, which was photographed in the field and was considered to be of the race *maura*. It seems unlikely that these birds had reached western Europe from the east in spring: they had most likely moved west the previous autumn and were heading north.



135. Pallid Swift *Apus pallidus*, Kent, May 1978  
(Jeff Pick)

Yet another surprise turned up at the other end of England: a **Pallid Swift** *Apus pallidus* discovered at Stodmarsh (Kent) on 13th, which stayed for about two weeks. Although four have been claimed in Britain during the past four years, the species has not yet been admitted to the British and Irish list. The situation may now be rectified, as this one was seen by a multitude of observers, and even photographed in the field (plate 135).

### Latest news

**Night Herons** *Nycticorax nycticorax*: one Sheffield (West Yorkshire), six Blackmoorfoot Reservoir (West Yorkshire); **White Stork** *Ciconia ciconia* Ashford (Kent); five or six **Spoonbills** Cley (Norfolk), where also **Purple Gallinule** *Porphyrio porphyrio*, doubtless escapee; **Terek Sandpiper** *Xenus cinereus* Breydon Water; **Ring-Billed Gull** *Larus delawarensis* Radipole Lake (Dorset).

# British Birds

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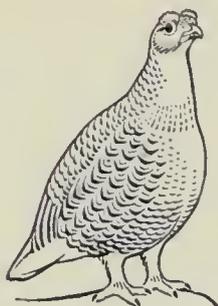
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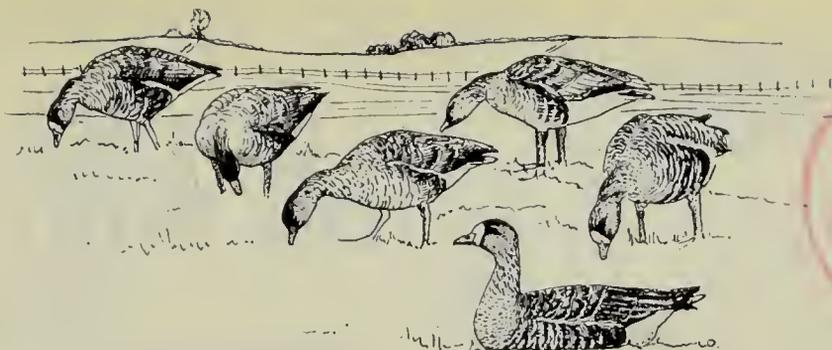
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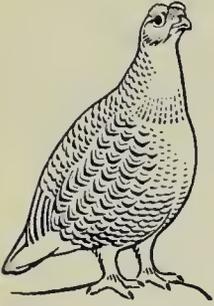
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## Editorial

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Unlike the majority of ornithological journals, *British Birds* is not the organ of a club or society. With no captive audience, continued publication must depend upon satisfied readers renewing their subscriptions each year. Thus, it is vital to ensure that the journal's contents not only justify its existence by their scientific worth but are also interesting and entertaining. We neither criticise nor envy some other journals, the contents of which are of acknowledged scientific importance, but which are often so specialised that they have limited appeal. Our aim is to maintain variety in *British Birds*, with numerous features in addition to the main papers, so that, for everyone, every issue contains something of interest.

Receipt of over 1,100 replies to the readership survey questionnaire in the June issue has enabled us to assess the wishes of subscribers. A majority of readers considered that every feature was either 'about right' or should be given more space, but there were marked differences between 'new' subscribers (the one-third who have been readers for only one or two years), those who have taken the journal for three to nine years (another one-third) and old hands of ten or more years' standing. To take 'Mystery photographs' as an example, 78% of new subscribers like it as it is and 16% want more, while only 4% want less and a mere 2% would like the feature dropped; in contrast, the percentages among 'old' subscribers are 67% 'same', only 4% 'more', but 12% 'less' and as many as 17% want it discontinued. We can, however, please 70% of all subscribers by keeping it at its present level. Adjustments will, however, be made to the space devoted to some other features as a result of the survey. Colour plates are expensive and we have no ambition to try to compete with the magnificently illustrated RSPB magazine *Birds*, but we shall include occasional colour photographs.

Even before the survey, we knew that our present policy was mainly approved: the number of subscribers has increased by 58% in the past two years, to reach its highest ever level. Of course, this huge circulation increase also reflects considerable promotional effort by our colleagues in Macmillan Journals Ltd.

As promised in our last general editorial two years ago (*Brit. Birds* 69: 237-238), Macmillan Journals Ltd froze the subscription price of *British Birds*, despite large increases in costs. The dramatic growth in the number of subscribers since then has not only made it possible to have an enlarged and improved journal, but now makes the inevitable price rise less than it could otherwise have been. Furthermore, the reduced rate concession to members of a number of bird clubs and societies, including the RSPB, means that *British Birds* is now available to many ornithologists at less than it was over three years ago.

To sum up, we now know what our readers want and shall try to provide it. We intend to do our best to ensure that *BB* improves, but that it retains its present general form and remains excellent value. We rely on your continued support to achieve these aims.

## Breeding ecology of the Merlin in Northumberland

*I. Newton, E. R. Meek and B. Little*

**Often elusive on its breeding grounds, the Merlin is still perhaps the least well-known of all our falcons**



**O**nly meagre information has been published on the Merlin *Falco columbarius* in Britain since the pioneer study by Rowan (1921-22); but the species is widely thought to have been decreasing since at least the turn of the century (Parslow 1967), and is known to have suffered from organochlorine contamination in recent years (Newton 1973a). The Merlin shows as much shell-thinning and as much organochlorine residue in its eggs as the more widely publicised Peregrine *F. peregrinus* and Sparrowhawk *Accipiter nisus* (Ratcliffe 1970, Newton 1973b, Newton & Bogan 1974). In addition, much of its traditional open breeding habitat in the uplands of Britain has been converted to plantation forest. The species thus seemed in need of detailed study.

This paper describes the habitat, breeding, food and movements of Merlins in Northumberland, based on observations during 1961-76 by members of the Northumbria Ringing Group. The uplands of Northumberland fall into three main regions: (1) the Northern Pennines south of the Tyne Gap; (2) the Border Forests and Cheviots north of the Tyne Gap; and (3) the eastern Fell Sandstone Ridge (fig. 1). In general, these uplands are gently contoured hills, and such rocky crags as occur are mostly small and inconspicuous.

Earlier this century, the Northumbrian uplands supported two main habitats: open grasslands under sheep and heather moors managed for Red Grouse *Lagopus lagopus*. These areas were kept largely devoid of trees by grazing and burning, but isolated trees occurred here and there, and some small copses were planted to provide shelter. Large-scale affore-

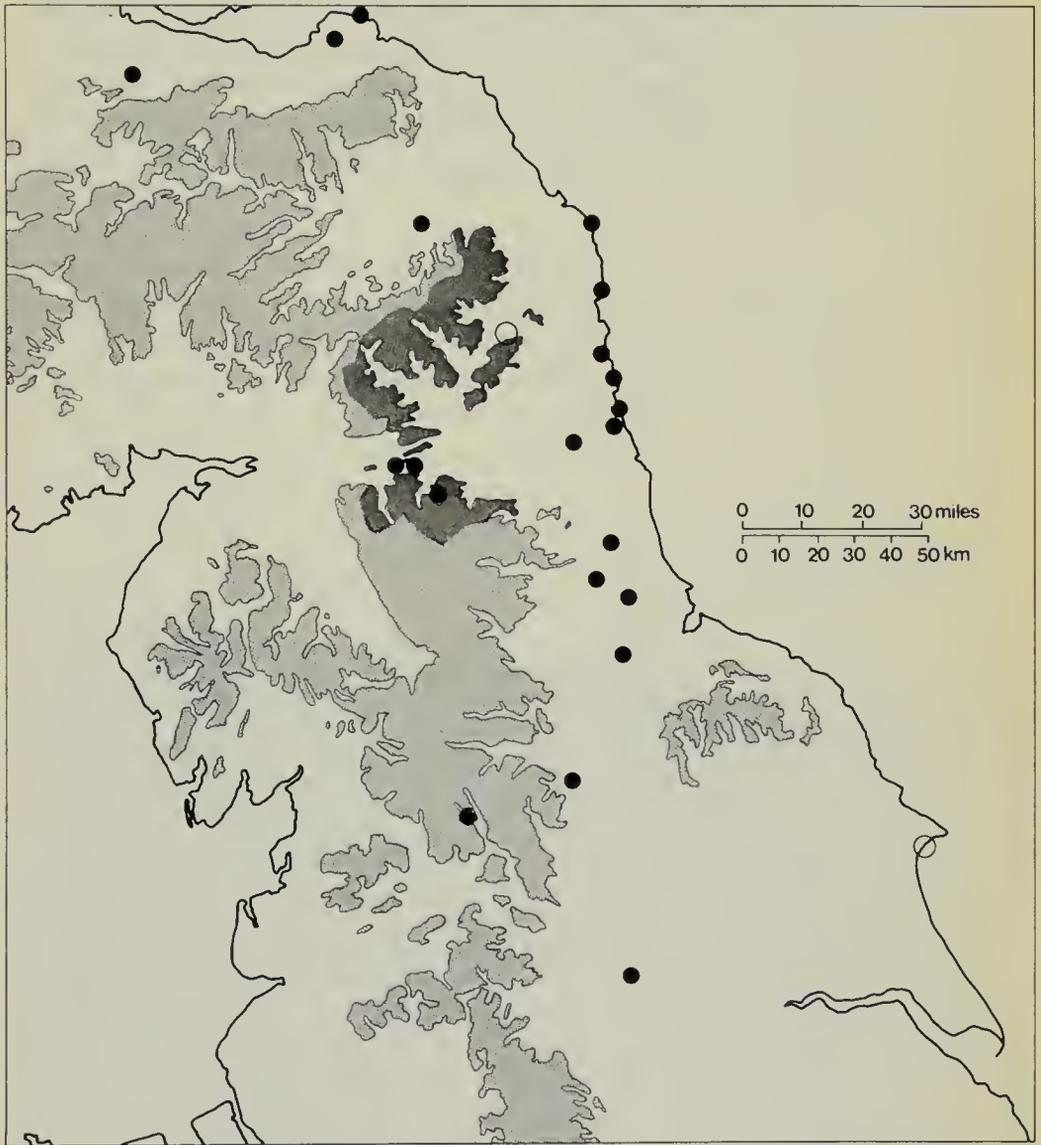


Fig. 1. Part of northern Britain, showing land over 800 feet (244 m) on which Merlins *Falco columbarius* breed (all shaded areas), Northumberland study areas (darkest shading), and ringing recoveries (open circles, May to July; filled circles, August to April). One more recovery was obtained south of area shown

station began in 1927 at Kielder, and by 1970 more than one-quarter of the land over 300 m had been planted, mainly in the southern Cheviots. In recent decades, therefore, these uplands have supported three main habitats.

In the study area, Merlins nested in trees, on small crags or on the ground among heather *Calluna vulgaris*. They used the same traditional nesting areas in different years (confirming Seebohm 1883, Rowan 1921-22 and others). The term 'nesting area' is used here for the precise locality where Merlins bred, and the term 'nest-site' for the situation of the nest. Nesting areas usually contained more than one potential nest-site. When occupied, they might equally well be called 'nesting territories', because they were used by only one pair at a time, which kept away other Merlins. Not all nesting areas were occupied in the same year, and some may have been alternatives of particular pairs and their successors. Moreover, nesting areas did not necessarily contain the main hunting areas, and we could not discover whether the hunting areas of different pairs were mutually exclusive. Observations and prey remains showed that falcons often flew farther to hunt than the minimum distance between nests.

## Methods

Knowledge of nesting areas was built up over many years, by regular searching of hill country, checking likely places and following up the records of other observers. Occasional visits to breeding habitat were made in autumn and winter, and some nesting areas were found then, by signs left from the previous summer. In early years, the main objective was to ring the young, so not all nesting areas were visited at an early stage in the season. Samples were therefore biased in favour of successful nests, which survived longest. The number of known nesting areas was increased in 1973 by the use of information gleaned from the data labels of clutches in museum collections. For this, checks were made in nearly all the main museums in Britain. It is likely, however, that there are some nesting areas in the county of which we remain ignorant.

Each year from 1974, all known nesting areas were visited in April, before laying, and again in May, when eggs were expected. These visits provided more complete information than hitherto on the number of areas which were occupied each year and on the number in which nesting was attempted. All nests found were visited at least a third time, in late June or in July, to check on success and to ring the young. Survival of young to the age at which they could be ringed (usually at least two-thirds grown) is here taken as successful fledging. Also, any nesting areas where the first nest had failed, but where adults were still present, were revisited to check for repeat clutches, although none was found. During these routine visits, prey remains were also noted, and unhatched eggs were collected for examination of organochlorine levels and shell-indices. The compounds assessed included DDE (the main terminal metabolite of the insecticide DDT), PCB (industrial polychlorinated biphenyls) and HEOD (from the insecticides aldrin and dieldrin). Chemical analyses were those described by Newton & Bogan (1974), and shell-indices were

measured as described by Ratcliffe (1970). Three eggs were also examined for mercury levels. Movements of Merlins were studied from recoveries of birds ringed as nestlings.

### Habitat and nest-sites

Merlins were not found breeding in extensive well-grown forest, only in open sheep walk, heather moor or young plantations; and, in the last, all occupied nests were within 1 km of open land. Many nests were in small valleys near the headwaters of streams, or on rough hillsides, with small crags and boulders. The attractiveness of such places seemed to depend as much on their position in the general landscape as on the presence of suitable nesting and perching places. They generally offered a wide view over neighbouring terrain.

Where ground-nesting occurred, the nearby boulders used for perching and for plucking prey became splashed with conspicuous white droppings. In narrow valleys, some of these perches were at the same level as the nest on the opposite hillside. There was usually a direct flight line from perches to nest. Isolated trees used for nesting were often in similar situations, near the head of a stream or on a hillside, and nearby crags and rocks again served as perching and plucking places. When nesting in copses, however, Merlins often accepted fairly flat, featureless areas, and used branches in the trees for perching and plucking.

Six main types of nest-sites were distinguished, but the various crag and ground sites tended to grade into one another: (1) on the face of a low crag, either on a bare ledge or in an old stick nest of Ravens *Corvus corax*;

136. Site of nest of Merlin *Falco columbarius* in heather bank (just left of centre), Northumberland (I. Newton)





137. Site of nest of Merlin *Falco columbarius* among heather on top of large boulder, Northumberland (I. Newton)

(2) among heather on top of a low crag or bluff; (3) among heather on top of a huge boulder; (4) among heather or under the branches of young conifers on a slope; (5) among heather on flat featureless ground; and (6) in an old stiek nest of Carrion Crows *C. corone* in an isolated tree or a copse. No nests were found in braeken *Pteridium aquilinum* or other herbaceous vegetation.

These various sites differed in the protection they offered against mammalian predators. Tree nests offered complete security, as did two of the three boulder sites used. All other sites could be reached by such predators, including those on crag ledges, but some of the nests among heather were extremely well hidden. Ground nests were also vulnerable to treading by sheep.

The use of different nesting areas is examined in table 1 in relation to the types of nest-sites they contained. Some nesting areas offered more

**Table 1. Use by Merlins *Falco columbarius* of nesting areas containing different types of nest-site, Northumberland 1974-76**

One nesting area checked in one year = one 'Opportunity for nest to be found'.

Variation among site types significant only at 10% level ( $\chi^2_5 = 10.67$ )

Nest-site	Opportunities for nest to be found	NESTS FOUND	
		No.	%
Tree	57	23	40
Boulder top	6	2	33
Crag top	11	4	36
Crag ledge	20	3	15
Slope	151	49	32
Flat	18	10	56
Several	8	5	63
TOTAL	271	96	(35%)

than one kind of site, and, in at least three areas, the nest was in a tree in one year and on the ground in another (even though the tree-site was always available). The tendency for nesting areas based on certain kinds of site to be occupied more frequently than others was significant only at the 10% level ( $\chi^2_5 = 10.67$ ). Within each nesting area, the nest itself was changed in position from year to year, sometimes by more than 100 m, depending partly on the availability of suitable tree nests or ground vegetation.

The crags used by Merlins tended to be only up to a few metres high. Larger crags in the area—many of which offered complete security from



138. Copse in open sheepwalk containing tree nest of Merlin *Falco columbarius* in old nest of Carrion Crow *Corvus corone*, Northumberland (I. Newton)

mammalian predators—were almost always occupied by Kestrels *F. tinnunculus*, or in some instances in former years by Peregrines. Neither of the smaller species nested close to Peregrines, but, on some crags, Kestrels and Merlins commonly nested simultaneously, sometimes within 30 m of one another, the Kestrel on the higher part and the Merlin on the low part at one end. In only two instances in 16 years did the two species lay eggs in the same scrape (in different years). The two species also sometimes nested within 30 m of one another in old nests of Carrion Crows in trees, and, with a surfeit locally available, were unlikely to compete for such nests.

No evidence was found that Merlins built proper nests. Ground nests, however, were scraped out, and small pieces of heather and other stiff vegetation from within reach were often placed in the hollow, occasionally forming a substantial lining. This began before laying and continued into incubation. Nibbling of thick heather stems by the sitting bird also occurred at many ground nests.

### Recent changes in suitability of former nesting areas

From a total of 37 areas known to be used for nesting in 1880-1940, at least 25 were used in 1971-76. They provided a further illustration of the long use of nesting areas where change in environment was not marked. Of the 12 that were not used in 1971-76, seven were judged as still suitable, and five as no longer suitable. Two of the latter were in terrain previously covered by long heather, but in 1971-76 heavily grazed and under short grass; the third ground site had been thickly afforested with spruce *Picea*; a fourth was greatly disturbed by rock climbers; while the fifth was on a flat heather moor next to a busy road, and very much disturbed. Thus, the disuse of three former nesting areas was associated with changed land-use and two with increased human presence. These figures indicated how many former nesting areas had become unsuitable in recent decades; but they did not indicate how many places formerly not suitable have since become so. In addition, three other nesting areas used in the early years of the present study were not used in later years, after they became overgrown with trees; at a fourth area, which became much disturbed by picnickers, the Merlins found an alternative site several hundred metres away.

### Spacing, and nesting densities

Only for two small tracts of mixed heather moor and young forestry plantation were we reasonably certain that all recently used nesting areas were known, and that all occupied nests were found in 1974-76 (fig. 2). In the first tract of 30 km<sup>2</sup>, 13 previously used nesting areas were known. During 1974-76, the numbers at which signs of Merlins were found in April in each year were five, three and five; and the numbers at which a nest was subsequently found were four, two and two. These were equivalent to densities of 13, seven and seven nests per 100 km<sup>2</sup> in the three years. In the second tract of 41 km<sup>2</sup>, eight previously used nesting areas were known. The numbers at which signs of Merlins were found in April were four, four and six in 1974-76; and the numbers at which a nest was subsequently found were four, one and four: equivalent to densities of ten, three and ten nests per 100 km<sup>2</sup> in the three years. In both areas, most nests were separated by distances of 1.0 to 1.6 km, but some were up to 4.8 km apart. Once, three pairs nested at the corners of a triangle 1.0 to 1.1 km apart. The shorter distances were not as close as known nesting areas would have allowed, but were perhaps as close as Merlins were prepared to nest in these conditions. The longer distances were often in terrain devoid of suitable intervening nest-sites.

### Behaviour

Each year, male Merlins were present on particular nesting areas at least from late February, and were joined later by females. If successful in breeding, the pair remained into August, when their young became independent. Pairs which failed usually left the immediate nesting area within a few days.

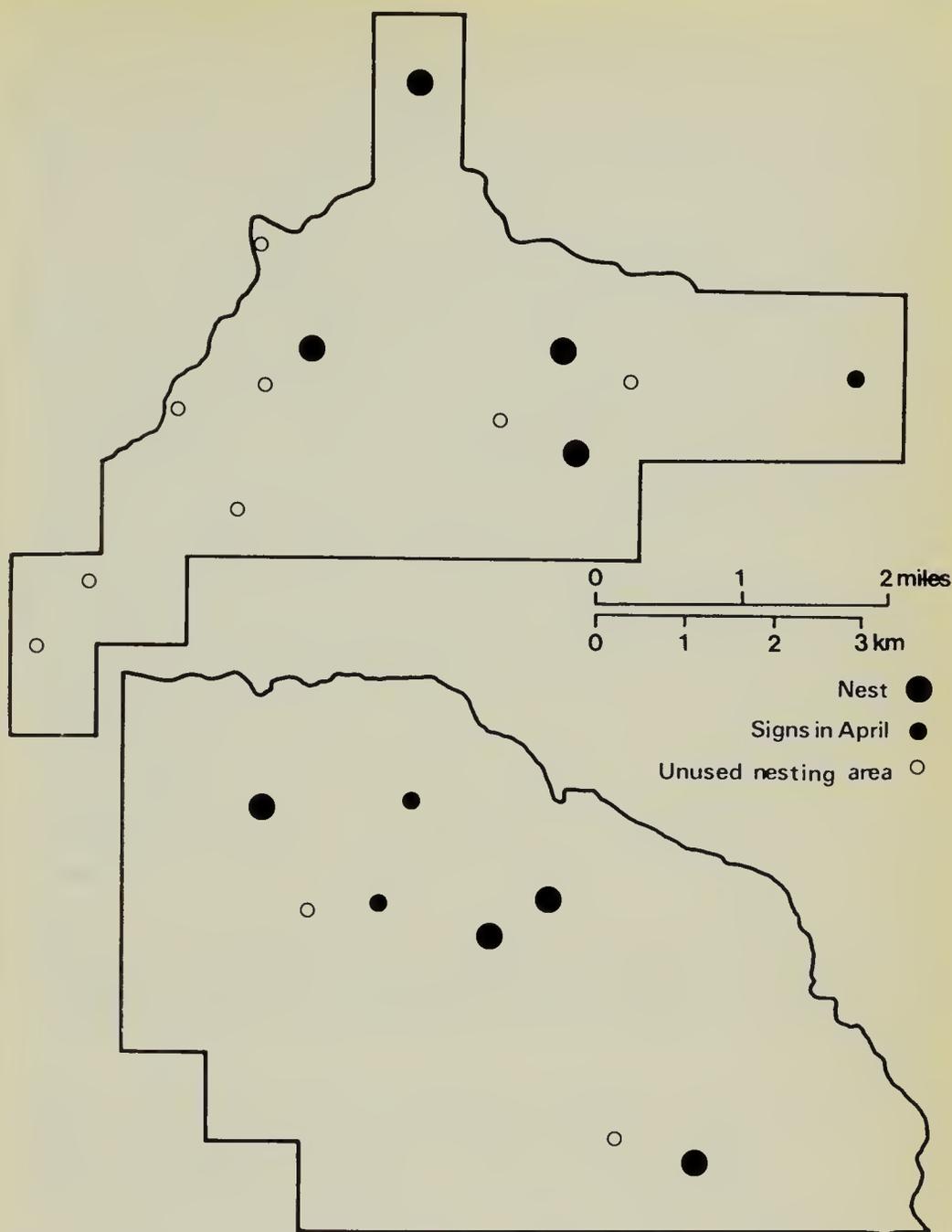


Fig. 2. Spacing of nests of Merlins *Falco columbarius* in two areas of Northumberland in which all nests were known. Upper area covers 30 km<sup>2</sup> and shows nest distribution in 1974; lower area covers 41 km<sup>2</sup> and shows nest distribution in 1976

On the nest, most Merlins were tight sitters, and left only when an observer was within a few metres. Once in the air, some then left the area silently, and others flew around noisily in wide circles; the loud calling of the female often attracted the male, who flew around at a greater distance. While some pairs demonstrated against people from before egg-laying and throughout the season, others did so only when they had small young. Merlins also attacked any large birds that flew over their nesting area: behaviour which sometimes helped us to locate a pair.

The roles of the sexes in breeding was assessed by noting which partner was present at each visit. In the pre-laying period (in April), both sexes, the male alone and the female alone were seen on the nesting area on 31, 21 and 33 occasions respectively. Thus, at this stage, neither sex was present significantly more than the other. Of 22 Merlins flushed from nests in the laying period, six (27%) were blue-backed males; of 97 put off in the incubation period, 33 (34%) were blue-backed males; and, of 29 put off in the nestling period, none was a blue-backed male. The ratio of brown-backed (yearling) to blue-backed (two years or more) males in the breeding population was 1:17 (figures for 1976 only), so it seemed reasonable to conclude that males did less than half the daytime incubation, and none of the brooding of young. This should be viewed in relation to Rowan's (1921-22) finding that, during a single night of observation, the male incubated throughout. Our figures for the male:female ratio in the incubation period were almost identical to those obtained in the same way in Newfoundland by Temple (1972).

In all except two instances when males were put off eggs, the female was seen to be present in the nesting area at the same time; but, while the female brooded, the male was seldom present, unless attracted by her calling. Even when the young were too large to brood, the female was usually near the nest, and again her calling sometimes attracted the male. Of nine Merlins seen away from the nest during the laying, incubation and nestling periods, all were blue-backed males. Possibly, brown-backed males (except for the small proportion that bred) were absent from the breeding habitat at this time. In conclusion, the female did about two-thirds of the incubation and all of the brooding of the young, and stayed on or near the nest, at least until the young were large; the male participated substantially in incubation, and also hunted away from the nest. This was a less marked division of labour than in the case of the Sparrowhawk, the males of which do not incubate (Newton 1973b).

### **Numbers**

Only in 1974-76 were all known nesting areas checked from the start of the season (table 2). In general, at little over half were signs of Merlins found in the pre-laying period in April. Such signs varied between areas, from a single plucking or dropping to lots of pluckings, droppings, pellets and demonstrative adults. Nests were subsequently found at less than two-thirds of the areas at which signs had been found in April (table 2). Consistently fewer, however, of the known nesting areas in region 2 (the Border Forests/Chevriots) were used compared with those in regions 1 (Northern Pennines) and 3 (Eastern Fell Sandstone Ridge). This was perhaps because of the greater density of nesting areas in region 2, from which the birds could choose.

On some nesting areas used in April, but on which no nest was found, Merlins were still present in May. Probably, they did not nest; but, despite thorough searches, we could not exclude the possibility that a few had nested and failed at an early stage. Such individuals were not present at later visits.

**Table 2. Occupation of nesting areas and nest success of Merlins *Falco columbarius*, Northumberland 1974-76**

Nesting area defined as: where Merlins known to have nested in past and still apparently suitable; a few were so close together that unlikely to be used in same year. Droppings, pellets, pluckings or sightings of birds in April/early May all taken as signs of usage

Year	Region	No. of nest- ing areas checked	No. used	No. at which nest found	No. at which eggs laid	No. at which at least 1 egg hatched	NESTING AREAS AT WHICH AT LEAST 1 YOUNG FLEDGED	
							No.	%
1974	Northern Pennines	15	12	6	6	6	6	100
	Border Forests/ Cheviots	54	27	16	16	11	11	69
	Eastern Fell Sandstone Ridge	16	14	11	11	10	10	91
	TOTAL	85	53	33	33	27	27	82
1975	Northern Pennines	15	11	7	7	7	7	100
	Border Forests/ Cheviots	57	26	16	16	13	12	75
	Eastern Fell Sandstone Ridge	18	10	7	7	5	5	71
	TOTAL	90	47	30	30	25	24	80
1976	Northern Pennines	19	13	7	7	3-4	3-4	43-57
	Border Forests/ Cheviots	59	28	15	14	12	11	73
	Eastern Fell Sandstone Ridge	18	14	11	11	6	6	56
	TOTAL	96	52	33	32	21-22	20-21	61-67
GRAND TOTAL		271	152	96	95	73-74	71-72	(74-75%)

There was considerable constancy during 1974-76, both in the numbers of known nesting areas at which signs of occupation were found in April, and in the numbers of nests in May. This constancy held for the total number of nests found (33, 30 and 33 in the three years), and for the numbers in each of the three regions (table 2), even though some different nesting areas were used in different years. Of 55 known nesting areas used at least once in 1974-76, 14 were used in all three years, 13 in two years and 28 in only one year.

### Breeding

Some 3% of all newly worked nests were empty when first found, and provided no indication of whether eggs had been laid. In the remaining nests, clutches consisted of three to five eggs (once six) and broods consisted of one to five young, mostly three or four (table 3). Complete failures were usually recorded as the breakage, disappearance, desertion or addling of clutches, or as the predation (when remains were found) or disappearance of broods. The first category probably included some clutches broken by parents (shell-thinning occurred) and others broken by predators (perhaps following desertion), while clutches and broods which disappeared probably included losses to both natural and human

**Table 3. Breeding performance and causes of complete nest-failure of Merlins *Falco columbarius* in Northumberland in three periods, 1961-76**

'Eggs probably not laid' might include pairs which laid and lost their eggs at early stage. Comparing the three periods, significant improvements occurred in proportions of nests which produced young ( $\chi^2 = 9.25$ ,  $P < 0.01$ ), and in proportions of broods which contained more than three young ( $\chi^2 = 6.39$ ,  $P < 0.05$ )

Period	No. nests found	No. in which eggs laid	No. in which at least 1 egg hatched	NESTS IN WHICH AT LEAST 1 YOUNG FLEDGED	
				No.	%
1961-70	36	35	18	18	50
1971-73	50	46	35	30	60
1974-76	96	95	73-74	71-72	74-75
All years	182	176	126-127	119-120	65-66

## FREQUENCY DISTRIBUTIONS AND MEANS

Period	CLUTCHES					BROODS					
	3	4	5	6	Mean	1	2	3	4	5	Mean
1961-70	0	9	7	0	4.44	5	2	16	6	3	3.00
1971-73	2	18	13	0	4.33	6	3	9	13	2	3.06
1974-76	6	22	28	1	4.42	0	11	18	24	12	3.57
All years	8	49	48	1	4.40	11	16	43	43	17	3.30

## CAUSES OF COMPLETE NEST-FAILURE

Period	Eggs probably not laid	Eggs broken by parent or predator	Eggs taken	Eggs deserted	Eggs added	Eggs trampled	Nestlings taken by human or natural predator	Female died (egg-bound)	Unknown
1971-73	4	6	2	0	1	0	5	0	2
1974-76	1	7	13	1	0	0	2	0	(1)
All years	6	6	16	1	5	1	7	1	9-10

predators. The analyses of nest success set out below were based only on nests found at the pre-egg or egg stages, and followed through. If nests not found until a late stage had also been included, they would have biased the sample in favour of success.

*Breeding performance in different years*

The years 1961-76 saw a progressive decline in organochlorine usage in Britain. To find whether any change in nesting success occurred during these years, the data were divided (after first being checked to be sure that they were sufficiently homogeneous within each period to warrant these groupings) into 1961-70, 1971-73 and 1974-76 (table 3). Comparison of these periods showed that significant increases occurred in the proportions of nests that were successful ( $P < 0.01$ ), and in the proportions of broods that contained more than three young ( $P < 0.05$ ); no significant change occurred in the average clutch size. Tree nests were more successful than others (see below), and the proportion of tree nests among the totals increased from 8% in 1961-70, to 16% in 1971-73 and 24% in 1974-76. When tree nests were omitted, the increase in proportion of other nests that were successful was still significant ( $\chi^2 = 5.52$ ,  $P < 0.05$ ).



139. Merlin *Falco columbarius*, Dumfriesshire, June 1973 (*J. F. Young*)

At least four out of 18 nest failures in the first period occurred through clutch-addling, only one out of 20 in the second period and none out of 12-13 in the third. Clutch-addling is one of the known effects of organochlorine contamination in other raptors (Ratcliffe 1970, Newton & Bogan 1974, Peakall 1976). It was not possible to determine whether egg-breakage by the parents also declined between periods, because of the difficulty in some nests of distinguishing such eggs from those broken by predators, and because of the high proportion of failures from unknown causes in the first period. Because of the improvement in breeding success during 1971-1976, the further analyses (below) were restricted to the period 1971-76.

*Breeding performance in different altitude zones and different regions*

Merlins were found nesting at elevations between 650 and 1,600 feet (198-486 m), but mostly at 800-1,300 feet (243-395 m). No significant differences in the proportions of nests that were successful, in mean clutch size or in mean brood size, occurred between nests in three altitude zones (less than 300 m, 300-400 m and more than 400 m above sea level). Nor were any significant differences found between the records from the three upland regions.

*Breeding performance in different types of nest-site*

Highly significant variation occurred in the proportions of nests which were successful in different types of sites. This resulted mainly from the high success of nests in trees (94% successful), and in the relatively low

**Table 4. Breeding performance of Merlins *Falco columbarius* in different types of nest-site, Northumberland 1971-76**

'Tree' sites were in old nests of Carrion Crows *Corvus corone*; 'boulder top', 'crag top' and 'flat' sites were in heather; 'crag ledge' sites were exposed and include some on bare ledges and others in old nests of Ravens *C. corax*; 'slope' sites were in heather or young trees. Three nests excluded: two reported by other observers without note of site, and one fate unknown

Significant variation occurred between different types of nest-site in proportions of nests which successful ( $\chi^2_4 = 29.8$ ,  $P < 0.001$ ); this resulted chiefly from relatively high success of tree nests and relatively low success of crag top and crag ledge nests

Nest-site	No. nests found	No. in which eggs laid	No. in which at least 1 egg hatched	NESTS IN WHICH AT LEAST		Mean clutch-size	Mean brood-size
				1 YOUNG FLEDGED No.	%		
Tree	31	31	29	29	94	4.41	3.44
Boulder top	4	3	3	3	75		
Crag top	7	6	1	1	14		
Crag ledge	8	8	3	2	25		
Slope	84	81	63	57	68		
Flat	9	9	7	7	78		
TOTAL	143	138	106	99	(69%)	4.39	3.40

success of nests on crag tops and crag ledges (table 4). This was in turn associated with differences in the incidence of predation, nests in trees suffering the fewest losses and those on open crag ledges the most. The two failures recorded in tree nests were due to known parental egg-breakage and Carrion Crow predation respectively, and in the latter case the eggs may have been deserted first. The tall ground-cover in which some Merlins nested evidently offered more protection than crag ledges. The latter sites were more open, easily seen by crows and easily accessible to mammal predators. No trends in success were apparent between nests on the flat and on slopes, nor between different kinds of slope situation (tested in a preliminary analysis). The high success of nests in heather on flat ground was surprising, although they were in relatively few, well-hidden and well-kept nesting areas. From these results, it appears that almost all the complete failures after laying in the period 1971-76 were due to predators. Foxes *Vulpes vulpes* and stoats *Mustela erminea* were suspected as culprits, but chiefly because they and Carrion Crows were the only predators that were common, rather than from direct evidence. Only one nest was destroyed by trampling, presumably by sheep. The effectiveness of the Merlin's nest defence against Carrion Crows was shown by the fact that in most places where Merlins nested successfully in trees there was also a pair of crows. No significant differences were found between clutch and brood sizes in nests in different situations.

#### *Breeding performance in different habitats*

Data were grouped according to whether the main land-use within 1 km of the nest gave rise to short grassland, to heather or to young conifer plantation. Cases where the area around the nest was split about equally

**Table 5. Breeding performance of Merlins *Falco columbarius* in different habitats, Northumberland 1971-76**

Significant variation occurred between habitats in proportions of nests successful ( $\chi^2_2 = 9.9$ ,  $P < 0.01$ ); this resulted from the high success of nests in grassy sheepwalk, which were nearly all in trees

Habitat	No. nests found	No. in which eggs laid	No. in which AT LEAST		Mean clutch-size	Mean brood-size	NESTS IN TREES		
			1 egg hatched	1 YOUNG FLEDGED			No.	%	
Grassy sheepwalk	19	19	19	19	100	4.30	3.42	17	89
Heather moor	65	62	46-47	43-44	66-68	4.40	3.34	13	20
Young forestry plantation	43	41	30	27	63	4.42	3.46	1	2
Forestry plantation/open land	19	19	13	12	63	4.33	3.42	0	0
TOTAL	146	141	108-109	101-102	(69-70%)	4.38	3.40	31	(21%)

between plantation and open grass or heather were grouped into a fourth category. Nesting success was much better on the short grassland than in any other habitat (table 5): all 19 nests found in such sheepwalk in 1971-76 produced young. This, however, was because almost all the nests involved were in trees, which also offered the most secure nest-sites (see above). Tree nests in other habitats did just as well. No difference in mean clutch and brood sizes occurred between habitats.

To summarise, nesting success improved between the 1960s and 1970s, associated with less organochlorine usage. The major natural influence on success was apparently the nest-site: tree nests being significantly more successful than ground or crag nests. In these last two situations after 1970, predation was apparently the main cause of complete failure.

#### *Partial failures*

Depletion of some otherwise successful clutches occurred from the addling, breakage or disappearance of eggs or the deaths of young (table 6). Nestling mortality, however, was rare up to the age of ringing; it was recorded for certain in only six out of 102 successful broods in 1971-76, and accounted for less than 2% of all young hatched.

#### *Post-fledging mortality*

The young remained in the vicinity of the nest for a fortnight or more after fledging and were at least partly dependent on their parents. Over the years 1961-76, 16 successful territories were visited ten to 14 days after the young had fledged. In all cases, young were still present, with an average of 2.8 seen per territory. Compared with the 3.3 young per brood at the time of ringing, this suggests a 15% loss over this period, but this estimate is maximal because not all fledged young were necessarily seen. In the five of these territories in which the young were seen both before and after they left the nest, the total was 15 at the first visit and 14 at the second: a loss of only 7%.

**Table 6. Partial losses in successful nests of Merlins *Falco columbarius*, North-umberland 1971-76**

	No. clutches/ broods	Mean no. eggs/young lost per nest
<b>Mainly at egg-stage</b>		
All eggs hatched		
Depleted by egg-addling	41	0
Depleted by egg-breakage or loss	14	1.2
Depleted by egg-addling and breakage/loss	9	1.9
Uncertain whether depleted by loss of egg or small chick	3	1.7
Uncertain whether depleted or not	13	1.0
	29	
TOTAL (clutches in which at least one egg hatched)	109	
<b>Mainly at nestling stage</b>		
All young fledged		
Depleted by nestling mortality	59	0
Uncertain whether depleted by loss of egg or small chick	6	1.2
Uncertain whether depleted or not	13	1.0
	24	
TOTAL (broods in which at least one young fledged)	102	

### Organochlorine and mercury levels in eggs

Unhatched eggs from 13 clutches in 1973-75 were analysed for residues of DDE, PCB and HEOD. All these eggs showed little or no development, and most came from nests in which at least one young fledged. With each clutch represented once by average values, the mean DDE content of the 13 clutches was 137 ppm in lipid (range 35-225), the mean PCB content was 116 ppm (range 41-189), the mean HEOD content was 13 ppm (range 3-26), and the mean shell-index was  $1.011 \pm 0.022$ . With such small samples, and wide variation between clutches, it was not possible to check whether any difference in organochlorine levels and shell-indices occurred between these eggs and the 12 obtained from various parts of Britain in the 1960s (Ratcliffe 1970). The shell-indices, however, were 22% lower in our eggs than the pre-DDT mean of  $1.293 \pm 0.012$ ,  $P < 0.001$ . Three eggs from different clutches were also analysed for mercury, and levels of 0.25, 0.26 and 0.39 ppm in fresh weight were found.

### Food

Almost all of more than 500 prey items found near nests during April to July were birds; but, on three occasions, the wings of a few moths were found (northern eggars *Lasiocampa quercus callunae* and emperors *Saturnia pavonia*), and once a small vole (Cricetidae) and a bat (Chiroptera). Insect prey were almost certainly underrepresented by this method. About 82% of the bird prey consisted of species less than 50 g in weight, and 67% was of species less than 30 g. The heaviest commonly taken prey was the Fieldfare *Turdus pilaris* (about 140 g). In early spring, an adult Red Grouse was found plucked in one territory and two small feral Rock Doves *Columba livia* in others, but these seemed large prey for a Merlin,

and may have been killed by another species; the two doves were at places where Peregrines had nested in the past. Only one young Red Grouse was found, but nestling pipits *Anthus* on several occasions.

The commonest prey species was the Meadow Pipit *A. pratensis*, which comprised 48% of all birds recorded; this was followed by the Skylark *Alauda arvensis* (12%), Starling *Sturnus vulgaris* (4%), Chaffinch *Fringilla coelebs* (4%) and Fieldfare (4%), but at least 40 species were recorded. The importance of Starlings to breeding Merlins may have been underestimated because of the small number of records after mid July, when Starlings began to flock on hill grassland. About 83% of all prey were classed as 'open country species', and 17% as 'woodland species'; many of the latter could have been taken as they left cover to forage on nearby open land. The proportion of woodland prey did not differ significantly between nests surrounded mainly by grassy sheepwalk, by heather moor, by mixed forestry plantation and open land, or by forestry plantation;

**Table 7. Composition of diet of Merlins *Falco columbarius* according to main land-use within 1 km of nests, Northumberland April-July 1974-76**

Species	Grassy sheepwalk	Heather moor	Mixed forestry plantation/open land	Forestry plantation	ALL AREAS No.	%
Meadow Pipit <i>Anthus pratensis</i>	10	101	24	109	244	48
Skylark <i>Alauda arvensis</i>	7	25	10	20	62	12
Starling <i>Sturnus vulgaris</i>	8	8	3	3	22	4
Fieldfare <i>Turdus pilaris</i>	4	12	2	1	19	4
Wheatear <i>Oenanthe oenanthe</i>	0	7	2	3	12	2
Other song-birds <sup>1</sup>	4	10	4	6	24	5
Snipe <i>Gallinago gallinago</i>	0	13	2	1	16	3
Other waders <sup>2</sup>	1	4	2	1	8	2
Other birds <sup>3</sup>	0	3	0	2	5	1
Total 'open-country' birds	34(85%)	183(85%)	49(79%)	146(81%)	412	83
Chaffinch <i>Fringilla coelebs</i>	2	5	0	15	22	4
Goldcrest <i>Regulus regulus</i>	1	3	6	3	13	3
Song Thrush <i>T. philomelos</i>	2	3	0	4	9	2
Other song-birds <sup>4</sup>	1	22	7	13	43	9
Total 'woodland' birds	6(15%)	33(15%)	13(21%)	35(19%)	87	17

<sup>1</sup>Included House Martin *Delichon urbica*, Tree Pipit *Anthus trivialis*, Pied Wagtail *Motacilla alba*, Whinchat *Sylvicola rubetra*, Ring Ouzel *Turdus torquatus*, Mistle Thrush *T. viscivorus*, Linnet *Carduelis cannabina*, Snow Bunting *Plectrophenax nivalis*, Reed Bunting *Emberiza schoeniclus*.

<sup>2</sup>Included Golden Plover *Pluvialis apricaria*, half-grown Lapwing *Vanellus vanellus*, Dunlin *Calidris alpina*, Redshank *Tringa totanus*.

<sup>3</sup>Included fledgling Kestrel *Falco tinnunculus*, adult and young Red Grouse *Lagopus lagopus*, feral Rock Dove *Columba livia*, small white dove *Streptopelia*.

<sup>4</sup>Included Wren *Troglodytes troglodytes*, Dunnock *Prunella modularis*, Robin *Erithacus rubecula*, Blackbird *Turdus merula*, Redwing *T. iliacus*, Chiffchaff/Willow Warbler *Phylloscopus collybita/trochilus*, Long-tailed Tit *Aegithalos caedatus*, Marsh Tit *Parus palustris*, Great Tit *P. major*, Treecreeper *Certhia familiaris*, Greenfinch *Carduelis chloris*, Goldfinch *C. carduelis*, Redpoll *C. flammea*, Crossbill *Loxia curvirostra*, Bullfinch *Pyrrhula pyrrhula*.

and Merlins nesting in young plantations were still dependent chiefly on open country prey (table 7).

### **Movements**

Of 394 Merlins ringed as nestlings in 1961-76, 23 (6%) had been recovered by the end of 1976, 19 in the period August to November, two in March, one in May and one in June. They were all in northern Britain, 18 of them within 100 km of their birthplace, but in various directions (fig. 1). All except the May bird were on farmland or sea-coast, at lower elevation than their breeding areas. The chance of birds being recovered in the uplands in winter were small, but, since Merlins were hardly ever seen there between October and February, there was probably a general movement to low ground for the autumn and winter. The earliest recovery on low ground of one ringed as a nestling was on 8th August, but others followed on 14th, 21st, 23rd and 24th August. The recovery in June was a five-year-old on the sea-coast near Bridlington: possibly a failed breeder which had left the hills early. In all, 16 were recovered in their first year, two in their second, one in its third, two in their fourth, one in its fifth and one in its ninth. This last is the oldest Merlin recovered under the BTO ringing scheme and also the farthest recovery of a Northumbrian Merlin (280 km SSE). In general, these various recoveries give a similar impression of movements to that demonstrated by Mead (1973) for the whole British population, except that those from Northumberland did not disperse exclusively to the south, and none was recovered on the Continent.

### **Discussion**

#### *Nesting areas and nest-sites*

The habit of Merlins to nest in the same restricted areas year after year was stressed by Seebohm (1883), Walpole-Bond (1914) and others. In some cases, such areas in Northumberland were used over periods of 70 or more years. Many similar places looked as suitable to the human eye, yet were not used. The same point was stressed by Rowan (1921-22) in his Yorkshire study, and has parallels in Peregrines and other falcons (Ferguson-Lees 1951, Ratcliffe 1972, White & Cade 1971, Newton 1976). In some species, continued occupancy has been attributed to the return of the same individuals, each partner attracting a new mate to the site after the death of its previous mate. In the Merlin, however, this cannot always be the explanation. Continued use was the rule in Rowan's (1921-22) area, even though both partners were shot year after year, and never raised young, so that recolonisation was by fresh pairs each time. Further, in a Canadian study with marked birds, individuals did not necessarily use the same nesting areas in successive years, although males were more faithful than females (Hodson 1975). Probably, therefore, the nesting places have some feature of importance to the falcons which is not obvious to the human observer.

Any bird settling to breed will normally be constrained to a limited area by the presence of other territorial individuals and, within this area,

will probably choose the best potential nesting place available. In this way, some continuity of use is ensured. Tradition, however, may also be involved, since part of any year's breeding population will normally have bred in the area in previous years—or perhaps have been present as non-breeders—and will presumably be aware of several nesting places in use then. If such birds selected known places, they would also restrict the choice available to newcomers, a further factor encouraging constancy in distribution from year to year. A bird may on balance stand more chance of breeding successfully if it settles in a known and well-tried place than if it attempts to nest somewhere new. Thus, there might be some resistance in the population to establishing new nesting areas.

#### *Land-use and habitat*

Owing to the heavy grazing pressure, the vegetation on sheepwalk was generally too short to permit ground nesting; the disuse of two out of five former nesting areas was attributed to a shift in emphasis from Red Grouse to sheep. The fact that almost all nests on sheepwalk were therefore in trees meant that nesting success was much better there than in areas where ground nesting was prevalent. It was surprising that more of the Merlins in other habitats did not use trees. Over the area as a whole, trees containing old Carrion Crow nests were not in obviously short supply, but the restriction of Merlins to traditional nesting places might have limited the extent to which these were utilised. Also, many of the trees were on streamsides, sites not generally favoured by Merlins.

Large-scale afforestation of open land has led to the loss of both nesting and feeding areas. Merlins continued to use traditional nesting areas in planted land until the trees reached thicket stage, shaded out the ground cover and made it difficult for the birds to reach the ground. Until this stage, Merlins continued to nest in the spaces between the trees, either in heather or under low conifer branches. To retain their wide view, they abandoned the low perches previously used, in favour of the tree tops. Because only some of the traditional nesting areas in Northumberland were occupied in any one year, more could probably be lost without causing any general reduction in breeding population from the levels found in 1974-76.

More serious, perhaps, might be loss of foraging habitat caused by tree growth. To judge from species taken as prey, Merlins depended mainly on open areas for hunting, even when nesting in a forested landscape. Furthermore, the forest at Kielder covered an area 30 km by 20 km, yet no Merlins were found breeding more than 1 km from the edge, which again implied that access to open land was important. If afforestation continues, there could presumably come a stage when insufficient open land is left to maintain the population at its recent level, through loss of both nesting and feeding areas. In sheltered places, trees were planted to 1,500 feet (457 m), but in most places to 1,300 feet (396 m). Only 3% of the Merlin nesting areas known to us were above 1,500 feet and only 19% were above 1,300 feet. Thus, the afforestation of all but the high tops would probably destroy more of the recently used nesting areas. In

Kielder, some nesting areas were saved accidentally because they were on ground unsuitable for ploughing, and so were left unplanted and occasionally incorporated into larger open areas to form fire breaks. Merlins were hardly ever seen in areas clear-felled within the forest.

These conclusions, on the dependence on open land for feeding, fit with findings from elsewhere in the range. Merlins breed most commonly on tundra, steppe or prairie and, in boreal forest, are found only near openings provided by extensive bogs and lakes, and wide river valleys (Bent 1938, Dementiev & Gladkov 1954).

The general movement of Merlins to low ground for the winter presumably occurred because the hill country was almost devoid of suitable prey at that season. More curious, however, was the failure of Merlins to nest in certain farmland areas, even though there were nesting sites in trees and open land for hunting. Elevation as such cannot have been important, because breeding occurs often on low-lying mosses in Lancashire and Cumberland and on coastal sand-dunes in south and north Wales, northwest Devon and Aberdeenshire (Brown 1974, Parslow 1967, R. Rae *in litt.*). Most likely, it was due to the scarcity on farmland in summer of suitable open-ground prey, especially pipits. In winter, several small prey-species were present in flocks in open fields, but, even at this season, Merlins are largely concentrated in coastal and other very open areas. The disappearance of breeding Merlins from parts of the Canadian prairies was associated with the reduction in prey following cultivation (Hodson 1975).

#### *Numbers and breeding performance*

Low nesting-densities seem general in all areas where Merlins have been studied, both in Eurasia (Rowan 1921-22, Hagen 1969, Dementiev & Gladkov 1954) and in North America (Bent 1938, Temple 1972, Hodson 1974), although in some regions this was evidently due to shortage of nesting sites. The maximum densities of ten and 13 nests per 100 km<sup>2</sup> found in the two Northumberland areas may be compared with the eight nests per 100 km<sup>2</sup> found in Yorkshire by Rowan (1921-22) and calculated for Orkney by IN from data supplied by E. Balfour (unpublished).

In the three years in which appropriate data were obtained, breeding numbers were relatively stable, which agrees with the earlier findings of Sechohm (1883), Rowan (1921-22) and others over longer periods. The Merlin thus parallels other raptors which live on a wide range of prey-species (Newton 1976). That part of the study period in the 1970s was also characterised by lack of hard winters or other extremes likely to cause general population crashes of small birds.

At about 37% of all nesting areas where signs of occupation were found in April, no nest was found in May. Possibly, some nests had failed at an early stage, and remained unfound despite a thorough search, but this is unlikely to have accounted for more than a small fraction of cases. Such signs in April could have been produced by those which (a) later bred at another site, (b) attempted to breed, but did not reach the laying

stage, or (c) were unable to find a mate, although some at least were pairs including a blue-backed, adult male. Interestingly, 'failure' before egg-laying also occurred on 37% of territories occupied in Hodson's (1975) Canadian area.



140. Female Merlin *Falco columbarius* feeding young in old nest of Carrion Crow *Corvus corone* in hawthorn *Crataegus monogyna*, Dumfriesshire, June 1973 (Robert T. Smith)

After egg-laying, most failures were apparently due to mammalian predators, although organochlorine compounds were also involved (as found in previous studies: Fox 1971, Temple 1972, Newton 1973a). In a large sample of eggs from Canadian Merlins, Fyfe *et al.* (1976) concluded that DDE levels of 100 ppm in lipid (calculated from a wet weight value of 6 ppm, assuming 6% lipid) and shell-indices of less than 1.172 were generally associated with decreased production of young (but did not necessarily entail the failure of the whole clutch). Eggs from ten out of 13 Northumberland clutches had DDE levels greater than 100 ppm in lipid, and 11 out of 13 clutches had shell-indices below 1.172. PCB levels were also generally higher in the Northumberland than in the Canadian eggs. Organochlorine compounds were therefore likely to have reduced the number of young produced by at least some of the Northumberland pairs. Compared with the Canadian Merlins and with other falcon species (Lincer 1975), the shell-thinning of the Northumberland eggs seemed excessive in relation to their DDE contents, and in relation to the incidence of egg-breakage.

The mercury levels in the three Northumberland eggs examined were considerably lower than in most Canadian eggs (Fyfe *et al.* 1976). They were also lower than the levels found to be associated with reduced productivity in experimental Pheasants *Phasianus colchicus* (Borg *et al.*

1969). There is thus no reason to suppose that mercury seriously influenced the breeding of these particular Merlins.

Early egg-collectors claimed that British Merlins often renested if their first clutch was taken soon after completion (e.g. Walpole-Bond 1941). Most failures in our area probably occurred too late in the season for much repeat laying, but it is strange that none was found. Possibly, a few of the nests that we took for firsts might have been repeats, following very early failures. Also, if any had renested in another area, they would probably have been missed because areas that were vacant at the May visit were not rechecked the same year. Such behaviour—if it occurred—would have been analagous to the familiar Peregrine tactic of shifting to an alternative cliff when renesting. Otherwise, we have no explanation for the apparent lack of repeat laying, except for the lateness in the cycle at which most failures occurred.

### Acknowledgements

Over the years, most members of the Northumbria Ringing Group helped in this project: but the intensive coverage of recent years would have been impossible without the great efforts of a few people. Foremost among these were J. A. Ginnever and L. G. Macfarlane, who covered the north and southwest of the county respectively: they spent innumerable hours in the field, and without their efforts the picture would have been far less complete. C. Jewitt and W. G. Johnson were also dedicated Merlin hunters and provided invaluable help for several years; but when, in 1976, pressure of work forced them to spend less time in the field, A. M. Bankier, G. Christer and R. Temple stepped in with competent help. Our thanks also go to the various landowners and tenants on whose land the Merlins nested. In this respect, special mention should be made of the Forestry Commission, who gave us unrestricted access to the land under their jurisdiction. For information on Kielder Forest and other help, we thank S. J. Petty; for analysing the eggs for organochlorine content, J. Bogan; and for drawing the maps, J. A. Gammie. For constructive comments and discussion of the manuscript we are grateful to Dr D. Jenkins, Dr M. Marquiss and Dr D. A. Ratcliffe. Finally, we thank the World Wildlife Fund for their support, and for grants in 1974-76 which largely offset our transport costs and made the intensive coverage possible.

### Summary

This paper summarises work on Merlins *Falco columbarius* in Northumberland in the period 1961-76 and includes details of success from 182 nests. The falcons nested in the same restricted areas in different years, either in trees (in old nests of Carrion Crows *Corvus corone*), on small crags, or on the ground among the heather *Calluna vulgaris*. Males incubated for about one-third of the daylight hours and the females for the rest; but only females brooded the young.

In 63% of known nesting areas on which signs of Merlins were found in April, nests were found in May. The nesting population was almost constant over the three years for which good records were obtained (33 nests in 1974, 30 nests in 1975, 33 nests in 1976). A significant improvement in the proportions of nests which produced young, and in the proportions of broods containing more than three young, occurred between the periods 1961-70, 1971-73 and 1974-76. This coincided with a reduction in the use of organochlorine compounds in Britain as a whole. Nonetheless, substantial levels of DDE and PCB were found in recent eggs, and were thought to have depressed breeding success. Shell-thinning was marked.

In 1971-76, significantly higher proportions of tree nests produced young compared with crag and ground nests. This was associated with the greater accessibility of crag and ground nests to mammalian predators, which in these years were probably the main cause of nest failure. A significantly better success of nests in grassy sheepwalk compared with heather moor and young forestry plantation was linked with the fact that almost

all the nests on sheepwalk were in trees. Clutches consisted of three to five eggs, once six; and broods consisted of one to five young, mostly three to four. No difference in mean values occurred between different habitats or different types of nest-sites.

Meadow Pipits *Anthus pratensis* formed 48% of the prey found near nests during April to July, but at least 40 bird species were recorded in all. About 83% of such prey were classed as 'open country species', and this proportion did not differ significantly between nests surrounded mainly by sheepwalk, heather moor or conifer plantation. Although Merlins nested commonly in young plantations (but not mature ones), they thus depended largely on open land for foraging. On a large scale, afforestation ultimately entails the destruction of some nesting areas, and much feeding habitat. The historical data are too few to tell whether afforestation has reduced the breeding population at Kielder.

Merlins moved to low ground for the autumn and winter. Most recoveries were within 100 km of the birthplace, and in various directions, but mainly near the coast. The oldest bird was in its ninth year.

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## Nesting of Black-shouldered Kites in Portugal

N. J. Collar

**Although not on the British and Irish list, and with a mere toe-hold in Europe, the graceful and elegant Black-shouldered Kite has enormous appeal to ornithologists**



**T**he Black-shouldered Kite *Elanus caeruleus* is known as a European breeding species only from the southwestern quarter of the Iberian peninsula. England (1963) was the first to supply a properly documented account of nesting in Portugal, where it had long been suspected, and in 1975 five nests were found in Spain, the first proof there (Suetens & van Groenendael 1977a, 1977b). I can add five further records of nesting: two in 1976, one in 1977 and two in 1978, all in the Alto Alentejo province of Portugal. Dr W. Suetens (*in litt.*) has informed me that the chick which he and P. van Groenendael photographed (plates 141 & 142) fledged. These are, so far as I know, the only recorded instances of entirely successful breeding in Europe, although there have been a few observations of juveniles in Iberia, which were clearly of local origin.

### 1976

At the first site, a pair was seen at the end of March, and on 2nd April the female betrayed the position of the nest by flying to it immediately after copulation. Two days later, I went to the tree she had flown to, a small

**141 & 142.** Adult male Black-shouldered Kite *Elanus caeruleus* with four-week-old young in nest at 4 m in evergreen oak *Quercus ilex*, Spain, June 1975 (W. Suetens & P. van Groenendael)

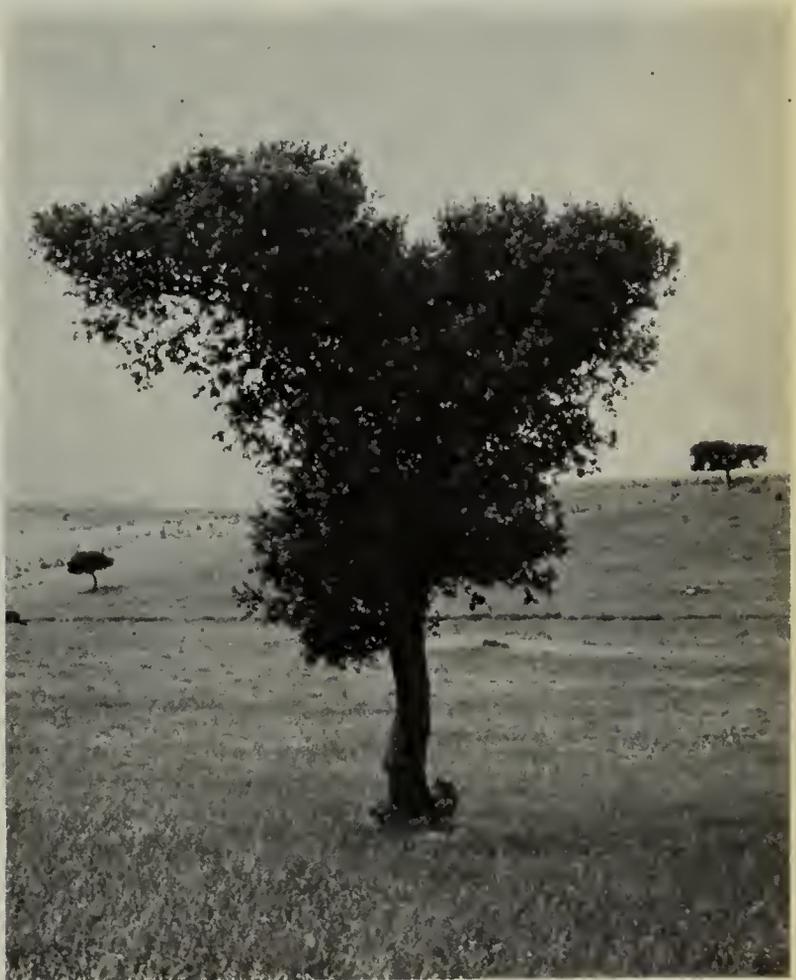




143 & 144. Adult male Black-shouldered Kite *Elanus caeruleus* at roosting place, Spain, June 1975 (W. Suetens & P. van Groenendael)

evergreen oak *Quercus ilex*, and confirmed that a nest had been built about 5 m from the ground, at one side of and just below the level of the tree's very flat top (plate 145). The oak itself was one of a loose grove of a dozen, on pasture extending in three directions, with a field of wheat running along one edge (about 25 m from the nest-tree). There was a small stream some 80 m beyond the grove, cutting across the wheat and pasture; on the far side, which was rather steeply rising, there was an isolated wild pear *Pyrus communis* in which one of the adults—presumably the male—and, later, two of the young roosted.

145. Breeding habitat of Black-shouldered Kite *Elanus caeruleus*: nest in nearest evergreen oak *Quercus ilex*, Portugal, April 1976 (N. J. Collar)



Although the kites would readily alight on any tree or telegraph pole, the most favoured perches were the low fence-posts dividing the wheatfield from the pasture. Pellets and plucking-remains were found at the base of these posts, and the copulation seen on 2nd April took place there. The female initiated this mating, by settling briefly on the perched male's back, then flying to the next post, ruffling her feathers repeatedly and once opening her wings; he then flew to her and mounted her for about ten seconds, she holding her body almost horizontally forward, he balancing



146. Pair of Black-shouldered Kites *Elanus caeruleus* copulating at roosting place, 150 m from nest containing nearly-fledged young, Spain, June 1975; in July, another nest found nearby (W. Suetens & P. van Groenendael)

by gracefully lifting his wings in a high V above his head (cf. plate 146). The male then moved to another fence-post and, after a moment, the female flew up to the nest-tree and dropped out of sight into it.

England (1963) could find no record of eggs laid before April. On 6th May, however, three nearly-fledged chicks could be seen in the nest and, on 11th, all of them made free flights in the vicinity of the nest-tree. Van

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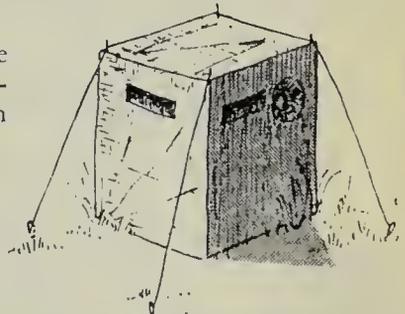
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147. Nest of Black-shouldered Kite *Elanus caeruleus* with four eggs, Portugal, May 1976  
(David Bishop)

Somerén (1956) gave 25-28 days for incubation and 30-35 days for fledging, so that, if 11th was the first day on which the young took wing, egg-laying would have occurred between 9th and 17th March, and hatching between 6th and 11th April. In 1978, eggs were laid even earlier (see below).

On 27th April, a pair was located at a second site, 6 km to the north of the first. There, the terrain was predominantly cultivated, and the kites were seen perching on cork oaks *Q. suber* spaced regularly and relatively densely across a wide field of oats. This crop was bordered on one side by a large open field of wheat, on another by an uncultivable stony hillside, and elsewhere by orchard pasture. Because of the standing crop and the number of trees, I found it impossible on this or occasional subsequent visits to judge where the nest might be; it was only when David C. Bishop visited the area with me on 18th May that we managed, by triangulation, to pinpoint the site. With the local farmer's permission, DCB entered the field, climbed the tree and quickly photographed the nest (plate 147). The four eggs had a white ground colour, richly overlaid with patches and specklings of purplish-brown, and they were somewhat worn. The tree was about 150 m into the field, and once again the nest was situated in one corner of the rather flat top, 5-6 m from the ground.

During June, I returned on a number of occasions to see if young were visible, but, while the pair appeared still to be actively nesting, there was no indication of success. On 26th June, Primrose J. Ridley-Thomas climbed to the nest and discovered that, alongside the now very worn clutch of four, there had appeared a fresher group of three eggs (plate 148). Although, on three successive days in the middle of May, what I had hoped might be a third kite was seen hunting over a field of wheat 1 km from this nest, no solid evidence of a second female ever emerged, and it seems probable that the original hen laid a 'replacement' clutch alongside eggs she had at least partially lost the stimulus to incubate. In August,



148. Nest of Black-shouldered Kite *Elanus caeruleus* with seven eggs (four very worn, three fresher), Portugal, June 1976 (Primrose Ridley-Thomas)

after I had left the country, PJRT climbed to the nest a second time and, finding all seven eggs worn and three of the originals cracked and putrid, took them and gave two for analysis to the relevant authorities in Lisbon and sent the remainder to England for similar tests. Toxic residue was found in extremely low concentrations in a clutch that failed in 1964 (Sacarrão 1966), and pesticide spraying seems still relatively uncommon where I was in Portugal; the one egg that proved suitable for analysis here (probably one of the replacements) contained a half-incubated embryo and the following residues in ppm (mg kg<sup>-1</sup>) wet weight: DDE 710, TDE 0.1, Dieldrin 0.1, PCBs 0. The DDE level is on the borderline at which shell-thinning can occur, but the cause of failure remains obscure. Desertion may be ruled out, since the eggs continued to show signs of wearing; and the possibility of chilling or 'cooking' as a result of temporarily absent birds can equally be discounted, for on both occasions when the tree was climbed the disturbance was very short-lived, with both birds quietly keeping watch at only 70-80 m distance and immediately afterwards returning to and around the nest-tree.

The domestic tenacity of this second pair—characteristic of many birds of prey—conforms with evidence in the literature. Van Someren (1956) kept a hen who, from her third month, would attempt to brood anything red (including a large notebook) and from that age readily incubated eggs and fostered young, whether of her own kind or not. The sexual bond is strong: for a bird apparently mute outside the breeding season (Glutz *et al.* 1971), vocal communication between partners is both frequent and varied. Spennemann (1934) noted that mating occurs rather often, which was certainly true of the second pair during May. A behaviour which both pairs showed, and of which I can find no clear previous account, was a sort of 'patrolling' or game of tag: one kite would fly up to the other and perch with it in a tree near the nest; they would remain together for a minute or so and then one or other would fly to a second perch; and the bird left behind would wait a while and then join it. This process would continue, so that a whole sequence of contacts would be established in the trees around the nest; this seemed to be largely an evening activity.

There are remarks in the literature on the crepuscular habits of the

Black-shouldered Kite, but, although hunting was most often observed (at the unsuccessful nest) in the late afternoon, no truly crepuscular behaviour was noted. Indeed, on the one occasion when I mounted a dawn watch at the first site—on 11th May (first light about 05.45)—a Kestrel *Falco tinnunculus* was on the wing at 07.10 and a Montagu's Harrier *Circus pygargus* at 07.20, but, although the young kites could be seen clambering about in the nest, the one roosting adult visible did not leave its perch to visit them until 08.05. It was, however, immediately joined by the other, also evidently roosting until that moment in a nearby tree. England (1963) thought that his kites were feeding largely on insects, a habit which in Hobbies *F. subbuteo* helps to account for their evening activity, but he does not mention whether hunting took place more frequently at any particular time of day. Suetens & van Groenendael (1977a, 1977b), who watched kites with young which were not selectively crepuscular and brought no insects, pointed out that Hobbies replace insects with vertebrate prey once they have chicks.

I never saw insects taken in 1976 although elytra and other remains have been found in some kite pellets (S. Macdonald *in litt.*). At the first nest, some fresh heads of Corn Buntings *Miliaria calandra* were found during April and May under plucking-posts, and DCB and I once witnessed a kite in the act of decapitation on a roadside telegraph pole. Corn Buntings are probably the most numerous birds in the Alentejo, but this predation by the kites seems more likely to have been of females on nests than of males at song-perches, at least if the characteristic hover-hunting method was employed: bill-measurements of 15 skulls recovered from plucking-posts at this site strongly support such a probability (see appendix). At the second site, I twice saw small rodents taken in the cereal crops, and one of these captures was followed by a neat piece of aerial food-passing as the female came off the nest towards her returning mate. There, hunting was commonly undertaken within a short distance of the nest, whereas at the first site no kite was seen hunting in the area, except on the first day that one was seen (28th March); on the other hand, mating took place rather far from the nest (120-150 m) at the second site, but very close to it (20-30 m) at the first. My impression was that most hunting at the second site was done over or along the edges of crops; likewise, at the first, the directions of departure and arrival were always to and from expanses of growing cereal.

Two of the three young at the first nest behaved from the outset with great attachment for each other, and were regularly to be seen roosting huddled together, or sitting side-by-side on a favourite bare twig (plate 149). When showing interest in something, they would jerk their heads with the comical sideways and circular movements associated with young owls (Strigidae), eyes always trained on the object (adults also sometimes did this). Their greeting to a parent and between themselves was a hoarse dry hiss, best rendered by trying to whisper a long-drawn-out 'skeeeek'; Glutz *et al.* (1971) mentioned this call as being produced only when the young kites are badly cowed. The alarm-call of the adult, which in both 1976 and 1977 I heard used only when the young had fledged, struck me



149. Two juvenile Black-shouldered Kites *Elanus caeruleus* sitting side-by-side on favourite roosting twig, Portugal, May 1976 (N. J. Collar)

as curious, being composed of two elementally disparate sounds: a high descending whistle punctuated by a sharp guttural rasp. When England (1963) heard this call, his birds were on eggs and the second syllable was almost inaudible; probably my birds were in a greater state of agitation, needing to be heard over a much wider area by both mate and offspring.

Once the juveniles were in the air, it became fairly difficult to distinguish them from the adults. They were far less obviously brown than the literature unanimously suggests. Although the back feathers, wing-coverts and primaries were conspicuously edged with buff (plate 150), and they bore greyish-brown markings on the crown, their uppersides generally were only darker and perhaps more extensively grey than those of their parents, lightly tinged with brown only between the shoulders. Further, while each of them had rust-brown stains on its breast plumage, at any height overhead the only feature that distinguished them from mature birds was their more rounded wings.



150. Juvenile Black-shouldered Kite *Elanus caeruleus*, Portugal, May 1976 (N. J. Collar)

Like England's birds, the adults were retiring in the face of human intrusion, but none of the five pairs I saw over the three years could be described as 'extraordinarily inconspicuous in the nesting area', on the contrary, at a safe distance they were always extremely easy to spot, the white of their plumage standing out sharply as they perched in the tops of trees near their nests. On various occasions, they showed intolerance of Montagu's Harriers, Magpies *Pica pica* and Jays *Garrulus glandarius*. Once, too, one of them apparently 'escorted' a pair of White Storks *Ciconia ciconia* that was wheeling quite high across the territory. The Jays and Magpies sometimes mobbed in return, and in 1977 I saw a Woodchat

Shrike *Lanius senator* pursue one of the adults. On the other hand, while Great Grey Shrikes *L. excubitor* loudly and virulently harassed Montagu's Harriers, at the first 1976 site a pair readily shared its territory with the kites.

Inevitably, the sharp angle of the Black-shouldered Kite's wings to its body when gliding was reminiscent of a harrier; but the adult may recall a Barn Owl *Tyto alba*, having a rather large head, stocky but tapering white body, and short tail, with pale wings which are relatively broader than a Kestrel's. When hovering, its wingbeats sometimes flicker as fast as a Kestrel's, but usually decelerate to a less regular series of balancing strokes and pauses, with deeper, more deliberate beats, sometimes recalling a Rough-legged Buzzard *Buteo lagopus*. The similarity of gliding silhouette, however, between the kite and this last species, mentioned by Porter *et al.* (1974), completely escaped me: most gliding was in the soaring position they described, with the wings held in a stiff V a little forward of the body, giving the flight the slight body-wobble which one sometimes sees in the display-glide of domestic Rock Doves *Columba livia*. When taking prey, the Portuguese kites rarely dropped 'gently into the grass' (Brown & Amadon 1968): the stoop was commonly a rapid and emphatic plunge, with wings held vertical and talons outstretched well in advance of impact.

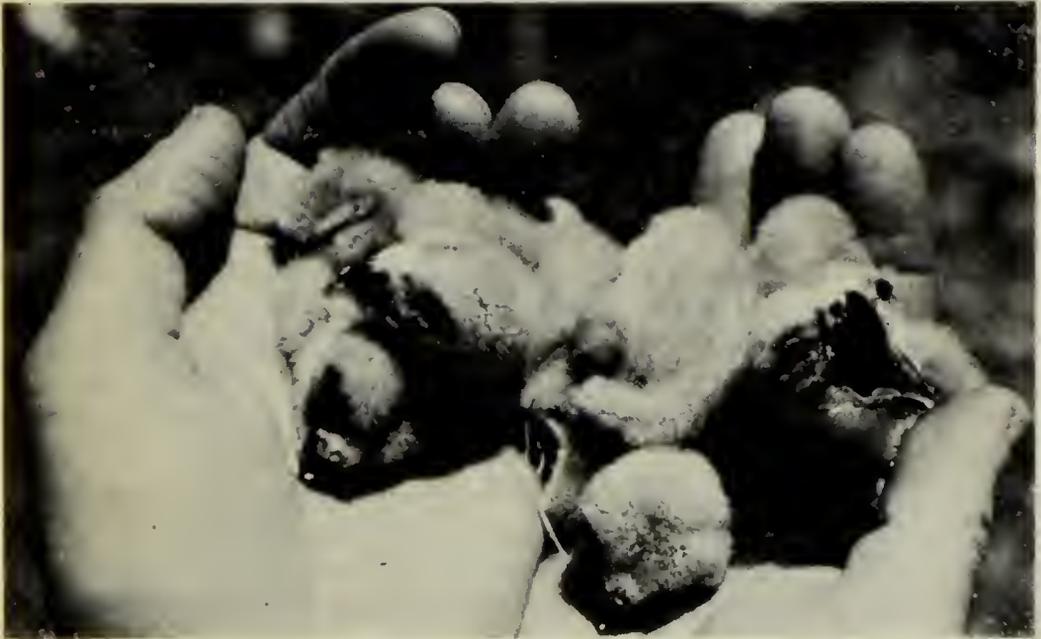
### 1977

On 10th April, I found a nest with four eggs roughly midway between the two 1976 sites, constructed near the top of a very small isolated cork oak; its height above the ground was no more than 4 m. The terrain was sheep pasture, with a few other, larger oaks scattered across it. The pair had been seen in the area since February by PJRT.

Three eggs had hatched by 6th May, and two days later the fourth chick had emerged. At the next visit, on 23rd May, all four young were still alive and apparently healthy, but when I returned on 7th June only two of them were to be seen, both flapping somewhat clumsily out of the tree as I approached. Their landings were equally unskilful, and they may have been making their first flights. This was just 31 days after the hatching of the last egg (which I take to have occurred on 7th May). Since the previous visit, a pair of House Sparrows *Passer domesticus* had woven a loose bulbous nest of hay and straw into the twigs forming the base of the kite nest, and were incubating.

The fate of at least one of the other two chicks was revealed next day, when PJRT discovered a regurgitated leg, talons intact, amid a mass of pellets under an oak used by the adults. It is just possible that this was dropped by one of the fledglings on an earlier flight, but, given their age and condition, it seems more likely that a parent, when removing the less digestible remains of its offspring, had eaten these (cannibalism). The other missing young kite would almost certainly not have absconded at this stage, for at the successful 1976 nest all three juveniles stayed in the vicinity for some weeks after fledging, as did the two in 1977: no third youngster was ever seen. Suetens & van Groenendael (1977a, 1977b)

suspected that the single surviving chick had starved the other two members of the brood by sheer aggression, and Madden (1977) concluded that two fledglings at a nest in South Africa had killed and eaten a third. Where hatching is staggered and the chicks vary considerably in size, as noted by van Someren (1956) and others, such aggression is to be expected. What seemed slightly unusual here, however, was the extreme similarity in size of all four newly-hatched chicks (plate 151), which, even at two weeks of



151. Four newly hatched nestling Black-shouldered Kites *Elanus caeruleus*: note similarity in size, Portugal, May 1977 (N. J. Collar)

age, on 23rd May, were showing no appreciable differences. The violence must have started soon after this date, to judge from the size of the leg in the pellet.

Suctens & van Groenendael (1977a, 1977b) found that the one chick was fed independently by both adults, who thus shared hunting duties. Lack of the need to divide prey between the offspring probably accounts for this style of feeding; at any rate, at the Portuguese site in the late afternoon of 31st May (when the chicks were 3½ weeks old), food-passing was observed by DCB, who wrote the following description:

'The female adult was seen perched in a tree close to the nest. She sometimes made a foray after prey, but on the four or five occasions she did so she was not seen to catch any, suggesting that her efforts were not very serious.

'The male was also seen hunting about 300 m from the nest tree, although he ranged much farther away than this. On two occasions, a food pass was made to the female. She would leave her perch near the nest tree and fly towards the male who, beating slowly, would dangle the prey in his talons as she came up underneath him, stretching her legs up to take the item.

'After the pass, the female flew straight to the nest, where she proceeded to feed the young kites. When she had finished, she returned to perch in a tree close to the nest. This happened on both occasions. She was later seen plucking prey, which she then took to the young, but it was not known if this was food which had been passed to her by the male.

'As the female after the pass flew straight back to the nest, it would appear that the

function of this behaviour was not to try to conceal the whereabouts of the nest from predators. The more likely explanation is that it proved an efficient way of feeding the young.'

Among other prey remains found by PJRT under the nest just after the young had fledged were the tail of a lizard (?*Lacerta*) and the skin of a young but extremely sharp-spined hedgehog *Erinaceus europaeus*. Evidently, the young kites returned to the nest to roost for some days, one flying from the nest-tree at my approach on 30th June, and all four being seen within a mile (1.6 km) of the site on the occasion of my last visit on 4th July. PJRT continued to see individuals in the area until November.

For just five minutes on 31st March, at a much more distant site which I could not revisit, I watched a pair of Black-shouldered Kites over orchard pasture. During this time, they mated, one uttering a hoarse 'k'laa k'laa' as they did so. This was the only time that I ever noted a call during copulation, although Suetens & van Groenendael (1977a, 1977b) recorded the female's invitation as a shrill nasal 'piay, piay': very likely we heard the same thing.

## 1978

During a very brief visit to Portugal (20th-28th March) to count Great Bustards *Otis tarda*, Allen M. Rackham and I saw nine Black-shouldered Kites on four successive days. These included two pairs subsequently found to have nests, both in low cork oaks, one above crops, the other above fallow. The first nest, scaled on 25th March, already contained three half-grown but different-sized young, plus one egg. The clutch must have been laid at about the end of the second week of February, and nest-building undertaken at the end of January; there is a similar record of such precocious behaviour from the neighbourhood of Tangier, Morocco (Pineau & Giraud-Audine 1977). The second nest, found and examined by AMR on 27th March, contained four eggs. PJRT subsequently established that young from both nests successfully fledged. Thus, despite the paucity of records from Iberia, Black-shouldered Kites are known to have had eggs in February and young in September (Miguel & Rodríguez 1977); the chances of their being regularly double-brooded seem accordingly high.

## Status

In the wake of England's (1963) discovery, Sacarrão (1966) published a full account of the recorded occurrences of the Black-shouldered Kite in Portugal: data that he has twice had to supplement in papers which, although less exhaustive than the first, bear witness to a considerable growth in the volume of sight-records since the mid 1960s (Sacarrão 1970, 1975). Similarly, the short-note pages of *Ardeola* since 1969 testify to a sharp increase in the number of observations in Spain, culminating in the publication of the first nesting records (*Ardeola* 22: 113-129). Although Sacarrão (1975) attributed this growth to increasing observer activity in Iberia, claiming that the species is (my translation) 'much more frequent in Portugal than authors have thought it', he did not revise his earlier

opinion that Black-shouldered Kites breed only sporadically in western Iberia, thus implicitly regarding as coincidence the fact that England's search for a nest was successful at the first attempt. Furthermore, there is nothing in his more recent papers to indicate a change in the opinion insistently expressed in the first, that the Portuguese population could not be entirely sedentary, but must be augmented by irregular influxes from Africa, otherwise it would long since have been exterminated by hunting and nest-despoliation.

Across the border and at the other end of the scale, Garzón (1977) estimated a total of 100 pairs breeding in Spain. Despite the absence of evidence or argument in support of this claim (made at a time when news of the first breeding records could only just have been emerging), it does not seem wildly exaggerated or improbable. Sacarrão's view of the situation might at any rate be resisted, on the following points.

(1) Portugal has suffered considerable ornithological neglect, so that studies of the changing status of many species have the shallowest base for development. Indeed, in making the point himself, in order to suggest that the Black-shouldered Kite is at least commoner than records would indicate, Sacarrão (1966) drew attention to England's (1966) then very recent discovery that there were rather more Great Bustards in Portugal than the 40 quoted by Bannerman (1962); yet, where England's highest figure was 59, my own counts made throughout the Alentejo in early spring 1977 indicated that the true number in the country lies between 650 (actually counted) and 1,000. If such populations—living on what is evidently traditional habitat little altered in centuries—have up to now escaped the notice of ornithologists as well as hunters, it scarcely seems improbable that a small and uncommon raptor, breeding in the huge areas of cork oak that extend across so much of southern Portugal, might also have been almost totally missed.

(2) Only one Black-shouldered Kite has ever been recorded in Gibraltar, 'flying north on 14 May 1977, apparently having arrived from Morocco' (Cortés *et al.* 1978). While even such an isolated observation tends to support the belief that Iberian

numbers may be augmented by immigration from Africa, it is clearly insufficient to establish the dependence of the population on such a phenomenon for its survival.

(3) There is some evidence of traditional areas for these species. England (1963) found his pair 16 km from an estate where two nests had been built in 1944, and what were presumably the same individuals returned the following year to nest (again unsuccessfully) just 50 m from the tree used in 1963 (Sacarrão 1966). Victor H. Reynolds showed me a cluster of trees where he had found a nest in the 1930s, only 800 m from my first 1976 site; while, at the second, the local farmer reported seeing six together over his land some autumns previously, and one was shot there in mistake for a Woodpigeon *Columba palumbus* in 1969; the first 1978 nest was on the same man's land.

(4) Any record from the last century tends to suggest that the species must have been present in sufficient numbers to be a permanent resident. Lilford (1865), for example, noting one that had been shot in April near Seville, described the Black-shouldered Kite as 'certainly not a common species in Spain'. Chapman & Buck (1893) called it rare, but recorded a pair they had seen, again in April near Seville.

Clearly this is only balancing negative evidence against negative evidence; but it seems at least as plausible as Sacarrão's view to suggest that the Black-shouldered Kite has been present in southwestern Iberia in steady, unobtrusive numbers ever since the records began. One would naturally like to think that such an attractive species is in a phase of expansion there at present (an impression I find hard to resist after my most recent visit); it is a possibility which Sacarrão (1975) allows, and

there are in fact two or three unpublished nesting records for Portugal in the 1970s (L. Palma *in litt.*). Even so, it needs to be repeated that the current ornithological activity in Iberia may be giving a misleading impression by reflecting its own growth, rather than that of the numbers of *Elanus caeruleus*. Nevertheless, there need now be no hesitation in describing it as a resident and regular breeding species in Europe.

### Acknowledgements

I am indebted principally to Primrose and David Ridley-Thomas for many kindnesses, and to the former particularly for collaboration on fieldwork. David Bishop and Allen Rackham also gave much valuable help. I am grateful to Dr R. P. Prÿs-Jones for assistance over the issue of Corn Bunting dimorphism, and to Dr C. F. Mason for his criticism of these notes in draft. The egg analysis was organised by the Institute of Terrestrial Ecology, Monks Wood Experimental Station, which kindly allowed the publication of the results. I wish also to record my thanks to the late Dr R. K. Murton for his helpful comments.

### Summary

Accounts are given of the discovery and breeding behaviour of Black-shouldered Kites *Elanus caeruleus* at five nests in Portugal during 1976-78. This raptor is confidently described as a resident and regular breeding species in Europe.

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## Appendix

**Table 1. Mean, standard deviation and range of bill measurements (in mm) of Corn Buntings *Miliaria calandra* in skin collection of British Museum (Natural History) and found near nest of Black-shouldered Kite *Elanus caeruleus* in April/May 1976 in Portugal**

Bill dimension	BRITISH MUSEUM (NAT. HIST.)		
	Males (16)	Females (6)	Kite victims (15)
Depth	8.81 ± 0.49 (8.2–9.8)	7.93 ± 0.19 (7.7–8.2)	7.94 ± 0.33 (7.3–8.3)
Length	9.45 ± 0.31 (8.95–10.1)	8.96 ± 0.17 (8.8–9.25)	8.65 ± 0.38 (7.95–9.2)

In discussing evidence that wing-length can be used for sexing Corn Buntings, Prŷs-Jones (1976) suggested that some skins in the British Museum (Natural History) might have been wrongly sexed. When comparing skulls removed by Black-shouldered Kites with skins in the Museum, I was accordingly suspicious of the labelling, and restricted my sample to the 15 West European and North African specimens obtained by Col. R. Meinertzhagen—a reliable bird-sexer—and to the seven sexed Iberian specimens in the collection. Of these 22 skins, six were female (three from Iberia) and 16 male (four from Iberia). Measurements were taken of depth of bill in the perpendicular where it meets the feathers, and of length of upper mandible from the anterior edge of the nostril to the tip. The data (table 1) suggested that the kite victims were mostly females.

# Personalities

## 17 Dr Stephanie Tyler

If Stephanie visited the United States (from where we write), she would undoubtedly be dubbed a 'ball of fire'. This phrase aptly describes this remarkable and personable young woman. Nurtured in Lincolnshire, Stephanie moved a short distance south to Cambridge to graduate in zoology and then gain her PhD with a three-year study under Professor Robert Hinde of the behaviour of free-range ponies in the New Forest.

In this period, she met Lindsay Tyler, her veterinarian husband-to-be: following their marriage, they settled in Wiltshire and, after the normal incubation periods, she brought forth a splendid brood of two pulli: Robert and Sally. It is appropriate to introduce all members of the family, for Stephanie is essentially a family-oriented person, and it is difficult for us to consider her in isolation; indeed we can think of no occasion on which she was engaged in outdoor activities without the presence of at least one member of her family.

During her four years' residence in Wiltshire, her time was not devoted only to family care, but also to a study of the local Grey Wagtails; and among other achievements, she gained the distinction of becoming



152. Dr Stephanie Tyler (*Lindsay Tyler*)

Britain's leading female bird-ringer. Then, from this parochial level, the family's horizons broadened when they accompanied Lindsay on a six-month assignment to the United Arab Emirates. There, she became acquainted for the first time with birds of an arid region, and experienced the wonders of seeing the vast hordes of Palearctic migrants bound for Africa.

In 1973, the fireball arrived in Ethiopia, and our days of tranquil leisure were over. We were faced with demands for bird-rings; were pressed into providing monthly contributions for the newsletter of the Ethiopian Wildlife and Natural History Society and articles and illustrations for the conservation journal *Agazen*, which was distributed to over 2,000 schools throughout the country; and were persuaded to lead natural history tours. Such are Stephanie's dynamism, enthusiasm and powers of persuasion that we—and many others—did it all willingly.

Greatly rewarding for Stephanie, both in the field and at her desk, the period in Ethiopia also brought out the toughness of her character,

although far be it for us to suggest that she lacks femininity: she is just a tough female with tough children. We soon discovered this on joint field trips to Borana and Koka Lake; even more rugged ventures were undertaken on family trips to (aptly named) Lake Stephanie and the Omo River, and to the Gilo River close to the Sudan in western Ethiopia. Throughout this period, she was also engaged in a BOU-supported investigation into the ecological factors determining the distribution of local and migrant wagtails. During this time, a number of trying experiences were to put her further to the test: plunging into a burning tent to rescue her sleeping children; bashing on the head with a stone an attacking Ethiopian, who had thrown her to the ground, and then returning to base splattered with his blood; being thrown from her horse which had bolted into a forest, and then somehow managing to remount and ride home with a broken leg.

All this, however, was but a foretaste—albeit valuable training—for the hardships to come. In May 1976, the whole family was captured by rebel forces in northern Ethiopia and held captive for over eight months under particularly exacting circumstances. The full story has been told many times, and will be familiar to most readers of this profile. Undoubtedly, the factors which carried them through this harrowing experience, when every day was filled with doubts about their ultimate fate, were their close-knit family unity and their shared interest in the phenomena of nature around them, with which they were obliged to live in close intimacy. That Stephanie made good use of her time during this period will be evidenced by a forthcoming paper in the *Bulletin of the British Ornithologists' Club* on the birds she observed during her captivity. Her only regret was that her binoculars were confiscated by the rebels, so that ornithologically she was unable to make the best use of her time.

We said at the start that Stephanie is a remarkable woman. We meant it!

J. S. ASH and J. W. ASH

## Mystery photographs

**21** It is late August and there are Ruffs *Philomachus pugnax* and Wood Sandpipers *Tringa glareola* with the other regular waders at the local sewage-farm. Creeping about 'below' a Dunlin *Calidris alpina*, there is a much smaller bird, with noticeably dull plumage and a rather long outline: obviously a stint of some sort. When on its own, it allows a close approach. The uniformity of its dull (actually rather olive) plumage remains striking and its obvious chest patches are very



reminiscent of a Common Sandpiper *Actitis hypoleucos*. The amorphous head pattern, with a rather dark face and the lack of any real supercilium, also seems odd. Its rather short legs look dark at a distance, but are certainly not black (close to, they may have a yellow tone or appear greenish or brownish). The last point alone excludes four of the seven Holarctic stints and the choice falls between Temminck's *C. temminckii*, Long-toed *C. subminuta* and the Nearctic Least Sandpiper *C. minutilla*. There is the lack of any marked head pattern, but no sign of any pale V on the mantle (one would expect some trace on Least), and the short legs do not suggest a Long-toed. The combination of characters fits only Temminck's, a juvenile with dark subterminal fringes to the scapulars and wing-coverts giving a scaly pattern. Although difficult to distinguish whether it is the outer tail feathers or the lateral tail-coverts which create the bright white band visible at the side of the base of the rump, the former—a unique feature of Temminck's among the stints and peeps—will hopefully be revealed when the wader flies: characteristically towering away into the distance, calling with a trilled multisyllable. Almost equally distinctive is its lethargic feeding action. Would that all stints were this easy. The bird in plate 129 (and repeated here) was photographed by W. H. Dady in Berkshire in August 1956. DIMW

153. Mystery photograph 22. What is this species? Answer next month



# Notes



## **Bittern apparently feeding at night by artificial light**

At 23.30 GMT on 23rd January 1976, while walking along a canal at Kingsmead, Ware, Hertfordshire, I noticed something moving under a sodium lamp a little ahead of me. On further investigation, I discovered a Bittern *Botaurus stellaris* standing in 8-10 cm of water, apparently fishing by the yellow light of the lamp. Unfortunately, it flew off when I approached, although it had seemed completely unaware of cars passing only 30-40 m away.

BARRY B. REED

16 The Ridgeway, Ware, Hertfordshire

Although crepuscular or nocturnal feeding by herons (Ardeidae) is not unusual, the Bittern is usually a crepuscular or day-time feeder (see *BWP* 1: 245, 249). John Day has also commented that Bitterns will more readily feed in the open when hungry, perhaps during a cold spell, when they may also, therefore, vary their times of feeding. Of particular interest here is the use by the bird of artificial light. Eds

**Melanistic Grey Heron** A melanistic Grey Heron *Ardea cinerea* frequented Coatham Marsh, Cleveland, from 23rd July to 5th September 1973. It was usually on short grass and could be approached to within 100 m. It was first found by Graham Coates, who correctly identified it as a 'brown heron, but probably not a Purple Heron *A. purpurea*', but a fortnight later it was independently located by an observer with experience of the latter species and was at least tentatively identified as such. After an exciting 24 hours for local observers, general agreement on the bird's identity was reached, but the difficulty that could be caused by such an individual seen briefly by an incautious observer is clear. The bird's stance, behaviour and habitat exactly resembled those of the accompanying Grey Herons, but its strikingly different plumage was briefly as follows:

Belly and neck dark chocolate brown, with no noticeable streaking; crown darker. Towards end of stay, upper third of neck rather paler, buffier brown than lower part. Closed wings dark brownish

slate-grey. In flight, bird predominantly brown. Legs dirty yellowish; leg length and bulk of feet as Grey Heron. Bill: dark upper mandible and base to lower; rest of lower mandible dull yellow.

Two other recent records of melanistic Grey Herons (*Brit. Birds* 70:76 and 70: 345) did not mention any identification difficulties.

DAVID BRITTON

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In general, we shall not publish observations of birds with abnormal plumage or bare parts, unless—as in this case—the aberration creates an identification problem. A letter concerning Great Blue Herons *A. herodias* and melanistic Grey Herons appears on pages 420-421. Eds

**Wing-bar of Baird's Sandpiper** Most bird identification books refer to the lack of a wing-bar in Baird's Sandpiper *Calidris bairdii*, although several illustrations show white tips to the greater coverts, producing a thin white line confined to the inner wing just above the secondaries (see references).

On 4th October 1977, one of a series of photographs which I took of an adult on the Great Pool on Tresco, Isles of Scilly, caught it in flight and shows a noticeable white wing-bar extending along the tips of the greater coverts and merging into the pale bases of the outer secondaries and inner primaries (plate 154). On the primaries, the wing-bar is made more



154. Baird's Sandpiper *Calidris bairdii* showing wing-bar in flight, Isles of Scilly, October 1977 (T. E. Bond)

prominent by its contrast with the blackish carpal patch on the primary coverts. These features were readily visible in the field, and, although the wing-bar was not quite so prominent as those on the accompanying Dunlins *Calidris alpina*, demonstrate that Baird's Sandpiper can have a noticeable wing-bar.

My thanks are due to P. J. Grant for his assistance with a draft of this note.

T. E. BOND

*Joyter bi Yur, West Town Avenue, Brislington, Bristol 4*

D. I. M. Wallace has commented that he has never seen a Baird's Sandpiper that did not show at least a faint wing-bar. EDS

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**Feeding action of Baird's Sandpiper** I write concerning Douglas Page's note (*Brit. Birds* 71: 78) on what he regarded as a distinctive feeding action of Baird's Sandpiper *Calidris bairdii*. In company with many other people, my wife and I watched a Baird's Sandpiper on 4th October 1977 at the Abbey Pool, Treseo, Isles of Scilly, and I took some cine film of it at a range of 20-25 m.

The bird's action was very lively: the way that it ran reminded us of a Sanderling *C. alba*; on occasion, it pecked singly at the surface, but at other times it pecked several times rapidly. We confirmed these observations by repeated viewings of our film. It does seem, therefore, that the method of feeding will not of itself assist identification. H. HUGGINS

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As D. I. M. Wallace has pointed out, however, these observations do confirm that Baird's Sandpiper 'is, by nature, a pecker and not a prober'.  
EDS

**Marsh Sandpiper with orange legs** On 3rd May 1977, at Kulu Golu in central Turkey, I saw a full summer-plumaged Marsh Sandpiper *Tringa stagnatilis* with distinctly orange legs. The literature stresses greenish legs as one of the main field characters of the species and I have found no mention of occasional individuals having orange legs.

S. J. M. GANTLETT

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**Leucistic Swift** The notes on partially albino Swifts *Apus apus* (*Brit. Birds* 71: 222-223) prompt me to record the following. On 5th August 1971, M. W. A. Martin and I watched an unusually pale swift for ten to 15 minutes at Chew Valley Lake, Avon. The odd bird was picked out with ease from several hundred Swifts feeding over the lake and it frequently came close to us before disappearing high to the south. We obviously considered the possibility of its being a Pallid Swift *A. pallidus*, but it was so pale that this idea was immediately discounted, leaving us in no doubt that it was in fact just a leucistic Swift *A. apus*. The entire plumage was pale sandy-brown, the shade perhaps similar to ripened corn, and it therefore stood out conspicuously. Apart from the pale plumage, it in no other way appeared to differ from the other Swifts. Neither of us had seen Pallid Swift, but our bird was clearly much too pale and was sand-brown, rather than the mouse-brown of Pallid.

The identification problems posed by this bird were highlighted when, later the same day, other observers at the lake saw what was obviously the same bird and claimed it as a Pallid Swift. This record was submitted to the Rarities Committee and subsequently rejected (*Brit. Birds* 65: 353).

K. E. VINICOMBE

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# Reviews

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**Wildlife Sound Recording.** By **John B. Fisher.** Pelham Books, London, 1977. 173 pages; 16 black-and-white photographs; 17 figures. £5.95.

Many would-be sound recordists are discouraged by the thought that the subject is too technical. This book explains the fundamental principles of sound recording and offers much practical advice, yet succeeds in being thoroughly readable. Although a number of manufacturers and their current models of recorder or microphone are cited, there is little that will become out-of-date. The choice between a cassette machine or open-reel—perhaps the most crucial decision for the beginner—is treated in a most lucid and helpful manner. Yet, there is plenty for the more experienced recordist, with diagrams showing how to construct a home-made parabola, filter circuits and microphone pre-amplifiers.

The author is a self-confessed recordist-turned-naturalist and this explains why perhaps the book's weakest aspect is its treatment of the biological side, for which the help of a co-author was enlisted for the two chapters entitled 'Identifying birds from their sounds' and 'Some bird sounds of possible interest'. The first contains information treated much more comprehensively in the many field guides, while the second quite fails to highlight any of the more scientific aims of bird sound recording. There is no mention whatever, for example, of the sound library movement and the scientific value conferred to a recording by systematic documentation. In fact, the possibility of furthering the study of behaviour by sound recording is never given a mention. Symptomatic of the author's standpoint is his blind eye to the possibility that two-channel recorders might be useful in ways other than solely for making stereo recordings.

P. J. SELLAR

**A Guide to the Birds of Scotland.** By **Eric Hardy.** Constable, London, 1978. 312 pages; 27 photographs; 11 maps. £3.95

This successor to W. K. Richmond's *A Regional Guide to the Birds of Scotland* (1968) is a pocket-sized survey of birdwatching haunts in Scotland, region by region, with lists of breeding and migrating birds for each area, and notes on local societies, recorders and literature. In a mass of detailed information—sometimes rather cryptic—many small errors may be found, especially in place-names.

A difficult responsibility in preparing such a guide is to balance the interests of bird and birdwatcher. As a lifelong conservationist, the author omits the locations of nest sites of rare species to protect them from collectors and others who would knowingly harm them. But is this now enough? The rising flood of visitors to remote parts of Scotland can be a real—though mainly unknowing—threat to sensitive species that have found seclusion there. It is no surprise that people want to see Scottish birds in their wild and beautiful haunts; the snag is that so many now have the means to get there. One person briefly disturbing an eagle or a grebe from its nest may do little harm; but what of a succession of them at intervals throughout the day? Such pressure can stop shy species breeding successfully; or even lead to birds being quietly eliminated to get rid of birdwatchers. Most of us would rather not have to suppress localities, but some conservationists now see birdwatchers as the major threat to birds in the Highlands.

Yet, the more people interested in birds, the more likely that planners and politicians will respond to the needs of birds. The problem for a writer of a popular guide to birdwatching areas—in Scotland or anywhere else—is to direct readers to where they will see birds without seriously harming them. This is no collector's guide to rare species—in general it does not pinpoint nest sites—but it is likely to benefit birdwatchers more than birds. Author and publisher deserve credit for deleting 340 localities of the rarest birds. Nonetheless, one could wish for much greater caution, for instance with localities of

heronries and tern colonies, and even with information that is readily available from specialised sources such as *The Atlas of Breeding Birds in Britain and Ireland* (1976). This is not from any wish to restrict the most exciting birds to a privileged few, but for fear that, if we do not take care, the birds will suffer. The author makes a point that there is no legal ownership of wild birds, and anyone who does not harm them or their haunts has the right to observe and study them. The trouble is that, in some places, more than a handful of people exercising this right inevitably harm them. ANDREW T. MACMILLAN

**Guide to the Identification and Ageing of Holarctic Waders. BTO Guide No. 16. By A. J. Prater, J. H. Marchant and J. Vuorinen.** British Trust for Ornithology, Tring, 1977. 168 pages; 2 colour and 32 black-and-white photographs. £2.50.

In covering all the waders of Eurasia (excluding India and southeast Asia), North America and North Africa—117 species or 58% of the world total—the need for the first detailed guide to waders has been fulfilled with laudable overkill. Species breeding in the Holarctic are treated in detail—with emphasis on the most numerous ones—under headings of identification, ageing, sexing, geographical variation and biometrics. For irregular breeders and vagrants, only the basic identification criteria are given. Thumb-nail line drawings are scattered through the text to illustrate points of detail, and a clever coded system indicates the breeding and winter range of each species. Robert Gillmor's beautiful cover design of Ringed Plovers is a masterpiece.

Primarily designed for ringers, this guide will automatically have its place in the ringing bag whenever waders are the quarry. Much of the content stems from sexing and ageing research by wader-ringing groups: it is good to see their published data summarised under one cover.

But this book is much more than a guide for ringers. Numerous field guides have in recent years greatly widened the base of field identification skill. The tip of the pyramid is proportionately that much higher, too. Birdwatchers may look back smugly now as they routinely identify species which, only 20 or even ten years ago, were beset with puzzles. Further advances, however, will not be fuelled by the necessarily abridged generalities of the modern field guides. The serious bird identifier will now no longer be content to determine the species of wader, but will seek to discover its age, sex and subspecies. This book points the way forward and answers the questions so often asked about the apparently complex array of wader plumages. The gallery of black-and-white photographs by J. B. & S. Bottomley is typically superb.

The mind boggles at the industry of the authors in completing such a comprehensive, standard work on waders in the hand. I urge them, however, to consider producing a version specifically for field use, perhaps dealing with a smaller geographical area (the west Palearctic?), without the biometric data, but with many more photographs and illustrations. The demand for such a book would surely be enormous. PETER GRANT

## Letters

**Great Blue and aberrant Grey Herons** I was interested to learn of the two observations of melanistic Grey Herons *Ardea cinerea* (*Brit. Birds* 70: 76, 345-346), as well as the one seen in the Camargue, France, by Dr J. G. and Dr P. F. Harrison and described and illustrated as a hybrid Purple *A. purpurea* × Grey Heron (*Bull. Brit. Orn. Club* 88: 1-4). When unusually dark herons of Grey Heron size are seen, serious consideration should perhaps be given to the possibility of American Great Blue Heron *A. herodias*. R. S. Palmer (1962, *Handbook of North American Birds*, p. 403)

stated that 'largest *cinerea* about as large as smallest *herodias*'; and the colour plate opposite page 278 gives an excellent indication of the colour phases of the Great Blue. The many adult and immature Great Blue Herons which I have since seen in Florida, USA, seemed to exhibit a wide variety of colour tones.

The species could well arrive as a vagrant in Europe. In October 1968, following severe storms in the Atlantic, a Great Blue Heron alighted on M. V. *Picardy* as she neared the Azores (*Brit. Birds* 65: 442-443). Captain J. G. Street of the *Picardy* informed me (*in litt.*) that, as they neared Land's End, Cornwall, the crew twice threw the heron overboard, only for it to return immediately. Had the heron flown from the *Picardy* near Land's End, taken refuge on the Isles of Scilly, and been correctly identified, would it now be included on the British and Irish list as a vagrant?

In the event, it was taken to Avonmouth, Bristol, and then sent to Rode Tropical Bird Garden at Frome, Somerset (now Avon), where Roy Curber and I obtained the following details of its plumage on 30th November:

Immature. Head dark brown, slightly white on forehead; neck, back and wings dull slate-blue/brown, with tinge of rufous on leading edge of wings; carpal area rufous-brown. Throat white to buff; elongated dull buff patch on side of upper

breast; rest of underparts off-white to dirty light-brown, with very much darker streaking. Bill rather heavy and long, fairly thick at base; upper mandible horn but lighter along cutting edge, lower mandible dull yellow-horn. Iris yellow.

After recovering from its ventures, the heron was placed in a large open aviary, from which it was allowed to escape.

BERNARD KING

*Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall*

**Grey-cheeked Thrushes in Europe** I was struck by the comment under Olive-backed (now Swainson's) Thrush *Catharus ustulatus* (*Brit. Birds* 70: 430): 'For a species that passes abundantly along the Atlantic coast of North America, its great rarity here compared with the next species [Grey-cheeked Thrush *C. minimus*] is rather surprising'.

Actually, there are several reasons why Grey-cheeked might be more common in Britain than Swainson's; indeed, I am surprised that it is not *the* most common North American passerine in Britain and Ireland. The Grey-cheeked Thrush is slightly larger than Swainson's and has slightly longer wings proportionately. It is the largest nocturnal passerine migrant of those that breed abundantly in extreme northeastern North America (excluding Greenland), and is notably numerous in Newfoundland and Labrador, about 3,700 km from the Scillies. Allowing for favourable winds, a fat Grey-cheeked should be able to make an unassisted crossing.

It may not, however, be the eastern Grey-cheeked Thrushes that are reaching Britain. The species breeds west through Alaska into northeastern Siberia, and these western birds withdraw east during the fall for 3,000-5,000 km before turning south. The species is accidental west of the Rocky Mountains and is uncommon, especially in fall, west of the Mississippi drainage. Grey-cheeks are abundant in the vast, stunted

forests of spruce *Picea* in northern Canada and Alaska; if only a minute proportion of these birds fails to turn south, an absolutely large number of Grey-cheeks will be continuing east to the Maritimes. Research on vagrant eastern warblers (Parulidae) in California suggests that disoriented (or misoriented) individuals continue out into the Pacific. If off-course Grey-cheeks continue out into the Atlantic—as I suspect they do—you should get them regularly.

WILL RUSSELL

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**Tail-cocking by Moustached Warblers** I read with interest the letters by Dr J. T. R. Sharrock (*Brit. Birds* 70: 349-350) and Dr H. Kumerlove (*Brit. Birds* 71: 89-90). In my experience, the habit is seasonal: frequently observed in July and August, but often not at all in spring and early summer. When I first encountered Moustached Warblers *Acrocephalus melanopogon* in the Camargue, France, in the springs of 1961 and 1962, my companions and I continued to watch long after identification had been clinched, in the hope of seeing the tail-cocking habit mentioned by R. T. Peterson *et al.* (1961, *A Field Guide to the Birds of Britain and Europe*, 1st edition), but we were usually disappointed. Singing males at Neusiedl, Austria, in the springs of 1965, 1966, 1968 and 1970 never really exhibited this behaviour. Later in the year, however, on the Ebro Delta, Spain, in July-August 1966, and in Mallorca in August 1971 and August 1972, I saw adults and large young tail-cocking continuously, but not, in the very same localities on the Ebro Delta, in April 1974, when all those seen were singing males. Can this habit be linked with the presence of fledglings?

J. N. HOLLYER

21 Temple Way, Worth, Deal, Kent CT14 0DA

P. J. Grant has suggested that 'cocks tail when alarmed, unlike Sedge *A. schoenobaenus* and Aquatic Warblers *A. paludicola*' may summarise the species' behaviour. We welcome comments. EDs

**The use of flash in bird-photography** The 1977 'Bird Photograph of the Year' (*Brit. Birds* 71: 195) captures superbly the arrival of a female Sparrowhawk *Accipiter nisus* at the nest. The pose is a dramatic one and most of the hawk is in sharp focus and beautifully depicted. The general impression, however, is surely totally erroneous: it looks as if the Sparrowhawk were building its nest at midnight. So many published colour photographs now show pin-sharp birds technically near-perfect in detail, against a solid black background as if they were taken very late on a dark night. The use of flash does, of course, open up fields of photography impossible to exploit by other means, especially of birds in action—the beautiful pictures by Stephen Dalton are just one example—allowing birds in rapid motion to be recorded in minute 'frozen' detail. Many are, however, highly misleading and some—to me at least—aesthetically displeasing, through the use of flashlights being excessively evident. Surely, in general, the best use of flash produces results in which it is not immediately obvious that the technique has been used? R. A. HUME

31 Lime Grove, Burntwood, Walsall WS7 0HA

# Rarities Committee news and announcements

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*P. J. Grant and the Rarities Committee*

**T**he committee's annual meeting was held at Blunham, Bedfordshire, on 11th March 1978. In the year ending 31st March 1978, the membership of the committee was P. J. Grant (chairman), J. M. O'Sullivan (secretary), R. H. Dennis, D. J. Holman, R. J. Johns, B. Little, S. C. Madge (co-opted), J. R. Mather, Dr R. J. Raines, Dr J. T. R. Sharrock and G. A. Williams. As proposed previously (*Brit. Birds* 70: 306-308) and in the absence of other nominations, S. C. Madge began his official term of membership, and R. H. Dennis his second term, on 1st April this year.

## **New secretary**

Owing to his appointment as RSPB Regional Officer for East Anglia, John M. O'Sullivan has had to resign as secretary to the committee. We thank John for his work in the past year, which included the prompt and efficient production of the report for 1976, and wish him success in his new job. As already announced (71: 229), his successor, appointed by the editorial board in consultation with the committee, is Michael J. Rogers, to whom all correspondence concerning records should now be sent, at 195 Vicarage Road, Sunbury-on-Thames, Middlesex TW16 7TP. Mike's 30 years of birdwatching experience (nowadays mainly in Sussex—especially Beachy Head—and the Isles of Scilly), his rarity identification expertise, and his constructive interest in the committee's operation, promise to be great assets. The appointment is again in a non-voting capacity.

## **Election of new member**

As the longest-serving member, Dr J. T. R. Sharrock will automatically retire from the committee at the end of March 1979. T. P. Inskipp (see 70: 496-498) is the committee's unanimous nomination to fill this vacancy: his knowledge of world birds, accrued from numerous and lengthy field trips abroad and from detailed investigations into bird importation, and his opinion on the escape likelihood of rarities, would be most useful. We hope that this nomination will be widely endorsed, but any others should be sent to me by 31st December 1978: as in past elections, the regional recorders and bird observatories will then be invited to vote.

## **Species list**

The committee considered and accepted a proposal from J. Cantelo that, in view of the clearer taxonomic situation now surrounding crossbills *Loxia* (see 71: 3-10), Parrot Crossbill *L. pytyopsittacus* should be added to its species list from the beginning of 1978.

### Identification papers and notes

The central deposit of rarity descriptions and opinion on tricky identification topics means that problem areas can be quickly pinpointed, and it is an important offshoot of our work to promote the publication of notes and papers to clarify them. The past year has seen the first of a five-part series on gull identification and ageing (71: 145-176), numerous notes on new or improved identification criteria, and details of several occurrences of species which have been recorded five or fewer times in Britain and Ireland. The 'Mystery photograph' feature is welcomed for more than its entertainment value: the texts provide an opportunity for an up-to-date identification summary of the subject species, and several additional points have arisen in correspondence which they have prompted. Among other topics currently being investigated or reviewed by several authors are the identification of small species in the genus *Calidris*, skuas *Stercorarius*, Citrine Wagtail *Motacilla citreola*, Blyth's Pipit *Anthus godlewskii*, Blyth's Reed Warbler *Acrocephalus dumetorum*, Greenish Warbler *Phylloscopus trochiloides* and the separation of Serin *Serinus serinus* from similar finches which are kept in captivity but liable to escape. Anyone with relevant photographs or comments is invited to contact me, so that they may be put in touch with the authors concerned.

*P. J. Grant, 14 Heathfield Road, Ashford, Kent TN24 8QD*

## Announcement

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**The Ornithological Society of the Middle East** At the annual general meeting of the Ornithological Society of Turkey on 27th April 1978, a resolution was passed changing its name to 'The Ornithological Society of the Middle East'. The geographical area of interest has now been enlarged to include all countries of the Middle East and a new scientific journal entitled *The Sandgrouse* will be published annually; supplementary issues will be published from time to time, containing up-to-date checklists, including one for Turkey.

New members and support are welcomed. Enquiries, records and contributions should be sent to the hon. secretary of the OSME, Don Parr, 40 Leatherhead Road, Ashted, Surrey KT21 2SY.

## Request

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**Partially albino Swifts** So that a summary may be prepared for publication, details of sightings of partially albino Swifts *Apus apus*, including full descriptions of the distribution of white in the plumage, are required by G. P. Catley, Southend, Goxhill, Barrow-on-Humber, South Humberside DN19 7LT.

# News and comment

Peter Conder and Mike Everett

**Surrey's first NNR** Thursley National Nature Reserve, some 320 ha on Thursley, Ockley and Rodborough Commons, was declared by the Nature Conservancy Council in early July. At a time when southern heathland is a fast-dwindling habitat, this—the 162nd NNR in Britain—is an important acquisition. The Surrey Trust for Nature Conservation, which has done sterling work in managing the land as a nature reserve for 14 years, will continue to assist in this way. As well as dry heath, the reserve includes the most important bog left in southeast England; breeding birds include Nightjar *Caprimulgus europaeus*, Stonechat *Saxicola torquata* and Redstart *Phoenicurus phoenicurus*.

**Polish bustards** A paper on the ecology of Great Bustards *Otis tarda* in Poland in *Roczniki Akademii Rolniczej w Poznaniu*, by Andrzej Bereszynski of the Institute of Applied Ecology of the Agricultural Academy in Poznan, gives some indication of the species' decline in Poland over the last 40 years. Taking the population in 1936-38 as the index (100), a drop to 22.8 had occurred by 1972, with a further fall to 17.6 by 1975. The latest (1975) population estimate is of only 123 birds. The English summary (which is worth reading, incidentally, for its excruciating English) makes no reference to the reasons for the decline, but, by inference, these seem to be associated with loss of habitat, as elsewhere in Europe.

**WWF aids terns** The World Wildlife Fund has made a grant of £2,000 to the North Wales Naturalists' Trust to enable it to repair and modify a weir and control water levels at an Anglesey tern colony. About 900 pairs of Sandwich *Sterna sandvicensis*, Common *S. hirundo* and Arctic Terns *S. paradisaea* are threatened by flooding at this site; hopefully, the work to be carried out will enable this important Welsh colony to fare better in future than it has in recent years.

**Dyfed Wildlife Appeal** The West Wales Naturalists' Trust has launched an

appeal to raise £60,000 to purchase and manage reserves in Dyfed, including especially Dynevor Castle Woods and rights on the adjacent water meadows, a really good regional site for birds. Donations to, and more information from: WWNT, Appeal Headquarters, 20A High Street, Haverfordwest, Dyfed.

**USA: some contrasts** It was heartening to read in the March 1978 issue of *Massachusetts Audubon* that the population of Ospreys *Pandion haliaetus* from the Connecticut River to Long Island Sound is no longer declining. Contamination by DDE residues is now a thing of the past and, after falling to 0.5 in 1969-73, the average breeding success has risen to 1.2 young per pair per annum: a good step upwards towards the pre-toxics average of 1.71 in 1938-42. One of us (ME) was lucky enough to visit some Connecticut pairs this summer: one nest was on an artificial platform about 100 m from a busy road, a small airfield and a smallish factory block and was totally safe from any form of molestation—simply because nobody would dream of interfering with it. It was sickening to reflect that it would not have lasted five minutes in this country.

A better slant on our activities, however, comes from the Cornell Laboratory of Ornithology's winter 1978 *Newsletter*: a conference at Cornell in February looked at the role of amateurs in ornithology and concluded that the USA lags far behind in the field of using co-ordinated amateur effort in major projects. BTO President John McMeeking was among the speakers and the Trust's record in the use of its membership was not only highly praised but also very clearly envied.

**North Staffs moorlands** Recent comment in the national press on the loss to agriculture of moorland habitat on Exmoor has culminated in the Porchester Report, suggesting conservation measures broadly supported by the Secretary of State for the Environment and the Minister of Agriculture. This loss of moorland, however, is not confined to Exmoor and

many birdwatchers will be sad to hear of a similar case in prospect in North Staffordshire. Some 450 ha of former grouse moor and woodland between the Roaches and Back Dane, as well as Gun Hill Moor, were sold with the Swythanley Estate last November. The Peak Joint Planning Board was outbid by sheep-farming interests: there are now 1,200 sheep on the area, a number which may double in the near future. Detrimental changes to the vegetation are inevitable in an area which holds valuable populations of breeding Black Grouse *Tetrao tetrix*, Short-eared Owls *Asio flammeus*, Ring Ouzels *Turdus torquatus*, and Twites *Carduelis flavirostris*. The shooting rights are for sale separately and the presence of Black Grouse has been advertised. Some 80% of the 130-150 Black Grouse in the Peak Park live on the North Staffs moors and are the nearest ones to birdwatchers in southern and eastern England. Most national parks include moorland and it is probable that other good bird habitats are threatened by agricultural changes. Many of these changes are economically viable only through Hill Livestock Compensatory Allowances under the EEC Less Favoured

Areas Directive and these subsidies can encourage high stocking rates that can lead to degradation of the land. Roy Jenkins, President of the European Commission, has now said that these allowances are not mandatory and need not necessarily be given in areas where reclamation would conflict with conservation. A local campaign is under way in Staffordshire to make sure that the various statutory bodies are aware of the feelings of naturalists. In this connection, it would be of interest to know of similar threats in other national parks and the action being taken: information should be sent to Frank Gribble, 22 Rickerscotc Avenue, Stafford. (Contributed by Frank Gribble)

**Tom Keogh Memorial Trophy** Named in memory of the late Tom Keogh (*Brit. Birds* 70: 402), the premier award in a recent Irish national wildlife photographic competition, organised by the Photographic Society of University College Dublin, and sponsored jointly by Radio Telefis Éireann and the Irish Wildbird Conservancy, was won by Richard T. Mills with his photograph of 'Barn Owl feeding young' (plate 155).

155. WINNER OF TOM KEOGH MEMORIAL TROPHY. Barn Owl *Tyto alba* feeding young, Co. Cork, August 1975 (Richard T. Mills)



**Peregrine conference** A most useful booklet, *Pilgrimsfalk*, edited by Peter Lindberg, reports the proceedings of a conference on Peregrines *Falco peregrinus* held at Grimsö Wildlife Research Station, Sweden, in April 1977. Papers on Peregrine populations and conservation measures are included for the three Scandinavian countries and Finland, and our own Douglas Weir reports on the species in relation to food and pesticides in his Highland study area. Copies are available (price not stated) from SNF, Kungsholms Strand 125, 112 34 Stockholm, Sweden.

**Ornithological group in Algeria** Three amateur ornithologists employed by the Algerian civil service have formed a group with the aim of bringing knowledge of

Algerian avifauna up to date. Observers who have visited Algeria since 1965 are asked to send all their records to J. P. Jacob, Institut National Agronomique, Laboratoire d'Horticulture, Avenue Pasteur, El Harrach, Algeria.

**White-fronted Geese** A group of 12 observers plans to study the ecology of the Greenland White-fronted Goose *Anser albifrons flavirostris* at Disko Bay, west Greenland, in 1979. There is very little information on this subject in the literature and any previously unpublished breeding season observations of these geese (or the Russian, nominate race) will be welcomed by Tony Fox, Zoology Department, University College of Wales, Penglais, Aberystwyth, Dyfed.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers late May, June and the first part of July; except where otherwise stated, all dates refer to June.

The weather during this period was changeable and often cool, with the mean temperature a little below average. The first few days of June were very warm, with an easterly airflow bringing a taste of the Continental summer, and several Continental 'overshoots' to the northern half of the country. Fair Isle (Shetland) received the lion's share with **Golden Oriole** *Oriolus oriolus*, **Tawny Pipit** *Anthus campestris*, **Red-throated Pipit** *A. cervinus* and **Rustic Bunting** *Emberiza rustica* arriving on 1st, followed by **Marsh Warblers** *Acrocephalus palustris* on 2nd and 3rd, **Great Reed Warbler** *A. arundinaceus* on 2nd, and **Scarlet Rosefinch** *Carpodacus erythrinus* on 4th. The latter species was also found at Grutness (Shetland) on 3rd. Two reports of **Black-headed Buntings** *Emberiza melanocephala*, on the Calf of Man on 1st and from Strand (Shetland) on 2nd, following the one at Portland Bill (Dorset) on 5th May, suggest that all may have been genuine vagrants. A further **Golden Oriole**

arrived at the Calf of Man on 7th, and another **Rustic Bunting** at Flamborough



Head (North Humberside) on 4th. A male **Woodchat Shrike** *Lanius senator* at Fleetwood on 1st was a new species for Lancashire, the same county also reporting an **Ortolan Bunting** *Emberiza hortulana* at Formby in the first week. A **Red-footed Falcon** *Falco tinnunculus* on the Calf of Man on 4th was no surprise with the easterly weather, but a **Saker** *F. cherrug* on May 27th on Fetlar (Shetland) sounds exciting, if not an escape.

After these late spring migrants, few

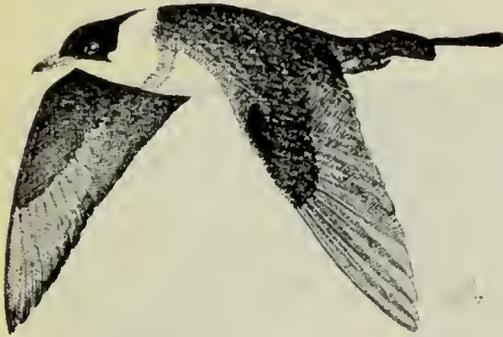
passerine movements were reported, so that the discovery of a **White-throated Sparrow** *Zonotrichia albicollis* on Fair



Isle on 17th was quite a surprise. This North American species has a pleasant but somewhat persistent song aptly described by the phrase, 'Old Sam Peabody Peabody Peabody', from which it has been popularly named 'the Peabody bird'. A ship-assisted transatlantic crossing would seem the most likely explanation of the occurrence. A **Snow Bunting** *Plectrophenax nivalis* on Flamborough Head on 25th was also a surprise.

#### Seabird movements

Further details of the spring passage of



**Pomarine Skuas** *Stercorarius pomarinus* off the Hebrides have been received. Half-hourly counts on 12th and 14th May were 25 and 24, followed by 46 in 1½ hours on 23rd May. One was also reported off Flamborough Head on 18th, where eight **Great Skuas** *S. skua* had been seen the previous day. At the beginning of a rather cool period of northerly weather with strong winds in the North Sea, 260 **Manx Shearwaters** *Puffinus puffinus* flew north at Flamborough on 11th. Further concentrations near the coast were reported: 60 at Start Point (Devon) on 17th and 132 in 1½ hours at Blackpool (Lancashire) on 3rd July. **Sooty Shearwaters** *P.*

*griseus* were noted at Flamborough on 10th and 17th, and **Cory's Shearwaters** *Calonectris diomedea* off Filey Brigg (North Yorkshire) on 25th and 29th. None of these shearwater reports suggests any unusual movements. More surprising was the appearance of two **Black Guillemots** *Cepphus grylle* at Flamborough on 2nd July.

#### Wading birds

Apart from a few **Greenshanks** *Tringa nebularia*, no significant return migration had been reported by early July, and, with inland reservoirs generally full, prospects of a good wader autumn appear slim. Coastal areas, however, will always produce the unexpected, Breydon Water (Norfolk) in this period attracting a **Terek Sandpiper** *Xenus cinereus*, and, on the south coast, a **Black-winged Stilt** *Himantopus himantopus* made short visits to Dungeness (Kent), Rye, Chichester and Pagham Harbours and Sidlesham Ferry (East and West Sussex) (see plate 156). This common Mediterranean wader rarely ventures north, this being only the fifth record in the last ten years. **Spoonbills** *Platalea leucorodia* were again reported summering on the north Norfolk coast, and six were seen at Killingholme (South Humberside) from 19th to 26th. A **Great White Egret** *Egretta alba*, an increasingly frequent visitor in the past few years, was present at Loch of Strathbeg (Grampian) on 30th.

#### Latest news

First three weeks of August rather slack, but two **White-winged Black Terns** *Chlidonias leucopterus* at Queen Mary Reservoir (Middlesex) on 19th, immature **Woodchat Shrike** at Portland on 20th, and report of **Calandra Lark** *Melanocorypha calandra* near King's Lynn (Norfolk) also on 20th.

156. Black-winged Stilt *Himantopus himantopus*, Sidlesham Ferry, West Sussex, July 1978 (Jeff Pick)



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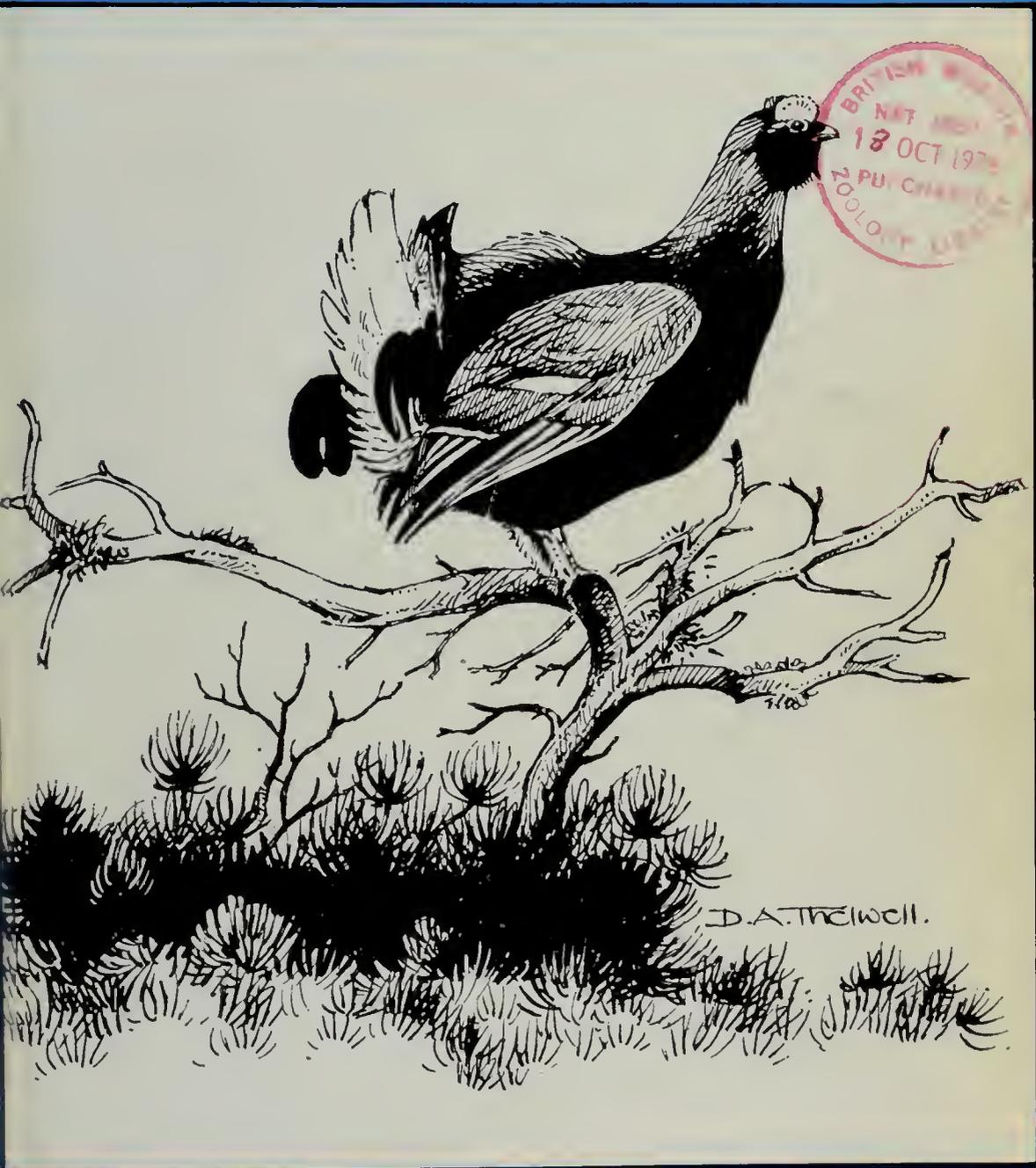
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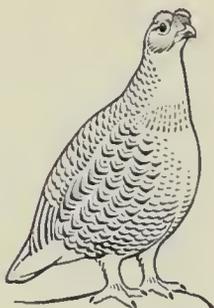
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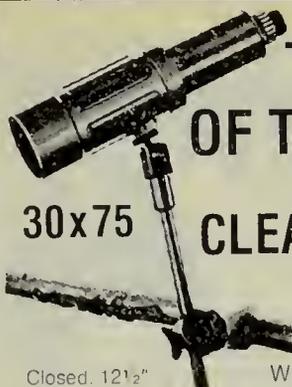
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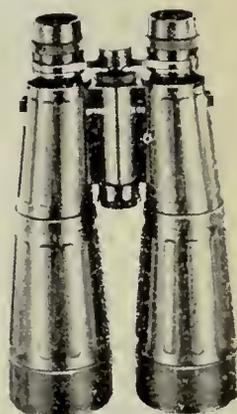
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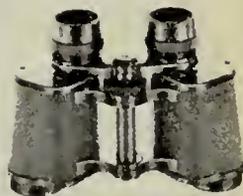
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# British Birds

VOLUME 71 NUMBER 10 OCTOBER 1978



## 'British Birds' Binoculars and Telescopes Survey

*M. A. Ogilvie and J. T. R. Sharrock*

**What binoculars and telescopes do experienced birdwatchers use? Are they satisfied with them? What are the virtues and faults of the main makes and models?**

**A**s announced in the June issue (*Brit. Birds* 71: 280-281), we are attempting the difficult task of offering advice on the selection of binoculars and telescopes. Information is already available, in booklets such as Flegg (1971) and those published by one or two major suppliers, while *Which*, the magazine of the Consumers' Association, has featured reports on both items in recent years, suggesting its usual 'best buys'. We felt, however, that we could improve on all these publications by first conducting a survey of our readers to find out what active birdwatchers already use; why they bought that equipment; what they think of it; and what they would seek if purchasing new items. A total of 1,211 questionnaires was returned; but, to ensure prompt publication, we analysed the first 732 forms, covering 740 pairs of binoculars and 475 telescopes.

To the results of the survey, we have added our own knowledge, based on extensive experience of different makes and models: MAO has been a professional, working with wildfowl, for about 18 years, and probably uses a telescope more concentratedly—and over more extended periods—than most amateurs would want to; while JTRS could be regarded as an average, keen birdwatcher, binoculars and 'scope always at the ready, using them in a variety of situations, from seawatching to desert and woodland.

Finally, we took the opportunity of comparing the most popular makes and models, by making use of the facilities at Metwood Accessories, Haversham, Buckinghamshire, where customers may call and try out different types, looking through them at the birds on the neighbouring gravel-pit. While no substitute for months or years in the field, this visit enabled us to make direct comparisons of optical and mechanical qualities, and to see for ourselves the reasons behind the comments—both favourable and adverse—made by readers.

## **Binoculars**

The vast majority of binoculars can be readily classed as one of two main types: conventional prism or roof prism. The latter have straight bodies between eyepiece and objective lens and are widely known by the word 'Dialyt', as used in our questionnaire, although this is, in fact, a trade name of Zeiss, makers of the most popular roof prism model. We apologise to those readers who did not understand what the word meant, but believe that the use of 'roof prism' instead would have perplexed even more. Dialyt binoculars are more compact than conventional ones, indeed some people with large hands find them too small to hold conveniently. They are usually—although not always—more expensive than conventional models and, at least at the top end of the price range, have what are generally acknowledged to be superior optics, providing a clearer, brighter image.

The field of view of different binoculars varies greatly. It is usually expressed as the diameter in feet of the viewing area at 1,000 yards. For most binoculars, this lies between 300 and 600 feet, with the 10 × 40 roof prism models towards the lower end of this range, and 'wide-angle' 7 × 50 at the upper end. We doubt whether this aspect matters as much to the observer as do clarity and brightness of the image.

Focusing of most binoculars is by a centre wheel, with separate focusing on one eyepiece. A few models have individual focusing on both eyepieces instead. We make no judgement on this difference, as it will be largely a matter for personal preference. What we did like, however, were those models with large centre focusing wheels (2 cm or more long), which were that much easier to locate and control with one's fingers. A new range of models by Chinon is now available, with so-called 'fast focusing' mechanisms, where pressure on a central bar alters the focus rather more quickly than can be achieved by turning a wheel. We did not have the opportunity to test one, and it remains to be seen how this type of focusing stands up to prolonged use. On the whole, centre wheel focusing is quite adequate, becoming unacceptably loose only after very many years' service, when new spindles or wheels may become necessary.

### *Makes and models*

A total of 125 different models of some 76 different makes are owned by the 732 readers in our sample. This alone gives some idea of the vast range available to the would-be purchaser, and highlights the fact that this report must, of necessity, be restricted to the most popular makes. It needs to be noted that a number of different names are often given to identical models of binoculars, depending on the importer or the retailer; thus, 'own-brand' binoculars of different firms, including high street chains, can appear in a variety of different guises.

Five makes of binocular accounted for two-thirds of the total: Zeiss, East Germany, 140 pairs of four models; Swift, Japan, 138 pairs of ten models; Zeiss, West Germany, 127 pairs of three models; Leitz, West Germany, 49 pairs of five models; Ross, Britain, 37 pairs of seven models. At the other end of the scale, no less than 42 makes were represented by

only single pairs. Within the commoner makes, the most popular models were: Zeiss, West Germany, 10 × 40B Dyalyt, 119 pairs (16% of the total); Zeiss, East Germany, 10 × 50 Jenoptem, plus a few 8 × 30 and 7 × 50, 88 pairs (12%); Swift Audubon 8.5 × 44, 66 pairs (9%); Leitz Trinovid 10 × 40B, plus some 8 × 40B and 7 × 42B, 43 pairs (6%); Zeiss, East Germany, Deltrintem 8 × 30, 27 pairs (4%); Swift Saratoga 8 × 40, 20 pairs (3%); Zeiss, East Germany, Dekarem 10 × 50, 20 pairs (3%).

#### *Magnification and objective size, and prism type*

As can be seen from the above figures, 10 × magnification is much the commonest size, used by over half our sample, while 8 × comes second, favoured by rather over one-fifth. When combined with objective size, the order of preference is 10 × 50, 10 × 40, 8 × 40, 8 × 30 and 8.5 × 44. No other combination attained more than 5%, compared with over 25% for the first two, and around 10% for the other three. 9 × 35 and 7 × 50, as well as some larger magnifications, such as 12 × and 15 ×, retain the loyalty of some birdwatchers (although see later for their future preferences).

Zeiss Dyalyt and Leitz Trinovid are the principal models with roof prisms; this type accounts for almost exactly one-quarter of our sample.

#### *Length of time since purchase*

Just on 60% of our sample have bought a new pair of binoculars within the last five years, and a further 25% in the last ten. This is perhaps surprisingly high and may reflect the advent on the market of greatly improved binoculars in the last ten years or so, and perhaps also the age structure of our readers, although this latter aspect is only speculation. The percentage purchasing binoculars in each of the last four years was remarkably constant, at around 12%, which could indicate that rising prices have had their effect on what otherwise probably ought to be a growth market.

#### *Reasons for purchase*

A number of readers made the point that it was a combination of reasons rather than any single one which led to their choice. Taking just main reasons, however, it is apparent that no one of the five possibilities we listed was overwhelmingly important: about one-third of the sample had tried other makes or models, another third had either received a recommendation or seen someone else's pair, while the final third responded to advertisements or to finding them available at the right price. There is little doubt that, at the top end of the price range, models like the Zeiss 10 × 40B Dyalyt are selling on their reputation built up by word of mouth, by comparisons in the field and in the shops, and through recommendation, rather than through advertisements, this overriding their not inconsiderable cost.

#### *Spectacles and their influence on choice*

About one-third of the people who returned the questionnaire admitted

to wearing spectacles, compared with the national average for persons over 18 of 55% (1975 figures, Department of Health & Social Security), suggesting some sort of relationship between having good sight and becoming a birdwatcher. Of the spectacle wearers, roughly half selected binoculars that they could use more easily: several models come with rubber eyecups which roll back, enabling the binocular eyepiece lens to come close to the spectacle lens without actually coming in contact (the letter 'B' after the designation of Zeiss and Leitz models signifies this fitting). The resultant increase in the field of view compared with that of a solid eyecup is of considerable benefit to those observers with spectacles who do not push them up out of the way before using binoculars (an action which often results in the loss of a few vital tenths of a second and the missing of a fast moving bird as it vanishes into a bush).

#### *Purchase and use of a case*

Cases, formerly of leather, now more usually a plastic substitute, are offered inclusive in the price of most binoculars; fortunately, we have seen little of the ploy adopted by camera shops where the case is a non-optional extra. We were interested, however, to see how many bird-watchers bought a case and then how many actually used it regularly. A bare 2% bought their binoculars without a case, but no less than one-third of those buying a case did not subsequently use it, or at most used it only for storage. As cases usually cost from £3 to £8, there is a possible saving here for at least a proportion of those considering buying binoculars.

#### *Satisfaction with current model, and plans for replacement*

Complete satisfaction was expressed by nearly three-quarters of the sample, a mere 3% were not really happy, and the remainder were fairly content. These figures are also reflected by the intended replacement rate, with again nearly three-quarters stating that they had no intention of doing so in the foreseeable future, 5% who intend doing so in the next five years, and about 10% who plan to buy binoculars in six to ten years' time. These figures are interesting when compared with the length of time since purchase (dealt with above), which might suggest that the actual replacement rate ought to be higher.

The choice of a pair if replacement became necessary was not answered by everyone, but the sample of 709 showed an even stronger preference for  $10 \times 40$  (32%) and  $10 \times 50$  (31%) than was shown by what people actually own, with only one other combination,  $8 \times 40$  (15%), coming above 5%. Comparison of the binocular currently owned with what would be preferred revealed that many people would like a slightly higher magnification than their current  $8 \times$  or  $9 \times$ , but there is much more satisfaction among owners of  $10 \times$ . Even owners of  $7 \times$ , and the larger magnifications like  $12 \times$  and  $15 \times$ , who were often quite vehement in their defence of their minority types, showed a marked preference for higher or lower magnifications respectively (about 50% in each case).

The Zeiss 10 × 40B Dyalt came out very strongly as the most popular make among owners and non-owners alike, again reflecting its tremendous reputation. In all, some 70% of binocular users are content with their present make, if not model, and would buy the same again; the remainder would change.

The money available for binoculars, if a purchase was necessary, generally reflects current price ranges, although a number of people who expressed a desire for Zeiss 10 × 40B allocated a wholly inadequate sum, suggesting that inflation and sterling depreciation have gone farther than they realise. Many readers added the understandable rider that the sum they were quoting was not necessarily yet available, but approximate thirds of the sample were prepared to spend under £100, between £100 and £200, and over £200.

### **Telescopes**

A telescope for birdwatching has to be a compromise between those magnifications and objective lens sizes which are practical optically and worthwhile to the birdwatcher, and portability. We were, perhaps not surprisingly, taken to task by owners of brass-and-glass monsters for so describing them. We acknowledge users' loyalty to such instruments, but must point out that, in our experience, while the owner of an old-fashioned telescope is settling himself on the ground (hopefully not too wet) and propping his three- or four-foot monster on his knees, thereby lowering what is usually an already low vantage point, his counterpart with a modern lightweight telescope is already viewing the birds from a comfortable standing position behind his tripod. He also zooms with ease to a higher magnification to look in more detail, instead of having to pull out a tube to a precise mark and then reapply his eye. We are not, most certainly, trying to denigrate those birdwatchers who possess and are perfectly used to their old types of telescope, but we feel that it would be a great mistake for a birdwatcher contemplating obtaining his first telescope even to consider such a model (secondhand and therefore cheap though it might be) in view of the range of modern instruments available. Some of the largest old telescopes do boast a 3-inch (7.6-cm) objective lens, larger than almost all modern ones and therefore likely to produce a brighter image, but this single advantage is, in our opinion, outweighed by all the other positive features of modern telescopes, including portability, ease of use and lens coatings.

Modern telescopes come in two forms: those with drawtubes, usually one or two and quite short, and those without, most of which are prismatic, with the eyepiece offset from the line of the telescope body. A few make place the eyepiece at an angle (usually about 45°) to the body, so that the observer stands looking down into his telescope, enabling him to rest it at a lower level; this takes some getting used to, and neither of us found it convenient.

While some modern telescopes have a fixed magnification, the majority are zooms, from 15 × or 25 × up to 50 × or 60 ×, with a few going higher.

The controls for zoom and focus are not always placed for the most convenient use, bearing in mind that with most models it is necessary to refocus after changing magnification. If the telescope is first focused when on maximum magnification, it will stay more or less in focus when the magnification is reduced; but, in the great majority of cases, a bird-watcher is going to start at a low magnification and zoom up, so that this feature is of little help. Sometimes, the two controls are side by side and easy to use singly or in combination, but equally they can be a handspan apart and not nearly so straightforward to adjust. Almost anything can be got used to in time, but we think this is a point would-be purchasers should consider.

#### *Makes and models*

The 475 telescopes detailed in the questionnaires covered 82 models and 47 makes. The models and makes, however, were not all different: a number of identical models are disguised under different names (e.g. Regent, Lumex, Solus, Perl).

The two most popular models, by a long way, are the Hertel & Reuss Televariabel or Televari 25-60 × 60 (owned by 124, just over 25%), and the Nickel Supra 15-60 × 60 (118, just under 25%). Lying well back in third place is the Swift Telemaster 15-60 × 60 (27, 6%). The various old-fashioned brass-and-glass instruments, most made by Dollond or Broadhurst & Clarkson, and often with the same model name (e.g. Target Major or Super 60), accounted for 64 (13%). No other single model made up more than 3%, although seven different models of Kowa together reached 24 (5%), and others between 2% and 3% were Mirador, Optolyth, Schmidt & Bender Spectiv and Greenkat.

#### *Magnification and objective size*

A total of 56 fixed magnification telescopes are owned, mostly between 20 × and 30 × with objectives from 40-75 mm, and another 59 had variable focus (i.e. a number of different, but fixed, magnifications). The remaining 360 telescopes incorporated zoom; magnifications varied a lot, but most were 15-60 ×, 20-60 × or 25-60 × (all with 60-mm objectives), with some 15-40 × 40, 20-45 × 60 and 25-50 × 50.

#### *Drawtubes*

Modern telescopes have either no or only one or two drawtubes. The Swift Telemaster, the various Kowas, Mirador, Bausch & Lomb Discoverer, Greenkat and some models of Solus, Lumex, Tasco and Perl have no drawtubes. The Hertel & Reuss Televari has one or two, depending on definition: one drawtube has to be pulled out before use, a second acts as the zoom magnification changing device. The Nickel Supra has two drawtubes. The various old-fashioned telescopes have mainly three or four drawtubes, including one that changes the magnification, while one undoubted monster has no fewer than six.

#### *Angle of eyepiece*

As already mentioned, the majority of telescopes have straight eyepieces;

the exceptions include single models of Kowa, Greenkat, Alpine Eagle, Philo and Tasco. A number have the eyepiece offset from the line of the telescope, including several of the shorter, no-drawtube models.

*Length of time since purchase*

The results were very similar to those for binoculars, with 50% having bought one within the last five years, and a further 24% in the last ten. The proportions buying in recent years show a steady increase, from 9% five years ago to 17% in the last year. Much of the telescope market is for first-time buyers, not just for replacement, as with binoculars. It is worth noting that as many as 257 binocular owners in our sample (35%) do not yet possess a telescope.

*Reasons for purchase*

These followed much the same pattern as for binoculars, although with a slightly higher proportion having seen another birdwatcher's model and bought one similar, and less having tried out other types.

*Amount of use*

About 41% of birdwatchers use their telescope frequently, and another 32% do so fairly often. As many as 27% are only occasional users.

*Tripods*

These are regarded as indispensable by some telescope users, while others make do with car windows, car roofs, or fence posts. Even bearing in mind that most old-fashioned telescopes cannot be used with a tripod, the figure of 43% who never or rarely use a tripod seems high; 22% of users said they always did, and 35% sometimes. A tripod may seem a bulky and heavy addition to a birdwatcher's load, but we strongly urge those who have not tried one to borrow a good tripod and see what an enormous difference it makes to be able to stand at a comfortable height with the telescope held firmly. Modern tripods, like modern telescopes, have come a long way, and offer the birdwatcher a really worthwhile aid. We cannot overstress this point.

*Purchase and use of a case*

Cases are bought with 78% of telescopes; the old-fashioned instruments often had one built in. Although 89% of owners use their case regularly—many more than for binoculars—we received a number of complaints about the shoddy nature of the case supplied; some of those with the Hertel & Reuss Televari lasted only a few months before disintegrating.

*Satisfaction with current model, and plans for replacement*

Owners' satisfaction with telescopes was much lower than with binoculars, only 53% expressing complete satisfaction, 35% being fairly content, and 12% not really happy at all. Looking at particular makes and models, the Hertel & Reuss Televari scored 68%, 30% and 2% in the three categories of satisfaction, compared with the Nickel Supra figures of

52%, 38% and 10%: a clear difference in favour of the former. Among owners of brass-and-glass instruments, the scores were 36%, 42% and 20%, despite those protests at our supposedly denigrating remarks. Although the samples were rather small, the various models of Kowa were well thought of on the whole, as were Optolyth, Mirador, Swift and Bausch & Lomb. On the other hand, there was considerable dissatisfaction with Schmidt & Bender Spectiv, Perl, Greenkat, Prinz Astral and the Lumex, Regent and Solus models.

It is difficult to be certain of the main reasons for this low satisfaction rate, but it may be associated with the relatively little use given telescopes by many owners. Telescopes are by no means so easy and straightforward to use as is a pair of binoculars. Some birdwatchers find it difficult to resolve a clear image and give up, when perseverance might pay off: it is necessary to get the right distance from eye to eyepiece, perhaps cope with spectacles, find out what to do with the unused eye (try closing it, but not too tightly), and hold the telescope still (try a tripod).

Asked whether they would buy the same make again, owners again showed discontent, with a fairly massive 39% saying 'No', even allowing for brass instruments which are no longer obtainable.

Only 71 people specified what make they would buy, with Nickel and Optolyth scoring 16 each, and Hertel & Reuss 12, while eight others had under ten preferences each. The sample is probably not big enough to be meaningful. Similarly, magnification was not specified by many, although a desire for fixed rather than zoom magnification, expressed by a number of readers, may reflect problems experienced when using their present telescope.

The money needed for the best quality telescopes available is less than for binoculars, reflected in the proportions of 20% willing to spend under £100, 71% between £100 and £200, and only 9% over £200.

## Recommendations

We have not attempted to give 'best buys' along the lines of *Which* reports, but have listed the most popular makes, together with some which may not have figured largely in the survey, but which have impressed us. Our comments against each model or make are based on the results of the survey, on our personal experience, and on the tests we carried out. We hope they will prove helpful to intending purchasers, but stress that there is no real substitute for trying various makes and models for oneself, while bearing in mind some of our points.

### *Binoculars*

ZEISS (WEST GERMANY) 10 × 40B DIALYT  
Top quality at top price. Most popular, even fashionable, model. Will seem very small in large hands, especially after conventional pair, but optically should give complete satisfaction; suitable for spectacle wearers. Not very robust, even with available rubber 'armour'. Manufacturer's minimum permitted discount price c.

£222. Weight 680 g. Smaller magnifications of Zeiss Dialyt (e.g. 8 × 30B) do not seem worth the price.

LEITZ TRINOVID 10 × 40B Almost indistinguishable in looks and quality from Zeiss 10 × 40B, although some users prefer focusing mechanism. Higher price (c. £255) not worth paying. Slightly lighter

at 595 g. The 8 × 40B is a nice instrument, but too expensive at *c.* £245.

ZEISS (EAST GERMANY) JENOPTEM 10 × 50 A conventional binocular with clear, bright image and good field of view. On the heavy side, but robust and stands up to a lot of use. Gets a good report from current owners. At *c.* £67, very good value, but is quite heavy (990 g) and spectacle wearers would have to remove or lift their glasses. There are also 8 × 30 and 7 × 50 models of Jenoptem which could be suitable for a second pair in a family. Zeiss Deltrintem 8 × 30 and Dekarcem 10 × 50 do not seem so much better as to justify their higher prices.

SWIFT AUDUBON 8.5 × 44 A popular model, with good field of view and bright image. Many owners, however, now desire higher magnification. For their power, are large and heavy (1,080 g), and fairly expensive at *c.* £80.

SWIFT NEWPORT 10 × 50 Worth considering, but compare first with Jenoptem 10 × 50, which are slightly lighter and slightly cheaper.

SWIFT GRANDPRIX 8 × 40 One of the better lightweight conventional binoculars if the lower magnification is thought sufficient,

There are many other makes and models on the market worth a second look, including those made by Haartman, Optolyth, Hilkinson, Greenkat and others. There are also makes more usually found in high street shops, such as Boots own brand, Dixon Prinz, and Pentax, and suppliers' own brands, such as Frank Nipole. Few of these binoculars are actually bad, some are very good, but none figured largely in our readership survey.

We conclude this section of the report by strongly recommending that any would-be purchaser try out several makes and models before buying, looking particularly at the brightness and clarity of the image and the field of view, at the ease of handling and focusing, at the size and weight, and checking for obvious faults such as distortion of the image at the edges and coloured (usually orange or red) fringes to the image and circle of view: too many of the cheaper binoculars suffer from these two faults, including some of the own-brand models, which are normally Russian or Japanese in origin. One can spend too little on binoculars as well as too much.

### Telescopes

HERTEL AND REUSS TELEVARI 25-60 × 60 One drawtube, with second, which moves out in spiralling action, forming zoom. Focus by ring at near-end of middle drawtube. Excellent optically, markedly superior in clarity and brightness to Nickel Supra, although lacking lower magnifications of latter. Method of zooming poor,

but compare with the Mirador 8 × 40 before purchase. Price *c.* £43, weight 680 g. SWIFT TRILYTE 10 × 40 Roof prism model. Much the cheapest of the readily available roof prism binoculars, but not worth serious consideration.

SWIFT SARATOGA 8 × 40 Slightly better quality than Grandprix, but also very heavy for 8 × 40 at 965 g, and more expensive at *c.* £52.

MIRADOR 10 × 40 & 8 × 40 Both sizes most impressive in optical quality, handling and price. Both have rubber eyecaps which fold down to allow spectacle wearers full field of view, both have large focusing wheels, both have bright clear images, comparing very favourably with Zeiss or Leitz of similar power. Price *c.* £51 for 10 × 40 and £47 for 8 × 40. Weight 765 g each. Look at these very carefully before you spend any more, or less.

HABICHT DIANA 10 × 40 Undoubtedly excellent optics, but very expensive for conventional prism shape, and difficult to escape feeling that, if one can afford these, then it is worth finding a bit more to buy Zeiss Dialyt, or saving a great deal by buying Mirador. Price *c.* £170. Weight 650 g.

as it necessitates moving one's head back some distance, while the focusing ring is left behind, so that one has to move one's hand again to reach it. The middle drawtube must be fully out before focusing is possible. Very poor case. Price *c.* £101. Weight 1,220 g. Length extended 675 mm. NICKEL SUPRA 15-60 × 60 Two complete

drawtubes, zoom by means of eyepiece ring, focusing by small knob close by. Not so good optically as Hertel & Reuss Televari, but shorter and lighter, and more flexible, with magnification down to  $15\times$ . Zooming and focusing much easier, although still not most convenient, with hand right up by eye. Need for both tubes to be fully out before focusing is possible must be emphasised: in many, tubes very difficult to pull out, while, conversely, after heavy use, they can become very loose. Price £105. Weight 910 g. Length extended 560 mm.

SWIFT TELEMATER  $15\text{-}60\times 60$  No drawtubes and excellent mechanics. Two large knurled rings lie side by side nearly over the tripod mounting place and, therefore, where the hand quite naturally rests, one for focus, the other for zoom. Alas, optically not so good as Hertel & Reuss or Nickel, especially at higher magnifications. Price c. £116. Weight 1,360 g. Length 430 mm.

MIRADOR  $20\text{-}45\times 60$  Short compact prismatic telescope, but lacking higher magnifications, which, however, not everyone wants. Optically quite good; zoom by means of eyepiece ring; focus by small knurled wheel on front of prism housing, about 15 cm away and requiring hand movement. Price c. £75. Weight 910 g. Length 310 mm.

OPTOLYTH  $30\times 75$  Single drawtube, fixed focus; larger-than-average objective gives

wider field of view, but not noticeably brighter image than at equivalent magnification on the good zoom instruments. Popular with owners. If you want fixed focus, we suggest you compare with Kowa before purchase. Price c. £125. Weight 1,250 g. Length extended 490 mm.

KOWA, INTERCHANGEABLE EYEPIECES Available straight or angled (we much preferred straight), with  $15\times$ ,  $25\times$ ,  $40\times$ ,  $60\times$ , or zoom  $25\text{-}50\times$  eyepieces. No drawtube, focusing by small knob on end of prism housing away from eye, so same drawback as Mirador. Optical quality excellent with fixed or zoom eyepieces, slightly better even than Hertel & Reuss Televari. More compact and slightly lighter than Optolyth. Eyepieces screw in; two fixed focus cost approximately same as one zoom. Price of body without lens c. £70, fixed focus lens c. £15 each, zoom lens c. £32. Weight 1,135 g. Length 350 mm.

BAUSCH AND LOMB DISCOVERER  $15\text{-}60\times 60$  Available only direct from USA (Bushnell Optical Co., 2828 East Foothill Boulevard, Pasadena, California), but included here as it is arguably the finest instrument currently on the market. Lucky owners or envious borrowers give unanimous rave reviews. No drawtube, focus and zoom by well-placed knurled rings, superb clarity and brightness of image. Price \$295 (if in USA, look for it in discount stores), so not cheap (but worth every cent!). Weight 1,360 g. Length 445 mm.

We also note the following models and makes owned by readers and widely available, but consider them all inferior to the Hertel & Reuss Televari, the Kowa or the Bausch & Lomb Discoverer: Perl  $15\text{-}60\times 60$ ; Schmidt & Bender Spectiv  $15\text{-}60\times 60$ ; Greenkat, Regent, Alpine Eagle, Lumex (various models of each); Prinz Astral  $15\text{-}60\times 60$ ; Hilkinson  $25\text{-}40\times 60$ . Of the 48 owners of these different makes answering the questionnaire, only 12 were completely satisfied, 21 were fairly so, and 15 not really: a judgement we tend to endorse.

As with binoculars, our advice is not to buy without trying several different models. Consider carefully whether you want fixed focus or zoom. The former is easier to use and may cope with many situations, but there is little doubt of the value of a zoom when a really detailed look at a particular bird is needed. Do not be put off if you find the telescope awkward to use at first: persevere. And do try using a good tripod.

### Our personal choices

Individual taste plays an important part in the purchasing of binoculars and telescopes, but our own choices, which have evolved over the years, may be of interest. MAO used Ross  $9\times 35$  binoculars until 1973, then changed to an Optolyth  $10\times 40$  Dialyt and now is seriously considering buying a Mirador  $10\times 40$ ; having owned a Nickel Supra tele-

scope since 1964, he has just purchased a Bausch & Lomb Discoverer. JTRS bought Ross Stepmur 10 × 50 binoculars and a Nickel Variabel 25-50 × telescope in 1959, but this autumn has acquired Mirador 8 × 40 binoculars and a Bushnell Spacemaster II 20-45 × telescope. (very highly recommended in the USA; from the same stable as Bausch & Lomb).

### Acknowledgements

We are most grateful to the 1,211 *British Birds* readers who completed our long and complicated questionnaire; and to F. N. Humphries, proprietor of Mctwood Accessories, for allowing us to test and compare a large number of binoculars and telescopes, and for his helpful, expert advice.

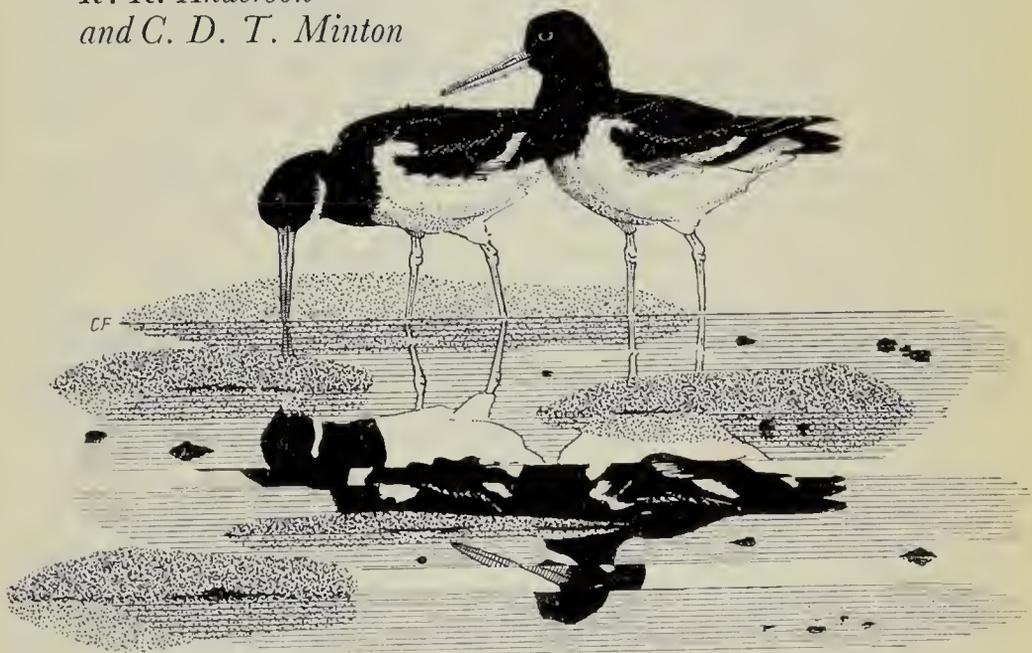
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# Origins and movements of Oystercatchers on the Wash

*K. R. Anderson*  
*and C. D. T. Minton*



**Thousands of Oystercatchers arrive on the Wash in autumn. Where do they come from? Do they move on, or are the winter hordes the same birds?**

**I**n a comprehensive analysis of movements of Oystercatchers *Haematopus ostralegus* in Britain and Ireland, Dare (1970) pointed out the lack of

information from eastern England. This situation has now been changed by the ringing of about 12,000 Oystercatchers on the Wash, Lincolnshire/Norfolk, between 1967 and 1975, the majority being caught in cannon-nets by the Wash Wader Ringing Group. Excluding 1,921 recaptures and 50 recoveries on the Wash itself and on the adjacent Norfolk and Lincolnshire coasts, there were 209 recoveries up to the end of 1975, 180 overseas and 29 elsewhere in Britain; in addition 25 captured on the Wash already carried foreign rings and 15 had been ringed elsewhere in Britain.

This paper analyses these movements in the light of Dare's findings. The breeding areas of Oystercatchers occurring on the Wash in autumn and winter are compared with those of Oystercatchers occurring in western Britain (Dare 1970). The age of first return to the breeding areas is also considered.

### Origin of population occurring on the Wash

The 140 recoveries in the breeding season (late March to end of July) of Oystercatchers ringed on the Wash, together with the ringing sites of 34 chicks subsequently caught there, are shown in fig. 1. Although a few of those recovered at the beginning and at the end of this period may have been on passage, there is no temporal difference in the pattern of recoveries, which suggests that the majority were at their breeding areas, as does the coincidence between recoveries of adults and areas in which chicks were ringed. The lack of recaptures of chicks originating in northern Norway may be due to fewer young being ringed there. The distribution of recoveries of those ringed in winter is similar to that for autumn-ringed individuals, indicating that the same population is present on the Wash during both periods.

The distribution of breeding season recoveries differs markedly from that demonstrated by Dare (1970) for the west coast of Britain (table 1). Since the geographical distribution of recoveries may be subject to certain

**Table 1. Breeding season (late March to July) recoveries of Oystercatchers *Haematopus ostralegus* ringed on the Wash and on the west coast of Britain**

Data for the Wash from this study; for western Britain from Dare (1970 and *in litt.*). Country abbreviations: Iceland, Faeroes, Scotland, England/Wales, Netherlands, Denmark, Norway, Sweden

Place of ringing	No. of recoveries	PERCENTAGE RECOVERIES IN EACH COUNTRY							
		Ice	Fae	Seo	E/W	Net	Den	Nor	Swe
The Wash	140	0.7	2.1	5.0	5.7	5.0	0	80.0	1.4
West coast of Britain	270	5.2	18.0	55.5	7.5	0.4	0.4	13.0	0

biases, the percentages given in table 1 do not necessarily represent the exact proportions of birds from each area. The results, however, enable a valid comparison to be made between the composition of flocks on the west and on the east coasts of Britain. The majority of Oystercatchers on the Wash are of Norwegian origin (80% of breeding season recoveries) with comparatively few from Scotland and the Faeroes (7.1%), which

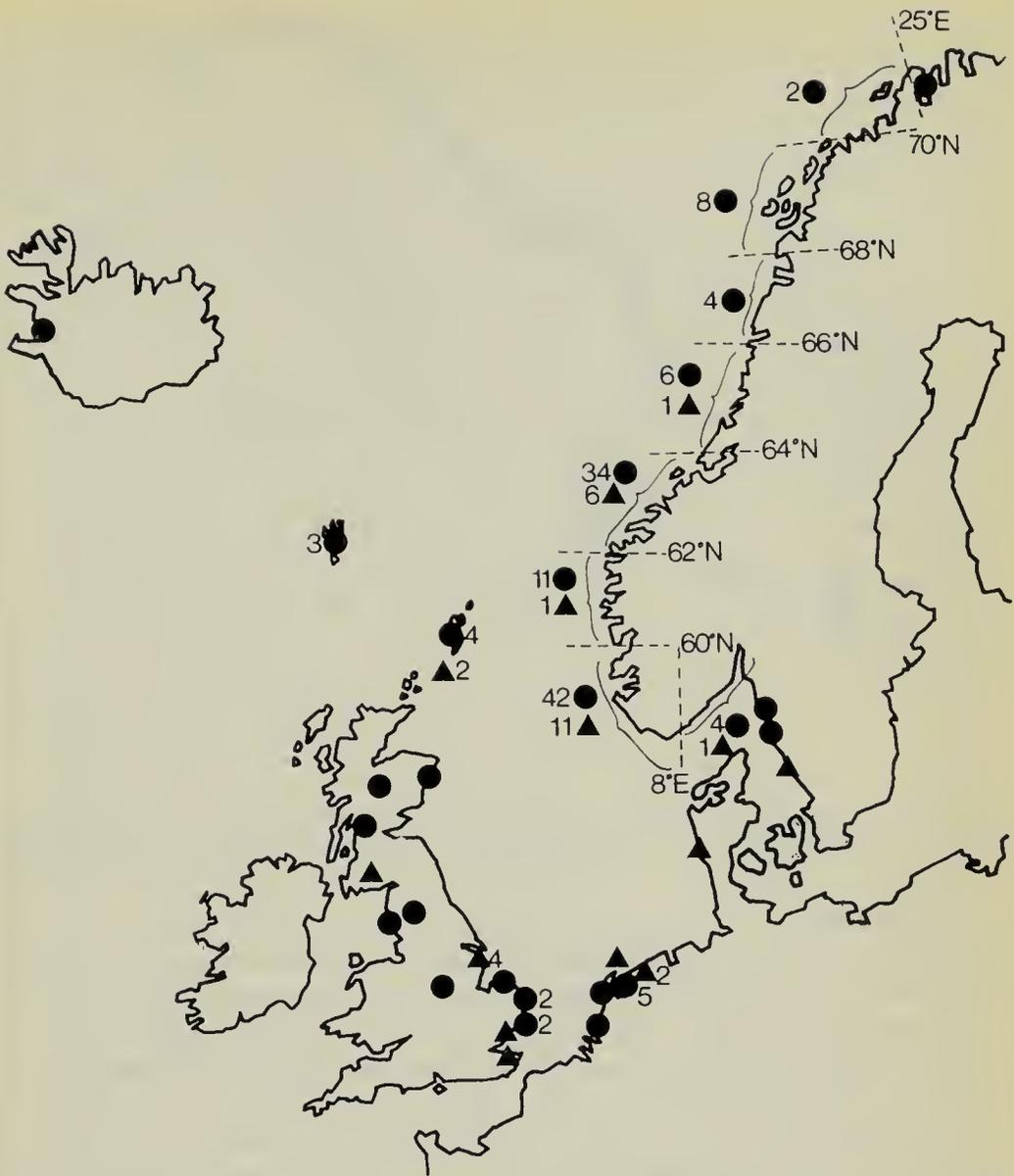


Fig. 1. Origins of Oystercatchers *Haematopus ostralegus* occurring on the Wash. Recoveries during breeding season (late March to end of July) of Oystercatchers ringed on the Wash (dots) or ringing place of chicks subsequently captured on the Wash (triangles)

are the main breeding areas of those occurring in Wales and west England (73.5% of recoveries). The Norwegian recoveries are from virtually the whole length of the coastline, as far north as Porsanger Fjord (70° 20'N, 25° 06'E), with particular concentrations in Rogaland and Vest Agder (southwest Norway) and in the Kristiansund/Trondheim area. These concentrations may reflect high numbers of breeding Oystercatchers, or possibly concentrations of people reporting rings.

Some Oystercatchers ringed on the Wash breed in the Netherlands and a few farther east in Sweden and the USSR (see also fig. 2): areas not reached by those from western Britain.

The distribution of ringing sites of the 34 chicks later recaptured on the Wash is broadly similar to the recovery pattern detailed above, with 20



Fig. 2. Recoveries in autumn (August to October) of Oystercatchers *Haematopus ostralegus* ringed on the Wash (dots) or ringed elsewhere in autumn and recaptured on the Wash (triangles)

from Norway, three each from Scotland and the Netherlands, one each from Denmark and Sweden, and six from estuaries on the east coast of England, including four from the Humber, Humberside.

A minor effect, which may relate to differences in breeding habitats, is the extent of foot damage caused by sheep's wool: 3.3% of those on the west coast (Dare & Mercer 1968) compared with less than 1.0% of the Wash population. This suggests that Norwegian Oystercatchers breed mainly in areas where sheep are absent, such as rocky shores, whereas those breeding in northern Britain and the Faeroes frequently use sheep pastures.

In addition to those of more distant origin, 19 Oystercatchers ringed as chicks either on the Wash or on nearby Scolt Head Island, Norfolk, were recaptured on the Wash. These locally bred birds cannot, however, form more than a small proportion of the total Wash wintering population of 21,000 (average annual peak count 1970-75, Minton & Prater in prep.), since only about 100 pairs breed on the Wash (Cadbury *et al.* 1974) and a similar number on Scolt Head (R. Chestney *in litt.*). Two early autumn recaptures of breeding adults from Walberswick, Suffolk, indicate that some Oystercatchers from other parts of East Anglia also use the Wash.

### Autumn recoveries

Fig. 2 shows the distribution of 47 recoveries away from the Wash during August to October of Oystercatchers ringed there, and of five recaptured

on the Wash having been ringed elsewhere during this period. Although most adult Oystercatchers in Europe moult their primary feathers during this period (Dare & Mercer 1974, Minton 1974, Pienkowski & Knight 1975), it appears that some are still at or near their breeding areas. Most notable are two recoveries, both in 1969 (30th August and 13th September), in the Arkhangel'sk region of Russia, close to the northeastern breeding limit of the species (Voous 1960). These are the only recoveries of British-ringed Oystercatchers east of the Baltic. The autumn recoveries in eastern Denmark are possibly a further indication of the presence of small numbers from these eastern breeding areas. The recoveries in western Denmark could, on the other hand, be associated with the known heavy migration from Norway down this coast in autumn (Thelle 1970). The comparative lack, however, of recoveries from Britain on southern North Sea coasts (e.g. the Netherlands) in autumn suggests that most of the Oystercatchers which come to the Wash from Norway migrate directly across the North Sea.

Recoveries of Norwegian Oystercatchers (Holgersen 1962) indicate that many are present along the southern coast of the North Sea in autumn. The lack, however, of recaptures on the Wash of Oystercatchers ringed along the north coast of Europe suggests that they remain on the Continent rather than move into Britain.

The cluster of recoveries on the north coast of France (a pattern probably accentuated by local hunting pressures) indicates that a few Oystercatchers visiting the Wash move farther south. Of the 15 recoveries in France, 12 had been ringed on the Wash in late summer or autumn (between 29th June and 4th September) and three in winter (January). Only two were recovered in the same season, both having been ringed as non-moulting adults in early autumn. These, together with two further non-moulting adults and a juvenile recovered in subsequent autumns, were probably on passage when ringed on the Wash. Seven, all of which were moulting when ringed on the Wash, were recovered in France in subsequent autumns, which suggests that they had changed their moulting areas. Five of these had been ringed as one-year-olds and were recovered in the following year, when they would still have been non-breeding immatures. Of the three ringed in winter, the two adults, trapped on the same occasion in January 1971, were both recovered in the following August in the same part of northern France. The other, ringed in its first winter, was recovered in August three years later. These three had presumably changed their wintering grounds.

There were only eight movements within Britain between the Wash and areas to the south or west, and all but one involved individuals ringed and recovered in autumn. This further indicates the comparative lack of onward movement or change of moulting area.

There is, however, some evidence of a more significant movement of Oystercatchers between the Wash and the south side of the Humber estuary, a distance of 45-70 km. Of 38 full-grown Oystercatchers ringed on the south side of the Humber, nine have subsequently been recaptured on the Wash (in addition to four from a total of 29 chicks, fig. 1). Of 19

movements of full-grown Oystercatchers between the two estuaries, 14 relate to individuals moulting on the Wash between late June and early October, and present on the Humber during winter. Eight of these movements were in the same 'year' as ringing. While there may be some bias due to the different patterns of ringing activity at the two estuaries, the count data (A. J. Prater *in litt.*) also support the suggestion that some of those moulting on the Wash in early autumn move to the south side of the Humber for the winter. There is a sharp drop in the size of the Wash population in October, while numbers on the Humber are much higher in winter than in early autumn.



Fig. 3. Recoveries in winter (November to mid March) of Oystercatchers *Haematopus ostralegus* ringed on the Wash (dots) or ringed elsewhere in winter and recaptured on the Wash (triangles)

### Winter recoveries

A large proportion of the Oystercatchers originally ringed on the Wash were subsequently recaptured locally. Of the 12,000 ringed on the Wash, 1,921 (16%) have been recaptured there (up to the end of 1975), suggesting that the majority of those which visit the Wash do so year after year. On the other hand, 11 of the 22 recoveries abroad between November and March illustrate that there is some onward movement of autumn-ringed Oystercatchers to wintering grounds to the west and south of the Wash (fig. 3). One juvenile ringed in August had reached Morocco by December of the same year. Four others were recovered in the winter immediately following ringing, and three of these (two adults and one first-summer) were known to have moulted on the Wash. Of the remaining six, five were adults and two of these were also in moult when ringed. Furthermore, two adults ringed at Poole, Dorset, and one juvenile ringed in Morecambe Bay, Lancashire, were moulting when recaptured on the Wash in subsequent autumns. The individual from the Burry Inlet, West Glamorgan, was, however, not moulting when recaptured on the Wash in mid August. Nevertheless, in relation to the total number of Oystercatchers ringed, the number of recoveries which indicate the existence of a passage through the Wash is small. Thus, most of those arriving on the Wash in autumn remain for the winter. This is in marked contrast to the behaviour of some other waders, especially Knots *Calidris canutus* and Dunlins *Calidris alpina*, some populations of which show considerable onward movement across Britain or into France, southwest Europe and beyond (Minton 1974). There have been, for instance, only three interchanges of Oystercatchers between the Wash and Morecambe Bay, the area with the highest wintering numbers of Oystercatchers in Britain and Ireland (Dare 1966).

There are nine recoveries in winter, which suggests that some Oystercatchers change their wintering grounds. Of five such recoveries in the Netherlands, two had been ringed in a previous autumn and three in a previous winter. Four were ringed as adults, but one first-year, ringed in March, was found in the Netherlands during the following December. The recoveries in Sweden (22nd February 1974) and Norway (25th February 1975) may be further examples of change of wintering area, but it seems more likely that they relate to early return towards breeding areas, following exceptionally mild winters.

Finally, mention should be made of two in their second autumn which were moulting when ringed on the Wash in autumn and were subsequently recovered wintering in France when adult; and of a first-winter ringed at Morecambe Bay in December and recaptured on the Wash in its second summer. These could either have come to the Wash from their wintering areas in order to moult when immature, or have changed their wintering areas.

### Age of return to breeding grounds

There have been 50 recoveries in Norway of Oystercatchers of known age (table 2). Few appear to return to the breeding areas before their third

**Table 2. Age when recovered in Norway of Oystercatchers *Haematopus ostralegus* ringed on the Wash when immature (first- or second-year)**

	Age when recovered (years)							
	1	2	3	4	5	6	7	8
Number recovered in Norway	0	2	13	9	15	3	5	3

year. This conclusion is supported by the predominance of those in immature plumage in the non-breeding population of about 2,500 on the Wash in May and June (personal observations); all were in their first or second year.

Oystercatchers migrate from the Wash to their breeding grounds at the end of March and in early April. Although most of those which visit the Wash appear to return to Norway for the first time when three years old, it is not known whether they breed at that age. The presence of arrested primary moult in some third-years on the Wash in early autumn suggests that they may have returned to the breeding areas in Norway but not actually attempted to nest, this allowing them to start moulting early, on their future breeding grounds. In this context, it is interesting that Oystercatchers on the island of Skokholm, Dyfed, generally start breeding in their fourth year, although some individuals appear—but do not breed—in their third year (Harris 1967).

### Conclusions

The Oystercatchers on the Wash are markedly different in origin from those on the western coasts of Britain. The Wash is an important moulting and wintering ground for Norwegian Oystercatchers, and is visited by comparatively few of Icelandic, Faeroese or British origin. There is little passage of this species through the Wash. Some immatures may remain there throughout the period from their first autumn until they return for the first time to their breeding grounds, the majority doing so in their third year. The population moulting and wintering on the Wash appears to suffer relatively little interchange of individuals with those wintering elsewhere in Britain and western Europe.

### Acknowledgements

We thank the Natural Environment Research Council for financial assistance, and the Wash Wader Ringing Group, whose members carried out the fieldwork and whose Publications Committee commented on the manuscript. We are also grateful to Dr P. J. Dare for allowing the use of unpublished data which appear in table 1, and for his comments on the first draft.

### Summary

Analysis of the 249 ringing recoveries resulting from the capture of about 12,000 Oystercatchers *Haematopus ostralegus* on the Wash shows a marked difference in breeding areas from those occurring in the west of Britain. The main breeding areas of those visiting the Wash are in Norway, extending to north of the Arctic Circle, with a few from as far east as the USSR; a relatively small number come from Scotland and the Faeroes, which are the main breeding areas of Oystercatchers frequenting the west coast of Britain. Most movements between the Norwegian breeding grounds and the Wash apparently take place directly across the North Sea. The majority of the population reaching the Wash

in autumn remains there throughout the winter. Most do not return to their breeding grounds before their third year.

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## Best recent black-and-white bird-photographs

**M**uch more so than even a few years ago, many bird-photographers now concentrate on colour. The change in the name of this feature, from 'Best recent work by British bird-photographers', acknowledges that much of the best work is now in colour. Indeed, our annual competition for 'Bird Photograph of the Year' will in future be restricted to colour transparencies. Black-and-white photography does, however, still have an essential role to play. Therefore, to enlarge our choice for this series, we shall from next year be widening the field to include foreign photographers; the only restriction will be that the species must be on the west Palearctic list.

This year's 14 photographs, chosen from a total of 214 by 47 photographers, include two owls which were originally selected as sixth and seventh in the 1977 'Bird Photograph of the Year' competition (*Brit. Birds* 71: 195-198). Reflecting the appeal of the species, Barn Owls have appeared six times in this series. Donald A. Smith's flight portrait shows one carrying a common shrew *Sorex araneus* to its young in a nest-box

(plate 157). The feather detail—never easy to capture on a white bird—is superb, but it is the symmetry that makes it so special. Likewise, Derick Scott's Little Owls (plate 158) provide an unusual picture, with two adults together near their nest-hole, both carrying food for the young. The foresight and industry of successful bird-photographers are well illustrated by these two selections. Donald Smith had placed the Barn Owl's nest-box in the barn five years earlier; and Derick Scott chose what he considered to be the best of 15 Little Owl nest-sites to attempt his two-with-food picture.

Photographs of birds away from the nest often require special skills or patience. Frank V. Blackburn's subtly lit Blue Tit (plate 159) was the result of calling it down to a tape-recording, a technique which he often uses and which can do no harm outside the breeding season. J. Russell's two photographs (plates 160 & 161) were both obtained from a hide near which food was put out regularly for gamebirds: winter photography calls for hardiness and he had to arrive before dawn to avoid disturbing the birds which came to feed soon after sunrise. Simplicity of composition and the natural pose of the bird give his Reed Bunting a special appeal; his Grey Partridge imparts with clarity the feeling of a crisp December morning. The next two photographs are also from winter feeding sites. Michael C. Wilkes noticed many Fieldfares feeding on rotten fruit thrown out in an orchard; he put up a hide, and his unusual off-ground study of this rather infrequently photographed species (plate 162) was one result. Michael Wilkes is the only photographer new to this series this year, although his Nightingale *Luscinia megarhynchos* won him the 'Bird Photograph of the Year' award for 1976 (*Brit. Birds* 70: 133). Douglas N. Dalton took advantage of an invitation to use a friend's hide, erected on two logs over liquid mud in a reedbed, to obtain the unusual picture of two Water Rails (plate 163): regularly fed on maggots, they responded to a bang on the maggot tin as if it were a dinner gong.

From winter studies, we move to spring with the Grey Heron (plate 164). Not only has Keri Williams achieved a sharp portrait, but the feeling of height is given most effectively by the background: he set out to achieve this effect of a heron's-eye view when working on more traditional shots from a hide over 20 m up in the tree.

The next five photographs all evoke the atmosphere of high summer, none more so than Dr Kevin Carlson's Turtle Doves (plate 165) at their nest 1.5 m from the ground in brambles growing through a small hawthorn in his local copse.

The second of three photographers to have two studies included this time, Dennis Green also sets a record by being the first to achieve this in consecutive years (see his night-feeding Teal *Anas crecca* and incubating Merlin *Falco columbarius*, *Brit. Birds* 70: 382-383). His Curlew (plate 166) was a lucky shot: he went to remove his hide, thinking that all the young would have left the nest, but was surprised to find the female still sitting on an addled egg, with three chicks clambering all over her. She eventually abandoned the hopeless task in the evening, after Dennis Green had enjoyed a nine-hour session in the hide watching her. The shy Stock Dove



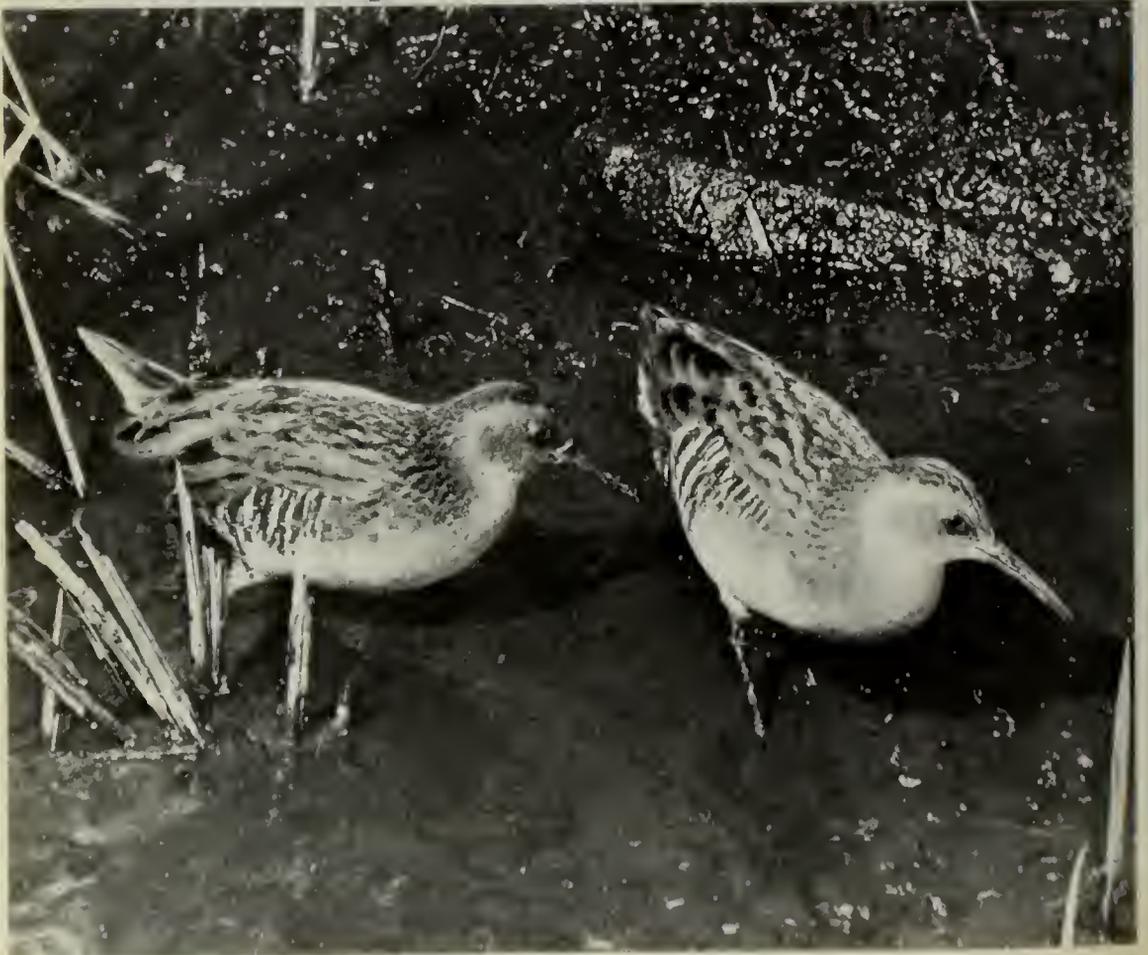
157 & 158. Above, Barn Owl *Tyto alba*, Strathclyde, July 1977 (*Donald A. Smith*); below, Little Owls *Athene noctua*, Nottinghamshire, July 1977 (*Derick Scott*)





159, 160 & 161. Above, Blue Tit *Parus caeruleus*, Surrey, March 1973 (F. V. Blackburn); top right, Reed Bunting *Emberiza schoeniclus*, Derbyshire, January 1977 (J. Russell); bottom right, Grey Partridge *Perdix perdix*, Derbyshire, December 1976 (J. Russell)







**162, 163 & 164.** Top left, Fieldfare *Turdus pilaris*, Worcestershire, February 1978 (*M. C. Wilkes*);  
bottom left, Water Rails *Rallus aquaticus*, Staffordshire, March 1976 (*D. N. Dalton*); above, Grey  
Heron *Ardea cinerea*, Powys, May 1976 (*Keri Williams*)





165, 166 & 167. Top left, Turtle Doves *Streptopelia turtur*, Norfolk, July 1977 (K. J. Carlson); bottom left, Curlews *Numenius arquata*, Clwyd, June 1973 (Dennis Green); above, Reed Warblers *Acrocephalus scirpaceus*, Powys, June 1976 (G. F. Dale)



168, 169 & 170. Above, Stock Doves *Columba oenas*, Lancashire, September 1974 (Dennis Green); top right, Goldcrests *Regulus regulus*, Surrey, June 1974 (F. V. Blackburn); bottom right, Dotterel *Charadrius morinellus*, Gwynedd, October 1977 (R. H. Fisher)



(plate 168), on the other hand, was no chance opportunity: a week of preparation at a ruined farm was necessary to install the hide, which he entered at 5 o'clock on many mornings before he successfully filmed the adult with its chick.

To our astonishment, the Reed Warbler has never before been included in this series, although this is the nineteenth annual selection: Graham F. Date has achieved not only a delightful study, but also one entirely without reed-movement (plate 167). Frank Blackburn's second photograph this year is a standard bird-at-nest picture of Goldcrests (plate 169), but nonetheless one of the nicest we have seen of this tiny bird.

After winter, spring and summer, our last selection spells autumn. The stalked Dotterel (plate 170) was a migrant photographed by R. H. Fisher on the Great Orme: a well-grasped opportunity.

The closing dates for entries to our two photographic competitions will be:

BIRD PHOTOGRAPH OF THE YEAR 31st January 1979 (see page 470)

BEST RECENT BLACK-AND-WHITE BIRD-PHOTOGRAPHS 31st March 1979

We must again stress that birds on Schedule 1 of the Protection of Birds Act 1967 may not be disturbed at or near the nest without special approval from the Nature Conservancy Council (A. J. Lennox, 19-20 Belgrave Square, London SW1X 8PY). In view of the comments by Arno Magnusson (*Brit. Birds* 71: 279), with which we agree, we shall not accept photographs of breeding divers *Gavia* for either of our competitions and we hope that bird-photographers will seriously consider the advisability of disturbing these shy birds at the nest.

MWR, IJF-L & JTRS

## Mystery photographs

**22** Hopefully, everyone will have identified this bird as a raptor, otherwise we have serious problems. In fact, it is a medium-sized species and, with its long, fairly broad wings, medium long tail with no broad bands, and generally dark plumage, most people should have homed in on either dark-phase Booted Eagle *Hieraetus pennatus*, Marsh Harrier *Circus aeruginosus* or Black Kite *Milvus migrans*, all three of which can, in certain situations, look surprisingly similar.

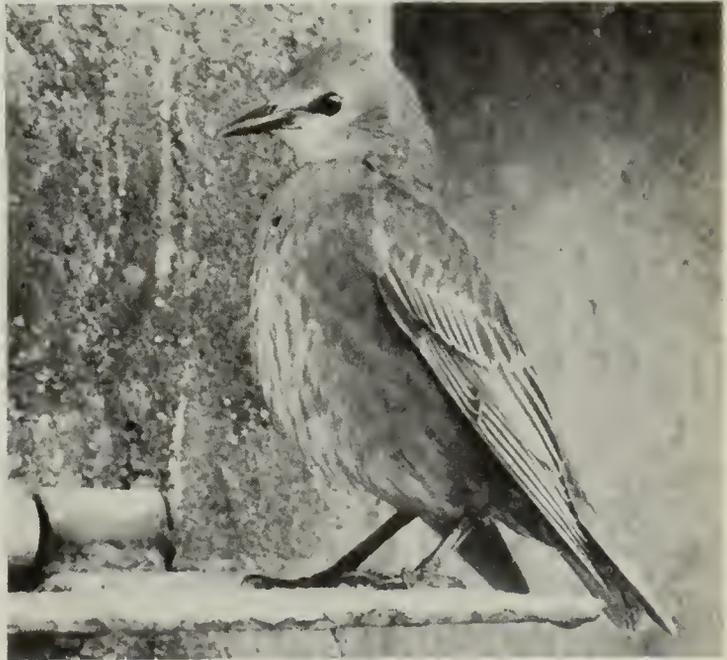
The faint barring on the rather square-cut tail, however, rules out dark-phase Booted Eagle, which has a rounded tail when fanned; furthermore, the underwing of Booted is dark, with pale wedges between primaries and secondaries, not the suffused pale patch around the carpal joint shown by this bird. The faintly barred tail also rules out Marsh Harrier (as would the flight: of the three species under discussion, the



harrier is the only one which glides or soars on wings raised above the level of the body in a shallow V). Thus, we are left with Black Kite; the one in plate 153 (repeated here) was photographed in France in May 1976 by I. R. Hornsby. In Europe, this essentially central and southern migratory species occasionally reaches Britain on spring or autumn passage, and care should be taken with any dark raptor watched coming off the sea or circling over an east coast marsh: as can be seen in this photograph, the tail when spread may show little or no fork. When closed, however, this should always be apparent.

The Black Kite is all dark, frequently with a paler head and, as can be seen here, a lighter area at the base of the primaries. On the closely related Red Kite *M. milvus*, these patches would be white and conspicuous, the head would be very pale, with the rest of the plumage russet in tone, especially the tail, which, of course, shows an obvious fork even when spread. Apart from its darkness, perhaps the most characteristic feature of a distant Black Kite is its flight: a series of flaps followed by a glide, on wings slightly arched and curved downwards and forwards, a character that accentuates the length of its tail and gives this species a sinister look.

R. F. PORTER



171. Mystery photograph  
23. What is this species?  
Answer next month

## Notes

**Swans flying at 8,000 metres** At about 15.00 GMT on 9th December 1967, M. J. Quale, a radar controller at a Civic Air Traffic Control Radar Unit in Northern Ireland, reported an echo in position  $56^{\circ} 30'N/07^{\circ} 00'W$  moving in a southerly direction at a ground speed of about 75 knots. He verified that there were no meteorological balloons in the area, so presumed that the echo came



from a flock of birds. A height finder gave a reading of 26,000-28,000 feet (about 8,000-8,500 m), which seemed very high for birds. MJQ asked the pilot of a civilian transport aircraft due to land at Prestwick Airport, Strathclyde, to make a slight course deviation while descending to pass near the suspected flock of birds; passing within 1.6 km, the pilot reported 'a flock of about 30 swans [*Cygnus*]', at just over 27,000 feet (8,200 m). MJQ had the flock in sight as a radar echo until it disappeared about 27 km from Lough Foyle, Co. Londonderry, probably having descended below the cover of the radar.

A height of 8,200 m seems to be the highest so far recorded for any species of bird over the UK. Captain K. D. G. Mitchell (*Brit. Birds* 48: 59-70) published some of his sightings of birds over Europe from the cockpits of piston-engined aircraft at much lower levels; with the modern jet aircraft and much-improved radar, more such reports are now possible and should be encouraged.

A. G. STEWART

31 St Andrew's Avenue, Prestwick KA9 2DY

### **Persecution of migrating raptors by Peregrines at Gibraltar**

Raptors migrating past Gibraltar are commonly attacked by locally-resident Peregrines *Falco peregrinus* of the small subspecies *brookei*, particularly during the northward passage, when the Peregrines are nesting. This causes a small but steady mortality among the migrants. Attacks are especially intense when directed against large raptors, the commonest of which is the Short-toed Eagle *Circaetus gallicus*. Usually, the repeated stoops by one or both of a Peregrine pair succeed in driving off the intruder.

In most cases of mobbing, physical contact does not occur; typically, an attacked raptor attempts to evade the stooping Peregrine by performing a half-roll or by suddenly changing its direction of flight. Nevertheless, physical contact is not infrequent and it must occasionally have the effect of stunning or injuring the migrant, since, although I have not seen a Peregrine actually strike down another raptor, I have seen marks on the head of a dead Short-toed Eagle which suggested that this is what had happened. Numerous eye-witnesses speak of raptors literally falling out of the sky after receiving blows from Peregrines. The more ferocious attacks occur over the east side of the Rock, where the eyrie of one Peregrine pair is situated. The coastal strip is narrow there, so that stunned raptors generally fall into the sea and drown, unless rescued (usually by inhabitants of nearby Catalan Bay village). The numbers affected vary from year to year: J. Sacz of the village, who has been responsible for numerous rescues, has informed me that about six are obtained alive from the sea annually. These usually recover quickly and are released in a safe locality. Presumably, an unknown but probably fairly small number does drown unnoticed. Short-toed Eagles account for most victims, but Booted Eagles *Hieraetus pennatus* are also commonly rescued, as well as occasional Black Kites *Milvus migrans*, Griffon Vultures *Cyps fulvus* and, once, a female Sparrowhawk *Accipiter nisus*. On the other hand, the locally-commonest migrant raptor, the Honey Buzzard *Pernis apivorus*, appears to pass unscathed.

Passing raptors are also mobbed by Herring Gulls *Larus argentatus*, which often force them to land but have never been seen to make contact. Mobbing by large numbers of gulls may, however, bewilder raptors, which are then less able to evade stoops from the Peregrines.

E. F. J. GARCIA  
50 Governor's Street, Gibraltar

**Peregrine retrieving prey from sea** On 7th May 1977, at a coastal Welsh eyrie, I noticed a female Peregrine *Falco peregrinus* flying low across the beach beneath the cliffs carrying prey, pursued by Herring Gulls *Larus argentatus* and Oystercatchers *Haematopus ostralegus*. It headed out over the sea, but, after about 10 m, when the gulls were closing on it, dropped the prey (possibly a pigeon *Columba*). Most of the gulls then flew down after the prey and landed on the water next to it. The falcon climbed quickly, still pursued by one or two gulls, but these dropped back as it increased its speed; it then began to circle about 13-16 m above the floating prey and surrounding gulls. The latter did not seem to touch the prey, although obviously interested in it. After a minute or two, the falcon dived down, flew low across the heads of the gulls, climbed and circled again. It repeated this several times, and, on the fourth dive, flew lower still and hit the prey with one talon; on the fifth attempt, it connected and raised the corpse a few centimetres above the water, before dropping it again; on the sixth, it lifted the prey out of the water and flew off towards the eyrie, again pursued by several of the gulls. Col. R. Meinertzhagen (1959, *Pirates and Predators*) recorded an account of a Peregrine catching and carrying off a Wigeon *Anas penelope* from an area of shallow water; and A. C. Bent (1938, *Life Histories of North American Birds of Prey*) recorded a Peregrine attempting unsuccessfully to pick up a dead Slavonian Grebe *Podiceps auritus* from the surface of the sea.

DAVID FISHER  
RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL

**Red-legged Partridge apparently listening to music** The note on Red-legged Partridges *Alectoris rufa* attracted by music (*Brit. Birds* 70; 260-261) prompts me to record the following. On 7th April 1977, at Leigh-on-Sea, Essex, I was cleaning my car with the car cassette playing when my attention was drawn to a Red-legged Partridge perched on the fence about 2 m away. My parents informed me that it had been there for at least 15 minutes. The partridge continued watching me until, after five minutes, I switched off the cassette and went to get my camera. When I returned ten minutes later, it had gone. My parents subsequently told me that it had left shortly after I switched off the cassette.

DAVID LADBROOK  
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**Waders following pigeon flocks** At around high tide on the morning of 8th September 1974, large numbers of homing pigeons *Columba livia* were crossing the Wash from Gibraltar Point, Lincolnshire. They flew in a southeasterly direction in flocks of about 40-50, a minute or two

apart. Noticeably, almost every flock was followed by from one to four waders, including most of the common larger species: Oystercatcher *Haematopus ostralegus*, Snipe *Gallinago gallinago*, Bar-tailed Godwit *Limosa lapponica*, Curlew *Numenius arquata* and Redshank *Tringa totanus*.

DAVID NORMAN

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It would be interesting to know whether the waders stayed with or detached themselves from the homing pigeon flocks when they penetrated inland. We welcome further observations. EDS

**Bimaculated Lark in Shetland** On 7th June 1976, the southwest to westerly winds that had prevailed on Fair Isle for several days were replaced by light southeasterlies. Clear skies and calm weather followed, producing what seemed to be excellent overshooting conditions, but, after a thorough scareh on 8th, it seemed that a single Spotted Flycatcher *Muscicapa striata* was the only new migrant.

At about 20.00 GMT, however, David Wynn and I were walking along the main road at Field, when a rather heavy-looking lark got up from a small square of newly sown land and flew low to land in short pasture on the other side of the road. It looked odd and, on raising my binoculars, my suspicions were confirmed: it was clearly a lark of the genus *Melanocorypha*, with heavy build and a prominent black patch on each side of the neck. Just as the lark rose again and returned to the original patch, W. E. Fletcher arrived and, in good light at a range of 15 m, we obtained the following details:

About size of Skylark *Alauda arvensis*, but more bulky. Generally pale sandy grey-brown. HEAD Crown brown, with darker streakings; nape paler, virtually unstreaked. Fairly dark line through eye, thicker anteriorly. Bright, pale, quite broad supereilium. Checks and ear-coverts pale brown with darker border to ear-coverts and pale off-white top border to checks. UNDERPARTS Upper throat unmarked white. Throat patches jet black, broader at shoulder, tapering gradually towards breast, nearly meeting in centre: each patch appeared slightly forked at shoulder when head held up, but at rest each patch appeared as fairly thin band. Pale brown wash with darker oval central area in upper middle belly. Dirty buff wash along flanks; vent and undertail-coverts off-white. No spots or streaks anywhere on underparts. UPPERPARTS Mantle sandy-brown, with rows of darker brown streaks; rump brown, with paler streaks. Lesser coverts darker brown, with pale

edges; median coverts with dark—almost black—centres and pale silvery-white edges. Greater coverts dark brown, with pale brown edgings, forming a lower wing-bar. Rest of flight feathers dark brown, with slight pale edges. White spot on tip of each tertial. Pale base to bastard wing. Tail appeared short, protruding only slightly beyond primaries at rest. Open tail showed almost-white spot at the tip of each feather, except outermost; tips appeared pale even in flight. Outer edges of outer tail feathers brown. In flight, no white trailing edge to secondaries. BARE PARTS Bill large and thick, yellow-pink with dark top to upper mandible. Legs pinky-orange, proportionally long for a lark. Eye dark. VOICE AND BEHAVIOUR In flight, Skylark-like calls heard, as well as lower-pitched bursts. Bird aggressive to two Skylarks alongside. Flight undulating. Pecked at ground, and often sat on it, but when standing, bold upright stance maintained.

The lark was under observation for about 100 minutes. From the above

features, W. E. Fletcher and I identified it as a Bimaculated Lark *M. bimaculata*: the first record for Fair Isle and Scotland. The two previous records in Britain and Ireland were both in the west country: on Lundy, Devon, during 7th to 11th May 1962 (*Brit. Birds* 58: 309-312) and on St Mary's, Isles of Scilly, during 24th to 27th October 1975 (*Brit. Birds* 70: 298-300).

S. M. WHITEHOUSE

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**Robin killing nestling Song Thrushes** In April 1977, in AB's garden at Higher Bebington, Merseyside, a pair of Song Thrushes *Turdus philomelos* nested in a hedge of hawthorn *Crataegus monogyna*, and a pair of Robins *Erithacus rubecula* built in a nestbox about 15 m away. The thrush laid its eggs about ten days before the Robin. Soon after the Robin had laid, there were a number of conflicts with the adult thrushes, usually close to the latter's nest. When the Robin's eggs hatched, on about 5th May, a Robin made a series of raids on the thrushes' nest and, despite the frantic activity of the adults, succeeded in killing three of the four nestlings, by severely pecking at their skulls. The surviving youngster escaped along the hedgerow, but its parents had to defend it vigorously against the Robin. Neither the adult nor fledgling Song Thrush was seen in the garden again. Although Robins are renowned for territorial conflict, we know of no incident similar to that described.

P. COFFEY and A. BOYD

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These events are in marked contrast to those recorded previously (*Brit. Birds* 61: 34), involving a Robin feeding nestling thrushes. EDs

**Chats' method of eating caterpillars** In late summer, in Cornwall and the Isles of Scilly, Stonechats *Saxicola torquata* and Whinchats *S. rubetra* take fairly large numbers of brown or blackish-brown hairy caterpillars, which they seek energetically along rough paths or in heather *Calluna*/*Erica* or bracken *Pteridium aquilinum*. They seldom pull their prey apart, but soften them up from end to end by running them through their bills, and also by beating them on the ground with forward or side-to-side head movements, before swallowing them whole. Individual Stonechats take five to ten minutes to deal with one of these caterpillars, depending on the size of the prey. The only other passerine which I have observed using this method with hairy caterpillars was a Wheatear *Oenanthe oenanthe*, on 24th October 1975 at Portland, Dorset. I have also seen Stonechats and, particularly, Whinchats deal in the same way, but more quickly, with fairly large green caterpillars taken from the ground, before swallowing them whole. Unfortunately, I have not identified either of the two species of caterpillars.

BERNARD KING

Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall

**Aberrant Wheatear in the Isles of Scilly** At about 15.00 GMT on 7th October 1976, at Lower Moors, St Mary's, Isles of Scilly, I found a wheatear *Oenanthe* on bare ground about 10 m ahead of me. It was clearly

unusual, having a conspicuous white rump and all-black tail. After 15 seconds, it flew over a hedge, giving an impression of a Bullfinch *Pyrrhula pyrrhula*, and disappeared. At 16.30, it was relocated by C. R. Ireland, and was watched subsequently until dusk by about 15 observers, mainly through telescopes at 60-80 m range, as it fed in a ploughed field. It had disappeared by the next day. The following further points were noted:

General impression of sandy-buff immature Wheatear *O. oenanthe*, with slightly buff-tipped, all-black tail. Folded wings slightly darker than mantle, with pale tips to secondaries and large pale buff bar across

greater coverts. Ear-coverts slightly darker than rest of head. Underparts pinkish-grey, except for prominent white undertail. Stance and feeding behaviour similar to Wheatear.

The bird was the subject of much discussion: was it an aberrant Wheatear, or a Desert Wheatear *O. deserti*, as suggested by the tail pattern? The literature consulted was sometimes contradictory or lacking in detail. In Morocco in April 1977, I saw over 100 Desert Wheatears, which struck me as compact and short-tailed, with a passing resemblance to Stonechats *Saxicola torquata* in their habits: quite different from the Scillies' bird. Mainly in view of this, I identified the latter as an aberrant Wheatear. D. J. Fisher (*in litt.*) agreed that Moroccan Desert Wheatears appear small and compact and S. C. Madgc (*in litt.*) described them as 'stubby', but some observers who have seen the species in the Middle East and Asia consider its shape to be more like that of a Wheatear: there may be significant differences in field appearances between western *O. d. homochroa/deserti* and eastern *O. d. atrogularis/oreophila*.

The confusion over the individual in Scilly is related as a cautionary tale, but also highlights the need for publication of detailed plumage information on wheatears, especially females, immatures and aberrants.

DAVE NORMAN

66 Avenue Road, Torquay, Devon

P. J. Grant has commented that the possibility that the bird's tail had become soiled in some way—obscuring its actual pattern—should not be overlooked. EDS

**Unusual Yellow-browed Warbler in Northumberland** At 17.00 GMT on 7th November 1970, J. A. Ginnever, T. Hallam and I trapped a Yellow-browed Warbler *Phylloscopus inornatus* in one of the Heligoland traps at Low Hauxley, Northumberland.

The bird was very dull compared with other examples of this species which we had seen and handled before: the upperparts, wing and tail feathers lacked the usual bright greenish tinge and had a greyish cast; and the supercilium, although characteristically prominent, was dull whitish rather than yellow. The main differences, however, lay in the wing markings: the distinct wing-bar formed by the pale tips to the greater coverts was, like the supercilium, buffish-white rather than yellow, while the usual second wing-bar formed by tips to the median coverts was barely visible; in addition, the pale tips and edgings to the tertials, usually so diagnostic, were reduced to narrow fringes, again barely

visible. In all other aspects it was undoubtedly a Yellow-browed Warbler: the wing formula was consistent with that species, and the measurements (wing 56 mm, bill 12 mm, tarsus 17 mm, tail 48 mm, weight 5.5 g at 17.20 hours) all fell within the theoretical ranges given by Williamson (1967).

The bird's appearance fitted the description given by Williamson for 'Hume's Yellow-browed Warbler' *P. i. humei*, but at the time we tended to dismiss this possibility. My interest was rekindled, however, by the description and drawing of Yellow-browed Warblers, probably of the subspecies *humei*, which Wallace (1973) and others found in Iran in April 1972, the plumage characters of which bore a striking resemblance to those of the Low Hauxley bird; and the appearance of Yellow-browed Warblers which I saw in eastern Rajasthan, India, in February and March 1978. I saw large numbers in several localities, and trapped one at Sawai Madhopur: all were identical to the Low Hauxley bird and all, according to the distributions given by Williamson, must have been *humei*.

The possibility of Hume's Yellow-browed Warbler occurring in Britain and Ireland does not appear to have been previously considered, although its range—which includes the western Pamirs, the Altai Mountains and the Sayan Mountains—is no more distant than that of Pallas's Warbler *P. proregulus*, which is now a relatively frequent vagrant to Britain and Ireland (103 records during 1958-76). Even though subspecific identification of a single trapped individual cannot be cast-iron, it is, I feel, important to place on record that Yellow-browed Warblers showing the characteristics of *humei* may occur in Britain.

E. R. MEEK

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**Vegetable food of Willow Tit** For the five years 1972-76, in West Sussex, we made observations during late summer and autumn on the vegetable foods taken by Willow Tits *Parus montanus* on a farm at West Chiltington and in a garden at Slinfold. The specificity shown by these tits for the seeds of a limited number of plants impressed us. On the farm, there was a clear preference for the ripe seeds of hedge woundwort *Stachys sylvatica*; seeds were taken less frequently from marsh woundwort *S. palustris*, and occasionally from red hemp-nettle *Galeopsis angustifolia*. In the garden, only the lengthy seed heads of lamb's-ears *S. lanata* were taken: if undisturbed, the species often fed on these continuously for periods of 15 minutes, and sometimes considerably longer. J. A. G. Barnes (1975, *The Titmice of the British Isles*) referred to the attractiveness of hemp-nettle to the Willow Tit. Our observations suggest that some other members of the family Labiatae may be equally attractive. Certainly, in areas where the Willow Tit occurs, the provision of lamb's-ears can almost be guaranteed to induce this species to feed regularly in gardens from late August onwards.

S. W. M. HUGHES and F. W. DOUGHARTY

6 West Way, Slinfold, Horsham, West Sussex

# Letters

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**Birds in Bulgaria** Since I have just returned to Britain after having lived in Bulgaria for three years, I may be able to supply information on the status of birds in that country to *British Birds* readers with serious enquiries; alternatively, I may be able to put them in touch with knowledgeable Bulgarian ornithologists.

J. LAWTON ROBERTS

*Kandy Lodge, High Street, Ruabon, Wrexham, Clwyd*

**Bitterns at Wicken Fen** J. C. U. Day and J. Wilson, in their valuable review of breeding Bitterns *Botaurus stellaris* (*Brit. Birds* 71: 285-300), were I fear guilty of one terminological inexactitude. They suggested (page 296) that the only British breeding site where the area of suitable habitat has declined is Wicken Fen, Cambridgeshire; some readers might take this to refer to the National Trust Nature Reserve of Wicken Fen, an impression which should be corrected.

The Wicken Fen reserve does include part of Burwell Fen, but not, unfortunately, that part on which the species bred in 1938 (see page 288). At the time of that record, the section of Burwell Fen actually within the reserve was probably of marginal suitability for Bitterns, being less extensively flooded, less dominated by common reed *Phragmites australis*, and with much more bush cover. Both Dr Eric Ennion's 'Adventurers Fen' and the National Trust's portion of Burwell Fen were drained for agricultural purposes between 1939 and 1942, despite the strong opposition of the committee responsible for the management of Wicken Fen; it was this drainage which led to the loss of habitat. Since derequisition in the early 1950s, the National Trust has pursued an active policy of habitat management in its section of Burwell Fen, with a view to recreating some of the lost fenland communities. To this end, an artificial mere of approximately 4 ha, with extensive fringing reed-bed, has been constructed, and a large reed-bed of about 20 ha developed; the areas occupied by these features are almost certainly more suitable as Bittern habitat now than they were before 1940. Rather than loss of habitat, therefore, there has been at Wicken Fen (*sensu stricta*) an increase. This increase has not, unfortunately, resulted in the Bittern returning as a breeding species, but there has been an increase in the number of winter records.

H. J. HARVEY

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**Field identification of Gull-billed Terns** The identification of Gull-billed Terns *Gelochelidon nilotica* has been a perennial problem facing ornithologists unfamiliar with the species in this country. Wallace (1970) showed that 25-30% of records in Britain during 1965-67 were rejected, and we have calculated that this rate increased to 36.7% during 1968-76. They are considered difficult because of confusion with Sandwich Terns *Sterna sandwicensis*, especially by observers unfamiliar with Gull-billed (Sharrock 1972). A review of the identification criteria seems necessary.



Gull-billed Terns *Gelochelidon nilotica*, Camargue, France, July 1976: juvenile (left) and adult (right) (K. E. Vinicombe)

Standard identification literature highlights the various differences from the similar-sized Sandwich—particularly heavier body, broader wings, shorter tail and grey rump and tail of summer adults—but most books tend to stress the thick black bill as the main difference. We believe that this misdirects observers, since the bill is not always easy to see at any distance. We have found the following features to be of much greater use in initial identification: (1) heavier body; (2) long, broad and less pointed wings; and (3) possibly shorter tail. These create an impression strongly reminiscent of a small or medium sized gull, such as Black-headed *Larus ridibundus*, an effect heightened by noticeably slower, gull-like wing beats. This appearance has on occasion enabled us to identify Gull-billed Terns at long range, even with the naked eye. These characters have of course been mentioned before, for example by Hollom (1962) and Heinzel *et al.* (1972), but they have not been given the emphasis which they deserve. The grey rump and tail are also good features of summer Gull-billed, as is the greyer, less 'white' appearance of the upperparts. We have also gained the impression that Gull-billed Terns tend to have a very distinct, often prominent, dark trailing edge to the primaries, particularly on the underwing, obvious at considerable distances. Sandwich Terns which we have watched in April and May have had a large dark grey 'wedge' on the outer upper primaries and a fairly inconspicuous grey border to the under primaries (see *Brit. Birds* 68: plates 16-22). This, however, is not a consistent feature, since we have also seen Gull-billed with very striking dark blackish 'wedges' on the upper primaries in August and, conversely, there is a photograph in Gooders (1969) which shows a winter-plumaged adult virtually lacking any dark on the upperwing. This feature obviously depends on the state of moult, wear and time of year, and unfortunately can be taken only as a guide.

Juveniles lack the grey rump and tail, and, like winter adults, have the distinctive black wedge-shaped head patch strongly reminiscent of most first-year Mediterranean Gulls *L. melanocephalus*. Juveniles also show a

conspicuous dark border to the under primaries (see *Brit. Birds* 66: plate 55.)

Calls of adults are distinctive: a deep, slightly liquid 'ger-erk' or 'ger-vik'; but we have heard begging juveniles give a piping, high, but soft 'pee-eep' or faster 'pe-pe-eep', which is less distinctive and potentially confusing.

Differing habitat preferences may also be a guide, but one should beware particularly of Sandwich Terns in unfamiliar habitats, such as freshwater marshes, lakes and reservoirs.

The above notes are somewhat tentative, but we hope that they may stimulate discussion. Meanwhile, we urge observers of possible Gull-billed Terns to concentrate on the general appearance rather than on the finer aspects of the bill and plumage often stressed in books.

A. H. DAVIS and K. E. VINICOMBE  
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P. J. Grant has commented that, 'The main pitfall which fails so many records is the failure to eliminate juvenile Sandwich Terns, which look, fly and call quite differently from adults, and may have shorter bills.' We hope that observers will respond to Messrs Davis & Vinicombe's penultimate sentence and send their comments to us, since we plan to publish a short paper on Gull-billed Tern identification within one or two years. Photographs, particularly flight shots, will also be welcome. EDs.

**Upperwing pattern of adult Gull-billed and Sandwich Terns** A paper by R. A. Hume and me (*Brit. Birds* 67: 133-136) drew attention to the different upperwing patterns of adult Common *Sterna hirundo* and Arctic Terns *S. paradisaea*. The Common Tern has dark outer primaries, which contrast with the paler inner ones, and in the field appear as a dark wedge extending forward from the rear edge of the outer wing; the Arctic Tern has a uniform upperwing, lacking the dark wedge.

I have noticed a similar difference between adult Sandwich *S. sandvicensis* and Gull-billed Terns *Gelochelidon nilotica*, which is not described in the literature. The Sandwich Tern has three to six outer primaries older—and thus darker—than the rest, forming a clear-cut dark leading edge to the outer wing; this contrast becomes more obvious in summer, as wear increasingly darkens the outer primaries. The Gull-billed Tern has a more uniform upperwing (without sharp contrast between the outer and inner primaries), pale grey in spring, but gradually darkening through wear.

The dark triangle is invariably obvious on adult Sandwich Terns, even at long range when bill shape and other differences may be difficult to

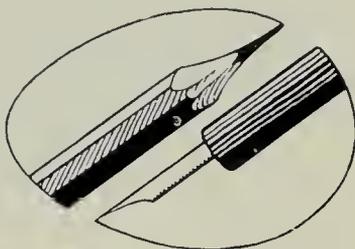
determine, thus providing a useful further distinction from Gull-billed. This difference is valid only for adults outside their southern wintering areas: juvenile and first-winter Sandwich Terns (and Gull-billed) lack the clear-cut dark leading edge.

P. J. GRANT

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We draw readers' attention to the editorial note below the previous letter. We welcome further opinions. EDS

## Bird Illustrator of the Year



We announce the first annual competition for the title 'Bird Illustrator of the Year'. Amateur and professional artists are invited to submit four line-drawings suitable for reproduction in *British Birds* (pen-and-ink or scraper-board, but not pencil or wash). When reduced for publication, the sizes will be (width  $\times$  depth in cm) 12.2  $\times$  13.7, 10.9  $\times$  4.6 and 5.3  $\times$  4.0; but drawings should be 'half-up' or double these reproduction dimensions: each set of four drawings should include at least two of the three sizes. Subjects should be of birds which have been recorded in the west Palearctic (Europe, North Africa and the Middle East).

The four judges of the competition will include three members of the Society of Wildlife Artists, Dr Eric Ennion, Robert Gillmor and D. I. M. Wallace, together with the managing editor of *British Birds*, Dr J. T. R. Sharrock.

The winner will receive £75 and an inscribed salver, and the two runners-up will receive £40 and £25. All three artists will also be invited to attend the award presentation at a press reception in London, where a selection of the drawings will be displayed.

Entries will remain the copyright of the artists, but are accepted on the understanding that they may be reproduced free in or on the cover of *British Birds*. If accompanied by a suitable stamped and addressed envelope, all drawings will be returned to the artists, but any selected for possible use in *British Birds* may be retained for up to 12 months after the award presentation.

Each drawing must be marked clearly on the back with the artist's name and address, the identity of the species and any other relevant information about the illustration. The closing date will be 31st May 1979; the set of four drawings should be sent to 'Bird Illustrator of the Year', c/o Dr J. T. R. Sharrock, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

# Bird Photograph of the Year

Past winners of this competition have been Michael C. Wilkes (1976) and Peter Lowes (1977). Their prizes (cheques for £100 and engraved salvers) were presented at press receptions in London by Sir Peter Scott and Mrs Joyce Grenfell. The 1978 award will be marked by a similar ceremony, with the presentation made by a well-known personality.

The closing date for submission of entries for the third of these annual awards is 31st January 1979. For this 1978 competition, only colour transparencies are eligible. Up to three transparencies, each taken during 1978, may be submitted by each photographer. They will be judged on interest and originality, as well as technical excellence. Preference will be given to photographs taken in Britain or Ireland, but those of species on the British and Irish list taken elsewhere are also eligible. A brief account (not more than 200 words) should be enclosed with each, giving the circumstances in which obtained, the method used, technical details (focal length of lens and make of camera and film), locality, date and photographer's name and address. Transparencies will be returned only if accompanied by a suitable stamped and addressed envelope.

Transparencies should be clearly marked 'Bird Photograph of the Year' and sent to the editorial office at Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

## News and comment

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*Peter Conder and Mike Everett*

**California Condors** Anyone interested in vanishing species should read Faith McNulty's two-part feature 'Last Days of the Condor?' in the March and May 1978 issues of *Audubon*. Apart from telling the complicated and ultimately sad story of attempts to save the California Condor *Gymnogyps californianus* during the last 40 years, the author estimates the remnant population at about 40 birds and makes it quite clear that breeding success has been so poor in recent years that extinction must now be regarded as imminent. Almost certainly, a last-ditch effort to

save the species will be made by captive-breeding and release techniques.

### **The new Cape Clear Bird Observatory**

The renovation of the Harbour House headquarters of the observatory on Cape Clear Island, Co. Cork, has been completed after six weeks of intensive work as part of an AnCO (the Irish industrial training authority) Community Youth Project Scheme. On 8th July 1978, the observatory was officially reopened by Eamon de Buitlear. Representatives of the Press, AnCO, the Forest & Wildlife Ser-



172. Trawkieran, the north harbour of Cape Clear Island, Co. Cork, with the newly decorated and renovated bird observatory on far side, July 1978 (R. T. Mills)

vice, the Irish Wildbird Conservancy and the CCBO Council were present. After the tape-cutting ceremony, wine was served and there was dancing to Eamon de Buitlear's mouth organ.

**Penalties for illegal possession of Peregrines** How some falconers manage to keep large numbers of falcons at their mews, or whatever they are called, without apparently applying for licences to take wild birds or to import them has for long been a bit of a mystery to those concerned with the status and welfare of falcons. On 20th July 1978, John Greaves of Rothes, Managing Director of a company contracted by the Ministry of Defence to use trained falcons to keep Lossiemouth runways clear of gulls *Larus* and other seabirds, was fined £75 at Elgin Sheriff's Court when he admitted being in possession of two wild Peregrines *Falco peregrinus*. Alan Cass was also fined in the same court for being in possession of two Buzzards *Buteo buteo* which had been taken from the wild.

It would be interesting to know what the attitude of the Ministry of Defence is towards a company contracted to clear birds from their airfields when it is shown that some of the falcons used were held illegally. Perhaps they should ask the Department of the Environment, which issues all the licences for falconry and

importation of birds, to run a licence check for the other birds held by members of this and any other company holding similar contracts at British or American airfields.

**Prison for shooting at Whooping Cranes** A New Mexico man, convicted of trying to kill two Whooping Cranes *Grus americana* near a Federal Refuge last autumn, has been sentenced to serve 30 days of a six-month jail sentence and has been prohibited from hunting or carrying a firearm for three years. The violation occurred near a refuge in New Mexico's central Rio Grande Valley. These cranes are a part of an experimental flock that the US Fish and Wildlife Service and the Canadian Wildlife Service are trying to establish, in the hope that a second wild flock, separate from the Texas one, will increase the Whooping Crane's chance of survival. Last winter, there were seven Whooping Cranes in the experimental New Mexico flock and 70 in the original flock that winters on the Gulf of Texas.

**Manx Shearwaters nesting off Newfoundland** Until quite recently, Leach's Petrel *Oceanodroma leucorhoa* was the only tubenose known to breed off the east coast of North America, although there are vast colonies of Fulmars *Fulmarus glacialis* in the Arctic. Then, in 1973, a colony of Fulmars

was found at Witless Bay, Newfoundland, and a Manx Shearwater *Puffinus puffinus* bred on Penikese Island, Massachusetts. While the Fulmars have apparently returned and have also been seen off Labrador, no more breeding Manx Shearwaters were reported until 1977, although their regular occurrence at sea has suggested that they are becoming established in the northwest Atlantic. In the report on the nesting season of 1977, it is now stated (*American Birds* 31: 1110) that Jon Lien found a number of burrows and breeding pairs on an island off Newfoundland, and thought that there might be more on other islands in the area. This was the first year that they had bred at this locality. It seems increasingly clear that the Manx Shearwater has now joined the seabirds such as the Fulmar and larger shearwaters which are profiting by feeding behind fishing boats and is also beginning to increase in numbers and extend its range. It may be noted that the first definite record of the Storm Petrel *Hydrobates pelagicus* in the western North Atlantic also occurred at Sable Island, off Nova Scotia, in 1970. It seems at least as likely to breed along the northeast coast of North America as the

larger European petrels, although it is much harder to find. (Contributed by W. R. P. Bourne)

**News from Bardsey** In July 1978, HRH Prince Charles visited Bardsey Island and the bird observatory to which last year he had presented a Prince of Wales Award for work undertaken by volunteers to maintain the farmhouse and buildings in good repair and to ensure access to the island. The Prince said, 'I am an incurable romantic at heart. I find this place fascinating. It is wonderful to meet people who live here in this sort of environment and see and hear all about the splendid work the Bardsey Island Trust is doing.' During the visit, Will Evans, the island's oldest inhabitant, presented the Prince with a freshly caught 5-lb lobster.

The Bardsey Appeal was launched this April in an effort to raise money to purchase and endow the island (*Brit. Birds* 71: 91). The results today are very encouraging, and by July the appeal had reached £57,000. For further information write to the Appeal Chairman, Mrs Susan Cowdy, The Lee, Great Missenden, Buckinghamshire.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*S. C. Madge and K. Allsopp*

**New reporting arrangements** The recent readership survey showed that 55% of subscribers thought that the length devoted to this feature was 'about right', but 33% of all readers (and 45% of new subscribers) wanted more space devoted to it. We shall, therefore, be slightly increasing the length of 'Recent reports' in those months when this is justified by the available information. We hope that individual observers, as well as bird observatory wardens and bird club recorders, will submit records, to reach us *by 10th of the succeeding month*. Rather than sending them via the editorial office, we request that from now on these monthly reports be addressed to us at **2 Springholme, Caudle Hill, Fairburn, Knottingley, West Yorkshire WF11 9JQ**. All letters will be acknowledged, unless you tell us not to do so (which helps, by saving us time and money).

**These are largely unchecked reports, not authenticated records**

This report covers July and the first part of August; except where otherwise stated, all dates refer to July. The summer weather

continued to be dull, cool and rather unpromising. July was dominated by a series of depressions coming in from the Atlantic,

broken only by a week of warm, anti-cyclonic weather from 10th.

### Seabirds

Intensive sea-watching off the northeast coast has produced some fascinating results in recent years (see *Brit. Birds* 69: 463-464) and the signs are that things are warming up for an interesting autumn again this year. Seven **Pomarine Skuas** *Stercorarius pomarinus* moved east off Dungeness (Kent) on 6th and singles were reported from Flamborough Head (Humberside) on 8th and nearby Filey Brigg (North Yorkshire) on 11th and 17th, with 2 on 26th; it was not until 1st August, however, that things really improved, after a fairly swift depression had crossed the country: Filey Brigg had 100 **Arctic S.** *parasiticus* and 50 **Great Skuas** *S. skua*, with 750 **Manx** *Puffinus puffinus* and 25 **Sooty Shearwaters** *P. griseus*; farther up the coast, off Teesside (Cleveland), 12 **Storm Petrels** *Hydrobates pelagicus* were reported on the same day. A few days earlier, on 29th, a **Cory's Shearwater** *Calonectris diomedea* had flown north at Flamborough Head and this same watch point produced two more strange shearwater sightings on 21st: a **Little P.** *assimilis* and a bird that showed all the characters of the eastern Mediterranean subspecies of **Manx**, known colloquially as the 'Levantine or Yelkouan Shearwater' *P. p. yelkouan*; a similar bird was reported from Portland Bill (Dorset) on 21st June. This race has not yet been accepted as occurring in British waters, perhaps due to confusion with the *mauretanicus* race of Manx (see *Brit. Birds* 47: 292-294 and 50: 201); but, as it occurs in the Strait of Gibraltar outside the breeding season, where it mixes with *P. p. mauretanicus*, its occurrence is fairly likely. A rather remarkable passage of dark-morph **Fulmars** *Fulmarus glacialis* took place at Flamborough Head on 16th, when 13 moved north and odd ones were noted elsewhere off the northeast coast at about the same time. A total of 35 **Black Terns** *Chlidonias niger* moved west at Dungeness on 30th, and in early August single **White-winged Black Terns** *C. leucopterus* appeared at Tophill Low (Humberside), Abberton (Essex) and Eye Brook (Leicestershire) Reservoirs. The only other odd tern reported to us was a **Gull-billed** *Gelochelidon nilotica* at Whitburn (Tyne & Wear) on

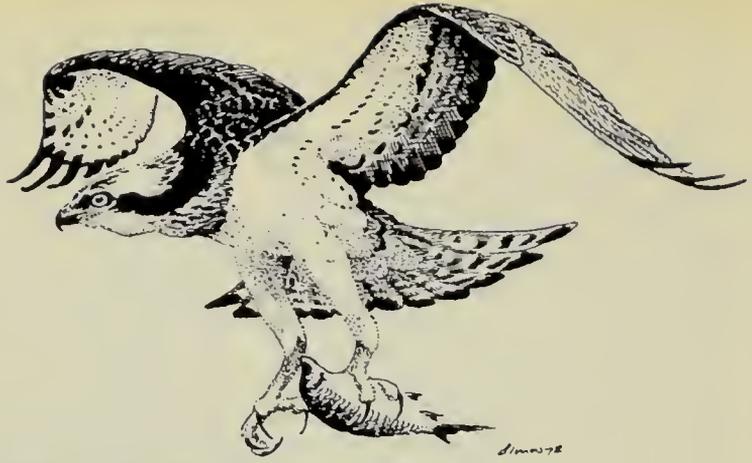
6th, and odd gulls included single **Mediterranean** *Larus melanocephalus* at Dungeness on 14th-15th and Flamborough Head on 18th, and a first-summer **Sabine's Gull** *L. sabini* at the latter spot on 28th.

### Hérons and allies

July is not the best month for rare herons to turn up in Britain, but wandering **Spoonbills** *Platalea leucorodia* regularly appear at this time of year in eastern England. Cley (Norfolk) had five or six early in the month, and on 6th August a **Little Bittern** *Ixobrychus minutus* appeared there. A **Purple Heron** *Ardea purpurea* was seen at Stodmarsh (Kent) on 30th June and a **Night Heron** *Nycticorax nycticorax* was reported from near Sheffield (South Yorkshire) early in the month; six birds seen in flight at dusk at about the same time at Blackmoorfoot Reservoir (West Yorkshire) may also have been Night Herons. A **White Stork** *Ciconia ciconia* was found near

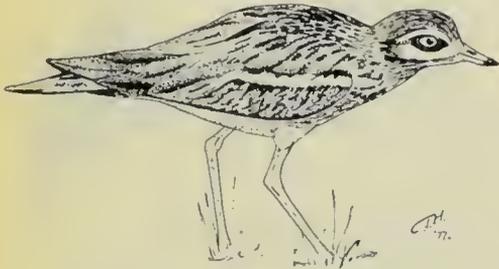


Reading (Berkshire) on 8th August. Cley then produced another exotic: a **Purple Gallinule** *Porphyrio porphyrio*, which must have escaped from somewhere as it was of one of the green-backed Oriental races. There were few waterfowl of note apart from the usual July inland reports of parties of **Common Scoters** *Melanitta nigra* in the north of England, a party of nine drake **Scaups** *Aythya marila* at Eecup Reservoir (West Yorkshire) on 2nd August and a drake **Surf Scoter** *M. perspicillata* in Spey Bay (Morayshire) on 20th.



## Waders

In most years now, a few Nearectic waders are discovered in midsummer in Britain, doubtless associated with the more intense coverage that the country is getting; it seems likely that these birds arrive in Europe during a previous autumn rather than being fresh arrivals from the New World. Only two, however, were reported to us this summer: a **Buff-breasted Sandpiper** *Tryngites subruficollis* at Rainham (Essex) on 28th June and a summer-plumaged **Baird's Sandpiper** *Calidris bairdii* at Rye (Sussex) from 21st-26th. Of equal interest were two reports of **Stone-curlews** *Burhinus oedinenus* from the north



of England, perhaps relating to one wandering individual: one gave a shock to a local birdwatcher doing census work on a disused railway track at Hawsker, near Whitby (North Yorkshire) on 20th, and another birdwatcher had a similar shock when he spotted one sitting among a pack of gulls on a stony spit at Blackmoorfoot Reservoir on 7th August. Another strange record came from Bodymoor Reservoir (Warwickshire), where a **Purple Sandpiper** *C. maritima* was discovered on 7th. During early August, there were reports of single **Temminck's Stints** *C. temminckii* at Hanningfield Reservoir (Essex) and at Cley, where up to ten **Curlew Sandpipers** *C. ferruginea* had been present in mid July.

## Landbirds

The spate of late spring **Ospreys** *Pandion haliaetus* continued, with singles in off the sea at Filey Brigg on 1st and at Flamborough on 8th and 11th. There were several reports earlier in the summer of **Red-footed Falcons** *Falco vespertinus* in the south and east of England and one turned up as far north as Balmedie (Aberdeenshire) on 20th-21st.

An **Alpine Swift** *Apus melba* at Flamborough on 1st was the only one of the summer and the start of the return passage was echoed at Dungeness by a heavier passage than usual of **Cuckoos** *Cuculus canorus*, which reached a peak of 30 on 18th. Also at Dungeness, there was a **Golden Oriole** *Oriolus oriolus* on 14th-15th. Migrant passerines of other than British origin made an appearance on the east coast at the end of the month, with the first **Pied Flycatchers** *Ficedula hypoleuca* on the north Norfolk coast on 31st. During the first week of August, we also heard of a **Barred Warbler** *Sylvia nisoria* on the Aberdeenshire coast and a **Greenish Warbler** *Phylloscopus trochiloides* on Fair Isle (Shetland) on 4th August.

## Latest news

Big mid-September news: **Leach's Petrels** *Oceanodroma leucorhoa* and **Little Stints** *C. minuta*. Rarities, however, probably at lowest ebb since 1963: nothing on Fair Isle, except one **Short-toed Lark** *Calandrella brachydactyla*. **Spotted Sandpipers** *Actitis macularia* St Mary's and Treco (Scilly), **Long-tailed Skua** *S. longicaudus* Fetlar (Shetland), **Pectoral Sandpipers** *Calidris melanotos* Lodmoor (Dorset) and Bedford Sewage-farm, **Lanceolated Warbler** *Locustella lanceolata* Out Skerries (Shetland).

Jon Fjeldså

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the Young of European  
Precocial Birds



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# British Birds

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## White-tailed Eagles

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# British Birds



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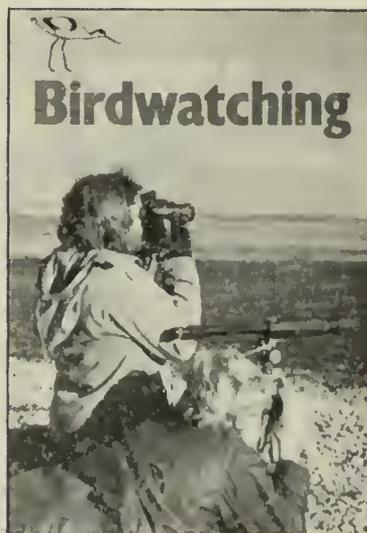
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# British Birds

VOLUME 71 NUMBER 11 NOVEMBER 1978

## White-tailed Eagles in Britain and Norway

*J. A. Love, M. E. Ball and I. Newton*

**Exterminated here by man, the second attempt to reintroduce this magnificent raptor to Scotland is now in full swing**



**T**he White-tailed Eagle *Haliaeetus albicilla* is distributed widely throughout the Palearctic region. While little is known in the West about its status in the USSR, it is much threatened in western Europe. Loss of habitat and persecution by man have severely reduced its numbers in many countries and eliminated it altogether from others. A more recent and insidious threat is from chemical pollutants, such as certain mercurial compounds, DDT and PCBs, which have seriously reduced the breeding success of White-tailed Eagles, especially in countries bordering the Baltic Sea.

Only around the unpolluted waters of northwest Norway, where it enjoys relative freedom from disturbance, does a healthy population remain, which Dr Johan Willgohs (*in litt.*) estimates at nearly 500 pairs. Sea cliffs and crags are favoured nest sites; tall trees are much less commonly used. On the low offshore skerries of northern Norway, nests may be placed on the ground, where they are particularly vulnerable to human interference. The eyrie is a large bulky structure of twigs and sticks (plates 176 & 177). Two large white eggs are normally laid and, more often than in the case of the Golden Eagle *Aquila chrysaetos*, both chicks live together in the nest (plate 176). The young are fed on seabirds, such as auks (Alcidae), Shags *Phalacrocorax aristotelis*, eiders *Somateria* and gulls *Larus*, some small mammals and fish, which the parent birds catch or find washed up dead; some adults steal fish from otters *Lutra lutra* and



**173.** White-tailed Eagle *Haliaeetus albicilla*, Norway, June 1977 (P. van Groenendael & W. Suetens)

gulls, while others follow fishing boats (Willgohs 1961, Waterston 1964).

In Britain and Ireland, the more inaccessible cliffs of the north and west formed the last refuge of White-tailed Eagles, following persecution at the hands of shepherds, gamekeepers and, finally, egg-collectors. It is doubtful whether this large eagle posed any threat to lambs, most of which would have been taken as carrion. On Skye, as many as 40 White-tailed Eagles could be seen gathered at a carcass, and carrion-feeding would have made the species particularly vulnerable to poisoning. Only a few breeding pairs survived into the 20th century and the very last nesting attempt is said to have taken place on Skye in 1916 (Baxter & Rintoul 1953). The Golden Eagle survived longer in its remote mountainous retreats and, gaining respites during the two world wars, spread out to occupy many old White-tailed Eagle haunts on the coast.

Unlike the migratory Osprey *Pandion haliaetus*, few White-tailed Eagles have been seen in Britain since their extinction here; so, in 1968, Dr George Waterston arranged the release of four Norwegian eaglets on Fair Isle, Shetland. One of the two males is known to have died when its plumage became matted in oil spat out by the young Fulmars *Fulmarus glacialis* upon which it tried to feed, while one by one the others left the island during the next 14 months (Dennis 1968, 1969). Perhaps one or two may yet survive, accounting for occasional claimed sightings in recent years in northern Scotland.

To have some chance of success, reintroduction attempts should ideally be repeated over several years and involve as many individuals as possible, especially since the White-tailed Eagle takes five years or more to reach sexual maturity. In 1975, the Nature Conservancy Council began

**174 & 175.** White-tailed Eagle *Haliaeetus albicilla*, Norway, May/June 1977 (P. van Groenendael & W. Suetens)





178. Captive  
White - tailed  
Eagle *Haliaeetus*  
*albicilla*, Rhum,  
June 1977  
(J. A. Love)



a new attempt on the island of Rhum in the west of Scotland. With an area of 10,690 ha, Rhum is nearly 14 times larger than Fair Isle; it is also less isolated and is in the heart of the former range of the species, the last nest occurring there as recently as 1907. A variety of fish and seabird prey is available, as well as carrion of red deer *Cervus elaphus* and goats *Capra*. There are fewer Fulmars than on Fair Isle, and Rhum has a famous colony of over 100,000 pairs of Manx Shearwaters *Puffinus puffinus*, which are preyed upon to a small extent by the four resident pairs of Golden Eagles.

In the period 1975-77, 13 young White-tailed Eagles were released on the island, using the falconers' technique of hacking. The eaglets (eight females and five males) had been obtained as large, feathered nestlings, and kept in individual cages within sight of one another; they were released one by one over the succeeding months. Once free, they continued to utilise food dumps provided for them until they became self-sufficient; some were seen to catch live prey (gulls and adult Fulmars)

176 & 177. White-tailed Eagle *Haliaeetus albicilla* at bulky nest, Norway, June 1977  
(P. van Groenendael & W. Suetens)



179 & 180. Captive White-tailed Eagle *Haliaeetus albicilla*, Rhum, September 1976 (*J. A. Love*)

within a month of release. Two females have been recovered dead, but reports indicate that several of the others are still around the island or its vicinity. A two-year-old male hunts regularly at a locality where a female now in her third year was seen during the summer of 1977 and where White-tailed Eagles once nested last century (Love & Ball in prep.).

Eight more—four of each sex—were obtained from Norway in June 1978 for release during the autumn. Two pairs from 1976/77, retained on tethers as an option for breeding in captivity, may be used to try to produce a continuous supply of other young for release: captive White-tailed Eagles have already bred successfully in West Germany (Fentzloff 1977).

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## Report on rare birds in Great Britain in 1977

*Michael J. Rogers and the Rarities Committee*

**T**his is the twentieth annual report of the Rarities Committee. Details of the Committee membership and other matters relating to its work during the year have already been published (*Brit. Birds* 71: 423-424).

Despite occasional pruning of our species list, the annual volume of records continues to grow. In the committee's first ten years, the annual average of accepted records was about 300, and this figure rose in the last nine years to about 600. The total of accepted records for 1977 is an unprecedented 935, which is 86% of those submitted. The number of rarities reaching Britain fluctuates from year to year, mainly through the varying conduciveness to vagrancy of different weather patterns, but this general increase clearly reflects greater observer cover and improving identification skills.

With the high volume of records for 1977, and a change of honorary secretary at a crucial time, the committee was fully stretched. The late publication of this report and our less efficient than usual liaison with county and regional recorders were undesirable products of this situation, for which we apologise. MJR has taken over the secretaryship with enthusiasm, and entirely due to his hard work the situation is now back to normal, but we are again looking at ways to reduce the workload. As a start, and to save about 500 postage costs a year, it has been decided to discontinue acknowledging receipt of record submissions: correspondents who require acknowledgment should enclose a stamped, addressed post-card for the honorary secretary to sign and return. We regret this action, but hope that correspondents will understand the reasons for it.

For the first time in this report, amendments and additional records for previous years have been incorporated in the main systematic list, preceded by the relevant year in bold type: this is in place of the separate appendices used previously. The new format saves space and makes for more convenient reference. An index at the end of the systematic list cross-references all these amendments and additional records to help readers who wish to update past reports.

D. I. M. Wallace has again written the year summary and species comments: we are most grateful to him for this and his continued keen interest in Committee matters. As usual, the species comments include the accepted Irish records, which are adjudicated by the Irish Records Panel and published annually in the *Irish Bird Report*. We are grateful for permission to repeat them here, and thank J. Fitzharris, the Panel's honorary secretary, for supplying the records in advance of publication.

The idea of including running totals of records for each species has proved popular and useful, and we include them for the second year. They appear in brackets after the species name, the three figures referring respectively to (1) the total to the end of 1957, (2) the total for the period since the formation of the Rarities Committee in 1958, but excluding (3) the total for the current year. We again thank D. J. Britton for compiling these data. A detailed breakdown of the figures for previous years is held by the honorary secretary.

During 1977, there were claimed records of the following species occurring for the first time in Britain and Ireland: Black Vulture *Aegypius monachus*, Eleonora's Falcon *Falco eleonorae*, Rüppell's Warbler *Sylvia rueppelli*, Cape May Warbler *Dendroica tigrina*, and White-crowned Sparrow *Zonotrichia leucophrys*. As usual, our publication of these records awaits their endorsement by the BOU Records Committee.

The increased response to requests for rarity photographs for possible inclusion in the report is most welcome, and we thank the photographers who have submitted them. The selection used this year is larger than before, and we should like to publish even more. Black-and-white prints (or good quality colour transparencies for conversion to black-and-white) are welcomed, and should be sent to MJR.

John M. O'Sullivan was the committee's honorary secretary until the end of March 1978, and we thank him for his work in the preparatory

stages of this report. We are grateful to M. D. England and T. P. Inskipp for expert advice on escapes and introductions; M. A. Ogilvie for comments on wildfowl escape and identification problems; Derek Goodwin, who has helped with research on museum skins; and A. T. Macmillan for a detailed cross-check between the data in our reports and those in *Scottish Birds*. As always, the completeness and accuracy of this report has also been due to the valued co-operation of county and regional recording bodies, the bird observatories, and many other people too numerous to acknowledge individually.

All records should be addressed to the honorary secretary, Michael J. Rogers, 195 Vicarage Road, Sunbury-on-Thames, Middlesex TW16 7TP. A copy of the list of species considered by the committee (67: 347-348) and copies of the 'Unusual record' form are obtainable free of charge from the same address: the latter should be used, or its format followed, when submitting reports, as it makes record assessment easier. PJG

### Summary of the year

The year began briskly. January produced a flurry of Nearctic ducks, fresh proof of regular wintering by King Eiders and several interesting single occurrences, notably of a White-billed Diver (as far south as Co. Sligo and only the second for Ireland), a Pied-billed Grebe (to stay in Grampian until late March), a Glossy Ibis, a Crane, an American Robin (in Co. Cork) and yet another wintering Little Bunting (this time in Ross & Cromarty).



February, however, was quiet, with only one major event. This was the discovery of at least five Ring-necked Ducks, to be followed by a procession of others through the next three months (and again from November).



March was a busy month, opening amazingly with two Richard's Pipits (in Cheshire) and soon producing the forerunners of marked spring influxes of White Storks and Cranes. There was another flurry of rare ducks and an early Lesser Yellowlegs. The first rare gull of the year, a Ring-billed, appeared, as did the first of 14 spring Serins. Towards the end



of the month, there was another large pipit, but it was a Tawny. In April, a second Pied-billed Grebe popped up, three early Cory's Shearwaters appeared and, with more White Storks, came the first of the annually expected southern and eastern herons. These

included a Great White Egret. No less than six Ring-necked Ducks were discovered. Other surprises included a Lesser Golden Plover and, overshooting from the south, two Whiskered Terns, a Scops Owl, a Black-eared Wheatear (on a deserted isle in Scilly), six Savi's Warblers and half-a-dozen Serins. Probably the most enjoyable bird of the month (and first half-year) was a Wallcreeper.

As always, May saw the incidence of rarities jump dramatically. Although tinged with the possibility of being an escape, a Great Bustard (cleaving the air across the Cotswold escarpment) was the large bird of the month and more storks, including at least two and perhaps four Black, and herons appeared. Black Kites and Red-footed Falcons came in: what better supporting cast to a Great Bustard? A party of five Surf Scoters was seen (close to Islay) and there were records of five Nearctic waders. Even more exciting, two American passerines appeared (in northern Scotland). These were a Yellow-rumped Warbler (as the charming Myrtle is now boringly renamed) and a Slate-coloured Junco. As usual, rare terns strayed west, but, although 12 more Savi's Warblers sang (from reed-beds and even cliff-top bushes), there were only two Alpine Swifts and only one Bee-cater. Fenno-Scandian night-migrants were also relatively scarce, although four Thrush Nightingales, nine Scarlet Rosefinches and single Little and Yellow-breasted Buntings did show. Red-throated Pipits also came on cue, as did one or two other southerners such as Subalpine Warblers. To rival the Great Bustard, came a flock of 24 beautiful Long-tailed Skuas (off a Hebridean island). The pattern of occurrences in June was largely an extension of that in May, with herons and particularly storks still widespread, more Red-footed Falcons and the last of the year's four Collared Pratincoles. Another spring Marsh Sandpiper was found and both Broad-billed and Terek Sandpipers kept their recent run of annual appearances going (though this year avoiding East Anglia). More southern vagrants came in, notably White-winged Black Terns, two Rollers, Great Reed Warblers, four shrikes and the last two of four spring Red-rumped Swallows. A Little Shearwater died in Cheshire and, clearly conscious of what is expected of its species, Britain's second Fan-tailed Warbler arrived and sang (in Dorset).

July, as usual, was not so dull. At least 14 species of rarity were discovered. These included King Eiders (including the veteran in Co. Donegal), the year's only Solitary Sandpiper, the first of two Franklin's Gulls (having trekked all the way from the Nearctic prairies), the first two of 28 Aquatic Warblers and three Woodchat Shrikes. Rather surprisingly, the Solitary Sandpiper and a Long-billed Dowitcher were the only American waders of midsummer. The recent trend towards marked summer vagrancy of such birds ceased; and there was only one Rose-coloured Starling too.



Drift migrants were soon visible in August and there was a widespread and splendid fall in the middle of the month. Red-backed Shrikes *Lanius collurio* and Icterine Warblers *Hippolais icterina* leapt in all directions

(see page 549) and observers following them found all sorts of rarities: a Little Crake (on Cape Clear Island), two Thrush Nightingales, the first of two Booted Warblers, no less than ten Greenish Warblers (increasingly obvious in August, especially on the 21st), six Woodchats, a Two-barred Crossbill and 18 Scarlet Rosefinches. All these contributed to a promising small-bird start to the autumn, but the occurrences of the large ones were less rich. No multitudes of seabirds came by, though once again a Little Shearwater got well up (or down) the North Sea and Long-tailed Skuas did their best to get noticed by all the people *now* looking for them. Even so, their numbers decreased to about 40% of the 1976 passage. For most of the month, rare waders were just so, but at the end the first members of another big transatlantic flight of Buff-breasted Sandpipers appeared. It was also a time for rare gulls, with Laughing, Bonaparte's and Ring-billed coming in from the west (while all four regular rare terns appeared from the opposite point of the compass). White Storks and southern herons were still evident. There had been enough to keep one going: this was the general verdict on August.



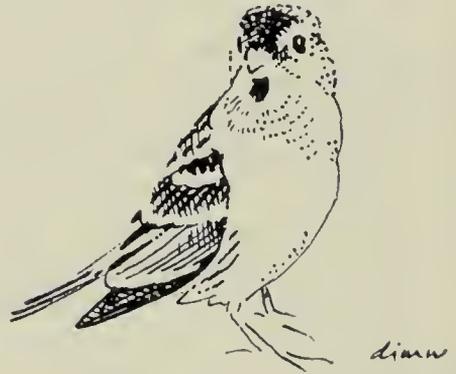
In September, however, the weather became unhelpful and no general falls occurred to match that of August. Soon, observers sensed that the Atlantic storm track was stuck in its old place and that, after all the glories of 1975 and 1976, things were going to be different. The arrival of over 40 Buff-breasted Sandpipers, four Long-billed Dowitchers, four Wilson's Phalaropes and other Nearctic waders spoke of the dominant westerlies. Reports of Siberian and Asiatic birds were few and far between. Even so, the month's crop included two adult Lesser Golden Plovers, lots of Richard's Pipits (out-numbering Tawny), a Pechora Pipit, a Siberian Stonechat (in Suffolk), a Lanceolated Warbler and a second Booted Warbler. From Europe, birds came more freely. Good numbers of Scarlet Rosefinches, Little and Yellow-breasted Buntings appeared, and an Olivaceous Warbler (in Co. Cork) helped to keep up hopes for October. The hopes were soon dashed, however, and the autumn continued relatively quietly. As in 1971, only on Fair Isle and in the Scilly archipelago did any rich mix of rarities appear. Elsewhere, it was all rather hard work. Rare seabirds showed nowhere; American waders petered out (except for six more Long-billed Dowitchers and three more Wilson's Phalaropes). While praying for better, observers





picked up more and more Richard's Pipits, but otherwise, apart from marked influxes of Short-toed Larks (to Scilly) and Red-rumped Swallows (to the East Coast), yet more Scarlet Rosefinches and Little Buntings, it was search and not find. Six Pallas's Warblers did get

through, and there was a second Siberian Stonechat, but there were no Dusky Warblers and only one Radde's. Rare small pipits were restricted to a single Olive-backed. Frustration reached a peak when a Great Spotted Cuckoo overflowed Cley (and passed away into the low cloud of the day). Even so, one small place did try to please. Bryher, the smallest inhabited isle in Scilly, had been patiently worked by one young observer (whose humility secures the absence of his name from this report) through the month. Suddenly, out popped an Arctic Redpoll and after it came squads of twitchers. They discovered in just seven days an amazingly diverse collection of vagrants. Where or when else in the whole world did the various avian hemispheres draw so close together as they did on Bryher in late October 1977? The redpoll fed near a Spanish Sparrow, and a Blackpoll Warbler was within a few hundred metres of an *Acrocephalus* which may yet prove to have been the little understood Blyth's Reed Warbler *A. dumetorum*. Even in a poor October, there are miracles!



November was a fuller month than usual, with another flurry of rare ducks, the year's only Gyrfalcon, more rare gulls, including two closedated Ross's, a Black-throated Thrush and the Somersct Wallcreeper (back home in its quarry). December, too, had its moments, with a late White Stork, the second of the year's two Sociable Plovers, wintering dowitchers, another Brünnich's Guillemot corpse, and the ultimate in stocking content, a Siberian Thrush on Christmas Day.

Inevitably, with the liberal ornithological feasts of 1975 and 1976 still fresh in memory, the sparser fare of 1977 will be rated poorly. As far as rarities are concerned, however, no year is boring. Negative information might irritate the collector, but not the scientist. The striking contrasts of presence one year and absence the next (in several genera and families) always deserve attention. Thus, while the southern herons broke no new ground, the increasingly wholesale appearances of both storks and Crane did. Buff-breasted Sandpipers flooded in, but the smaller peeps were scarce. Long-tailed Skuas refused to be rare, merely posing the question of how common they are. In total, the rare marsh terns were not scarce. Savi's Warbler reinforced itself and reached several new localities. Once

again, however, it is the dichotomy in the recurrence pattern of the small European and Asiatic vagrants that really holds the mind. Scarlet Rosefinches and, on their coat-tails, Little and Yellow-breasted Buntings piled in, but, of the many species whose ranges lie or are centred 5,000 km or so to the east, there were few indeed. Can it have been just the lack of tail winds?

DIMW

### Systematic list of accepted records

The principles and procedure followed in considering records were explained in the 1958 report (*Brit. Birds* 53: 155-158). The systematic list is set out in the same way as in the 1976 report (70: 405-453), apart from the change described in the fourth paragraph of the introduction to this report; the following points show the basis on which the information has been put together in the list.

(i) The details included for each record are (1) county; (2) locality; (3) number of birds if more than one, and age and sex if known (in the case of spring and summer records, however, the age is normally given only where the bird concerned was not in adult plumage); (4) if trapped or found dead, and where specimen is stored, if known; (5) date(s); and (6) observer(s) up to three in number, in alphabetical order. In accordance with our declared policy (see *Brit. Birds* 68: 1-4), the new county names have been used, and observers are asked to bear this in mind when submitting records.

(ii) In general, this report is confined to records which are regarded as certain, and 'probables' are not included. In the case of the very similar Long-billed *Limnodromus scolopaceus* and Short-billed Dowitchers *L. griseus*, however, we are continuing to

publish indeterminable records, and this also applies to observations of the two pratincoles *Glareola* and of such difficult groups as albatrosses *Diomedea* and frigatebirds *Fregata*.

(iii) The sequence of species, vernacular names and scientific nomenclature follow *The 'British Birds' List of Birds of the Western Palearctic* (1978). Any sight records of subspecies (including those of birds trapped and released) are normally referred to as 'showing the characters' of the race concerned.

(iv) The three numbers in brackets after each species name are explained in the sixth paragraph of the introduction to this report.

(v) The world breeding range is given in brackets at the beginning of each species comment.

#### **White-billed Diver** *Gavia adamsii* (18, 31, 5)

**Highland** Gairloch, Wester Ross, 31st May (J. Hornbuckle).

**Shetland** near Fetlar, 1st May (J. N. Dymond, R. J. Tulloch). Yell, 5th to 9th June (M. J. Cowlard, K. D. Edwards). Hascosay, 5th October (R. J. Tulloch).

**Grampian 1972** The individual at Buckie, Banff, was first seen on 5th March, not 14th March as previously stated (*Brit. Birds* 67: 342).

**Grampian 1975** Findhorn Bay, Moray, 14th December (D. Noble, I. S. Suttie).

(Arctic Russia, Siberia and Alaska) Also one off Rosses Point, Co. Sligo, on 28th January, constituting only the second record for Ireland. The deduction of J. T. R. Sharrock and E. M. Sharrock (1976, *Rare Birds in Britain and Ireland*) that the records of this diver stem from the presence of a small wintering population is further supported. Such is made most visible as the birds assume summer plumage and even paler bills in inshore Shetland waters!



181. Pied-billed Grebe *Podilymbus podiceps*, Grampian, March 1977 (J. R. East)

**Pied-billed Grebe** *Podilymbus podiceps* (0, 4, 2)

**Grampian** Loch of Strathbeg, 9th January to 27th March (J. Dunbar *et al.*) (plate 181).

**North Yorkshire** Gouthwaite Reservoir, 23rd April to 15th May (J. & Mrs A. Denison, J. R. Mather *et al.*).

(North America) Although of almost annual recurrence from 1963 to 1968, this bird has been seen only once in the last eight years. Extended stays are typical, but none before has coped with a winter in northern Scotland.

**Black-browed Albatross** *Diomedea melanophris* (2, 18, 0)

**Shetland** Adult again present at Hermaness, Unst, 23rd March to 20th September (I. Spence *et al.*).

(Southern oceans) None off Ireland in this year.

**Albatross** *Diomedea* (3, 33, 1)

**Norfolk** Cley, 19th October (M. King, C. Oldershaw).

(Southern oceans) Figures include Black-browed Albatrosses as well as those not specifically identified.

**Cory's Shearwater** *Calonectris diomedea* (a few, 1,633, 32)

**Cornwall** off Newlyn, 29th September (R. A. Chapman, P. A. Fraser, N. A. Preston).

**Dorset** Portland, 10th May (P. P. Jennings); 20th July (W. R. Brackenridge, B. C. Forrester).

**Humberside** Flamborough Head, 19th June (D. I. M. Wallace); 12th August (A. Grieve, S. Holliday *et al.*). Withernsea, 17th June (S. M. Lister). Hornsea, 16th August (D. P. Sharpe); another, 18th August (W. F. Curtis).

**Kent** Dungeness, two, 15th May (T. E. Bowley); two, 11th June (A. J. Greenland, M. J. Sinden).

**Kent/East Sussex** Rye Bay, 4th April (K. Redshaw, K. Thomas).

**Lothian** Barns Ness, two, 18th April (S. T. Buckland, I. H. Leach).

**Norfolk** Holme, 10th June (P. R. Clarke). Great Yarmouth, 23rd July (P. R. Allard).

**North Yorkshire** Filey Brigg, 7th August (M. Atkinson, A. Patterson).

**Dorset 1976** Portland, 18th June (R. Filby).

**Norfolk 1976** Cley, 13th September (G. Sellors).

(East Atlantic and Mediterranean) Also single birds off Cape Clear Island, Co. Cork, on 31st July and 4th August, with ten there on 11th August, and further solitary occurrences off Dungarvan Bay, Co. Waterford on 11th August and off Helvick Head, Co. Waterford on 12th August. Once again, the majority of British records come surprisingly from the North Sea, as does another late 1976 occurrence; the Dorset, Kent and East Sussex records hint strongly at passage through the English Channel.

**Little Shearwater** *Puffinus assimilis* (5, 40, 2)

**Cheshire** Rostherne Mere, sick individual, 29th June, caught 2nd July, died 3rd, identified as Madeiran race *P. a. baroti* (M. Calvert, R. Harrison, T. H. Wall).

**Humberside** Flamborough Head, 27th August (P. A. Lassey, Miss I. Smith).

(Atlantic south from Madeira and Caribbean, and southern oceans) Once again none was seen off Ireland. Since 1974, five out of seven British birds have been seen well away from the traditional 'tubenose southwest' (but it is very difficult to judge whether this is a real shift in occurrence pattern or the effect of increased seawatching from new stations).

**Little Bittern** *Ixobrychus minutus* (150, 104, 11)

**Devon** Slapton Ley, ♂, 14th May (P. R. Bregazzi).

**Dorset** Radipole Lake, ♂, 18th to 20th May (P. A. Coe, G. Walbridge *et al.*).

**East Sussex** Birling Gap, Beachy Head, adult, freshly dead, 30th April (A. Ciok, M. Mathews). Rye Harbour, immature, 19th to 27th August (C. H. Dean, P. J. Grant, T. & T. A. Wyatt *et al.*); two immatures, 23rd August (A. V. Moon, J. Willsher).

**Humberside** Hornsea Mere, ♂, 29th May to at least 11th June (G. R. Bennett, D. G. Hobson, S. L. James *et al.*). Barton-on-Humber Pits, ♂, 23rd June (G. P. Gatley).

**Mid Glamorgan** Kenfig, found dead, 4th October (S. J. Moon, A. Morgan).

**Suffolk** Minsmere, ♂, 22nd May (R. H. Lawrence); ♀, 26th May (A. Curran).

**West Glamorgan** Oxwich, 17th September (D. Elias).

(West Eurasia, Africa and Australia) The total was exceeded only in 1964 and in the exceptional influx in 1970.

**Night Heron** *Nycticorax nycticorax* (165, 81, 4)

**Durham** Witton-le-Wear, immature, 1st September (T. J. Bennett).

**Northumberland** Warkworth, immature, 5th December to 28th January 1978 (S. R. Fisher, B. Galloway *et al.*).

**Nottinghamshire** Colwick, immature, 12th August (A. O. Aitken, A. Dobbs).

**Tyne & Wear** Holywell Pond, immature, 10th and 23rd August (J. E. Fergusson *et al.*).

**Derbyshire 1976** The immature at Langley Mill Flashes on 9th to 10th September was also seen on 2nd October (P. Beresford) (*Brit. Birds* 70: 414).

(South Eurasia, Africa and the Americas) The absences of an adult or any spring record are most striking.

**Squacco Heron** *Ardeola ralloides* (95, 10, 2)

**Avon** Weston-super-Mare, 1st June (A. Chambers, J. Warne).

**Dorset** Longham Bridge, River Avon, 22nd May (T. Lennon, C. Woolgar).

**Silly** Rosevear, ♂, recently dead, 17th June (R. W. Allen).

(South Europe, southwest Asia and Africa) There were only five from 1958 to 1967 and again only five from 1970 to 1975. Now suddenly there are at least two in one year (the Avon and Dorset ones being treated here as the same bird).

**Little Egret** *Egretta garzetta* (23, 204, 7)

**Devon** Yealm Estuary, 5th June (Miss C. M. Blackman, Miss E. O. Buley *et al.*).

**Dorset** Hamworthy, Poole, 6th to 11th May (J. Sullivan); another, Brownsea Island, Poole, 16th June to 3rd September (per J. V. Boys).

**Hampshire** Titchfield, 26th May (B. W. Renyard).

**Lincolnshire** Skidbrooke, 29th May (J. Lamming).

**South Yorkshire** Wath Ings, 24th May (J. Hewitt, I. Mallinder).

**Suffolk** Minsmere, 2nd May (G. S. Bowen).

**Dorset 1976** Studland Heath, 6th May (J. R. Cox).

**Hampshire 1976** near Eastleigh, 18th May (G. Barrett), probably the same as the

individual elsewhere in Hampshire and West Sussex from 15th May to 31st October (*Brit. Birds* 70: 414).

**Kent 1976** Isle of Grain, 8th May (A. Knight, C. E. Wheeler).

(South Eurasia, Africa and Australia) None in Ireland, for the first time in recent years. Compared with the annual average of 15 since 1965, this is a slim showing (in a year when Purple Herons and Little Bitterns appeared in unusual strength).

**Great White Egret** *Egretta alba* (10, 4, 2)

**Kent** Stodmarsh, 5th May (M. J. Comyn, Misses F. M. & H. M. Rowland); seen later the same day at St Margaret's Bay (K. Pitwon, M. Stevenson).

**Northumberland** Cresswell Pond, 29th April (J. Stephenson, S. E. Bird, E. R. Meek *et al.*).

(Almost cosmopolitan, nearest in eastern Europe where very local) This is currently the rarest British heron. The four in the last two decades were all in 1974.

**Purple Heron** *Ardea purpurea* (90, 205, 22)

**Avon** Chew Valley Lake, 23rd April (K. J. Hall, A. J. Merritt, R. B. H. Smith). Gordano Valley, 29th September (R. S. Cropper).

**Bedfordshire** Luton Hoo Park, 4th September (A. J. Livett).

**Cheshire** Rostherne Mere, 11th July (R. Harrison, T. H. Wall).

**Derbyshire** Langley Mill/Brinsley Flashes, 2nd to 4th May; another nearby at Shipley Lake, 15th May (P. Beresford, S. Jackson, R. T. Taylor).

**Dyfed** Pendine, 23rd June (N. E. G. Elms).

**East Sussex** St Leonards, 26th June (R. D. M. Edgar).

**Hampshire** Stockbridge, 7th May (J. Cantelo, T. Norris, D. A. Thelwell). Sowley Pond and Keyhaven Marshes, 29th August (N. Kendall). Needs Oar Point, 14th to 16th October (R. J. J. Hunt, D. T. Paradise).

**Kent** Sandwich, 20th May (S. V. Colombé). Fordwich/Westbere, 1st June (R. E. C. Collins).

**Lancashire** Leighton Moss, 30th April to 8th May (D. Boulton, A. Copleston, K. W. Horton *et al.*).

**Lincolnshire** Saltfleetby, 17th April (K. Atkin, R. Southern, J. Walker). Tattershall, 19th to 22nd May (E. Clipson, J. G. Porter, R. R. South).

**Northumberland** Farne Islands, 11th to 16th April (D. Head, R. Pimm).

**North Yorkshire** Fairburn Ings, 17th May (B. Tucker, T. Watson). Upper Ribblesdale, 26th June (F. J. Roberts).

**Shetland** Sinna Water, Mainland, 13th to 15th May (L. Dalziel, P. K. Kinnear *et al.*).

**Somerset** Godney Moor, near Glastonbury, 24th May (P. D. Round).

**West Glamorgan** Oxwich, 28th May to 4th July (H. E. Grenfell, Dr D. K. Thomas *et al.*).

(South-central Eurasia, north to Netherlands, and Africa) The high total includes the now increasingly expected autumn occurrences.

**Black Stork** *Ciconia nigra* (26, 9, 5)

**Cornwall** Ladock, near Truro, 23rd May (J. Dustow).

**Dorset** Arne, 28th to 29th May (Dr C. J. Bibby, B. Pickess). Lodmoor, 13th September (T. B. & Mrs A. Silcocks *et al.*).

**Highland** Brora Loch, Sutherland, 18th May (P. G. Ottaway).

**Norfolk** East Tuddenham, 11th September (Mrs A. Bull).

**Shetland** Loch of Hillwell, Dunrossness, 3rd to 6th May (P. K. Kinnear *et al.*).

**Suffolk** Mildenhall and Lakenheath, 5th to 6th June (M. S. Bishop, M. S. Chapman, R. Grimmett).

(Iberia, and Eurasia from Germany to China, also southern Africa)

As forecast last year, the records of this stork continue to increase. Five or more in one year is unprecedented. Those in spring in Cornwall and Dorset, and in Highland and Shetland have, in each case, been regarded here as the same birds.

**White Stork** *Ciconia ciconia* (70, 124, 35)

**Cornwall** Kilkhampton and Tamar Lake, 16th to 18th March (R. J. Bcswetherick, T. J. Dingle *et al.*). Skewjack, two, 20th March, one remaining to 29th when found dead (W. R. Hirst, L. P. Williams *et al.*). Lizard, 27th August (R. Butts, P. A. Maker).

**Devon** Bideford, 26th August to 5th September (Sir D. Stucley).

**Dorset** Boys Hill, Long Burton, early December 1976 to late January, and Morcton, 22nd January to 3rd March; possibly the same, Winfrith, 21st March, Compton Valence, 24th to 26th May. Another, Radipole Lake, 23rd August (per J. V. Boys).

**Dyfed** Cross Inn, New Quay, 28th to 29th March (H. Bryant *et al.* per P. E. Davis).

**East Sussex** East Hoathley, 24th May (R. Best, D. C. & R. D. Lang). Rye, 21st August (P. J. & Mrs V. A. Wilson, T. A. & T. Wyatt); probably the same, Newhaven, 22nd August (D. A. Newman).

**Essex** Sewardstone Marsh, 3rd April (A. J. Gray, R. St John). Rowhedge, 26th June (E. Steele, P. Pearson).

**Grampian** Monymusk, 27th February (Mrs H. Duncan per Dr A. Knox). Dufftown, Banff, 18th April (D. & Mrs M. McDonald).

**Gwynedd** Roewan, near Conwy, 4th April (J. T. C. Knowles).

**Highland** Broadford, Skye, 21st April (Mrs H. Currie per R. H. Dennis). Glcn Shiel, Skye & Lochalsh, 8th May (R. Worsley per R. H. Dennis). Durness, Sutherland, 15th to 20th May (B. Hendy per R. H. Dennis).

**Humberside** Spurn, 27th March (C. E. Andrassy, N. Jackson, Mrs D. Walls).

**Kent** Romney Marsh, 1st June (J. L. F. Parslow). In east of county, at least two, possibly four: two, Sandwich area, 12th to 13th May; two, Eastry, 29th May to 3rd June (D. C. Gilbert, T., T. A. & W. E. Wyatt *et al.*); Ramsgate, 4th to 5th June; Richborough, 7th June (A. C. B. Henderson *et al.*).

**Merseyside** Liverpool, 15th September (C. J. Galvin, C. Goodwin *et al.*).

**Norfolk** Brandon Parva, 21st August (Dr & Mrs J. D. & Mr & Mrs J. H. Geeson). Snettisham, 25th October (A. G. & Mrs P. M. Hall, Miss. I. Gardner). Snettisham, then Hunstanton, 4th December (J. D. Limentani, Dr S. Cox *et al.*).

**Northampton** Litchborough, 29th March (R. Hutchings).

**North Yorkshire** Whitestones Point, Whitby, 16th April (I. Edgar).

**Nottinghamshire** Bradmoor and East Leake, 8th to 9th May (C. W. Barsby, D. R. Parkin *et al.*).

**Scilly** St Mary's, St Agnes and Tresco, 10th to 11th September (R. W. Allen, P. A. Fraser, Miss H. M. Quick *et al.*).

**Shetland** Northmavine, 14th to 15th May (A. Scollay).

**South Yorkshire** Dunford, 27th to 28th March (A. Archer, C. Bower, D. J. Standing).

**Suffolk** Knodishall and Saxmundham, 20th to 23rd March, also at Walberswick on 20th and 25th. Possibly the same, Woodbridge and Tunstall, 29th to 30th May, Wrentham, 21st June, and Hinton, 29th June to 7th July (per W. H. Payn).

**West Sussex** Patching, 27th May (S. Carter, M. S. Chapman, P. James); possibly same as East Sussex individual of 24th May.

**Cumbria 1976** Tarn House Tarn, 25th May (D. & R. Baines).

**Dyfed 1976** Newgale, 29th May (A. G. Jones).

**Hampshire 1976** Kcyhaven Marshes, 18th July (E. J. Wiseman *et al.*).

**Kent 1976** Coldred, Dover, 7th to 8th June (D. Rolfe, S. Warren): previously rejected (*Brit. Birds* 70: 449), but now accepted on further evidence.

**Kent 1976** Sandwich, 14th September (D. F. Harle).

**Somerset 1976** Whitcombe, near Ash, 28th February (Mrs G. A. Crouch, B. J. Widden).

**Strathclyde 1976** Glasgow, 31st January (I. Gibson, S. Keenan).

(Central and south Europe, southwest Asia and northwest Africa) Also singles at Collaney, Co. Sligo, from mid to 21st April and at Greenlough,

Co. Donegal on 15th April. The total is one higher than that of 1976 (the previous peak year), and the species has now occurred annually since 1971. The observation of two or three couples in spring should be noted.

Additional 1976 observations in Ireland featured individuals near Waterfoot, Co. Antrim, on 9th May and at Poyntpass, Co. Armagh, from 20th to 24th May.

**Glossy Ibis** *Plegadis falcinellus* (many, 16, 4)

**Dorset** Nyland, 27th to at least 30th August, then at Radipole Lake and Lodmoor, 9th to 18th September (K. Parker, K. E. Vinicombe).

**Greater London** Totteridge, 8th May to 22nd September (W. Marshall, L. K. Wilkinson *et al.*); this bird was most probably an escape.

**Hampshire** Titchfield Haven, 6th June (K. Douglas).

**Kent** Grove, 2nd January (J. G. Hollyer, K. B. Ellis) and between there and Stodmarsh until 12th March, again 1st May to 19th June and 24th September until the end of the year. Also seen at the Isle of Sheppey on 15th May, 27th August and 1st and 4th September and at Graveney on 25th September. All records relate to the individual first seen on 14th December 1975 (*Brit. Birds* 69: 330; 70: 416) (per D. W. Taylor).

**Norfolk** Hockering, 24th August (M. O. & P. Kingswell).

(Cosmopolitan; nearest breeding colonies in Balkans) This rare and local bird will not go away. Annual since 1972, its records reached a peak of four in 1976 and it may well be that all the individuals concerned have remained in Britain and Ireland.

**Lesser White-fronted Goose** *Anser erythropus* (47, 52, 2)

**Essex** Hanningfield Reservoir, adult, 22nd June to end of July (D. Aefield, R. Howard, J. Miller).

**Gloucestershire** Slimbridge, adult, first seen on 25th December 1976 (*Brit. Birds* 70: 418), remained until 1st February (K. Lane, Sir Peter Scott *et al.*); another adult, 11th to about 28th February (K. Lane, M. Smart *et al.*).

**Humberside** Hornsea Mere, adult, 24th April to 10th May (R. G. Hawley *et al.*).

**West Yorkshire** Fairburn Ings, adult, 24th to 26th May (S. C. Madge *et al.*).

(Northeast Europe and Siberia) The records in Humberside and West Yorkshire are here regarded as referring to the same bird, a wandering individual first recorded in 1976 (*Brit. Birds* 70: 418). The Humberside bird could be approached to within 20 m; it and those in Yorkshire and Essex are unlikely to have been wild. The Slimbridge individuals remain untainted.

**Brent Goose** *Branta bernicla* (0, 1, 1)

**Suffolk** Trimley Marsh, an individual showing the characteristics of the North American race *B. b. nigricans*, colloquially known as the Black Brant, was present from 7th to at least 12th February (R. N. Hopper, M. C. Marsh, K. C. Ramsey *et al.*).

(North America) Only the second individual of this race to be reported here; the first was in 1958.

**American Wigeon** *Anas americana* (22, 70, 7)

**Avon** Chew Valley Lake, ♂, 2nd April (T. E. Box, A. Pay), considered to be the individual from Cheddar Reservoir, Somerset (see below).

**Gwynedd** Llyn Bodgylched, ♂, 30th to 31st January and 11th February (M. J. Donahue, P. R. Harris, K. E. Vinicombe *et al.*).

**Hampshire** Dibden Bay, ♂, 17th to at least 18th April (R. E. Cooke, T. Martin, R. Ship).

**Norfolk** Welney, ♂, 23rd October (D. J. Fisher, R. B. Hastings).

**North Yorkshire** Fairburn Ings, ♀, 17th September (S. C. Madge).

**Somerset** Cheddar Reservoir, ♂, first seen on 13th October 1976 (*Brit. Birds* 70: 417) remained until 21st February, when it moved to Chew Valley Lake, Avon; it was not present at Cheddar Reservoir on 2nd April as previously noted (B. Rabbits *et al.*).

**Avon/Wiltshire 1976** confluence of Rivers Frome and Avon, two ♂♂, 30th August (N. Collar, A. Rackham).

(North America) Also a pair at Rogerstown, Co. Dublin, from 22nd April to 8th May and a duck near Tuam, Co. Galway, on 8th and 9th October; the latter was shot and found to have been ringed on Prince Edward Island, Canada, on 30th August. The year's total was high, but there were 16 in 1968 (another year in which a shot bird provided a recovery from eastern Canada).

**Teal** *Anas crecca* (13, 89, 7)

Drakes showing the characters of the North American race *A. c. carolinensis*, colloquially known as the Green-winged Teal, were recorded as follows:

**Avon** Chew Valley Lake, 17th November to 26th January 1978 (K. E. Vinicombe).

**Cornwall** Hayle Estuary, 16th January to 4th March (D. J. Barker, L. P. Williams *et al.*); 5th November to February 1978 (S. M. Christophers, G. W. Davis, P. A. Rutter *et al.*).

**Highland** Loch of Mey, Caithness, 18th December (Dr D. M. & Mrs J. Edge).

**Western Isles** Aignish, Lewis, 26th to 29th March (W. A. J. Cunningham, R. MacIntyre, W. Matheson).

(North America) Also singles on River Lee, near Coachford, Co. Cork, on 15th November, at Ballymacoda and Carrigadrohid, both Co. Cork, on 18th and 29th December respectively. Another good showing, typical of the years since 1968.

**Black Duck** *Anas rubripes* (1, 6, 0)

**Silly** Tresco; one of the two first seen on 27th October 1976 (*Brit. Birds* 70: 416) remained until 16th May, reappeared on 29th August and was still present at the end of the year (R. W. Allen *et al.*).

(North America) A long stay by this close relative of the Mallard *A. platyrhynchos*.

**Blue-winged Teal** *Anas discors* (19, 39, 2)

**Silly** St Mary's, immature ♀, 24th August to about 9th September, then Tresco, 12th September to 27th October (R. W. Allen, D. B. Hunt *et al.*).

**Cambridgeshire 1969** Grafham Water, Huntingdonshire, a pair, 19th January (T. J. Norris).

**West Yorkshire** Fairburn Ings, ♂, 17th March to August (D. J. Britton *et al.*), probably the same as that in 1971 and 1972 (*Brit. Birds* 65: 328; 66: 337).

(North America) Also one at Bull Island, Co. Dublin, from 16th September to 14th March 1978. This duck has been recorded annually since 1966 (but it must be remembered that the risk of escapes has increased since 1970).

**Ring-necked Duck** *Aythya collaris* (1, 25, 15)

**Avon** Chew Valley Lake, two ♂♂, first seen 29th December 1976 (*Brit. Birds* 70: 417), to 5th February; three ♂♂, 8th January to 16th February, four ♂♂, 6th to 12th February, at least two to 27th; one to 27th March (A. J. Merritt, M. Ryder, K. E. Vinicombe *et al.*). Blagdon Water, ♂, 8th January (J. Cantelo, A. H. Davis, T. J. Norris). The presumed hybrid with Tufted Duck *Aythya fuligula*, first seen 19th December 1976 (*Brit. Birds* 70: 417), remained at Chew Valley Lake until early April, then Blagdon Water to at least 10th April (J. B. O. Rossetti, K. E. Vinicombe *et al.*).

**Cambridgeshire** Earith gravel-pit, ♂, 23rd March to 24th April (R. Frost, R. Gray, T. R. Talbot *et al.*).

**Cleveland/Durham** Crookfoot Reservoir, ♂, 5th May (T. Francis): same as Durham individual.

**Dorset/Somerset** Sutton Bingham Reservoir, ♂, 22nd April to 21st May (C. Cornell, B. A. Crouch, B. J. Widden).

**Durham** Hurworth Burn Reservoir, ♂, 30th April to 4th May (A. Bottrill, T. Charlton, J. Whitehead), considered same as Northumberland individual.

**Gloucestershire** Slimbridge, ♂ trapped, 1st March (M. Lubbock, M. A. Ogilvie, Sir P. Scott *et al.*), shot in southeast Greenland in May 1977 (per M. A. Ogilvie).

**Hertfordshire** Tring Reservoirs, ♂, 2nd to at least 30th April (M. Bradberry; per B. Taggart).

**Kent** Westbere Lakes, ♂, 2nd February (D. C. Gilbert). Sevenoaks, ♂, 15th April (G. C. D. Harrison, A. J. Holecombe *et al.*) (*Brit. Birds* 70: plate 78).



182. Female Ring-necked Duck *Aythya collaris*, Lothian, February 1977 (S. R. D. da Prato)

**Lothian** near Drem, ♀, 7th to at least 23rd February, and 23rd March (A. Brown, S. R. D. da Prato) (plate 182); same individual, East Fortune, 8th to 9th May (Mrs D. E. Abbey, D. J. Bates).

**Northumberland** Derwent Reservoir, ♂, 13th February to 26th March (B. Little); reappeared 27th August to October (C. Jewitt, G. Tuthill *et al.*); same individual, Capheaton Lake, 29th May to 14th June (D. P. Hammersley, P. W. West), and three localities in Tyne & Wear.

**Somerset** Witeombe Bottom, Longload, ♂, 5th to 8th April (D. E. Paull *et al.*).

**Tyne & Wear** Gosforth Park, ♂, 3rd to 26th April and 12th May (F. Colley, B. Galloway, G. Sutton *et al.*), Wallsend Swallow, 9th to 11th May (G. F. Miller *et al.*), and Holywell Pond, 14th to 22nd May (C. E. Douglas *et al.*), all presumed to relate to the Northumberland and Durham individual.

**West Yorkshire** Newmillerdam, ♂, 31st May (P. Smith, G. J. Speight).

(North America) Also three drakes and a duck at Carrigadrohid, Co. Cork, from 28th November into 1978, when there was a further large arrival of at least 19 to Britain. Compared with a previous peak of six (in 1976), the influx in winter and spring had been remarkable, but it was soon eclipsed (the events of late 1977 and 1978 will be fully reviewed in the next report). The clear evidence of a successful return flight across (or up) the North Atlantic provided by the recovery of the Gloucestershire drake is noteworthy.

**King Eider** *Somateria spectabilis* (62, 68, 13)

**Dumfries & Galloway** Loch Ryan, ♂, first seen 26th December 1976 (*Brit. Birds* 70: 418), remained until at least 26th February (R. H. Hogg *et al.*).

**Essex** Colne Point, ♂, 18th July (Dr S. Cox, Miss J. Malley, A. Simons *et al.*), but origin of this apparently wild individual may be questionable.

**Fife** Torry Bay, ♂, 3rd to 28th January (R. B. Tozer *et al.*).

**Highland** Skerryay, Caithness, ♂, 5th to 6th July (K. Clarkson, R. Wells). Loch Fleet and Golspie area, ♂, first seen 1975 (see below), present throughout year; three ♂♂, 9th to 11th April, two to 13th; two ♂♂, 24th November into 1978 (per R. H. Dennis).

**Grampian** Collieston, ♂, 13th to 16th March (A. C. Hay, M. Huebeck). Murcar, immature ♂, 17th September (P. G. H. Evans).

**Shetland** Sullom Voe, ♂, 13th January to 23rd March (J. D. Okill, I. Sandison). Burga Skerries, South Yell, ♂, 28th February to 1st March (Miss M. Odie, R. J. Tulloch). Tresta-Sandsound, ♂, 21st April to 7th June (J. D. Okill, I. Sandison). Hascosay, Yell, ♂, 27th November; another ♂, South Hascosay, 27th November (P. K. Kinnear, M. Richardson).

**Strathclyde** Woodhall, ♂, 9th November (D. L. Clugston).

**Grampian 1976** Sands of Forvie and Ythan Estuary, ♂, 8th June to 14th July (D. Butler, W. Murray, Dr I. J. Patterson *et al.*).

**Highland 1974** Loch Fleet, immature ♂ present 20th to 22nd April, not 20th to 28th as noted (*Brit. Birds* 68: 314).

**Highland 1976** Loch Fleet and Golspie area, ♂, first seen in 1975 (*Brit. Birds* 69: 331) present throughout year; two ♂♂, from 7th March and three ♂♂, 14th to 30th April (A. R. Mainwood *et al.*).

(Circumpolar Arctic) Also a reappearance of the drake off Rossbeg, Co. Donegal, on 17th July. An obvious return to recent form; it can no longer be doubted that this species has become a regular visitor to Britain and Ireland since 1969. Few prizes are being won for duck spotting!

### **Steller's Eider** *Polysticta stelleri* (5, 8, 0)

**Western Isles** South Uist, the ♂ first seen in summer 1972 (*Brit. Birds* 66: 338) was present again in summer 1977.

(Arctic Russia to extreme northwest Canada)

### **Surf Scoter** *Melanitta perspicillata* (75, 48, 17)

**Cleveland** Hartlepool, ♂, 17th September (M. A. Blick, M. J. Gee, G. Iceton *et al.*), see also Tyne & Wear.

**Devon** Kingsbridge Estuary, the individual first seen on 27th December 1976 (*Brit. Birds* 70: 417) remained until 7th March (V. R. Tucker *et al.*).

**East Sussex** Rye Bay, ♀ or immature, 23rd November to 2nd December (P. F. Bonham, C. H. Dean, P. Rouse).

**Highland** Loch Fleet, ♂ present since 5th November 1975 (see below), remained until at least April (A. R. Mainwood).

**Lothian** Gullane Bay, ♂, 23rd September (G. J. Gibbins *et al.*).

**Strathclyde** Ballochroy, ♂, 16th to 21st April (B. C. & R. W. Forrester). Rubha-na-Faing, Islay, two ♂♂, three ♀♀ or immatures, 15th May (K. Verrall).

**Tyne & Wear** Whitburn, ♂, 17th September (B. Armstrong, W. L. Rimmer), almost certainly same as Cleveland individual.

**Highland 1975** Loch Fleet, ♂, 5th November to at least April 1977; two ♂♂, about 17th November to at least 3rd December (A. R. Mainwood, M. C. Powell). Golspie, two ♂♂, 31st March (R. Fairbank), doubtless same individuals as two at Loch Fleet, 1st January to 16th March, already published (*Brit. Birds* 69: 331).

**Highland 1976** Loch Fleet, ♂, first seen 5th November 1975 (see above), present throughout year (A. R. Mainwood, M. C. Powell); another ♂, 1st January to 22nd April (A. R. Mainwood *et al.*).

(North America) Also eight in Ireland: adult drakes at Bundoran, Co. Donegal, on 13th and 14th March; Clogher Head, Co. Louth, from 19th to 24th March; Lahinch, Co. Clare, from 10th to 14th April; and Brandon

Bay, Co. Kerry, from 28th October (later two); an immature drake also at Lahinch on the same dates; and immatures off Clogher Head from 19th November to 26th December; and in Brandon Bay in early winter. The total of at least 19 in Britain and Ireland is unprecedented, but small parties, as off Islay, Strathclyde, are not.

Additional 1976 observations in Ireland were of four females or immatures off Clonakilty, Co. Cork, from 23rd October to 13th February 1977.

**Ruddy Shelduck** (many, 15, —)

(Northwest Africa, southeast Europe and across Asia) The Committee is continuing to assemble all records of this species since 1958 and appeals for details of any that remain unsubmitted.

**Black Kite** *Milvus migrans* (5, 21, 2)

**Essex** Bradwell-on-Sea, 6th May (G. Smith).

**West Sussex** Cissbury Ring, 5th May (B. F. Forbes).

**Western Isles 1976** North Rona, 26th to 30th June (M. A. S. Beaman, P. G. H. Evans *et al.*).

(Most of Eurasia, Africa and Australia) These records are typical of the three most recent years. This ace scavenger shows no sign of resuming its former true rarity.

**White-tailed Eagle** *Haliaeetus albicilla* (many, 6, 0)

**Orkney 1976** Hoy, immature, 6th May (D. Garratt).

(Southwest Greenland, Iceland, and northern Eurasia) With one recent past and one current attempt to re-establish this huge raptor on Scottish isles in mind (see pages 475-481), it is difficult to comment on this bird. There has been no evidence of a true vagrant to Britain or Ireland since 1973.

**American Kestrel** *Falco sparverius* (0, 2, 0)

**Cornwall 1976** Bearah Tor, Bodmin Moor, ♀, 13th June to about 28th July (H. A. Deal, P. A. Maker, B. K. Mellor *et al.*).

**Shetland 1976** Fair Isle, ♂, 25th to 27th May (R. A. Broad, the late R. A. Richardson, A. M. Taylor *et al.*).

(North, Central and South America) The first two records in Britain and Ireland, now accepted by the BOU Records Committee. We hope to publish full details shortly.

**Red-footed Falcon** *Falco vespertinus* (100, 172, 12)

**Cambridgeshire** Welches Dam, Ouse Washes, ♀, 15th May (D. Allen).

**Derbyshire/South Yorkshire** Upper Derwentdale, ♂, 28th May (D. P. Gosney, D. Herringshaw, M. E. Taylor).

**Devon** Lundy, ♂, 1st June (A. Harris, M. & Mrs W. Rogers).

**Dorset** Clifton Wood, ♀, 12th to 14th May (B. J. Widden, B. J. Matthews *et al.*).

**Hampshire** Winnall, near Winchester, ♂, 2nd to 3rd June (J. H. Taverner *et al.*).

**Humberside** Spurn, ♂, 29th June (R. D. Purnell).

**Kent** Stodmarsh, two, 29th May: an immature (W. G. Harvey, P. J. Mountford, D. B. Rosair) and a sub-adult (C. Abrahams, W. G. Harvey).

**Lincolnshire** Donna Nook, ♀, 12th June (S. Lorand, C. Morrison); ♂, 2nd August (S. & Mrs V. Lorand).

**Norfolk** Winterton-on-Sea, ♀, 4th June (E. T. Boulton).

**Staffordshire** Brewood, ♂, 23rd August (E. B. & P. A. Brown).

**Shetland 1976** Whalsay, immature, 9th to 10th October (the late J. H. Simpson).

**West Yorkshire 1976** Winterset Reservoir, immature, 28th August to 1st September (J. S. Armitage, P. Smith, G. J. Speight).

(East Europe and south from Siberia) Another marked spring influx, but now an average annual total.

**Gyr Falcon** *Falco rusticolus* (many, 46, 1)

**Highland** Williamston, Duffus, Moray, 24th November (R. Richter).

**Borders 1976** Hule Moss, 21st October: this locality is in Borders, not Lothian as previously stated (*Brit. Birds* 70: 419).

**Lothian 1976** see Borders.

(Circumpolar Arctic) This single bird looks lonely compared with the average of three a year since 1970.

**Little Crake** *Porzana parva* (68, 23, 1)

(Central and east Europe and west Asia) None in Britain, but one on Cape Clear Island, Co. Cork, on 21st August.

**Baillon's Crake** *Porzana pusilla* (many, 5, 0)

**West Glamorgan 1976** Llantwit Major, 7th to 8th February (Dr A. R. & R. V. A. Lansdown).

(Southern Europe and across Asia, southern Africa, and Australasia) This is now the rarest of Palearctic crakes to reach Britain. This record is the second of the last five (since 1965) to be in February. It appears that, like the Little Crake *P. parva*, this species may occasionally winter in Britain.

**Crane** *Grus grus* (many, 644, 51)

**Cornwall** Porthgarra, four of the five first seen on 21st December 1976 remained until 8th January, not 3rd January as previously noted (*Brit. Birds* 70: 419) (per D. Barker).

**Essex** A party of 26 was seen over East Bergholt, Tollesbury and Foulness on 16th October (Miss A. Plumridge, J. Thorogood, H. Wedgewood *et al.*); it was seen also in Kent, see below.

**Grampian** New Pitsligo, 22nd to 26th March (T. Hodd); Loch of Strathbeg, two, 24th August to 25th September (J. Dunbar, Dr A. Knox).

**Gwynedd** near Conwy, 22nd May (T. McCraill, S. J. Riley).

**Highland** Reay, Caithness, two, 22nd October (J. M. Gunn, E. W. E. Maughan).

**Humberside** Hornsea, 1st October (J. E. Adlard, S. Taylor).

**Humberside/North Yorkshire** Wheldrake Ings/Derwent Valley, 24th April to 4th May (T. D. Charlton, Dr J. H. Lawton, G. Smith *et al.*).

**Kent** Boughton, near Ashford, 3rd April (K. B. Ellis, P. R. Fennell); Minster, 3rd April (C. Byrne); another 22nd to 23rd May (W. G. Harvey, A. W. Thorpe); another, Hinxhill, near Ashford, 24th May (P. J. Grant). Dungeness, 29th May (Z. Bhatia, A. R. Pickup, A. T. M. Ruck). Ashford and Challock, north of Ashford, a party of 26, 16th October, doubtless the same as that seen in Essex earlier the same afternoon, subsequently thought to have been seen leaving the coast at Folkestone (per D. W. Taylor).

**Lancashire** Leighton Moss, 15th May (M. Jones, G. W. & M. A. Wilby *et al.*).

**Norfolk** Wells, 16th April (D. G., H. & Mrs M. Goodall). Bacton, 21st April (B. Cobbold). A crane at Sheringham on 16th (K. B. Shepherd) and Salthouse on 19th (M. P. Lee) was probably the same individual.

**Northumberland** Lindisfarne area, two, 4th May to 9th July (P. Corkhill, D. O'Con-

nor *et al.*). Bamburgh, 6th May (I. & P. W. Davidson, A. B. Roe *et al.*); near Spindleston, 9th July (T. R. Cook, D. P. & J. Hammersley *et al.*), these two records probably relate to one of the Lindisfarne individuals.

**North Yorkshire** Haxby, 8th to 17th October (C. & M. J. A. Thompson).

**Strathclyde** Dalrymple, 4th October to 12th November (M. E. Castle, E. M. & R. Hissett, R. H. Hogg).

**Suffolk** Havergate, 24th May (N. Devy, Mrs P. Hoggott). Orford, 9th June (J. Partridge).

**Warwickshire** Welford-on-Avon, 3rd January to 13th February (D. W. Hildred).

**West Yorkshire** Fairburn Ings, 17th March (C. Winn).

**Grampian 1976** Newburgh, Aberdeen, 17th April (C. J. Spray). Maryculter, three, 21st to 23rd December (Mrs W. Stewart).

**North Yorkshire 1976** Leighton Reservoir, 30th May (P. J. Carlton).

**Wiltshire 1975** Allcannings, 8th to 10th April (R. Fussell).

(North and central Eurasia, locally south to Turkey) Also singles at Broad Lough, Co. Wicklow, from 28th August to 25th September and Erriff Valley, Co. Mayo, from mid November to January 1978. Yet another striking series of records with almost twice the number seen in 1976 spread over eight months. The spring influx from March to June is the largest for that season in recent centuries (and perhaps since the 17th). The large autumn flock is the biggest since those involved in the exceptional passage of late October 1963 (*Brit. Birds* 57: 502-508).

**Great Bustard** *Otis tarda* (many, 5, 1)

**Gloucestershire** flying south over Leckhampton and Leckhampton Hill, 24th May (Dr J. Harpum).

(Central and south Eurasia, discontinuously from Portugal to Pacific) This bird must have been a magnificent sight as it flew over the Cotswold escarpment, but, although none has been traced, the possibility of an escape (from British or Continental collections) does exist.

**Black-winged Pratincole** *Glareola nordmanni* (5, 11, 0)

**Grampian 1976** Loch of Strathbeg, 15th July (R. Cardno, S. Cutts, J. Dunbar).

(South Russia and west Asia) A second record for the long hot summer of that year.

**Collared Pratincole** *Glareola pratincola* (31, 21, 4)

**Dorset** Poole Harbour, 24th May (H. A. Lilley).

**Humberside** Blacktoft Sands, 11th June (P. Greaves, A. Grieve, D. Page *et al.*); possibly the same individual, Spurn, 12th to 19th June (J. Cudworth, I. Forsyth, C. D. R. Heard *et al.*).

**Lancashire** Marton Mere, 26th May (J. P. Guest) and 30th May to 1st June (E. & Dr R. Stirling *et al.*).

**Suffolk** Alton Water, 30th May to 2nd June (B. F. Butler, P. W. Murphy *et al.*).

**Dorset 1974** Lodmoor, 7th June (M. Cade).

(South Europe, southwest Asia and Africa) Four in one year is over three times the average for the last two decades.

**Pratincole** *Glareola pratincola* or *G. nordmanni* (36, 39, 5)

**Cambridgeshire** Ouse Washes, 7th June (A. Bottirill, I. Forsyth, J. Rawcliffe), considered to have been probably a Collared Pratincole.

**Dorset 1971** Portland, two, 9th October (J. M. & D. Cobb).

**Grampian 1972** Meikle Loch, 12th August (R. H. Hogg): previously rejected (*Brit. Birds* 66: 359), but now accepted after reconsideration of the details and circumstances.

The totals include those specifically identified.

**Killdeer** *Charadrius vociferus* (9, 15, 0)

**Humberside 1975** see South Yorkshire.

**South Yorkshire 1975** Thorne Moor, 29th to 30th November: this locality is in South Yorkshire, not Humberside as previously stated (*Brit. Birds* 69: 335).

(North America, West Indies, Peru to Chile)

**Lesser Golden Plover** *Pluvialis dominica* (6, 38, 6)

**Central** East Grangemouth, adult *P. d. dominica*, 14th to 22nd August (Dr D. M. Bryant, R. D. Moore *et al.*) (plate 183).

**Humberside** Faxfleet, immature, probably *P. d. dominica*, 30th October (D. I. M. Wallace).

**Lothian** Aberlady Bay, adult *P. d. fulva*, 9th July (A. Brown, G. L. Sandeman, W. Thom). Musselburgh, adult *P. d. dominica*, 9th to 17th September (D. J. Bates, L. L. J. Vick, P. Wilson *et al.*).

**183.** Adult Lesser Golden Plover *Pluvialis dominica dominica*, Central, August 1977  
(R. D. Moore)



**Scilly** St Mary's, 10th to 12th April (R. N. Hobbs, D. B. Hunt *et al.*); immature *P. d. dominica*, 14th to 23rd September (P. A. Fraser, A. Nichols, J. F. Ryan).

**Dumfries & Galloway 1976** East Park, the individual first seen on 23rd November 1975 (*Brit. Birds* 70: 447) remained until 26th February.

**Lothian 1976** Aberlady Bay, adult *P. d. fulva*, 10th to 16th July (D. J. Bates *et al.*). West Fenton, *P. d. dominica*, 13th to 14th November (S. T. Buckland, H. Howard, I. H. Leach).

(Nominate race in Arctic North America, other in northeast Asia) A fascinating set of records of this globe-trotting plover which has become increasingly regular in Britain and Ireland since 1962. The prompt reappearance of a July adult in Lothian is particularly noteworthy and the Scilly record is only the second in spring. It is unlikely that breeding birds of the two races ever come as close as the two vagrants to the Firth of Forth, Lothian.

**Sociable Plover** *Chettusia gregaria* (5, 11, 2)

**Essex** see Suffolk.

**Norfolk** Welney, 3rd to at least 20th September (S. J. M. Gantlett, A. Hopkins *et al.*).

**Suffolk** Little Cornard, adult, 27th December to 15th January 1978; also seen nearby at Middleton and Great Henny, Essex (M. N. Lynton, G. C. White *et al.*).

(Southeast Russia and west-central Asia) Never before has this species occurred in three consecutive years. These two records could have referred to the same wintering individual, since extended stays are not unusual, but are treated here as different.

**Semipalmated Sandpiper** *Calidris pusilla* (2, 16, 0)

**Essex 1974** Barking, 4th May: previously accepted (*Brit. Birds* 68: 318), but now considered unacceptable after review and should be deleted.

**Gloucestershire 1968** Slimbridge, 13th October: previously accepted (*Brit. Birds* 62: 470), but now withdrawn by observer prior to review and should be deleted.

**Kent 1965** Dungeness, 6th to 9th September: previously accepted (*Brit. Birds* 59: 289, 543-547, plate 79), but now considered unacceptable after review and should be deleted.

**Kent 1967** Sevenoaks, 10th September: previously accepted (*Brit. Birds* 61: 342), but now considered unacceptable after review and should be deleted.

**Lincolnshire/Norfolk 1966** Wisbech sewage-farm: the individual last seen on 29th December was first identified on 12th November and not 9th October as previously stated (*Brit. Birds* 60: 319).

**Scilly 1969** Tresco, 19th August: previously accepted (*Brit. Birds* 63: 277), but now considered unacceptable after review and should be deleted.

**Suffolk 1971** Minsmere, 3rd to 8th September: previously accepted (*Brit. Birds* 65: 334), but now considered unacceptable after review and should be deleted.

(North America) A review of all past records by D. I. M. Wallace will be published soon. It will include the detailed reasons for the above changes in judgement and further comment on the identification of this species.

**Least Sandpiper** *Calidris minutilla* (6, 15, 1)

**Hampshire** Farlington Marshes, 22nd May (D. F. & Mrs R. A. Billett, T. C. Juniper).

(North America) Only the second ever in spring. Following the revision of the occurrences of the Semipalmated Sandpiper, this becomes the most frequent transatlantic vagrant of the three American stints.

**White-rumped Sandpiper** *Calidris fuscicollis* (24, 113, 6)

**Dyfed** Dale, 20th September (R. C. Price).

**Highland** Dornoch, Sutherland, 23rd October (D. S. Whitaker).

**Kent** Bough Beech Reservoir, 27th August (R. B. Aitken, R. K. Coles, D. R. Hodge).

**Norfolk** Holme, 28th August to 2nd September (P. R. Clarke *et al.*); see also Northumberland.

**Northumberland** Lynemouth, 14th to 18th September (B. Galloway, E. R. Meek *et al.*); damaged bill and plumage features indicated that this was same as Norfolk individual.

(North America) Also singles at Akeragh Lough, Co. Kerry, on 23rd August and at Ballycotton, Co. Cork, on 29th August. The multiple arrival in late August is noteworthy; records of this species are more often widely spread in time. That an injured individual should move north along the East Coast indicates how disorientated some vagrants become.

**Baird's Sandpiper** *Calidris bairdii* (5, 57, 6)

**Essex** Rainham, 3rd September (P. M. Griggs, J. Miller, P. Vines *et al.*).

**Leicestershire** Eye Brook Reservoir, 10th to 15th September (K. Allsopp, R. G. Lockwood, F. C. Pickering *et al.*).

**Scilly** Tresco, 31st August to 12th September (R. W. Allen, D. B. Hunt, W. E. Oddie); another, 3rd to 8th October (P. J. Grant, D. B. Hunt *et al.*) (*Brit. Birds* 71: 417-418, plate 154). St Mary's, 24th September, considered to be a third individual (L. R. Price, G. G. & P. E. Williams *et al.*).

**Suffolk** Benacre, 8th to 18th September (G. J. Jobson, M. Parker *et al.*).

(North America and extreme northeast Siberia) None in Ireland in the year under review, but a second bird there in 1976, at Akeragh Lough, Co. Kerry, on 10th October. Thrice the average number for Britain,

which makes a total absence from Ireland even more surprising. Before 1958, only one came with every five White-rumped Sandpipers; recently, one has come with two.

**Sharp-tailed Sandpiper** *Calidris acuminata* (5, 9, 1)

**Cleveland** Seal Sands, 3rd September (M. A. Blik, D. J. Britton, T. Francis *et al.*).

(Northeast Siberia) There had been only eight in all up to 1966 and there was none from 1967 to 1972, but now seven have come in the last five years. The date is typical.

**Broad-billed Sandpiper** *Limicola falcinellus* (23, 31, 3)

**Norfolk** Breydon Water, 5th to 6th June (P. R. Allard, A. D. Boote *et al.*); 21st September (P. R. Allard).

**Wiltshire** Swindon sewage-farm, 21st September (G. L. Webber).

**Cheshire 1975** Frodsham, 17th May (G. Sellors).

**Merseyside 1976** Crossens Marsh, 1st July (S. J. M. Riley, M. Thomas *et al.*).

**Shetland 1976** Whalsay, 3rd November (the late J. H. Simpson).

(North Eurasia) Formerly subject to a high rate of rejections, records of this species have now been annual from 1972. The average since that year has been three, compared with just over one up to 1970. The regularity of spring occurrences in East Anglia is now well established. The one in Shetland was the latest ever.

**Buff-breasted Sandpiper** *Tryngites subruficollis* (33, 219, 64)

**Cheshire** Burton Marshes, 12th to 24th September (A. Graham, S. Campbell *et al.*).

**Cleveland** Saltholme Pools, 10th September (A. Goodwin, J. P. Guest). Marske, two, 11th September (D. J. Britton).

**Cornwall** Porthgarra: one from 31st August; four, 4th to 6th September; two to 18th; another 24th and 25th; possibly eight in all (E. Griffiths, V. B. Hieks, L. P. Williams *et al.*). Crowdy Reservoir, 3rd to 7th September (H. Deal, F. M. C. & J. Kendal, A. I. Prophet *et al.*). Predannaek Airfield, 10th September, two on 11th; another three on 17th (E. Griffiths *et al.*).

**Devon** Lundy, two, 5th to 11th September (R. W. Britton, D. R. Richards, M. & Mrs W. Rogers); another, trapped, 15th to 25th September (M. Rogers, R. E. Youngman).

**Essex** Hanningfield Reservoir, 9th to 17th September (G. R. & E. V. Ekins, S. A. Webb).

**Fife** Crail, two, 12th to 14th September (Mrs G. Anderson, Miss R. Cleghorn, Mrs J. A. R. Grant).

**Gloucestershire** Dumbles, New Grounds, 9th to 10th May (L. P. Alder, M. Smart).

**Grampian** Loch of Strathbeg, three, 18th September (C. Rutter, M. J. Whitehouse).

**Gwynedd** Cemlyn Bay, 21st September to 8th October (A. Clements, P. J. Dare, M. Smith *et al.*), the same individual again 13th to 17th November (K. G. Craft).

**Hampshire** Pennington Marshes, 4th September (P. & M. C. Cambridge).

**Kent** Dungeness, 14th September (Z. Bhatia, O. Coppin, P. J. Grant *et al.*). Cliffe, 10th September to 9th October (S. J. Gatley, J. C. Martin, D. W. Taylor *et al.*).

**Lothian** Musselburgh, 10th to 13th, 20th and 22nd September, presumed the same individual (Dr L. J. Vieck *et al.*).

**Scilly** St Mary's, at least 15: five from 30th August, eight on 6th September, nine on 7th, 12 on 8th, 15 on 9th to 10th, 14 on 11th to 12th, dropping to nine by early October: last one, found dying, 12th October (P. Fraser; per H. P. K. Robinson).

**Shetland** Fair Isle, 10th to 13th September (R. A. Broad, C. D. R. Heard *et al.*).

**Somerset** Cheddar Reservoir, 9th to 10th October; another, 2nd to 7th November (B. Rabbitts *et al.*).

**Surrey** Staines Reservoirs, 14th September to 2nd October (J. Hazell, A. V. Moon, P. Naylor).

**West Glamorgan** Burry Holm, Gower, 7th September (H. E. Grenfell, W. L. Phillips).

**West Yorkshire** Ringstone Edge Reservoir, 13th to 16th September (J. Beaumont, J. E. Dale *et al.*).

(North America) Also, in September, one at Bull Island, Co. Dublin, from 1st to 22nd (two from 4th to 10th); seven at Tacumshin, Co. Wexford, from 15th to 21st; singles at Ballycotton, Co. Cork, on 17th and at Doolin, Co. Clare, on 19th; and in October singles at Ballycotton on 4th, and Lough Beg, Co. Derry, on 9th.

Another marvellous flight across the Atlantic by this charming bird, almost on the scale of the record influx of 67 in 1975. The British total of at least 51 is the highest in any year.

Late 1976 acceptances for Ireland were of singles at Lough Beg, Co. Derry, on 5th September and 10th October.

**Great Snipe** *Gallinago media* (180, 42, 1)

**Shetland** Fair Isle, 6th October (E. Fagrell, H. Gilston, R. J. Johns).

**Scilly 1968** Trecco, 3rd October: previously accepted (*Brit. Birds* 62: 468), but now withdrawn by observer and should be deleted.

(Northeast Europe and northwest Asia) This bird looks very lonely, compared with the seven of 1976, but the average since 1958 is only just over two.

**Long-billed Dowitcher** *Limnodromus scolopaceus* (9, 28, 11)

**Avon** Chew Valley Lake, two, 30th September, later moved to Blagdon Water, where one remained to 11th January and one to 21st January 1978 (K. E. Vinicombe *et al.*).

**Cornwall/Devon** Lower Tamar Lake, two, first week of October to 16th, one remaining to 23rd (S. M. Christophers, G. P. Sutton *et al.*).

**Dorset** Lodmoor/Radipole, 28th to 30th September; probably different individual Radipole, 17th to 18th October (M. Cade). Fleet, 10th December to early 1978 (G. J. Armstrong).

**Dorset/Somerset** Sutton Bingham Reservoir, first-winter, 8th to 22nd October (D. Chown, B. J. Widden *et al.*) (plate 134).

**184.** First-winter Long-billed Dowitcher *Limnodromus scolopaceus*, Dorset/Somerset, October 1977 (B. J. Widden)



**Hertfordshire** Tring Reservoirs, 22nd October to 12th November (R. A. Kempster, P. J. Stead *et al.*).

**Scilly** St Agnes/St Mary's, 28th September to early 1978 (P. A. Dukes, D. A. Parmenter *et al.*).

**Surrey** Staines Reservoirs, 1st to 15th October (I. Archibald, J. Hazell *et al.*).

**Western Isles** Hallaman Bay, Barra, 1st to 2nd August (J. K. & Mrs Duncan).

**Cornwall 1976** one of the two first seen at Stithians Reservoir on 13th October 1975 (*Brit. Birds* 69: 335) remained until 25th March.

**Dorset 1976** Arne, 3rd August (B. P. Pickess, N. Knight).

**Highland 1975** Thurso, Caithness, 11th October to 20th November (Miss V. Hewison, J. Gunn, Mrs P. M. Collett *et al.*).

(North America and northeast Siberia) Yet again, none in Ireland, but the biggest ever influx to Britain, with at least 11 in autumn and winter. It should be remembered that this species has to overfly almost the entire breeding range of the Short-billed Dowitcher *L. griseus* to reach eastern Canada, let alone Europe!

**Dowitcher** *Limnodromus scolopaceus* or *L. griseus* (31, 102, 16)

**Avon** Aust Warth, 16th October (P. J. Chadwick, N. J. Lacy).

**Cornwall** Stithians Reservoir, 1st to 3rd October (G. W. Davis, S. Pilbeam).

**Essex** Bradwell-on-Sea, 29th August (A. J. Gabriel).

**Suffolk** Havergate, two, 22nd October to early 1978 (R. Gomes, J. Partridge).

(North America) The totals include those specifically identified. Another five indeterminate birds bring the 1977 total of dowitchers to an astonishing 16, twice the previous peaks of 8 in 1970 and 1971.

**Marsh Sandpiper** *Tringa stagnatilis* (12, 10, 3)

**Gwynedd** Malltraeth, Anglesey, 30th June to 2nd July (K. Burry, T. Dixon, Dr J. H. Lawton *et al.*).

**Hampshire** Farlington Marshes, 5th to 8th and 11th July (M. S. Arnott, D. S. Flumm, C. R. Janman *et al.*).

**Suffolk** Benaere Broad, 14th September (P. Tate).

(Southeast Europe, west and east Asia) Three in one year is quite exceptional; June and July records are unusual.

**Lesser Yellowlegs** *Tringa flavipes* (35, 92, 8)

**Buckinghamshire** Denham, 15th October to 5th November (R. P. Bosanquet, A. J. Prater, Miss S. Woodman *et al.*).

**Devon** Horsey Island, Taw estuary, 6th and 16th to 17th March (Mrs H. Stormont *et al.*).

**Dorset** Lodmoor, 3rd to 9th September (R. A. Ford, I. S. Robertson *et al.*).

**Gwynedd** Bardsey, 11th October (P. J. Roberts).

**Hampshire** Dibden Bay, 29th August to 9th September (G. J. Armstrong, J. M. Clark, P. F. Fawkes *et al.*).

**Tyne & Wear** Fenwick Pond and Wallsend, 15th to 27th September (J. A. Ginnever, M. S. Hodgson).

**Devon 1976** Teign estuary, first seen 10th November 1975 (*Brit. Birds* 69: 336), present until 6th April.

(North America) Also singles at Rahasane, Co. Galway, on 20th January and near Skibbereen, Co. Cork, on 13th September. Another typical showing of this shank which never seems to cross the Atlantic in a major flight: it just appears in a wide scatter in most months except January and February.

**Solitary Sandpiper** *Tringa solitaria* (6, 11, 1)**Surrey** Perry Oaks sewage-farm, 22nd July (J. Sayers).

(North America) The second July record of a sandpiper which appears to cross the Atlantic earlier than most other Nearctic waders.

**Terek Sandpiper** *Xenus cinereus* (3, 11, 1)**Highland** Sandside Bay, Reay, Caithness, 5th to 12th June (Mrs P. M. Collett, S. Edwards, J. M. Gunn *et al.*).

(Northeast Europe and Siberia) This species has failed to appear in only two years since 1969.

**Spotted Sandpiper** *Actitis macularia* (6, 27, 5)**East Sussex** Barcombe Reservoir, immature, 3rd to 11th November (P. Clement, R. D. M. Edgar).**Gwynedd** Bardsey, trapped, 16th September (T. Cleeves, T. Jones, P. J. Roberts).**Kent** Bough Beech Reservoir, immature, 20th to 30th September (G. T. A. Burton, R. K. Coles, B. A. Ryan) (plate 185).

185. Immature Spotted Sandpiper *Actitis macularia*, Kent, September 1977 (R. K. Coles)

**North Yorkshire** near Knaresborough, 7th to 11th May (R. Evison, J. R. Mather, A. F. G. Walker *et al.*).**Warwickshire** Draycote Water, 8th to 10th May (A. R. M. Blake, P. J. Finden, G. R. & Mrs J. V. Harrison *et al.*).(North America) Another two spring records bring the total for that season to seven (all but one since 1971). Five is the most for any year. Further useful comments on the separation of this species from Common Sandpiper *A. hypoleucos* have been published by S. C. Madge (*Brit. Birds* 70: 346-348).**Wilson's Phalarope** *Phalaropus tricolor* (1, 76, 12)**Cambridgeshire** Ouse Washes, 30th May to 4th August (D. Allen, S. Young *et al.*).**Cleveland** Saltholme Pools, 7th to 28th September (M. A. Blick *et al.*).**Cornwall** Hayle Estuary, 30th August to 4th September (R. M. Belringer, J. C. Nicholls). Crowdy Reservoir and Davidstow Aerodrome, 2nd to 11th September (M. Blatchford, S. M. Christophers, E. Griffiths); probably the same individual, Siblyback Reservoir, 5th to 21st September (S. M. Christophers, A. I. Prophet).**Essex** Hanningfield Reservoir, 23rd October to 2nd November (P. Griggs, J. Miller *et al.*).**Hampshire** Dibden Bay, 9th October (R. Cook, T. M. Martin, R. Ship).**Northumberland** Monks House Pool, near Seahouses, 27th to 29th September (K. J. Hall, D. Henshilwood, T. G. Smith *et al.*).**Scilly** Tresco, 5th to 12th September (D. B. Hunt); another, 3rd to 9th October (P. J. Grant *et al.*).**Cheshire 1976** Walton Reservoir, 25th May (C. Antrobus).

(North America) Also singles at Ballycotton, Co. Cork, on 17th and 18th September; at Akeragh Lough, Co. Kerry, from 25th to 27th; and

at Clonakilty, Co. Cork, from 1st to 8th October. The largest influx since records began, but unlikely to be linked to the September flight of Buff-breasted Sandpipers (since their larger movements are not correlated in Britain and Ireland). The long summer stay in Cambridgeshire is noteworthy.

The total number of Nearctic waders (excluding Pectoral Sandpipers *Calidris melanotos* and Lesser Golden Plovers *Pluvialis dominica*) in the year under review is 119 (of nine species), compared with 48 (of 11 species) in 1976 and 109 (of 12 species) in 1975.

**Long-tailed Skua** *Stercorarius longicaudus* (not known, not known, 68)

**Cleveland** Teesmouth, adult, 31st July (M. A. Blik *et al.*). Hartlepool, immature and three adults, 31st July; adult, 6th August (M. A. Blik *et al.*); immature, 16th August (G. Keton); immature, 19th August (D. Page); sub-adult and two immatures, 25th August (G. Keton); immature, 27th August (M. A. Blik *et al.*); sub-adult, 10th September (G. Keton).

**Grampian** Girdleness, adults, 21st and 30th July, and sub-adult on 28th (P. M. Ellis); adult, 17th August (P. R. Gordon). Kinnairds Head, adult, 7th September (D. I. M. Wallace). Collieston, adult, 10th September (C. J. Spray). Fraserburgh, adult, 16th September (M. J. H. Cook).

**Humberside** Flamborough Head, sub-adult, 24th July (D. I. M. Wallace); immature, 13th August (P. A. Lassey, Miss I. Smith); adult, 20th August (S. T. Holliday, P. A. Lassey, Miss I. Smith); adult, 27th August (P. Greaves, D. Page, J. Palmer). Hornsea, adult, 16th August (W. F. Curtis). Bridlington, immature, 16th September (D. I. M. Wallace).

**Kent** Dungeness, immature, 24th October to 11th November (P. J. Grant, A. J. Greenland *et al.*).

**Lincolnshire** Saltfleetby, immature, 21st August (G. P. Catley, S. F. A. Firth, D. A. Robinson).

**Merseyside** Wirral, immature, 14th August (P. A. Walton).

**Norfolk** Blakeney Point, adults, 16th July (T. A. Walsh) and 11th August (L. F. & S. Woollard). Cley, adult, 17th September (S. J. M. Gantlett, G. Stephenson, D. Willis).

**Northumberland** Seaton Sluice, adults, 29th May (G. Sutton, K. Walton) and 31st July (C. Freeman, F. G. Grey). Newton Point, adult, 13th July (M. J. Chester). Farne Islands, adult, 11th September (C. Slater). Holy Island, two adults, 12th September (A. Heavisides).

**North Yorkshire** Filey Brigg, adult, 8th August (P. J. Dunn, T. Hobson, A. Patterson).

**Orkney** Evie, adult, 29th May (D. Mower).

**Shetland** off Whalsay, adult, 24th June (Dr B. Marshall).

**Strathclyde** Islay, two immatures, 27th September (K. Verrall).

**Western Isles** Balranald, North Uist, flock of 24, 10th May (D. L. Davenport, M. H. Davies, M. J. Sinden). Between Skye and Uist, adult, 6th June (W. & Mrs E. C. McCubbin).

**Cleveland 1976** Skinningrove, adult, 4th September (N. Walker).

**Grampian 1976** Collieston, adults, 17th September (C. J. Spray) and 1st October (Dr A. Knox). Girdleness, immature, 30th September (P. M. Ellis).

**Humberside 1976** Spurn, adult, 24th September (N. & P. J. P. Money). Flamborough Head, additional to those already published (*Brit. Birds* 70: 424): immature, 28th August; adult and sub-adult, 9th September (D. I. M. Wallace); immatures, 10th September (P. A. Lassey, Miss I. Smith, D. I. M. Wallace), 11th and 12th September (P. A. Lassey, D. I. M. Wallace); sub-adult and immature, 16th September; immatures, 29th and 30th October (D. I. M. Wallace).

**West Yorkshire 1976** Wath Ings, adult, 29th May (J. Hewitt).

(North Europe and west Siberia) The 16 additional acceptances for 1976 bring the total for that year to 125. The 68 in the year under review make this species look uncommon in comparison, but clearly this delight-

ful skua is no rarity these days (cf. an average of only 17 per year during 1958-67: J. T. R. Sharrock, 1974, *Scarce Migrant Birds in Britain and Ireland*).

**Laughing Gull** *Larus atricilla* (2, 9, 3)

**Cornwall** St Ives Bay, first-winter, 10th to 25th December (P. Pearce, V. Stratton *et al.*) (plate 188); this individual reappeared, at Newlyn in January 1978.

**Merseyside** Mersey Estuary, adult, 3rd August (Dr R. J. Raines).

**Suffolk** River Orwell, Wherstead, adult, 13th November (A. Botwright); presumably the same individual, Felixstowe, 29th November to 2nd December (A. R. J. Paine).

(North America and Caribbean) Although there was none in 1976, these three bring the total since 1974 to eight.

**Franklin's Gull** *Larus pipixcan* (0, 3, 2)

**Cleveland** North Gare, adult, 24th July (M. A. Blick, D. I. Griss).

**Suffolk** Lowestoft Harbour and fields inland, probably second-winter, 13th November to March 1978 (B. J. Brown *et al.*) (plates 186 & 187)

**Norfolk 1976** West Runton, probably second-winter, 29th October (G. R. & Mrs J. V. Harrison, Mrs D. Herlihy).



186 & 187. Sub-adult, probably second-winter, Franklin's Gull *Larus pipixcan* (above, also with Black-headed Gull *L. ridibundus*), Suffolk, February 1978 (M. Parker)



(North America) The first since two in 1970 of this prairie species. The Suffolk individual probably saw more birdwatchers than any other bird in Britain during its four-month stay.

**Bonaparte's Gull** *Larus philadelphia* (11, 18, 1)

**Cleveland** Teesmouth, first-summer to second-winter, 12th August to 2nd October (D. J. Britton *et al.*) (plate 189)

(North America) This close cousin of the Black-headed Gull *L. ridibundus* remains rare. Although of annual occurrence between 1967 and 1973, it has become erratic again.



188. First-winter Laughing Gull *Larus atricilla*, Cornwall, December 1977 (J. B. & S. Bottomley)

**Ring-billed Gull** *Larus delawarensis* (0, 10, 4)

**Hampshire** Langstone Harbour, first-summer to second-winter, 1st June to 31st July (R. A. Barratt, D. S. Flumm, P. J. Grant *et al.*).

**South Glamorgan** Blackpill, adult, 12th to 13th March (K. E. Vinicombe); probably second-winter, 18th September (W. E. Oddie).

**West Glamorgan** Clync Common, Gower, adult, 8th August (J. E. Morgan).

(North America) Undiscovered (though not necessarily absent) before 1973, this close cousin of the Common Gull *L. canus* has occurred in every subsequent year.

**Ross's Gull** *Rhodostelthia rosea* (2, 18, 2)

**Cornwall** St Ives, adult, 12th November (V. Stratton).

**Shetland** Lerwick Harbour, adult, 20th to 23rd November (C. Byers, J. D. Hall, J. Pearson).

**Shetland 1975** The Scalloway individual, 19th to 29th January, was adult, not immature as previously stated (*Brit. Birds* 69: 341).

(Northeast Siberia) The run of consecutive annual appearances extends to four.

189. Second-winter Bonaparte's Gull *Larus philadelphia*, Cleveland, August 1977 (D. G. Bell)



**Ivory Gull** *Pagophila eburnea* (76, 15, 0)

**Grampian 1976** West Hills of Skene, first-winter, trapped 29th December, released 3rd January 1977 (R. Rae *et al.*).

**Highland 1976** Wick Harbour, Caithness, two first-winter, 24th to 27th November, one remaining to 29th (P. Shand, I. G. & R. S. Smitton *et al.*) (plate 190).



**190.** First-winter Ivory Gull *Pagophila eburnea*, Highland, November 1976 (D. Banks)

**Humberside 1976** Hornsea, first-winter, 25th January (D. Fleet, S. L. James, S. Morgan).

(High Arctic) These three late acceptances for 1976 are of considerable interest, matching as they do the five records of Ross's Gull in that year. Before 1958, this was a much more frequent vagrant than Ross's (76:2), but since 1960 it has become the scarcer of the two (15:20).

**Gull-billed Tern** *Gelochelidon nilotica* (53, 130, 5)

**Devon** Dawlish Warren, two adults, 8th September (R. Khan).

**Lothian** Bo'ness, 21st May (R. Bernard).

**Norfolk** Breydon Water, 6th June (P. R. Allard). Cley, 28th August (R. Aberdeen, C. R. Ireland).

(Denmark, south Europe, south Asia, northwest Africa, Australia and America) The Lothian bird is only the second spring record for Scotland.

**Caspian Tern** *Sterna caspia* (30, 93, 7)

**Kent** Sandwich Bay, two, possibly three, 3rd June (J. H. van der Dol, N. V. McCaneh *et al.*). Margate, two, 16th June (D. C. Gilbert).

**Norfolk** Swanton Morley gravel-pit, 11th July (J. King *et al.*).

**Somerset** Bridgwater Bay and Durleigh Reservoir, 16th July (J. M. Breeds, C. P. & Mrs T. A. Denman).

**Suffolk** Benacre Ness, 23rd August (K. J. S. DevonaId).

**Grampian 1976** Ythan Estuary, 25th July (P. M. Ellis, C. J. Spray, L. Steele).

**Shetland 1976** Yell, found long-dead on shoreline early August, having been ringed as nestling near Stockholm, Sweden, 18th June 1975 (per BTO Ringing Office and J. Ohlsson).

**Strathclyde 1976** Endrick Mouth, 4th July (K. Francis).

(Cosmopolitan except South America, but everywhere local) The three late records for 1976 take the total for that year to 12, the highest ever, and include the first direct evidence of vagrancy from the Baltic population. An average showing in the year under review.

**Whiskered Tern** *Chlidonias hybridus* (20, 42, 5)

**Cambridgeshire** Grafham Water, 26th May (P. J. Marsh).

**Humberside** Easington, 24th to at least 30th April (G. Catley, S. M. Lister).

**Lancashire** Leighton Moss, 6th June (P. Guy, A. W. H. Wincott).

**Surrey** Staines Reservoirs, 17th August (R. J. & Mrs S. M. Johns *et al.*).

**Tyne & Wear** Gosforth Park, 23rd April (F. Colley, M. S. Hodgson *et al.*).

(South Eurasia, northwest, east and south Africa, and Australia) Although not yet annual in occurrence, this marsh tern is now twice as common as it was in 1967.

**White-winged Black Tern** *Chlidonias leucopterus* (50, 290, 31)

**Avon** Chew Valley Lake, immature, 25th to 28th September (A. H. Davis, A. J. Merritt, K. E. Vinicombe).

**Cleveland** Saltholme Pool, immature, 10th to 11th August (M. A. Blick, J. Crussell, T. Francis). Seal Sands, immature, 20th August (D. J. Britton).

**Cornwall** Camel Estuary, adult, 23rd May (M. P. Frost, R. E. Wake). Stithians Reservoir, adult, 8th July (J. Hawkey *et al.*).

**Dorset/Somerset** Sutton Bingham Reservoir, immature, 23rd to 25th August (A. J. Bundy, D. E. Paull, M. Regan).

**East Sussex** Pctt Pools, immature, 27th August to 10th September; two immatures, 2nd to 3rd September (C. H. Dcan, J. Houghton, E. W. Sears *et al.*).

**Gwynedd** Llyn Traffwl, Anglesey, adult, 16th July to 8th August (M. J. Donahue, M. H. Rogers *et al.*); apparently the same individual, Ynys Fenrig, 31st July to 6th August (R. Bincs, I. McLean *et al.*).

**Humberside** Tophill Low Reservoir, adult, 7th June (A. S. Butler, P. Doherty, V. A. Lister). Blacktoft Sands, immature, 25th to 26th August (A. Grieve). Hornsca Mere, adult, 30th August (D. G. Hobson, D. P. Sharpe).

**Kent** Margate, first-summer, 8th July (D. C. Gilbert). Dungeness, immature, 20th to 22nd August (B. Reed, N. Riddiford *et al.*).

**Lancashire** Clifton Marsh, adult, 20th June (P. Guy).

**Lincolnshire** Covenham Reservoir, immature, 30th August to 11th September (B. M. & J. R. Clarkson).

**Norfolk** Hardley Flood, adult, 26th to 28th May (J. C. Eaton *et al.*). Cley, adult, 1st to 9th June (B. Bland, R. Wells).

**Suffolk** Alton Water, adult, 28th May (M. C. Marsh, P. W. Murphy). Havergate, adult, 2nd to 3rd June (N. R. Davies, R. I. Thorpe). Minsmere, adult, 23rd June (N. Beach, R. F. W. Hemming, N. R. Stocks *et al.*); immature, 24th August (I. H. Brown, S. N. G. Howell).

**Surrey** Staines Reservoirs, immature, 23rd August (J. Hazell); probably the same individual, Queen Mary Reservoir, 24th August to 4th September (J. Hazell, M. J. Rogers); second immature, 25th August (Dr D. B. Jones, R. J. Johns); another immature, 10th to 12th September (P. Clement, P. R. Colston).

**Tyne & Wear** Wallsend, adult, 11th June (C. Oldershaw, S. Roddis *et al.*).

**West Midlands** Rotton Park Reservoir, Birmingham, immature, 17th August (A. R. M. Blake).

**West Sussex** Sidlesham Ferry, adult, 26th May (C. R. Janman, M. Shrubbs).

**Dorset 1976** The immature at Christchurch Harbour on 9th to 26th October (*Brit. Birds* 70: 425) was last seen on 30th October.

**Norfolk 1976** Cley, adult, 14th July (R. & S. C. Ludford).

**Orkney 1976** North Ronaldsay, adult, 24th to 26th May (J. W. A. Cuth).

**Oxfordshire 1976** Farmoor Reservoir, adult, 18th October (R. Nelson).

**Strathclyde 1976** Eaglesham, adult, 4th June (Mr & Mrs D. Chalmers, J. Donn, W. Munro).

(Southeast Europe, west and east Asia) Also singles at Ballycotton, Co. Cork, on 21st August, Lady's Island Lake, Co. Wexford, on 18th September and Cobh, Co. Cork, on 28th September. Only twice before (in 1970 and 1976) have more than 30 reached Britain and Ireland in one year.

**Brünnich's Guillemot** *Uria lomvia* (3, 4, 1)

**Shetland** Sumburgh, found dead, 18th December (D. P. P. Eva, P. K. Kinnear, T. D. Rogers), now at Fair Isle Bird Observatory.

**Highland 1976** Reay Beach, Thurso, found dead, 31st January (Mrs P. M. Collett *et al.*), now at Royal Scottish Museum.

(Arctic coasts of Canada and Russia) The odds on putting binoculars on to a live Brünnich's Guillemot get no better. All five birds in the last 20 years have been found dead (and there are only three previous records). Yet there is a strong hint in their dates and localities—three in Ireland and Argyll in September and October, four in Scotland in December, January and March and one in Lancashire in April—that these waifs come from a small wintering population, like that now established for the White-billed Diver. In eastern North America, birds stray south as far as Delaware.

**Great Spotted Cuckoo** *Clamator glandarius* (6, 12, 1)

**Norfolk** Cley and Salthouse, 21st October (C. E. & Mrs M. S. Hope, C. R. Linfoot, G. G. Williams *et al.*).

(South Europe, southwest Asia and Africa) This is the latest ever. The ornithological depression at Cley on the day after this bird's very brief appearance to a select few observers was monumental.

**Scops Owl** *Otus scops* (64, 10, 1)

**Lincolnshire** Saltfleetby, found dead, 7th April (C. Marsh per S. Lorand).

(South Europe, Russia, west Asia and northwest Africa) Another in early April, like the sole 1976 record in the Isles of Scilly.

**Snowy Owl** *Nyctea scandiaca* (many, 154, 10)

**Orkney** Birsay Moor, 13th to 16th May (D. Mower, N. Picozzi).

**Shetland** Fetlar: two adult ♀♀, probably present since late 1976, from March to 9th and 12th June respectively; three sub-adult ♀♀ in early April and on 9th May and one on 5th June; adult ♀, 4th to 7th September and two from 8th September to the end of the year (J. N. Dymond, R. J. Tulloch). Unst, ♀, 28th and 30th April (per R. J. Tulloch). Out Skerries, 21st May (R. W. Hemming, A. R. Lowe, W. E. Oddie). Ronas Hill, Mainland, sub-adult ♀, 24th June and 9th July, two on 12th and at least two on 28th, again on 13th August and 16th September (I. S. Robertson, R. J. Tulloch *et al.*). Burra, ♀, 23rd October (per R. J. Tulloch). Yell, adult ♀, 28th December (per R. J. Tulloch).

(Circumpolar Arctic) Plenty of potential wives, but sadly once again no husband!

**Alpine Swift** *Apus melba* (150, 123, 6)

**Dorset** Portland, 20th May (I. S. Robertson).

**Essex** The Naze, 9th October (M. Coath).

**Gloucestershire** South Cerney sewage farm, 1st June (R. & T. Hamlett).

**Hertfordshire** Hartsbourne golf course, 14th May (A. G. Clarke).

**Shetland** Burra, 24th June (I. Burrows, R. W. Furness).

**Surrey** Staines Reservoirs, 25th August (R. J. Johns).

**Greater London 1967** Beddington sewage-farm, Surrey, 18th June (P. R. Colston).

**Western Isles 1974** Hirta, St Kilda, 12th to 16th May (L. J. & Mrs L. Brown, J. Wilkie *et al.*).

(South Eurasia, northwest and east Africa) An average showing.

**Bee-eater** *Merops apiaster* (154, 93, 1)

**Suffolk** Dunwich, 28th May (D. A. Pond).

(South Europe, southwest Asia and northwest Africa) There can be no

doubt that this Mediterranean spirit is becoming scarcer. Up to 1974, records averaged over five a year, but there have been only three since.

**Roller** *Coracias garrulus* (135, 54, 3)

**Oxfordshire** Bruern, 14th to 16th June (J. M. & Dr B. Campbell, D. & J. Wilson).

**North Yorkshire** Ripley, 15th July (R. Smith).

**West Sussex** Upwaltham Down, 19th to 22nd June (R. A. Cawthorne, J. H. Marchant, E. T. Roberts *et al.*).

(South and east Europe, west Asia and northwest Africa) An average showing.

**Short-toed Lark** *Calandrella brachydactyla* (40, 138, 14)

**Fife** Isle of May, 26th May (N. J. Phillips *et al.*).

**Humberside** Spurn, 28th May (S. M. Lister, J. M. Turton *et al.*).

**Northamptonshire** Sywell Reservoir, 13th to at least 14th May (L. S. Taylor *et al.*).

**Scilly** St Martin's, 30th September; two, 1st to 8th October (R. W. Allen, I. Forsyth *et al.*); another, 12th to 16th October (per H. P. K. Robinson). St Mary's, five or more: 1st to 4th October (P. J. Grant, M. J. Rogers *et al.*); another locality, two, 7th October, three on 9th, four 12th to 13th, two to 15th and one to 16th (M. J. Rogers *et al.*). Others elsewhere, 10th, 11th, 14th and 15th (per H. P. K. Robinson) probably associated with same party. Treco, 23rd to at least 25th October (B. Bland).

**Shetland** Out Skerries, 27th to 28th September (D. Coutts, P. J. Ewins, J. D. Okill). Fair Isle, 1st October (E. Fagrell, H. Gilston, R. J. Johns *et al.*).

(South Eurasia, north and east Africa) An influx almost rivalling that of 1975, with the Isles of Scilly receiving the lion's share this time, but Fair Isle almost dipping out.

**Red-rumped Swallow** *Hirundo daurica* (7, 40, 12)

**Avon** New Passage, 16th September (P. Evans, G. Youdale).

**Cornwall** Rinsey Head, 17th May (J. A. Grover).

**Dyfed** Bosherton Ponds, near Pembroke, 30th June (Miss I. Cotgrove).

**Humberside** Hornsea Mere, 30th April (J. E. Adlard, R. G. Hawley, R. G. Sturman). Spurn, two, 22nd October (J. M. Bayldon, J. Cudworth, D. Page *et al.*); another, 25th October (D. Abbott, B. Banson, D. Ford *et al.*); another, 13th November (D. Carroll, R. Gilbert, K. Pearson *et al.*).

**Lincolnshire** Gibraltar Point, 29th October (R. Thompson).

**Norfolk** Cley, 11th June (R. J. Fairbank, P. Naylor, N. J. Redman); 18th October (H. G. Tyler *et al.*).

**Northumberland** Holy Island and Bamburgh Head, 27th to 30th October (D. G. & Mrs Bell, S. J. M. Gantlett, Mrs M. G. Robinson *et al.*).

**Orkney 1976** North Ronaldsay, 7th October (J. W. A. Cutt).

(South and east Eurasia, and Africa) Spring influxes are expected, but the pronounced arrival on the East Coast in October is unprecedented. The total of 12 compares with five in each of the two previous best years (1968 and 1973). (In the last report it was stated (70: 429) that the 1976 Scottish record was only the second for that country: A. T. Macmillan has rightly pointed out that it was in fact the fourth.)

**Richard's Pipit** *Anthus novaeseelandiae* (135, 724, 90)

**Cheshire** Burton Marsh, two, 9th to 10th March (Dr R. J. Raines, W. T. C. & Mrs L. Rankin).

**Cornwall** Stepper Point, Padstow, 25th September (R. Smaldon). Marazion Marsh, 14th October (D. J. Barker). Pentire Point, 17th October; another, 25th November (S. M. Christophers). Wadebridge, 25th October (S. M. Christophers).

**Devon** Dawlish Warren, 18th September (R. Burrige). Ernsettle Marsh, Plymouth, 19th September (E. Griffiths).

**Dorset** Portland, 24th September (G. Walbridge *et al.*).

**Dyfed** Skokholm, 20th to 23rd September (D. B. Wooldridge).

**Fife** Isle of May, 23rd September (I. H. Leach *et al.*).

**Grampian** Meikle Loch, 30th October (R. W. & Mrs Byrne, C. J. Spray).

**Gwent** Peterstone, 25th to 26th September (S. D. Enright, S. N. G. Howell).

**Gwynedd** Bardsey, 7th October (M. R. Lawn); another, 25th to 26th October (P. J. Roberts, R. S. Thomas). Malltraeth, Anglesey, 12th to 15th December (T. Baker, C. McCarty, C. M. Swaine *et al.*).

**Humberside** Spurn, 16th to 25th October (A. O. Aitken, S. M. Lister, M. L. Passant *et al.*).

**Lincolnshire** Grainthorpe Marsh, two, 22nd to 25th September; another, 29th to at least 8th October; possibly additional individuals, 8th and 16th October (S. Lorand *et al.*). Donna Nook, at least five: 4th October; one or two, 22nd October to 6th November; four, 29th to 30th October (S. Lorand *et al.*).

**Lothian** Barns Ness, 9th October (D. J. Bates, W. R. Brackenridge, R. H. Hogg *et al.*).

**Norfolk** Winterton/Horsey, total of at least ten, 1st to 23rd October (P. R. Allard, A. D. Boote, T. E. Boulton *et al.*). Sheringham, 28th September; three, 20th to 25th October, four 22nd to 23rd October (Dr M. Taylor). Weybourne, two, 27th October; another, 5th to 7th November (Dr M. Taylor *et al.*). Cley, 13th to 28th October (C. R. Linfoot, D. I. M. Wallace *et al.*); another, 23rd (B. Reed). Blakeney Point, 13th October (D. M. Norman *et al.*). Stiffkey, 22nd September; another, 25th September; three, 11th to 12th October, one remaining to 14th, one to 15th; another, 14th to 17th (P. J. Marsh *et al.*). Warham, 1st to 2nd October (G. E. Dunmore). Wells/Holkham, 7th to 9th October; three, 11th, two remaining to 18th; possibly another, 23rd (S. J. M. Gantlett, P. J. Marsh *et al.*). Gun Hill, Holkham, two, 11th to 13th October; another two, 29th October (per G. E. Dunmore). Scott Head, 16th to 29th October, two on 27th (per G. E. Dunmore). Burnham Overy, 16th October (per G. E. Dunmore).

**Northumberland** Low Hauxley, 16th October (J. A. Ginnever, E. R. Meek).

**Nottinghamshire** Hoveringham gravel-pits, 8th to 9th October (J. A. Hopper, N. R. Stocks).

**Scilly** St Mary's, ten: 16th to 18th September (N. A. Preston, J. F. Ryan); 20th September (G. G. & P. E. Williams); 25th to 29th September (per H. P. K. Robinson); a second individual, 29th (M. J. Rogers); 3rd October (P. M. Ellis); 8th October (G. Summers); two, 9th to 10th October (H. P. K. Robinson, G. Summers *et al.*); 11th October (H. P. K. Robinson); 14th October (G. Summers); two, separate individuals, 18th October (G. J. Clark, Dr N. R. Rogers); another, 3rd November (P. A. Dukes). St Martin's, 9th October (D. Page). St Agnes, 21st to 25th April (R. W. Allen); 30th September (P. A. Dukes); 7th October (C. E. Richards); 18th to at least 22nd October (R. A. Hume *et al.*). Tresco, 13th to 14th October (A. R. Dcan, D. I. M. Wallace *et al.*). We believe that several more remain unreported.

**Shetland** Out Skerries, 24th and 27th to 28th September (P. J. Ewins, J. D. Okill *et al.*). Fair Isle, 11th to 17th September (R. A. Broad, C. D. R. Heard *et al.*).

**Somerset** Dunster Beach, 27th November (D. E. Paufl, P. D. Round *et al.*).

**Suffolk** Minsmere, 2nd May (Mr & Mrs D. Elphick). Landguard Point, 24th to 26th September (P. W. Murphy *et al.*); another, 22nd October (M. C. Marsh, P. W. Murphy *et al.*).

**Humberside 1976** Kihsea, 24th October (C. D. R. Heard *et al.*).

**Scilly 1976** St Mary's, 25th September (J. Miller *et al.*).

(West Siberia east to Manchuria and southeast to New Zealand, also Africa) Also one at Old Head of Kinsale, Co. Cork, on 22nd October. A dramatic return to its form of the late 1960s. The Cheshire birds are the

first March records assessed by us. As with Short-toed Lark, Shetland records were relatively few.

**Tawny Pipit** *Anthus campestris* (120, 349, 42)

**Cornwall** Porthgarra, 25th September (L. P. Williams). Par Beach, 29th September (S. M. Christophers).

**Dorset** Portland, 19th August (I. S. Robertson); 28th August (D. J. Fisher, R. J. Johns *et al.*); 24th to 25th September (I. S. Robertson, A. J. L. Smith); at least one other, 25th September (A. J. L. Smith). Easton, near Portland, three, 25th September (A. J. Bundy, D. E. Paull, P. D. Round). Some duplication may have occurred.

**East Sussex** Beachy Head, 21st August (P. Clement, R. E. Turley); three, 27th August (D. A. & T. W. Parmenter); another, 27th August (M. J. Rogers); 25th September (J. F. Cooper). Crumblcs, Eastbourne, 26th August (M. J. Rogers). Pett Level, 3rd September (G. Summers, Miss C. A. Taylor). Cuckmere Valley, two, 29th September to 1st October (R. D. M. Edgar, T. W. Parmenter *et al.*).

**Hampshire** Dibden Bay, 4th to 6th September (J. M. Clark). Shepherd's Spring, Andover, 11th September (G. H. Johnson).

**Kent** Minnis Bay, 17th October (D. C. Gilbert).

**Norfolk** Holme, 19th March to 10th April (P. R. Clarke). Sheringham, 24th September (M. Fizzer, K. B. Shepherd, Dr M. Taylor *et al.*); another three, 24th September (K. B. Shepherd). Clcy, 21st October (I. R. Clark, C. R. Linfoot, G. G. Williams).

**Scilly** St Mary's, 5th to 6th September (R. W. Allen, W. E. Oddie); 26th to 28th September (P. A. Dukes, G. G. & P. E. Williams *et al.*); 13th to 17th October, two on 14th to 15th (G. J. Clarke *et al.*); another, 24th October (B. Bland, D. Filby, P. J. & Mrs V. A. Wilson *et al.*). St Martin's, two, 28th September (M. J. Rogers, N. R. Stocks). Tresco, 20th October (D. I. M. Wallace). Bryher, 16th to 22nd October (D. I. M. Wallace *et al.*).

**Shetland** Fair Isle, 26th May (R. A. Broad, S. W. Holmes, M. P. Sutherland *et al.*).

**West Sussex** Cissbury Ring, 23rd August (B. F. Forbes). Pagham Harbour, 28th August (S. E. Gast, C. A. Harbard). Littlehampton, 27th September (C. R. Janman).

**Wight** Headon Warren, 12th September (M. C. & P. Combridge).

**Devon 1976** South Milton Ley, 8th September (R. Burridge).

**East Sussex 1976** Arlington Reservoir, 4th September (J. Willsher). Beachy Head, two, 28th August (J. F. Cooper, A. R. Kitson *et al.*).

**Essex 1976** Colne Point, 18th September (P. Loud, P. Newton *et al.*).

**Scilly 1976** Tresco, 27th September to 3rd October (J. Miller *et al.*).

**Shetland 1976** Foula, 1st June (B. L. & R. W. Furness).

(Europe, south Asia and northwest Africa) Although once again overtaken by Richard's Pipit, this not dissimilar large pipit came in record numbers: the previous peak was 36 in 1971. (It may be noted here that the BOU Records Committee is currently re-examining an old Sussex record of Blyth's Pipit *A. godlewskii*, which may result in that species' arrival on the British list, in Category B. Since there was also one in Finland in 1975, observers should take particular care with large pipits. P. J. Grant is preparing a fresh statement on the west European records.)

**Olive-backed Pipit** *Anthus hodgsoni* (0, 9, 1)

**Scilly** St Mary's, 16th to 18th October (G. J. Clark, W. E. Fletcher *et al.*).

(Northeast Russia to central and east Asia) This is the fifth autumn running for this beautiful pipit, with a tail-wag beyond compare. That one should have occurred in a generally poor season for Siberian and Asiatic vagrants is remarkable. A pre-1958 record will be published shortly.

**Pechora Pipit** *Anthus gustavi* (13, 9, 1)

**Shetland** Fair Isle, 21st to 25th September, trapped 22nd (R. A. Broad, A. Clarke, C. D. R. Heard *et al.*), seen again 1st October (H. Gilston, R. J. Johns) (plates 191 & 192).

**191 & 192.** Pechora Pipit *Anthus gustavi*, Shetland, September 1977 (R. A. Broad)



(Northeast Russia, across Siberia to Bering Strait) Fair Isle is the place, and late September/early October the time, for this species.

**Red-throated Pipit** *Anthus cervinus* (30, 84, 10)

**Lincolnshire** Grainthorpe Marsh, 21st to 22nd September (S. Lorand).

**Norfolk** Cley, 18th May (M. F. Stoyle). Weybourne, 29th to 31st May (S. J. M. Gantlett, M. C. Powell *et al.*).

**Northumberland** Bamburgh, 4th June (J. A. & R. McCutcheon).

**Scilly** St Mary's, 25th September; another, 14th October (M. J. Rogers). St Agnes, 14th to 17th October, two, 15th to 16th (G. J. Jobson, M. Parker *et al.*).

**Western Isles** Hirta, St Kilda, 26th May (Dr M. P. Harris).

**Shetland 1976** Out Skerries, 21st to 23rd September, two, 22nd September (M. W. Fraser, R. G. Nisbet); it is possible that the first of these was the same as that on 25th to 26th September, already published (*Brit. Birds* 70: 439). Whalsay, 30th September to 2nd October (Dr B. Marshall).

(Arctic Eurasia) Also one on Great Saltee, Co. Wexford, on 15th and 16th October. Another good showing, for the third year running. The average since 1975 has been 12 (ten to 14); before then, it was under four (none to nine).

**Alpine Accentor** *Prunella collaris* (29, 3, 1)

**Scilly** St Mary's, 30th October to 9th November (M. S. Chapman, C. D. R. Heard, B. Whitby *et al.*) (plate 193).



**193.** Alpine Accentor *Prunella collaris*, Isles of Scilly, October/November 1977 (David Hunt)

(Mountains in Iberia and northwest Africa, east to Japan) Yet another single bird, for the third year running. Is this species becoming more regular, as it used to be?

**Thrush Nightingale** *Luscinia luscinia* (2, 29, 7)

**Fife** Isle of May, 22nd to 23rd August, trapped 22nd (F., G. & M. Griffith, D. B. Smith).

**Lincolnshire** North Somercotes, trapped, 22nd May (C. Morrison, P. J. Wycherley *et al.*) (plate 194). Theddlethorpe Dunes, 3rd to 10th September, trapped 3rd (R. M. Jones).

**Norfolk** Holme, trapped, 14th May (P. R. & Miss P. A. Clarke) (plate 195).



**194.** Thrush Nightingale *Luscinia luscinia*, Lincolnshire, May 1977 (K. Atkin)

**195.** Thrush Nightingale *Luscinia luscinia*, Norfolk, May 1977 (P. R. Clarke)



**Shetland** Fair Isle, trapped, 21st May (R. A. Broad, S. W. Holmes, M. P. Sutherland *et al.*); another, trapped, 28th May (R. A. Broad, M. P. Sutherland *et al.*); 12th to 15th August, trapped 13th (R. A. Broad, J. Richards *et al.*).

**Shetland 1976** Whalsay, 3rd October (J. L. Irvine, Dr B. Marshall, the late J. H. Simpson *et al.*).

(Scandinavia, east Europe and west Asia) Once a true rarity, this duller version of the Nightingale *L. megarhynchos* has missed only one year in the last eight. The seven records in 1977 match the previous peak in 1970. Range expansion has been recorded in Norway (see *Brit. Birds* 70: 348-349).

**Siberian Rubythroat** *Luscinia calliope* (0, 1, 0)

**Shetland 1975** Fair Isle, trapped, 9th to 11th October (R. A. Broad, A. R. Lowe, P. J. Roberts *et al.*).

(Siberia and Japan west to Urals, sporadically European Russia) Now accepted by the BOU Records Committee. We hope to publish full details shortly.

**Red-flanked Bluetail** *Tarsiger cyanurus* (3, 4, 0)

**Fife 1975** Isle of May, 14th October (*Brit. Birds* 69: 345), was also seen on 15th October.

(Northeast Europe, across Asia to Japan)

**Stonechat** *Saxicola torquata* (1, 16, 2)

Individuals showing the characters of one or other of the eastern races *S. t. maura* or *stejnegeri*, colloquially known as Siberian Stonechats, were recorded as follows:

**Suffolk** Benacre, 29th September to at least 2nd October (F. K. Cobb, J. Faulkner, C. S. Waller *et al.*).

**West Yorkshire 1976** Winterset Reservoir, 19th to 24th October, trapped 22nd (J. S. Armitage, M. J. Polson, P. Smith *et al.*).

(Eastwards from northeast Russia) Also one, probably *maura*, on Great Saltee, Co. Wexford, from 12th to 19th October, the first for Ireland.

**Pied Wheatear** *Oenanthe pleschanka* (3, 2, 0)

**Grampian 1976** Mouth of River Don, adult ♂, 26th September to 7th October, trapped 4th (Dr A. Knox *et al.*) (plates 196-198).

(Southeast Europe and south-central Asia) The earliest ever of a fine chat that has remained a true rarity. The last was in 1968; three out of the five have appeared in Scotland.

**Black-eared Wheatear** *Oenanthe hispanica* (15, 16, 1)

**Scilly** Samson, 22nd to 26th April (R. W. Allen, D. B. Hunt, the late P. Z. McKenzie).

**Cornwall 1971** Porthgwarra: one of the two recorded on 2nd October (*Brit. Birds* 65: 341) was first seen on 1st October.

(Southern Europe, northwest Africa and southwest Asia, also Iran) The one in Scilly is a classic example of overshooting by a summer visitor to Iberia.

**Siberian Thrush** *Zoothera sibirica* (1, 1, 1)

**Norfolk** Great Yarmouth, ♂, 25th December (P. J. Wilkinson).

(Central Siberia east to Japan and south to Tasmania) Another male hot on the heels of the one in Hampshire in December 1976. Would that we could all have one for Christmas!

## SOUTHERN TURKEY IN WINTER

Nov 24—Dec 3 1979

Why not escape, temporarily at least, from our almost endless winter darkness to the warm sunshine of Southern Turkey, wintering grounds for some of the largest concentrations of **wildfowl** in the world. With the wildfowl come their predators, including both **White-tailed** and **Spotted Eagles**, as well as a multitude of other waterbirds (such as **flamingoes** and **pelicans**). As a contrast to the wetlands the tour also visits the **Taurus** mountains and the edge of the **Central Plateau**. **Roy Dennis**, for many years warden of Fair Isle Bird Observatory and now R.S.P.B. Highlands Officer, is guest lecturer.

## SOUTHERN MOROCCO IN WINTER

Jan 11—20 1980

Another chance to escape to the sun; this time to the deserts and mountains of Southern Morocco. Starting on the Atlantic coast at **Agadir**, the route passes through the edge of the **Sahara** before crossing the **High Atlas** to **Marrakech**. It makes a pleasant change to celebrate the new year with **Hoopoes**, **Little Swifts** and oleander blooms instead of ice and snow (although even this is available in the Atlas!). **Iain Robertson**, warden of Fair Isle Bird Observatory, accompanies the tour.

## BIRDS & WILDLIFE OF INDIA & NEPAL—2

Feb 9—26 1980

**Assam** is a remote and fascinating corner of India, relatively isolated from the rest of the country since the partition which produced East Pakistan (now Bangladesh). This Sunbird tour takes you to the region's finest wildlife sanctuaries—**Kaziranga** and **Manas**, home of a large proportion of the world population of **Great Indian Rhino** and **Swamp Deer**, as well as good numbers of **Tiger** and **Gaur** ('Indian Bison'). We cannot praise Manas too highly—with its incredible profusion of birdlife (over 200 species can be seen in a few days) and magnificent setting below the Himalayan foothills, visiting it is a memorable experience. In addition to Assam, the tour includes the **Kathmandu** valley, the mangrove-fringed creeks of the **Sundarbans** and the ornithological paradise of **Bharatpur**. **Tim Sharrock**, who needs no introduction, is guest lecturer.

## SUNBIRD HOLIDAYS & CONSERVATION

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# SUNBIRD HOLIDAYS

## AT EXECUTIVE TRAVEL

### SPECIALISED BIRD-WATCHING & WILDLIFE HOLIDAYS SPRING 1979—WINTER 1980

#### ISRAEL IN SPRING

Mar 25—Apr 8 1979

This tour concentrates on the **Red Sea** resort of **Elat**, which has the enviable distinction of combining wonderful bathing amongst its coral reefs with the world's largest migration of birds of prey (circa 700,000 counted in spring 1977). There must be few places where one can sit in the sea and watch thousands of **Tawny Eagles**, **Black Kites** and **Steppe Buzzards** spiralling overhead! In addition to the Red Sea coast the party will visit the **Negev** desert, **Sinai**, the **Dead Sea**, **Jerusalem** and the Mediterranean coast during the best season of the year for seeing desert birds. **Steve Madge**, who will need no introduction to keen 'birders', is guest lecturer.

#### MOROCCO IN SPRING

Apr 17—May 1 1979

Travel from the beautiful Atlantic coast around **Agadir** over the magnificent snow-capped **High Atlas** to the historic city of **Marrakech** and thence through the **Saharan oases** to the cool forests of the **Middle Atlas**. The dates of this tour coincide with the peak of spring migration through Morocco and one of the best times of year for desert birds such as **bustards** and **sandgrouse**. **John Andrews**, Conservation Planning Officer with the R.S.P.B., is guest lecturer and will be revisiting areas he knows well from previous travels.

#### TURKEY IN SPRING

May 5—20 1979

This year's itinerary allows a look at Turkey's remote and fascinating eastern provinces, with their rich birdlife, wild mountains and small villages untouched by development. Starting on the **Sea of Marmara**, the route passes across the arid, strangely eroded **Central Plateau** with its superb steppe lakes, through the rugged **Taurus** mountains to the **Mediterranean** deltas and thence to farthest **Kurdistan** by way of the semi-deserts along the **Syrian** frontier. **Mark Beaman**, who knows Turkey better than anyone, will be accompanying this exciting tour, which should turn up everything from **Black Vulture** to **Crimson-winged Finch**.

#### AUTUMN AT THE BOSPHORUS

Aug 25—Sep 3, & Sep 22—Oct 1 1979

If you prefer birds to come to you rather than vice versa, our two fairly leisurely autumn holidays at the **Bosphorus** will be the perfect solution. Relax on a hill-top and watch thousands or even tens of thousands of **storks**, **eagles**, **vultures**, **buzzards** and others passing overhead; alternatively, take time off amongst the bazaars and mosques of Istanbul or cool off in the Sea of Marmara. Both holidays include a three day excursion to the famous lakes of **Apolyont** and **Manyas**, plus **Uludag**, with its **Lammergeiers** and **Red-fronted Serins**. **John Andrews** will accompany the August departure, timed to catch the peak of **White Stork** and **Honey Buzzard** migration, whilst **Alan Vittery** will accompany the September departure, for the peak passage of **Lesser Spotted Eagles** and **Buzzards**.

#### BIRDS & WILDLIFE OF INDIA & NEPAL—1

Oct 27—Nov 17 1979

**Trekking in the Himalayas** must rank as one of the most breath-taking experiences in the world. This Sunbird tour breaks new ground by combining a leisurely trek in the magnificent **Annapurna** range with visits to some of the finest wildlife sanctuaries in northern India and lowland Nepal. **Martin Woodcock**, co-author and illustrator of Collins 'Field Guide to the Birds of South-East Asia', will be accompanying the tour to show you the confusing multiplicity of the sub-continent's birdlife as only he can. Apart from the trek, the tour includes visits to the beautiful **Kathmandu** valley, the **Royal Chitwan National Park** (Tiger Tops)—for **Great Indian Rhino** and possibly **Tiger**, the **Tiger** reserve of **Sariska** and perhaps the world's best bird sanctuary at **Bharatpur**, winter home of the rare **Siberian Crane**.



196-198. Adult male Pied Wheatear  
*Oenanthe pleschanka*, Grampian, October 1976  
(A. Knox)



**Black-throated Thrush** *Turdus ruficollis* (3, 3, 1)**Shetland** Loch of Hillwell, ♀, *T. r. atrogularis*, 6th to 12th November (J. D. Okill *et al.*).

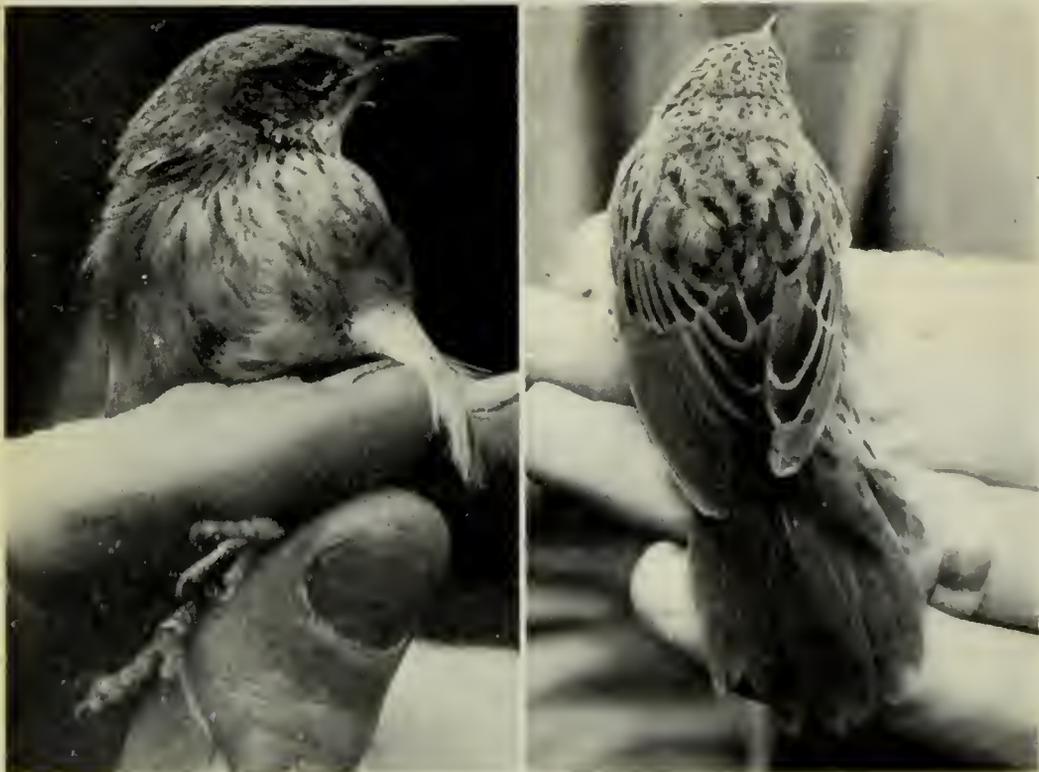
(Central Asia) There were only three up to 1958, but, since 1974, single birds have appeared in three autumns and one midwinter.

**American Robin** *Turdus migratorius* (11, 11, 1)**Western Isles 1975** The individual on St Kilda was present from 14th January to 15th February, not 14th to 15th February as previously noted (*Brit. Birds* 69: 342).

(North America) None in Britain in 1977, but one at Glengariff, Co. Cork, on 16th January, the first of a limp quintet of Nearctic passerines in this report (there were 22 in 1976).

**Cetti's Warbler** *Cettia cetti* (0, 403, —)**Hampshire 1976** Keyhaven Marshes, 31st October to 3rd November (P. & M. C. Combridge, E. J. Wiseman).**Kent 1976** Murston, at least one, 3rd April to 31st December (D. C. Gilbert *et al.*).

(South and west Europe, southwest Asia and northwest Africa) Now no longer on the Committee's list, but any unsubmitted pre-1977 records are still required.

**Fan-tailed Warbler** *Cisticola juncidis* (0, 2, 1)**Dorset** Lodmoor, in song, 24th to 28th June (M. Cade *et al.*).(Mediterranean, west and north France, also Africa and south Asia to Australia) This small dervish of a warbler lost no time in putting in its second British appearance. The forecast of likely breeding (*Brit. Birds* 70: 152-159) receives further support.**199 & 200.** Immature Lanceolated Warbler *Locustella tanceotata*, Shetland, September 1977 (R. A. Broad)

**Lanceolated Warbler** *Locustella lanceolata* (9, 13, 1)

**Shetland** Fair Isle, immature, trapped, 19th September (R. A. Broad, M. S. Chapman, N. Mathews) (plates 199 & 200).

**Shetland 1976** Fair Isle, 6th October (H. Gilston, R. J. Johns).

(East Eurasia, from central Russia to north Japan) In the 14 years 1958-71 there had been only three, but then 11 came in the next six. This 1977 individual was against the odds, with so few other Siberian warblers in support.

**Savi's Warbler** *Locustella luscinioides* (many, 173, 32)

**Devon** South Milton Ley, ♂, 10th May to 4th June (R. Burrige, E. Griffiths *et al.*). Slapton Ley, ♂, 14th to 21st May (R. M. Belringer, M. R. Edmonds, J. B. Morris *et al.*).

**Dorset** Lodmoor, possibly two ♂♂, 9th May to 22nd August, one trapped 26th May (M. Cade, G. P. Green *et al.*).

**Hampshire** Titchfield Haven, ♂, 25th to 29th June (B. S. Duffin *et al.*). Farlington Marshes, first-year, trapped, 21st August (R. Tofts).

**Humberside** Tophill Low Reservoir, ♂, 30th April to 30th May; second individual, 25th May (N. A. Bell, G. E. Dobbs). Blacktoft Sands, ♂, 12th May to 2nd July; two ♂♂, 16th May to 4th June (A. Grieve *et al.*). Flamborough Head, ♂, 15th to 19th May (P. A. Lassey, Miss I. Smith, D. I. M. Wallace).

**Kent** Stodmarsh, 3rd April to 25th September; up to five pairs, two probably bred (P. J. Mountford *et al.*). Locality withheld, 24th April to 4th September, one pair bred (observers' names withheld).

**Merseyside** Marshside Marsh, ♂, 28th April (Dr B. McCarthy).

**Norfolk** a Broadland site, present throughout breeding season (per G. E. Dunmore).

**Suffolk** locality A, 30th April to at least 11th August, one pair bred (observers' names withheld). Locality B, present throughout breeding season (observers' names withheld).

**Warwickshire** locality withheld, ♂, 24th April to 5th May, second ♂, in late April, third individual assumed to be ♀ (observers' names withheld).

**County withheld** locality withheld, ♂, 10th May to 24th June; two ♂♂, 17th to 26th May (observers' names withheld).

**Kent 1974** Stodmarsh, three ♂♂ present by 4th May, not by 7th May as previously stated (*Brit. Birds* 69: 364).

**Oxfordshire 1975** East Hendred, ♂, 20th to 22nd May (C. E. Davies, R. Rabi).

(Europe, west and central Asia and northwest Africa) Another marked influx in spring, as in 1976, with an impressive multiple arrival in Humberside.

**Aquatic Warbler** *Acrocephalus paludicola* (47, 417, 28)

**Avon** Chew Valley Lake, immature, trapped, 3rd August (D. Buffery, R. Webber, S. J. Wilkinson).

**Borders** St Abbs Head, 22nd to 23rd August (M. W. Fraser *et al.*).

**Cornwall** Marazion Marsh, three immatures, trapped, 22nd August (D. S. Flumm, P. D. Round); two immatures, 17th September (E. Griffiths). Long Rock, Marazion, immature, trapped, 11th September (B. Pattenden). Stithians Reservoir, immature, 4th September (R. M. Belringer, T. R. Elliot, J. C. Nicholls). Predannack Airfield, immature, 10th September (E. Griffiths).

**Devon** South Milton Ley, immature, trapped, 19th August (R. Burrige). Ebford, Exeter, adult, trapped, 21st August (Miss B. O. B. Primmer). Slapton Ley, probable immature, 27th September (J. F. Edwards, D. Jenks, J. B. Morris).

**Dorset** Portland, adult and immature, 14th August (R. J. Johns, I. S. Robertson *et al.*); immature, 22nd August (I. S. Robertson, G. Walbridge *et al.*). Radipole Lake, probable immature, 28th August (N. Marshall, L. Mulford, A. J. L. Smith *et al.*).

**East Sussex** Cuckmere, probable immature, 12th August (Mrs E. Chadwell, J. M. F. Rogers).

**Essex** Fingringhoe Wick, 21st August (M. H. Rowntree).

- Greater London** Surrey Docks, immature, 23rd to 24th September (R. E. Alderton).  
**Hampshire** Shepherd's Spring, adult, 25th July (G. H. Johnson). Titchfield Haven, immature, trapped, 11th August (B. S. Duffin *et al.*).  
**Humberside** Spurn, immature, 21st to 22nd August, trapped 21st (B. Banson *et al.*).  
**Mid Glamorgan** Kenfig Pool, immature, 14th August (P. G. Lansdown).  
**Somerset** Steart, two immatures, trapped, 15th August; another, 16th August (A. W. Evans, B. Rabbits).  
**West Sussex** Pagham Harbour, immature, 27th August to 3rd September (P. & Mrs B. James, P. Martin).  
**Avon 1976** Littleton-on-Severn, adult, trapped, 14th August (P. Rossiter).  
**Devon 1976** Thurlestone, probable immature, 7th September; immature, trapped, 19th September (R. Burridge, M. C. Comington).  
**Dorset 1970** Portland, adult, trapped, 24th August (R. J. Senior).  
**Dorset 1976** Brownsea Island, 26th July (A. J. Wise). Radipole Lake, immature, 29th August (R. Filby).

(East Europe and Urals) The five late acceptances take the total for 1976 to 83. The 1977 records sum to only just over one-third of that figure, but the general increase since 1971 is maintained.

**Great Reed Warbler** *Acrocephalus arundinaceus* (23, 78, 3)

- Cornwall** Marazion Marsh, 27th August (D. S. Flumm, P. D. Round).  
**Humberside** Spurn, in song, 3rd to 4th June, trapped 3rd (D. Barraclough, D. Bower *et al.*).  
**Warwickshire** locality withheld, 12th June (D. A. Stone *et al.*).  
**Leicestershire/Northamptonshire 1976** Stanford Reservoir, 5th September (M. J. Townsend).

(Europe, southwest and east Asia, north Africa) The number appearing fell back from the peak of eight in 1976. Three is below average. Hopes of a breeding attempt fade again.

**Olivaceous Warbler** *Hippolais pallida* (2, 9, 1)

- Humberside 1976** Flamborough Head, 22nd October (P. A. Lassey, Miss I. Smith).

(Iberia and northwest Africa, discontinuously east to Kazakhstan) None in Britain in 1977, but one, only the second for Ireland, on Dursey Island, Co. Cork, on 16th September. In spite of two small flurries of four birds from 1959 to 1962 and in 1967 and 1968, this is a true rarity. Only two have appeared farther north than the Humberside one.

**Booted Warbler** *Hippolais caligata* (1, 6, 2)

- Shetland** Fair Isle, immature, 20th to 27th August, trapped 20th (R. A. Broad, M. A. Peacock, M. P. Sutherland *et al.*) (plate 201). Whalsay, immature, 26th September to



201. Immature Booted Warbler *Hippolais caligata*, Shetland, August 1977 (R. A. Broad)

4th October, trapped 27th September (Dr B. & Mrs M. E. Marshall, C. Rutter, M. J. Whitehouse *et al.*).

**Fife 1975** Isle of May, 31st August to 1st September, immature, trapped 31st (M. F. Carrier, D. Skilling).

(Northwest Russia, east to Mongolia and south to Iran) For this bird to appear in three consecutive years is most unusual. Furthermore, the total number of records has now doubled in those same years. The date of the Whalsay record is the latest for a northern occurrence.

### **Subalpine Warbler** *Sylvia cantillans* (12, 54, 6)

**Humberside** Spurn, ♂, 22nd May (P. Greaves, D. Page, J. Palmer).

**Man** Calf of Man, ♂, probably first-summer, trapped, 1st June (M. A. Harris, R. J. Haycock, R. E. Smith).

**Northumberland** Farne Islands, ♂, 20th June (J. Chester, C. Slater *et al.*).

**Silly** St Mary's, ♂, 8th June (D. S. Flumm, D. B. Hunt, V. Stratton).

**Shetland** Fetlar, ♂, 13th to 30th May (J. N. Dymond *et al.*). Fair Isle, ♂, trapped, 29th May (R. A. Broad, M. P. Sutherland, J. Watt *et al.*).

**Greater London 1976** Derrick Wood, Orpington, 9th May: this locality is in Greater London, not Kent as previously stated (*Brit. Birds* 70: 435).

**Kent 1976** see Greater London.

(South Europe, west Turkey and northwest Africa) The expected spring crop.

### **Greenish Warbler** *Phylloscopus trochiloides* (13, 101, 11)

**Borders** St Abb's Head, 21st to 22nd August (R. H. Hogg, I. H. Leach, D. A. Smith); 22nd to 25th September (M. Densley, R. D. Murray, S. R. D. da Prato *et al.*).

**Dorset** Portland, 20th August (R. J. & Mrs S. M. Johns).

**Fife** Isle of May, 14th to 16th August, trapped 14th (N. K. Atkinson, K. Brockie).

**Lincolnshire** Saltfleetby, 21st to 22nd August (G. P. Catley, S. F. A. Firth *et al.*). Skegness, trapped, 23rd August (A. G. Ball, P. Kirmond, R. Lambert).

**Norfolk** Blakeney Point, 13th August (D. J. Holman, A. V. Moon, P. Naylor *et al.*). Wells, 21st August (S. D. Housden, S. C. Joyner, N. Williams).

**Northumberland** Low Hauxley, 19th to 21st August, trapped 19th (M. Natrass, R. D. Temple *et al.*); another, 21st to 27th August, trapped 21st (B. Galloway, A. M. Taylor *et al.*).

**Silly** Treseo, 8th October (D. R. Bishop, A. R. Dean *et al.*).

**Silly 1976** St Mary's, 9th to 14th October (D. I. M. Wallae *et al.*).

(Eurasia east from northeast Germany) Another 11 to match the exceptional 1976 crop. Although a true rarity before 1958, this *Phylloscopus* now vies with Pallas's Warbler (then even rarer) to be the commonest vagrant of the genus. It is good to see the increasingly regular observations at St Abb's Head paying off, with records of this species, but why has there been none on Cape Clear Island in the last decade?

### **Arctic Warbler** *Phylloscopus borealis* (19, 72, 4)

**Norfolk** Holkham, 18th to 23rd September (S. J. M. Gantlett, G. Stephenson *et al.*).

**Shetland** Fair Isle, 20th August (R. A. Broad, A. Reynolds, J. Watt *et al.*); another, trapped, 16th September (R. A. Broad, J. D. Hall, R. O'Reilly *et al.*).

**Silly 1976** St Agnes, 17th September (D. J. Barker).

**Shetland 1976** Whalsay, trapped, 18th August (Dr B. Marshall); another, 28th October (the late J. H. Simpson). Weisdale, Mainland, 20th September (I. Sandison).

(North Fenno-Scandia east to Alaska) Also one on Cape Clear Island, Co. Cork, from 20th to 22nd October. The four late acceptances for

1976 make the showing (of seven) in that year even more striking. Only in 1970 have more been seen. The dichotomy between the occurrence pattern of this species and the last is well illustrated by the events of 1977. There is no trend towards increase here.

**Pallas's Warbler** *Phylloscopus proregulus* (3, 103, 6)

**Kent** Dungeness, trapped, 27th October (N. Riddiford *et al.*).

**Scilly** St Mary's, 16th October (J. and Mrs I. Dalgleish *et al.*); another, 25th October (E. J. Abraham *et al.*).

**Shetland** Whalsay, trapped, 21st to 22nd October (Dr B. and Mrs L. Marshall).

**Suffolk** Landguard Point, 22nd October (A. A. Butcher, M. C. Marsh, P. W. Murphy).

**West Yorkshire** Blackmoorfoot Reservoir, trapped, 12th October (M. L. Denton, J. E. & Mrs S. M. Dale, S. Hcy *et al.*).

**Highland 1976** near Wick, Caithness: the individual on 18th to 19th October (*Brit. Birds* 70: 436) was also seen on 23rd (Dr D. M. & Mrs J. Edge).

(Central, east and southeast Asia) Six is a poor ration of this gem, especially when compared with the total of 58 in the three previous years. Another inland record is noteworthy.

**Radde's Warbler** *Phylloscopus schwarzi* (1, 21, 1)

**Scilly** St Agnes, 26th to 27th October (P. A. Dukes, D. Woodward, G. M. Yates *et al.*).

**Shetland 1976** Whalsay, 3rd to 4th October (W. Arthur, Dr B. Marshall, the late J. H. Simpson).

(Central and east Asia) The best ever showing in 1976 grows with a late acceptance. The single bird in the year under review arrived in association with the last species. Considering the marked lack of sustained high pressure and easterly winds during the autumn, they did well to reach us.

**Dusky Warbler** *Phylloscopus fuscatus* (1, 23, 0)

**Norfolk 1976** Wells, 16th October (J. D. Sigley, G. G. Williams).

(Central and northeast to southeast Asia) None, for the first year in five. This species and the last keep pace with each other; the late 1976 record raises that year's total to five, equalling 1968.

**Bonelli's Warbler** *Phylloscopus bonelli* (3, 53, 4)

**East Sussex** Beachy Head, trapped, 15th September (J. F. Cooper, T. Gravett *et al.*).

**Kent** Dungeness, trapped, 27th October (N. Riddiford).

**Scilly** St Mary's, 2nd to 8th October (C. McCarty, D. A. Parmenter *et al.*); another, 26th October (B. Bland, M. S. Chapman, C. D. R. Heard *et al.*).

**Humberside 1976** Flamborough Head, 2nd to 9th October (C. D. R. Heard *et al.*).

**Norfolk 1976** Holkham, 14th September (H. Shorrocks, D. Wright).

**Shetland 1974** Sumburgh, 5th September (F. A. Clements, D. Willis *et al.*).

**Strathclyde 1976** Port Charlotte, Islay, 21st to 22nd May (the late R. Dawson *et al.*).

(Central, west and south Europe, Levant and northwest Africa) The three late acceptances for 1976 bring the total for that year to 11. The 1977 showing remains above average. Late October records are mounting.

**Wallcreeper** *Tichodroma muraria* (6, 2, 1)

**East Sussex** Ecclesbourne Glen, near Hastings, 6th to 10th April (A. Davis *et al.*).

**Somerset** Cheddar, early November 1976 (see below) to 6th April (S. Davies, J. T. Eley *et al.*); early November to April 1978 (S. Dear, B. Rabbitts, W. G. Watts *et al.*).

**Somerset 1976** Cheddar, early November (W. G. Watts) to April 1977 (see above).

(Central southern Eurasia, discontinuously from the Pyrenees to China) With only seven previous records in all time, the presence of two different birds in April (and the return of the second to winter again in its busy quarry) is quite astonishing.

**Lesser Grey Shrike** *Lanius minor* (32, 68, 6)

**Kent** Seasalter, 4th to 12th June (P. J. Grant, R. H. Lawrence *et al.*).

**Norfolk** Downham Market, 8th June (C. O'Neil).

**Shetland** Out Skerries, 20th to 21st May (R. W. Hemming, A. R. Lowe, W. E. Oddie).

**Somerset** Meare, near Glastonbury, 1st June (P. D. Round).

**Suffolk** near Lakenheath, 4th June (P. G. & Mrs C. M. Lansdown, D. T. Palmer).

**Tyne & Wear** Priors Park, 26th May (K. G. Dures).

(South and east Europe and southwest Asia) A good showing, matched in only four previous years. The three inland in June are noteworthy.

**Woodchat Shrike** *Lanius senator* (101, 246, 18)

**Devon** Lundy, adult, 12th July (M. & Mrs W. Rogers). Near Sidmouth, adult, 6th August (D. H. U. Petter, Miss E. Wood).

**Dorset** Portland, adult ♀, 30th May to 6th June (P. P. Jennings, I. S. Robertson *et al.*).

**Gwynedd** Bardsey, adult, 14th to 18th August (P. J. Roberts); immature, 26th August (T. Jones, P. J. Roberts).

**Kent** Langley, adult, 28th June to 2nd July (R. L. Bland, R. C. Stone, D. W. Taylor *et al.*). Kingsdown, immature, 3rd September (G. Halliwell).

**Lincolnshire** Saltfleetby, immature, 21st to 22nd August (G. P. Catley, J. F. A. Firth, D. A. Robinson).

**Norfolk** Sheringham, adult, 5th July (J. C. Marsham *et al.*). Cley, adult, 24th to 25th September (S. P. & Mrs E. J. Harris, P. J. Marsh *et al.*).

**Salop** Eardiston, adult, 23rd to 25th July (T. W. Edwards, Mrs Bance).

**Silly** Gugh, immature, 23rd August (D. B. Hunt). Tresco, immature, 29th September to 2nd October (A. R. & Mrs L. J. Coley, D. A. Parmenter *et al.*).

**Suffolk** Landguard Point, immature, 17th to 21st August (A. A. Butcher, M. C. Marsh, R. Waters *et al.*).

**Surrey** near Godstone, adult, 29th May (S. A. Robinson *et al.*).

**Tyne & Wear** Holywell Pond, adult, 2nd June (J. E. Fergusson, I. D. Moorhouse).

**Clwyd 1970** Shotton Steelworks, immature, 2nd August (J. E. Birch *et al.*).

**Dorset 1976** Portland, adult, 10th May (D. Goodwin, E. Knowles).

**Silly 1976** St Mary's, immature, 22nd September to 3rd October (J. Miller *et al.*): additional to the immature present 27th September to 10th October (*Brit. Birds* 70: 439).

**Shetland 1976** Foula, adult, 26th May (B. L. & R. W. Furness).

(West, central and south Europe, southwest Asia and north Africa) Also singles on Cape Clear Island, Co. Cork, on 12th and 13th July and from 4th to 15th August. Another good showing (cf. 17 in 1976 and the average of 13 a year since 1958).

**Rose-coloured Starling** *Sturnus roseus* (160, 86, 3)

**Silly** St Mary's, immature, 8th to 17th October (R. E. Alderton, G. T. Foggitt, P. J. Grant *et al.*).

**Shetland** Yell, first-winter, 3rd to 11th November (J. W. Spence, R. J. Tulloch).

**Strathclyde** Islay, adult, 20th to 24th July (C. G. Booth, N. P. McLaren, K. Verrall); probably the same, some time in August and 9th to 10th September (A. McIndeor *et al.*).

**Grampian 1976** Braemar, adult, 23rd October to 5th November (Mrs J. Beech *et al.* per Dr A. Knox).

(Southeast Europe and southwest Asia) Few compared with the 12 in 1975, but the average is less than five a year.

**Spanish Sparrow** *Passer hispaniolensis* (0, 2, 1)**Scilly** Bryher, 22nd to 24th October (B. Bland, D. J. Britton, P. G. Lansdown *et al.*).

(Mediterranean and southwest Asia) The chief prize among the remarkable group of vagrants to reach Bryher in late October. The second had been on nearby St Mary's, a day earlier in 1972, and the first on Lundy, Devon, in June 1966.

**Serin** *Serinus serinus* (76, 217, 18)**Devon** Axe Estuary, 12th June (R. T. Cottrill). Beesands, 18th December (T. J. Norriss).**Dorset** Portland, ♀, 24th March (P. P. Jennings, G. Walbridge). Hengistbury Head, ♂, 4th June (M. L. Opie, D. M. Smith).**East Sussex** Beachy Head, ♀, 13th May (M. J. Rogers).**Hampshire** Beaulieu Abbey, ♂, 18th to 19th March (D. E. Glue).**Humberside** Spurn, 23rd April (J. Cudworth *et al.*).**Kent** Dungeness, pair, 16th April (S. Morgan); another, 16th April (H. A. R. Cawkell, M. H. Davies, N. Riddiford); ♂, 18th May (P. C. Heathcote, N. Riddiford); another, sex not determined, 19th May (N. Riddiford); another, sex not determined, 21st July (N. Riddiford). Chilham, ♂, 21st June (I. R. Hepburn).**Norfolk** Wells, ♂, 11th to 12th April (L. Evans, D. Foster).**Scilly** St Mary's, 11th October (M. J. Rogers); immature, 8th to 9th November (C. D. R. Heard).**Wight** St Catherine's Point, 10th April (D. B. Wooldridge).**Hertfordshire 1976** Ashwell, ♂, 19th December (Dr N. R. Rogers).**Humberside 1976** Cleethorpes, ♂, 5th to 7th May (R. K. Norman).**Kent 1976** Margate, ♂, 23rd May (D. Worsfold).**Kent 1976** Dungeness, 10th May: the first-noted observer was R. Harding, not B. D. Harding as previously stated (*Brit. Birds* 70: 441).**Suffolk 1976** Benacre, ♂, 4th September (D. R. Moore, C. S. Waller).

(West, central and southern Europe, Asia Minor and northwest Africa) Except for a brief collapse in 1970 and 1971, the number seen each year has been remarkably constant at 18-22 since 1967. Those observers (and there were more than a few) who were duped by a very wild Canary *Serinus canarius* on Tresco in October will be glad to know that an identification paper on the Serin and its confusion species is in hand.

**Arctic Redpoll** *Carduelis hornemanni* (30, 51, 2)**Scilly** Bryher, sight record, 21st October to 5th November (B. Bland, D. J. Britton *et al.*).**Shetland** Scalloway, sight record, 25th November (C. Byers, M. S. Chapman, J. D. Hall *et al.*).**Humberside 1975** Spurn, sight record, 12th October (J. Cudworth, C. D. R. Heard, B. R. Spence).**Man 1972** Calf of Man, sight record, 14th November (S. C. Madge).

(Circumpolar Arctic) The meeting of the first bird with a Spanish Sparrow in a tiny flower field must rank as the most unexpected confrontation of the year!

**Two-barred Crossbill** *Loxia leucoptera* (40, 21, 1)**Northumberland** Low Hauxley, adult ♂, trapped, 13th to 14th August (B. Little *et al.*) (plate 202).

(Northeast Europe, north-central Asia, northern North America and West Indies) There have been records in only ten of the last 18 years, and, apart from five in 1966 and seven in 1972, only one or two have appeared in any one year.

202. Adult male Two-barred Crossbill *Loxia leucoptera*, Northumberland, August 1977 (B. Little)



**Parrot Crossbill** *Loxia pytyopsittacus* (about 10, 1, 0)

**Humberside 1975** Spurn, adult ♂, 22nd October (I. Clarke, J. P. Guest *et al.*).

(Northern Europe, from Norway east to Russia and south to Estonia) This is the first to feature in our reports following the Committee's decision to add this large crossbill to its list (*Brit. Birds* 71: 423). Sight records will be hard to prove, but we welcome submissions of all claimed occurrences since 1958.

**Scarlet Rosefinch** *Carpodacus erythrinus* (over 200, 357, 65)

**Cleveland** Hartlepool, ♀ or immature, 19th August (M. A. Blick, J. B. Dunnett, T. Francis *et al.*).

**Devon** Lundy, ♀♀ or immatures, 11th September (R. Britton, M. Rogers) and 27th September (M. Rogers).

**Highland** Wick River, Caithness, immature ♂ in song, 31st May to 1st June (K. V. & D. Banks, D. M. & J. Edge). Near Lairg, Sutherland, ♂ in song, 8th June to 22nd July (G. Bundy).

**Humberside** Spurn, ♀ or immature, 30th August (A. O. Aitken, L. J. Degnan).

**Kent** Dungeness, pair, 19th to 27th June, ♀ trapped on 19th, first-summer ♂ in song (P. C. Heathcote, C. G. Golson, N. Riddiford *et al.*).

**Northumberland** Low Hauxley, ♀♀ or immatures, 19th to 24th August, trapped 19th (M. Natrass); 25th September (E. R. Meek); 8th October (B. Little).

**Orkney** South Ronaldsay, ♂, 9th June (A. J. & S. R. Clark).

**Scilly** St Mary's, ♀♀ or immatures, 14th to 18th September, two on 15th (D. B. Hunt, N. A. Preston, J. F. Ryan *et al.*); 14th October (P. J. Grant *et al.*). Bryher, ♀ or immature, 22nd October (D. J. Britton).

**Shetland** Fair Isle, 17, all ♀♀ or immatures: 8th to 9th May; another, 25th to 27th May; another, 3rd June; then 14th August; two, 21st to 25th, three, 22nd to 23rd, one remaining to 27th, one trapped on 22nd; another, 29th August to 5th September, two on 30th August and three from 31st to 2nd; another, 8th September; two, 12th to 13th; another, 17th; another, 20th; at least one, 23rd to 3rd October; another, 23rd to 24th October,

trapped 23rd (R. A. Broad *et al.*). Whalsay, eight: ♀ or immature, 4th May (Dr B. Marshall); another trapped, 22nd May; ♂ and another ♀ or immature, 26th May (J. L. Irvine, Dr B. Marshall, the late J. H. Simpson *et al.*); ♀♀ or immatures, 18th to 19th September (P. J. Ewins, J. D. Okill); two, 24th September, one remaining to 26th (Dr B. Marshall); another, 1st October (R. Gall, Dr B. Marshall, I. Sandison). Fctlar, at least five, all ♀♀ or immatures: 15th to 17th August; another, 25th to 31st; three, 12th September; possibly another, 14th (J. N. Dymond). Out Skerries, nine, all ♀♀ or immatures: 24th August; another, 26th August (D. Coutts, J. D. Okill); three, 29th, two, 30th August (I. Balfour-Paul, R. P. H. Clark, M. W. Fraser *et al.*); two, 13th to 14th September (J. N. Dymond, E. Tait, R. J. Tulloch); another, 17th to 19th September; another, 23rd to 24th September (D. Coutts, J. D. Okill). Boddam, ♀ or immature, 20th to 23rd August, two, 20th (D. Coutts, J. D. Okill). Durrigarth, ♀ or immature, 27th August (D. Coutts, J. D. Okill). Strand, 23rd to 27th August (A. Graham).

**Somerset** Brean Down, ♀ or immature, 14th to 18th October (B. Rabbits).

**Western Isles** St Kilda, ♂, 25th to 26th May (S. Murray, K. Taylor, W. Wright *et al.*). Rona, ♀, 28th May (N. Picozzi).

**Orkney 1976** Copinsay, 18th to 19th June (P. J. B. Slater).

**Shetland 1976** Whalsay, ♀ or immature, 30th September to 5th October, two, 3rd to 4th October (W. Arthur, Dr B. Marshall, the late J. H. Simpson). Out Skerries, ♀♀ or immatures, two, 17th to 19th September (M. Fraser, R. G. Nisbett); 23rd to 24th September (M. Fraser, Dr B. Marshall, R. G. Nisbett); 26th to 28th September (D. L. Clugston, D. Coutts). Fair Isle, ♀ or immature, 8th October (H. Gilston, R. J. Johns).

(East Europe and across Asia, and east Turkey to Himalayas) Also singles on Cape Clear Island, Co. Cork, from 23rd to 27th September and 10th to 21st October: only the seventh and eighth Irish records, but five have been since 1971 and this is the third successive year in which the species has occurred on Cape Clear Island (one on that island on 6th to 7th October 1976 was not noted in last year's report). Marked influxes in both spring and autumn contribute to the highest ever crop: this species was not daunted by head winds.

**Black-and-white Warbler** *Mniotilta varia* (1, 1, 1)

**Scilly** St Mary's, 29th September to 1st October (P. J. Grant *et al.*) (*Brit. Birds* 71: 541-542).

(North America) The first two were in Shetland in October 1936 and on St Mary's in late September 1975. The zebra stripes of this delightful warbler and its Nuthatch-like character present no identification problem.

**Yellow-rumped Warbler** *Dendroica coronata* (1, 5, 1)

**Shetland** Fair Isle, ♂, 18th May (R. A. Broad, Mr & Mrs J. Woodland).

**Scilly 1973** Treco individual present from 16th October to 24th, not 23rd as previously stated (*Brit. Birds* 67: 336).

(North America) The recent run of Nearctic wood-warblers began when the first of this species was discovered wintering in Devon in January 1955. Now, it has the distinction of providing the first spring record in this group. Such observations are more characteristic of the American sparrows.

**Blackpoll Warbler** *Dendroica striata* (0, 14, 1)

**Scilly** Bryher, 29th October (R. J. & Mrs S. M. Johns).

(North America) Although not noted here before 1968, this species has now accumulated more records in Britain and Ireland than any other Nearctic passerine. This individual was yet another of the remarkable collection of rarities on Bryher in late October.

**Rufous-sided Towhee** *Pipilo erythrophthalmus* (0, 2, 0)

**Humberside 1975, 1976** Spurn, 5th September to 10th January (*Brit. Birds* 70: 443, 449): this individual is now widely considered to have had a captive origin.

(North and Central America)

**Slate-coloured Junco** *Junco hyemalis* (1, 6, 1)

**Highland** Loch Affric, Inverness, 19th May (Mrs J. Cardew, R. J. Miller).

(North America) The almost simultaneous arrival of this bird with a Yellow-rumped Warbler on Fair Isle leaves little room for doubts on its origin. All previous British and Irish records have been in April and May.

**Rustic Bunting** *Emberiza rustica* (34, 80, 2)

**Scilly** St Mary's, immature ♂, 11th to 16th October (D. R. Bishop, P. G. & Mrs C. M. Lansdown). St Agnes, immature ♂, 12th October (G. J. Jobson *et al.*).

**Orkney 1976** Copinsay, 9th to 13th June (M. A. S. Beaman, P. J. B. Slater).

**Shetland 1976** Yell, ♂, 20th May (Miss W. Dickson, Mrs M. Odie, R. J. Tulloch). Sumburgh, ♂, 26th May (J. D. Okill). Whalsay, 11th October (Dr B. Marshall).

(Northeast Europe across north Asia) The four late acceptances for 1976 take the total in that year to 11 and for the last three years to 33. Thus these two autumn records look lonely. The absence of any spring overshoot is striking.

**Little Bunting** *Emberiza pusilla* (94, 128, 18)

**Borders** St Abb's Head, 17th October (R. H. Hogg, A. H. Lavery).

**Fife** Isle of May, 17th to 18th September (G. M. Crichton, J. M. Dickson, I. H. Leach *et al.*); another, 9th October (R. G. Nisbett *et al.*).

**Highland** Dingwall, Ross & Cromarty, male, trapped, 23rd January (D. McAllister *et al.*).

**Lothian** Barns Ness, 8th October (A. Brown).

**Norfolk** Stiffkey Greens, 22nd to at least 25th September (P. J. Marsh *et al.*).

**Northumberland** Farne Islands, 17th to 23rd September, two, 22nd to 23rd (J. Chester, R. Pimm, C. Slater *et al.*). Holy Island, 19th September (M. Densley). Low Hauxley, 15th October; probably the same, 21st October (A. Heavisides, J. Richardson, A. M. Taylor *et al.*).

**Scilly** St Mary's, 11th to 14th October (R. Filby, D. I. M. Wallace *et al.*). Bryher, 23rd to 24th October (B. Bland *et al.*).

**Shetland** Fair Isle, 5th to 9th May (R. A. Broad, M. A. Peacock, J. Wilson *et al.*); adult, 12th September (R. A. Broad, D. G. H. Mills *et al.*); adult, 24th September to 1st October (R. A. Broad, M. Coath *et al.*); another, 8th to 22nd October, trapped on 8th; two, 12th to 14th (R. A. Broad *et al.*). Out Skerries, immature, 24th to 29th September (P. J. Ewins, J. D. Okill *et al.*).

**Norfolk 1967** Paston Cliffs, 12th September: previously accepted (*Brit. Birds* 61: 360), but now withdrawn by observer and should be deleted.

**Shetland 1976** North Nesting, Mainland, 5th October (A. W. Wolton). Whalsay, 1st to 4th October, two on 1st (W. Arthur, Dr B. & Mrs L. M. Marshall, the late J. H. Simpson); another, 9th October (Dr B. Marshall, the late J. H. Simpson). Weisdale, Mainland, 8th October (C. Rutter, M. J. Whitehouse).

(Northeast Europe and north Asia) The five late acceptances for 1976 take the total for that year to a record 23, almost four times the average. Unlike the last species, such a level of occurrence is sustained here. The Highland record is yet another indicative of wintering.

**Yellow-breasted Bunting** *Emberiza aureola* (10, 55, 9)

**Dorset** Portland, ♀ or immature, 20th to 22nd September (A. Manley, I. S. Robertson *et al.*).

**Fife** Isle of May, immature, 17th September (G. Crichton, J. M. Dickson, I. H. Leach *et al.*).

**Lincolnshire** Gibraltar Point, ♂, 15th May (R. Bunten, S. E. Crooks, Dr A. T. & Mrs I. W. Jennings *et al.*).

**Shetland** Out Skerries, ♀ or immature, 4th September (M. W. Fraser, R. J. Miller); immature, 13th to 14th September (J. N. Dymond, R. J. Tulloch). Fair Isle, four ♀♀ or immatures: 11th to 15th September; 18th to 23rd September; two, 21st to 23rd; another, 20th to 27th, trapped 20th (R. A. Broad, C. D. R. Heard, M. P. Sutherland *et al.*).

**Shetland 1976** Whalsay, ♀ or immature, 23rd to 24th September, trapped 23rd (Dr B. Marshall *et al.*).

(Northeast Europe across north Asia) Nine in one year sets a new level of occurrence. They were also more widely spread than usual. That in Lincolnshire is the second in spring.

### **Black-headed Bunting** *Emberiza melanocephala* (9, 34, 2)

**Dorset** Portland, ♂, 26th to 27th May (C. E. Richards).

**Shetland** Whalsay, immature, 30th September to 4th October (P. J. Ewins, Dr B. Marshall, J. D. Okill).

(Southeast Europe and southwest Asia) Two typical records: an over-shooting male in spring and a lost immature in autumn.

## **Appendix 1. Category D species accepted** (see *Brit. Birds* 64: 429)

### **Painted Bunting** *Passerina ciris* (0, 1, 0)

**Shetland 1972** Voe, ♂, trapped and taken into captivity, 28th May (D. Coutts, A. Thompson *et al.*).

(North America) The first accepted record, but a common cage bird.

## **Appendix 2. List of records not accepted**

This list contains all current records not accepted after circulation to the committee. It does not include (a) those withdrawn by the observer(s) without circulation, after discussion with the honorary secretary; (b) those which, even if circulated, were not attributed by the observer(s) to any definite species; or (c) those mentioned in the monthly summaries in this journal, if full details were unobtainable. Birds considered to be escapes are also omitted.

In the vast majority of cases, the record was not accepted because we were not convinced, on the evidence before us, that the identification was fully established; in only a very few cases were we satisfied that a mistake had been made.

### **1977**

White-billed Diver	Kyle of Tongue, Highland, 8th June
	Kyle of Tongue, Highland, 1st August
Black-browed Albatross	Dirlerton, Lothian, 30th August
Albatross sp.	Sheringham, Norfolk, 27th May
	Collieston, Grampian, 8th August
	Strumble Head, Dyfed, 17th September
Cory's Shearwater	Spurn, Humberside, 30th August
Little Shearwater	Flamborough Head, Humberside, 11th June
	Filey Brigg, North Yorkshire, 9th August
Purple Heron	South Launcing, West Sussex, 8th May

Black Stork	near Langholm, Dumfries & Galloway, 30th May
White Stork	Bentley, Hampshire, 12, 8th March Plymouth, Devon, 19th May
Black Duck	Ware, Hertfordshire, 14th December
Surf Scoter	Pagham Harbour, West Sussex, three, 4th December
Black Kite	Box Hill, Surrey, 9th September
Egyptian Vulture	Banbury, Oxfordshire, 19th September
Red-footed Falcon	near Swindon, Wiltshire, 18th April a locality in Wiltshire, 5th June Cley, Norfolk, 6th June Calf of Man, Man, 30th June Highgate Hill, Greater London, 2nd July
Gyr Falcon	Glen More, Highland, 6th June Glen Coe, Highland, 6th August Mishnish Lochs, Mull, Strathclyde, 10th November
Crane	Cuckmere, East Sussex, 19th May
Western Sandpiper	Hickling, Norfolk, 7th September
Baird's Sandpiper	Borth, Dyfed, 2nd September Lisset, Humberside, 10th December
Buff-breasted Sandpiper	Camel Estuary, Cornwall, 24th May
Great Snipe	Thetford, Norfolk, 16th January St Abb's Head, Borders, 24th September St Agnes, Scilly, 16th October Edgbaston Park, West Midlands, 26th November Cley, Norfolk, 16th December
Dowitcher sp.	Lovell Hill, Wilton, Cleveland, 6th March Draycote Water, Warwickshire, 26th October Ferrybridge, Dorset, 30th October and 17th November
Slender-billed Curlew	Nigg Bay, Grampian, 16th October
Lesser Yellowlegs	Pennington Marshes, Hampshire, 16th September
Spotted Sandpiper	Walberswick, Suffolk, 12th June
Wilson's Phalarope	Pencelli Mire, Powys, 28th September
Long-tailed Skua	Flamborough Head, Humberside, 29th August Don Estuary, Grampian, 6th September Witham/Welland Estuary, Lincolnshire, 18th September River Wear, Sunderland, Tyne & Wear, 21st September
Great Black-headed Gull	Torcross, Devon, two, 23rd May
Laughing Gull	Filey Brigg, North Yorkshire, 24th September
Franklin's Gull	Shelley, Suffolk, 26th December
Bonaparte's Gull	Dyfi Estuary and Aberystwyth, Dyfed, 9th and 13th March Hornsea, Humberside, 22nd July
Ring-billed Gull	Radipole Lake, Dorset, second-winter, 2nd to 3rd March
Ross's Gull	Pagham Harbour, West Sussex, 19th February
Ivory Gull	Dunwich, Suffolk, 25th November
Gull-billed Tern	Dawlish Warren, Devon, immature, 10th September Cley, Norfolk, 13th September Dungeness, Kent, 20th September
Caspian Tern	Keyhaven Marshes, Hampshire, 28th August
Whiskered Tern	Whitehaven, Cumbria, 28th May
White-winged Black Tern	Benacre, Suffolk, three, 8th August New Passage, River Severn, Avon, 24th August Slapton Ley, Devon, 7th September
Pallas's Sandgrouse	Aberdaron, Gwynedd, 23rd September
Rufous Turtle Dove	Pennington Marshes, Hampshire, 6th June
Snowy Owl	Dartmoor, Devon, 12th March
Roller	Lakenheath, Suffolk, 5th April Thorpeness, Suffolk, 17th to 19th August
White-winged Lark	Branscombe, Devon, 3rd July
Short-toed Lark	St Agnes, Scilly, 10th October

Crested Lark	Aberthaw, South Glamorgan, 18th May Druidston, Powys, sometime in July
Richard's Pipit	East Wretham, Norfolk, 19th April Redcar, Cleveland, 25th April Hilbre, Merseyside, 15th May Whinnyford, Grampian, 16th May Holme, Norfolk, two, 1st September Filey Brigg, North Yorkshire, 24th September Breydon Water, Norfolk, 20th October Longridge, Clynderwen, Dyfed, 20th December
Tawny Pipit	Teignmouth, Devon, 9th September Dunwich Heath, Suffolk, 24th September Tresco, Scilly, 1st October Rhydney Wharf, South Glamorgan, 16th to 17th November Cley, Norfolk, 23rd October
Olive-backed Pipit	near Valley, Anglesey, Gwynedd, 22nd July
Pechora Pipit	near Settle, West Yorkshire, 10th June
Black-headed Wagtail	near Keighley, West Yorkshire, 8th May
Rufous Bush Robin	Merriot, Somerset, 29th September
Thrush Nightingale	Farnham, Surrey, sometime in May
White-throated Robin	South Gare, Redcar, Cleveland, 24th September
Siberian Stonechat	Birling Gap, Beachy Head, East Sussex, 9th October
Black-eared Wheatear	Loch A'Bhaid-luachraich, Highland, 9th August
White's Thrush	Pagham Harbour, West Sussex, 13th January Fishguard, Dyfed, 20th March Loch Garten, Highland, 24th August
Dusky Thrush	Penn, High Wycombe, Buckinghamshire, 14th January Skurdington, Gloucestershire, 13th January
Fan-tailed Warbler	Sandown, Isle of Wight, 7th May
Savi's Warbler	Manor Farm, Reading, Berkshire, 23rd April Hayle, Cornwall, 27th May
Aquatic Warbler	Stuart, Somerset, 22nd August, 20th September Oxwich, West Glamorgan, 25th September
Great Reed Warbler	Cotham, near Newark, Nottinghamshire, 22nd June Thursley Common, Surrey, 4th November
Greenish Warbler	Loudwater, Hertfordshire, 7th July Clyne Common, Gower, West Glamorgan, 18th August Tresco, Scilly, 27th October
Bonelli's Warbler	St Abb's Head, Borders, 15th May
Brown Flycatcher	Balsall Common, Warwickshire, 29th May
Penduline Tit	Sheffield, West Yorkshire, 20th March
Isabelline Shrike	Ramsgate, Kent, 23rd September
Lesser Grey Shrike	Wooburn Green, Buckinghamshire, 28th December
Nutcracker	Dungeness, Kent, 20th March Dungeness, Kent, 23rd April Beachy Head, East Sussex, 26th April Beachy Head, East Sussex, 2nd June Hinchley Wood, Surrey, 14th June near Purley, Surrey, sometime in November
Serin	
Arctic Redpoll	Stroud, Gloucestershire, 25th March Newtonhill, Kincardine, Grampian, 24th January
Two-barred Crossbill	Loch Moan, Dumfries & Galloway, 8th May Fair Isle, Shetland, 14th August
Scarlet Rosefinch	near Bucksburn, Grampian, 17th May Bradwell-on-Sea, Essex, 19th November
Rustic Bunting	Ringwood, Hampshire, 11th March St Abb's Head, Borders, 8th October

- Little Bunting Eaton Estate, Chester, Cheshire, 13th March  
 St Mary's, Scilly, 12th October  
 Yellow-breasted Bunting High Hauxley, Northumberland, 15th October

**1976**

- Cory's Shearwater Barns Ness, Lothian, 29th August  
 Little Shearwater Hilbre Island, Cheshire, 1st September  
 Frigatebird sp. Clyde Estuary, Strathclyde, 10th July  
 Lesser White-fronted Goose Slimbridge, Gloucestershire, 26th December  
 Red-footed Falcon Great Totham, Essex, 29th May  
 Lesser Kestrel Banks Marsh, Lancashire, 21st August  
 Gyrfalcon Benderloch, Highland, 14th March  
 St Abb's Head, Borders, 2nd October  
 Cranc near Wokingham, Berkshire, five, sometime in November  
 Killdeer Stanpit Marsh, Dorset, 16th October  
 Lesser Golden Plover Blyth Estuary, Suffolk, 10th July  
 Marshside Marsh, Merseyside, 11th September  
 Sociable Plover Thorpe Morieux, Suffolk, 18th November  
 Long-billed Plover Chasewater (Cannock Reservoir), Staffordshire, 17th July  
 Western Sandpiper Weaver Bend, Cheshire, 15th August  
 Great Snipe Tetney, Lincolnshire, 18th April  
 Carn a'Ghcoidh, Grampian, 31st October  
 Spotted Sandpiper Drakelow Reservoir, Derbyshire, 2nd to 12th September  
 Wisbeck sewage-farm, Lincolnshire/Norfolk, 11th September  
 Long-tailed Skua Portland, Dorset, 13th September  
 Ross's Gull Spurn, Humberside, 15th October  
 Gull-billed Tern Camber, East Sussex, four, 21st April  
 Little Paxton, Cambridgeshire, 11th September  
 Kingsgate, Kent, 5th September  
 Tengmalm's Owl Walton-on-the-Naze, Essex, 22nd October  
 Common Nighthawk Red Rocks, Merseyside, 8th October  
 Alpine Swift Kyle of Tongue, Highland, 24th October  
 Gravesend, Kent, 23rd October  
 Short-toed Lark Rye, East Sussex, 26th July  
 Richard's Pipit Porthgwarra, Cornwall, 29th October  
 Tawny Pipit Lancing, West Sussex, 24th August  
 Red-throated Pipit Out Skerrics, Shetland, 5th October  
 Desert Wheatear St Mary's, Scilly, 7th October  
 White's Thrush Aberdeen, Grampian, 4th May  
 Dusky Thrush Lydd, Kent, 29th August  
 Red-throated Thrush Strachan, Grampian, 7th December  
 Savi's Warbler Hickling, Norfolk, 11th August to 5th September  
 Aquatic Warbler Wells, Norfolk, 29th August  
 Orphean Warbler Spurn, Humberside, 16th September  
 Greenish Warbler Wells, Norfolk, 21st August  
 Lesser Grey Shrike St Mary's, Scilly, 31st October  
 Nutcracker Sourton, Devon, 6th October  
 Libberton, Strathclyde, 27th December to 19th January 1977  
 Arctic Redpoll Brandon, Suffolk, two, 16th April

**1975**

- Purple Heron Boyton, Suffolk, 4th May  
 Crane Alexandra Palace, Greater London, 19th July, not 19th May  
 as previously stated (*Brit. Birds* 70: 452)  
 Semipalmated Sandpiper Tring sewage-farm, Hertfordshire, 26th to 27th August  
 Hengistbury Head, Dorset, 6th to 10th September  
 Western Sandpiper Stanpit Marsh, Dorset, 24th August

Lesser Yellowlegs	Sidlesham Ferry, West Sussex, 25th July and 8th August
Desert Wheatear	Cley, Norfolk, 1st September
Nutcracker	near Hungerford, Berkshire, 3rd May

**1974**

Black Kite	Cabrach, Grampian, 14th July
Cinereous Bunting	St Martin's Haven, Dyfed, 19th June

**1973**

White Stork	Isington, Hampshire, two, in April
Pine Bunting	Glenkindie, Grampian, two, in December

**1972**

Gyr Falcon	Dce Estuary, Merseyside, 16th January
Olive-tree Warbler	St Agnes, Scilly, 25th September

**1971**

White Stork	Bentley, Hampshire, two, in March
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**Appendix 3. Supplementary records: species and years**

To assist researchers, species for which supplementary records for previous years are included in the main body of this report are listed here, with the years involved.

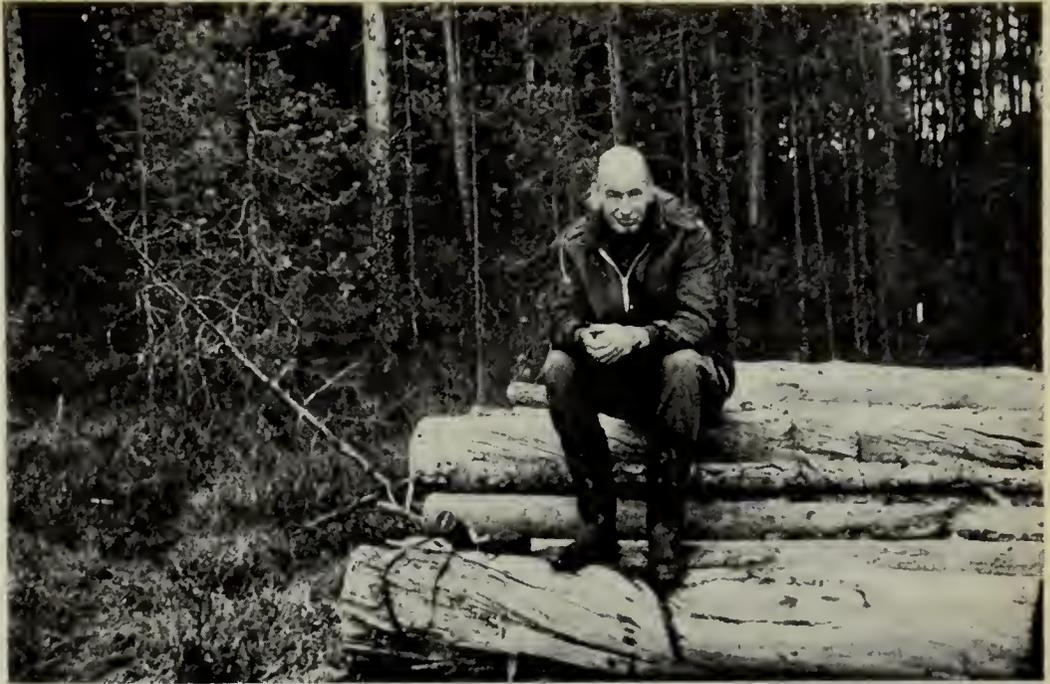
White-billed Diver 1972 1975. Cory's Shearwater 1976. Night Heron 1976. Little Egret 1976. White Stork 1976. American Wigeon 1976. Blue-winged Teal 1969 1973. King Eider 1974 1976. Surf Scoter 1975 1976. Black Kite 1976. White-tailed Eagle 1976. American Kestrel 1976. Red-footed Falcon 1976. Gyr Falcon 1976. Baillon's Crake 1976. Crane 1975 1976. Black-winged Pratincole 1976. Collared Pratincole 1974. Collared or Black-winged Pratincole 1971 1972. Killdeer 1975. Lesser Golden Plover 1976. Semipalmated Sandpiper 1965 1966 1967 1968 1969 1971 1974. Broad-billed Sandpiper 1975 1976. Great Snipe 1968. Long-billed Dowitcher 1975 1976. Lesser Yellowlegs 1976. Wilson's Phalarope 1976. Long-tailed Skua 1976. Franklin's Gull 1976. Ross's Gull 1975. Ivory Gull 1976. Caspian Tern 1976. White-winged Black Tern 1976. Brünnich's Guillemot 1976. Alpine Swift 1967 1974. Red-rumped Swallow 1976. Richard's Pipit 1976. Tawny Pipit 1976. Red-throated Pipit 1976. Thrush Nightingale 1976. Siberian Rubythroat 1975. Red-flanked Bluetail 1975. Siberian Stonechat 1976. Pied Wheatear 1976. Black-cared Wheatear 1971. American Robin 1975. Cetti's Warbler 1976. Lanceolated Warbler 1976. Savi's Warbler 1974 1975. Aquatic Warbler 1970 1976. Great Reed Warbler 1976. Olivaceous Warbler 1976. Booted Warbler 1975. Subalpine Warbler 1976. Greenish Warbler 1976. Arctic Warbler 1976. Pallas's Warbler 1976. Raddc's Warbler 1976. Dusky Warbler 1976. Bonelli's Warbler 1974 1976. Wallcreeper 1976. Woodchat Shrike 1970 1976. Rose-coloured Starling 1976. Serin 1976. Arctic Redpoll 1972 1975. Parrot Crossbill 1975. Scarlet Rosefinch 1976. Yellow-rumped Warbler 1973. Rufous-sided Towhee 1975. Rustic Bunting 1976. Little Bunting 1967 1976. Yellow-breasted Bunting 1976. Painted Bunting 1972.

## Obituaries

### Richard Constantine Homes (1913-1978)

Dick Homes, who died on 2nd June, was in both senses of the word one of the lofty figures of British amateur ornithology in the post-war years.

In the preface to *Yorkshire Birds*, Ralph Chislett claimed that not least among his own qualifications to write a bird book were the 'respect and



203. R. C. Homes (1913-1978) in Sweden, May 1977 (*Deirdre Homes*)

desire for accuracy' which had been engrained in him while training as a chartered accountant. In a similar way, it is clear that those personal qualities which enabled Dick Homes to achieve eminence in his chosen career of banking also contributed in no small degree to the success of his ornithological career. He had an orderly mind, and was a stickler for accuracy. Like most bankers, he was cautious; but once he committed himself to a project he would work himself tirelessly (and others too, if appropriate) to see it to fruition.

His considerable height tended to set him aside from the crowd, and there was in him, too, a shyness or reserve which sometimes furthered this process. Yet he mixed readily, and most of his important contributions to ornithology were as a member—often the key member—of a team. Of his role as chairman of the committee which prepared the book *Birds of the London Area since 1900*, the Collins editorial board commented 'his guiding and co-ordinating hand has been responsible for much of the evenness and crispness in the presentation of all sections of this book'. The comment sums up the man.

A wide knowledge of birds, sound judgment and a willingness to accept responsibility made him much in demand as a committee member, at first in local circles, notably the London Natural History Society; later on national bodies. He served on the Scientific Advisory Committee of the Wildfowl Trust and the Council of the RSPB; but it was to the BTO that he was most strongly drawn, serving on every one of its many committees. Indeed, he twice occupied the arduous office of President—a unique distinction. For all this, he was a modest man (few people knew, for example, that he was a graduate: he appeared positively to suppress the fact), always happy to put the formal occasion behind him and relax with friends. A sense of service, rather than of personal ambition, ensured that

he spent countless leisure hours behind a desk, but his true delight was with the living bird and it is sad that he did not live to enjoy longer the fruitful retirement he had so richly earned.

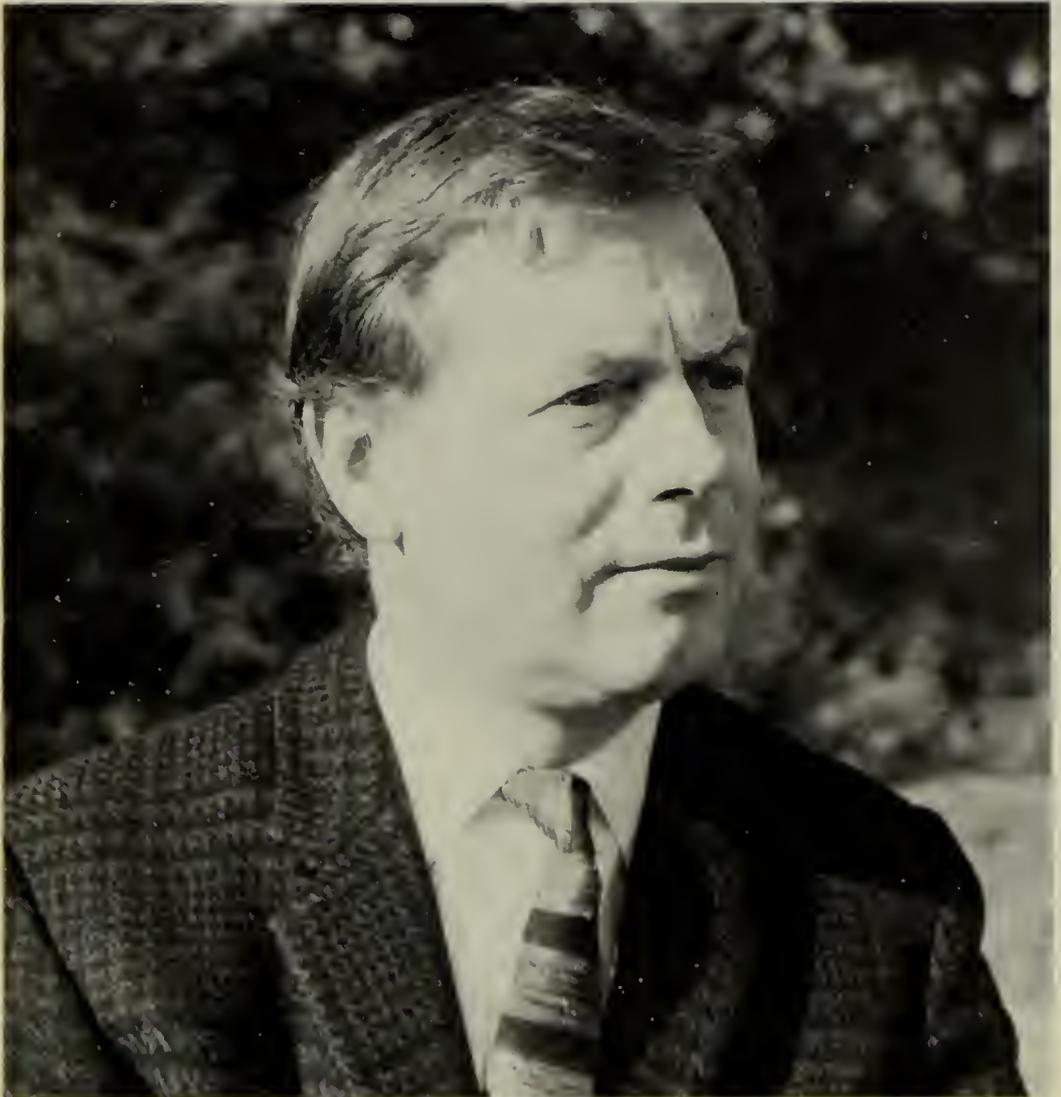
ROBERT SPENCER

## **Ronald Keir Murton BSc, PhD (1932-1978)**

Ron Murton died on 12th June 1978, at his home at Comberton, Cambridgeshire. He was born in Ipswich, Suffolk, on 2nd May 1932, where he attended Northgate Grammar School. In 1951, he entered University College, London, where he obtained a BSc (General) in 1953 and a BSc (Special Zoology Honours) in 1954. In 1962, he was awarded an external PhD (London).

After leaving university, he joined the Ministry of Agriculture, Fisheries and Food, Infestation Control Division, as a Scientific Officer, where he was employed to study problems caused by bird pests to agriculture.

204. Ronald Keir Murton BSc PhD (1932-1978) (*N. J. Westwood*)



During the early years, he investigated various methods to control Woodpigeon numbers, including nest destruction and the use of narcotic baits. He also studied visible migration, with particular reference to Woodpigeon movements. It was during one of these migration watches that he was on board the South Goodwin Lightship when she broke free of her moorings and sank; he was the sole survivor of this disaster. During these studies, he realised the importance of understanding the population dynamics of the species so that control methods could be used at the most appropriate time in its life cycle. Inspired by Dr David Laek's book *The Natural Regulation of Animal Numbers* (1948), he began a major research programme, getting together a team to study the comparative ecology of the British pigeons and doves. This work resulted in the publication of many papers and a monograph, *The Woodpigeon* (1965). A further result of this work was the removal, by the Government, of the subsidy paid towards the cost of cartridges used for shooting Woodpigeons. Ron had always been highly critical of shooting as a method of control, although it had taken many years to prove the point and to convince others. His interest in birds and wide experience and knowledge of farming, forestry and horticulture gained while with the MAFF were put together in his second successful book, *Man and Birds* (1971).

During the mid 1960s, he began a second phase in his career. Initially collaborating with Professor Brian Lofts, he began by examining the gonad eyes of British pigeons and was able to show experimentally the absence of a photo-refractory phase in the Woodpigeon breeding eye. Typically, he grasped the importance of this field, so that the work developed into an investigation of the ecological significance of photo-periodism and photo-refractoriness. These topics were to dominate his research in later years, his aim always being to relate experimental results to the ecology of the species. He collaborated with various other research workers to produce a series of important papers; recently, with Dr Janet Kear, he had been analysing data collected by the Wildfowl Trust. His ideas on these subjects were published only four months before his death, in *Avian Breeding Cycles*.

During 1968-69, he spent a year's sabbatical leave at Hong Kong University, where he gave a series of lectures and seminars. He became closely involved with conservation problems, and investigated the ecology of various herons, especially Swinhoe's Egret. He was also able to give advice on bird-strike problems at Kai Tak airfield.

In 1970, he was invited to join the Nature Conservancy and he accepted a transfer to Monks Wood Experimental Station, a move he welcomed as it brought him close to the areas he knew in his youth, especially the Brecks, an area he loved. Employed on special duties in the Director's Laboratory, his interests centred on the adaptive aspects of the reproductive physiology of vertebrates, especially birds, in relation to their ecological needs, and population studies of vertebrates in arable farmland and urban areas. In 1972, the Nature Conservancy was split into the Nature Conservancy Council and the Institute of Terrestrial Ecology, component bodies of the Natural Environment Research Council. Ron stayed with

the ITE, where he became head of the Sub-Division of Animal Function in 1975, taking full responsibility for the initiation and scientific management of the research programmes.

In addition to his research commitments, he lectured widely, visiting the USA and South America, and served on numerous committees, representing or advising, among others, the British Ecological Society, the Royal Society Government Grants Board, the National Committee for Biology, the BOU, the BTO, the Wildfowl Trust and the Game Conservancy. In 1974, he was appointed Hon. Reader in Zoology at the University of Hull and, shortly before his death, was elevated to Hon. Professor. He was elected to Associateship of the Royal Photographic Society in 1963. An expert wildlife photographer, he was at his happiest relaxing with his camera in a hide or photographing fungi in a mature woodland (an interest we shared).

Ron was a tireless worker, writing over 90 papers and articles and three books. He will be remembered by his many friends as an enthusiastic companion who enjoyed a stimulating discussion; a person full of ideas, who could inspire others, always ready to advise and help. He will be missed by many, most of all by his wife Frances and their two children Sarah and Daniel.

N. J. WESTWOOD

## Mystery photographs

**23** In summer and early autumn, the season's crop of juvenile birds can give identification problems, especially to the birdwatching newcomer. Faced with an unidentifiable bird at this time of year, the possibility that it may be an unfamiliar juvenile, perhaps of a common species, should be a first thought. With luck, the adults will be nearby, or it will show enough diagnostic plumage characters or



behaviour to give the game away. Close study of the appearance of common birds—of all ages—is important groundwork in identification. Given this, last month's mystery photograph (plate 171, page 459, repeated here at reduced size) should have been identified easily. The dark lores, pale face and throat, ill-defined streaking below and pale-fringed wing and tail feathers give a totally distinctive pattern to the otherwise dull brown of a juvenile Starling *Sturnus vulgaris*.

The term 'juvenile' refers to birds in the plumage in which they first fly, before their post-juvenile moult into first-winter plumage. In many species, only the juvenile head and body feathers are replaced, and the moult is completed within a few weeks of fledging. Most passerines also

replace most of their wing-coverts and some or all of their tail feathers. Some species have a complete post-juvenile moult which may not be finished until late autumn. A few migrant species do not start the post-juvenile moult until the autumn, or until they reach their winter quarters.

The first-winter plumage of some species is inseparable from that of winter adults; other species, however, through the retention of some distinctive juvenile feathers or the acquisition of age-diagnostic plumage, are ageable in this and subsequent immature plumages (some, like the large gulls *Larus*, for up to three or more years after hatching).

Exact knowledge of the timing and extent of the post-juvenile and subsequent moults of each species is useful: the precise ageing of immatures is increasingly a part of improving field identification standards. For this, the detailed information in guides intended primarily for ringers, such as *A Guide to Mould in British Birds* (Snow 1967), *Identification Guide to European Passerines* (Svensson 1975) and *Guide to Identification and Ageing of Holarctic Waders* (Prater *et al.* 1977), is often essential.

The Starling's moult is a complete one, and there is a striking patchy bicoloured stage (caused by the mixture of juvenile and new feathers) before the first-winter birds become virtually inseparable in the field from the winter adults when the moult is finished in late autumn.

The Starling in the mystery photograph had already acquired one first-winter feather (the white-tipped breast feather), indicating the beginning of its post-juvenile moult. If, last month, we had noted the fact that this Starling photograph by Dr J. E. C. Flux had been taken in January 1978, the month would have made solution of the mystery more difficult than usual. Although most of our photographs are obtained in Britain and Ireland, or at least in the west Palearctic, this common British bird was actually photographed in New Zealand, where January is midsummer.

P. J. GRANT

205. Mystery photograph 24. What is this species? Answer next month



# Notes



**Oystercatcher driving lamb from nest** On 14th May 1977, along the shore of Seallastle Bay, Mull, Strathelyde, my attention was attracted by the agitated piping of an Oystercatcher *Haematopus ostralegus*. Scanning the tideline, I noted an incubating Oystercatcher about 50 m ahead, and a ewe and lamb approaching the nest site. When the ewe was about  $1\frac{1}{2}$  m from it, the wader stood up piping vigorously, which was sufficient to turn the ewe aside so that she avoided the nest by about 2 m. The lamb, however, did not react; the Oystercatcher tried injury-feigning, but was unsuccessful in diverting it. At the last minute the distressed bird flew at the lamb and I clearly saw it strike the animal's flank with its legs and wings, but did not see it use its bill. The lamb moved immediately and joined its mother. I examined the site and found that the lamb had missed the three eggs by less than 50 cm.

RICHARD COOMBER

*Staffa Cottages Guest House, Tobermory, Isle of Mull PA75 6PL*

M. & F. Penrose (*Brit. Birds* 52: 384-385) reported and illustrated similar interactions between an Oystercatcher and a ewe with her lamb. In that case, the female Oystercatcher sat tight on eggs while her mate reacted violently towards the lamb and, then, the seated ewe: but he became calmer when the ewe moved to face away from the nest, although she was still just as close. EDS

**Aggression of Lesser Yellowlegs to Redshanks** From November 1975 to about 6th April 1976, a Lesser Yellowlegs *Tringa flavipes* wintered on a small area of marsh in the Teign estuary, Devon. On 19th February, it was particularly restless and active, and was seen on several occasions to engage in disputes with Redshanks *T. totanus* feeding nearby: it appeared to be trying to drive them off its usual feeding area. Twice it flew 25-30 m at the nearest Redshank, uttering loud 'took' calls, and then hovered clumsily over the offending bird, which crouched low with its bill held upwards. While hovering, dangling its legs and striking with its bill, the yellowlegs gave a series of clipped calls 'tuk-tuk-tuk', similar to those of a Turnstone *Arenaria interpres*; it then landed a metre or so from the Redshank and the two circled around each other, head and body in line horizontally, crouching down with tails fanned. On both occasions, the Redshank then ran forward and drove off the yellowlegs, which flew 3-5 m before running at the larger wader again, but with no greater success. The Redshanks started to disperse in early March and no further disputes of this intensity were observed.

D. M. NORMAN

*Top Flat, 66 Avenue Road, Torquay, Devon*

Dr K. E. L. Simmons has commented that: 'The Lesser Yellowlegs was presumably defending an individual feeding territory, as recorded for

other waders (e.g. Redshank): an alternative practice to flocking when feeding in winter (sec J. Goss-Custard in *Social Behaviour in Birds and Mammals*, edited by J. H. Crook, London, 1970, pp. 3-25).’ EDS

**Arctic Skua forcing Swift into sea** On 7th August 1977, at Cley, Norfolk, in bad visibility, with rain and strong winds, Norman Parr, David Sampson, Steve Webb and I saw a light-phase Arctic Skua *Stercorarius parasiticus* in close pursuit of a Swift *Apus apus* about 100 m out to sea. The chase continued for three to five minutes, before the Swift flew over the sea and disappeared into the waves. The skua hovered briefly over it, flew off southwards, then turned and made two passes, once more hovering, before flying off again. Although we saw the Swift on the sea, the skua made no attempt to land on the surface. C. R. GRAFTON  
4 Norbury Gardens, Chadwell Heath, Romford, Essex RM6 5TS

**Pied Wagtails persistently attacking Dipper** On 16th September 1977, on the River Coquet near Rothbury, Northumberland, I observed a Dipper *Cinclus cinclus* feeding in shallow water and being repeatedly attacked by three Pied Wagtails *Motacilla alba*. At first, it appeared to take no notice, but gradually the wagtails became more aggressive and began to dive-bomb and peck at the Dipper’s head, forcing it to submerge into deeper water. It resurfaced farther downstream, where the attacks were immediately resumed until the Dipper was forced to move to another part of the river. Each time that it returned to the original area, it was subjected to the same treatment. D. J. PERRY  
74 Winding Way, Alwoodley, Leeds LS17 7RQ

Dr K. E. L. Simmons has commented that the wagtails were perhaps defending a ‘flock feeding territory’. EDS

**Exhausted Fieldfare reaching shore after landing on sea** On 26th October 1977, during a heavy migration of thrushes *Turdus* at Holy Island, Northumberland, my daughter, my son and I watched an exhausted Fieldfare *T. pilaris* drop in the sea about 100 m offshore. It floated gull-like for about half a minute and then pattered a metre or so across the surface, before dropping again. It rested for a similar time and then flew once more, only to drop again, about 20 m from the rocks. It rested for another half minute, got up a third time, and dropped on the rocks. When picked up, it felt extremely light. We placed it among marram *Ammophila arenaria*; later, it had gone. IAN KERR  
27 Eddrington Grove, Chapel House, Newcastle upon Tyne

**Nuthatch caching insect larvae** On 30th April 1977, at the Ullen Wood National Star Centre for the Disabled, Gloucestershire, I watched a Nuthatch *Sitta europaea* for ten minutes at 4-6½ m collecting small, white grubs from the bark of a large Lawson cypress *Chamaecyparis lawsoniana*. On three occasions, when it had a bill full of grubs, it rammed them into a crevice in the bark, very deliberately tore off a flake of bark and wedged

it over the cache of food. It never returned to the same store, but selected three separate ones, all in the same tree.

A. R. BALL

11 Westdown Gardens, Hewlett Road, Cheltenham, Gloucestershire GL52 6AX

**Crossbills 'feeding' on soil** In August 1976, in the Black Forest, near Wolfach, south Germany, my wife and I noted a group of Crossbills *Loxia curvirostra* apparently feeding on a patch of bare red soil below a stone wall. As we approached, they flew to nearby trees, but returned as soon as we moved off. Crossbills were present throughout the three days we were in the area, and this behaviour was repeated many times; indeed, when we drove to the site and parked within 3 m or so, they were so preoccupied that they usually ignored us (plate 206). Elspeth Bartlett (*Brit. Birds* 69: 312) recorded Scottish Crossbills *L. scotica* feeding around chimney-stacks in Scotland, and suggested that perhaps they were looking for



206. Crossbills *Loxia curvirostra*, Federal German Republic, August 1976 (*M. Sainsbury*)

insects; however, we carefully examined the German soil *in situ* for insects, their pupal cases and eggs, but without success. An editorial footnote to Mrs Bartlett's note commented that, in the USA, Crossbills are known to feed on salt put out for cattle and on urine-impregnated snow. The German soil does not contain significant amounts of chloride ion, and mass spectrometric analysis shows the absence of uric acid which would characterise material contaminated with urine. Additionally, the chemical composition determined by atomic absorption of the soil was quite unexceptional and similar to that of samples taken elsewhere in the same locality (strong silicon, magnesium, aluminium, calcium, iron; medium sodium, lead, manganese, titanium, copper; weak nickel, chromium, tin, silver).

It was apparent that the Crossbills' method of 'feeding' was not random but, even though we were very close, so fast was the selection process and ingestion that it was impossible to decide what they were taking. Subsequently, a microscopic examination confirmed a lack of insects and also the absence of seeds. Small flakes of calcium carbonate 0.5-1.5 mm long and up to 0.5 mm wide are, however, present, presumably originating

from the adjoining stone wall through weathering. I am forced to conclude that it was these flakes that were of such interest to the Crossbills in Germany; one wonders if similar items were being sought by the Scottish Crossbills.

MALCOLM SAINSBURY

23 Claverton Road, Saltford, Bristol BS18 3DW

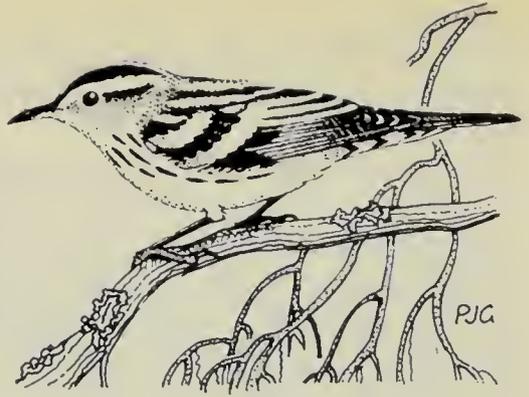
Dr Alan Knox has commented as follows: 'Since searching for insects or seeds has been ruled out (and would be extremely unlikely anyway), there are two possible explanations for the behaviour of the Crossbills in Germany. Crossbills are well known for their habits of picking around chimney-stacks and eating putty (e.g. D. Nethersole-Thompson 1975, *Pine Crossbills*, p. 147; A. Watson 1955, *Scot. Nat.* 67: 121-122), and they might indeed have been ingesting the material eroded from the wall for its calcium content. Alternatively, they might have been taking in grit for use in the gizzard to help break up seeds. They usually select only one or two types of mineral, even when faced with a wider choice, and often repeatedly use particular areas as grit sources. This behaviour is very common, but surprisingly poorly documented.' Eds

**Black-and-white Warbler in the Isles of Scilly** At about 10.45 GMT on 29th September 1977, I was watching a rather sparse selection of birds along the Lower Moors nature trail on St Mary's, Isles of Scilly. I had sat down to look at a Chiffchaff *Phylloscopus collybita*, which had shown itself briefly in the shadowy canopy of a large copse of mature willow *Salix*, and was about to move farther down the trail, when I focused on a movement about 20 m away near the foot of a gnarled willow trunk covered with ivy *Hedera helix*. There, slinking into view around the trunk, came a beautiful, unmistakable, near-apparition: a Black-and-white Warbler *Mniotilta varia*. It flew to a nearer trunk, where it continued to feed for a few seconds, pecking from the trunk and branches, then flew into the willow canopy about 3 m above my head, and disappeared. I scribbled a sketch, noting its main features, waited a few minutes trying in vain to relocate it, then left the area to fetch others. By 11.30, about 20 observers had gathered at the spot. After a rather desperate ten-minute wait, someone glimpsed the warbler flying back into the copse, and soon it had shown itself to all of its much relieved and highly appreciative audience. It remained in or near the same copse for three days, until the afternoon of 1st October, and was seen by about 250 observers, some of whom had travelled from as far away as Fair Isle to see it! The following notes were taken:

Rather large warbler, close to Garden Warbler *Sylvia borin* in length, but slimmer. Bill rather long, strong, and slightly decurved; blackish with pale base to lower mandible. Chin, throat, long supercilium, and thin, clear-cut crown stripe from bill to nape, white. Coronal bands (from bill to nape) and line from eye to nape, black.

Ear-coverts and lores washed grey. Eye black, with thin white crescent below. Mantle striped black and white. Median and greater coverts black, broadly tipped white, forming two wing-bars. Tertiaries black, broadly edged white. Secondaries blackish, finely fringed whitish except for broad black band across bases bordering

white greater covert bar. Primary coverts and primaries blackish, latter finely fringed whitish. Thus, wing pattern recalled Goldcrest *Regulus regulus*. Underparts white, with neat black streaks in lines down flanks and across breast, barely meeting in centre. Undertail with black chevrons or arrowheads. Tail blackish, with fine whitish fringes to outer webs and white flashes on inner webs visible only when tail fully spread. Legs dark orange-brown; feet yellowish. No call heard.



Its tree-creeping habits were striking: the warbler shuffled around trunks and branches, pecking and probing into crevices. It also pecked from leaves in normal warbler fashion and once it ate an earwig (Dermaptera), from which it first removed the pincers by rubbing them vigorously against a bough. It disappeared for long periods—at times for up to an hour and a half—but was never seen away from the shaded, sparsely vegetated, damp understorey of the dense willow copse where it was first found. The lack of any pale buff tones in the plumage suggests that it was an adult male in winter plumage rather than a first-winter individual or winter female; the rather extensive streaking on the underparts, which joined across the upper breast, are also indicative of a male. This is the third record for Britain and Ireland: one was found dead at Sealloway, Shetland, in mid October 1936 (*Brit. Birds* 53: 97-99), and one observed in the Isles of Scilly—also on St Mary's—during 27th to 30th September 1975 (*Brit. Birds* 69: 354).

P. J. GRANT

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## Short reviews

**Birds.** By Neil Ardley. (Ward Lock, London, 1978. 128 pages; 32 colour photographs, many colour illustrations. £1.95) Coverage of species is so meagre that this book must be aimed at young beginners; if so, one wonders how many will have need to identify Cretzschmar's Bunting, for instance. More space should have been devoted to fewer species. A few of the drawings are quite attractive, but the colour is appalling, varying from wishy-washy to lurid; some drawings would be almost totally unidentifiable without their captions. The 20 or 30 words of text for each species are insufficient, even for a work of this sort. There are too many poor-quality identification guides for beginners

on the market at the moment; this is one of them. **The Young Naturalist's Guide to Conservation.** By Neil Arnold. Foreword by Sir Peter Scott. (Ward Lock, London, 1977. 54 pages, many black-and-white and colour drawings. £2.95) Written in simple, yet practical and interesting manner: it should satisfactorily do its job of involving young people in conservation. **RSPB Book of Garden Birds.** By Linda Bennett, with colour-plates by C. F. Tunnicliffe and line-drawings by Robert Gillmor. (Hamlyn, London, New York, Sydney & Toronto, 1978. 124 pages; 36 colour plates; 45 line-drawings. £2.95). There are 29 useful pages of general introduction before the start of the

one or two species to a double-spread, based on the good idea of writing texts to accompany Tunnicliffe paintings (many of which appeared as covers to the old RSPB magazine *Bird Notes*). This system, however, results in Whitethroat and Fieldfare receiving full treatment, whereas House Sparrow and Collared Dove are relegated to what almost amounts to an appendix, with only half a page each and a black-and-white Gillmor drawing, at the back of the book. Should be popular; for bird-lovers and also for fans of Tunnicliffe and Gillmor. **Day by Day.** By **Althea Braithwaite.** (Dinosaur Publications, Over, Cambridge, 1978. 64 pages; many small colour illustrations. Paperback, 80p.) Small (132 × 108 mm), naturalists' diary for young children. **The Natural History of the Garden.** By **Michael Chinery.** (Collins, London, 1978. 287 pages; 24 colour plates, many line-drawings. £4.95.) Ornithologists who buy this book will not do so for the 18 pages and two plates devoted to birds. Most useful for identifying the various creepy-crawlies and weeds which the birds we observe are feeding on, but more than a mere reference book, making fascinating reading for any gardener-naturalist. Recommended. **Fåglar över Land och Hav.** By **Kai Curry-Lindahl.** (Albert Bonniers Förlag, Stockholm, 1975. 243 pages; 40 colour plates; many maps. No price quoted.) Compendium of facts and theories relating to migration, more comprehensive than the title ('Birds over Land and Sea') suggests. Now somewhat dated, the last references quoted relating to 1973. Unfortunately, text entirely in Swedish; it deserves an English edition. **Wild Australia: a view of birds and men.** By **Douglas Dorward, paintings and drawings by John Olsen.** (Collins, Sydney & London, 1977. 128 pages; 50 black-and-white photographs; 13 colour paintings; many black-and-white drawings. A\$11.95.) Seven stories of man and birds, based on an Australian Broadcasting Corporation television series. The text, although with sound scientific basis, is—like the photographs, paintings and drawings—aimed at evoking the atmosphere of Australia rather than documenting facts. **Birds of Derbyshire.** By **R. A. Frost.** (Moorland Publishing Company, Buxton, 1978. 182 pages; 57 black-and-white plates. £6.00.) The format of county avifaunas is by now well established, and

this one conforms. A total of 38 pages is devoted to a detailed description of the county and its habitats, excellently illustrated by 28 well-chosen photographs of different areas. The bulk of the book (108 pages) is devoted to a most competently compiled systematic list of the 273 species recorded in Derbyshire in modern times up to 31st December 1977. Every birdwatcher living in, living near, originating from, or travelling to Derbyshire will wish to own this book. It is an elegant example of the genre. **Vanishing Birds: their natural history and conservation.** By **Tim Halliday.** (Sidgwick & Jackson, London, 1978. 296 pages; 16 colour plates, 46 black-and-white drawings; 9 maps. £7.50.) The colourful cover suggests that this will be just another of the many picture books churned out with little apparent purpose other than to line the pockets of the authors, artists and publishers. It isn't. This is a logical and considered view of the processes of extinction, with numerous well-documented examples. The author has also illustrated the book with colour-paintings and black-and-white drawings. The book is a pleasure to read: its design is simple and the text is authoritative, well written and interesting. If it gets bought because of its attractive cover, many purchasers will get a surprise...and it will be a pleasant one. This volume can be read with pleasure from cover to cover, leaving us sadder, but distinctly wiser. **A Field Guide to the Nests, Eggs and Nestlings of North American Birds.** By **Colin Harrison.** (Collins, London, 1978. 416 pages; 64 colour plates and many line-drawings. £6.50.) Companion work to this author's *A Field Guide to the Nests, Eggs and Nestlings of British and European Birds* (1975) reviewed by M. A. Ogilvie (*Brit. Birds* 69: 38-39). This work illustrates 622 eggs and 147 nestlings by means of colour photographs (mostly by F. Greenaway) and colour paintings by Dr Philip Burton; there are also some nest drawings by Andrew Burton. **The Ornithology of Shakespeare.** By **James Edmund Harting.** (Unwin, Old Woking, 1978. 346 pages; 34 black-and-white illustrations. £5.25). Facsimile printing of the first edition published in 1864: scholarly documentation of references to birds in Shakespeare's works. **Die Trauerseeschwalbe.** By **P. Haverschmidt.** (A. Ziemsen Verlag, Wittenberg Lutherstadt, 1978. 74 pages;

26 photographs and maps. DM 7.20.) The Black Tern is attempting to return as a British breeding bird; this comprehensive survey of all aspects of its biology may assist conservationists to help it, especially by providing artificial nesting platforms like those used successfully in the Netherlands. Ringing recoveries suggest that, like other terns, many die in winter on the coasts of Ghana and elsewhere in West Africa. It seems a pity that some of the titles in this useful series have not been translated into English: this would be an excellent first choice. **Roberts Birds of South Africa. Revised by G. H. McLachlan and R. Liversidge.** (The John Voeleker Bird Book Fund, Cape Town, 1978. 660 pages; 72 colour plates; many marginal maps and line-drawings. R12.00.) This is the twenty-first printing and the fourth edition of the book first published in 1940. The original colour plates by Norman Lighton are now reproduced at slightly larger size than in previous editions and there are 31 new colour plates by Ken Newman (who has also repainted some of the species on the old plates). The new plates are an enormous improvement and it is a pity that (presumably for financial reasons) the book could not have been illustrated entirely by the one artist. Even now, however, the illustrations are tiny (e.g. no fewer than 39 raptors shown on one plate). The 850 species receive on average about four lines on identification (often wholly inadequate, even in conjunction with the colour plates), three lines on distribution, five lines on habitat, one line on food, two lines on voice and five lines on breeding. There are useful, small, marginal distribution maps. The wide margins are also used to advantage for the inclusion of small line-drawings (many drawn especially for this edition by Jill Adams) to expand or emphasise points made in the text. A valuable work of reference. **Wildlife in**

**Britain and Ireland. By Richard Perry.** (Croom Helm, London, in association with the World Wildlife Fund, 1978. 253 pages; 60 black-and-white photographs. £7.25.) Rather than an account of wildlife in Britain and Ireland as it is now, this is a history of extinctions, reductions, increases and colonisations, based on a wide variety of literature, and supported by many quotations, frequently from somewhat obscure sources. Regrettably, the detail is such that one frequently cannot see the wood for the trees. Many of the photographs are excellent, but the reproduction is distinctly poor. Layout and design are so bad (there is a 7-cm white space in the centre of every double-page spread, with the text forced outwards to within 1.7 cm of the edge of the page; some photographs are bled, others are not) that the book almost takes on a macabre fascination. A pity, for many hours of work (and many references to articles in *Animals*) have gone into this still-dippable compendium. **The Bird Table Book in Colour. By Tony Soper, illustrated by Robert Gillmor.** (David & Charles, Newton Abbot, fourth, revised edition, 1977. 128 pages; 36 colour photographs; many paintings, drawings, and cartoons. £3.50.) The title is misleading: this is a most useful, comprehensive guide to methods of making every garden a miniature bird reserve. Well—and often humorously—illustrated. Thoroughly recommended. **The California Quail. By A. Starker Leopold.** (University of California Press, Berkeley, Los Angeles & London, 1977. 281 pages; 1 colour plate, many line-drawings and photographs. £10.50.) An authoritative survey of the natural history and management of California's state bird, which has been introduced elsewhere in the Americas and the Pacific, with attempts, mostly abortive, in some parts of Europe. JTRS & SC

## Letters

**A symbol for individuals not adult males** For use when reporting observations of dimorphic species of birds in which adult females and immature individuals of both sexes are not readily distinguishable from each other under field conditions, but are easily separated from the adult males, E. Kiviat (1975, A symbol for individuals not adult males, *Amer.*

*Birds* 29: 818) recommended a single shorthand symbol for all dull-plumaged birds that are not adult males. He proposed the symbol  $\phi$  (Greek letter *phi*) for all birds not sexed, reserving the conventional symbols  $\delta$  and  $\text{♀}$  for individuals of identifiable sex. Kiviatt pointed out that the symbol might also be useful with monomorphic species, when colour rings or behaviour permit sex identification of some but not all individuals, any individual of unidentified sex being denoted  $\phi$ .

The symbol  $\phi$  is mnemonic as used here, since the words 'female' and 'first-year' have the same initial phoneme as *phi*. The symbol is also a diagrammatic hybrid of  $\delta$  and  $\text{♀}$ . It can be formed on a standard typewriter keyboard by combining the characters o and /. (Or, if the characters M and F are used for male and female, P could be used for *phi*.)

G. J. OREEL

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Iain S. Robertson also drew this suggestion to our attention. A universally accepted abbreviation for the long-winded 'female or immature' would be useful in many systematic lists. We welcome comments on this particular proposition. EDS

**Association of nesting Woodpigeons and Hobbies** In the course of recent reading, I have been struck by the number of instances where observers have found Woodpigeons *Columba palumbus* breeding close to the eyrie of a pair of Hobbies *Falco subbuteo*. The first reference occurs in Naumann & Naumann (1905), who remarked that, as a consequence of the falcon's considerable aggressiveness, crows (Corvidae) tend to keep away from the nesting area; they continue (my translation), 'this may well be the reason for a phenomenon frequently observed by many, namely that the shy Woodpigeon readily rears its brood in very close proximity to the Hobby's eyrie, since it thus enjoys a measure of protection from crows. In many cases one can more easily find a Hobby's eyrie in a particular part of a wood if one first looks at where the Woodpigeons are nesting.' Tinbergen (1932) reported four nests within a radius of 50 m of a Hobby nest he was studying, and Scholze (1933) found several pairs near another.

Elsewhere, only single nests of Woodpigeons have been mentioned. The first of these was Ashley (1918), who found the two species nesting in the same tree. Roberts (1936), Pflugbeil (1960) and Fiuczynski (1978) each recorded Woodpigeon nests just 3 m below Hobby eyries, while Gebhardt (1941) found nests of the two species 'only a few metres apart', and once saw a Woodpigeon cooing ardently among the just fledging young falcons on the rim of their eyrie. Robin Khan and Mrs Heather Woodland (*in litt.*) report that 'we have observed Woodpigeons almost sitting alongside a Hobby while the latter was incubating, and on other occasions a Woodpigeon perched close to an eyrie without any hostility being shown by the falcon.' Martin Wright (also *in litt.*) saw a female Hobby tolerate a Woodpigeon within 2 ft (0.6 m) of her eyrie, and at the same site two fighting

Woodpigeons actually dislodged the male Hobby from his perch in the lower branches of the nest-tree.

In Spain, Woodpigeons have been found nesting near Hobbies (Morata 1971) and other birds of prey (Valverde 1967). In a study on the Coto Doñana, seven out of every ten Woodpigeon nests were within 40 m of a (used or disused) nest of Black Kite *Milvus migrans*, the theory being that not only do Woodpigeons derive benefit from being under the 'umbrella' of the raptor's aggression towards potential nest-despoilers, but they may also return the favour by giving early warning of any approaching danger (Cain & Hillgarth 1974).

Naturally the Hobby/Woodpigeon relationship is not clear-cut. Some Hobbies may always drive Woodpigeons away; others may act temperamentally, attacking them briefly and then ignoring their return to or near where they originally were. Frank Blackburn (*in litt.*) watched a female Hobby who virulently attacked Woodpigeons only if they went too close to a cache of food being used for her young.

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**Head-pattern of Hippolais warblers** P. J. Grant's note on the relatively unpatterned heads of Icterine *Hippolais icterina* and Melodious Warblers *H. polyglotta* (*Brit. Birds* 71: 132) prompts us to record our own experiences of this feature. Our observations of all six species of *Hippolais* in various parts of their ranges indicate that the 'bare-faced' expression described by P. J. Grant is in fact common to the genus as a whole. In particular, we have found the lack of a dark eyestripe bordering the supercilium a useful feature in separating Booted Warbler *H. caligata* from similar warblers in the genus *Phylloscopus*.

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# Announcements

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**'The Frontiers of Bird Identification: a "British Birds" guide to some difficult species'** Over the years, *British Birds* has built up a reputation for publishing classic papers on the field identification of pairs or groups of species which are difficult to distinguish. The 29 most recent of these, from Kenneth Williamson's 'Juvenile and winter plumages of the marsh terns' (1960) to Ian Wallace & Malcolm Ogilvie's 'Distinguishing Blue-winged and Cinnamon Teals' (1977), have now been collected together in a single volume to be published in the first half of 1979. The original papers are published largely unaltered, but each author has added a postscript, updating or correcting his conclusions.

Readers of *British Birds* will be entitled to a special prepublication reduction of £1.50 off the full price (which will probably be £5.95). If you wish to make sure of your cheap copy, send a self-addressed and stamped envelope now, with a request for your special reduced offer coupon, value £1.50, to Dr Roger Woodham, Macmillan Journals Ltd, 4 Little Essex Street, London WC2R 3LF.

**SPECIAL  
OFFER**

**New 'British Birds' check-list** *The 'British Birds' List of Birds of the Western Palearctic* is now available as a booklet, with five columns for recording field observations or other information.

We take this opportunity to apologise for and correct seven errors in the fold-out copies of the list supplied free to all 1978 subscribers:

- Long-toed Stint *Catidris subminuta* (insert after Temminck's Stint)
- Long-toed Pigeon *Columba trocaz* (not *Columba trocas*)
- Namaqua Dove *Oena capensis* (insert after Laughing Dove)
- Black-billed Cuckoo *Coccyzus erythrophthalmus* (not *Coccyzus erythroptalmus*)
- Short-toed Lark *Catantrelta brachydactyla* (not *Catantrelta cinerea*)
- Yellow-vented Bulbul *Pycnonotus xanthopygos* (insert before next species)
- Common Bulbul *P. barbatus* (not merely Bulbul)

The new list includes these corrections, and also additions up to June 1978. Copies may be obtained, price 65p each post free, from Macmillan Journals Ltd, Brunel Road, Basingstoke, Hampshire RG21 2XS.

## Requests

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**More colour-ringed flamingos** For the second year in succession, part of the crèche of chicks of Greater Flamingos *Phoenicopterus ruber* hatched in the Camargue, France, has been colour-ringed. White PVC bands were placed on the right legs of 650 chicks in 1978 (yellow bands were used in 1977: *Brit. Birds* 70: 461). Each carries a unique three-letter combination engraved in black three times around the ring. Please report any sightings to Alan Johnson, Foundation Tour du Valat, Le Sambuc, 13200 Arles, France.

**More wing-tagged Goosanders** Young Goosanders *Mergus merganser* trapped in Northumberland have been wing-tagged for the third successive year. If past observations reported as a result of an earlier request (*Brit. Birds* 69: 457) were not acknowledged, they may not have been received as a result of a recent change in ERM's address. Please send details of all sightings to E. R. Meek, 10 Shaftoe Way, Dinnington, Newcastle-upon-Tyne.

# Migration review: autumn 1977

*K. Allsopp and S. C. Madge*

For the majority of migrants overflying the British Isles, the weather during the autumn of 1977 presented few hazards; consequently, no extensive falls of the commoner migrants occurred: good news for conservationists, but frustrating for migration-watchers. Rare vagrants, while not as numerous as in 1975 or 1976, did, however, satisfy most itinerant seekers.

A recent review of radar studies of migration over Europe (Bruno Bruderer, 1977, *Weather-dependence of height, density and direction of migration in Switzerland. Bird Strike Committee Europe*, 25. pp. 14. Cyclostyléd) has shown that the heaviest autumn nocturnal movements occur in the northeasterly winds created when a cyclone to the southeast is opposed to high pressure to the northwest, the birds choosing their height of migration to gain the most favourable winds to maximise their groundspeed along their preferred track. The disruption of this strategy, especially over extensive stretches of water by adverse weather during the flight, usually results in the familiar coastal falls of the slower flying small passerines, usually first-year birds, which are unable to respond successfully to the changing wind patterns. This review will first relate the slower flying migrants to the weather, leaving the stronger flying species to later sections.

## **Weather patterns and small migrants**

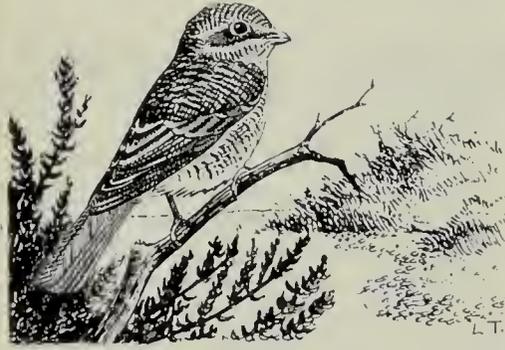
Passerine movements began in mid July, when high pressure to the west and a low over Europe brought northerly winds. This pattern was disrupted by the 18th, when a cyclone with associated fronts crossed the country. The strong southwesterlies overnight resulted in a small fall at Dungeness (Kent), involving Yellow Wagtails *Motacilla flava*, Whinchats *Saxicola rubetra*, Sedge Warblers *Acrocephalus schoenobaenus*, Blackcaps *Sylvia atricapilla* and a Red-backed Shrike *Lanius collurio*, and farther north, at Tynemouth (Tyne & Wear), migrant Willow Warblers *Phylloscopus trochilus* began appearing in gardens. High pressure again became established to the west to-

wards the end of the month, with ensuing northeasterlies. A hint of the migration overhead came on 1st August at Dungeness, when 150 Willow Warblers arrived. The month of August was the most interesting of the autumn, with migrants arriving from the northeast and the south. In the first week, a depression tracked in from the Atlantic, with resulting westerlies, and a slow moving wave depression developed in the Channel on 6th in its wake, with pressure rising in the North Sea. A stationary front across the southern North Sea divided the westward moving air to the north from the northerly flow across the Channel. Result: Melodious Warblers *Hippolais polyglotta* were found along the south coast from the Isles of Scilly to Sussex and eight Icterine Warblers *H. icterina* on Blakeney Point (Norfolk) on 7th, to the north of the front. The low pressure centre with associated murky weather became inactive by 10th. Icterine Warblers appeared at Cape Clear Island (Cork) on 10th and 11th, while Melodious Warblers were found on the Calf of Man and Bardsey (Gwynedd) from 11th. Closer to the centre of the disturbed weather, Dungeness had had falls of Willow Warblers on 8th and 9th, with five Wood Warblers *P. sibilatrix* also on 8th.

With high pressure now established over Scandinavia and depressions approaching from the west and developing over Germany, further arrivals were to be expected. More Icterine Warblers appeared on the Norfolk coast on 12th and 13th and five Melodious at Portland Bill (Dorset) on 13th. A slow westerly moving weather front, opposing the northeasterlies, successively grounded birds at Cape Clear Island on 14th and Norfolk on 15th, including the autumn's first Pied Flycatchers *Ficedula hypoleuca*.

Over the next few days, a thundery low pressure centre approached from the south, bringing intense rain storms. The most dramatic effects upon the migrants were centred in the Irish Sea. About 2,000 Willow Warblers were grounded at Bardsey on 19th, with smaller number of

Whitethroats *Sylvia communis* and Grasshopper Warblers *Locustella naevia*; the Calf of Man reported 100 Willow Warblers, while on Walney Island (Cumbria) 33 were trapped, together with an Icterine Warbler. The next day, the East Coast received its largest fall, featuring over 200 Red-backed Shrikes, with lesser numbers



of Wrynecks *Jynx torquilla* and Icterine Warblers (one Icterine even reached inland to Derbyshire on 21st). The effects of the depression lingered for two more days before moving eastwards: Fair Isle (Shetland) had a small fall of 70 Willow Warblers on 22nd and Dungeness numbers reached 600 on 23rd. A feature of the whole period was the appearance of Wood Warblers—usually seldom seen at coastal stations—which were widely reported in small numbers.



The decline of the Scandinavian anticyclone and return to mainly westerly weather halted the arrival of Continental migrants, but Icelandic Pied Wagtails *Motacilla alba alba* became regular passage birds at the Calf of Man, and Swallows *Hirundo rustica* gathered in large flocks along the English east coast. The westerlies continued until 12th September, when a high pressure area began to build over the country. The Atlantic depressions were diverted to northern Europe producing a

strong northeasterly airstream from northern Siberia on 15th. The high pressure had moved eastwards into the Baltic by 23rd, with consequent southeasterlies across the North Sea. Five Yellow-browed Warblers *Phylloscopus inornatus* arrived on Fair Isle, a few Red-breasted Flycatchers *Ficedula parva* in northeast England and the first influx of Richard's Pipits *Anthus novaeseelandiae* on the following few days. Redstarts *Phoenicurus phoenicurus* were belated migrants during this period, mainly in East Coast localities, and the hirundines were reported departing south. A strong westerly flow developed across the Atlantic at the end of the month, bringing a Black-and-white Warbler *Mniotilta varia* to St Mary's (Isles of Scilly), but no mass Nearctic arrivals as in 1976.

The westerlies continued to blow until 6th October, when a rise in pressure over Scandinavia diverted a depression southwards into Biscay, turning the winds southeasterly. An enormous influx of thrushes, chats and Blackcaps *Sylvia atri-*



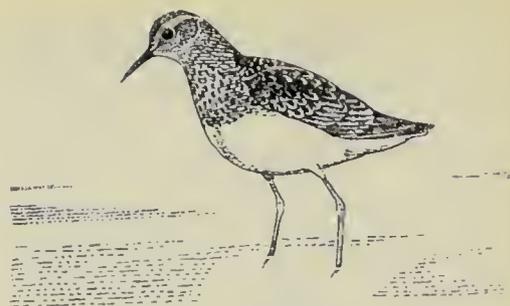
*capilla* occurred in misty conditions on 7th and 8th along the English northeast coast; there were 200 Blackcaps on Fair Isle on 9th, with no accompanying thrushes. Further Richard's Pipits arrived at Bardsey, Norfolk and the Isles of Scilly, with one inland in Nottinghamshire.

For the remainder of the month, an anticyclone stayed over eastern Europe, giving mainly southerly winds across Britain, these turning westerly as depressions approached from the Atlantic. Red-breasted Flycatchers can almost be guaranteed under such conditions, and about 30 were reported, mainly from western Britain and Ireland. Yellow-browed Warblers numbered around 25, of which 15 were on the Isles of Scilly, and Pallas's Warblers *Phylloscopus proregulus* occurred at several localities, including one inland at Blackmoorfoot Reservoir (West York-

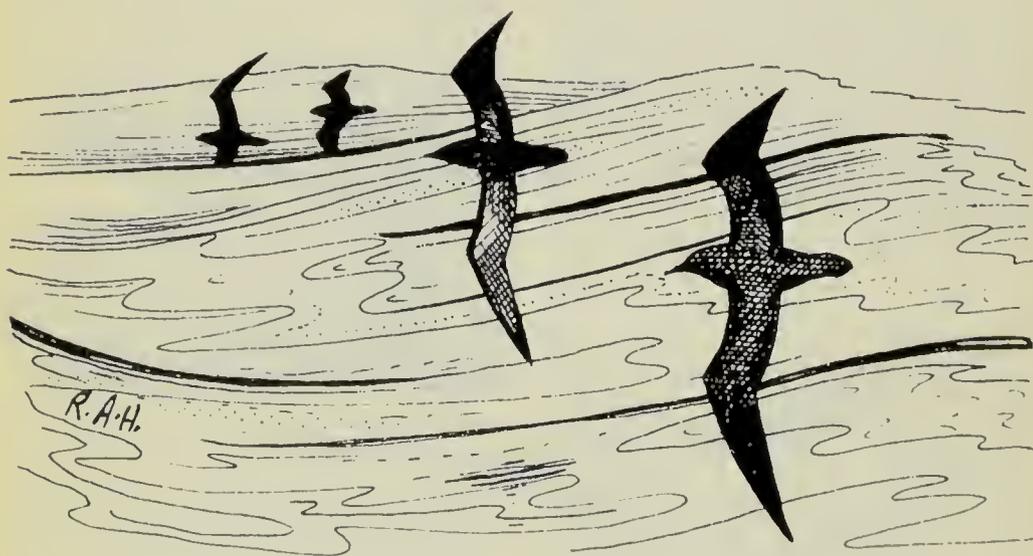
shire). By the end of the month, the Isles of Scilly resembled some European Avian Safari Park, and its list of exhibits can more appropriately be read in the Rarities Committee's report (see pages 481-532). Of the commoner species, mention must be made of Black Redstarts *Phoenicurus ochruros*, which were widely reported from inland as well as coastal areas from 16th to the end of October, a few remaining on the north Wales coast until late December.

### Waders

No unusual widespread movements of Palearctic species are apparent from the records received. Wood Sandpipers *Tringa glareola* were more frequently seen during July and August than in some previous years, 19 being reported from Dibden Bay (Hampshire) on 18th. As in 1976, Jack Snipe *Lymnocyptes minimus* arrived in good numbers. The wader event of the autumn was the arrival of Nearctic species at the



beginning of September, when a succession of deep cyclones with strong westerlies crossed the Atlantic between 25th August and 10th September. The full list of numbers and species involved appears in the 'Rarities report'. The only non-rarity involved was the Pectoral Sandpiper *Calidris melanotos*: before the late August arrivals, six had been reported, with a further 22 arriving during the main influx, 13 of them in Ireland, Cornwall and the Isles of Scilly.



### Coastal movements

Sooty Shearwaters *Puffinus griseus* were present off all coasts throughout the autumn, but only occasionally were any seen close inshore. Over 300 in an hour passed Cape Clear on 15th August, and 120 flew northwards past Seaton Sluice (Northumberland) on 18th August. Further concentrations reported that month were 120 off Mull (Strathclyde) on 29th and 40 on 26th near Fair Isle. During September, the northeast again had a good passage on 16th and 17th, with 855 at Seaton Sluice and 230 at Flamborough

(North Humberside). On the English coast, nothing was seen of the huge movement which took place along the French coast on 1st and 2nd October, when 1,300 were reported from Cap Gris Nez and 322 in the Channel Islands on 2nd. A few Great Shearwaters *P. gravis* were seen during the autumn movements, but no concentrations. The numbers of skuas *Stercorarius* along the coasts were disappointing, the only large passage being on 27th August, when 700 Arctic Skuas *S. parasiticus* passed Flamborough Head. The only extensive movements of Black Terns

*Chlidonias niger* were confined to the south coast during August, with 100 on 16th and 200 on 22nd at Dungeness, followed by another 100 off Devon and Cornwall from 26th to 28th. Inland, very few appeared at the reservoirs.

### Acknowledgements

We wish to thank all observers who have contributed records month by month, and also the clubs and societies for the many and interesting newsletters from which this review has been compiled.

## News and comment

*Peter Conder and Mike Everett*

**The Philippines Eagle** We wonder how often a bird has had its vernacular name changed by a Presidential Proclamation? This happened in the case of the Monkey-eating Eagle *Pithecopphaga jefferyi* in May of this year, when Proclamation No. 1732, signed by President Ferdinand E. Marcos of the Philippines, declared that henceforth it would be known as the Philippines Eagle: partly because it is confined to the Philippines, but also because it was felt that reference to monkey-eating 'denigrates its qualities'. Hopefully, the final part of the Proclamation, which goes on to instruct all government agencies to take special note of the change, may lead to better conservation measures to help this rare and interesting bird.

**More Archaeopteryx finds** A single fossil feather impression, the discovery which established the existence—and inspired the name—of *Archaeopteryx lithographica*, has now been augmented by partial or entire skeletons of a further four specimens. Since 1861, this fossil creature has held the distinction of being the most ancient known bird, estimated to be about 135 million years old.

The *Archaeopteryx* may now have to share the limelight with two new species. A palaeontologist at Brigham Young University, Dr James Jensen, has unearthed two femurs from rock formed 130 million years ago, about the time *Archaeopteryx* was living. The new fossil femurs appear to belong to two different species. The femur of the *Archaeopteryx* has a large well-developed knob that fits into a socket in the pelvis, which is typical of animals that run or manoeuvre well on the ground; the newly discovered femurs, however, are small, a characteristic shared with birds

that are good flyers.

Generally regarded as being a direct link between birds and reptiles, if the *Archaeopteryx* shares the same period in time with other birds that were more adept at flying, its singular status may now be challenged. (Cornell University Laboratory of Ornithology)

**New journals** From time to time, we like to include mention of new journals, or others which come to our notice that may not be widely-known to *BB* readers. Anyone interested in the birds of Bulgaria might like to note the first issue (1977) of the *Ornithological Information Bulletin*, produced by the Ornithological Centre of the Zoological Institute of the Bulgarian Academy of Sciences in Sofia, and that it is written in Bulgarian; editorial address: Zoological Institute and Museum, Boulevard Ruski 1, Sofia. From East Germany comes the *Ornithologische Jahresberichte des Museums Heineanum*, a new annual from the Ornithological Museum in Halberstadt replacing the earlier *Naturkundliche Jahresberichte des Museums Heineanum*; editorial address: K. Handtke and H. König, Domplatz 37, 36 Halberstadt, DDR. The *Bolletino Ornitologico Lombardo* is a welcome newcomer from Italy, a quarterly publication dealing with ornithological work in Lombardy; editorial address: c/o Sede LIPU, Galleria Passarella 2, 20122 Milano, Italy. The Malta Ornithological Society have produced *Bird's Eye View*, which is complementary to *Il-Merill* and will deal with the more popular aspects of the Society's activities, the older journal being the official and more scientific publication. Twice each year, we shall be able to learn more about birds at Gibraltar from *Alectoris*, the first issue of which appeared

from the Gibraltar Ornithological Society in March 1978; editorial address: the GOS, c/o the Gibraltar Museum, Bomb House Lane, Gibraltar. Finally, there is *Aureola*, a new bulletin produced by the Ornithological Club of North Pohjanmaa, Oulu, Finland; editorial address: Dept of Zoology, University of Oulu, SF-90100 Oulu 10, Finland.

**Winter atlas** Hard on the heels of the publication of the French breeding bird atlas comes news of a new project: an atlas of wintering birds. After a start made in Provence by the Centre de Recherches Ornithologiques de Provence (which apparently produced promising results), further winter atlasing is to be undertaken throughout the country. If you would like more details or, better still, would like to join in, write to La Société Ornithologique de France, 55 rue Buffon, 75005 Paris.

**Magenta Petrel** Seabird buffs will be glad to know of the rediscovery of the Magenta Petrel or Chatham Island Taiko *Pterodroma magentae*. After years of searching, two were trapped, photographed and released on Chatham Island on New Year's Day 1978: a good way to start your new annual list, perhaps, but more importantly a find of considerable importance. Hitherto, the bird was known only from a single specimen collected by Italian researchers as long ago as 1866.

**Dick Homes Memorial** Dungeness Bird Observatory, of which Dick Homes was vice-chairman of the Trustees and a committee member, proposes to erect a new sea-watching hide in his memory. This will be a fitting memorial to one of the foremost Kent birdwatchers of our time, and one which, with his great interest in Dungeness, he would surely have liked very much. Donations towards the project should be sent to G. J. Harris, 11 Barnfield Road, Riverhead, Sevenoaks, Kent.

**Natwest cheques** The National Westminster Bank have had the unique distinction of providing their customers with pictorial chequebooks ever since 1970. Now, they have produced one which, we hope, will promote a little more interest in wildlife: it costs 10p plus VAT and features

Kingfisher, Grey Wagtail, badger, stoat and yellow-necked mouse.

**No Westray mink** After a long delay, the result of the public inquiry of 21st-24th February into a proposal by George Drever to establish a mink farm on the island of Westray, northwest Orkney, close to seabird colonies of international importance (see *Brit. Birds* 71: 281-282), was announced on 16th August. It was considered that the presence of mink *Mustela vison* would present an unacceptable hazard to the exceptional local ecology and, after some consideration of the uncertain legal position, permission was refused. The applicant is reported to have said he will not exercise his right to appeal.

The Chief Reporter, A. J. Hunt, concluded that the farm should be commercially viable and beneficial to the uncertain local economy. If it was constructed according to the specifications suggested by the Islands Council, it should be exceptionally secure. One could not, however, be certain that no mink would escape. If they escaped there was food and shelter nearby, and, while exceptional efforts would doubtless be made to capture or kill them, this could not be certain either. The consequences of the establishment of a feral population were not precisely foreseeable, but must be harmful, especially to ground-nesting birds. The risk that they might get to the adjacent island of Papa Westray, which has a large population of ground-nesting birds, was slight, but the consequences would be very serious. It was noted that permission to keep mink went with the land, and future owners might not be so careful.

'A final conclusion on the merits turns on the balance between the more certain advantages that would accrue to Mr Drever and the local economy if his enterprise is implemented and the unquantifiable consequences that might follow if mink escaped and became established in the wild on Westray. My judgement is that the quite exceptional circumstances of the island ecology, particularly the major seabird nesting areas, are such as to justify such action as may be available to eliminate all risk of mink infestation.'

Those who opposed the establishment of a mink farm are grateful to all those people throughout the world who provided evidence of the harmful impact of feral mink. (Contributed by W. R. P. Bourne)

# Recent reports

*K. Allsopp and S. C. Madge*

**These are largely unchecked reports, not authenticated records**

This report covers August and the first part of September; except where otherwise stated, all dates refer to August.

Birdwatchers visiting their favourite coastal observation points during August, hoping to see passerine migrants, were mainly disappointed. The weather pattern was persistently westerly during the first three weeks, finally turning northerly during the last week. The southeast corner of England was the only area reporting significant movements as British migrants were halted on their flight south. At Dungeness (Kent), these occurred on only four days before the onset of the northerly winds on 23rd. **Willow Warblers** *Phylloscopus trochilus* predominated, with a maximum of 300 on 11th, with lesser counts of **Wheatears** *Oenanthe oenanthe*, **Garden Warblers** *Sylvia borin*, **Whitethroats** *S. communis* and **Tree Pipits** *Anthus trivialis*. From 23rd, a daily passage of **Lesser Whitethroats** *S. curruca* took place, with a peak of 100 on 27th; there was a similar pattern at nearby Sandwich Bay (Kent). A short period of northeasterlies, during 23rd to 25th, produced a minor fall of **Pied Flycatchers** *Ficedula hypoleuca* at Dungeness, numbering 35 on 25th. A few 'reverse migrants' were reported. Four **Melodious Warblers** *Hippolais polyglotta* and a **Woodchat Shrike** *Lanius senator*, species which do arrive on southwesterlies, were observed at Portland Bill (Dorset). **Barred Warblers** *S. nisoria* were scarce, with singles at Portland Bill and Pitsea Marsh (Essex) and two on Fair Isle (Shetland), which—apart from a **Greenish Warbler** *Phylloscopus trochiloides* on 4th, **Aquatic Warblers** *Acrocephalus paludicola* on 14th and 16th and a **Black-headed Bunting** *Emberiza melanocephala* on 11th to 15th—also had a lean August. The only other passerine rarity was **Tawny Pipit** *Anthus campestris*, with singles at Richborough (Kent) on 16th and Filey Brigg (North Yorkshire) on 7th.

Early September, however, produced a little more activity. Slow-moving fronts, opposing north and southeasterly winds across the North Sea from the 6th to 8th

September, resulted in small falls of migrants on the East Coast. Holkham Woods (Norfolk) held **Pied Flycatchers**, **Wrynecks** *Jynx torquilla*, **Icterine Warblers** *Hippolais icterina* and a **Red-backed Shrike** *Lanius collurio*. A further **Tawny Pipit** arrived at Dungeness on 6th. On 8th September, Fair Isle reported two **Yellow-breasted Buntings** *Emberiza aureola*, a **Pechora Pipit** *Anthus gustavi* and a **Lanceolated Warbler** *Locustella lanceolata*: the new warden now thinks that 'This place shows promise.' The following day, a **Booted Warbler** *Hippolais caligata* was reported from Spurn Point (North Humberside), which, if accepted, will be the first mainland record.

## **Movements of Swifts**

After the cool spring, insect populations were not high this summer, which may have caused most **Swifts** *Apus apus* to make an early departure. During a period of thundery conditions at the beginning of August, concentrations of Swifts were reported along the English south coast. On 5th, thousands were departing out to sea at Rame Head (Cornwall) and at Portland. The following day, 6,000 were seen at Dungeness and 10,000 passed southwest at Sandwich Bay. An **Alpine Swift** *Apus melba* was present at Richborough from 13th to 17th; usually, appearances of this species are very brief, observed only by those lucky enough to be in the right place at the right time.

## **Black Tern influx**

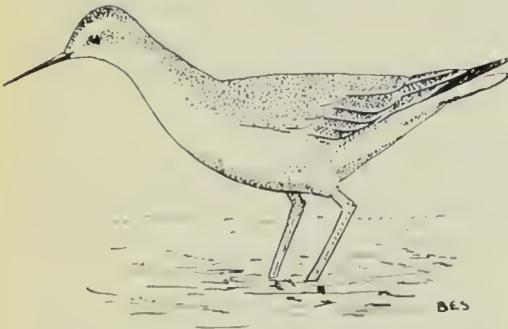
A popular belief is that arrivals of **Black Terns** *Chlidonias niger* occur during easterly weather conditions. This has not been the case this autumn. The number involved was not high, but the occurrence of the rarer **White-winged Black Tern** *C. leucopterus* with them was unusual. The first influx came after 5th in the southeast, with White-winged Black Terns appearing at Abberton Reservoir (Essex) and Tophill Low Reservoir (Humberside). Then, from 19th, two of the rarer species accompanied 115 Black Terns at Queen Mary Reservoir (Surrey) with a further White-winged

Black Tern at Eye Brook Reservoir (Leicestershire), two at Dungeness, where Black Terns numbered 100 on 23rd, and two at Chew Valley Lake (Avon) in early September. Other rare terns occurring during August were a **Gull-billed Tern** *Gelochelidon nilotica* at Dungeness on 13th and a **Sooty Tern** *Sterna fuscata* at Sandwich Bay on 15th, the latter date conforming to all previous autumn records.

At Castle Eden Dene Mouth (Durham), congregations of **Little Gulls** *Larus minutus* have been noted in late summer in the past few years. The pattern has been repeated this year, with numbers exceeding 100 reported.

### Little Stint invasion

A westerly autumn usually means more waders to look at, and so far this year more have been halted on passage than last autumn. First-winter **Curlew Sandpipers** *Calidris ferruginea* began to arrive in moderate numbers at the end of August, but by far the largest influx was of **Little Stints** *C. minutus* from about 6th September. These, the smallest of European waders, were badly affected by the weather front lying along the East Coast on that date. Flocks of over 100 were found at Tynemouth, Wisbech Sewage-farm (Cambridgeshire/Lincolnshire/Norfolk), Minsmere (Suffolk) and Cliffe (Kent). Other species were apparently unaffected by the conditions. The westerly winds looked likely to bring Nearctic waders over the Atlantic, but few arrivals have been reported. **Wilson's Phalaropes** *Phalaropus tricolor* were seen at Buxton (Cheshire) in



mid August, at Steart Point (Somerset) on 22nd to 30th, and on Alderney (Channel Islands) from 6th September, but the only other records were **White-rumped Sandpiper** *Calidris fuscicollis* at Sandwich Bay on 1st, **Pectoral Sandpipers** *C. melanotos* on Teesside in mid August and at Eye Brook Reservoir on 9th September, and

**Buff-breasted Sandpipers** *Tryngites sub-ruficollis* at Crowdy Reservoir (Cornwall) on 11th September and at Chasewater (Staffordshire) on 14th September.

### Sea-watches

Compensating for the lack of passerine migrants has been the excitement of sea-bird movements. Once more, **Sooty Shearwaters** *Puffinus griseus* have been the attraction in the North Sea, with the maximum count at Filey Brigg on 26th, when 482 flew northwards. Five **Great Shearwaters** *P. gravis* off Fair Isle on 30th followed one at Cley (Norfolk) on 20th. Filey Brigg also claimed the heaviest skua passage, with 200 **Arctic Skuas** *Stercorarius parasiticus* moving south on 26th. We have, however, heard of only four **Long-tailed Skuas** *S. longicaudus*, three at the last locality and one at Kinnaird's Head (Grampian). A northwesterly blow on 11th September brought many **Manx Shearwaters** *Puffinus puffinus* close inshore at St Ives (Cornwall) and also a **Wilson's Petrel** *Oceanites oceanicus*. This last species,



although common in the Bay of Biscay, is surprisingly rare close inshore. Weak individuals, which must occur in the population, might be expected to be seen in British and Irish waters rather more frequently than the seven records up to 1977 suggest.

### Latest news

Few rarities in first half of October, but three **Radde's Warblers** *Phylloscopus schwarzi*, on Sark (Channel Islands, at Spurn and at Holkham; **Red-flanked Bluetail** *Tarsiger cyanurus* at Donna Nook (Lincolnshire); **Desert Wheatear** *Oenanthe deserti* at Cley; **Citrine Wagtail** *Motacilla citreola*, **Semipalmated Plover** *Charadrius semipalmatus* and **Red-eyed Vireo** *Vireo olivaceus* in Isles of Scilly; and **Black-and-white Warbler** *Mniotilta varia* on Cape Clear Island (Cork).

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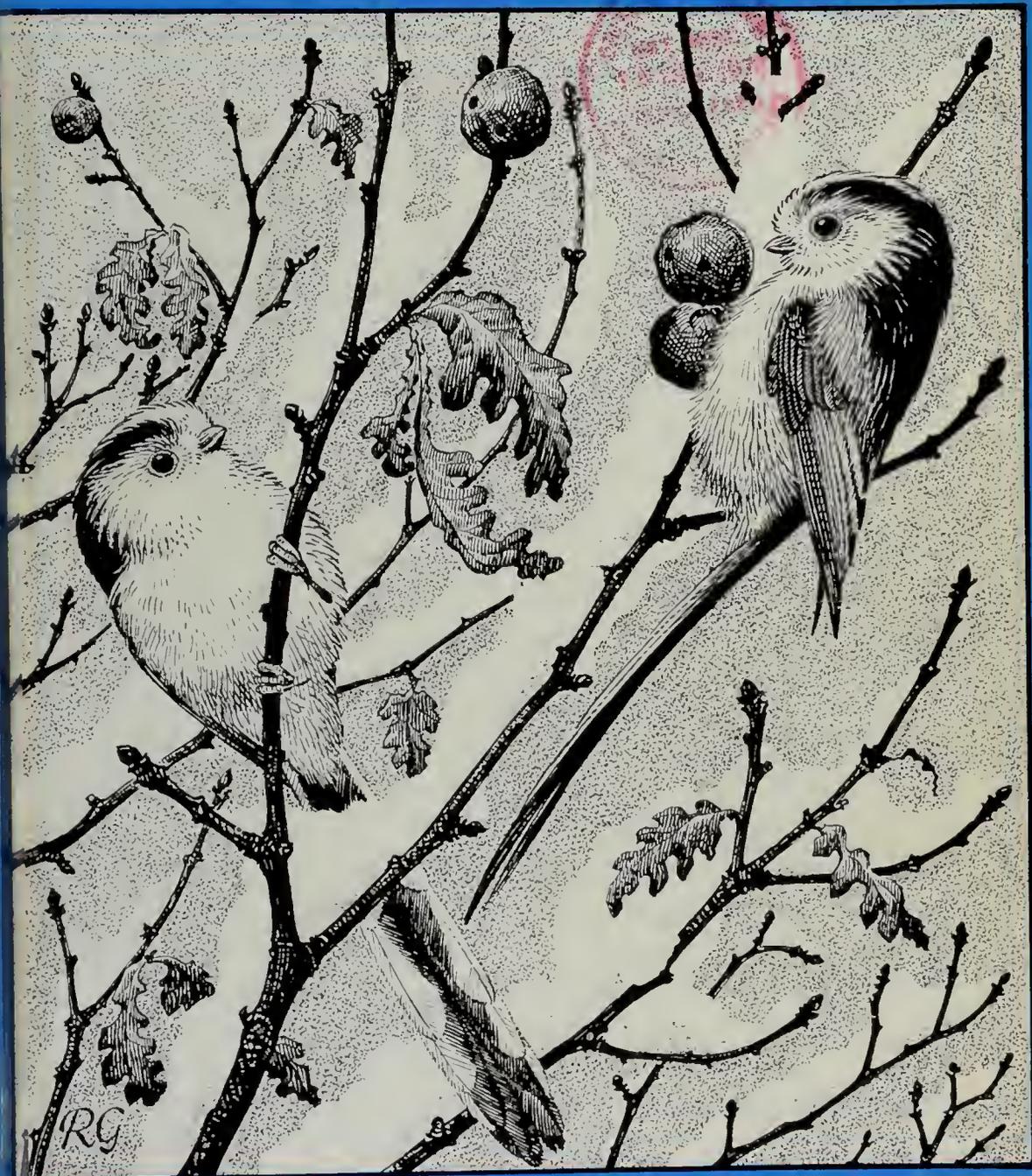
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**Front cover:** Purple Sandpipers (*Keith Brockie*)

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# British Birds

Volume 71 Number 12 December 1978



**XVII International Ornithological Congress**  
**Long-toed Stint, Pintail Snipe and Asiatic Dowitcher**  
**Little Gulls in Britain and Ireland**

**European news**

**Mystery photograph · Notes · Reviews · Letters**  
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# British Birds



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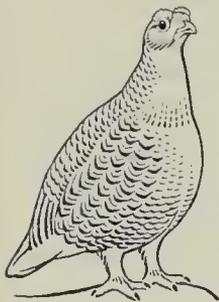
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# British Birds

VOLUME 71 NUMBER 12 DECEMBER 1978



## Special feature

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### XVII International Ornithological Congress

**O**rnithology marches on, and its brief four-yearly stops for International Ornithological Congresses afford the best opportunities we ever get for assessment and renewed inspiration. Imperfect as the Congresses are in so many ways, they at least demonstrate some of the main trends in ornithology, even though the evaluation of these is usually neglected. As 20 years have passed since the Helsinki Congress led us to examine the subject critically (*Brit. Birds* 53: 447-452 and subsequent correspondence 54: 80-92), the conclusion of the XVII Congress in West Berlin in June 1978 provides a good occasion to return to it.

Since the previous Berlin Congress in 1910, the city has been flattened in the Second World War, divided and impressively rebuilt, yet remains artificially separated from the rest of the Western World. This has made it a symbol, particularly expressed in the superb Kongresshalle, given by the American Benjamin Franklin Foundation as an international meeting place. (Naturally, the symbol is regarded as uncongenial by the Soviet bloc, few of whose ornithologists attended.) As a building it is excellently planned and highly suitable, providing amply—even luxuriously—under one roof for all congress activities. It contrasted in this respect with the Spartan living enforced on many participants, notably from Britain, by the adverse exchange rate and the high prices, as well as the high Congress fee (over £80). Additional discouragements to attendance were the June timing (inconvenient to many field workers and to European academics), the expensiveness and long travel time involved for excur-

sions through the political and geographic obstacles to finding goals of special interest reasonably close at hand to Berlin, and the holding of all the meetings in English without translation. The last point alone ensured that some 80% of the participants were either English-speaking Germans or native English speakers. Subject to final official data, it appears that, excluding those who may be categorised as fellow-travellers, the attendance was limited to some 500 active ornithologists, of whom about 190 came from the German Federal Republic, about 120 from the USA, about 60 from Great Britain, and nearly 20 each from France, the Netherlands, Belgium, Canada and Australia. Only two other countries, both neighbouring, sent over ten (Switzerland and Sweden); from the USSR, more entered but fewer actually came. China was wholly unrepresented, and the Soviet bloc and Third World very sparsely.

It is fortunate that the worldwide advance of ornithology can be as well sustained by greater and well-integrated efforts from a few countries as by a more even global effort. Nevertheless, it is regrettable that so many obvious potential participants should have been put off or shut out by such factors as those mentioned above. If future International Congresses are to justify their title, they must do better in this respect.

This was a young Congress: quite likely the youngest ever in terms of average age. No doubt many young professionals, by contributing papers, were able to get their attendance costs grant-aided, while the hiving off of conservation problems so largely to other bodies kept down the number of administrators, managers and more peripherally interested people. Unfortunately, however, most amateurs, especially the younger ones, left to carry their own costs, could not make it.

There were also, in addition to the long obituary list, surprisingly large absences of stalwarts of previous Congresses, up to ex-President level. Indeed, the governing International Ornithological Committee—the so-called Committee of One Hundred—could muster barely a 50% attendance: 12 of the 40 member countries failed to send their representatives, and even the United Kingdom team was at one-third strength.

The Congress was well organised and well conducted, with no more than the inevitable deviations from its published programme. The meetings were remarkably well attended, often several at a time holding well over a hundred participants, in one observed case for an unbroken four hours and 35 minutes, on the not so obviously fascinating theme of Resource Utilization, Competition, and Avian Community Structure.

Reflecting the interests of the dedicated President, Professor Donald S. Farner (USA), and his Scientific Program Committee, the agenda gave strong prominence to physiological and other basic scientific aspects of ornithology. The main symposia included energetics, neuroethology of bird song, biorhythms, circulation and respiration, physiology and morphology of hearing, and control of reproduction.

Among the excellent morning keynote addresses, the most stimulating was that by Professor William Keeton of Cornell University, ostensibly on bird orientation. He showed how the search for one simple explanation of bird navigation had led into a baffling world of sensory resources largely

beyond human experience, such as finely tuned reception of the earth's local magnetic field, a grasp of star compass patterns memorised for life by sky-gazing nestlings at night, biological clocks and interpretation of polarised light in the absence of a sight of the sun, local gravity differences and capacity to read mysterious signature factors peculiar to each place, on the nature of which men can as yet only speculate. More comprehensible, but still defying interpretation, are the noises at frequencies below the threshold of human—but not of avian—hearing, which apparently can be deafeningly loud at a range of hundreds of miles, such as the whistling of the wind over mountain peaks and the lowest components of waves breaking in a storm at sea. There is even fresh experimental evidence for birds being able to navigate by their sense of smell. All this confirms a suspicion that, as bumbling and sensorily impoverished heavy mammals, we have been too complacently counting on unveiling the nature of a bird's world, which stays far beyond our crude and simplistic capacities, at least until we have devised an entire series of new techniques and instruments the implications of which, if we succeed in developing them, could be revolutionary for ourselves. At any rate, the long forecast day when there would be nothing more to find out about birds has again been postponed for a decent interval.

Professor Ernst Mayr reviewed the advances and frustrations of avian taxonomy so realistically as to evoke some sympathy in unexpected quarters for the taxonomists. They have at least succeeded in advancing precision beyond that for any other animal group; at the latest count, we have just over 9,000 species arranged in 2,051 genera and 28 orders. Professor Farncr pulled together field and laboratory approaches to the mysteries of circadian and circannual rhythms, illustrated by the life of the White-crowned Sparrow. His German colleague, Professor Jurgen Aschoff, analysed the workings and significance of biological clocks. As a finale, Dr Chris Perrins succinctly and wittily rounded up the Edward Grey Institute's long-term study in depth of the Great Tit. His conclusion on this perhaps expressed the message of the entire scientific programme: we now begin to know fairly well what birds do, but it will take a lot more research to find out how they do it. In other words, the results of field studies are tending to outstrip those of experimental work in and out of the laboratory, and to set up a creative tension in which the professional researcher increasingly has to understand and explain the findings of field workers, many of whom are still amateurs, but whose numbers, enthusiasm, and resourcefulness, plus their fuller contact with living wild birds, give them a certain initiative in showing the way ahead.

Where do we go from here? The short answer is: to Moscow, in 1982. The IOC and the Congress had mixed views on the next venue, but the view which prevailed was that, if the next Congress is to redress the narrowness discussed above, it cannot go on being held among a cosy club of western, advanced countries, and must take the uncomfortable plunge of meeting outside the West. Whether this more adventurous attitude will do good only time can tell.

E. M. NICHOLSON

13 Upper Cheyne Row, London SW3 5JW

# Identification of Long-toed Stint, Pintail Snipe and Asiatic Dowitcher

Alan R. Kitson

**These three Asiatic species are not on the British and Irish list . . . yet**



I spent the 24 weeks from 9th February to 26th July 1977 watching birds in Mongolia, on a scholarship awarded to me by the British Council under the Cultural Exchange Programme now existing between the United Kingdom and the People's Republic of Mongolia. I was based at Ulan Bator and made most of my observations in the Toal River valley there. In addition, I undertook two expeditions. The first, in April and May, was to Orok Nor, a lake which lies in the arid steppe region between the Gobian Altai and the Hangai mountains, approximately 750 km southwest of the capital. The second was to wetlands in the Hangai mountains themselves. All my observations were between 96° and 108°E, and 45° and 50°N. A full itinerary is given in Kitson (1978).

Of some 360 species recorded in Mongolia, I saw 230, many of which are poorly or misleadingly described in the European literature. In this paper, I attempt to remedy this in the case of three non-passerine species; future papers will cover eight passerines. I must stress that my notes refer to birds in or approaching breeding plumage. Where relevant, I have included other notes derived from personal observations in Turkey and Canada.

## **Long-toed Stint** *Calidris subminuta*

I saw four in Mongolia: two in winter or transitional plumage at Orok Nor on 7th May and two in breeding plumage at Ulan Bator from 16th to 23rd May (Kitson 1978). The latter pair was intensively studied and I was also able to photograph one of them with Temminck's Stint *C. temminckii* and to compare them with that species and my memories of Least Sandpiper *C. minutilla*. Since typical birds of all three species exhibit pale yellow to brown or olive legs, their separation in trio from the other four Holarctic stints is not difficult, but their individual characters are still incompletely understood.

To my eyes, Long-toed is the same size as Temminck's, although, when it stretches its neck (see below), it can seem to be fractionally larger. Certainly, it never appears as diminutive as Least. Conversely, in plumage

tones, Long-toed is—with Least—the darkest of all stints, far more reminiscent in breeding dress of Little Stint *C. minuta* than the relatively drab and uniform Temminck's. Thus, Long-toed in summer is essentially a bright, black-and-orange-spangled bird, with a strong, warmly coloured pattern to its head reminiscent of a Pectoral Sandpiper *C. melanotos* in autumn (fig. 1). My description of the Ulan Bator birds contains the following greater detail:

Forehead and crown dark brown, with chestnut tinge and heavy black flecking; supercilium white and prominent behind eye, white, tinged rusty over and in front of eye; cheeks rufous-brown; sides of neck light rusty brown, this colour extending as a wash behind pectoral band of dark flecks. Mantle mainly black, bordered on both sides by single fine yellow-buff lines

(most obvious from behind). Scapulars black, with broad orange fringes and white tips, the former forming conspicuous band over folded wing. Tertiaries black, with broad rufous-orange fringes. Wing-coverts also centrally black, with orange fringes and white tips. Underparts below chest pure white.



Fig. 1. Long-toed Stint *Calidris subminuta* in summer plumage, Mongolia, May 1977  
(Alan R. Kitson)

Thus, the breeding plumage of Long-toed is close to that of Least except for a greater incidence of orange and rufous tones, which is responsible for its generally brighter, more fiery appearance. It should also be noted that my observations do not support an earlier indication by Wallace (1974) of sullied underparts on Long-toed.

Judging from the individuals at Orok Nor, Long-toed in winter plumage takes on a more dun appearance. The red tones of breeding dress are replaced by brown, but retention of the black feather centres ensures that the pattern of spangled upperparts is not lost. Interestingly, both my birds showed pale lines on their mantles—a feature not noted on skins by Wallace (1974), but present on the Swedish immature of October 1977 (per P. J. Grant)—and had their breast markings reduced to more or less pectoral patches.

All four called with an unvaried dry purring 'prrp' and never produced any of the variant calls or rapidly repeated notes described by Slater (1970) or Wallace (1974). To my ears, Least utters a high thin 'preet'. I also noted two behavioural points of interest. First, it seemed to me that the two at Ulan Bator, which frequently associated closely with larger waders such as Wood Sandpiper *Tringa glareola*, were using them as watch-dogs. When the larger, longer-necked birds saw me, they invariably took flight and were instantly followed by the stints. Secondly, I can confirm that, as mentioned by Wallace (1974), Long-toed adopts an unusually pronounced alert posture when alarmed, as shown in my drawing (fig. 2). They were always quick to detect my presence and, long before



Fig. 2. Long-toed Stint *Calidris subminuta* in summer plumage, Mongolia, May 1977, showing alert posture adopted when alarmed (Alan R. Kitson)

any Temminck's showed unease, would cease feeding and stretch their necks up to a greater extent than I have seen done by other stints. I. J. Ferguson-Lees (*in litt.*) confirms that this neck stretching and generally elongated appearance was very characteristic of Long-toed in winter habitats in Sri Lanka.

### **Pintail Snipe** *Gallinago stenura*

During May, I saw snipes which were certainly not Snipe *G. gallinago*, although of the same size. Since Pintail has been taken in Mongolia far more widely than Swinhoe's Snipe *G. megala* (Vaurie 1964) and the birds showed features not associated with Swinhoe's by Madge (1977), I assumed that they were the former. I agree with the points that Madge made. In comparison with Snipe, the blunter wing tips, barred underwing and paler, browner upperwing of Pintail Snipe were obvious. I was particularly struck by the similarity of the pale buff mottling on the upperwing to that of Solitary Snipe *G. solitaria*. This character, and the lack of a prominent white trailing edge to the secondaries, makes Pintail Snipe look very different from Snipe.

My birds rarely called, but, when they did, it was with a short, rasping 'squik' or 'squok'. The note had a rather more definite structure than the usually extended call of Snipe.

Those that I saw were migrants. They frequented grassy areas around pools and dykes. Unlike the ever-present Snipe, which stood probing in mud or flooded grass at the water's edge, the Pintail Snipe consistently kept to higher, grassy ground and always sat. All members of a flock of 60 on 23rd, when the weather was inhospitable, with the temperature below freezing, behaved thus, sitting in grass up to their flanks, or behind tussocks, apparently not feeding.

**Asiatic Dowitcher** *Limnodromus semipalmatus*

I came across a total of 14 in Mongolia, all in summer plumage: two at Ögii Nor on 17th June and a flock of 12 at Hont Nor on 22nd June (Kitson 1978). I have found the descriptions of this species in the literature, for example King *et al.* (1975), somewhat confusing and I consider it important to stress that the Asiatic Dowitcher differs distinctly from its two Nearctic congeners in size, plumage pattern and voice. But for its true dowitcher bill, it is more likely to be mistaken for a Bar-tailed Godwit *Limosa lapponica*.

To my eyes, Asiatic is the same size as Bar-tailed Godwit, and not smaller than that species as stated by King *et al.* (1975). I was able to compare all 12 members of the flock at Hont Nor with a Black-tailed Godwit *Limosa limosa*, doubtless of the small eastern race *melanuroides* (Vaurie 1965). I judged that they stood practically as tall and were equal in bulk. In general appearance too, I saw a resemblance to Bar-tailed. My notes on structure and plumage may be summarised as follows:

Bill straight and thick with barely discernible bulb immediately behind tip; bill length between 150 and 200% of head length. Leg length estimated to equal that of Bar-tailed, with feet fully protruding beyond tip of tail in flight and not partly so, as in Long-billed Dowitcher *L. scolopaceus*. On ground, large snipe-like head and long, godwit-like neck striking; in flight, heavy body (and shallow wing beats) also noted. Both bill and legs black (former ruling out confusion with godwits).

Head, throat, neck, breast and belly red, varying individually in tone from rusty to orange-red and apparently unmarked. Dark eye-stripe and paler supercilium. Mantle, upper forewing, outer primaries

and tertiaries dark brown. Inner primaries and all secondaries silvery, sullied white on upper surface and palest on primaries and trailing edge of secondaries; pattern of silver on hindwing more pronounced than on Nearctic dowitchers and Spotted Redshank *Tringa erythropus*. Underwing mainly white, with contrasting dark point and sullied dusky (but not noticeably barred) coverts. Stripe up back, rump and tail basically white, but heavily overlaid with black bars: back divide thus much less marked than on other dowitchers, which exhibit unmarked white blaze. Ventral area white, probably lightly barred or spotted, apparently the only marked part of underbody.

Thus, the Asiatic Dowitcher is bigger, more robust and longer-legged than either Long-billed or Short-billed *L. griseus*. Its plumage pattern is distinctive, with paler upper hindwing and wing linings (the latter lacking heavy barring) and *in summer* virtually unmarked underparts and a less obvious white blaze up the back. My drawing (fig. 3) shows the main characters in flight.

The usual call of my birds was a soft moaning 'kiaow', but once I heard a soft 'kewik-kewik-kewik-ku', which may have been a song phrase.



Fig. 3. Asiatic Dowitcher *Limnodromus semipalmatus* in flight, Mongolia, June 1977 (Alan R. Kitson)

Finally, it should be noted that I did not observe my birds using the 'sewing machine' feeding action considered characteristic of the genus *Limnodromus*.

### Acknowledgements

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### Summary

Field characters of Long-toed Stint *Calidris subminuta*, Pintail Snipe *Gallinago stenura* and Asiatic Dowitcher *Limnodromus semipalmatus* are described, based on observations made in Mongolia in spring and summer 1977.

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# Little Gulls in Britain and Ireland

C. D. Hutchinson and Brian Neath



**Far commoner now; but do the patterns of records shed any light on the reasons for the increase and the probable origin?**

Since the early 1950s, short papers and notes scattered in the regional ornithological literature of Britain and Ireland have indicated an increase in the number of Little Gulls *Larus minutus* recorded in various parts of these islands. The status of the species has been reviewed for at least eight widely scattered counties of mainland Britain, and also for Ireland (Hutchinson 1972): in all cases, increases in the frequency of records and the occurrence of much larger parties than hitherto were reported. Since these accounts covered only very limited areas, and most were published in local journals or reports, there is an obvious need for a general review of all records of Little Gulls. This paper outlines the status in Britain and Ireland, based on an analysis of the records up to the end of 1973.

The great majority of the records have been extracted from the annual bird reports of the English and Welsh county and regional ornithological societies, *Scottish Birds* and the *Irish Bird Report*. The Scottish, Irish and major county avifaunas were consulted for older records. Supplementary unpublished data were obtained from county and regional recorders, bird observatory wardens and other individuals.

One of us (BN) began a search of the literature in the early 1960s and requests for information were published in *British Birds*, *Bird Study* and *Scottish Birds*. Much useful information was received from some areas, but in general the response was poor.

For comparison between areas, we have estimated the minimum number of Little Gulls recorded in every county in every month. Some counties, such as Sussex, published records in this form themselves, but most gave summaries of status each month and details of the largest

counts. In these cases, we have used our judgement to estimate the minimum number which occurred. When making these estimates, we have assumed that the number per month is the highest count unless (a) from an analysis of the ages of the birds recorded, it is clear that there were more, or (b) it is indicated by the narrative of the source that different birds were involved in a series of sightings. Some counties gave very much abbreviated summaries (e.g. '1-4 on 48 dates in all months except January') and in these cases we sought further information from the editor or recorder and converted the records to birds per month.

The old county names and boundaries have been used throughout, as the majority of the records under consideration occurred before the reorganisation of county boundaries in England and Wales on 1st April 1974 and in Scotland on 16th May 1975.

### **Status in Britain and Ireland**

#### *(a) Up to 1900*

The first known record is of an immature shot near Chelsea, London, 'before 1813'; by the end of the 19th century, the Little Gull had become recognised as a scarce but fairly regular autumn and winter visitor to the east and south coasts of England.

Throughout western Britain, Scotland and Ireland it was extremely rare, although the few Scottish records included some surprisingly large parties for that period: seven or eight together in the Old Harbour at Dunbar, East Lothian, in 1840 and ten in Orkney on 8th October 1899.

Occurrences on the east coast were often associated with severe gales and there was an exceptional influx in such conditions in February 1870, when at least 111 were seen, the majority being shot. The largest numbers were obtained in Yorkshire and East Anglia, but there were records from all along the east and south coasts from Northumberland to Devon.

Generally, only single birds were seen and the remaining 226 Little Gulls recorded in England and Wales up to 1900 included only four records of more than two together. The month of occurrence is known for 176 of these: all but 17 were between September and March.

#### *(b) 1900-33*

In the first 34 years of this century, Little Gulls continued to occur primarily as scarce autumn and winter visitors to the east and south coasts. There was, however, a tendency for relatively fewer to appear in winter and more in spring and summer. Of the 201 dated records for this period in England and Wales, only 21% occurred between December and March, compared with 44% before 1900. The months April to July inclusive showed an increase from 5% to 17%.

The species remained rare in western Britain and Ireland, but in Scotland there was an increase in the number of records from the Tay and Forth areas. The shortage of observers in eastern Scotland unfortunately resulted in the records being very spasmodic, but it seems probable that the Little Gull's association with the counties of Angus, Perth and Fife began during this period, for it was recorded there in all months



207. Adult Little Gull *Larus minutus*, Cornwall, March 1969 (J. B. & S. Bottonley)  
208. Adult Little Gull *Larus minutus*, Tyne & Wear, September 1977 (Daniel M. Turner)





209. Juvenile Little Gull *Larus minutus*, Lincolnshire/Norfolk, August 1974 (Keith Atkin)  
 except February, March and August.

The only large flock seen during this period was about 30 off Redcar, Yorkshire, in October 1905. Partics of seven were reported at Lowestoft, Suffolk, in August 1927 and at Berwick, Northumberland, in January 1930.

(c) 1934-73

Fairly comprehensive information is available for this 40-year period, and a detailed analysis of these data has shown that the status of the Little Gull changed completely in most parts of Britain and Ireland (figs. 1-4).

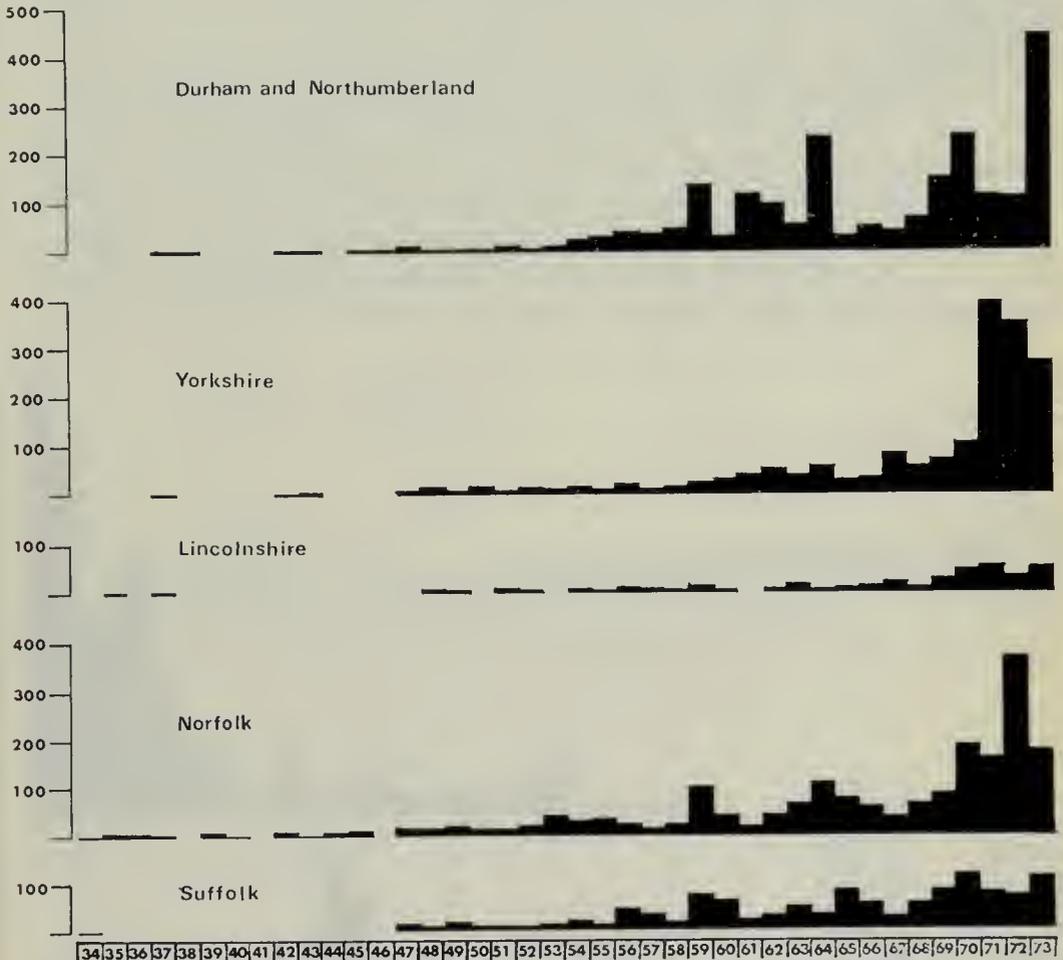


Fig. 1. Numbers of Little Gulls *Larus minutus* in five areas on east coast of England in each year during 1934-73

From the late 1940s, flocks of from 40 to 135 began to appear annually in the Firths of Tay and Forth, mostly during spring (March to April) and autumn (August to November). From the early 1960s, even larger flocks were recorded, including some of more than 500.

In other parts of Britain, the increase was less spectacular and much later. There is little evidence that the more frequent observations during

210. First-winter Little Gull *Larus minutus*, Cornwall, March 1973 (J. B. & S. Bottomley)

the 1940s and 1950s were anything more than a reflection of the larger number of birdwatchers, combined with a greater interest in sea-watching. From 1952, however, flocks of up to 30 were observed on autumn passage in Kent, and, from 1956, flocks of up to 35 began to appear in autumn in Durham, both on the coast and at inland reservoirs; on 24th September 1964, there was an extraordinary influx of at least 200 at Hurworth Burn Reservoir.

Large westerly movements were observed off Portland Bill, Dorset, in the autumns of 1960 and 1961; although these have not been repeated in subsequent years, a steady increase in the annual totals seen in southwest England began at about that time.

In the mid 1960s, larger numbers began to be reported from inland and northwest England and from Ireland. During the late 1960s, the increase gathered momentum, with flocks of over 100 becoming regular on the Lancashire coast, and the species appearing annually in Wales.

Between 1970 and 1973, there were large increases in Yorkshire, Norfolk, Kent and all along the south coast of England; parties of 24 to 30 occurred in widely scattered localities in Wales; and the first substantial flocks appeared in Ireland, including a flock of 45 in February 1972, and 134 off the Wicklow coast in October and November 1973.

Most of this increase took place in the autumn migration period and

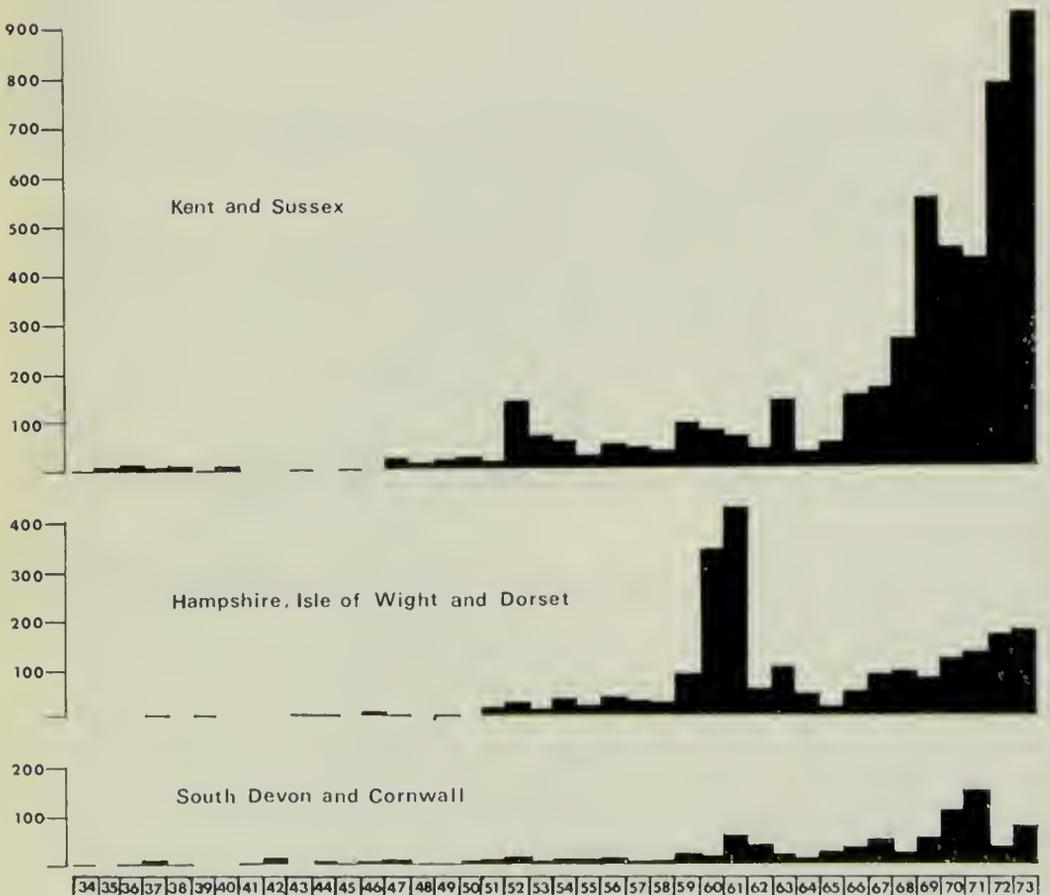


Fig. 2. Numbers of Little Gulls *Larus minutus* in three areas on south coast of England in each year during 1934-73

approximately three-quarters of all the Little Gulls reported in England and Wales were seen during August to November. In Scotland, the autumn passage occurred slightly earlier, and about 75% of those recorded there were during July to October.

The species was, however, more frequently recorded at all times of the

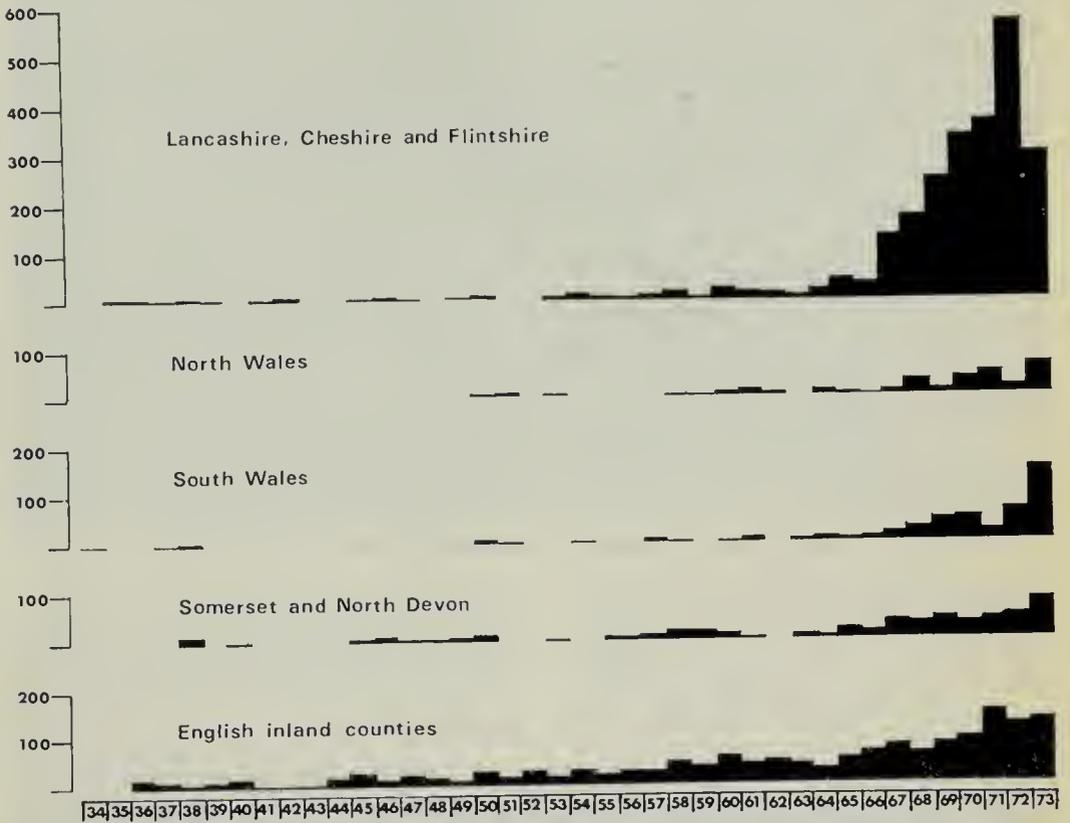


Fig. 3. Numbers of Little Gulls *Larus minutus* in five areas of western and inland England and Wales in each year during 1934-73



Fig. 4. Numbers of Little Gulls *Larus minutus* in Scotland in each year during 1934-73

year and in most areas. One exception was on the east coast of England, where Little Gulls became scarcer during the winter months (December to March) from about 1950, apart from one major influx in December 1959, and there were still some areas where they remained rare: the Isles of Scilly, Cumbria, and north and northwest Scotland, including the Hebrides, Orkney and Shetland.

(d) 1973 status

**ENGLISH EAST COAST** Common autumn passage migrant, moving north and south along coast between Northumberland and Yorkshire and flying west along north-facing coasts of Norfolk and Kent from July to November; also assembling at freshwater localities close to coast, such as Hurworth Burn Reservoir, Durham, and Hornsea Mere, Yorkshire. Rare along this entire coastline in winter, and uncommon in spring. Small parties of immatures appear at favoured localities in June and often stay through July. Most-frequented sites in summer are Cresswell Ponds, Northumberland, the Tees Marshes and Minsmere, Suffolk.

**SOUTH AND SOUTHWEST ENGLAND** Common autumn passage migrant with regular westerly movements observed at Dungeness, Kent; Beachy Head, Sussex; and Selsey Bill, Sussex, from August to October, a few remaining through winter, especially in Dorset and farther west. In spring, peaks

in Devon and Cornwall in February and March, and regular easterly movements at Beachy Head and Dungeness in April and May. Numbers usually much smaller than in autumn, but 355 flew east at Dungeness on 4th May 1974. Unusual spring feature is regular occurrence of flock of about 20 at Arlington Reservoir, Sussex, in April. As on East Coast, small flocks of immatures summer at favoured haunts, such as Radipole Lake, Dorset; Langstone Harbour, Hampshire; and Dungeness.

**NORTHWEST ENGLAND** Present on south Lancashire coast throughout year, often in large numbers, but, in contrast, extremely rare from Morecambe Bay to Solway. Flocks of over 100, sometimes over 200, in August and September, mostly in vicinity of Alt Estuary, near Formby, Lancashire, and flocks also regular in May and June at Crosby Marina/Seaforth Dock complex and on Ribble Marshes, both in Lancashire. Situation during rest of year

211. Adult summer Little Gull *Larus minutus*, Lincolnshire, June 1973 (Keith Atkin)





212. First-summer Little Gull *Larus minutus*, Lincolnshire, June 1975 (Keith Atkin)

not at all clear. Large flocks have occurred in all months, but not consistently. Those seen in January to March could be early spring migrants, or may result from weather movements of a wintering population in Irish Sea. South Lancashire is one of three major haunts in Britain and Ireland.

**INLAND ENGLAND** Recorded at inland waters in all months, but most occur in April, May, August and September; least likely to be seen from December to March. Although large flocks appear at some fresh-water haunts near coast, singles and parties of up to five more usual farther inland. seldom exceeding 12 at any one water. Most frequented localities are in areas with greatest concentrations of reservoirs, such as London and West Midlands.

**WALES** Reported throughout year, but scarce from November to February. Flocks of 15 to 27 appear in April and May in such localities as Blackpill and Kenfig Pool, Glamorgan, and Portmadoc/Minffordd, Caernarvon. More widespread from August to October, but generally in smaller parties.

**ANGUS, FIFE AND PERTH** Firths of Tay and Forth are still the two major haunts in Britain and Ireland. Present throughout year, with large numbers from March to October, and peaks in April/May and July

to September. Principal localities Monifieth on Firth of Tay and Largo Bay and Kilconquhar Loch on Firth of Forth, where over 500 at times. (Many data in Boase 1961, 1962, 1964, 1970.)

**REST OF SCOTLAND** Despite large numbers in Firths of Tay and Forth, and dramatic increase in other parts of Britain and Ireland, remains remarkably uncommon over most of Scotland. Regular south of Forth, but in very small numbers, in May and from August to October. In northeast and southwest, occurs in similarly small numbers from July to September. Elsewhere, occurrences very few. In Orkney and Shetland, mostly in May and June.

**IRELAND** Regular spring migrant in south-east, mostly in May, but small parties of first-years summer at brackish lagoons in some years. In August and September, steady passage of singles and small parties on south coast and, to lesser extent, elsewhere. In October and November, large flocks (up to 140) appear in some years on east coast. Rare in December, but influxes on east and west coasts in January and February. West coast records mainly from sheltered Galway Bay. In largest influxes, adults outnumber immatures.

**MIGRATORY MOVEMENTS** (fig. 5) First autumn migrants arrive east Scotland,

northeast England and Kent late July and early August. During August and September, passage heavy along East Coast, in Irish Sea and along Kent, Sussex and Hampshire coasts. Peak numbers occur east Scotland and northwest England in August; in most of remainder of Britain in September. The peak in Ireland and in Norfolk, however, is in October, and in Cornwall in November. While numbers drop rapidly in October in northeast Britain, Norfolk peak is complemented by large numbers on Yorkshire coast and influx on north coast of Kent, indicating

arrival of second wave of migrants (Oliver 1976). This late passage continues through November in Norfolk and Kent, and even extends into December in some years.

Spring passage most noticeable in Irish Sea, southwest England, southeast England and east Scotland. Peaks occur in southwest England in March, in southeast England and east Scotland in April/May and in Irish Sea and northeast England in May/June.

Spring numbers much lower than those in autumn, with average ratio of approximately one to four.

(c) *Behaviour, site preference and age ratios*

The Little Gull occurs in a wide range of habitats and can turn up almost anywhere at any time of year. It is mostly associated with water (fresh, brackish and salt), but has also been observed on a number of occasions following the plough, usually in the company of Black-headed Gulls *L. ridibundus*. As the species has become more numerous, however, certain preferred habitats have become apparent.

Two sites which have consistently attracted large flocks for many years are Monifieth and Largo Bay: at both sites, a freshwater burn runs out to sea across a shore of fine sand. Since 1968, Little Gulls have occurred in large numbers on the Alt Estuary, another area of extensive sandy beaches and, again, the mouth of a small river is the centre of activity. In August 1975, 103 were seen at a similar site at Castle Eden Dene Mouth, Durham. These sandy beaches are generally used only as roosts, the gulls flying out to feed over the sea; when winged insects are abundant, however, they have been seen feeding in the air over adjacent sand dunes.

We have only one record of Little Gulls feeding on the foreshore: on 2nd July 1960, BN watched 30 immatures and one adult at the mouth of Buddon Burn, Monifieth, picking at the surface of the mud and wading into the shallow water running across the beach.

The largest flocks reported in Ireland have been seen along an 8-km stretch of steeply sloping sandy and shingle beaches in Co. Wicklow in January-February and October-November. They have never been seen roosting on this shoreline, but instead are seen feeding off the coast, resting on the sea or flying north or south along the coast.

There is evidence to suggest that some show a preference for feeding over fresh or brackish water near to the coast in spring and early summer. Such feeding behaviour has been observed at several localities where the species is more regular in spring than in autumn, including Crosby

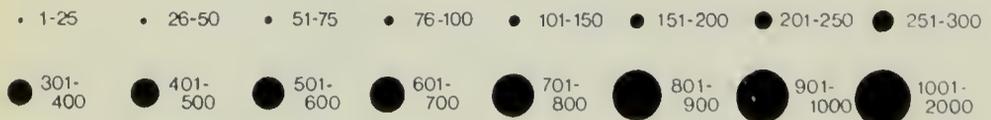


Fig. 5. Distribution by regions of Little Gulls *Larus minutus* in Britain and Ireland in each month, 1969-73



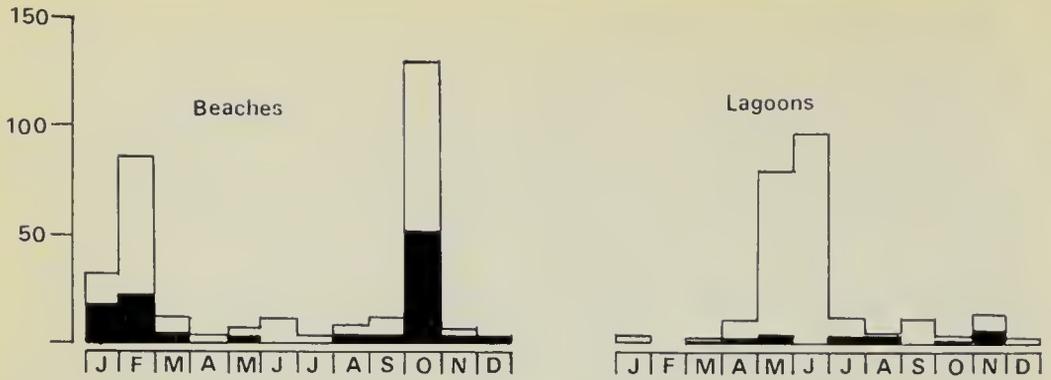


Fig. 6. Numbers of Little Gulls *Larus minutus* recorded each month at beaches and at lagoons on east coast of Ireland, 1969-73. Adults and second-years shown in black

Marina/Seaforth Docks in south Lancashire, Morton Locks in Fife and the brackish lagoons behind beaches in Co. Wicklow and Co. Wexford (fig. 6). Other freshwater lakes and reservoirs within a few kilometres of the coast are mostly frequented in July and August: these include Kilconquhar Loch in Fife, Hurworth Burn Reservoir and Hornsea Mere.

Little Gulls are also seen in numbers passing certain sea-watching promontories, particularly in autumn on the east coast between Hartlepool, Durham, and Spurn, Yorkshire, and along the southeast coast from the Isle of Sheppey, Kent, to Selsey Bill. Most of the few records relating to spring migration are from southeast England, particularly Beachy Head and Dungeness.

Throughout Britain and Ireland, immatures are, on average, three or four times more frequent than adults. In the two areas, however, where the

**Table 1. Percentages of adult and second-year Little Gulls *Larus minutus* of all those aged in each month at selected localities**

Asterisk (\*) indicates sample of five or less

Locality and years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Individuals in sample
Angus-Fife-Tay, 1948-73	88	69	79	32	47	15	89	63	89	77	65	63	3,240
Lancashire, Feb 1969-Feb 1974 (after Smith 1974)	87	92	59	55	2	16	90	92	70	45	2	-	1,217
English inland counties, 1934-73	42	67	20	53	32	12	30	9	17	35	31	70	750
Ireland, 1969-73	26	34	25	20	6	20	24	38	19	36	43	50	722
Cornwall, 1961-73	17	31	12	32	80*	-	-	27	4	7	31	32	426
Durham, 1967-73	100*	-	100*	100*	9	22	26	21	38	100*	57	-	361
Northumberland, 1961-73	0*	0*	50*	20*	6	6	16	63	23	24	37	0*	285
Somerset, 1965-73	20*	-	16	12	12	0*	0*	15	12	30	18	0	283

largest numbers occur—south Lancashire and east Scotland—adults outnumber immatures from January to March and from July to September, often by as large a ratio as four or five to one (table 1). Only from April to June, when the majority of adults have returned to the breeding grounds, do the flocks in these areas regularly contain a higher proportion of first-years. In other areas, the highest adult to immature ratios occur from November to February, although, at inland waters, small parties of up to four or five adults appear most frequently in April and May.

(f) *Breeding indications*

Up to 1950, June and July were the months when the Little Gull was least likely to be seen in Britain and Ireland. From 1952 onwards, however, the species has been recorded annually in these months and, since 1966, there has been a sharp increase. Small summering flocks of immatures have been established in many areas and, between 1957 and 1970, there were eight records of Little Gulls in breeding colonies of other gulls (table 2). Sharrock (1976) gave three records of possible breeding during 1968 to 1972. In 1975, a nest was found in a colony of about 100 pairs of Black-headed Gulls in the Ouse Washes, Cambridgeshire/Norfolk, but the three eggs and the female were destroyed by predators, probably brown rats *Rattus norvegicus* (Carson *et al.* 1977).

### Status and movements in Europe, the Atlantic and North America

(a) *Europe and eastern Atlantic*

Analysing the British and Irish data in the wider context of the species' status in Europe and the recent colonisation of North America highlights how little is known about the movements of the Little Gull outside the breeding season.

**Table 2. Little Gulls *Larus minutus* in colonies of Kittiwakes *Rissa tridactyla* or Black-headed Gulls *L. ridibundus* during breeding season**

Year	County	Comment
1957	Kent	Pair in gullery on Stoke saltings during May
1958	Yorkshire	Adult in gull colony for about two weeks from 17th June, until heavy rains caused many birds to desert; performed aerial display, involving shallow dive with neck and head held up
1959	Dorset	Adult in Kittiwake colony at Portland from 22nd April to 25th June; carrying nesting material on 6th June
1964	Norfolk	Adult and first-summer in aerial display at Cley marsh on 24th April; first-summer present until 29th. Presumably same pair discovered subsequently at Salthouse in gull colony, where frequently displaying between 20th and 26th May
1966	Yorkshire	Adult present in gull colony in Derwent Valley from 14th to 28th May; seen to display
1966	Suffolk	One made scrape and built thin nest on island at the Scrape at Minsmere in June
1967	Dorset	Immature in Kittiwake colony at Portland during June
1970	Cardigan	Adult in gull colony at Tregaron on 13th May



Fig. 7. Breeding distribution of the Little Gull *Larus minutus* in western Europe (after Erard 1960)

The three main breeding areas are eastern Siberia, western Siberia and a large stretch of northern Europe eastwards from the southern and eastern shores of the Baltic. There are small isolated colonies in the Netherlands, Denmark, Sweden and parts of southeast Europe (fig. 7). Nesting was first proved in Denmark in 1905; between 1920 and 1940 about 100 pairs were estimated to be breeding; but in the 1940s and 1950s the population was considered to be between 20 and 50 pairs (Erard 1960). Nowadays, there are between ten and 30 pairs (T. Dybbro *in litt.*). A small colony, discovered in the Netherlands in 1942, built up to 15 pairs (Haverschmidt 1946), but was abandoned in 1956, and breeding was not proved again until 1972 (Marra 1973). In Poland, Tomialojé (1972) described the Little Gull's status as 'Extremely scarce breeder in the north; regular only on Lake Druzno (in 1962—14 pairs), sporadic in a few other places.'

Erard (1960) considered the species to be mostly resident in the extreme eastern part of its range; those recorded in Britain and Ireland in autumn probably all originate west of the Urals.

Some fly overland across Germany and Austria to the Black and Mediterranean Seas, following the Rhine and the Danube and, to a lesser extent, the Oder and Elbe, but many others probably move on a broad front (Erard 1960, Isenmann 1975). The overland route is, however, adopted by far fewer in autumn than in spring (Knotsch 1964, Isenmann 1975), and the main dispersal from the breeding grounds appears to be via the Baltic into the North Sea.

In late July and early August, numbers begin to build up in east Scotland and, soon after, huge flocks of up to 1,000 occur at Zeebrugge on the Belgian coast (van Impe 1966), several hundred remaining until mid September. Adults occur first, around mid August, and immatures follow, from the end of the month (Vande Weghe 1962).

In contrast, the peak numbers at Cap Gris Nez on the French coast are in October and early November (Oliver 1977); the largest movements so far recorded there were of over 1,400 during three days in October 1970 (Oliver & Davenport 1972) and of about 1,900 during three days in October 1974 (Oliver 1977). The movements at Cap Gris Nez coincide with the secondary wave of migrants in eastern England, which is noted primarily in Yorkshire, Norfolk and north Kent.

In winter, Little Gulls occur in the Caspian, Black and Mediterranean Seas, in the eastern Atlantic Ocean south to west Africa, and northwest to the Faeroes, Iceland and Greenland. Erard (1960) considered, however, that the main winter quarters were in the Mediterranean, particularly at both the western and eastern ends, with a second, large wintering area in the North Sea, the English Channel and along the French Atlantic coast.

Vaurie (1965) referred to the Little Gull as a pelagic species in winter, comparing it with the Sabine's Gull *L. sabini*. In December and January, flocks of several hundred have been reported, usually in gales, from much of the Atlantic coast of Europe. Dr W. R. P. Bourne (*in litt.*) has observed parties moving in to coastal lagoons in Cyprus during stormy weather in winter, but they do not settle there for long.

The best-documented observations of the return migration in spring on the Atlantic coast are those by S. Bamiere at Cap Gris Nez from March to May 1974 (P. J. Oliver *in litt.*). They show that very large numbers of Little Gulls, mostly adults, move northeast through the English Channel in April: a total of 2,225 was counted between 30th March and 30th April, of which 1,752 were adults, 12 second-years and 218 first-years, the other 243 remaining unaged. Smaller numbers were seen in May, and only one in the nine days before 30th March. The main spring movement in Denmark and Sweden occurs in May (Bruun 1968). In the Mediterranean, Isenmann (1975) recorded flocks of up to 1,560 at the Camargue in southern France in April and May; adults predominated in April, and first-years in May.

#### (b) *The colonisation of North America*

The Little Gull has been known as an autumn and winter visitor to the east coast of North America from Newfoundland south to New Jersey and west to the Great Lakes since the late 19th century. The first Canadian breeding record was in 1962 (Scott 1963), when three nests were found near Lake Ontario. Breeding took place at the same site again in 1963 and at several other Canadian localities in subsequent years, but was not proved in the United States until 1975, when four nests were found in Wisconsin (Tessen 1975). Although the number of breeding records is few, the large increase in numbers of adults, second-years and first-years in recent years suggests the presence of a larger breeding population than

the published records indicate.

The origin of Little Gulls in North America is a matter of some controversy. Baillie (1963) argued that, as they occur in North America in association with Bonaparte's Gulls *L. philadelphia*, some of those breeding in eastern Siberia might make contact with Alaskan Bonaparte's Gulls in the region of the Bering Strait and migrate southeastwards with them. In June 1975, several Little Gulls were seen in the Yukon in northwest Canada, and there have been observations on the west coast of North America since 1968 (Johnson & Adams 1977). There is, however, no evidence as yet of Little Gulls nesting in far-eastern Siberia and no Alaskan records, so it seems more likely that the association with Bonaparte's Gulls has led Little Gulls west and northwest from eastern North America, rather than the reverse.

Other authors, notably Bruun (1968), have assumed that those occurring in eastern North America originated in Europe. The species' widespread distribution in autumn off southwest Europe, and as a vagrant, south to Nigeria (Wallace 1973) and west to Iceland, Greenland and Newfoundland in the north and Bermuda in the south, indicates how readily it wanders in the North Atlantic. Bruun (1968) suggested a dual exodus from the Baltic in autumn, the second one farther to the north in October and November, bringing Little Gulls into the Atlantic north of Scotland at a time when easterly gales are particularly frequent and some Little Gulls reach North America. The occurrence of two waves of migrants from the Baltic to the North Sea and English Channel has already been referred to, and observations in southeast Sweden (Edelstam 1973) corroborate it, but sightings in northern Scotland are very rare at any season and there is no reason to suppose that the later birds move farther north.

It seems more likely that some stray across the Atlantic each year by a variety of routes, rather than by a movement to the north of Scotland. Some may drift across from southwest Europe to the Caribbean in the northeast trade winds as Dr W. R. P. Bourne (*in litt.*) has suggested, but records from Iceland and Greenland indicate a northerly element as well.

Whichever route the birds follow, some Little Gulls appear in the vicinity of Buffalo, New York, from late August, and passage reaches peaks of up to ten in a day in late September and again in November (Burger & Brownstein 1968). Late August is remarkably early for any to have crossed the Atlantic: summering in North America seems more likely; even if those in late September originated in Europe, they must have crossed the Atlantic much earlier than Bruun suggested.

## Discussion

The Little Gulls in Britain and Ireland are mainly spring and autumn migrants from the western and central European population. The breeding range of these birds covers a wide area, but ringing has been concentrated at relatively few sites in Estonia, Lithuania and Finland, on the fringe of the Baltic, so we do not know the extent of their area of origin. Nor do we know whether they winter along restricted stretches of

the western European seaboard; how many move into the Mediterranean; or how far from land they spend the winter months.

We do know, however, that flocks occur occasionally in December and January gales in bays or coastal lagoons on the west coast of Europe. Although Little Gulls are capable of transatlantic wandering, their occurrence in gales indicates that many are wintering not very far from land. The species can hardly, therefore, be considered pelagic like the Kittiwake *Rissa tridactyla* or Sabine's Gull, with which Vaurie (1965) compared it. Off Britain and Ireland, there is evidence that some now spend at least late winter in the south Irish Sea, close to the coast of Angus and Fife and off Galway Bay. Records are still very rare in December, even in these areas, but in January, February and March small flocks—usually mostly adults—occur, particularly when the wind is blowing onshore or in anticyclonic conditions. These flocks usually disappear out to sea when the weather changes, but they or others appear with the return of suitable weather.

Although not strictly pelagic, Little Gulls do move from their inland breeding areas to the sea in autumn. Records of adults in eastern Scotland in July and August and on the Belgian coast in August are indications of early movement away from the breeding colonies, although this dispersal appears to be rather restricted. In Ireland, for example, only 19% of those seen in September during 1969-73 were adults; similarly in most parts of Britain and Ireland, except eastern Scotland and Lancashire, immatures greatly outnumbered adults. It seems likely that many adults remain in the Baltic and North Seas, and smaller numbers in the Irish Sea, until October, when there is a sudden exodus of all except a few wintering birds. The preponderance of adults among at least some of the late September and early October flocks at Cap Gris Nez supports this view.

The few ringing recoveries, together with observations from Scotland, indicate that most juveniles have a rather similar, but slightly later, dispersal from their natal colonies. Of 12 Little Gulls ringed as fledglings in Finland, Estonia and Lithuania and recovered before the end of October in the year of ringing, two had moved up to 220 km NNE, two south across central Europe, and the remainder were recovered in the Baltic or North Seas. None was recovered southwest of the Netherlands or in the Mediterranean. From observations in Britain and Ireland, we know that juvenile Little Gulls reach Kilconquhar Loch in eastern Scotland from mid August and are recorded on the east and south coasts in September, but the ringing recoveries confirm that some remain in the Baltic until October. From November to February, first-winter birds are rarely seen in British and Irish waters.

Six recoveries between mid July and mid October in the year following fledging show that at least some return towards their natal area during their first summer and remain into October: two were recovered close to the original ringing site in Lithuania, in August and October, and the other four were recovered in the Baltic or North Seas.

The most economical explanation of the initial dispersal from the breeding colonies, followed by a later movement away from the coast, is

that the limited nature of the first dispersal permits Little Gulls to undergo their autumn moult in relatively sheltered conditions, a suggestion similar to that advanced by Bourne (1970) to explain the pattern of occurrence of Mediterranean Gulls *Larus melanocephalus* in Britain: a post-breeding dispersal to late-summer quarters where they regularly complete their moult, followed in some, but not all, cases by a late-autumn movement to regular winter quarters.

In spring, Little Gulls appear on return passage to the Baltic, both adults and first-years being involved. The pattern of ringing recoveries suggests that Little Gulls tend to return towards the natal colony in the first summer after fledging; Black-headed Gulls and some Kittiwakes show the same tendency (Coulson 1966, Cox & Flegg 1972). The movement of many first-year Little Gulls in May into habitats similar to that in which the adults breed may be allied initially to this homing. Those first-years which do not reach the breeding range usually move on to lagoons. Later, in late June and early July, marshes and lagoons, such as Farlington Marshes in Hampshire, Minsmere in Suffolk and Cresswell Ponds in Northumberland, provide the conditions suitable for moulting.

The most perplexing aspect of the Little Gull records in Britain and Ireland is their increase. Although there has been an enormous growth in popular interest in ornithology over the past 40 years, which has exaggerated its extent, there can be no doubt that the increase has been real. Until the early 1950s, and with the exception of eastern Scotland, the Little Gull was at best a scarce bird throughout Britain and Ireland. The increase was first noted in Angus and Fife; then, in the 1950s, on the east and south coast of England; and, finally, on the west coast of Britain and in Ireland, with even greater numbers in the areas already frequented. This increase culminated in the breeding attempt in 1975.

Clearly, during the period of increase, substantial numbers of Little Gulls have been taking a more westerly route when dispersing from and returning to their breeding areas. The most likely explanation is that there has been an expansion of the breeding population, but our knowledge of the Little Gull's status on the edge of its range does not support this hypothesis. The history of breeding in Denmark and the Netherlands does not lend any support to a theory of an increasing population, but it may be that the species has increased considerably farther east without attracting attention. The fact that the dramatic nature of the increase in the Kittiwake population—by 50% every ten years since 1900—was not detected until 1959 (Coulson 1963) illustrates how easily quite massive population fluctuations can be overlooked. The alternative explanation, that a much larger proportion of the Little Gull breeding population disperses through the English Channel and across England nowadays than formerly, seems much less likely.

### **Acknowledgements**

Without the carefully recorded observations of thousands of birdwatchers and the hard work of local bird report editors, papers such as this could never be written: we are grateful to them all. A number of people went to considerable trouble to provide us with additional information: for their assistance in supplying unpublished data we wish to

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## Summary

Up to the early 1950s Little Gulls *Larus minutus* were scarce on the east and south coasts of England, appearing largely in autumn, and were even rarer elsewhere, except in Angus and Fife, where flocks had been regular since at least the early 1940s. On the east and south coasts of England, an increase began in the 1950s. It became even more pronounced in the 1960s; and was then especially evident in eastern Scotland and the Irish Sea. By 1973, Little Gulls occurred commonly in many parts of Britain and Ireland in autumn on dispersal from their breeding grounds to the sea. In winter, they occur close to land in adverse weather conditions, mainly in eastern Scotland and the Irish Sea, but also off western Ireland. The spring movement represents the return passage to the breeding area. Some first-years remain on marshes during the summer to moult, and in 1975 breeding was attempted in Britain for the first time. It is suggested that Little Gulls undertake a dual dispersal after breeding: the first to sheltered bays where they moult; the second farther out to sea for the winter. The increase in records is discussed: it seems most probable that it is due to an increase in the breeding population east of the Baltic.

The species began to nest in North America in 1962. The source of the American colonists is discussed in the context of the Little Gull's migrations in western Europe.

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## European news

This is the fourth summary of interesting records on the Continent, now established as a regular six-monthly feature. From the six participating countries in the first summary (*Brit. Birds* 70: 218-219), the total has now grown to 19 countries supplying records six-monthly or annually. We are



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Dec 1978 - Jan 1979 (No. 62)

## CONSERVATION

Regular readers of this bulletin will know that there is a continuous preoccupation by our company directors, with the promoting of the Conservation ideal. To this end a good deal of the company resources are devoted in cash, work hours and consultation, and we at Town and Gown Travel have a genuine feeling of pride in what we have achieved. In particular the Cretan Conservation Poster Project has been an unqualified success and the initial grant of £300 by ICBP has been swollen to more than £750 by subscriptions from clients and readers of this bulletin. Enough for 5-colour heavy duty posters, showing eight striking birds with a message in Greek appealing to the public not to shoot them. It should be possible to reproduce the poster in our next bulletin. Encouraged by this, we propose to initiate or support a major conservation project each year, which leads us to the consideration of:—

### A DISGRACE TO WORLD TOURISM

#### The Slaying of Mountain Gorillas for Heads and Hands as Tourist Souvenirs

Those of you who have read George Schaller's book "The Year of the Gorilla" will already have an acquaintance with the characteristics and habits of the Mountain Gorilla, (*Gorilla gorilla beringei*) and his year's study of them in the Virunga chain has been amplified by Dr. Dian Fossey in Rwanda. Articles in the Sunday Times, National Geographic and TV films have since brought the Mountain Gorilla into the ken of a very wide public indeed. This agency has promoted two tours to see Mountain Gorillas and Patricia Hodgkins our Sales Director has twice stood within a few feet of the famous Kasimir of the ITV film. Gorillas, despite their huge size — a dominant male (silverback) may weight 400lb — and immense strength, are peaceful, even lethargic animals with strong social instincts. They quickly become habituated to humans and having no natural enemies except man are exceptionally vulnerable to trophy hunters. The Mountain Gorilla has always been under pressure from man through forest clearance and cultivation and even quite recently, obscene as it may appear, European trophy hunters treated them as big game . . . . The Rwanda Virunga population of *beringei*, never more than 1,000 had shrunk to about 500 in 1958 and is now reckoned at not more than 250 and *recently, to the lashes laid upon the hapless Mountain Gorilla by man, has been added the most painful and disgraceful of all — the buying of gorilla heads, skulls and hands as souvenirs by mindless tourists.* Happily, as far as we know, no British tourist has degraded himself and his country by such a monstrous purchase.

We had heard of this appalling trade during a visit to the Virunga Park in 1976, and passed on the information to the FPS, but it was not until Feb 1978 that the story of the Death of Digit, a wild gorilla, became public and thus afforded the first real confirmation of what previously had been a mere suspicion. Digit was completely wild, but had appeared in a marvellous film with Dian Fossey, who had studied him and his family party for twelve years. He was also, ironically, featured in tourist posters with the caption "Come and visit me in Rwanda". The sad end of Digit is best described by Dian Fossey herself:—

“The harmless, beloved Digit was killed solely for his head and his hands, which the poachers had hastily hacked off and taken away. They left his mutilated corpse lying on its side on the edge of a flattened, blood-soaked area about 16 metres in diameter.”

The Fauna Preservation Society (FPS) has since launched a Mountain Gorilla Project with Dr. A. (Sandy) Harcourt as coordinator. Sandy who worked for two years with Dian Fossey went with Dr. Kai Curry-Lindahl, world-renowned ecologist and Vice-president of FPS, and Brian Jackman (Sunday Times) to Rwanda in August 1978 to investigate and report – the first news they received was that two more of Dian’s gorillas had been slain. Again, apparently for tourist trophies, although only one head had been severed as the poachers were surprised by Karisoke Research Centre staff. The investigation resulted in some strong recommendations, chief of which were:—

- (a) *That the present stimulus to poaching provided by the sale of grisly souvenirs should be countered by effective propaganda aimed at educating tourists.*
- (b) *Paradoxically, that properly controlled tourist visits with habituated gorillas and more patrolled reserves, offered the best chance of conserving the gorilla population.*
- (c) *The need of international financial support for Rwanda, a poor country, if any conservation proposals were to get beyond paper recommendations.*

The Mountain Gorilla Project is now in being with £50,000 as its target. Obviously cash donations are urgently needed and, as the Israelis say “Help given at once, is help given twice”. Please help with a donation of any size, and send to:— Fauna Preservation Society, c/o Zoological Society of London, Regents Park NW1 4RY . . . or to us here at Oxford. *Please make cheques out to Mountain Gorilla Project.* Any donations over £2.00 received by us will receive in return a copy of the Mountain Gorilla Project Report and reprints of the Death of Digit from “Wildlife” and is possible a reprint of Brian Jackman’s Sunday Times article. *Donations of over £5.00 received by us will be supplemented by £1.00 for each £5.00 value when passed on to Dr. Harcourt.*

IN ANY CASE, AS BEFORE STATED, THE RESOURCES OF THIS AGENCY WILL BE DIRECTED THROUGH 1979 TO THE SUPPORT OF AND PROMOTING THE FAUNA PRESERVATION SOCIETY MOUNTAIN GORILLA PROJECT.

\*\*\*\*\*

## TOUR PROGRAMME – 1979

**INDIA & NEPAL** Feb 10 – 27 Birds Wildlife Photography **£849**  
*With Eric Hosking OBE FRPS.* This tour should be of particular interest to photographers since at Bharatpur Sanctuary there are unrivalled opportunities for bird studies. *Storks, cormorants, purple gallinules, even eagles and perhaps Siberian Cranes.* Bharatpur is about the only accessible place where this endangered species can be seen and with luck photographed. . . A few places left (Nov. 30). *Brochure at once.* NB. This tour will be repeated in 1980 and you are invited to register . . . **Registration costs nothing, confers no obligation but gives you first sight of the brochure.**

**SPRING IN VENICE** Mar 4 – 11 Art, History **£195**  
 A revived version of a tour previously suspended because of lack of cooperation from the airline concerned in 1978. Our recent successful joint enterprise on Crete (now full) with British Airways has encouraged us to pre-empt a number of seats on their Venice programme. The tour will be based on the **Saturnia Hotel, once a 14th Century Palace**, now a 1st Class Hotel, retaining much of its Renaissance elegance. There will be walks through the peaceful streets and squares of Venice with our young Guest Lecturer Mark Davie MA: an optional excursion to Aquilia is an extra attraction and is considered the highlight of the tour. *Price includes a book of coupons issued by the Venice Chamber of Commerce giving free entrance to main museums, galleries, churches and casino and reduced prices for opera, ballet and at shops and restaurants participating in the scheme. Brochure at once.*

**VENEZUELA** Mar 6 - 22 Birds & Wildlife **£1011**

This tour, despite its price increases, has proved immensely popular and is full. There is sometimes a cancellation through illness but, since it will be repeated in 1980 registration now is strongly recommended.

**SPRING IN CRETE** Mar 8 - 15 Flowers Leisure **£180**

The first tour (in 1978) produced some pleasant botanical surprises and was greatly enjoyed by all who travelled; as the tour was based as usual on the **Minos Beach Hotel**, Agios Nikolaos, this is not really surprising! 1978 sees us again at this delightful hotel with the usual free and easy optional excursions done on an ad hoc basis to **Knossos, Mallia, Lassithi** etc. **Francis Fearns Esq.** for Flowers and **Neville Wykes Esq.** for Admin. *Brochure at once.*

**SPRING IN ARGOLIS** Mar 13 - 22: 21 - 30 Sites Flowers **£195: £215**

At the ever-popular **Minoa Hotel, Tolon**, this third year tour already has some registrations at the time of writing (April 17). One of the most popular of the early tours the friendliness and good cuisine of the family hotel; the shore location with mountains immediately behind and the easy access to **Mycenae, Epidaurus, Argos, Mistra** etc., make this an ideal tour for mixed interest groups. Possibilities of swimming and fishing add to the attraction. **Hugh Synge B.Sc.**, for flowers, **John Pinsent** for sites and **Patricia Hodgkins** for Admin. *Brochure at once.*

**SPRING IN ISRAEL** Mar 25 - Apr 7 Sites Flowers **£540**

**Tel Aviv, Caesarea, Haifa, Mt. Carmel, Akko, Tiberias, Nazareth, Capernaum, Sfat, Galilee, Hāzar, Beni-yas, Jerusalem, Bethlehem, Jericho, Ein Gedi, En Bozeq, Ashqelon, Ashdod.** Combines flower discovery and study with the opportunity of visiting most of the major historical sites of Israel, all done at the pleasantest time of the year when the countryside is at its best and tourist numbers relatively low. Includes a stay at **Beit Oren kibbutz** amidst the pines of Mt. Carmel. Sites **David Miles BA**, flowers, **Martin Jones BA**. *Brochure at once.*

**SPRING IN CORFU** Apr 9 - 16: 16 - 23: 23 - 30: May 7 - 21 **£155 & £255**

This series will have the first two weeks with **Anthony** and **Alyson Huxley**, and the emphasis will obviously be on Flowers . . . The next week sees **Mont Hirons** dealing with both Birds and Flowers . . . Then from May 7 - 21 **Ken Waterfield** the well-known wildlife and landscape artist will be available for his painting (and art generally) sessions which were so well-received this year. Since we already have a healthy list of registrations for these tours, an early application is recommended. *Brochure at once.*

**BIRDS & FLOWERS OF CRETE** Apr 5 - 19 Birds Flowers **£390**  
Eighth year of this comprehensive 3-centre tour of Crete. Based on **Agios Nikolaos, Heraklion** and **Chania** it visits all three mountain areas and takes in the sites (**Gournia, Mallia, Knossos, Phaestos**) en route. Has an unrivalled reputation for experienced administration and a famous succession of Guest Lecturers. For birds "**Mont**" **Hirons** and flowers **Brindsley Burbidge**. *Brochure at once.*

**BIRDS & FLOWERS OF THE PELOPONNESE** Apr 4 - 18 **£390**  
Another 3-centre tour which continues to run each year along the now familiar route to unusual areas ending with the **Deep Mani**. The emphasis is on Natural History but the sites of the Argolid Plain (**Mycenae, Tiryns, Epidaurus**) and Laconia (**Mistra, Monemvasia**) are all visited as well as remote **Methoni** and **Nestor's Palace**. Some of the finest scenery in Greece will be seen as the **Taygetus Mts** are traversed. For birds **Dudley Iles B.Sc.** and flowers **Humphrey Bowen**. *Brochure at once.*

**"LOST ATLANTIS"** (Crete & Santorini) May 8 - 22 **£396**  
A further development of last year's successful visit to the new Minoan discoveries on Santorini and a full exploration of this gem of an island. Begins on Crete and visits Athens at the end where many of the murals and artefacts and even household utensils from Minoan Santorini are now displayed. **Trevor Rowley B.** Litt of Oxford University accompanies again with **Patricia Hodgkins**. *Brochure at once.*

**FLOWERS OF NORTHERN GREECE** Jun 7 - 21 **£390**  
**Athens-Arachova-Delphi-Parnassus-Agrinion-Ioannina-Dodona-Metsove-(Pindus Mts.)- Meteora-Mt. Olympus-Pelion-Athens.** This tour, now in its fourth successful year has always filled early and this year should prove no exception with **Mrs. Betty Allen** and **Petros Broussalis** as leaders with **Patricia Hodgkins** again looking after the clients. The combination of visits to unusual sites (e.g. Dodona) and superb botanizing from sea-level to Alpine Meadow is unique. *Brochure at once.*

**SUMMER IN TURKEY** Aug 29 – Sep 12 Ancient History **£540**

Probably the most comprehensive study of Turkey's ancient civilizations ever attempted for the tourist as such. Has been planned by the scholar who will lead it, to cover the entire chronology of peoples who have influenced Turkey from the Hittites to the Byzantines and the final conquerors – the Ottomans. **Troy, Assos, Pergamon and Ephesus** will all be visited en route to **Kusadasi** from **Istanbul**. Then via **Didyma, Miletos and Priene** to **Denizli, Aphrodisias, Pamukkale, Hierapolis, Laodicea, Side, Perge, Aspendos and Termessos**. **Three day cruise back to Izmir** from **Antalya**, with **John Evans MA, Patricia Hodgkins and Fuat Dulger**. This tour has been planned for a famous public school but has a certain no. of extra places available. *Brochure at once.*

**DR. PINSENT'S TOUR** Sep 4 – 18 **£445**

Once more (the eighth time!) our scholarly colleague takes to the roads of the Peloponnese to explore its ancient wonders, arrange picnics and demonstrate to his awe-struck clients his boundless knowledge and enthusiasm.

**Athens – (Archaeological Museum and Acropolis) – Daphni – Corinth – Nemea – Argos – Nauplia – Mycenae – Tiryns – Epidaurus – Lerna – Sparta – Mistra – Langada Pass – Kalamata – Pylos (Nestor's Palace) – Temple of Bassae – Delphi – Hosias Lucas – Thebes – Athens.**

**BIRDS OVER THE BOSPHORUS** Sep 22 – 29 Spectacle of Eagles **£240\***

Fifth year and this time, after some disappointments at cheaper hotels we use the Divan, 1st Class with excellent cuisine. Guest Lecturer to be announced. *Brochure at once.*

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pleased that, for the first time in this selection of observations, 'European news' now includes records from Austria, Bulgaria and Romania.

Records awaiting formal verification by national assessment committees are indicated by an asterisk (\*).

### Unless otherwise stated, records refer to 1978

- Great Crested Grebe** *Podiceps cristatus* NORWAY Breeding population increasing and spreading: from about 50 pairs in 1970 to about 200 pairs in 1978.
- Red-necked Grebe** *Podiceps grisegena* AUSTRIA Bred Seewinkel 1970 and Neusiedlersee 1972; displaying at ponds in southeast Styria, but no broods seen yet.
- Black-necked Grebe** *Podiceps nigricollis* AUSTRIA Breeding range includes ponds of Waldviertel in northwest Lower Austria.
- Cormorant** *Phalacrocorax carbo* AUSTRIA Has not bred since late 1960s.
- Pygmy Cormorant** *Phalacrocorax pygmeus* AUSTRIA Sixth record: immature Gralla in southeast Styria on 20th November 1977.
- Night Heron** *Nycticorax nycticorax* AUSTRIA Marchegg, deserted since late 1960s, recolonised in 1978.
- Cattle Egret** *Bubulcus ibis* PORTUGAL See Little Egret.
- Little Egret** *Egretta garzetta* PORTUGAL Colony at S. Jacinto (Aveiro Marsh), established 25 years ago, where 200 pairs of egrets (Little and Cattle) nested in 1977, abandoned in 1978. On other hand, at least seven other egret colonies now exist.
- Grey Heron** *Ardea cinerea* AUSTRIA Burgenland: c. 20 pairs in one to three reed-bed colonies at Neusiedlersee; Carinthia: c. 15 pairs in one colony, plus a few isolated pairs on Drau; Lower Austria: c. 60 pairs in seven colonies on Danube and c. 65 pairs in two on March; Upper Austria: c. 45 pairs in three colonies on Danube; Salzburg: two isolated pairs successfully breeding in Flachgau; Styria: c. ten pairs in one colony on lower Mur, but none on upper Mur and Raab.
- Black Stork** *Ciconia nigra* AUSTRIA Total of 30-40 pairs, mainly in Lower Austria, also central and south Burgenland, southeast Styria and southeast Upper Austria.
- White Stork** *Ciconia ciconia* FINLAND Many in south in spring: never commoner.
- Bewick's Swan** *Cygnus columbianus* AUSTRIA Becoming more frequent in winter on Bodensee (cf. increase in Poland, *Brit. Birds* 71: 255).
- Whooper Swan** *Cygnus cygnus* AUSTRIA Wintering regular Bodensee since late 1960s: 20 or more on Austrian shore in 1977/78.
- Greylag Goose** *Anser anser* AUSTRIA Neusiedlersee: 300-400 pairs, plus 300-500 non-breeders.
- Barnacle Goose** *Branta leucopsis* SWEDEN Remarkable increases in numbers on migration (especially in autumn) and summering. More than 200 summered on island of Gotland, where colony of at least 20 pairs now established.
- Red-breasted Goose** *Branta ruficollis* BULGARIA In various localities in district of Tolbuhin, flocks totalling 1,000 on 6th January 1976, one flock of 1,500 on 17th March 1976 and one flock of 1,580 on 12th February 1978. SWEDEN Increasing: now observed every year.
- Teal** *Anas crecca* AUSTRIA Locally distributed Salzburg, Styria and southeast Carinthia.
- Red-crested Pochard** *Netta rufina* AUSTRIA As well as regular breeding on Bodensee, bred Seewinkel/east Neusiedlersee in 1968, where regular during migration and sometimes summering since mid 1960s. CZECHOSLOVAKIA As well as long-established sites at and near Lednické ponds in southern Moravia, had bred since 1952 in České Budějovice basin and since 1971 in Třeboň basin, both in southern Bohemia.
- Pochard** *Aythya ferina* AUSTRIA Breeding range includes southeast Styria; in central Carinthia, first breeding 1977.
- Ferruginous Duck** *Aythya nyroca* AUSTRIA Main concentration Neusiedlersee and Seewinkel (no broods seen northwest Lower Austria since 1961).
- Tufted Duck** *Aythya fuligula* AUSTRIA Breeding range includes ponds of Waldviertel in northwest Lower Austria (largest concentration in the country) and of southeast Styria; in central Carinthia, first breeding 1977.
- Eider** *Somateria mollissima* AUSTRIA A few summering Zellcrsee/Salzburg since 1972

(five in 1978), and one pair attempted breeding in 1975.

**King Eider** *Somateria spectabilis* SWEDEN Considerable and continuing increase in number wintering on Baltic coast in recent years (cf. Steller's Eider): one to two a year in early 1960s, about ten a year in late 1960s and early 1970s, but now about 20 a year.

**Steller's Eider** *Polysticta stelleri* SWEDEN Considerable and continuing increase in number wintering on Baltic coast in recent years (cf. King Eider): observed every year since end of 1960s, with peak of 130 individuals in 1977 (cf. increases in Finland and Poland, *Brit. Birds* 71: 255).

**Red-breasted Merganser** *Mergus serrator* SWITZERLAND Mixed pair of male Red-breasted Merganser and female Goosander seen Lake Thun April-May 1977 and 1978; in May-June 1978, hybrid seen on Lake Thun, presumably reared there.

**Goosander** *Mergus merganser* AUSTRIA Breeds (less than ten pairs) north Vorarlberg and north Tyrol. SWITZERLAND See Red-breasted Merganser.

**Red Kite** *Milvus milvus* DENMARK After two years with exceptionally high numbers on passage (*Brit. Birds* 70: 495), 1978 rather normal.

**Montagu's Harrier** *Circus pygargus* SWEDEN Increasing: 114 individuals in 1977; in last four years, one to four breeding pairs outside island of Öland.

**Buzzard** *Buteo buteo* DENMARK 3,500 migrants on 15th October 1977 at Dorns Klint, Langeland.

**Rough-legged Buzzard** *Buteo lagopus* DENMARK Up to 650 per day on migration in autumn 1977 at Due Odde, Bornholm (cf. more than usual in winter 1977/78 in Finland, *Brit. Birds* 71: 255). SWEDEN High breeding numbers (cf. Snowy Owl).

**Saker** *Falco cherrug* AUSTRIA One pair still present at breeding site in east throughout summer, but no evidence of any success.

**Rock Partridge** *Alectoris graeca* ROMANIA Considered absent since 1938, but heard in Nera Gorges (Banat) on 24th July 1976.

**Allen's Gallinule** *Porphyryla alleni* SPAIN Second record: one captured in Murcia on 14th December 1975 (first also in Murcia, in 1854) (*Doñana* 3(1): 99-101).

**Little Bustard** *Tetrax tetrax* MALTA Eighth record: one March.

**Avocet** *Recurvirostra avosetta* PORTUGAL In January, 6,520 present (6,080 on Tejo Estuary); in February, flock of 1,000 on Aveiro Marsh.

**White-tailed Plover** *Chettusia leucura* ROMANIA First record: Techirghiol on 17th May 1977.

**Pectoral Sandpiper** *Calidris melanotos* AUSTRIA Eleventh record: Gralla Reservoir in southeast Styria on 18th May, the first in spring.

**Marsh Sandpiper** *Tringa stagnatilis* FINLAND First breeding record.

**Wilson's Phalarope** *Phalaropus tricolor* DENMARK Second record: June-July, Kongelunden, Copenhagen.

**Arctic Skua** *Stercorarius parasiticus* DENMARK Three or four times normal numbers in autumn.

**Long-tailed Skua** *Stercorarius longicaudus* SWEDEN High breeding numbers (cf. Snowy Owl).

**Great Skua** *Stercorarius skua* NORWAY Nested in county Finnmark since 1975; pair nested in Spitsbergen in 1977 and again present 1978.

**Mediterranean Gull** *Larus melanocephalus* AUSTRIA Pair hatched three young at Scewinkel in 1977, one young found dead after three weeks; two adults and two first-summers present in 1978, but no breeding evidence.

**Caspian Tern** *Sterna caspia* PORTUGAL Continues to occur in Algarve (especially Faro Marsh and salt-pans of Ludo Nature Reserve) from end of summer through to spring.

**Sooty Tern** *Sterna fuscata* SWEDEN First record: northwest Scania in July 1977.

**Whiskered Tern** *Chlidonias hybridus* DENMARK First record: one Hasle Sydstrand, West Bornholm, 31st May 1977.

**Puffin** *Fratercula arctica* MALTA One December 1977, the first since 1938.

**Snowy Owl** *Nyctea scandiaca* SWEDEN Breeding in great numbers in various parts of Lapland. Total of several hundred pairs: apparently one of highest ever peaks. Most pairs reared more young than usual: several nests with more than ten young.

**Short-eared Owl** *Asio flammeus* SWEDEN High breeding numbers (cf. Snowy Owl).

**Egyptian Nightjar** *Caprimulgus aegyptius* MALTA One April, the first since 1973.

**Little Swift** *Apus affinis* MALTA Sixth record: one April 1977.

**Bee-eater** *Merops apiaster* AUSTRIA Four colonies in Lower Austria, including one north of Danube, where none since 1950s; two colonies in Burgenland; Austrian total c. 30 pairs. SWEDEN Small colony near Jönköping (*Brit. Birds* 70: 495) again occupied: three pairs attempted to breed, one raised young almost to fledging, but then killed by fox *Vulpes vulpes*.

**Roller** *Coracias garrulus* DENMARK 'Rather heavy influx, exact numbers not known yet.'

**Syrian Woodpecker** *Dendrocopos syriacus* CZECHOSLOVAKIA First (in south) in 1949, then expanded north and northwest; reached southern Moravia in 1953, central Moravia (Olomouc) in 1960 and northern Moravia (Sumperk) in 1966; by 1967, only 10 km from frontier with Poland (Opava in Silesia); reached eastern Bohemia in 1974. Mixed pairs with Great Spotted Woodpecker *D. major* rather frequent. YUGOSLAVIA Mixed pair of female Syrian and male Great Spotted bred successfully in Park Tivoli in Ljubljana.

**Hoopoe Lark** *Alaemon alaudipes* MALTA Thirteenth record: one December 1977, fourth for 1977 (see *Brit. Birds* 71: 256), most ever in one year.

**Red-rumped Swallow** *Hirundo daurica* ROMANIA First record: male and female Cobadin (Dobrogea) on 14th July 1976; one Nera Gorges (Cheile Nerei-Banat) on 25th July 1976.

**Meadow Pipit** *Anthus pratensis* AUSTRIA Before 1977, believed to be confined to Rhine Valley. In 1977, broods Wallersee/Salzburg; in 1978, more sites Salzburg, singing males Walchsee in Tyrol and several broods at two sites at Waldviertel in Lower Austria.

**Yellow Wagtail** *Motacilla flava* AUSTRIA A few pairs of *M. f. feldegg* breeding Neusiedlersee and Seewinkel in 1974-77, only singing males there in 1978, but bred at two sites in Salzburg. In addition to usual sites of *M. f. cinereocapilla* (Rheindelta in Vorarlberg and Zellersee in Salzburg), several new ones found in Salzburg, Styria and Carinthia in 1978.

**Grey Wagtail** *Motacilla cinerea* SWEDEN Remarkable increase in south in last decade; now, in last few years, some breeding records in Lapland, 1,000 km

north of previous limit: abundant suitable habitat there, so we may be seeing start of considerable range extension and population increase (cf. first Estonian nesting in 1975, *Brit. Birds* 71: 256).

**Alpine Accentor** *Prunella collaris* FINLAND First record: Lågskär in spring\*.

**Nightingale** *Luscinia megarhynchos* BELGIUM Spring passage stronger than usual, breeding numbers high and present in summer at sites where absent for many years.

**Bluethroat** *Luscinia svecica* AUSTRIA Small population of red-spotted race *L. s. svecica* at Radstätter Tauernpass in Salzburg discovered in 1975: six successful pairs in 1978 (several clutches lost due to severe weather), but site threatened by expansion of Obertauern skiing resort. ROMANIA First breeding records: nests with eggs and young in Danube Delta in June 1967 and May 1968.

**Stonechat** *Saxicola torquata* DENMARK One of Siberian race *S. t. maura* on Christiansø in spring.

**Desert Wheatear** *Oenanthe deserti* MALTA Seventh record: one November 1977.

**Eye-browed Thrush** *Turdus obscurus* FINLAND First records: singly at two localities in spring\*.

**Fieldfare** *Turdus pilaris* AUSTRIA Range expanding eastwards. Vorarlberg, Tyrol and Salzburg almost entirely colonised, as is most of Upper Austria (but still scarce in central part); in Lower Austria, only in Waldviertel; expansion now most obvious in Styria and Carinthia, where colonies have reached Lower Austrian border at Semmering and Yugoslavian border near Bleiburg (cf. westerly expansion in France and Low Countries, *Brit. Birds* 71: 256 and *Ardeola* 21: 801; and colonisation of Scotland and northern England since 1967, presumably by Scandinavian birds). YUGOSLAVIA Since discovery of breeding in valley of Sava Dolinka in 1975, has spread southeastwards and more frequent and regular in central Slovenia, on Ljubljana Marsh.

**Redwing** *Turdus iliacus* AUSTRIA Third breeding record: one pair bred Karwendel in Tyrol in 1977; previous records were of single pairs in Tyrol in 1939 and in Carinthia in 1974; in late May 1978, one singing in mountains at border of Salzburg and Carinthia.

**Fan-tailed Warbler** *Cisticola juncidis* NETHERLANDS First breeding: in 1976 in

IJsselmeerpolders, hatching as late as between 1st and 6th October (*Limosa* 51: 69-73). YUGOSLAVIA After discovery of breeding in valleys of Dragonja, Mirna and Rasa, now becoming more frequent and regular in whole Istra archipelago; two nests in 1978 at Vransko Lake near Zadar in Dalmatia: in one, young hatched after 4th September.

**Blyth's Reed Warbler** *Acrocephalus dumetorum* ROMANIA First records: near Sulina on Danube Delta, four on 1st-2nd August 1975, three on 6th August 1975. In May-June 1976, nine ringed at Sulina and Eforie Nord.

**Marsh Warbler** *Acrocephalus palustris* NORWAY Influx in early June to counties Akershus and Östfold; in former (where only two previous records), at least seven singing males and probably bred at one locality.

**Great Reed Warbler** *Acrocephalus arundinaceus* SWEDEN Very large recent increase: about five males a year in early 1960s, but now 125-150 annually.

**Olive-tree Warbler** *Hippolais olivetorum* ROMANIA First record: one in wood of willow *Salix* in southwest Dobrogea on 25th June 1977.

**Melodious Warbler** *Hippolais polyglotta* MALTA Fourth record: one in April.

**Subalpine Warbler** *Sylvia cantillans* ROMANIA First record: Nera Gorges (Cheile Nerei—Banat) on 25th August 1976.

**Sardinian Warbler** *Sylvia melanocephala* DENMARK First record: one ringed Christiansø on 1st June. ROMANIA First records: at Agigea, one on 27th March 1970 and several on 31st March 1970.

**Rüppell's Warbler** *Sylvia rueppelli* ROMANIA First record: male on Black Sea coast in southeast Dobrogea on 30th June 1977.

**Orphean Warbler** *Sylvia hortensis* MALTA Fifth record: one in April.

**Greenish Warbler** *Phylloscopus trochiloides* DENMARK 'Heavy influx, exact numbers not known yet.' FINLAND Very common in whole country in summer. POLAND Range extension: in Bialowieza Forest, where in most years only one itinerant singing male, at least 12 singing males, some of them in territory; at least one pair reared young, the first breeding record for the forest. Three other singing males: near Olsztyn, on Biebrza Marshes and in urban park in

Legnica, the last being first record in Silesia. All records between 26th May and 25th July.

**Pallas's Warbler** *Phylloscopus proregulus* SWEDEN One at Ottenby on 28th May: spring records very rare.

**Red-breasted Flycatcher** *Ficedula parva* BELGIUM First record outside August to October: singing male in coppice of beech *Fagus sylvatica* near Brussels for several weeks in May and June.

**Collared Flycatcher** *Ficedula albicollis* DENMARK 'Rather heavy influx, exact numbers not known yet.'

**Willow Tit** *Parus montanus* DENMARK First record and first breeding record: two adults with seven or eight fledglings in forest Grib Skov, North Zealand, on 27th May 1977; adults with three young seen nearby one week later; appearance and locality indicated Scandinavian subspecies *P. m. borealis*.

**Penduline Tit** *Remiz pendulinus* SWITZERLAND One brood reared at Ins.

**Jay** *Garrulus glandarius* SWITZERLAND Many reports of high numbers of migrants during 20th to 30th April, maximum 250 flying east over Gaisseau area between 06.00 and 08.00 on 22nd April (cf. autumn 1977 movements, *Brit. Birds* 71: 257).

**Nutcracker** *Nucifraga caryocatactes* AUSTRIA One of two shot in Styria in December 1977 was Siberian race *N. c. macrorhynchos*. SWEDEN Strong movements in autumn 1977 (see *Brit. Birds* 71: 257) led to breeding in 1978 in many southern towns where species not recorded before.

**Rook** *Corvus frugilegus* AUSTRIA Total of c. 250 pairs, in six colonies in north Burgenland and two in Lower Austria; all except one in or near towns or villages, where protected from shooting. SWEDEN Unusually abundant in spring 1977 in east-central and north, where usually sparse. Several thousand north of normal range, compared with about one hundred in previous springs, including 200 as far north as Umca.

**Arctic Redpoll** *Carduelis hornemanni* ROMANIA First records: ten male and six female *C. h. exilipes* collected in south during period 18th November 1972 to 1st April 1973.

**Scarlet Rosefinch** *Carpodacus erythrinus* AUSTRIA Expansion continuing: most 1977 sites reoccupied, new sites found in north-west Lower Austria, Salzburg, Styria and

Tyrol (cf. colonisation of Norway, *Brit. Birds* 70: 219). YUGOSLAVIA Two pairs summered on Ljubljana Marsh and nest with five eggs found in young willow *Salix* less than 1 m from ground, but young killed by predator just before fledging.

**White-throated Sparrow** *Zonotrichia*

*albicollis* NETHERLANDS Third record: near IJmuiden on 24th April 1977 (*Limosa* 51: 75-76).

**Rustic Bunting** *Emberiza rustica* SWEDEN Strong and rapid expansion to west and south from northern Bothnian area, where initially colonised from Finland.

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## Mystery photographs

**24** Wildfowl-watchers, scanning through flocks of Tufted Ducks *Aythya fuligula* or Pochards *A. ferina* on the look out for a solitary Scaup *A. marila*, Ferruginous Duck *A. nyroca* or Ring-necked Duck *A. collaris*, have constantly to be on their guard against hybrids. Although of absorbing interest to a few—and rightly so—their existence is the bane, not only of most birdwatchers, but also of county recorders and their committees, who have the task of assessing



records of rarities. Was it really one of the less usual species of diving duck (leaving aside the second vexed question of whether or not it was an escape), or was it some hybrid that looked like an actual species?

It is one of the more remarkable aspects of *Aythya* hybrids that some of

them do appear very similar indeed to true species, at least in the field. The 'Lesser Scaup Affair' which came to a climax in these pages in 1961 (*Brit. Birds* 54: 49-54) is a case in point: a bird, which was sufficiently similar to a Lesser Scaup *A. affinis* to fool a great many birdwatchers into thinking that it was the first European record of the species, was afterwards proved to be a hybrid between a Pochard and a Tufted Duck. Other hybrids can look very like Tufted Duck, Pochard, Ferruginous Duck, Scaup, Ring-necked Duck, or even Baer's Pochard *A. baeri*, an Asian species.

So what is the poor birdwatcher, and his county records committee, to do? The answer is to try to get the same kind of view of each suspect bird as that shown by last month's mystery photograph. In some difficult cases, eye colour, head-sheen colour and head shape may also be important, but the key to identification lies in observation of the bill, especially the shape of the black tip and the colour of the remainder of the upper mandible. In instances where this—admittedly quite hard—ideal cannot be attained, some doubt must attach to the identification.

There are three basic types of black bill tip: (1) the black is confined to the actual nail and there is no black on the mandible itself (Lesser Scaup, Scaup and, rarely, male Tufted Duck); (2) the black extends in a fan shape on either side of the black nail (Tufted Duck, Ferruginous Duck; also hybrids of the 'Scaup' and 'Baer's Pochard' types); and (3) the black takes on a crescent shape, and extends some way up the sides of the upper mandible (Pochard, Ring-necked Duck, and hybrids of the 'Lesser Scaup', 'Tufted Duck', 'Pochard' and 'Ferruginous' types). To the critical observation of the black tip must be added details of the colouring of the rest of the upper mandible, especially the presence or absence of black or darker shades at the base, and its extent forwards towards the tip of the bill; also the presence of white bands.

The whole subject of *Aythya* hybrids, including a series of descriptions

**213.** Mystery photograph 25. What is this species? Answer next month



of different types of males, and a set of drawings of the bills of different species and hybrids will be found in a paper by E. Gillham, Dr J. M. Harrison and Dr J. G. Harrison (1966, A study of certain *Aythya* hybrids, *Wildfowl Trust Ann. Rep.* 17: 49-65). This, however, covered only males; the far harder subject of female *Aythya* hybrids has yet to be tackled in print.

From the small fan-shaped amount of black on the bill tip, plus the dusky shading extending from the base of the bill over nearly three-quarters of the upper mandible, the bird in plate 205 (repeated here), which was photographed in Sussex in January 1978 by Pamela Harrison, is clearly a Ferruginous Duck, and not a hybrid. The pale eyes confirm it as a male, but note that the eyes of some other *Aythya* ducks, including hybrids, can look nearly as pale (perhaps especially in photographs). The high crown of the Ferruginous Duck—particularly noticeable in side views—is also detectable.

MAO

## Notes

**Marsh Harriers hunting over water** Paul A. Doherty's note (*Brit. Birds* 71: 307) recalls some similar incidents involving Marsh Harriers *Circus aeruginosus*. The first occurred on 21st September 1976 at Lake Buyuk Chemiche in northwest Turkey as I watched some Marsh Harriers quarter the great reedbed fringing the northern shore. I noticed some Herring Gulls *Larus argentatus* clustered low in the air over a spot in the lake about 400 m from the nearest reeds. The gulls repeatedly dipped to the surface in an attempt to pick a large fish from the water; one succeeded in seizing the fish in its bill and partially raised it out of the water, but it proved to be much too heavy for the gull; the fish twisted its body a couple of times before sinking back into the water. At this point, the gulls rose in the air and maintained their position over the spot, clearly either watching the fish or awaiting its reappearance. Just then, an adult female Marsh Harrier left the reedbed and flew over the open water, directly to the spot where the fish had been pulled out, and proceeded to hover low over the water with semi-dangling legs. At intervals, she dropped low and thrust one foot into the water so that her tarsus was submerged for its entire length. She hovered for more than a minute in this manner, facing into the wind, and thrust her left leg under the water eight or nine times, stretching it down as far as she could reach without wetting her underparts. She apparently failed to make contact with the fish and rose into the air, circled the spot twice and drifted back to the reedbed. It seemed clear that the harrier had been attracted in the first instance by the activity of the gulls, which suggested that she had had previous experience of finding food in this manner.

Paul A. Doherty watched his harrier off the Nestos Delta in northeast Greece: not far from Lake Buyuk Chemiche. It is evident, however, that



this behaviour is not confined to the Marsh Harriers of that region, as I found one on 8th April 1977 hunting over a tidal inlet north of Fajara on the coast of The Gambia. The harrier, again an adult female, had the appearance of hunting in typical fashion. At first, she quartered an area of young mangroves along the muddy edge, but later drifted out over open water, where she flew very slowly to and fro, quite visibly inspecting the water a metre or so beneath her. Sometimes, she hovered for several seconds while dropping a little for a closer inspection, but never actually attempted to fish. After four or five minutes of this behaviour, she skirted the mangroves until lost to view. Royal Terns *Sterna maxima*, Caspian Terns *S. caspia* and Grey-headed Gulls *L. cirrocephalus* were all resting on a nearby sandbank, but none was attracted by the harrier's activities. Two Pied Kingfishers *Ceryle rudis* were hovering and plunging in the same inlet, but not in the vicinity of the Marsh Harrier. This harrier's hunting over open water was clearly entirely on her own initiative. FRANK KING

*The Orchards, Blennerville, Tralee, Co. Kerry, Ireland*

**Feeding methods and prey of Cuckoo** During 28th May to 12th June 1977, a male Cuckoo *Cuculus canorus* regularly visited a garden in Darfield, near Barnsley, South Yorkshire, where it fed on caterpillars of the magpie moth *Abraxas grossulariata* which were mainly in the centre portions of both sides of a 2-m high hedge of their food plant, *Euonymus japonicus*. On its arrival in the garden, the Cuckoo normally searched through the ground debris, but appeared to find little (during frequent examinations of this material, I found no caterpillars). On each occasion, the Cuckoo then stood on the ground at the base of one side of the hedge, often for long periods, and attentively surveyed the vegetation above; periodically it leapt in the air, obviously preying on individual caterpillars. On one occasion it spent almost three hours in this manner, regularly altering its station to survey a different part of the hedge.

During June 1976, at Winterset Reservoir, West Yorkshire, a Cuckoo regularly visited a small area of nettles *Urtica* which held caterpillars of the small tortoiseshell butterfly *Aglais urticae*. I did not observe the precise feeding method, but regular examination showed a substantial reduction taking place in the colony. J. S. ARMITAGE

*2 West View, Beacon Hill, Silkstone Common, Barnsley, South Yorkshire*

A description of Cuckoos feeding on magpie moth caterpillars has been published previously (*Brit. Birds* 68: 514, plate 67). Eds

**Song flight of Pied Wagtail** On 2nd June 1977, at Gairloch, Highland, I observed a Pied Wagtail *Motacilla alba* perform a song flight similar to that described by D. J. Fisher (*Brit. Birds* 71: 223). A male, apparently alone, flew upwards to a height of approximately 15 m and then descended nearly vertically downwards, singing strongly, not unlike a Grey Wagtail *M. cinerea*. The 'parachute descent' also reminded me of the song

flights of Yellow Wagtail *M. flava*, pipits *Anthus*, Whitethroat *Sylvia communis* and Sedge Warbler *Acrocephalus schoenobaenus*.

J. HORNBUCKLE  
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A letter on this subject appears on pages 599-600. EDS

**Blackbird entering railway station** At about noon on 18th November 1977, from a stationary railway carriage some 25 m inside the roofed-over part of York Station, I noticed a first-winter male Blackbird *Turdus merula* on the adjacent track eating an apple core. When it had finished, it hopped on to the platform, stood for a while, then approached a nearby litter bin. I was distracted, but looked back a moment later and saw the Blackbird close to the bin with another partly eaten apple. When a woman approached to within 5 m, the Blackbird flew up to the roof.

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Until recently, Derek Goodwin, who has made particular note of birds at stations, had recorded only feral Rock Dove *Columba livia*, Woodpigeon *C. palumbus*, House Sparrow *Passer domesticus*, Jackdaw *Corvus monedula* and Black Kite *Milvus migrans* actually inside stations, although he had seen many other species, including gulls *Larus* and Rook *C. frugilegus*, just outside (not actually under the station roof). Since reading Mr Spencer's note, however, he has seen a male Blackbird fly right into Victoria Station in London, from the open end to the enclosed part where people wait before going onto platforms. EDS

**Calls of Blackcap** I was interested to read David E. Paull's note concerning a Blackcap *Sylvia atricapilla* uttering a call like that of a Wryneck *Jynx torquilla* (*Brit. Birds* 70: 458). I have heard similar calls in Gibraltar. On 31st May 1972, I watched a Blackcap singing in an olive tree *Olea europaea*: the song was normal except that it almost invariably ended with a loud, clear, ringing 'quee-quee-quee-quee'. I heard an identical call several times in 1973, but, as it had far greater carrying power than the song, I could never be certain whether or not song and call were associated; I took these to be Blackcap calls, since Wrynecks are very scarce migrants in Gibraltar and are, in my experience, silent on passage. I concluded that the call was a variant peculiar to the repertoire of the local breeding population. It is perhaps significant that Mr Paull's record occurred only 60 km from my own.

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On 4th May 1977, at Staines Moor, Surrey, I heard a call which, to me, resembled the opening phrase of the song of a Yellowhammer *Emberiza citrinella*: it had a rasping or wheezing quality, but was fuller in timbre. I eventually traced this to a female Blackcap which was making a circuit of bushes, calling from each. At no more than 10 m, I detected quite a

melodious note behind the rasping calls, each of which consisted of about eight rapid repetitions of the same note.

L. F. RODGERS

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A recent letter by R. S. R. Fitter (*Brit. Birds* 71: 189) referred to the Blackcap's well-known mimicry as an explanation of various sounds made by the species, rather than their being separate calls. It seems clearly established that Wryneck-like calls are not uncommon. EDs

**Bigamous Willow Warbler** Since 1976, at Witley Common, Surrey, I have colour-ringed Willow Warblers *Phylloscopus trochilus* to enable individual recognition. During spring 1977, a total of 20 males established firm territories; of these, 19 were ringed, and the other held territory at the very edge of my study area. Several females were also ringed, most having been trapped away from the males' territories, but their origin was not always certain; eight, however, were eventually assigned to particular males, and several males were known to have unringed mates.

On 2nd May 1977, one male (*A*) was ringed at a site (i) where he seemed to have established territory; on 6th May, a female (*a*), ringed as a juvenile on 3rd July 1976, was seen nearby apparently carrying nesting material. At another site (ii) about 200 m away, a male (*B*) was ringed on 27th April and seen again briefly on 29th and 30th; this bird took up a new territory about 100 m away, but finally disappeared altogether. Another male (*C*), ringed as a juvenile in 1976, apparently took over male *B*'s new territory.

Since the disappearance of male *B*, I observed male *A* several times from 8th May singing at site ii, and at first thought that he had changed his territory from site i. On 3rd June, however, I located male *A* back at site i with female *a*; both were carrying food, and the next day I found a nest with six very recently hatched young (which I ringed on 8th June); both *A* and *a* frequently fed the nestlings until at least 11th June, but just before they fledged only the female (*a*) was seen doing so.

On 8th June, I discovered an unringed female (*b*) carrying food at site ii; during several hours of intermittent observations to locate the nest, I saw only this female with food, although once or twice I glimpsed a male nearby, occasionally singing. I could not see this male's rings clearly, but believed him to be *A*. The nest held five young nine or ten days old (about two days older than those at site i), which I ringed.

I kept record cards of both nests until the young successfully fledged from each. At site ii I saw only the unringed female (*b*) feeding the young; at site i only female *a* was seen doing so during the latter stages and after fledging. At site ii, however, shortly after the young fledged, male *A* was frequently present, often singing, and close to female *b* and the young. On 15th June, he was calling there; he carried food into a dense hawthorn *Crataegus monogyna*, where I saw and heard the young, and a moment later emerged without the food. This was my only observation of male *A* apparently feeding the young at site ii; but, during the few days after this brood fledged, he was frequently at the site, often

singing. He was only rarely at site i, where he was never seen to pay any interest in female *a* and her young. In effect, male *A* was defending two territories some 200 m apart: at least twice he was seen to fly directly to site i, where he gave a few song phrases, before returning to site ii.

There can be little doubt that male *A* was bigamous, although I could not confirm that he fertilised both clutches. The only other male which I believe could have fertilised the eggs at site ii was male *B*, but he had apparently moved to a different area very early in the season before disappearing completely; it is hard to believe that, if pair formation had already taken place, this male would desert his mate (*b*) and allow an intruding male (*A*) to take over the territory. There was no evidence of second broods, and male *A* was not seen again until 30th July, in completely fresh plumage and singing at site ii.

The likely sequence of events was as follows: male *A* arrived and established territory at site i; male *B* took up territory at site ii; male *A* paired with female *a*, who chose the nest site and started building; male *B* moved from site ii, leaving a vacant territory; male *A* changed territory to site ii, maintaining a pair bond with female *a* and limited hold over territory at site i; new female (*b*) arrived and mated with male *A* at site ii, which was then defended more actively than site i; male *A* directed main territorial behaviour towards site ii, but parental behaviour to site i.

M. R. LAWN

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There is no mention of polygamy in D. J. May's two major papers on territory and breeding behaviour of Willow Warbler (*Brit. Birds* 40: 2-11; *Ibis* 91: 24-54), M. Philips Price's studies of this species and Chiffchaff *P. collybita* (*Brit. Birds* 29: 158-166) or *The Handbook*. EDS

**Blue Tit sitting on empty nest** Alan E. Male's note on a Great Tit *Parus major* sitting on an empty nest (*Brit. Birds* 70: 394) reminded me of the following. In 1975, a pair of Blue Tits *P. caeruleus* nested in a hollow branch of an isolated elder *Sambucus nigra* in the middle of a reed-bed in Cambridgeshire. The nest was inaccessible so, during the following winter, a nestbox was erected in the bush. At the beginning of May 1976, a single egg was found in the box, but no nest. The situation remained the same during the next week, but, on 23rd May, activity in the bush suggested that young were being fed; the box was inspected at 12.00 GMT and an adult Blue Tit was found sitting on an empty but fully-lined nest. The tit had been ringed as a juvenile in November 1972 at a site 200 m away. The box was later cleaned out. In 1977, a further nest was built and, on 29th May, a tightly-sitting Blue Tit was present, but no eggs were found; examination of the ring on its leg revealed that this was the same bird as in the previous season.

T. KITTLE

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A letter on the subject of tits sitting on empty nests appears on page 600.  
EDS

**Starling interfering with Blackbird's nest** Geoff Shaw's note (*Brit. Birds* 70: 394) on the apparent predation of the eggs of a Robin *Erithacus rubecula* by a Blue Tit *Parus caeruleus* prompts me to record the following. In 1975, a pair of Blackbirds *Turdus merula* nested in a cherry laurel *Prunus laurocerasus* 10 m from the window of my house in York. On 4th June, the nest held four young about five days old. At 10.10 GMT I was attracted by the persistent, agitated alarm calls of the female, sitting on a hedge next to the laurel. After a few minutes, she flew into the bush, 'pinking' loudly, and what was obviously a fight ensued inside the bush; she then emerged together with a Starling *Sturnus vulgaris*. The Blackbird immediately returned to the bush, presumably to brood her young; the Starling flew away, but within minutes returned and re-entered the bush. Both birds were invisible to me, but there was considerable movement around the nest, with 'pinking' by the Blackbird and periods of subdued singing by the Starling; from time to time, one or both burst out into the open. This lasted for nearly 45 minutes, until I decided to look at the nest. When I approached, the Starling flew 30 m to a tree on which there was a nestbox containing a Starling's nest; the Blackbird flew away. The Blackbird's nest was considerably disturbed with grass scattered from the rim; two of the young were bleeding profusely from the head and back, while the other two appeared unharmed.

Within minutes of my returning to the house, the Starling reappeared, and for a time sang loudly from inside the bush near the nest. At 11.10 hours, the Blackbird returned, and fighting broke out again. I formed the impression that the Starling was trying to stay very close to, if not actually on, the nest, and that the Blackbird was trying to eject it. I had to leave the house at 11.15, with the fight still going on; when I returned at 15.00, the nest was badly damaged and empty, and there was no sign of Starling, Blackbird or young.

At no stage did I see the male Blackbird. The most remarkable thing was the frenzied persistence of the Starling in trying to get on, or very near to, the Blackbird's nest, which was visible from above through a hole in the canopy of the bush; and the viciousness of the fights. I suspect that the Starling was nesting in the box 30 m away. The behaviour might be explained as misdirected parental care by the Starling, which was trying to brood the young Blackbirds (these presumably being accidentally injured in the ensuing fight). Predation seems unlikely since the Starling sang, at times very loudly, from inside the bush.

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The interpretation of these strange events is difficult; we hope, therefore, that any comparable observations will be reported to us. Eds

## Reviews

**The Crows: a study of the Corvids of Europe.** By Franklin Coombs. Batsford, London, 1978. 255 pages; 4 colour plates; 12 photographs; 86 maps and line-drawings. £7.95.

The scope of this attractive book is more accurately expressed by the subtitle. It deals with the 11 European members of the crow family, some common and familiar, others more local and relatively little known. Dr Coombs is well qualified for such a task, for he has made important field studies of the Rook and has kept several species in captivity; moreover his superb skills as an artist have enabled him to provide not only four plates in colour, but many elegant line-drawings of postures used in displays, based on accurate observation and real feeling for the living bird.

The book opens with a short chapter on crows and man: their widespread occurrence in folklore, their use as food and their clashes with human interests, from agriculture to gamekeeping. Then, after a brief survey of taxonomic relationships, there are chapters on each species, covering field characters, plumage, distribution, behaviour, territory and breeding, roosting, food, predators, parasites and mortality. These chapters vary considerably in length from five pages for the Azure-winged Magpie to 37 for the Rook, reflecting largely our knowledge of each species. They include not only his own careful studies, but make liberal use of the scientific literature (although I should have liked to have seen more space devoted to Rook population studies). As in all good summaries of existing knowledge, they help us to understand the behaviour of a group of birds often taken for granted or little loved, and serve also as an incentive to fill the gaps. Some of these are surprising; for example, virtually nothing is known of territory in the Jay, although with reduced persecution this shy species is now invading some populated areas. As a bonus, there is a short account of the Great Spotted Cuckoo, which is parasitic on many crows. After a chapter comparing territory and other matters within the group, the book ends with an account of the year-long study of Rooks made by Lewis Harding in Cornwall as long ago as 1847-48, devised as a form of occupational therapy by his doctor.

Franklin Coombs, another doctor from Cornwall with natural history interests, has shown that amateurs can still make a major contribution to ornithology, though few are likely to possess his insights or tenacity and fewer still can ally these with such artistic skill.

STANLEY CRAMP

**Birds of Wood, Park and Garden. Birds of Sea and Coast. By Lars Jonsson.** Penguin Nature Guides, Harmondsworth, 1978. Both 128 pages; many colour illustrations. £1.95 each.

These are the first two of five books which will cover all bird species regularly nesting or occurring in Europe. Every European ornithologist will surely wish to purchase them. The left-hand page of each double-page spread has texts covering identification and behaviour, and European distribution maps of two to four species, which are illustrated by paintings on the right-hand page. The texts flow freely over their subjects, unconstrained by a rigid format: in consequence, they contain some gaps, with important identification features missing, but, on the other hand, include some points of value which are usually omitted from standard field guides. The maps are adequate, but again are sometimes incomplete, lacking up-to-date range changes. But it is for the paintings that these books will be purchased. I have never seen such a fine collection of lifelike portraits of European birds. This young artist quite clearly knows his birds exceedingly well and has captured the distinctive posture and jizz of nearly every species. The paintings are not of birds all in standard poses: each species is in its characteristic stance, thereby giving the book enormous value for identification purposes. Naturally, not every picture is as good as the best (the skuas and the flying waders are, to me, the most unpleasing), but the best ones are truly superb. Lars Jonsson has exactly captured the shape, posture, movement and plumage of such diverse species as Great Shearwater (including its distinctive Black Tern-like shoulder marks) and Firecrest, which are my personal favourites in these two books. The excellence of these illustrations will surely not be bettered for many years, except perhaps in the third to fifth volumes in this series, which I am impatient to obtain. How I wish, however, that this series had been planned differently. If five volumes had to be produced, why not follow systematic sequence? Wanting to look at the paintings of Stonechat, I naturally turned to the volume dealing with the coast, but there was no mention whatever; and the two index entries in the volume on parks and gardens were merely to general references; presumably, I have to wait for my Stonechat portrait until

one of the next three volumes. Let us hope that this highly talented artist soon illustrates a single book or series of volumes which are easier for reference. In the meantime, buy your own copies of these books at once: splendid value for money.

J. T. R. SHARROCK

**The Natural History of Britain and Northern Europe. Towns and Gardens. By Denis Owen. Mountains and Moorlands. By Arnold Darlington.** Edited by James Ferguson-Lees and Bruce Campbell. Hodder & Stoughton, Sevenoaks, 1978. Each over 200 pages; many colour and black-and-white illustrations. £4.75 each.

The 1970s will no doubt go down in the annals of natural history publishing as the decade of the field guide. With *Towns and Gardens* and *Mountains and Moorlands*, a series with a difference has been launched on the scene. Instead of adhering to the familiar pattern of each volume dealing with a particular taxonomic group, the aim of the new series of five books is for each to provide a guide to a particular habitat or group of habitats. The nearest existing contender in this field is Collins's excellent *Guide to Wildlife in House and Home* (H. Mourier and O. Winding, 1977).

The books are divided into two parts: an ecological account of the habitat, followed by illustrated descriptions of the characteristic flora and fauna, very much on familiar field guide lines. Those who conceived the series are to be congratulated. The availability of books for the general reader on the major kinds of habitat has not kept pace with the shifting emphasis, from the purely species-orientated to ecosystem-based studies within both ecology and conservation, that has occurred within the last two decades. This series aims to provide the reader with a coherent view of the natural history of the north European countryside.

The subject matter of the first two volumes could not be more different. One deals with the totally artificial, intensely organised, small-scale natural history of our towns and gardens, while the other seeks to encompass in one volume the vast spaces of the northern European mountains, moorlands, heathlands, coniferous forests and arctic tundra. This presents the authors with different problems and inevitably colours the treatments given to the ecological essays. In the event, *Mountains and Moorlands* succeeds best. Arnold Darlington's ecological sketches admirably capture the atmosphere of his five habitats, as well as providing factual—but at the same time interesting—accounts of the natural history. This is helped both by an economic style and a selection of beautiful landscape photographs. Denis Owen's task should have been simpler, but the result is not quite such a happy one. The ecological account consists of a number of separate topics and, in some, the imagery employed strikes just the right note. For instance, the section on 'Insects and flowers' begins, 'A herbaceous border to a butterfly or bee is like a filling station to a motorist.' The whole, however, is lacking in coherence, so that at the end one is left with no very clear integrated picture of the essential nature of the town environment as a wildlife habitat. The section on encouraging wildlife to the garden is also disappointing.

Inevitably, the second half of the books will be compared in quality with existing field guides. Unhappily, the standard of illustration, with the exception of the vertebrates, is not as good as we have come to expect. In particular, some of the plants are very poor indeed and would be no help at all in identification. The choice of species for inclusion is obviously something about which everyone will have their own views, but the plants of *Towns and Gardens* do seem to include a rather inconsequential mix of cultivated and 'weed' species; and, surely, more than eight species of small passerines commonly occur in the gardens of northern Europe?

DAVID STREETER

## Letters

**Disturbance by birdwatchers** The first quarter of 1978 was marked in east Kent by the presence of a Great Bustard *Otis tarda* which attracted birdwatchers in large numbers from far afield to a hitherto isolated and

rural area. The majority of the visitors behaved laudably and with good sense. There was, however, an irresponsible minority.

The bustard was discovered on Saturday 7th January and was seen by four birdwatchers on that day. By 08.00 GMT the next morning, in spite of dense fog, at least 200 birders had arrived. The majority, with great discipline, then sat out most of the day in the fog and were rewarded with at least a brief glimpse of the bird; some, however, frustrated at the end of the day, crossed fields of growing crops to search for it.

The bird then moved to a new locality. Considerable effort was made to reassure landowners, who had heard about—and in some cases witnessed—the initial visitation. As a result of careful and continued consultation, local birdwatchers were able to release the news of the new site over the next two months and more than 200 Kentish observers saw the bird. During this time, there were no incidents. In mid March, however, the national grapevine picked up the story again and the area was subjected to a new influx of birders from all over the country. As soon as the news broke, the landowners informed the police, who were stationed near the site over two weekends, and undoubtedly were responsible for minimising disturbance. Again, the majority of visitors were well behaved and this is fully appreciated locally. Nevertheless, the following incidents occurred:

1. Fields of young corn were walked over.
  2. Nesting Mallards *Anas platyrhynchos* deserted their nests and in one instance a nest was actually trodden on.
  3. Pheasants *Phasianus colchicus* being reared by the landowners left areas where nesting had been expected.
  4. The local gamekeeper, who did a lot to ensure the well-being of the bustard and to allow many birdwatchers to see it, was subjected to abuse by birdwatchers demanding to be allowed to walk over private land to go searching for it. In addition, he was lectured by one group on the ethics of shooting foxes *Vulpes vulpes*.
  5. The gamekeeper's traps were sprung
  6. On most days, some birders, after watching the bustard feeding, became impatient to see it in flight and walked across the fields to flush it. Not only did this involve trespass, but it made the bird fly away so that others arriving later were unable to see it. They in turn became impatient and attempted to walk over private land in an effort to find the bird.
  7. Another landowner finds it difficult to believe that the loss of a dozen duck decoys that had been out all winter was not associated with the arrival of 200 birdwatchers.
- These incidents combined to jeopardise the fragile relationship between local birdwatchers and landowners.

Most birdwatchers enjoy seeing rare birds and the fact that some derive their sole pleasure from this sort of birdwatching is not usually a problem. There is, however, both an individual and a corporate responsibility to make sure that people pursuing their interests do not do so at the expense of local landowners, other birdwatchers or the local avifauna. We suggest, therefore, that all those involved in the finding of a rare bird should carefully consider their responsibilities before widely broadcasting the occurrence: is the locality capable of accommodating an invasion of birders, which will unfortunately but inevitably include an irresponsible minority? Certain areas, such as bird observatories, may welcome large numbers of visitors, but most privately owned land is different. We also urge all those birders who travel the country to see rarities to respect

the local environment and the feelings of local people and actively to prevent the occurrence of unacceptable incidents. It is in their own interests to do so.

If the warning is not heeded there is a danger that the amateur study of ornithology in Britain could suffer a major setback. The number of local ornithologists who feel unable to disclose details of their studies, including the occurrence of rare birds, could increase. They have nothing to gain—and everything to lose—from visitations by masses of other birdwatchers if relationships with landowners are soured. At a time when the gathering of ornithological information to the benefit of all, including the birds, has reached new heights of efficiency and sophistication, we could see a return to the days of parochialism and the suppression of information. Let action be taken now to avoid this risk.

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*Chalkgarden, The Length, St Nicholas-at-Wade, Birchington, Kent*

**Waders nesting on buildings** Dr W. R. P. Bourn ( *Brit. Birds* 68: 302), reporting events in Aberdeen in 1971-74, thought it rather surprising that Oystercatchers *Haematopus ostralegus* should nest on buildings. P. R. Mills (71: 308) gave further details and M. J. Tekke (71: 308) recorded Oystercatchers breeding on roofs at Heerenveen, Friesland, Netherlands, since 1950.

Mrs E. M. Fisk (*in litt.*) has informed me that the American Oystercatcher *H. palliatus* has nested on roofs in the United States, and, in a recent paper (*Florida Field Naturalist* 6(1): 1-8), she also mentioned Black Skimmer *Rynchops nigra*, Wilson's Plover *Charadrius wilsonia* and Killdeer *C. vociferus*, as well as terns, nesting on buildings in Florida.

BERNARD KING  
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We note that another paper by Mrs Fisk (*Bird-Banding* 49: 134-141) listed 23 roof-nesting species, including Fulmar *Fulmarus glacialis*, Osprey *Pandion haliaetus*, Upland Sandpiper *Bartrania longicauda*, nine gulls *Larus*, four terns (Sternidae), Pigeon Guillemot *Cepphus columba*, Raven *Corvus corax* and Common Nighthawk *Chordeiles minor*, as well as those mentioned above. EDS

**Synchronous diving as feeding strategy** I was interested to read P. K. Kinnear's note (*Brit. Birds* 71: 126-127) on the synchronous diving of Great Northern Divers *Gavia immer*, and his speculation that the birds 'actively co-operate under water to obtain food', since his ideas are mirrored to a certain extent by some of my own observations of Puffins *Fratercula arctica*.

Synchronous splash diving of small groups of Puffins and Guillemots *Uria aalge* is quite commonly seen off the breeding places (see Lockley 1953). Such splash diving can be seen in response to the near passage of

a boat, and also as a part of courtship. I feel, however, that it could also be important in fish capture.

These auks feed on small fry of schooling species, such as sprats *Sprattus sprattus* and sand-eels (Ammodytidae), and the schools are thought to have a confusing effect on predators (see Curio 1976). The cohesion of a prey group can be broken down by the concerted attack of several predators, and each individual prey becomes more vulnerable when separated. It follows that, for many birds which feed on schooling fish (as Great Northern Divers do during the winter months), two beaks—or more—may be better than one. No altruism need be involved, since each bird stands to gain from synchronised attack; asynchronous attack would probably just buffet the school as a unit and not fragment it.

The size of schools will also impose a ceiling on the size of predator groups: if too many beaks stabbed at the same school, the birds would interfere with each others' performance and nullify the effect of concerted action.

There are too few data on the size distribution of sprat and sand-eel schools to allow predictions to be made concerning the optimum size for auk fishing groups, but some of my observations of Puffins seem to support the ideas outlined above.

On sea crossings between Crail and the Isle of May, Fife, in spring 1977, I counted Puffin groups up to half a mile (0.8 km) from the island; those closer than this were mainly occupied in activities other than fishing.

Median group size was two, with 96.5% of them in groups of two to eight. Thus, a minority of Puffins were seen alone. While this could be due to a kind of 'local enhancement effect', where new arrivals at the fishing grounds seek out birds already fishing, the 'ceiling' group size of eight seems small in comparison with the several thousand Puffins breeding nearby. It would be interesting to compare these observations with counts of other school-fish-eating birds elsewhere. KENNETH TAYLOR

*Isle of May Field Station, Firth of Forth*

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**Song flights of wagtails** The editorial comment after D. J. Fisher's note (*Brit. Birds* 71: 223) suggested that a song flight by a Pied Wagtail *Motacilla alba*, with a 'parachute descent', is unusual. It seems worth mentioning, however, that both Yellow Wagtails *M. flava* and Grey Wagtails *M. cinerea* have a song flight similar to that described by Mr Fisher.

Stuart Smith (1950, *The Yellow Wagtail*) gave a good description of the song-flight display of the Yellow Wagtail and noted its similarities to those of Meadow Pipits *Anthus pratensis* and Tree Pipits *A. trivialis*. *The Handbook* mentions a trilling associated with the song flight of Grey Wagtails and I have frequently noted that species singing while descending to the ground from a tree or cliff, in a parachute display with the tail spread and raised,

showing off the conspicuous white outer tail feathers.

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A note relating another observation of the Pied Wagtail's song flight appears on pages 590-591. Eds.

**Tits sitting on empty nests** The note by Alan E. Male (*Brit. Birds* 70: 394) prompted us to check our data. Since 1959, we have studied tits *Parus* in a number of areas around Ghent, Belgium (see *Bird Study* 15: 127-134). During 1969-77 about 1,500 pairs of Great Tits *P. major* and 1,000 pairs of Blue Tits *P. caeruleus* bred in our nestboxes. In this period, we observed 'incubation' of empty nests by Great Tits twice, and by Blue Tits seven times. Mr Male suggested that the Great Tit he observed on an empty nest might have been a case of deferred breeding, the tit being sub-adult; since two of the tits in our study were identified individually, our data shed some light on this.

On 14th April 1976, in the study area of Zevegem, we found a completed Great Tit nest; no eggs had been laid by 5th May, so the nest was removed. In the same box, a Great Tit was seen incubating an empty nest on 1st, 8th and 21st June; this, a yearling female, was caught and ringed. On 14th April 1977, a completed nest was found in a nestbox nearby; we checked it weekly. On 17th and 24th May and 1st June, a Great Tit was incubating the empty nest: it proved to be the same female as in the previous year.

On 9th April 1970, in the study area of Maria-Middelares, a completed nest was found in box A; on 13th May, a Blue Tit was incubating the empty nest. On 24th May, a new nest was found in box B, and on 1st June the female on the empty nest was identified. On 8th April 1971, a completed nest was again found in box A. The same female was observed on this empty nest on 11th April and 22nd May; it had been ringed as a juvenile in January 1968, and was thus three and four years old when incubating empty nests. In the five other cases, Blue Tits on empty nests were not identified individually, but in one area observations were made in two consecutive years at nestboxes close together, suggesting that the same tit was involved.

Our observations show that: (1) it is very unusual for tits to incubate empty nests; (2) the frequency of this behaviour seems to be higher in Blue than in Great Tits (7/1,000 and 2/1,500 respectively); and (3) it cannot be compared with deferred breeding in other species, since the same individual incubated an empty nest in consecutive years, and the identified Blue Tit was three and four years old. Perhaps tits sitting on empty nests are unable to lay eggs.

ANDRÉ A. DIHONDT and ROMAN EYCKERMAN

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Oecologie der Dieren, RUG, B-9000 Ghent, Belgium*

An observation by T. Kittle (see page 593) suggests that tits 'incubating' empty nests may be capable of egg-laying. Eds

# Photographic requests

We are, of course, always pleased to receive series of prints of individual species, of interesting behaviour or on a special theme: we have always relied on the willingness of photographers to allow us to use their work. To give even greater range to the selection in *British Birds*, we shall now regularly be listing species of which we require photographs. In some cases, these will be to illustrate a paper which is currently in preparation, but in others a special photographic article may depend upon our receipt of suitable prints. We try to show each species in a variety of plumages and situations, so that, as well as photographs at the nest, we seek flight shots and pictures of flocks, of birds in non-breeding plumage, of migrants, of display, and so on. We hope that this regular advance warning of our needs will be welcomed and may even encourage photographers to tackle one or more of the listed species.

MWR & JTRS

We especially require good quality black-and-white prints of the following species:

- |  |  |
|--|--|
| Soft-plumaged Petrel <i>Pterodroma mollis</i>  | Lesser Crested Tern <i>Sterna bengalensis</i>      |
| White Pelican <i>Pelecanus onocrotalus</i>     | Black Tern <i>Chlidonias niger</i>                 |
| Purple Heron <i>Ardea purpurea</i>             | Scops Owl <i>Otus scops</i>                        |
| Surf Scoter <i>Melanitta perspicillata</i>     | Eagle Owl <i>Bubo bubo</i>                         |
| Honey Buzzard <i>Pernis apivorus</i>           | Hawk Owl <i>Surnia ulula</i>                       |
| Tawny/Steppe Eagle <i>Aquila rapax</i>         | Pygmy Owl <i>Glaucidium passerinum</i>             |
| Imperial Eagle <i>A. heliaca</i>               | Ural Owl <i>Strix uralensis</i>                    |
| American Kestrel <i>Falco sparverius</i>       | Great Grey Owl <i>S. nebulosa</i>                  |
| Hobby <i>F. subbuteo</i>                       | Tengmalm's Owl <i>Aegolius funereus</i>            |
| Spotted Crake <i>Porzana porzana</i>           | Nightjar <i>Caprimulgus europaeus</i>              |
| Little Crake <i>P. parva</i>                   | Pallid Swift <i>Apus pallidus</i>                  |
| Baillon's Crake <i>P. pusilla</i>              | Wryneck <i>Jynx torquilla</i>                      |
| Semipalmated Plover <i>Charadrius semi-</i>    | Yellow-bellied Sapsucker <i>Sphyrapicus varius</i> |
| <i>palmatus</i>                                | Woodlark <i>Lullula arborea</i>                    |
| Lesser Sand Plover <i>C. mongolus</i>          | Citrine Wagtail <i>Motacilla citreola</i>          |
| Greater Sand Plover <i>C. leschenaultii</i>    | Dipper <i>Cinclus cinclus</i>                      |
| Semipalmated Sandpiper <i>Calidris pusilla</i> | Duncock <i>Prunella modularis</i>                  |
| Western Sandpiper <i>C. mauri</i>              | Siberian Rubythroat <i>Luscinia calliope</i>       |
| Red-necked Stint <i>C. ruficollis</i>          | Hermit Thrush <i>Catharus guttatus</i>             |
| Little Stint <i>C. minuta</i>                  | Moustached Warbler <i>Acrocephalus melano-</i>     |
| Temminck's Stint <i>C. temminckii</i>          | <i>pogon</i>                                       |
| Long-toed Stint <i>C. subminuta</i>            | Blyth's Reed Warbler <i>A. dumetorum</i>           |
| Least Sandpiper <i>C. minutilla</i>            | Greenish Warbler <i>Phylloscopus trochiloides</i>  |
| Woodcock <i>Scolopax rusticola</i>             | Arctic Warbler <i>P. borealis</i>                  |
| Red-necked Phalarope <i>Phalaropus lobatus</i> | Firecrest <i>Regulus ignicapillus</i>              |
| Grey Phalarope <i>P. fulicarius</i>            | Crested Tit <i>Parus cristatus</i>                 |
| Pomarine Skua <i>Stercorarius pomarinus</i>    | Isabelline Shrike <i>Lanius isabellinus</i>        |
| Arctic Skua <i>S. parasiticus</i>              | Spanish Sparrow <i>Passer hispaniolensis</i>       |
| Long-tailed Skua <i>S. longicaudus</i>         | Hawfinch <i>Coccothraustes coccothraustes</i>      |
| Great Skua <i>S. skua</i>                      | Cape May Warbler <i>Dendroica tigrina</i>          |
| South Polar Skua <i>S. macconnicki</i>         | Lapland Bunting <i>Calcarius lapponicus</i>        |
| Gull-billed Tern <i>Gelochelidon nilotica</i>  | Pallas's Reed Bunting <i>Emberiza pallasii</i>     |

Please send prints for consideration to the editorial address: *British Birds*, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

# Bird Photograph of the Year

where details of the rules and address were set out.

We remind photographers that the closing date for receipt of colour transparencies for this competition is 31st January 1979. Anyone intending to submit transparencies should consult the full announcement in the October issue (*Brit. Birds* 71: 470),

## Request

**Birds of prey in Suffolk** The Suffolk Ornithologists' Group is collecting records of all sightings of birds of prey in Suffolk from 1973 onwards. For four species (*Kestrel Falco tinnunculus*, Barn Owl *Tyto alba*, Tawny Owl *Strix aluco* and Little Owl *Athene noctua*) only breeding records and unusual sightings are required, but for all others every observation is requested. As well as date, locality and other obvious information, behaviour, prey, migration, unusually high numbers, absence from areas where previously known, individuals found dead (with reason for death if known) and any other apparently relevant point will be of interest. Information should be sent to A. R. J. Paine, 22 Spriteshall Lane, Felixstowe, Suffolk IP11 9QY.

## Diary dates

This list covers events taking place during January to December 1979. We welcome the submission of details for possible inclusion in the next list, covering July 1979 to June 1980.

**9th January** BRITISH ORNITHOLOGISTS' CLUB. J. H. R. Boswall on 'Mutual mimics, men as birds and birds as men—an ornithological frolic'. Central London. Non-members should write to hon. secretary, c/o P. Hogg, 33 Vine Court Road, Sevenoaks, Kent.

**16th-18th February** BTO CONFERENCE. 'Birds of town and village'. Hayes Conference Centre, Swanwick, Derbyshire. Applications to BTO, Beech Grove, Tring, Hertfordshire HP23 5NR.

**2nd-4th March** ALL-IRELAND CONFERENCE. Jointly organised by RSPB and Irish Wildbird Conservancy, Belfast.

**6th March** BOC. M. D. England, OBE, illustrated lecture on 'The birds of the Seychelles group of islands'. Central London. Applications to hon. secretary.

**17th March** BTO ONE-DAY CONFERENCE.

Nottingham University. Applications to BTO.

**6th-8th April** RSPB MEMBERS' WEEKEND. Warwick University. Applications to Conference Secretary, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

**21st April** BOU AGM AND VISIT TO WILDFOWL TRUST, SLIMBRIDGE.

**21st April** BTO ONE-DAY CONFERENCE. University of East Anglia, Norwich. Applications to BTO.

**21st April** RSPB LAKELAND ONE-DAY CONFERENCE. Keswick. Applications to Conference Secretary, RSPB.

**28th April** SOUTH WEST RINGERS' CONFERENCE. Bristol area. Applications to John Eley, 1 Bloomfield Close, Timsbury, Bath BA3 1LP.

**24th May** WILDFOWL TRUST AGM. Slimbridge, Gloucester. 12 noon.

**15th September** RSPB ONE-DAY CONFERENCE. Manchester. Applications to Conference Secretary, RSPB.

**22nd September** RSPB ONE-DAY CONFERENCE. Canterbury. Applications to Conference Secretary, RSPB.

**13th October** RSPB LONDAY DAY/AGM. Applications to Conference Secretary, RSPB.

**26th-28th October** SCOTTISH ORNITHOLOGISTS' CLUB ANNUAL CONFERENCE. Marine Hotel, North Berwick, East Lothian.

Applications to SOC, 21 Regent Terrace, Edinburgh EH7 5BT.

**27th October** RSPB ONE-DAY CONFERENCE. Bournemouth. Applications to Conference Secretary, RSPB.

**2nd-4th November** BOU ANNUAL CONFERENCE. 'Bird population studies'. Hayes Conference Centre. Applications to BOU Office, c/o Zoological Society of London, Regent's Park, London NW1 4RY.

**30th November-2nd December** BTO ANNUAL CONFERENCE. Hayes Conference Centre. Applications to BTO.

## County, regional and bird observatory recorders in Britain and Ireland

We have in the past usually published a complete list of county and regional recorders' names and addresses each year. This, however, takes up several pages of valuable space. We shall in future, therefore, be publishing the full list biannually. Thus, this year we are including only changes in names and addresses which have been notified to us. Otherwise, so far as we are aware, recorders' names and addresses are still as shown in *Brit. Birds* 70: 356-360; 566.

### ENGLAND

*Bedfordshire* B. Nightingale, 9 Duck End Lane, Maulden, Bedfordshire

*Cambridgeshire* For the old county of Huntingdonshire, including the Soke of Peterborough: J. D. Limentani, 10 Acacia Avenuc, St Ives, Huntingdon, Cambridgeshire

PE17 4TN

*Cheshire* Dr R. J. Raines, c/o The Surgery, 270 Woodchurch Road, Birkenhead, Merseyside

*East and West Sussex* M. J. Rogers, 195 Vicarage Road, Sunbury-on-Thames, Middlesex

TW16 7TP

*Greater Manchester* B. T. Shaw, 87 Glencagles Road, Heald Green, Stockport

*Isles of Scilly* D. B. Hunt, 16 Silver Street, St Mary's, Isles of Scilly TR21 0JG

*Northamptonshire* C. J. Coe, 67 West Street, Weedon, Northampton

*Somerset* John A. McGeoch, 15 Ash Grove, Wells BA5 2LX

*Suffolk* D. R. Moore, Crosslands, Cage Lane, Boxted Cross, Colchester, Essex

### WALES

*Powys (Breconshire)* E. Bartlett, Chapel House, Llechfaen, Brecon, Powys

### SCOTLAND

*Orkney* D. Lea, 6 Old Scapa Road, Kirkwall, Orkney KW15 1BB

*Fife* K. Brockie, Morven, Russell Street, Strathmiglo, Fife

*Peeblesshire, Roxburghshire, Selkirkshire* A. J. Smith, Glenview, 3 Croft Terrace, Selkirk

TD7 4LX

## IRELAND

*Northern Ireland Bird Records Committee* Mrs P. M. Vizard, 9 Dillons Avenue, Whiteabbey, Newtownabbey, Co. Antrim

## BIRD OBSERVATORIES

*Bardsey* Postal code should be LL53 8DE  
*Sandwich Bay* Postal code is CT13 9PF

## News and comment

*Peter Conder and Mike Everett*

### World Wildlife Fund Yearbook 1976-7

Dr Fritz Vollmar, Director-General of the World Wildlife Fund, in his introduction to the *Yearbook*, points out that 1976 was a record year for WWF, and grants totalling \$4,815,954 were given to 201 major international projects located largely in Africa, Asia and Latin America. In addition, grants totalling \$1,915,112 were made by WWF national organisations to important conservation projects in their own countries.

In Europe, a grant was given for the promotion of conservation in Greece with special attention being given to the Evros Delta. A Birds of Prey Campaign in Sardinia was started in 1974 after 960 raptors had been killed in the Province of Sassari alone. Birds of prey are now given full protection, poisoned baits have been banned, and nature reserves and feeding places established for vultures.

Birds of prey protection also featured in a project for central Spain; White-tailed Eagles *Haliaeetus albicilla* were protected in northern Europe; and the breeding programme for Peregrine *Falco peregrinus* was given continued support.

In other parts of the world, bird projects featured less frequently in the list of grants awarded, although there was one for the feeding of the Japanese Crane *Grus japonensis* in Korea, one for the conservation of waterfowl habitats in Pakistan, and a third for a study of the ecological requirements of the Black-necked Crane *Grus nigricollis*, which normally nests at an altitude of 4,000 m or more on the Tibetan plateau, of which the only accessible part is Ladakh in northern India.

The range of the projects supported by

the Fund is wide: some are of an administrative nature, but most are concerned with endangered species or habitats. Some of the largest donations are to administrations: \$500,000 to the International Union for the Conservation of Nature (IUCN) for its basic operations. The second largest (\$145,000) was given for the establishment of the Great Karoo National Park in South Africa, and the third largest (\$112,000) went to the Wildfowl Trust towards the purchase of the Caerlaverock Wildfowl Reserve, Dumfries & Galloway. When one looks at the size of grants to projects in other parts of the world, one is tempted to ask if the priorities are right, particularly when one sees that promotion of nature conservation in Greece rates only \$1,000, and that aid to various educational units in countries with conservation problems rates only \$5,000. Generally speaking, however, the *Yearbook* shows how well the WWF in its international field is providing support for many sound and valuable projects of which we hear too little. The *Yearbook* is published by the WWF, 1110 Morges, Switzerland.

**'Living with Cruelty'** This 54-page booklet, the Labour Party's charter for animal protection, results from studies, with the Royal Society for the Prevention of Cruelty to Animals, of problems which arise from experiments on, transport and export of live animals, factory farming, zoos, and wildlife parks and gardens. The Labour Party wants all animal welfare legislation consolidated in one 'Animals' Act', backed by increased enforcement and a permanent supervisory body. The last

section deals with blood sports and recommends the banning of fox-hunting, hare-coursing, beagling, and stag- and deer-hunting, but recommends that no action should be taken against shooting and angling (the sports of the 'working man' we suppose!) Available, price 45p, from Literature Sales, Transport House, Smith Square, London SW1P 3JA.

**Wildlife Police Force** Meanwhile, the RSPB returns again to the need for a wildlife police force. This call is one of 13 recommendations highlighting the shortcomings of wildlife legislation submitted by the RSPB to the Royal Commission on Criminal Proceedings. The RSPB argues that, in recent years, a number of Acts of Parliament have been passed protecting wildlife, but, compared with the wildlife protection forces of the USA, Canada and Australia, our Government does very little to enforce them. Surely something like the Inspectorate of Weights and Measures, linked to the Department for the Environment, would help to ensure that all the Acts concerned with endangered species, conservation and protection of wild animals are properly enforced, rather than leaving this burden largely to charitable organisations such as the RSPB and the RSPCA.

**First breeding of Egyptian Vultures in captivity** The Birds of Prey Conservation and Falconry Centre at Newent, Gloucestershire, has succeeded in breeding Egyptian Vultures *Neophron percnopterus* for the first time ever in captivity. Two young have been reared; the first hatched on June 30th and the second on July 5th. At the time of writing, they are feeding well, walking and exercising their wings, but have not flown.

**Washington Convention** Egypt has ratified the Convention on International Trade in Endangered Species of Wild Flora and Fauna (Washington Convention), becoming the 44th contracting party. (*IUCN Bulletin*)

**'The Irish Hare'** The first issue of the newsletter of the Ulster Trust for Nature Conservation was published in September 1978 and records the launching of this new trust earlier in the year. While aiming to complement field clubs, it will be cam-

paigning in Ulster for greater protection for wildlife outside nature reserves and for the end of needless destruction of habitats. By educational activities, it hopes to encourage a more sensitive attitude to wildlife among the public in general and especially among those managing the countryside. Ian Forsyth tells us that, but for the 'disturbances', this trust would have come into being years ago. The annual subscription is £3.00. For further information, write to the Hon. Secretary, J. Forsyth, 24 Malone Park, Belfast BT9 6NJ.

**Sizes of bird reports** We have had a cri de coeur from a reader who is alarmed at the frequent changes in format of some county bird reports and newsletters. He found that one series of issues changed from quarto to foolscap to A4 and then back to foolscap in successive years. Few complete sets of any society's publications exist at all, let alone as bound volumes. A policy of uniformity would encourage the collection of sets, whereas constantly changing shapes, which will not file neatly and conveniently, tend to make one regard the newsheet or report as not worth preserving. He pleads that societies should stick to one size for at least ten years.

**European wetlands campaign** A total of 22 European countries participated in the Council of Europe's 'Wetlands Campaign' during 1976-77. A report of Campaign activities in the United Kingdom was published in August 1978 by the Nature Conservancy Council on behalf of the UK Co-ordinating Committee for the Wetlands Campaign. Copies are available on request from the Librarian, NCC, 19/20 Belgrave Square, London SW1X 8PY.

**Rostherne Mere** At Rostherne, there is a comfortable 12-seater hide (known as the A. W. Boyd Memorial Observatory) which overlooks the Mere. It houses two powerful telescopes and provides excellent opportunities for watching all the British freshwater ducks, and much else besides. Permits cost only £1 a year or £2 for a family permit (prices which will be maintained during 1979); they are valid for any number of visits and are available without restriction to any member of the general public. The warden, Tony Wall,

challenges anyone to tell him of a better permit bargain anywhere in Great Britain and offers a free copy of *The Birds of Rostherne Mere* by Ronald Harrison and David H. Rogers (which can normally be

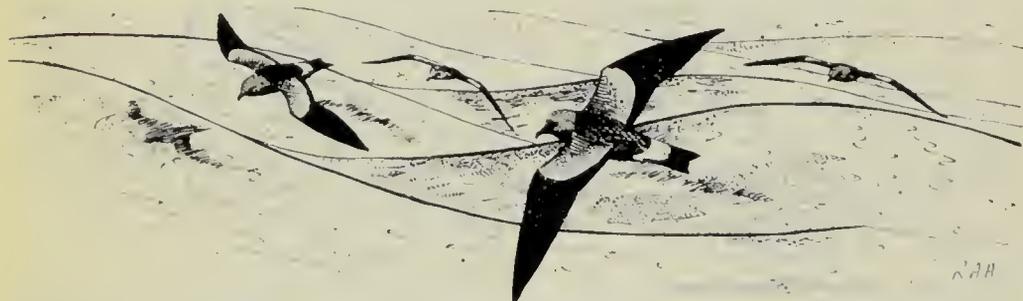
obtained from the NCC, Rowans, Rostherne, Knutsford, Cheshire WA16 6RY, price £1.40 post paid) to the first person who, in his opinion, produces details of better value for money.

*Opinions expressed in this feature are not necessarily those of the editors of British Birds*

## Recent reports

*S. C. Madge and K. Allsopp*

**These are largely unchecked reports, not authenticated records**



This report covers September and the first part of October; except where otherwise stated, all dates refer to September.

The weather during the month continued to be influenced by westerly winds as a series of depressions moved into western Europe. From 21st to 30th very strong winds persisted across the northern North Atlantic culminating in a deep depression bringing very strong north-westerly gales during the last few days of the month.

### Leach's Petrels

Rumours of a 'wreck' of **Leach's Petrels** *Oceanodroma leucorhoa* soon spread through the country, and the northwest of England must have been more intensely seawatched than at any time before. Reports of up to 1,000 a day off Hilbre (Merseyside) were rumoured, but accurate counts must have been hampered by lingering birds and by others moving up and down that part of the coast. Leach's were first noted on the Mersey on 11th, 25 per hour moved through on 15th, numbers built up to 100 per hour west on 17th, and then continued regularly to the end of the month. Thousands must have been involved, and counts of over 500 were made on several days. Birdwatchers flocked to the area to witness the sight and few were disappointed, as some birds flew between

observers, and dipped over pools on the shore. Parts of the Lancashire coast also shared this wreck, and counts from Morecambe included 60 south in two hours on 15th. Fifty passed Castlerock (Co. Derry) in an hour on 11th and there were several reports from east coast watch points later in the month and into October, but numbers from St Ives (Cornwall) were not particularly noteworthy. It was to be expected that this wreck would produce inland records, but, so far, few have been reported: singles at Fairburn Ings (North Yorkshire) on 28th, Leighton Moss (Lancashire) on 29th, near Wakefield (West Yorkshire), Eyebrook Reservoir (Leicestershire), Chew (Avon) and Langley Mill Canal (Derbyshire) on 30th and Swithland Reservoir (Leicestershire) on 2nd October. Doubtless we will hear of other inland records, particularly in the north of England.

### Other seabirds

Relatively few **Storm Petrels** *Hydrobates pelagicus* were associated with this wreck and only two or three were reported from the Mersey; one, however, turned up inland at Draycote (Warwickshire) on 17th and a **Manx Shearwater** *Puffinus puffinus* was picked up near Retford (Nottinghamshire) on 5th. An **albatross** *Diomedea* was

seen off Meols (Merseyside) on 11th. **Sabine's Gulls** *Larus sabini* featured quite heavily after the gales, particularly in late September and early October; St Ives is traditionally a good place to find them under suitable weather conditions, but a total of over 40 in a week in early October was quite staggering. Counts also reached double figures at some Irish watch-points. There were also several reports from coastal districts in northwest, northeast and eastern England, but only one inland: an adult at Knotford Nook (West Yorkshire) on 6th. There was a scattering of **Long-tailed Skuas** *Stercorarius longicaudus* during the period, chiefly from northeast coasts, and five were noted on the Wirral on 30th, on the same day as six Sabine's Gulls and over 300 Leach's Petrels. The passage of **Sooty Shearwaters** *P. griseus* has also been good, with counts of up to 1,000 per day moving north off Flamborough Head (Humberside) in early September, while no less than 1,500 passed Malin Head (Co. Donegal) in only three hours on 10th; few usually penetrate the southern part of the North Sea, so a count of 17 flying east off Dungeness (Kent) on 21st was most interesting, and 180 off St Ives on 11th was a record total there. Cape Clear Island (Co. Cork) and Flamborough Head both reported two **Little Shearwaters** *P. assimilis* towards the end of the month, the latter point having produced no less than seven sightings of this species this autumn alone.

#### Little Stints and Curlew Sandpipers

This was mentioned in the last report and the immensity of the influx of **Little Stints** *Calidris minuta* has been reflected by records of quite large parties from the



far west. Unfortunately, records so far received are rather piecemeal, but noteworthy ones have included 40 at Virkie (Shetland) on 6th, 28 at Wick (Caithness) on 7th, up to 20 at Bull Island (Co. Dublin) and 18 on North Uist (Outer Hebrides) on 9th. **Curlew Sandpipers** *C. ferruginea* also penetrated the far west, with counts of up to 50 at Bull Island and up to 30 in several other places in Ireland; one even turned up on Bermuda.

#### Nearctic vagrants

As was to be expected with this weather pattern, we had another good autumn for American waders. **Pectoral Sandpipers** *C. melanotos* were in the vanguard, with



214. Pectoral Sandpiper *Calidris melanotos*, Kent, September 1978 (R. J. Chandler)

at least 17 reported so far: Scilly, Cornwall (2), Bedfordshire (2 or 3), Leicestershire, Cleveland, Channel Islands (3), Co. Cork (2), Avon, Kent (2), Worcestershire and Dorset. Few **Buff-breasted Sandpipers** *Tryngites subruficollis* arrived and two or three on Scilly and one in Co. Cork were the only ones to add to the last report. There was, however, a notable influx of **White-rumped Sandpipers** *C. fuscicollis*, with four singles in Co. Cork and one in



Belfast in mid month, and others on the Hayle estuary (Cornwall) on 16th and at Wath Ings (South Yorkshire) on 27th. Two **Spotted Sandpipers** *Actitis macularia* were found on the Scillies and another was identified at Union Hall (Co. Cork) on 28th. Much earlier, there was a **Greater Yellowlegs** *Tringa melanoleuca* on South Uist (Outer Hebrides) on 12th August and additional reports of **Wilson's Phalaropes** *Phalaropus tricolor* came in from Alderney (Channel Islands) early in the month, and later at Ossett (West Yorkshire). **Long-billed Dowitchers** *Limnodromus scolopaceus* were noted singly on St Mary's (Scilly), at Lough Beg (Co. Derry), and other dowitchers on Cape Clear Island and at Stithians (Cornwall). The only **Lesser Golden Plovers** *Pluvialis dominica* were reported from Davidstow (Cornwall) on 12th and from the River Humber (Humberside) at about the same time. Without doubt, the wader of the autumn was a **Semipalmated Plover** *Charadrius semipalmatus* which was discovered on St Agnes (Scilly) on 9th October; if accepted, this will be the first record for the west Palearctic of a species

that was formerly one of the notorious 'Hastings Rarities'. This first record may be long overdue, but, as this species bears such a close resemblance to, and may even be conspecific with, the Ringed Plover *C. hiaticula*, this is perhaps not so surprising. There were also reports of three adult **Laughing Gulls** *L. atricilla* after the storms: one flew north at Flamborough Head on 19th, one flew west at Fairburn Ings on 24th, and yet another was discovered at Loch Ken (Kirkcudbright) at about the same time. Nearctic waterfowl also appeared in the form of a **Blue-winged Teal** *Anas discors* at Fairburn Ings on 12th and **Ring-necked Ducks** *Aythya collaris* at Clonakilty (Co. Cork) and in south Wales in mid month. The dearth of Nearctic passerines was surprising, but single **Red-eyed Vireos** *Vireo olivaceus* turned up on Cape Clear Island on 27th and on St Mary's on 11th October.

#### Latest news

In the first half of November: Purple Heron *Ardea purpurea*, Elmley, Isle of Sheppey (Kent); Rough-legged Buzzards *Buteo lagopus*, Sheppey, and Holkham (Norfolk), Dusky Warbler *Phylloscopus fuscatus*, Sandwich Bay (Kent); Pallas's Warbler *P. proregulus*, Dungeness; Wallcreeper *Tichodroma muraria* back at Cheddar (Somerset); Semipalmated Plover still in Scilly.



## Corrections

#### VOLUME 70

##### Page

434 Caption to plate 116. 'October' should read 'August'.

#### VOLUME 71

##### Pages

77 Line 6. 'plate 7 (page 33)' should read 'plate 8 (page 31)'.

86 Twites wintering in woodland. Line 15. 'northeast' should read 'northwest'.

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# British Birds

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**1978**

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(1) every significant mention of each species, not only in titles, but also within the text of papers, notes and letters, including all those appearing in such lists as the 'Report on rare birds in Great Britain in 1977', but excluding those in 'Recent reports', 'News and comment', requests and reviews;

(2) scientific nomenclature under generic names only and following *The 'British Birds' List of Birds of the Western Palearctic* (1978);

(3) authors of all papers, notes, reviews and letters, and photographers; papers are referred to by their titles, other contributions as 'note on', 'review of', etc.;

(4) a few subject headings, i.e. 'Breeding', 'Display', 'Editorial', 'Field characters', 'Food', 'Migration', 'News and comment', 'Obituaries', 'Rarities Committee', 'Recorders', 'Reports', 'Requests for information', 'Roosting' and 'Voice';

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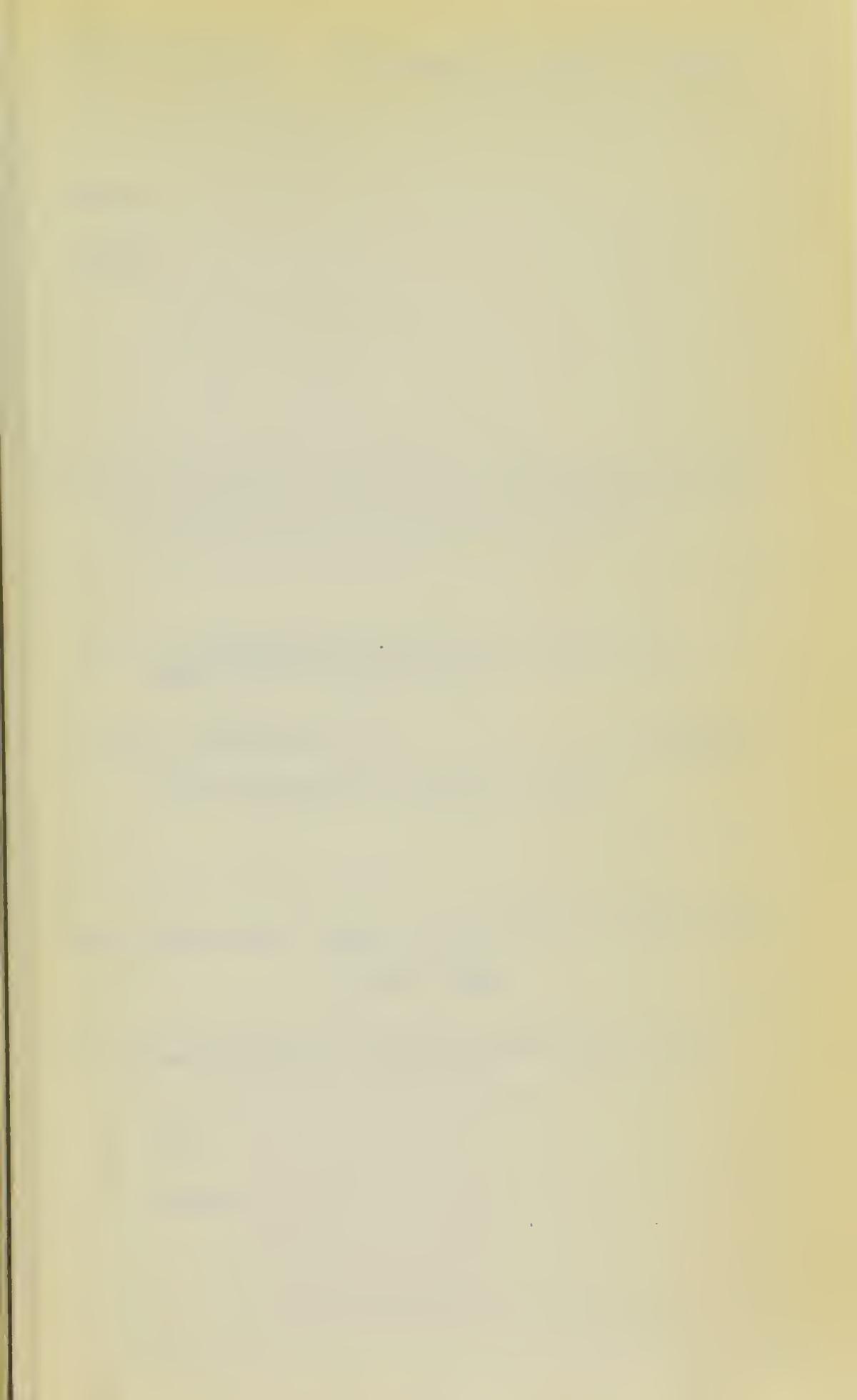
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