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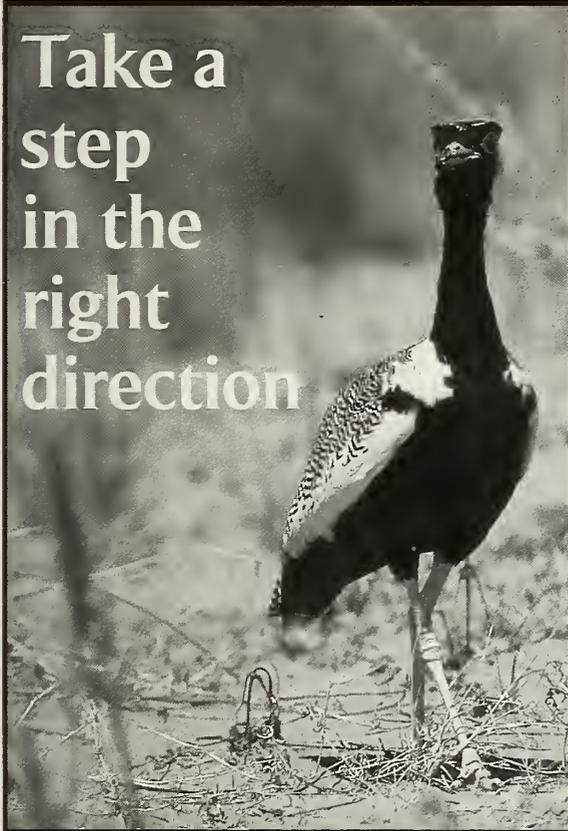
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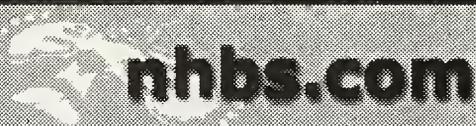


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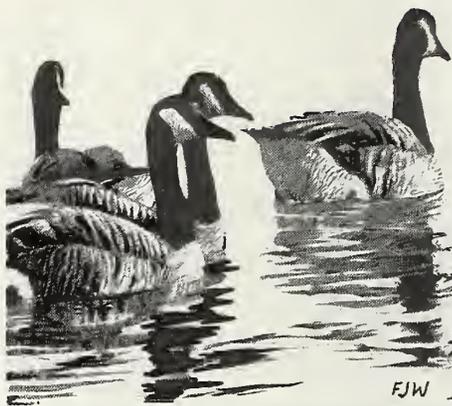
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More than enough exotics?

Colin Bibby

I read the Rare Breeding Birds Panel's first report on introduced birds (*Brit. Birds* 92: 172-182) with great interest. As a member of the Panel, I must declare an interest. I think that this is an important and neglected area of British ornithology. I am delighted that the Panel's co-ordination and encouragement is likely to draw more attention to these species which are sometimes ignored in county reports, presumably being deemed not to be proper birds. At the moment, we have a sadly inadequate overview; an oversight that I hope will soon cease. I guess that we are so used to Red-legged Partridges *Alectoris rufa*, Common Pheasants *Phasianus colchicus* and Little Owls *Athene noctua* that it is sometimes hard to remember that their presence here is unnatural. After all, they are all quite attractive birds and they do not seem to have done much harm. Indeed, the two gamebirds could claim to underpin an interest in shooting which has been a major force in maintaining at least some wildlife value on large areas of farmland. The Canada Goose *Branta canadensis*, initially intended to be ornamental on the lakes of gentlemen's estates and then to provide a new quarry for wild-fowlers, turned out not to be much fun to shoot, and became a minor pest instead.

On a global scale, introduced species have caused enormous damage both to native species and to the economics of fisheries and agriculture. The single biggest cause of human-induced extinction so far has been the direct or indirect effects of introduced species (though habitat change will soon take over this unenviable position). I suppose that it is not surprising that an introduced snake on Guam should drive two bird species to extinction (and a third to survival only in captivity) in less than a decade. The island previously had no snakes, so the birds were poorly adapted to cope with such an agile new predator. Mammalian predators have been particularly devastating on islands where previously there were no serious predators. Goats *Capra* and Rabbits *Oryctolagus cuniculus* have destroyed fragile plant communities and removed cover for breeding birds.



Canada Geese

Frederick J. Watson

Introduced plants, fishes and invertebrates have caused problems worldwide.

In Britain, we have been lucky. Our wildlife derives from those species quick enough to have got back after the last glaciation. Perhaps most of our species are natural survivors. But we have still seen the impact of American Mink *Mustela vison*, Coypu *Myocastor coypus*, Grey Squirrel *Sciurus carolinensis* and Rabbit, while so far largely avoiding the much-feared rabies *Lyssavirus* and Colorado Beetle *Leptinotarsa decemlineata*. Rats *Rattus* have probably done more harm than we know to our own seabird islands. Perhaps birds are more benign than mammals, fishes, reptiles, insects, viruses or plants? I am not sure, however, that many Americans would thank Europe for the Common Starling *Sturnus vulgaris*. I do know that no Spaniards appreciate the Ruddy Duck *Oxyura jamaicensis*, which threatens their excellent conservation action in bringing back the White-headed Duck *O. leucocephala* from close to extinction in Western Europe. By comparison, the Canada Goose has caused only minor problems in Britain. Little Owls seem to have found what must previously have been a vacant niche, and who could imagine something as delightful as the Mandarin Duck *Aix galericulata* causing any problems?

Introduced species have a nasty habit of being unpredictable. It is no surprise that preda-

tors turn out to be predatory. Nor should it be a surprise that agricultural crops offer a food resource that is ideal for some species. But who would guess which species and which crop might be next? It is even harder to guess which species might be so competitive as to be able to displace another. We know so little about disease in wildlife that there is no knowing what bird might turn out to be a vector for what pathogen. In Hawaii, native species are now confined to higher elevations, where they escape diseases hosted by introduced birds in the lowlands. Even in Britain, it seems that parasitic worms spread by the introduced Common Pheasant may be harmful to Grey Partridges *Perdix perdix*, which are badly enough affected by modern agricultural practices. Any predictions of future risk have to be made against a future where we can expect further land-use changes, and we can also expect the unexpected as a result of climate change. It is quite possible that we have candidates waiting in the wings, and it is clearly wise that the deliberate introduction of exotic species is now illegal. But what about those that we already have? Or those that are still being released semi-deliberately from captive collections?

I suspect that we may be far too complacent or sentimental, or both. One day, readers of this journal's 'Looking back' column could be amazed to see us calmly documenting the first steps of the spread of a serious pest. There must be a chance that it could be the Rose-ringed Parakeet *Psittacula krameri*, which is already sufficiently numerous that it would be hard to stop. The problem is that parrots are so irresistible, especially in a continent without them. I have to admit that they always enliven my visits to Kew, where I go to enjoy the exotic plants.

The Ruddy Duck has had plenty written about it. What shocks me is the power of the essentially sentimental arguments against trying to control its spread. In New Zealand, the RSPB's equivalent, the Royal Forest and Bird Protection Society, is almost as popular per capita as is the RSPB here. It has rather a good glossy magazine. A recent feature showed a local group that had poisoned 79 Brush-tailed Possums *Trichosurus vulpecula* in one night. The members were photographed, proudly surrounding the results of their work. I cannot ever see the day when *Birds* will carry a photograph of an RSPB Members' Group posing beside a pile of dead Minks at the end of a suc-

cessful field-trip. New Zealanders live amongst a largely introduced bird fauna, with many endangered species hanging on under intensive and costly management. They know too much to be sentimental about killing damaging exotic species. Meanwhile, in Britain, I was recently appalled to see a photograph of Egyptian Geese *Alopochen aegyptiacus* at a National Trust property where they were welcomed as rare visitors. I cannot see this august body welcoming an exotic chair showing up amongst its Chippendales. Still less if it was infested with Furniture Beetle *Anobium punctatum*.

If killing species once they have got going is too much, then perhaps at least we should be more careful about helping them to begin with. The spread of exotic species somehow seems to rob further wildness from a country where this is already scarce. I remember my first visits to the Solway and to Islay and the excitement of truly wild geese, especially Barnacles *Branta leucopsis*. Now, the Wildfowl & Wetlands Trust has bred a captive strain which, following the route of the Ruddy Duck out of Slimbridge, can now be found breeding at nearby Frampton Gravel-pits. On Islay, both Barnacle Geese and Greenland White-fronted Geese *Anser albifrons flavirostris* have been allowed to escape from captivity and breed in the wild, where presumably they might make contact with their migratory relatives. This is madness. There must be a chance that disease or domestication could merge these geese into a sedentary and semi-domesticated travesty of their wild selves. I hope that this message will be heard and heeded in time.

I cannot actually say which, if any, amongst the current crop of spreading exotics we might come to regret most. I can say with confidence that we run a serious risk by being so casual and sentimental about them. A recent meeting of the Global Biodiversity Forum coined a chilling metaphor for exotics as 'the only form of pollution which spontaneously self-replicates'. Pollution from oil or pesticides will abate if the source is stopped. Pollution from exotics will not go away if allowed out in the first place. We do now have a chance for action to stop at least some of them before they get too numerous. At the very least, we could do without friends aiding and abetting further releases in the shortsighted belief that they offer a money-making and educational experience of 'wildlife'.



Identification of Ferruginous Duck and its status in Britain and Ireland

K. E. Vinicombe

John Martin



ABSTRACT The Ferruginous Duck *Aythya nyroca* has recently declined over much of its native range. It is a rare winter visitor to Britain and Ireland, currently averaging about 13 records a year, with higher numbers in occasional influx years. Most occur in England and it is very rare in Ireland, Scotland and Wales. It is concluded that most records relate to wild immigrants. Identification is discussed, with particular reference to similar-looking hybrids.

For the first 11 years of the British Birds Rarities Committee (1958-68), the Ferruginous Duck *Aythya nyroca* was a highly appreciated and sought-after vagrant. At the end of 1968, however, it was dropped from the Rarities Committee's list with the comment that 'this species is so commonly kept in captivity under free-flying conditions that it is impossible to estimate how many observations really relate to wild individuals' (Smith *et al.* 1969). For the next 29 years, the species languished in a state of obscurity and few birdwatchers seemed to take it seriously. Recently, however, the veracity of that 1969 statement has been questioned: if more and more Ferruginous Ducks are escaping, then

why is it still so rare?

By the early 1990s, there were some suggestions that Ferruginous Duck should be reinstated onto the Rarities Committee's list, but it was not until reports were noted of worrying and substantial population declines in its breeding range that these were taken seriously. The species was eventually readmitted to the list from 1st January 1999 (*Brit. Birds* 92: 113-114), not only to ensure that vagrants are properly identified, but also because we have an international obligation to monitor its occurrences. It is hoped that this decision will raise the profile of the species, which has been ignored for far too long.



K. E. Vinicombe

1. Adult male Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999.

Population trends in its native range

The following information is taken from Bankovics (1997), Krivenko *et al.* (1994), Martí & Molina (1997), Scott & Rose (1997) and Snow & Perrins (1998).

The Ferruginous Duck breeds in the forest-steppe, steppe and semi-desert zones. Climatic variations in these regions produce drought-induced fluctuations in numbers and range. It prefers to inhabit fairly shallow expanses of water and marshes, rich in submerged and floating vegetation, fringed with emergent plants, such as reeds *Phragmites*, and often with willows *Salix*, alders *Alnus* and other trees. It winters on larger lakes and lagoons, usually with reedbeds, and also in coastal marshes. Open water is rarely used.

The species' breeding range is principally in central and eastern Europe and in southwestern Asia, discontinuously east to western Mongolia. Four populations are recognised: (1) a population breeding in the West Mediterranean and North Africa, wintering mainly in West Africa, with most in Mali and Nigeria (7,000-10,000 birds, although it seems possible that this total may include some trans-Saharan migrants from central and eastern Europe), (2) a population breeding in eastern Europe and wintering in the Black Sea/eastern Mediterranean region, south to Egypt (10,000-50,000), (3) a South-west Asian population wintering through the

Arabian peninsula to northeastern Africa (5,000), and (4) a Central Asian population which winters in southern and eastern Asia (10,000). The World population may now be as low as 49,000 individuals, and the species is considered to be globally threatened.

The European breeding population is estimated at 14,250-23,400 pairs, with the largest population in Romania (6,000-15,000 breeding pairs, concentrated on the Danube Delta). Significant populations are also found in Ukraine (3,500-5,000 pairs), Hungary (1,200-1,600 pairs), Moldova (1,000-1,300 pairs) and Russia (500-1,500 pairs). Smaller but still significant populations (100-500 pairs) can be found in Poland, Austria, Greece, Croatia and Albania. The species has undergone marked declines throughout most of its range, dramatic in some areas, with declines of more than 20% in ten European countries and more than 50% in four countries (although the populations in the latter were of marginal importance). Wetland drainage is the main culprit, compounded by high levels of hunting pressure. Legal protection may not always be effective, as the Ferruginous Duck is still shot, either because of misidentification or because of ignorance of the law. This may be a serious problem in some areas, such as at the Evros Delta in Greece. In Hungary, however, it declined dramatically from the 1980s owing to habitat changes arising from summer droughts and

generally drier weather conditions. It is now strictly protected there and its population is stable. Elsewhere in Europe, stable populations are currently found only in Greece, Croatia and Lithuania. Recent European winter counts showed a decline from 762 in 1994 to 665 in 1995 and 643 in 1996 (Delany *et al.* 1999).

In the former Soviet Union, the population was estimated at 75,000 pairs during the late 1960s, with 65,000 pairs in the Dniestr-Dniepr region of Ukraine and Moldova, and 10,000 pairs in the Kuban Valley, Russia. By the early 1980s, just 12,000-14,000 pairs were estimated in the European part of the former Soviet Union, falling further to 6,000 pairs in the early 1990s. Wintering numbers also declined between 1970 and 1990, especially in the Black Sea region. In January 1967, 18,000 were counted in the northern Black Sea, but only up to 1,500 between 1979 and 1988. High numbers were once shot in southern Russia and Kazakhstan, but the species is now more rarely hunted. Perhaps as a consequence, some stabilisation of the population occurred in parts of Russia and Ukraine after 1980, and some slight local increases were reported.

In Poland, perhaps a likely source of some of our vagrants, the Ferruginous Duck was numerous until the 1920s, but is now patchily distributed, with two remaining concentrations at Milicz fishponds (175 pairs in 1982) and at Tarnobrzeg and Janów Lub (more than 200 pairs, which may represent a small recovery).

In western Europe, it is a sporadic and fluctuating breeder in Germany (20-100 pairs) and it may now be extinct in France (one to five pairs in the 1970s, none in recent years). In Spain, the population decreased from about 500 pairs in the early part of the twentieth century, based mainly on the marshes of the Guadalquivir, to only one to five pairs in recent years, mainly in Valencia. There have been other sporadic breeding records since 1975 in the Czech Republic, Switzerland, the Netherlands and Belgium.

Elsewhere in the Western Palearctic, it also breeds in Algeria (about 600 pairs estimated in the El Kala National Park, mainly at Lake Tonga) and in Morocco (five to ten pairs). The Turkish population is estimated at

1,000-3,000 pairs.

The main autumn migration occurs between early September and mid October, with major arrivals on the wintering grounds, even those south of the Sahara, by late October. Breeding areas are reoccupied from mid March to early April in central Europe and from mid April to early May in Russia.

Status in Britain and Ireland

In Britain and Ireland, the Ferruginous Duck has traditionally been regarded as a very rare winter visitor, mostly to eastern England. Any attempt at analysing its status in more detail is difficult. National totals were not kept during 1969-85, and the occurrence patterns are complicated by wandering birds, by those returning from previous years and, of course, by escapes from captivity. Pete Fraser, the BBRC's Statistician, kindly allowed me to use data from his rare-vagrant and scarce-migrant database, covering the periods 1958-68 and 1986-97, and, from these, it was possible to produce figs. 1-3.

Calculating the number of new birds occurring annually requires some judgments to be made in order to eliminate returning and wandering individuals. The raw data upon which these figures are based, and the individual decisions taken to eliminate duplication, are included in the BBRC database

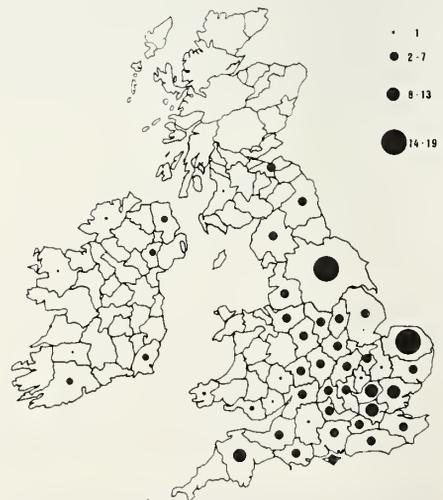


Fig. 1. Distribution of records of Ferruginous Ducks *Aythya nyroca* by county in Britain and Ireland during the periods 1958-68 and 1986-97.

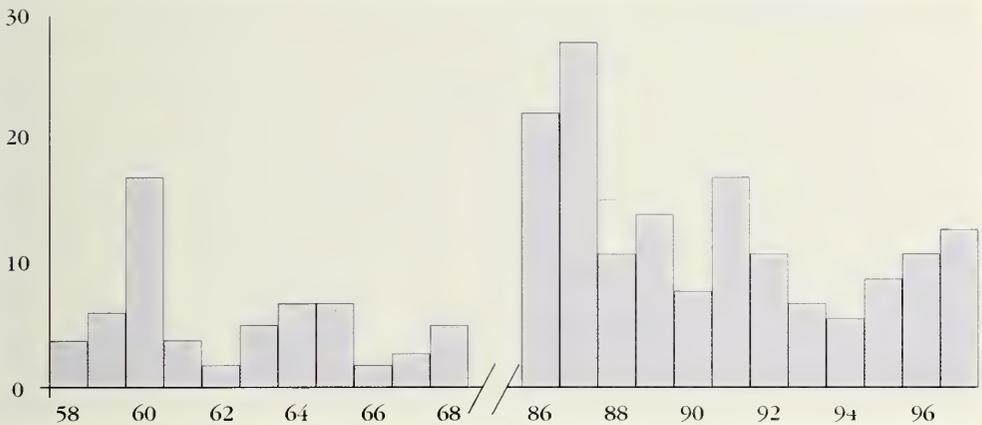


Fig. 2. Estimated annual totals of Ferruginous Ducks *Aythya nyroca* in Britain and Ireland during 1958-68 and 1986-97.

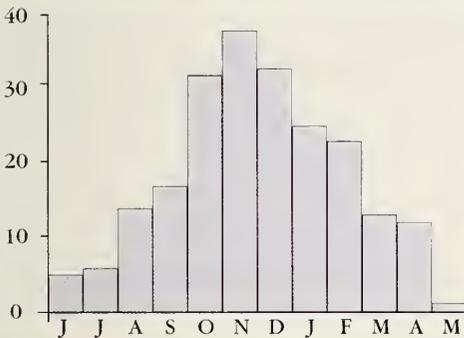


Fig. 3. Initial arrival dates of Ferruginous Ducks *Aythya nyroca* in Britain and Ireland during the periods 1958-68 and 1986-97. Note that the months are shown from June to May in order to illustrate the winter peak.

maintained by PF. Using a minimalist approach, the average number of records per annum increased from six during 1958-68 to 13 during 1986-97. The apparent increase in the later period has to be viewed against a huge increase in birdwatching and, perhaps, a lowering of acceptance standards once the species left the Rarities Committee's list. In this latter context, it is surprising to note that many of the records on PF's database, taken from local bird reports, were neither sexed nor aged. There were also a considerable number of claims that related to one-day birds, and one wonders about the authenticity of some of these.

PF's data show that the number of records varied considerably from year to year (fig. 2) and there appear to have been definite influx years, with 1960 (17), 1986 (22) and 1987 (28) standing out. Conversely, 1962

(two), 1966 (two) and 1994 (six) were particularly poor.

Fig. 3, which shows initial arrival dates, confirms that the Ferruginous Duck is essentially a winter visitor to Britain, arriving mainly from October to February, with a peak in November, and numbers diminishing towards spring. A small number of arrivals during the period April to June do not correlate with the predicted pattern and, perhaps, seem more likely to relate to escapes. Despite this, fig. 3, with its strong winter peak, reveals a temporal pattern that cannot be explained by the random occurrence of escapes.

Some occurrences involved single birds which were apparently unconnected with other wildfowl, but vagrants are quite often to be found accompanying flocks of Common Pochards *Aythya ferina*. Major arrivals of wintering Common Pochards occur in October-November, and it is likely that some Ferruginous Ducks 'abmigrate' to western Europe with this species, resulting in the winter peak. There were also a number of records during July to September. It may be tempting to dismiss these as relating to escapes, but it must be remembered that Common Pochards start to return from their breeding grounds as early as the end of May and that flocks gather to moult in July-August. Thus, their association with Common Pochards means that late-summer and early-autumn records of Ferruginous Ducks are also likely to relate to wild birds. It should be noted, however, that moult migrations have not been reported for the species:



K. E. Vinicombe

2. Adult male Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. The large white undertail-coverts, framed with black, are striking.

its wing moult takes place on the breeding grounds in July and August. Late-summer drought-induced vagrancy could be a possible explanation for some of the occurrences at that time of year.

Fig. 1, confirms that the Ferruginous Duck is essentially a rare visitor to England, most frequent in the east. It is very rare in Scotland and Wales; in Ireland there were about nine occurrences in the periods reviewed. This is a pattern that one would expect of a bird that originates in eastern Europe and western Asia.

In conclusion, despite the fact that some

occurrences undoubtedly relate to escapes from captivity, the evidence indicates that most are genuinely wild immigrants. I recommend, therefore, that the Ferruginous Duck continues to be regarded as mainly a rare winter visitor to England and as a vagrant to Ireland, Scotland and Wales. Its return to the BBRC's list, with the resultant tightening of standards and closer monitoring, should facilitate an even better understanding of its true status here.

Identification

The adult male Ferruginous Duck is, on the



Keith Stone

3. Adult male Ferruginous Duck *Aythya nyroca*, Lea Marston, Warwickshire, February 1998. This individual was seen in the area for nine winters from 1989/90 to 1997/98. Note that when the tail is lowered, the undertail-coverts can appear as circular white patches on each side of the tail.



Steve Young/Birdwatch

4. Male Ferruginous Duck *Aythya nyroca*, Chorlton Water Park, Greater Manchester, February 1991. This illustrates how males can look duller at long range.

face of it, easy to identify, but females, juveniles and first-winters are less straightforward. Few of the standard identification guides adequately describe these plumages or stress the importance of eliminating similar-looking hybrids with Common Pochard.

General features

SIZE, STRUCTURE AND HEAD SHAPE Ferruginous Duck is slightly smaller than Tufted Duck *A. fuligula* and it appears a rather compact bird with a more tapering, less spatulate bill. Compared with Tufted Duck, it has a noticeably domed head shape although,

since the dome is produced by elongated feathering, its exact position varies. When relaxed, the dome is central, peaking just behind the eye (plates 3, 4 & 8), but at other times the peak is farther towards the rear (plates 1, 10 & 11) and the head shape is then more similar to that of a Common Pochard. When the bird dives, the crown feathers may be flattened, so that the head looks more rounded. Occasionally, it may show the effect of a slight 'bump' at the rear of the crown. Juveniles and first-winters show rounder heads than do adults in full plumage (plates 18, 22, 23 & 24) and eclipse adults, particularly females, may look simi-



Steve Young/Birdwatch

5. Adult male eclipse Ferruginous Duck *Aythya nyroca* (captive), Martin Mere, Lancashire, July 1997. Eclipse plumage is similar to full plumage, but is duller. The white eye and undertail-coverts are retained.



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6. Eclipse male Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, July 1999. Note that the bill is uniformly dark and the head rather rounded. Also, the lores are slightly paler.

larly round-headed since their head feathering is shorter (plates 5, 6 & 14, the last showing a female which looks very square-headed), while males may look round-headed when in moult. The tail appears broader, fuller and more rounded than that of a Tufted Duck, although, in common with other species of *Aythya*, juveniles and first-winters have slightly shorter tails, with spikier-looking feathers (plate 18).

PLUMAGE TONE The adult male is characteristically a beautiful rich mahogany colour, but females and, particularly, juveniles are

browner, although even the latter are more richly coloured than any Tufted Duck.

UNDERTAIL-COVERTS The most characteristic and oft-quoted feature is the Ferruginous Duck's large white undertail-covert patch. Although a few female Tufted Ducks show white undertail-coverts, never do these approach the extent and conspicuousness of those of a Ferruginous Duck; plate 2 illustrates this admirably. It should be stressed, however, that the full extent of the white is revealed only when the tail is cocked, usually when the bird is at rest (plates 1, 2 & 6).



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7. Adult female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. Females are duller and browner than males, have a variable ginger patch on the lores and, most importantly, show a brown eye.



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8. Adult female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. Females can sometimes look quite brown and show vertically barred flanks. The bill is greyer than the male's, with a more diffuse pattern and a larger dark tip.

When the bird is feeding or otherwise active, the tail is held flat on the water and the undertail-coverts then appear as two rather small triangular or circular patches on each side of the base of the tail (plates 3, 4 & 7). Sometimes, perhaps more likely on females and juveniles, the white may virtually disappear when the tail is lowered (plate 9). The white undertail-coverts are most striking on the adult male; this is because they are framed with black, which highlights their contrast (plates 1 & 2). On females and juveniles, the area immediately forward of the white is browner, so the contrast is reduced

(plates 8, 18, 20 & 22). On juveniles, the white may be partly obscured by grey-brown spots and bars (plate 18). Such markings were not, however, present on older juveniles that I examined in the captive collection of the Wildfowl and Wetlands Trust at Slimbridge, Gloucestershire, in January 1999. Similarly, Mullarney *et al.* (1999) described and illustrated juvenile Ferruginous Duck as having duller white undertail-coverts than adult, but they did not mention barring. I was, unfortunately, unable to check this feature on young juveniles at Slimbridge, as none was bred there in 1999 (Nigel Warren, verbally).



Steve Young/Birdwatch

9. Female Ferruginous Duck *Aythya nyroca*, Skerton Weir, Lancashire, April 1996. Females can look quite brown and rather nondescript at a distance. Note that the white undertail-coverts are almost completely hidden.

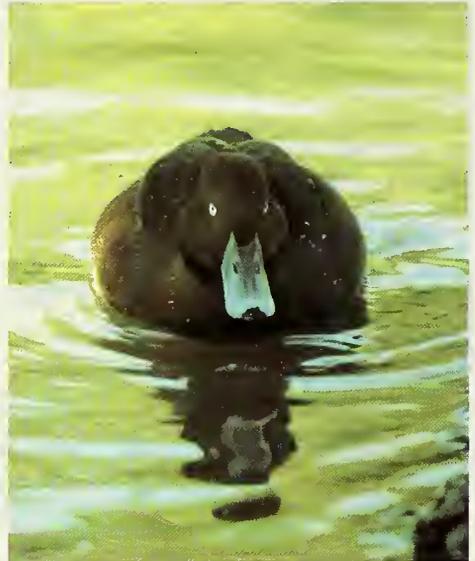


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10. Adult female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. Adults have a conspicuous, well-defined white belly patch (compare with the juveniles in plates 18, 19 & 21). On this bird, the bill is dark grey with a well-defined pale blue subterminal band and a large dark tip.



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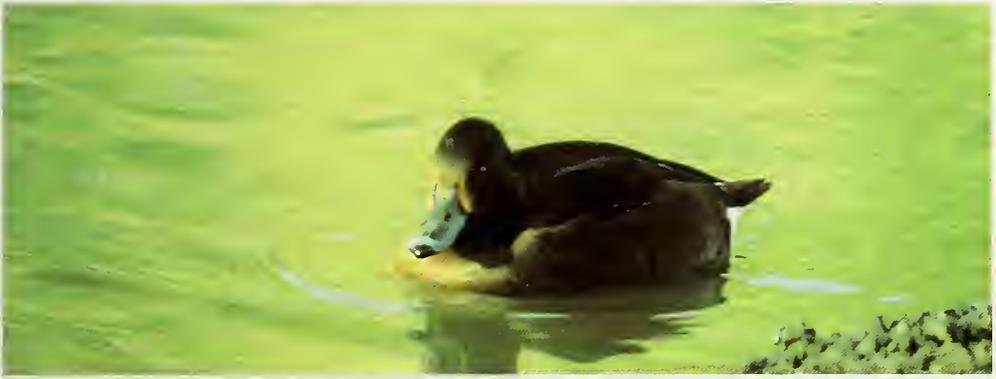


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11 & 12. Adult male Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. These two photographs show the bill pattern of adult male with the black confined mainly to the nail, a pale blue subterminal band and a blue-grey base.

BILL PATTERN It is sometimes stated that a key feature in the identification of Ferruginous Duck is its bill pattern. In particular, the black at the tip is restricted to the nail and does not extend across the tip. This is true, but only for adult males. These do indeed have the black restricted to the nail, sometimes extending narrowly and inconspicu-

ously each side of it (plates 1, 3 & 11). From the front, the black appears almost as a semi-circle (plate 12). There is some variation, and the bill tip of one adult male at Slimbridge in October 1999 had an abnormally large amount of black, extending each side of the nail. The rest of the bill is blue-grey, but with a pale blue band behind the nail, this colour



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13. Adult female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. This shows the female's bill pattern with its larger dark tip, diffuse pale blue subterminal band and slightly darker, greyer base.

variably extending up the sides of the bill (plates 1, 3, 11 & 12).

On most adult females, the pattern is similar to that of the male, but the base of the bill is slightly darker and greyer, the pale blue subterminal band is slightly duller and less well defined and the black tip is slightly larger and more diffuse. The general effect is of a duller, less-well defined, more-blurred bill pattern with a larger dark tip (plates 7, 8 & 13). There is, however, individual variation, and some adult females show an all-grey bill with a more sharply defined, narrow, whitish subterminal line behind a larger, blackish tip (plate 10).

In eclipse, both sexes show a reduced pale bill band and may lose this altogether, so that the bill looks uniformly blackish, partic-

ularly at a distance. There is, however, variation, and some individuals of both sexes retain traces of a diffuse pale or restricted subterminal band (plates 5, 6, and 14-17).

Juvenile Ferruginous Ducks, in common with juvenile Tufted Ducks and Common Pochards, have a completely grey bill. The rate at which the adult bill pattern is acquired varies individually, but it will appear gradually during the bird's first winter. The juvenile male in plate 18, photographed in September, shows a grey bill with a faint and diffuse pale band behind a large black tip; a late-November juvenile in Bedfordshire in 1998 had a similar pattern. The male in plates 22 & 23, a more advanced bird moulting into its adult-like first-winter plumage in January, has a blue-grey bill with



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14. Summer female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, July 1999. In summer, some females become quite dark brown with an all-dark bill. This bird shows rather a capped effect with pale patches on the lores and ear-coverts. Note how square the head looks.



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15 & 16. Summer female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, July 1999. A more chestnut bird than that in plate 14. Note the capped head and the pale lores and ear-coverts. This one has retained a tiny pale mark on the bill.



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a narrow whitish subterminal band and an extensive large black tip forming a diamond-shaped area at the end of the bill. The juvenile female in plate 20 (also photographed in January) shows a fairly typical female-type bill pattern except that it is rather messy and subdued. In conclusion, the important points to make are that (1) a large black bill tip is perfectly normal on female and immature Ferruginous Ducks and would not in itself suggest hybridity, (2) it is perfectly normal for juveniles to have a predominantly all-dark bill, until at least late autumn or early winter,

and (3) eclipse males and summer females may also show all-dark, or predominantly all-dark, bills.

FLIGHT PATTERN Like the Tufted Duck, the Ferruginous has a wide white wing-stripe across the primaries and secondaries. Both sexes have blackish outer webs to the outer three to four primaries and these feathers are also washed with grey, more obviously so on the female (*BWP*). The stripe is highlighted by the contrasting black wing-coverts and black tips to the primaries and secondaries (plate 25). The general effect is of a



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17. Summer female Ferruginous Ducks *Aythya nyroca* (captive), Slimbridge, Gloucestershire, July 1999. Again, note the brown plumage, which is rather barred on the breast and flanks, the capped head and the pale lores and ear-coverts. These two have retained small amounts of pale on the bill, and the front bird shows some whitish feathering on the throat and the front of the neck.

whiter stripe than on the Tufted Duck, and is perhaps more reminiscent of a Red-crested Pochard *Netta rufina*. The axillaries and underwing are also strikingly white, except for dark tips to the remiges and the leading edge of the wing-coverts (plate 19). Also, in flight, adults (but not juveniles) show a clear-cut, contrasting white belly patch (see below).

Ageing and sexing

ADULT MALE WINTER In full plumage, the adult male is easily identified by his beautiful deep, rich mahogany head, breast and flanks. His beauty is best appreciated at close range and in bright light, when his plumage looks smooth and silky and the breast in particular can look as if it has been highly polished. In dull light or at a distance, however, it can look decidedly browner (plate 4). When fresh, the flanks are slightly paler and more ginger in tone and show faint vertical barring, produced by paler feather tips. The entire upperparts, as well as the area immediately forward of the undertail-coverts, are black. From the nape, a black ring extends forwards around the base of the neck, virtually petering out at the front. This is rather diffuse and not obvious, being best seen when the neck is extended. Apart from the

white undertail-coverts, the other obvious feature is the prominent, penetrating white eye, which gives the species its little-used alternative name of 'White-eyed Pochard'. Note that the eye colour will be less obvious in dull light, when the pupil is dilated. There is a large, clear-cut white belly patch, which is obvious when the bird is out of the water. A minor feature, present in all plumages, is a tiny white spot at the base of the lower mandible, best seen from the front when the bill is raised.

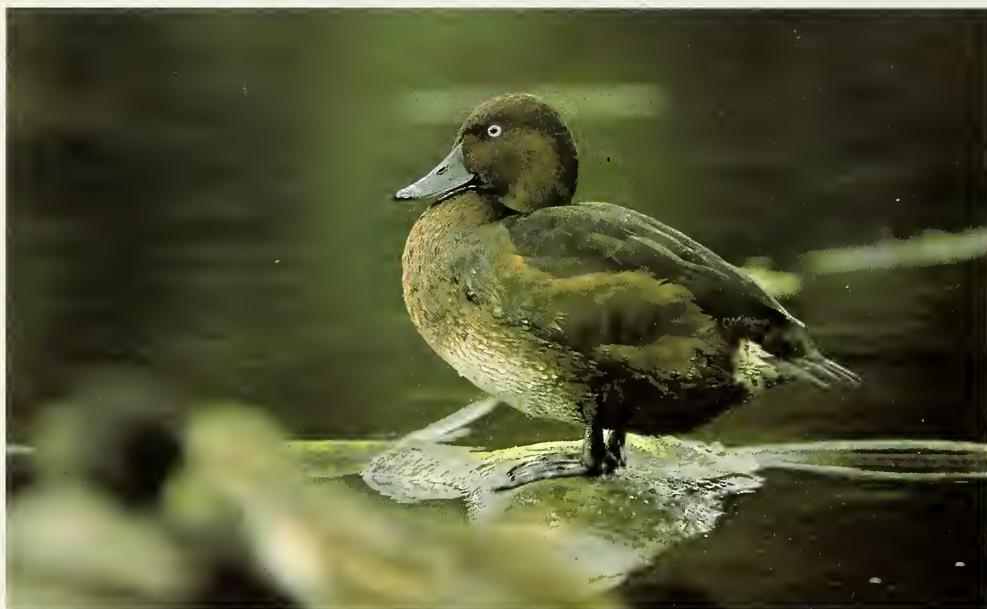
ADULT MALE ECLIPSE Males moult into eclipse plumage in June-July and a full wing moult takes place in July-August. Some males at Slimbridge on 20th July 1999 were still moulting their reddish head feathering, but others were in full eclipse. Full plumage is regained from late September to November (*BWP*). Eclipse male is surprisingly similar to full male, but is browner and more female-like, lacking the rich mahogany tones, particularly on the breast and flanks. The upperparts become dull: a dark brownish-black, more concolorous with the rest of the plumage. There is, however, individual variation, with some males being brighter and somewhat more reddish than others (compare plate 5 with plate 6). It seems possible that the brownest males are first-

summers. Some show faintly paler lores when viewed front-on. The breast may appear rather scalloped, with dark feather centres and paler fringes; the flanks can look rather barred for the same reason. Most importantly from an identification point of view, eclipse males retain both the large white undertail-covert patch and the prominent white eye.

ADULT FEMALE WINTER Similar to adult male in patterning, but females are easily sexed by their brown eyes (with a very faintly paler orbital ring visible in very good views). Adult females are duller than males, being browner and less chestnut, and some show a blackish sheen to the head from certain angles. Paler, more gingery tips to the flank feathers produce subdued vertical barring that is more obvious than on the male (plates 7, 8 & 9). The upperparts are blackish, slightly browner than the male's. At any distance or in dull light, winter females may look generally quite brown (plate 9). As noted above, the undertail-coverts contrast less with their browner surround (plate 8). There is a subdued orangey or gingery patch on the lores and a very faint crescent of a similar colour on the ear-coverts, but

both these features vary in prominence individually and according to light, angle and distance (plates 7, 9 & 10), the loreal patch being most obvious when seen front-on in strong sunlight. There is a prominent clear-cut white belly patch (plate 10).

ADULT FEMALE SUMMER Adult female's moult is not fully understood (*BWP*), but it seems that a pre-breeding moult is completed from late March to May. Summer females are similar to winter ones, but show rather more of a dark crown, producing a capped effect, and have paler lores and a pale ear-covert patch (plates 14-17). The two patches vary in conspicuousness individually, but, on one female at Slimbridge in July 1999, they were quite prominent. The body plumage varies from rather a dark chocolate-brown, darker than summer female Common Pochard (plate 14), to a dark-chestnut brown (plates 15-17). The breast and flanks are rather barred owing to dark feather bases and paler tips (plates 14-17). One female at Slimbridge had the white belly patch much reduced and with brown scalloping mixed with the white. On the others, the belly patch was of normal size, but some also had a few dark scallops within the white. *BWP*



Paul Loderwijkx

18. Juvenile male Ferruginous Duck *Aythya nyroca*, Spiegelpolder, Noordholland, Netherlands, September 1984. Juvenile's plumage resembles that of an adult female winter but is duller. It also shows subdued gingery patches on the lores and ear-coverts. The bill is grey, although it is gaining a faint pale subterminal line, and it has already acquired a white eye. Note the mottled undertail-coverts, the short spiky tail and the lightly spotted belly: all features of juvenile plumage.

states that, when worn, the feathers of the head, face and throat are paler cinnamon-buff, and the feather edges on the mantle and scapulars may be bleached buff. There was no evidence of this on the females at Slimbridge, but one could perhaps imagine that the pale head patches would become bleached in hot climates. Beaman & Madge (1998) stated that summer female has 'more extensive white mottling on the throat'. At Slimbridge, this was visible only when the birds were stretching upwards (plate 17), but was not ordinarily visible when they were at rest. Post-breeding moult is completed 1-1½ months later than the male's (*BWP*).

JUVENILE Similar to adult female winter, but duller and browner. The upperparts are dark brown, with faint paler feather fringes, and the flanks are unevenly barred brown and gingery-brown. Both sexes show subdued orangey patches on the lores and ear-coverts (plates 18, 19 & 20). The dark grey bill (see above) adds to the general drabness. In late summer, both sexes have dark eyes. The easiest way to age juvenile Ferruginous Ducks is by their belly, as they lack the adults' clear-cut white belly patch. Instead, the belly is buff, heavily but neatly spotted with brown (plates 18 & 19). Thus, from any distance, the belly fails to stand out (compare plate 19 with plate 10). Since Ferruginous Ducks readily come out of the water, this feature may be quite easy to check.

FIRST-WINTER As with other species of *Aythya*, young Ferruginous Ducks moult out of juvenile plumage and into their adult-like 'first-winter' plumage and acquire their adult bare-part colours during their first winter. Thus, by late winter, immature Ferruginous Ducks are, to all intents and purposes, in adult plumage. *BWP* states that advanced males will have gained much of their 'first-breeding' plumage by late November, but it is clear that others may be tardier in their moult. Plates 018 & 019, taken in September and late November respectively, show males still in juvenile plumage (see above). Note that both have already acquired the white eye-colour. The male in plates 22 & 23 was photographed on 9th January. Moult is much more advanced and, from the rather scruffy texture of his plumage, he is still in body moult. Already he is gaining his chestnut adult head colouring, the breast and flanks



Simon Knight

19. Juvenile male Ferruginous Duck *Aythya nyroca*, Priory Country Park, Bedfordshire, November 1998. The belly of juvenile is buff, profusely but neatly spotted with brown. This enables them to be easily aged (compare with plate 10). Also, note the white underwings, shown at all ages.

are also largely adult, but his upperparts are still rather brown-black with some paler feather fringing. His eye is white, although it had a slight bluish tint in the field at close range. What is interesting is the intermediate bill pattern with its large black tip (see above). By 6th February, this bird had completed his moult, and his plumage - but not his bill pattern - resembled that of an adult male (plate 24). Similarly, the November juvenile male in plate 19 also looked much more adult-like by January (Dr Simon Knight verbally).

The females in plates 20 and 21, also photographed on 9th January, are still in juvenile plumage. This is evident from the dull, spotted belly in plate 21. A slight scruffiness to their plumage indicated, however, that post-juvenile moult had begun and, by 6th February, they too had virtually completed their moult and resembled adult females.

Thus, although some juvenile feathering may be retained until spring (*BWP*), by February most first-winter Ferruginous Ducks should resemble adults and the ageing of lone vagrants in the field at this time is inadvisable. On tardy individuals, remnants of underpart spotting or extensive black on the bill-tip may be the best clues to look for and the plumage may appear slightly duller and slightly less immaculate than that of adults.



K. E. Vinicombe

20. Juvenile female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. This resembles an adult female winter but is duller and browner, particularly on the upperparts, and shows unevenly barred flanks. It also has a more diffuse bill pattern and a more rounded head.

Hybrids

The greatest pitfall in the identification of the Ferruginous Duck is that of similar-looking hybrids. In eastern Europe, overlapping breeding ranges and similar habitat preferences seem to lead to occasional hybridisation with the Common Pochard. It seems likely that such hybrids may inherit the pochard's westerly orientation to its post-breeding migration and so occur here with a frequency that is disproportionate to their status.

Hybrids may resemble either parent. Some are quite similar to Common Pochard, but others are so similar to pure Ferruginous Duck that they present a real identification challenge. These hybrids have been known for a long time and were considered distinctive enough to have acquired the name 'Paget's Pochard'. Gillham *et al.* (1966) exam-

ined 20 records of Ferruginous Ducks in Britain during the period April 1947 to October 1951 which were published in *British Birds* and found that none included any reference to the possibility of confusing the species with hybrids. Of the 20 records, they considered seven to be satisfactory, ten to be inconclusive and three to be unsatisfactory. One wonders whether modern-day descriptions would fare any better.

Those hybrids which resemble Common Pochard are not confusable with genuine Ferruginous Ducks; indeed, they may bear a superficial resemblance to the Redhead *A. americana*. They are typically smaller than the Common Pochard, and may be darker on the upperparts, have a more mahogany-coloured breast, paler eyes, a more-domed head shape, an intermediate bill pattern and some white in the wing stripe. Fig. 4a is



Laurel Tucker

Fig. 4. Hybrids between Ferruginous Duck *Aythya nyroca* and Common Pochard *A. ferina*. (a) male Common Pochard type (resembling Redhead *A. americana*), (b) male Ferruginous Duck type and (c) female Ferruginous Duck type. Note that (b) and (c) are very similar to pure Ferruginous Ducks (see text for points of distinction).



K. E. Vinicombe

21. Juvenile female Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. Note the dull, mottled belly, which reveals its age. The rather scruffy nature of this bird's plumage indicated that post-juvenile moult had started; by early February, it resembled an adult female. This photograph also shows how Ferruginous Ducks often come out of the water when loafing.

based on such a bird seen at Chew Valley Lake, Somerset, in 1976. Some of these hybrids, however, are subtler in appearance and are even more similar to Common Pochard than the one illustrated in fig. 4a.

Hybrids at the other end of the spectrum are illustrated in figs. 4b and 4c. These are based on a male at Chew Valley Lake in March 1969 (4b) and a female at Radipole Lake, Dorset, from December 1980 to January 1981 (4c). When faced with a potential Ferruginous Duck, the following features may indicate hybridity:

- A longer, deeper-based bill and a more

sloping forehead, producing a more wedge-shaped head profile.

- Larger size and greater bulk.
- Presence of faint grey vermiculations on the scapulars and possibly the flanks.
- A much smaller area of white on the undertail-coverts (remember that even juvenile and first-winter Ferruginous Ducks have a large white undertail-covert patch).
- Markedly paler and possibly greyer flanks with a sharper line of demarcation between the breast and the flanks.
- Extensive grey in the wing stripe.



K. E. Vinicombe



K. E. Vinicombe

22 & 23. Juvenile/first-winter male Ferruginous Duck *Aythya nyroca* (captive), Slimbridge, Gloucestershire, January 1999. This resembles a dull adult male with a more rounded head and an intermediate bill with a large black tip. Its scruffy plumage is a result of moult.



Martin Elliott

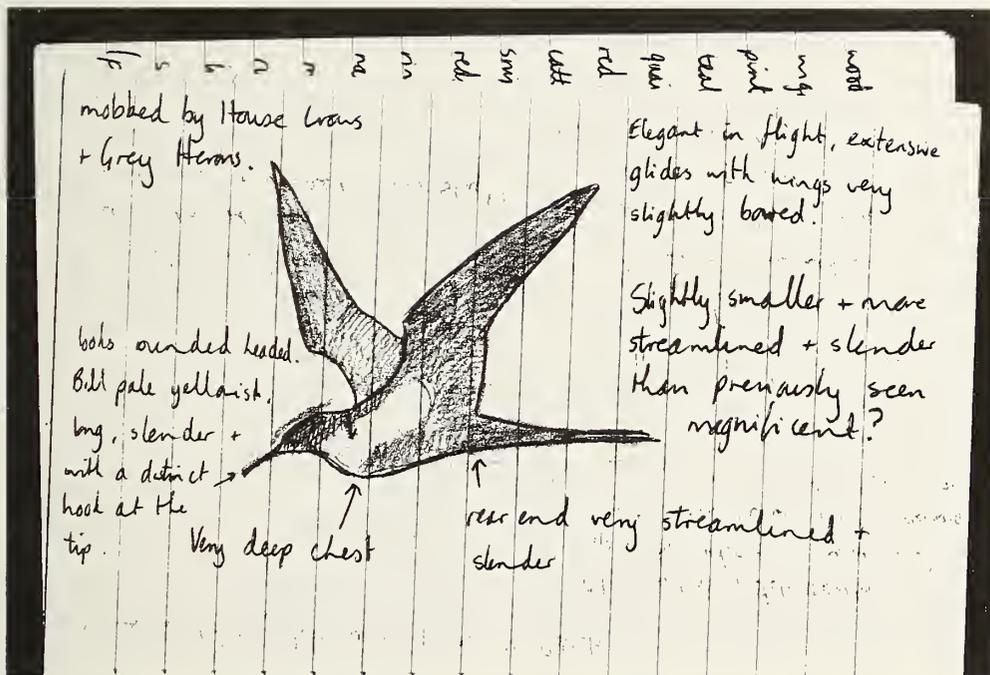
Lesser Frigatebird in Israel: new to the Western Palearctic

Roger Riddington and Jane Reid

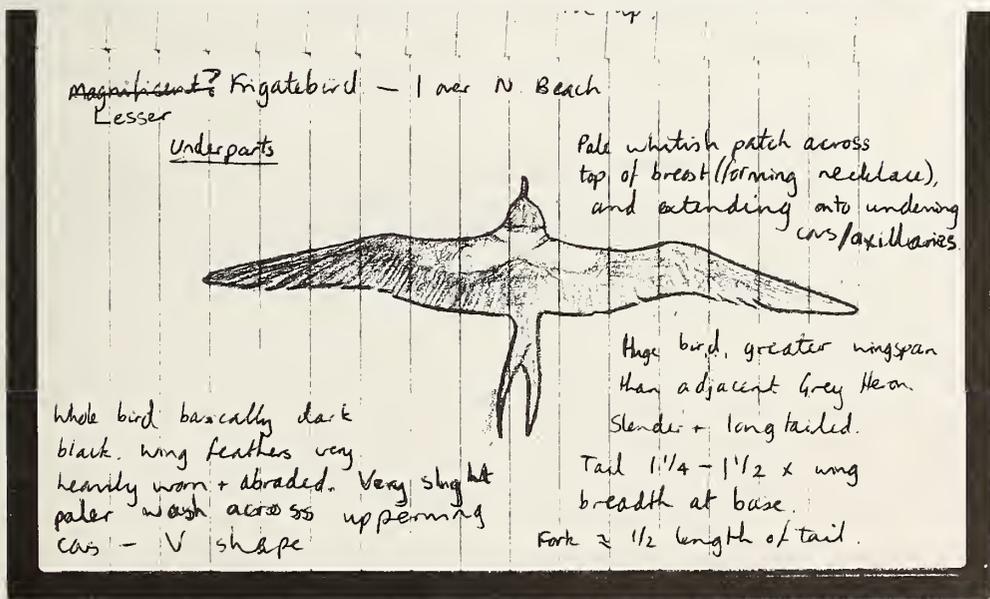
Monday 1st December 1997 was the last day of our two-week birding trip to Israel, one which had successfully combined many of the local 'specialities', some late migrants and, following a summer in Shetland, some welcome hot sunshine. We spent our last hours covering some of Eilat's best birdwatching sites on foot. As our time drew to a close, there was little evidence of new migrant arrivals, so we opted to finish up at North Beach, scanning through the seabirds and waders present there. We soon located a first-winter Kittiwake *Rissa tridactyla* (a rare visitor to the Red Sea and, probably, the same one as that which had been seen there four days earlier), whilst a confiding Greater Sand Plover *Charadrius leschenaultii* invited careful scrutiny of its bill-structure and

general proportions. There were, however, few birds, and we were in relaxed, end-of-trip mode. Suddenly, at about 15.30 hours, JR looked up and shattered the calm, yelling 'Frigatebird!'. There, almost overhead rather than miles out to sea, was, yes, a frigatebird *Fregata*. We watched, transfixed, as this supremely elegant creature circled lazily above the North Beach coastline for fully three or four minutes, pursued by an angry Grey Heron *Ardea cinerea* and a small swarm of House Crows *Corvus splendens*. Indeed, it was sufficiently close for us mentally to compile some reasonably detailed field notes. Visibility was excellent, the weather sunny and warm, with a pleasant light northeasterly breeze and clear, sharp light. In due course, the bird drifted out to sea. A little stunned, but not really appreci-

Heading drawing: Lesser Frigatebird *Fregata ariel* being mobbed by House Crows *Corvus splendens* and Grey Heron *Ardea cinerea*.



Figs. 1 & 2. Pages from Jane Reid's field notebook, showing Lesser Frigatebird *Fregata ariel*, Eilat, Israel, 1st December 1997.



ating the full gravity of the situation, we dutifully made notes and sketches. JR had previously seen Magnificent Frigatebird *F. magnificent* in Brazil, whilst RR had no previous experience of the family at all. Our travelling library did not help much; clearly, specific identification would have to wait.

Within 15 minutes, the frigatebird obligingly reappeared, again close to the beach, allowing us to check our field notes. When it disappeared a second time, so did we, having to run to catch our shuttle bus to Ovda airport.

Several hours later, we arrived at Bob Arnfield's house in East Putney, having walked

through a light covering of snow in southwest London. As we sat ensconced in a warm kitchen, reference to Peter Harrison's *Seabirds* (1983) suggested Lesser Frigatebird *F. ariel* ... and the magnitude of the sighting gradually began to sink in. A first for the Western Palearctic! More careful and thorough research in the following days confirmed the initial identification, and RR collated our field notes and submitted them to the Israeli Rarities Committee via Hadoram Shirihai. The record was duly accepted, and published in *British Birds* (91: 242).

Description

The following description is a copy of that submitted to the Israeli Rarities Committee.

Size, structure and jizz

Clearly a frigatebird *Fregata*. Close to the size of the pursuing Grey Heron in terms of overall length and size, but with much more slender, pointed wings, with very long 'hands'. A very long tail, in the characteristic 'pincer' shape of a frigatebird. The bird's underbody showed a rather prominent breast keel, not unlike a heron. The bill was long and slim, and strikingly pale, ivory-coloured. In shape it recalled a shearwater *Calonectris/Puffinus*, and it appeared about as long as the bird's head. JR considered that the bird was smaller and more slender than Magnificent Frigatebirds that she had seen in Brazil in 1995. She remembered the wingshape of Magnificent as strikingly 'triangular' (i.e. with a rather straight trailing edge, and sharply angled leading edge - e.g. photo 399 in Harrison 1987). The wings of the Eilat bird were more uniformly slender and angled.

The flight action was rather buoyant and

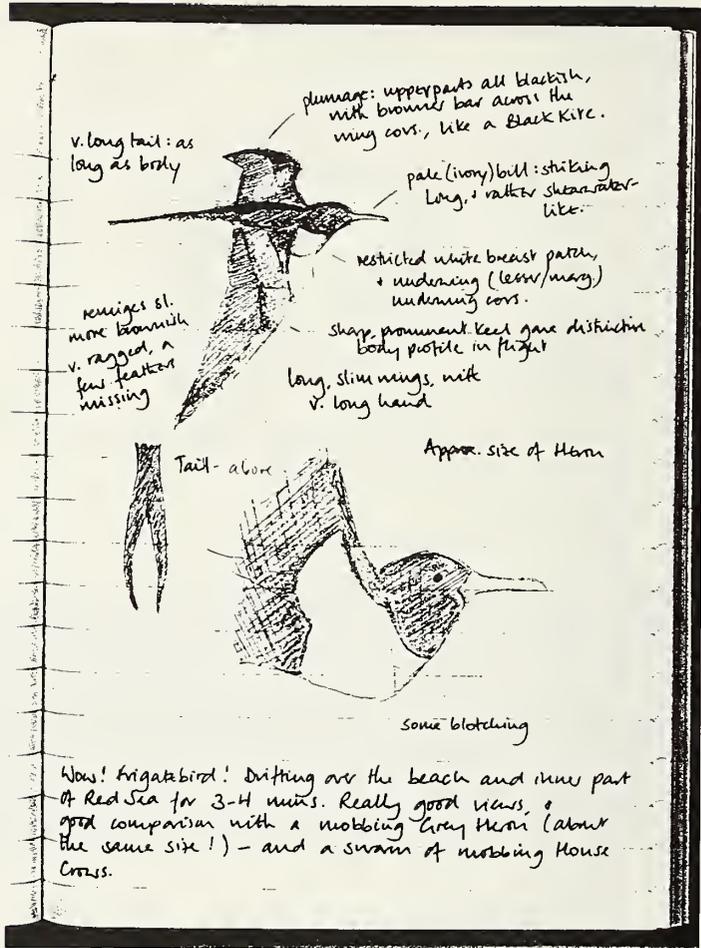


Fig. 3. Page from Roger Riddington's field notebook, showing Lesser Frigatebird *Fregata ariel*, Eilat, Israel, 1st December 1997.

lazy, unhurried with deep wingbeats: not unlike a gigantic tern *Sterna*. Although clearly responding to its pursuers, it did not seem unduly perturbed, and was able to avoid them with reasonable ease.

Plumage

Basically, the plumage was dark, blackish. This was relieved only by:

- (1) A paler, diagonal bar across the upperwing-coverts - the so-called alar bar. This was browner, not sharply contrasting, and to RR recalled the upperwing pattern of Black Kite *Milvus migrans*.
- (2) Restricted whitish belly and 'tongue' of white extending onto the underwing-coverts.

The latter was clearly crucial to this bird's identification. The pattern of white is best

shown by the accompanying field sketches made at the time (which are original, and not added to after reference to identification material). In summary, there was a clear white patch on the mid-breast, which did not extend onto the lower breast or belly. RR remembered clearly that the upper border of this (on the upper breast) was smoothly rounded (as shown in the sketch). JR noted that the dark belly extended into the white breast area in the shape of an inverted 'U' (again, see sketch). A marked indentation of white extended onto the underwing in the form of a solid, rather smooth tongue: at the time, RR judged it to extend onto both the underwing lesser and marginal coverts. There was some dark mottling or blotching on the breast, at least at the top of the white area.

Bare parts

Bill pale, ivory-coloured. Colour of legs and feet was not noted at the time: they were not striking or obvious and may therefore have been dark.

Wear

The remiges were quite ragged, showing moderate to heavy wear, and were slightly but visibly browner than the blacker coverts. There were small gaps in the remiges on both wings, in the middle of the tract (i.e. inner primaries/outer secondaries).

Discussion of identification

We are well aware of the complexities of specific identification of frigatebirds (e.g. Harrison 1983: 'At sea identification of frigatebirds [is] notoriously complex and represents, perhaps, the most difficult identification challenge in any seabird group'). We are also acutely aware of our own lack of experience with this family. Our views of the Eilat bird were, however, very good, allowing us to record objectively the crucial patterns of the underbody and the underwing. We believe that these are sufficient to identify this individual with certainty as a Lesser Frigatebird. The following outline of the process by which we arrived at our conclusion summarises our available identification information in relation to the Eilat bird.

The prominent, solid white spur on the underwing-coverts at once rules out Greater Frigatebird *F. minor*. The remaining four

species in the genus *Fregata* all possess a white underwing spur in certain age/sex-related plumage types. The relatively restricted white patch on the underparts, covering no more than half of the breast/belly, and certainly not reaching the rear belly, rules out Ascension Frigatebird *F. aquila* and Christmas Frigatebird *F. andrewsi* (both of which, in all plumages that show a white underwing spur, also show an extensive white underbody, extending across the entire belly: Harrison 1983). This leaves only Magnificent Frigatebird. On that species, the underwing spur is very different in nature from that on Lesser Frigatebird, being formed by narrow white edges to the axillaries, creating an indistinct spur. The spur of the Eilat bird was solid and quite distinct. Furthermore, the solid white breast with adjoining spur is shown only by adult female Magnificent (all younger plumage stages with underwing spur show a dark breast band across the centre of more extensively white underparts). Adult female Magnificent has the spur adjoining the rear part of the underparts, which themselves terminate in a sharp 'V'. Both of these are features that do not fit our observations of the Eilat bird.

Age and sex

The Eilat bird had a dark, blackish head, which rules out all immature female and juvenile stages of Lesser Frigatebird, leaving adult/subadult female or immature/subadult male. The pattern of white on the underparts of the Eilat bird (see sketches) most closely fits with the pattern of an immature male, possibly a 'first-stage' immature male (Harrison 1983). We can find no relevant information about moult (in relation to the state of the remiges) to help with ageing. For example, del Hoyo *et al.* (1992) stated that 'pattern of moult in frigatebirds is not well-known and there appears to be a lot of individual variation'. Flight feathers are not moulted during the breeding season; primary moult takes about three months to complete.

Distribution

The breeding range of Lesser Frigatebird is centred on Australia and the central Pacific islands, with a small population in the South Atlantic (Harrison 1983; del Hoyo *et al.*

Alan Tate



26. Lesser Frigatebird *Fregata ariel*, Tuamotu Islands, March 1997.

EDITORIAL COMMENT

British Birds has, in the past, deliberately chosen not to publish papers documenting individual occurrences of rare birds outside Britain & Ireland, on the grounds that the most appropriate place for these to appear is in the relevant national or regional journals. Looking at the mirror image, we might not be entirely happy if the definitive paper documenting a bird new to Britain were to be published in, say, an Austrian or an Australian journal merely because the bird had been discovered by Austrian or Australian observers when they were on holiday in Britain. In this case, however, the Israeli Rarities Committee has requested that we publish the full details of this occurrence, and we are very happy to do so. We shall assess future such requests on their merits.

On behalf of the Israeli Rarities Committee, Hadoram Shirihai has commented as follows: 'The present members of the Israeli Rarities Committee are Barak Granit, Ehud Dovrat, Eyal Shochat and Hadoram Shirihai. The Committee was established in 1987, and, owing to the country's small number of experienced local observers, the Committee often consults with other European committees or other experts when dealing with difficult or lesser-known vagrants. As most records still come from visitors, it is often important to get an opinion on the observers' reliability from their own country's rarities committee. Our official

1992). Whilst the adults are thought to be fairly sedentary (del Hoyo *et al.* 1992), immatures are known to wander widely, with previous records from as far north as Japan and even Siberia. Thus, it is perhaps not too surprising that Lesser Frigatebird has now occurred in the Western Palearctic.

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publishing place for Israeli records is in "European news" in *British Birds*. The address of the Committee is P.O. Box 4168, Eilat 88102, Israel.

'Acceptance of the first Israeli record of Lesser Frigatebird (Roger Riddington & Jane Reid), 1st December 1997, Eilat, Israel. Even with only two of the four members of the Israeli Rarities Committee having had field experience of Lesser Frigatebird when examining the description, and despite the fact that the bird was not photographed, the record was fully accepted, based on the following criteria:

1. The description submitted to the Committee was of the standard required for such a record.
2. By the way in which the observers described the bird's behaviour, shape, size and plumage characters, and in relation to the normal field conditions (e.g. light) in the area (see note below), it is possible to evaluate the following two points:
 - a. The observers are experienced and reliable (as also shown by the other birds reported by them during the same trip).
 - b. It is possible to exclude misidentified (even though only superficially similar) Brown Booby *Sula leucogaster* or skua *Catbaracta/Stercorarins*. So, the bird can clearly be accepted as a frigatebird *Fregata* (e.g. by size, shape, flight mode, general plumage characters, structure and colour of bill).



Alan Tate

27. Lesser Frigatebird *Fregata ariel*, Tuamotu Islands, March 1997.

3. The bird provided good, prolonged views, allowing the observers to assess, objectively, the specific, crucial details.
4. Thus, the main issue to be checked carefully was whether the record could be accepted as Lesser Frigatebird and was not another species of frigatebird.

SIZE/STRUCTURE/JIZZ: Close to the size of Grey Heron *Ardea cinerea* (i.e. the wingspan); uniformly slender and pointed (and angled) wings, with very long "hands"; very long tail. Considered smaller and more slender than Magnificent Frigatebird *F. magnificens* (in comparison with one of the observer's previous experience with that species in Brazil, not long before the observation at Eilat). Buoyant and lazy flight action, with unhurried deep wingbeats.

PLUMAGE: Restricted, but solid and quite distinct, "tongue" of white extended onto the underwing-coverts. A clear white patch on the mid-breast (covering no more than half the breast/belly and with some dark blotching on the breast, at least at the top of this white area); impression of the dark of the belly extending into the white breast area in the shape of an inverted "U".

'On the basis of these points, the record was accepted as referring to Lesser Frigatebird.

'This record is another outstanding instance of a seabird reaching the Western Palearctic region from the Indian Ocean through the Red Sea. For such species, however, there is often a lack of good identification references, and these are frequently birds with which European and Israeli observers are unfamiliar. We recommend that European birders bear in mind the effect of the strong desert light, which often creates problems in a high-salinity tropical sea area such as that at Eilat. Such conditions often make birds look larger, much paler and more contrastingly patterned. From about midday, the light over the Bay of Eilat, to the west and southwest of North Beach, causes birds to look much darker or even fully black. The same applies to days with low-pressure systems, when the heat-haze over the water sometimes makes birds look very different. Moreover, many of the rare seabirds that come to Eilat are worn and sometimes strongly bleached, creating misleading plumage patterns. So, beware!



Compiled by David Gibbons

You are what you have eaten: stable-isotope analysis and conservation

Traditionally, bird migration has been studied by marking individuals in one location and subsequently relocating them by resighting or recovery. More recently, radio and satellite transmitters have helped, though are restricted to use with species large enough to carry them. Now, there is a new method: stable-isotope analysis, recently reviewed by Hobson (1999). This approach is probably best explained by giving some examples.

In North America, the ratio of hydrogen to deuterium (an isotope of hydrogen) in precipitation varies across the continent, being deuterium-enriched in the southeast and deuterium-depleted in the northwest. The deuterium 'signature' of a particular geographical location becomes fixed in tissues grown at that location via an organism's diet, so a feather grown on the breeding grounds will have a signature that is characteristic of that area. Thus, by catching a bird on its wintering grounds, pulling a single feather, analysing its deuterium signature and comparing this with known geographical patterns of deuterium ratios, it is possible to determine

where the bird bred. For example, deuterium values in the feathers of Black-throated Blue Warblers *Dendroica caerulescens* collected on their Caribbean wintering grounds showed that these birds originated from the northern part of the species' breeding range in continental North America (Chamberlain *et al.* 1997).

Carbon isotopes can provide information on recent dietary history. For example, plants grown in cooler, moister conditions have depleted values of one particular carbon isotope (^{13}C) compared with those grown in hot, dry areas. American Redstarts *Setophaga ruticilla* that winter in Jamaican moist forests have depleted ^{13}C compared with those inhabiting poorer, drier scrub (Marra *et al.* 1998), a pattern mirroring that of their insect prey. Those birds that arrive back early on their North American breeding grounds have depleted ^{13}C compared with those arriving later, and are in better condition when they arrive. Thus, by using carbon-isotope analysis, it was possible to demonstrate the importance of wintering habitat quality: birds that winter in moist

forest arrive back earlier and in better condition and are likely to breed more successfully than those wintering in scrub.

Stable-isotope analyses have been used to trace the origins of ivory from African Elephants *Loxodonta africana*, to clarify the migration routes of shearwaters (Procellariidae) and Bowhead Whales *Balaena mysticetus*, and to show that the movements of nectar-feeding migratory bats (Chiroptera) are timed to coincide with the flowering of their nectar supply. The use of stable-isotope analysis for conservation science is growing fast and, as more and more of the isotopic patterns in nature are identified, will become a very valuable tool.

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From the Rarities Committee's files

The occurrence of Moustached Warbler in Britain

There can be few species on the British List so shrouded with doubt and controversy as Moustached Warbler *Acrocephalus melanopogon*. There have been five records accepted, involving ten individuals. Two records, concerning three individuals, are from the period 1950-58 and will form part of the review of rare birds of those years currently being undertaken by a subcommittee of the BBRC. Perhaps the most amazing record is the first for Britain. This is of a pair and three fledged young in Cambridgeshire in 1946. Despite the widespread scepticism about this latter record, both the BBRC and the BOURC have reviewed it on several occasions in the past and have both always fully supported continued acceptance of the record. Neither committee has ever found any reason for disbelieving what has been written and the details undoubtedly add up to Moustached Warbler. Readers can form their own views, as a full set of notes

was published in *British Birds* (40: 98-104) and repeated in *Birds New to Britain and Ireland* (Sharrock & Grant 1982), where a colour painting by the late Dr Eric Ennion of one of the birds (*Brit. Birds* 41: frontispiece) was reproduced in black-and-white, and all the other drawings and paintings, which have never before been published, are included here (figs. 1-13).

Two records have been accepted during the period since the formation of the BBRC: one trapped at Wendover, Buckinghamshire, on 31st July 1965, and one at Angmering, West Sussex, on 18th August 1979. The BBRC has reviewed these two records and come to the conclusion that there was no doubting the identification of the Wendover bird, which was not only trapped and fully measured, but also subsequently seen by Kenneth Williamson. The description of the Angmering bird is less precise and the BBRC feels that, as it does not completely

exclude a worn adult Sedge Warbler *A. schoenobaenus*, it is no longer acceptable.

The full details of the Wendover bird have never been published. We have decided to reproduce the description in full, as not only does it prove conclusively that this was a Moustached Warbler, but it also describes a little-known plumage of the species. The notes include full in-hand details from the ringers involved and a short note from Kenneth Williamson who, at the time, was one of the World's experts on warbler identification and had recently completed his identification guides for ringers.

'An adult Moustached Warbler was caught at a small reservoir near Wendover, Buckinghamshire, at about 16.30 GMT on 31st July 1965. The bird was not seen in the field at any time; all the following notes were made with the bird in the hand.

'In general appearance it resembled a very worn adult Sedge Warbler *Acrocephalus*



Colin Bradshaw



Colin Bradshaw

28 & 29. Adult Moustached Warbler *Acrocephalus melanopogon* of eastern race *mimica*, Karatas, Ceyhan Delta, Turkey, April 1994.

schoenobaenus with a broad white supercilium and a strikingly white throat but lacking the dark crown. In this respect it was not typical of Moustached Warbler according to the general descriptions given either in *The Handbook of British Birds* or *Identification for Ringers 1* by Kenneth Williamson.

General body moult was in progress and the two centre pairs of tail feathers were one-third grown. There was no sign of moult in the primaries or secondaries.

The following description was taken:

UPPERPARTS: forehead, crown and nape brown with blackish bases, new feathers on the crown appearing blacker where emerging from sheath. Mantle and scapulars sandy-brown with black bases. Back, rump and uppertail-coverts uniform brown. Supercilium white, from nostril over, and extending ca. 5 mm behind, the eyes.

UNDERPARTS: malar region and ear-coverts whitish brown slightly darker behind the eye. Sides of neck pale brown. Chin, throat, centre belly, axillaries and underwing-coverts white. Breast, flanks and undertail-coverts white suffused with buff. Upper breast buffish wash on white.

TAIL: new feathers blackish-brown with paler fringes, old feathers faded blackish-brown. WINGS: Primaries and secondaries faded blackish-brown with paler fringe on outer web and whitish fringing on inner. Primary coverts blackish-brown with paler edge to outer web. Greater and median coverts blackish-brown with paler brown edges. Lesser coverts dark centres with sandy-brown fringes.

MEASUREMENTS AND STRUCTURE:

Wing 55 mm.

Tail (with two central pairs not fully grown) 50 mm.

Bill from skull 11.5 mm.

Tarsus 19.5 mm.

Primaries

1st 4.5 mm longer than primary coverts.

2nd 4 mm shorter than wing-point.

3rd-5th equal longest.

6th 2 mm shorter.

7th equal to 2nd.

10th 6 mm shorter than wing-point.

3rd-5th emarginated outer webs.

Notch on inner web of 2nd well down secondaries (13.5 mm from tip of primary).

Notch on inner web of 3rd 4 mm below tips of secondaries.

Secondaries 1 mm shorter than 10th primary.

Longest tertial equal to secondaries.

Tail rounded, outer 8 mm shorter than available longest, two centre pairs one-third grown.

SOFT PARTS: Bill, upper mandible black, lower yellowish horn with purplish tinge along lower edge towards tip and sides at cutting edge black on front half of the mandibles. Tarsus pinkish yellow. Feet, purplish tinge at joints, otherwise yellowish. Soles ochre. Mouth: fleshy parts pale yellow, tongue canary yellow, inside of mandibles purplish white. Iris rich umber.

D. N. Makepeace, D. R. Rose,

Miss R. F. Levy

Kenneth Williamson had added a note to the description, which was sent to the secretary of the BBRC:

'The Moustached Warbler was brought to my house for examination, and, although I looked at it closely, I made no notes, since I was assured that a full description had already been taken.

'On measurements, wing-formula and other structure, the bird was undoubtedly *melanopogon*; the plumage was all right and suggested the typical race and not the paler-headed (and generally more olive) eastern form, and yet the crown of this bird was unexpectedly pale. The effect may have been due to excessive wear and bleaching, as

the brown feathers appeared to be old and worn, the new ones darker. The bird was well advanced in body-moult and was renewing the middle pair of rectrices.

Whilst working at the British Museum on my *Identification Guide to the Acrocephali* etc. I saw no specimen which resembled this in head plumage, but equally I saw none in this advanced state of moult. I do not recall anything peculiar about the ear-coverts: they were slightly darker than the cheeks, and the facial pattern was clearly that of Moustached, not Sedge. In any event, as I have mentioned above, the small size and the characteristic wing-formula (which I checked in both wings) ruled out anything but *melanopogon*.

It would be fair to say that, before this recent circulation, there were several sceptics on the BBRC. None remained, however, after they had read the notes, and the present Committee unanimously accepted the record. Grahame Walbridge summed it up on the circulation when he wrote:

'It really was pleasantly surprising to read these two accounts (the Cambridgeshire and Buckingham records). I suppose there will always be critics of the breeding pair (1946) but I can honestly say that I can find no valid reason to doubt what has been written, a view also held by the late Bernard Tucker. And, more than fifty years on, his excellent summary of the account accords pretty well with my own views now. The Buckinghamshire individual in 1965 is straightforward; it was trapped, the measurements and wing formula confirming beyond doubt that it was indeed an adult Moustached Warbler of the nominate form which had started its full moult. Adult Sedge Warblers do not undergo moult until they reach

winter quarters. The description is very interesting because the bird has much of its body plumage worn (bleached) and consequently, in many respects, does not accord with what one might expect *melanopogon* to look like. It is also fairly clear that Moustached can show a considerable range of leg colour, certainly more than I was aware of (i.e. from pink-yellow through to dark grey/blackish!).

Moustached Warbler has two races. The nominate race is a resident or summer visitor to the Mediterranean region as far east as western Turkey and as far north as Austria, Hungary and Ukraine. The eastern race *mimica* breeds in south and east Turkey, the Levant, the Transcaucasus and Caspian area and winters in the Middle East and northwest India.

Both races can be distinguished from Sedge Warbler, the only obvious confusion species, with careful observation, although this is more difficult with eastern birds, which differ from the nominate race in being slightly larger with longer wings and are noticeably paler and duller. Moustached Warbler has a different tail shape from that of Sedge Warbler. It is more smoothly graduated, but can sometimes look rather blobbed, is frequently cocked, and appears noticeably longer and fuller than the tail of Sedge Warbler. This long-tailed appearance is due, in part, to the relatively short primary projection, equal to one-quarter to one-half (depending on the race) of the exposed tertials compared with three-quarters on Sedge. With exceptional views, the wing formula can be seen, including the first primary extending well beyond the primary coverts (always shorter than the primary coverts on Sedge); the wing-point formed almost jointly by the 4th and 5th primaries (3rd on Sedge); and the 2nd primary

falling well short of the wing-point (usually almost equal to the wing-point on Sedge). Other structural features which can be seen when observed carefully are that Moustached Warbler has a finer and more spike-like bill than Sedge Warbler and can appear longer-legged (pers. obs.).

Most nominate Moustached Warblers are brighter and a deeper rufous colour than Sedge Warbler. The head pattern is always more distinct, with the crown usually unstreaked blackish with a paler centre (usually streaked, with marked contrast between pale centre and black lateral crown stripe on Sedge). There is a broad, white or grey-white, often square-ended supercilium which can be suffused with greyish cinnamon near the nape (usually narrower, tapered at both ends and creamy on Sedge). The eye-stripe is black and is broader behind the eye (usually dark brown and thinning behind the eye on Sedge) and merges into the dark-edged pale-centred ear-coverts with the characteristic narrow dark moustache, which contrasts markedly with the white throat. On Sedge Warbler, the ear-coverts are a more-uniform olive-brown, which contrasts less with the throat, and there is a minimal, if any, moustachial stripe.

The upperparts of nominate Moustached Warbler are a distinctive deep rufous, with broad blackish streaks on the mantle, but with an unmarked nape extending onto the neck sides in an obvious rufous 'shawl'. The unstreaked rufous rump does not contrast with the rest of the upperparts, whilst Sedge Warbler, which has grey-brown upperparts, streaked when fresh but almost unstreaked when worn, and a rusty rump, can show quite marked contrast. The tertials of Moustached Warbler are black-centred with rusty edges and there is a rusty panel in the secondaries. The underparts of Moustached Warbler are also dis-

tinctive, with a white throat, off-white central breast and belly and an extensive rufous wash over the lateral breast and flanks.

Although Moustached Warblers of the eastern race *mimica* are also brighter and a deeper rufous colour than Sedge Warbler, this is less obvious, so eastern birds more closely resemble Sedge Warblers. This potential for confusion is compounded by a variety of other features. The primary projection is longer, though not so long as on Sedge Warbler. The head pattern can also more closely resemble Sedge Warbler, with a paler crown, more-obviously pale-centred ear-coverts and slightly less-obvious moustachial stripe. The intensity of the wash on the lateral breast and flanks is less on birds of the eastern race, but Sedge Warbler never shows any significant rufous wash. Interestingly, because of the general greyness of the upperparts of eastern Moustached Warblers, the rufous shawl can appear more obvious, but there never seems to be significant contrast with a rusty rump, as shown by Sedge Warblers. Despite all the above caveats, eastern Moustached Warbler is still a very distinctive bird.

The two species can possibly also be separated on call, with Moustached Warbler having a sharp 'tic' or 'chack', somewhat different from the low 'tuc' of Sedge Warbler, although both species have a similar alarm call, 'churr'. Observers would, however, need to be very familiar with the wide variety of calls used by both species before these could be used as an aid to identification.

It is apparent from the description of the Buckinghamshire individual that late-summer or early-autumn records may be more problematic. The plumage of adult Sedge Warblers is worn at this time of year, and some of the features, particularly the dark cap and whitish super-

cilium, can become more like those of Moustached Warbler. At the same time, as this record shows, Moustached Warbler can have a much less striking appearance. Observers would be well advised to consider the warning given in *Birds New to Britain and Ireland*, which still applies today:

'Strong caveats are necessary,

however, in relation to some adult Sedge Warblers, especially worn and faded individuals in summer and autumn, which not infrequently show an almost wholly blackish crown (due to abrasion of the pale tips of the central crown feathers), and a supercilium which is decidedly whiter and better demarcated than on the perhaps more

familiar juveniles and first-winters. Such individuals, seen briefly or in lighting conditions or surroundings which give an impression of rufous coloration to the plumage, provide an obvious identification trap. Thus, for a firm identification of a vagrant Moustached Warbler, attention to other confirmatory characters is advisable.'



A. S. Thom



A. S. Thom

Figs. 1 & 2. Field sketches of Moustached Warblers *Acrocephalus melanopogon* made at Cambridge Sewage-farm on 5th August 1946.

Curv., low, and
 rather de
 with long
 in the
 + 10

viewed by a
 dim light
 a very close
 range
 to both trees
 is very much
 of white
 - and very
 brown



Crown of head is
 preponderantly dark
 black-brown - dark in
 centre and very dark just
 above supercilium, which
 streak on this dark
 ground are three rather
 ill-defined darkish
 chestnut brown streaks.
 Under mandible is paler than
 upper and tip of brown-yellowish to base



Sketches of
 1st. "rose bush"
 bird - probably
 taken 6.8.46
 The other bird
 seemed to me slightly
 lighter in plumage
 and rather more
 on the point
 of being a
 female

A. S. Thom



6/8/46

A. S. Thom

Figs. 3 & 4. Field sketches of Moustached Warblers *Acrocephalus melanopogon* made at Cambridge Sewage-farm on 6th August 1946.



A. S. Thom

Figs. 5-7. Field sketches of Moustached Warblers *Acrocephalus melanopogon* made at Cambridge Sewage-farm (probably during the period 9th-20th August 1946).



A. S. Thom



A. S. Thom



A. S. Thom



A. S. Thom



A. S. Thom



? ♀
 Flanks. white brown
 -ish suffusion -
 eye-stripe black - buff
 general in lesser
 less rufous.

A. S. Thom



? ♂
 Flanks strongly
 rufous - eye-stripe
white. Cervical
 rufous on back
 well defined.

A. S. Thom



A. S. Thom

Figs. 8-11. Paintings of presumed female, presumed male and fledgling Moustached Warblers *Acrocephalus melanopogon* based on field sketches (figs. 1-7).



Fig. 13. Field sketches of Moustached Warblers *Acrocephalus melanopogon* made at Cambridge Sewage-farm on 8th August 1946.

EDITORIAL ACKNOWLEDGMENT

We are grateful to Dr Tim Melling and the BOU Records Committee for the loan of the archive material presented in figs. 1-13.

Dr Colin Bradshaw
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ZEISS Recent BBRC decisions

This monthly listing of the most recent decisions by the British Birds Rarities Committee is not intended to be comprehensive or in any way to replace the annual 'Report on rare birds in Great Britain'. The records listed are mostly those of the rarest species, or those of special interest for other reasons. All records refer to 1999 unless stated otherwise.

Pied-billed Grebe *Podilymbus podiceps* Walton Reservoir (Surrey), 16th March.
Madeira/Cape Verde Petrel *Pterodroma madeira/feae* Flamborough Head (East Yorkshire), 12th June.
Cattle Egret *Bubulcus ibis* Martin Mere area (Lancashire & North Merseyside), 25th January to 11th May; Radcliffe-on-Trent (Nottinghamshire), 4th April; Oare Marshes (Kent), 12th-13th April.
Great White Egret *Egretta alba* Llangorse Lake (Breconshire),

21st April.
Black Stork *Ciconia nigra* Felbrigg, Northrepps and other localities (Norfolk), 8th-9th May.
Lesser Scaup *Aythya affinis* St John's Loch (Caithness), 11th, 25th January; Munnoch Reservoir (Ayrshire), 9th-10th May; Vane Farm (Perth & Kinross), 10th, 12th May; Linwood Pool (Clyde), 12th May; Balgray Reservoir (Clyde), 29th-30th May.
Killdeer *Charadrius vociferus* Aveton Gifford (Devon), 9th February.
Broad-billed Sandpiper *Limicola*

falcinellus Conwy (Caernarfonshire), 24th May; East Chevington (Northumberland), 18th-20th June.
Marsh Sandpiper *Tringa stagnatilis* New Swillington Ings (West Yorkshire), three, 3rd August.
Lesser Yellowlegs *Tringa flavipes* East Chevington (Northumberland), 15th June.
Terek Sandpiper *Xenus cinereus* Monk's Wall (Kent), 22nd May.
Gull-billed Tern *Sterna nilotica* Farmoor Reservoir (Oxfordshire), 27th July.

M. J. Rogers, Secretary, BBRC, 2 Churchtown Cottages, Towednack, St Ives, Cornwall TR26 3AZ



Notes

Great Cormorants exploiting fish concentration caused by heavy rain

At about 12.30 GMT on 16th September 1995, at Rye Meads sewage-treatment works, Hertfordshire, we went to the North Lagoon to work on a series of artificial nesting rafts for Common Terns *Sterna hirundo*. As we approached, it started to rain quite heavily, and we decided to sit out the rain in the hide overlooking the lagoon. On entering, we observed about 30 Great Cormorants *Phalacrocorax carbo*, five fishing in the water and the remainder perched on the rafts. Those in the water were thinly dispersed. The rain became extremely heavy and dense, and one cormorant was seen swimming near the rafts with its head submerged just beneath the surface of the water; it lifted its head and swallowed a fish about 7.5 cm long. Over the next five minutes, four other cormorants left the rafts and began taking fish in the same manner, only occasionally fully submerging in a dive; one was seen to catch at least six fish in probably no longer than three or four minutes (it was difficult to tell if the birds were catching fish under the

water without lifting their head to swallow with every catch). The cormorants were fishing within an area of approximately 80 m, and it was quite apparent that a large shoal of fish was being attracted to, or close to, the surface by the heavy rain, with the cormorants taking advantage of the situation. As soon as the rain eased, the cormorants stopped feeding; three returned to the raft, and one took off directly from the water and flew away.

We rowed out to the rafts, disturbing all the cormorants in the process, and noticed that a number of fish had been regurgitated and left on the raft as the cormorants had taken flight. We brought the rafts to the shore and collected the fish: nine Carp *Cyprinus carpio* (six Common Carp ranging from 10 cm to 19 cm, and three Mirror Carp ranging from 10 cm to about 12 cm).

None of us had previously witnessed Great Cormorants exhibit this type of behaviour, which appeared to us to be a totally spontaneous response to an unusual situation.

Paul Roper, Bill Rutherford, Malcolm Wilson, Simon Rasch and Tom Brerton

Rye Meads Ringing Group, 3 Dewburst Old School, Churchgate, Cheshunt, Hertfordshire EN8 9WB

Eyelid colour of American Wigeon

A first-year drake American Wigeon *Anas americana* was present near Cliffe, Kent, from 28th September to 14th October 1997 (*Brit. Birds* 91: 465). A notable feature of this individual was its strikingly whitish eyelid, recalling that of a Dipper *Cinclus cinclus*, and in good light visible with 20x magnification at about 180 m. During its stay, none of many Eurasian Wigeons *A. penelope* present showed an eyelid of similar paleness. I have since observed many Eurasian Wigeons and, although some had pale fawn eyelids, none has shown the whitish eyelid exhibited by the American species, a feature noted also by S. Dodgson on an individual present during the same autumn at Hayle, Cornwall (*Brit. Birds* 91: 465, fig. 2).

The whitish eyelid has been observed on adult American Wigeons in collections (M. J. Orchard *in litt.*), and a pair of adults in a

private collection in Suffolk was described as having 'very pale grey eyelids which look white in strong light' (E. H. Gillham *in litt.*).

This feature appears not to be recorded in any of the available literature (Beaman & Madge 1998; Madge & Burn 1988; *BWP*, vol. 1). I would tentatively suggest that it could be used, if not as a diagnostic feature of American Wigeon, at least as an indicative or supporting character when dealing with difficult eclipse, female or first-year individuals.

References

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EDITORIAL COMMENT

Keith Vinicombe has commented: 'I can confirm from my observations [at Slimbridge, Gloucestershire] that American Wigeon does have an eyelid that appears in the field to be white. In addition, the colour is highlighted by the fact that it contrasts with the dark feathering around the eye (i.e. the green band on the full-plumaged male and the dark "eye shadow" on females, juveniles and eclipse males). Eurasian Wigeons also have pale eyelids, but these are essentially buff-tinged or orange-tinged and contrast less with the browner head colour. I am not convinced, however, that eyelid colour should be regarded as anything more than a minor identification feature. Female and juvenile Eurasian Wigeons are notoriously variable, and I wonder whether a particularly pale, greyish individual would also show whiter eyelids and thus approach American in this respect.'

Paul Larkin

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Eurasian Sparrowhawks repeatedly using same nest

On 20th March 1985, at Park Lime Pits, Walsall, West Midlands, I noticed a pair of Eurasian Sparrowhawks *Accipiter nisus* nest-building. The nest was about 6 m up in Hawthorn *Crataegus monogyna* above a public footpath on a causeway dividing two pools. On 26th and 27th April, the female could be seen standing on the completed structure, and on the following day both adults were displaying over the site. No further interest was shown in the nest that year, and the pair did not occupy any other sites at the pits.

On 8th May 1986, a male sparrowhawk was observed adding material to a partly constructed nest approximately 12 m up in the fork of a Beech *Fagus sylvatica*, and at a similar distance from the 1985 Hawthorn site. By 7th June, the female was sitting, and on 1st July she was feeding three newly hatched chicks; these fledged on 26th July. In the following year, a female sparrowhawk was inspecting the 1985 nest on 21st March, but, despite regular visits to the site, I recorded no other breeding-season activity of note.

On 5th May 1988, a female was refurbishing the 1985 nest. She was sitting by 19th, and remained so until 11th June, but the nest had been deserted by 15th June. In 1989, a pair of sparrowhawks was resident at the pits, but no breeding activity was observed.

During 23rd April 1990, I saw both adults refurbishing the 1985 nest, the female then sitting from 8th May until 1st June; the nest

had apparently been abandoned by 6th June. In 1991, a pair of sparrowhawks selected a breeding site in Hawthorn scrub about 100 m from the causeway site; I first noticed the female sitting on 9th May, and four chicks had hatched by 2nd June, all fledging on 1st July.

On 24th March 1992, a female was again refurbishing the 1985 nest, and I recorded her sitting from 20th May until at least 2nd June, but the nest was deserted by 7th June. During the following season, a pair was active in an area of dense Hawthorn scrub about 200 m from the causeway, but I was unable to confirm whether breeding took place.

By 3rd May 1994, a female sparrowhawk was sitting on the 1985 nest, and on 14th June I watched her feeding two recently hatched chicks; sadly, the site had been abandoned by 18th June, and I suspected that the chicks had been taken from the nest. In 1995, I once again watched a female refurbishing the same nest on 17th April, sitting by 16th May and with two chicks on 28th June; the nest was deserted by 11th July, and I was later informed by a local dog-walker that a youth had been seen taking the young birds.

Human pressure on this vulnerable, yet apparently optimum nest site was the main reason for these failed breeding attempts, and Walsall Countryside Services, which now manages Park Lime Pits as a 10-ha Local Nature Reserve, removed the nest before the 1996 breeding season.

Although several Eurasian Sparrowhawks

would presumably have been involved in this sequence of events, only one pair was present in each breeding season from 1985 to 1995. The repeated use of the same nest

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EDITORIAL COMMENT

Prof. Ian Newton has commented: 'My record for repeated use of the same nest is four years, so seven years is substantially longer.'

Male Eurasian Sparrowhawk waiting for prey to become accessible

On 25th January 1995, glancing out of our kitchen window at Bromley, Kent, my wife and I were surprised to see, on the garden path below a raised flowerbed, a male Eurasian Sparrowhawk *Accipiter nisus* looking up intently into an overhanging lavender bush *Lavandula*. The raised bed is 33 cm above ground level and the bush about 35 cm tall. Evidently, potential food had taken cover there. From time to time, the sparrowhawk jumped up on to the flowerbed and waited there for a few moments, before returning to the path with a peculiar twisting, agile movement, turning

by this species over a period of seven years appears to be uncharacteristic. One explanation may be a lack of alternative optimum nesting sites at Park Lime Pits.

around in the air in such a way that he was able to keep his eye on the bush the whole time. We could not see the prey, but after about half an hour its nerve or patience must have given way, as the sparrowhawk leapt up again and emerged on the ground with a House Sparrow *Passer domesticus* firmly clasped, head forwards, in his talons.

Eurasian Sparrowhawks use a variety of hunting techniques, dependent mainly on speed and surprise. Standing no more than half a metre from a bush for some 30 minutes while waiting for a specific victim to break cover seems to be unusual.

David J. Montier

Eyebrook, Oldfield Road, Bickley, Bromley, Kent BR1 2LF

Golden Eagles apparently laying at roost sites

On 10th April 1994, in west Scotland, SJM was searching the home range of a pair of Golden Eagles *Aquila chrysaetos* for an active nest. He had already checked the four known eyrie sites without success, although one of the nests had been recently built up. At the western end of the home range, however, he located a roost on a small crag, below which he recovered, in addition to pellets, feathers and droppings, some small shell fragments of an egg which he assumed to have been laid by a Golden Eagle. On 30th April, he returned to the site, climbed on to the roost ledge, and recovered the remains of a broken egg that was wedged under a rock below the roost; it would appear that the egg, later confirmed as that of a Golden Eagle, had rolled off the sloping ledge, where it had apparently been laid, and had broken as it became wedged under the rock. Later that day, both adult eagles were seen soaring

together over the home range, suggesting that they did not have an active nest. The roost site was 1.8 km from the built-up nest, and the male of this pair was found dead on 7th October 1994.

Early in the season, video cameras had been placed (under licence) at two of the eyries, including the one that had been built up. It is possible that this disturbance deterred the eagles from using either eyrie. Snow was also lying well into the laying period in 1994.

On 13th March 1995, in Dumfries & Galloway, CJR watched a female eagle fly off a built-up eyrie. It was assumed that she was close to or had started laying. On 23rd March, he found a freshly broken eagle egg beneath a roost some 8 km from the eyrie, but within the same home range: the albumen and egg membrane were still soft and pliable, and the heavily marked shell appeared very fresh; the

egg was considered to have been laid very recently, perhaps even that same day. A single eagle was seen briefly above the roost. On 27th March, the pair of eagles was seen at the original eyrie, and on 2nd April a clutch of two lightly marked eggs was present. The breeding attempt was successful, and one chick fledged in early July 1995.

The 1995 roost is often frequented by this pair of eagles, and no intruding eagles were identified, either before or after the broken egg was found. A three-egg clutch has not been laid by this pair since 1971, since when there has been at least one change of female.

Sean J. Morris and Chris J. Rollie
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Juvenile Golden Eagle 'attacked' by sheep

On 20th September 1994, in west Scotland, I observed a juvenile male Golden Eagle *Aquila chrysaetos* chasing a herd of about ten female Red Deer *Cervus elaphus* and making strikes on the ground, tearing up sods of grass. At one point, he stooped at an adult ewe that had been lying down and touched her on the back with his talons. The sheep immediately stood up and turned to face the eagle, which was hanging in the wind about 1 m above her head; she reared on her hind legs towards the eagle three times, but no contact was made and the eagle eventually

Sean J. Morris
RSPB, 25 Ravelston Terrace, Edinburgh EH4 5BN

Although the broken egg was heavily marked, it is well known that these markings can fade rapidly and it would not, therefore, be safe to assume on this evidence alone that two females were involved.

Dr Jeff Watson (*in litt.*) informed us that he knew of four other records, all in west Scotland, of Golden Eagles laying on or near roosts. Three of these were also in years of late snowfall and cold weather, and he thinks that there may be a link between this and eagles abandoning nesting attempts and ejecting eggs at roosts, where they would be spending much of their time.

landed about 1 m from the sheep. The latter immediately ran towards the eagle and head-butted the raptor so hard that he rolled over, before he took off and carried out further strikes at bits of wool lying in the grass.

As this eagle had only recently fledged, in early August, it seems likely that his actions were 'play' associated with the development of hunting behaviour. Ellis (1979, *J. Wildl. Manage.* 43: Supplement) recorded similar behaviour involving a juvenile Golden Eagle chasing White-tailed Deer *Odocoileus virginianus*.

Common Kestrel robbing Eurasian Sparrowhawk

I read with interest the note concerning a Common Kestrel *Falco tinnunculus* robbing a Eurasian Sparrowhawk *Accipiter nisus* (*Brit. Birds* 88: 485). In all the reported cases of food robbery by this falcon, however, the kestrel has robbed other avian predators from 'a short distance away' or by 'hovering down on it' or 'suddenly appearing'. The distance which a Common Kestrel will fly to rob a sparrowhawk may therefore be of interest.

On 8th December 1979, in west Galloway, Dumfries & Galloway, a male Eurasian Sparrowhawk landed on a fence post beside a kale field in open marginal land. Five

R. C. Dickson
Lismore, New Luce, Newton Stewart, Wigtownshire DG8 0AJ

minutes later, he flew about 10 m and dropped into the kale, emerging with a Linnet *Carduelis cannabina* in his talons; he flew to a gorse bush *Ulex* and landed below it. A male Common Kestrel, which 17 minutes earlier had landed on an Ash tree *Fraxinus excelsior* on higher ground about 800 m away, flew down and landed on a fence post beside the gorse; the falcon hopped along three fence posts, landed on top of the gorse and entered. There was a flurry of wings on the ground, and shortly afterwards the sparrowhawk shot out of the bush, leaving the kestrel in possession of the Linnet.

House Martin nests falling

On 11th July 1995, while surveying House Martins *Delichon urbica* near Marden, Kent, I was shown a series of nests that had recently been found on the ground beneath a colony where 12 nests were still in position. The first had contained three young and an egg, the second four young and the third five.

On 22nd August, I revisited the site and discovered just seven nests still in place and 12 areas from which nests had fallen. On this occasion, I was able to discuss the circumstances with John Collins, a farm worker who has taken an interest in the breeding martins. He reported that House Martins had always bred at this particular site during the 27 years that he had worked there; he considered that more were present in 1995 than in 1994, that the young had fledged from the remaining nests, and that the cause of the problem must be the exceptionally hot, dry conditions.

The birds nest on the east wall of a large storage building that backs on to a triple oast. The nests are at least 10 m above the concrete courtyard, and details of the nesting wall are shown in fig. 1. The weatherboarding and the soffit are of white-painted timber; the paint is flaking, as it has been about 17 years since it was painted. There are,

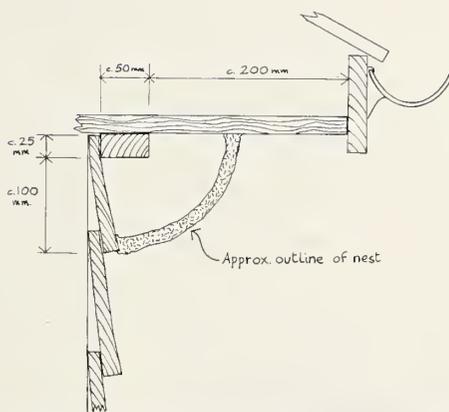


Fig. 1. Position of nests built by House Martins *Delichon urbica* on building in Kent (redrawn by R.J. Prytherch from sketch by Don Taylor)

however, no obviously flaked areas where the mud had been stuck. Mr Collins is of the opinion that most of the nests fall each year and that the birds build new ones. From what I could see, at least three showed evidence of 'patching'. The depth of the overhang, along with what Mr Collins says, virtually rules out any interference, human or otherwise.

Don Taylor

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EDITORIAL COMMENT

Prof. D. M. Bryant has commented: 'I have spent a lot of time removing House Martin nests in spring before the birds' return and replacing them with nestboxes. This facilitates access for research and ringing. It is obvious that some nests are quite secure while others "come away" with very little encouragement. The latter are at least one and, I think, usually several years old. I suspect that martins could not distinguish insecure nests from others, and certainly readily settle in and refurbish old nests of all kinds. All the fallen nests ... that I have seen have been "old" nests from the previous or earlier years, and have occurred as an occasional event at a colony. So, martins which settle in old nests certainly run a risk of a collapse (and getting a large load of parasites), but save on the time and effort of nest-building. I do not know of any newly built martin nests falling down in the same season, however ... Even so, I can imagine that martins might occasionally build against a surface that is too shiny, or flakes away, and so does not provide a firm hold. As I say, I have not noted it, nor do I know of examples, but can see [that] it may occasionally occur, especially perhaps where the whole nest is fixed to a painted surface (as seems to apply here). I suspect that, as the writer suggests, a very dry spell might be the trigger for a nest-fall of this kind.'

These contributions have all been assessed by the eight members of either the Behaviour Notes Panel or the Identification Notes Panel.



Letters

Peregrine Falcons nesting on electricity towers

After a 20-year absence, the first breeding Peregrine Falcons *Falco peregrinus* returned to their traditional cliff sites in Dorset in 1986. My wife and I are now monitoring 16 territorial pairs along the coast between Poole and Lyme Regis. In addition, there are at least four pairs using pylons, or towers as they are properly called. Tree nests abandoned by other species do not attract Peregrines, and there is a shortage of suitable quarries in the county.

The 45-m-high National Grid steel structures might not seem comfortable homes, but they deter human egg-thieves and they have the added advantage of providing all-around viewing, whereas cliff eyries offer a restricted arc of vision, mostly directed seawards.

National Grid towers come in two main designs: (a) suspension towers, where the run of the power line is straight and the conductors hang on insulators suspended vertically from three horizontal arms, and (b) deviation towers, where the line changes direction and the insulators are stretched out from the arms horizontally. Suspension towers offer no nesting possibilities for the falcons, whereas deviation towers have strengthening 'boxes' at the ends of their three arms which can accommodate up to three Peregrine eyasses. There are two designs of these boxes: one has an open top and closed ends, where there is no risk of eggs rolling out, and the other has a lid, but entry and exit are via an open end. So far, the pair using one of the open-ended boxes has ejected a pair of Jackdaws *Corvus monedula* after the crows had built a nest, which has ensured the safety of its eggs among the nesting material. The middle arm, which is longer than

the other two, is favoured, and the birds choose the 'box' best masked by the insulators from likely human viewers.

Peregrines seem to favour towers where the power line runs along rides between pine trees, although in one case where there are no tree stands near a suitable deviation tower they use one in the middle of a field. In the other cases, it is difficult to keep the birds in sight when they fly and hunt, unlike watching cliff-nesters hunting over the sea.

A disadvantage of towers is that the eyasses have to leave their 'boxes' in order to wing-flap. Watching them do this on a windy day, whilst they balance on narrow steel bars or climb up steeply sloping slats and slither down again, is nerve-racking, and the young falcons have sometimes fallen off before they were able to fly. In two cases where this occurred, the parents fed the young in nearby trees until they fledged successfully and rejoined their siblings.

It seems likely that tower-reared Peregrines will themselves breed inland on towers. I now scan every tower carefully for the telltale bulge of a head, which may be all that shows if the bird is perched behind the crossbar of an arm. Luckily they show a predilection for perching at the top of towers, and frequently copulate there.

Cliff-reared Peregrine Falcons are often quite unworried by their first encounter with Man after leaving the nest, and I have been within 5 m of a newly fledged Peregrine on many occasions, once being struck on the foot by one which appeared to be trying to land on my companion's white sun-hat. Pylon-bred Peregrines are very different, and seem to have a

strong instinctive mistrust of Man, preferring to keep well above human beings.

Ravens *C. corax* also use towers, but they build twig nests against an upright. At one location, Peregrines and Ravens have occupied adjacent deviation towers for three years.

For the past two years, one pair of Peregrines has used an old nest of a pair of Carrion Crows *C. corone* built on a smaller non-National Grid tower.

The purpose of this letter is to draw attention to the use of electricity towers as nest sites by Peregrine Falcons, and to encourage other observers to scan these artificial additions to the landscape so that, if the habit is spreading, this is documented.

Edmund Harwood

Wadswell, Hayborne Common, Horton, Wimborne, Dorset BH21 7JG

EDITORIAL COMMENT

Nick Dixon, who is researching the use of artificial structures by Peregrine Falcons, has commented: 'Peregrines have been recorded nesting on man-made structures, including civic buildings, high-rise flats and bridges in recent years, particularly as they recover their range in southern England. I was previously aware of seven pairs of Peregrines nesting on towers, but not of such a proportion of a county's population utilising them. I am keen to have more information on Peregrines nesting on towers, or any other non-natural sites, in the UK.' Readers are invited to send information, which will be treated in strict confidence, to Nick Dixon, 3 Churchgate Cottages, Drewsteignton, Devon EX6 6QN.

Habitat recording

While I may share Dr J.T.R. Sharrock's dislike of completing habitat forms for bird surveys ('What, no running water?': *Brit. Birds* 92: 386-388), I do not believe that editorial space is an appropriate forum in which to air personal grievances.

I also fail to understand why Dr Sharrock omitted to mention the name of the survey to which he was referring, when it must have been obvious to the majority of *BB* readers that it was the Breeding Bird Survey, organised by the BTO. Surely, it would have been more correct to have approached the BTO directly with his concerns about this particular aspect of the survey, rather than writing, in effect, an open letter?

Moss Taylor

4 Heath Road, Sberingham,
Norfolk NR26 8JH

Hear! Hear! & Hurrah! Thank goodness to have it said by some-

body with sufficient ornithological clout to be noticed. I refer to 'What, no running water?' (*Brit. Birds* 92: 386-388).

J. R. Neighbour

Tanyard House, Fen Street,
Nayland, By Colchester, Suffolk
CO6 4HT

Congratulations on your recent article (*Brit. Birds* 92: 386-388).

At the onset of the Breeding Bird Survey, I complained vigorously to the BTO about the inordinate amount of time that had to be devoted to form-filling. I am a trained observer, but with less-qualified botanical skills than Dr Sharrock. I took to copying the information on my habitat forms from one year to the next - and discovered, to my surprise, that this is approved of by the BTO. Every now and again, however, I do a detailed survey instead of just noting changes - which like Dr Sharrock's are probably only crop changes. I am

horrified at the different interpretations that I make when looking at the same habitat on different occasions. I am much relieved that even a botanist has difficulty deciding 'levels'.

Michael B. Lancaster

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Surrey KT15 1TB
MBL@Tenbel.demon.co.uk

EDITORIAL COMMENT

Although the example used was the BTO's BBS, there was no intention to point the finger at one organisation. Constructive criticism of the methodology had previously been made to the BTO, but no plans to make any amendments had resulted. The BTO did receive a copy of the text of the 'open letter' prior to its publication. A response from the BTO is in preparation.

Single-observer records: unjust treatment?

In the April 1999 issue (*Brit. Birds* 92: 212), I read with dismay the suggestion that single-observer sightings of extreme rarities should be treated with extreme caution by the British Birds Rarities Committee. In my view, the adoption of a policy of rejection for such records would be unnecessarily hostile and detrimental.

Most birdwatchers would agree that the BBRC carries out a valued function in a professional manner. Without trying to humble the Committee, it should, however, be remembered that its work has real merit only if it is supported by the birdwatching community.

Some birdwatchers do not see their hobby as a competitive pursuit or seek recognition of their exploits. These observers

may simply submit records from a feeling of obligation and duty, and not because they gain pleasure from what can become a difficult and time-consuming chore. I would consider it more than likely that some observers might simply choose not to submit if they considered that their records would be treated with discrimination on the basis that they were the sole observer. If an element of the birdwatching community fails to submit records, the effect could snowball, with other observers feeling a reduced feeling of obligation.

Perhaps, rather than the suggestion that some records are treated with increased caution, the Committee should be looking at ways to simplify and encourage the process of record

submission? Fewer observers may participate in local birdwatching, but, with more observers now having overseas experience and extensive reference sources than ever before, perhaps it is time to reduce rather than increase acceptance standards?

So, what are the consequences of accepting erroneous records? Records of rarities are extremely interesting, but I personally cannot think of a scientific purpose for such records. Scientific findings have credibility if they are based on the statistical analysis of large data sets. Any analysis of rarities is therefore bound to provide vague and inconclusive results, given the very fact that sightings of rare birds are rare. For me, the rarity reports provide hours of fascina-

tion, rather than a scientific data set. In such a light, the odd record which is accepted erroneously is not of critical importance.

I may look at birdwatching through rose-coloured spectacles, but I feel that the hardcore birdwatching community is increasingly sceptical of records

of birds which its members do not witness. I personally preferred the day when people marvelled at a fortunate observer's luck, rather than trying to dismiss a record out of hand. Reading the circumstances of the day, and trying to imagine and relive the excitement of a discovery, will

always be more exciting to me than a defensive article justifying the Committee's actions to the sceptics.

Jon Bryant

PO Box 619, General Post Office, Connaught Place, Central Hong Kong

Against zeal; for faith

Terry Atkinson (*Brit. Birds* 90: 212) observes that, these days, 'for most records of rare birds there is a mass of corroborative evidence' and opines that 'for a single observer record ... the only sure way is to assume guilt before innocence.' The observation is correct; in 1997, 84.5% of the national rarities had at least a second witness. The opinion is his to hold, but, representing (as it does to me) the nadir of British birdwatching and recording manners, I cannot share it.

I should like to confirm that, in the case of the scores of observers whom I have met on three continents over 55 years, I shall continue to proffer my belief in their records (of any bird) without recourse to the ever-more-zealous contortions of the ornithological bureaucracies. Holy writ is not dated from 1958 and, if a retrospective or indeed posthumous vote of confidence in the lone birdwatcher and/or adventurous observer is needed, I shall be happy to propose it. After all, he

or she was our progenitor and still is.

D. I. M. Wallace

Mount Pleasant Farm, Main Road, Anslow, Burton-on-Trent, East Staffordshire DE13 9QE

EDITORIAL COMMENT

We also received a letter expressing similar views from Richard Leighton.



Looking back

ONE HUNDRED AND FIFTY YEARS AGO:

In Pembrokeshire 'Hen Harrier. [*Circus cyaneus*] Common; breeds on heaths and furzy moors. White Owl [Barn Owl *Tyto alba*] Very common; breeds in cliffs and old castles. Red-backed Shrike [*Lanius collurio*] Common...leaves us early in September. Common Whitethroat [*Sylvia communis*] As its name implies, very common; arrives the latter end of March, and a few individuals stay as late as the first week in November. Ray's Wagtail [Yellow Wagtail *Motacilla flava flavissima*] Tolerably common in small flocks, at the latter end of August and September, frequenting pasture-fields where cattle are grazing.' (*Zoologist* 8: 2640-2641, January 1850)

ONE HUNDRED YEARS AGO:

'Black-game in Suffolk...For many years Mr. Mackenzie has turned down large numbers of Black-game [Black Grouse *Tetrao tetrix*] on his estate near Thetford. They have been known to breed, but do not increase.' (*Zoologist* 4 (Fourth Series): 89, January 1900)

FIFTY YEARS AGO:

'If political conditions permit, could not the British Trust for Ornithology send one or two good field observers to make exact field-notes of the plumages of Yellow Wagtails [*Motacilla flava*], right from Wales to East Siberia?...Such an investigation might throw very interesting light on the problem of the evolution of species. H. G. ALEXANDER' (*Brit. Birds* 43: 32, January 1950)

TWENTY-FIVE YEARS AGO:

'As regards straight introductions, the addition of one or more of the European woodpeckers, which are clearly not going to make it on their own, to the fauna of our new forests is worth considering...our new breeding species seem to take a running jump at the English Channel after getting steam up across Europe; Black Woodpeckers [*Dryocopus martius*], like Crested Larks [*Galerida cristatus*] and Tawny Pipits [*Anthus campestris*], have gazed at our shores for centuries without, to bring in a fourth metaphor, taking the plunge. BRUCE CAMPBELL' (*Brit. Birds* 68: 39, January 1975)



News and comment

Compiled by Wendy Dickson and Bob Scott

Phoebe Snetsinger

It was with great sadness that we learned of the death of Phoebe Snetsinger at the age of 68 in a minibus accident in Madagascar on 23rd November 1999.

Phoebe, who lived in Webster Groves, Missouri, USA, began birding in the 1960s. She was diagnosed with cancer in 1981, when she was given just one year to live; this motivated her to travel the World in search of birds. Fortunately, her cancer went into remission, and she continued to travel and amass an impressive list. She reached 8,000 species in 1995, and the latest edition of the *Guinness Book of Records* credits her with 8,040 species (although her final tally was probably closer to 8,300); she had seen a member of every bird family and 90% of all genera. Phoebe was an excellent and extremely knowledgeable birder, and it was a privilege to travel with her.

She was a remarkable lady, who will be greatly missed by all who knew her. Our sympathies are extended to her husband and four children. (Contributed by Iain Robertson)

Global warming

A recent issue of *BTO News* was devoted to the subject of global warming, its effects on birds and how birds can demonstrate that global warming is in fact happening. Laying dates for many of our breeding species are now much earlier than they used to be. The pattern for the Chaffinch *Fringilla coelebs* fits in well with fluctuations in spring temperature over the last 60 years, even though the temperature increase worldwide has been only 0.6°C over the last 150 years. The possibility of this temperature rise doubling over the next century means that breeding-season changes are likely to be larger than anything we have seen so far. At least the Government now seems to be taking things seriously. In addition to using BTO data as one of the 13 indicators for the 'Quality of Life', birds feature in three of the 33 indicators of climate change. The species concerned are Barn Swallow *Hirundo rustica*, with its arrival dates being used as an indicator of earlier bird migrations; Chaffinch and Robin *Eritacus rubecula*, with the timing of their egg-laying dates being used as indicators of changes in the breeding seasons of birds; and Wren *Troglodytes troglodytes*, with its population levels being used as an indicator of changes reflecting the severity of winter weather.

Where would we, and more particularly the Government, be without the BTO and its numerous studies and surveys serviced by its band of volunteer observers?

There must be a BTO enquiry out there in which you could become involved. Write to BTO, The Nunnery, Thetford, Norfolk IP24 2PU.

Birds at the cutting edge

We rather infrequently mention art exhibitions in this column. If you are intending to enjoy the spectacle of 'Bewick's Swans' *Cygnus columbianus bewickii* and Whooper Swans *C. cygnus* at the Welney Wildfowl & Wetland

Centre this winter, we suggest that you leave time to look at the linocuts and woodcuts by Thelma Sykes. They are on display at the Centre until 9th January 2000. Contact Wildfowl & Wetlands Trust, Welney; tel: 01353-860711.

Vultures from the bedroom window

If you have any interest in vultures (or a wide range of other raptors), there is a new centre recently opened in southeast Bulgaria that could provide you with all that you want. The Eastern Rhodope mountain area can justifiably claim to be one of the best raptor areas in Europe. The Bulgarian Society for the Protection of Birds (BSPB) has recently opened a new visitor centre in the town of Madjarovo, complete with accommodation, restaurant and some superb viewing facilities of the local breeding Griffon *Gyps fulvus* and Egyptian Vultures *Neophron percnopterus*. This is the area where the BSPB has established vulture restaurants that are increasingly attracting Monk Vultures *Aegypius monachus* and, just occasionally, a Lammergeier *Gypaetus barbatus*. On a recent visit, we managed to watch Griffons on their nests and three species feeding, all through our bedroom window. Full details are available from BSPB (UK), 8 Woodlands, St Neots, Cambridgeshire PE19 1UE.

Raptors 2000

Under this title, a joint meeting of The Raptor Research Foundation and The World Working Group for Birds of Prey will be held in Eilat, Israel, during 2nd-8th April 2000. The programme looks like an exciting blend of lectures and excursions. We wonder, however, whether many North European raptor experts will wish to attend with the conference timed to coincide with a key period in many raptors' breeding cycle. Full details from the conference secretariat, Ortra Ltd, 1 Nirim Street, POB 9352, Tel Aviv 61092, Israel; tel: +972-3-6384444.

Young Ornithologists of the Year

Derek Toomer



30. YOUNG ORNITHOLOGISTS OF THE YEAR 1999. Matthew Slaymaker (Junior winner) and Jeremy Bird (Intermediate winner) with their prizes, Derbyshire, December 1999.

The 1999 winners received their prizes at the BTO Annual Conference at Swanwick in December (plate 30). The proceedings were introduced by Robert Gillmor (SWLA judge) and Jeff Baker (BTO judge), and the prizes were presented by Dr Gerold Dobler of *Swarovski*, representing the 11 co-sponsors.

There was no entry in the Senior age-group (18-21) in 1999, a situation that we wish to avoid in 2000. So, if you know a young bird-watcher who would like to win a pair of *Swarovski* binoculars (10x42EL for the Senior winner), a Brasher Boot Co. birding jacket, and several hundred pounds worth of bird books from Christopher Helm, Hamlyn, HarperCollins, New Holland, Pan Macmillan, Pica Press and T&AD Poyser, and a free day at the BTO conference (all three days for the Senior winner), now is the time to encourage him or her to make full use of a field notebook and then submit it in September.

Conference dates for your diary

7th-9th April RSPB Members' Weekend, York. Contact: Christine McDowell, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL; tel: 01767 680551.

14th-16th April BOU Annual Conference & AGM. Leicester. European protected bird areas. Contact: Steve Dudley, PO Box 17, Thetford, Norfolk, IP24 3ES; tel: 01842 750748; fax: 01842 755969; e-mail: steve.dudley@bou.org.uk

14th-20th August Joint American Ornithologists' Union,

British Ornithologists' Union and Canadian Ornithologists' Union Conference. Birds of the Atlantic Rim. St Johns, Newfoundland, Canada. Contact: Steve Dudley (see above).

7th October RSPB AGM. London. Contact: Christine McDowell (see above).

8th-10th December BTO Annual Conference. Swanwick, Derbyshire. Contact: Nick Carter, BTO, The Nunnery, Thetford, Norfolk IP24 2PU; tel: 01842 750050; fax: 01842 750030.

Sea-defences at Cley

Cley next the Sea, Norfolk, must be just about the most famous birdwatching locality in the United Kingdom. In recent years, it has provided home to some of the most famous birdwatchers in the United Kingdom. The Cley-Salthouse coastline on the North Norfolk coast is well and truly on the birdwatching map. Just how long it stays on the map is, however, open to debate. With rising sea-levels and the defensive shingle ridge being breached, and potentially breached more frequently, the possibility of safeguarding the famous Cley Marshes must be open to doubt. The Environment Agency has now produced a scheme, which is being presented as a planning application, that will move the existing line of defence. A new sea-wall would be built inland of the existing shingle bank, to provide improved sea defences for the wildlife-rich marshes and the villages of Salthouse and Cley. If the plans are accepted, some of the site would inevitably be lost. The net result appears to be controversy. Ideally, all important wildlife sites threatened by sea-level rise should be safeguarded. Realistically, this will not be possible.

The Cley-Salthouse area has large numbers of national and international site designations. It is probably one of the best legally protected sites in the UK. If it proves impossible to protect it - and that decision will presumably be based upon engineering and economic considerations - there is still a legal requirement to ensure that there is no deterioration of the site's nature conservation value. This could be achieved, if any of the site is lost, only by providing compensatory land of equal wildlife importance elsewhere: a very difficult thing to achieve. Whatever happens, it will certainly create a major legal precedent. Cley will be in the news yet again.

Mink on the Long Island

One of the more regrettable collateral results of the fur trade has been the introduction of predators to many offshore islands. While the worst harm has been caused by the liberation of Arctic Foxes *Alopex lagopus* that feed on seabirds in Alaska, the establishment of North American Mink *Mustela vison* farms to take advantage of cheap fish-offal has caused problems in Iceland and Scandinavia. Fortunately, Minks which escaped in the Faroes and Shetland were recaptured, and an attempt to start a new farm in Orkney was halted after a public enquiry some 20 years ago. Some did, however, escape in west Lewis in the late 1960s, and the species is now spreading south in the Outer Hebrides.

A workshop was convened by Mink Eradication Scheme Hebrides (MESH) in Stornoway on 1st July 1999. Starting with a description of the biology of the Mink in southwest Scotland, the workshop went on to look at how this species has eliminated waterbird colonies in west Argyll, the situation in Lewis and Harris, and how six wandering males have reached North Uist. MESH has found that eight gull/tern colonies are extinct, and seven more of the remaining 18 (including 277 of 934 Arctic Tern *Sterna paradisaea* nests) also failed this year.

Looking slightly farther afield was a description of how 200,000 *Coypus Myocastor coypus* were eliminated from East Anglia at a cost of over £2.5 million, and Brian Bell (New Zealand), perhaps the most famous of island predator eradicators, reported on how pests are now being eliminated elsewhere. It was decided to try to raise £1.5 million for an 18-month attempt at eradication of the Mink from South Harris to halt the species' southward spread. (Contributed by Bill Bourne)

Slender-billed Curlew protocol...

The debate surrounding the Slender-billed Curlew *Numenius tenuirostris* recorded in Northumberland in May 1998 brought home yet again to British birders just how rare this species is on an international scale. It is officially classified as 'Critical', with an extremely high risk of extinction in the wild in the immediate future (50% chance of extinction in the next ten years). Two recent publications are part of the global effort to conserve the species. A booklet entitled *The Conservation of the Slender-billed Curlew* by the Hunting Community has been produced with funding from the European Commission's 'Life-Nature' project. This information brochure is directed specifically towards hunters throughout the range of the Slender-billed Curlew. More relevant to the travelling British birder is the *Slender-billed Curlew Observation Protocol*, a document intended to improve the current level of data collection concerning the ecology of the species. It is designed to be used by a wide range of observers in diverse field conditions. Anyone who has observed, or may be in areas where he or she is likely to observe, Slender-billed Curlew should consult a copy. Contact Didier Vangeluwe, Conservation Biology Section, IRSNB, Rue Vautier 29B, 1000 Bruxelles, Belgium; tel: +32-2-627-4355.

...and in need of sponsorship

BirdLife International is in the process of producing a new book, *Threatened Birds of the World*, and is seeking sponsors to fund the over 1,200 species currently with a global-threat category. For the sum of £95, an individual can sponsor a species and have his or her name and country printed on the page with the species. There are also possibilities for non-profit-making organisations and commercial companies to sponsor species. The sample pages look impressive, with illustrations, maps, key facts, conservation measures and targets. This has the potential of being the ultimate rare-bird book. Funds raised during the sponsorship will be used to ensure that the book is completed and distributed as widely as possible. If you fancy having your name associated with one of the World's rare birds, contact Naomi Hawkins, BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA.

Targeting your bird-feeding

Some years ago, research in the USA helped people to target individual species and attract them to their gardens by careful selection of food and type of feeders provided. Now, trials commissioned by CJ Wildbird Foods and the RSPB along the lines of the American research have come up with some interesting results. For some species, the colour of the feeder is important. While human beings select dark feeders as first choice, with red in second place, the

birds change their colour preferences seasonally. In summer, their first choice is blue, while in winter, it is apparently silver. Siskins *Carduelis spinus*, as we already know, prefer red, while Goldfinches *C. carduelis* prefer green.

If you would like more information on how best to attract certain species to feed in your garden, contact James Maxwell at CJ Wildbird Foods, The Rea, Upton Magna, Shrewsbury SY4 4UB.

Wigan Flashes and possible Bitterns ...

The Leighton Moss RSPB reserve in Lancashire is one of the country's most important sites for Great Bittern *Botaurus stellaris*, but currently lacks suitable near-by sites into which the species can spread. Part of the national plan for the species is to promote an increase in the breeding population by encouraging it to spread outwards from the current nuclei. It is hoped that work now being undertaken at the Wigan Flashes will provide one additional satellite breeding site. This is very much a partnership approach involving the Lancashire Wildlife Trust, Wigan Metropolitan Borough Council (which owns much of the land) and the RSPB. The 'Wigan Flashes Working Group' has appointed Mark Champion as Project Officer, and he can be contacted at 4 Swinley Lane, Wigan, Lancashire WN1 2EB; tel: 01942-236357.

... and Cambridgeshire Fens and possible Bitterns ...

An area that has the potential to be one of the most exciting nature reserves in East Anglia could well be developed near Needingworth in Cambridgeshire. Hanson Aggregates is seeking planning permission to restore some 750 ha of quarry land to a wetland nature reserve (as opposed to its being turned back to arable) and a water-abstraction licence to take water from the Great Ouse. The eventual reserve, comprising reedbed, grassland and open water, would be capable of supporting up to 20 pairs of Great Bitterns *Botaurus stellaris* and would be managed by the RSPB. This is a long-term project: it will take some 30 years to set up as the sand and gravel are extracted and the area is restored to wetland. Decisions on the planning permission and abstraction licence are pending.

... and further news for Bitterns

The Bittern Action Plan proposes that, on RSPB reserves, there will be an additional 500 ha of reedbed with an extra 25 booming Great Bitterns *Botaurus stellaris* by 2020. There is still some way to go - perhaps 12 booming males in 1999 - but the target of new reedbeds is looking good, with some 140 ha being created at Lakenheath, Suffolk, 46 ha at Ham Wall, Somerset, and 13 ha on Anglesey. In addition, at least 40 ha of reedbed have been rehabilitated and made more suitable for nesting Great Bitterns. Add in other work that is under way in counties from Oxford to Dumfries & Galloway, and the future of Great Bitterns in the UK will not be looking poor for want of trying.

Bigger is better

The largest terrestrial nature reserve in the country is about to come into being by the merging of English Nature's Moor House National Nature Reserve (NNR) near Alston in Cumbria with Upper Teesdale NNR in County Durham. The new combined reserve will represent as

complete a range of upland habitat as is possible, covering over 7,000 ha. Joint management of the two reserves will streamline the safeguarding not only of the nesting birds, but also of blanket-bog habitats and the rare alpine flora of the high Pennines.

Soccer birds

Have you ever thought of comparing bird species with your favourite footballers? They have in Blyth. A new leaflet aimed mostly at youngsters from the award-winning WEB team (Wildlife and the Environment in Blyth) and funded by English Nature, has selected a team of birds to make up a football team. In goal, with its safe pair of claws, is the Common Kestrel *Falco tinnunculus*. The small, nippy midfielders include the Wren *Troglodytes troglodytes* and the Blue Tit *Parus caeruleus*, while for hefty strikers the Rook *Corvus frugilegus* and the Magpie *Pica pica* caught the selectors' eyes. Citing a bird's main aim of defending territory as a clear parallel with a game of football will, it is hoped, help youngsters to learn more about birds. With that in mind, the leaflet has been distributed by Northumberland County Council to all schools in the county.

Hen Harriers bold their own

The Department of the Environment, Transport and the Regions (DETR) and the Joint Nature Conservation Committee (JNCC) Raptor Working Group has released the results of the 1998 nationwide survey of the Hen Harrier *Circus cyaneus*. This shows very little change since the previous survey in 1988. In other words, the population in England remains abysmally low, the result of continued persecution, whilst the mainland of Scotland holds its population. A significant increase in Northern Ireland contrasts with a dramatic decline in Orkney. The UK and Isle of Man held 570 'pairs' in 1998 and 578 'pairs' in 1988. Further details from David Stroud at the JNCC; tel: 01733-562626.

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



Announcements

Best Annual Bird Report

To provide public acknowledgment of the high quality of local, county and regional bird reports, and to encourage and promote high standards of content and production of annual publications in Britain and Ireland. Established in 1991.

Entries should include one copy of the Report, details of number of members in club or society, name and address from whom copies may be purchased, and price (with details of p&p cost). Closing date for entries: 15th December. For full details of the rules, write to Mrs Frances Bucknell, British Birds, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

Past winners:

Suffolk (1992), Sheffield (1993), Essex (1994, 1995, 1996), Avon (1996), Norfolk (1996), Essex (1997), Dorset (1998) and Essex (1999).

Bird Illustrator of the Year

To recognise an artist for the best set of bird illustrations. Amateur and professional artists are invited to submit four line-drawings (of precise specified dimensions) suitable for publication. The subjects should be birds recorded in the Western Palearctic (Europe, North Africa and the Middle East). The winner will receive £100 and an inscribed salver, the two runners-up receive £40 and £25, and all three receive books from the sponsors, *Pica Press* and *T. & A. D. Poyser*, at a Press Reception at the Mall Galleries in London. Established in 1979.

Two additional awards are presented: The Richard Richardson Award, for the best work submitted by an artist under 22 years of age, established in 1979 in honour of Richard Richardson, the East Anglian ornithologist and artist; and The PJC Award, for a single work of merit, established in 1987 by David Cook in memory of his wife, Pauline. All the winning entries are displayed at the Society of Wildlife Artists annual exhibition and at the British Birdwatching Fair. Closing date for entries: 15th March. For full details of the rules, write to Mrs Frances Bucknell, British Birds, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

Past winners:

BIY Crispin Fisher (1979), Norman Arlott (1980 & 1981), Alan Harris (1982), Martin Woodcock (1983), Bruce Pearson (1984), Ian Lewington (1985), Chris Rose (1986), David Quinn (1987), Martin Hallam (1988), John Cox (1989), Gordon Trunkfield (1990), John Davis (1991), John Gale (1992), Richard Allen (1993), Ren Hathway (1994), Andrew Stock (1995), Dan Powell (1996), John M. Walters (1997), Paul Henery (1998) and Brin Edwards (1999);

RRA Alan F. Johnston (1979), Andrew Stock (1980), Darren Rees (1981), Keith Colcombe (1982 & 1984), Gary Wright (1983), Ian Lewington (1985), Timothy Hinley (1986), Andrew Birch (1987 & 1991), John Cox (1988), Stephen Message (1989), Antony Disley (1990 & 1992), Peter Leonard (1991 & 1993), Max Andrews (1994 & 1995) and Simon Patient (1996, 1997, 1998 & 1999);

PJC Award J. S. Lyes (1987), John Hollyer (1988), Darren Rees (1989), Andrew Stock (1990), Dafila Scott (1991), Richard Fowling (1992), John M. Walters (1993), James McCallum (1994), George Woodford (1995), Dan Cole (1996), Paul Henery (1997), George Brown (1998) and Rosemary Powell (1999).

Bird Photograph of the Year

To recognise the best and most scientifically interesting bird photograph. Up to three colour transparencies, each taken during the previous year, may be submitted by each photographer. Preference is given to photographs taken in the Western Palearctic, but those of species on the West Palearctic List taken anywhere in the World are also eligible. The winner will receive a complete 12-volume set of *Handbook of the Birds of the World*, published by Lynx Editions, and an inscribed salver; the two runners-up will receive £40 and £25; all three winners will also receive books presented by HarperCollins Publishers. An additional award of an engraved goblet and £100 is presented by The Eric Hosking Trust for the highest-placed photograph submitted by an entrant aged 25 or under. Sponsor: *HBW*. Established in 1976. Closing date for entries: 31st January. For full details of the rules, write to Mrs Frances Bucknell, British Birds, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

Past winners:

Michael C. Wilkes (1977), Peter Lowes (1978), Dr Edmund Fellowes (1979), Don Smith (1980), Richard T. Mills (1981), Dennis Coutts (1982), David M. Cottridge (1983), John Lawton Roberts (1984), C. R. Knights (1985), Alan Moffett (1986), Dr Kevin Carlson (1987), Bob Glover (1988 & 1992), Hanne Eriksen (1989 & 1990), Philip Perry (1991), Alan Williams (1993 & 1994), Mike Lane (1995), Roger Tidman (1996), Jens Eriksen (1997 & 1998) and Tony Hamblin (1999).

Thanks to the Society of Wildlife Artists and the Federation of British Artists, the award presentations will take place at The Mall Galleries.

Young Ornithologists of the Year

To encourage and recognise the talent and achievements of young birdwatchers destined to become the leading ornithologists of the future. Prizes worth over £2,000 are presented by 11 co-sponsors, to winners in three age classes (14 years and under; 15-17 years; 18-21 years). The judges assess entrants' field notebooks.

Established by the RSPB in the 1930s (run by *British Birds* since 1994). Closing date for entries: 1st September. For full details of the rules, write to Mrs Frances Bucknell, British Birds, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

Past winners:

JUNIOR Jonathan Dean (1994 & 1995), Matthew Slaymaker (1997 & 1999) and Anthony Price (1998);

INTERMEDIATE Simon Patient (1994), Matthew Harding (1995 & 1996), Jonathan Dean & Robert Martin (1997), Jonathan Dean (1998) and Jeremy Bird (1999);

SENIOR Stephen Votier (1994), Jane Reid (1995), Oscar Campbell (1996), Matthew Harding (1997) and Ben Phalan (1998).

Photographs for 'European news'

We plan to include more photographs of the actual birds mentioned in our comprehensive, six-monthly compilation of verified records from the whole of Europe, and welcome the submission of photographs of the birds concerned for consideration for publication. As with other photographs in *British Birds*, the usual payment rates will be applied.

Photographs (preferably colour prints, but also original transparencies) should be sent to Mrs Frances Bucknell, British Birds, Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

Readership Survey

The pull-out questionnaire in the July 1999 issue was aimed primarily at providing information on subscribers' opinions of the journal's various features and their choice of binoculars and telescopes. It also, however, allows us to assess various aspects of our readers' birdwatching and buying habits. Although primarily of importance to potential advertisers in *BB*, we feel that readers will also find a brief summary of interest.

About half of *BB* readers are aged 40-59, with one-quarter younger and one-quarter older. Less than half of present subscribers subscribed to *BB* prior to the journal leaving the Macmillan stable in 1980.

76% of subscribers are also

RSPB members, 55% belong to their local Wildlife Trust, 50% are BTO members, 14% belong to the BOU, 9% to the Scottish Ornithologists' Club, 3% to Bird-Watch Ireland, and 2% to the Welsh Ornithological Society.

Excluding those in public or institutional libraries, 22% of copies of *BB* are read by from one to six or more people in addition to the personal subscriber.

Unlike the glossy news-stand magazines, *BB* is kept permanently by 99% of subscribers for future reference.

BB readers also buy bird books, the average expenditure being £167 in the past year. *BB* readers buy new boots, shoes or wellingtons for birdwatching every 2½ years, a new coat or jacket for birdwatching every 3½

Free subscriptions for County/Regional Recorders

British Birds and Carl Zeiss Ltd, sponsors of the British Birds Rarities Committee, are jointly continuing to offer free annual subscriptions to *British Birds* to all the County/Regional Recorders, as our way of saying 'Thank you' to them for the hard work which they contribute to British ornithology in their 'free time'.

Photographs and drawings may be for sale

Many of the photographers and artists whose pictures appear in *British Birds* welcome the opportunity to sell their work. Anyone who wishes to obtain either photographic prints or original drawings is welcome to write (making an enquiry about availability, making an appropriate offer, or seeking the price) to the photographer or artist concerned, c/o Fountains, Park Lane, Blunham, Bedford MK44 3NJ.

years, a new pair of binoculars every five years, a new tripod every 5½ years, a new camera or lens every six years, and a new telescope every 6½ years. The average reader spent £381 on non-optical birdwatching equipment in the past year.

The average *BB* reader spent 105 days in the field in the past year. When away from home, 39% stayed in B&B accommodation, 32% stayed in hotels, 16% were camping, and 13% stayed at hostels or bird observatories.

In the past year, 62% of subscribers travelled abroad on birdwatching trips, for an average of 25 days. Most went 'under their own steam'; but 31% made use of the services of a bird-tour company.

Matt Stonton and
J.T.R. Sharrock



31. First-winter Black-throated Diver *Gavia arctica*, Suffolk, February 1999.

There are probably few *British Birds* readers who did not immediately recognise the bird depicted in November's 'Monthly Marathon' (repeated here: plate 31) as a diver *Gavia*, the only vaguely similar group being the cormorants *Phalacrocorax*, which can readily be ruled out by the bill shape.

Four species of diver occur in the Western Palearctic, and, when trying to identify them at close range, the best feature to concentrate on initially is the bill. Red-throated *G. stellata* and White-billed *G. adamsii* both have a straight culmen, and the bill is held at an upward angle. This bird clearly has a curved culmen and the bill is held horizontally, so it can only be either Black-throated *G. arctica* or Great Northern *G. immer*. The latter is significantly larger, but size is impossible to judge in a photograph of a solitary bird. Turning to the feather detail, the bird is clearly in non-breeding plumage, and the pale edges to the upperparts reveal that it is a juvenile. The head is very dark and shows no pale eye-ring and there is no suggestion of a black half-collar at the base of the neck, both of which are features of Great Northern. The white oval flank patch is strongly

indicative of Black-throated, since Great Northerns normally show a white patch that extends forward along the length of the body. Returning to the bill, while the shape could fit either species, most Great Northerns would show a heavier bill than that of this bird. Finally, the steep forehead and evenly rounded rear-crown also fit Black-throated (rather than Great Northern, which tends to show a more

angular head). From this array of features, most British bird-watchers would confidently identify the bird as a juvenile Black-throated Diver and, since this competition is restricted to Western Palearctic species, that is indeed the answer. There is however, a fifth species of diver in the World that has yet to be recorded in the Western Palearctic, but which could theoretically occur. This is the Pacific Diver (or Loon) *G. pacifica*, which is the 'Black-throated Diver' that breeds in most of North America. Its appearance is so similar to Black-throated that it was recognised as a separate species only a few years ago, and its field marks have only recently been diagnosed and described. One of the main differences in non-breeding plumage is that it lacks the white flank patch of Black-throated, so it is possible to rule out that species from our mystery bird as well.

32. 'Monthly Marathon'. Photo no. 159. Tenth stage in eleventh 'Marathon'. Identify the species. Read the rules (see page 54), then send your answer *on a postcard* to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th February 2000.



Most entrants (74%) identified this Black-throated Diver, the other 26% all naming it as Great Northern. Two of the ten leaders fell by the wayside, leaving just eight contenders each with a

sequence of eight correct answers. The leaders now are Nick Barlow (Coventry), Alex Barter (Wolverhampton), Andrew Duff (Somerset), Paul French (Wolverhampton), Palle Jensen

(Denmark), Diederik Kok (Netherlands), Peter Lansdown (Cardiff) and Peter Sunesen (Denmark).

David Fisher

Monthly Marathon Rules

1. Only current individual subscribers to *British Birds* are eligible to take part. Entrants should give their name, address and *BB* reference on their entry. Only one entry per person each month.
2. Entries must be sent by post, each one on a separate postcard, and be received at the *British Birds* Editorial Office (Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ) by the stated closing date. Every care will be taken, but, even if negligence is involved, no responsibility can be accepted for non-delivery, non-receipt or accidental loss of entries.
3. All *BB* subscribers are eligible, except members of the Editorial Board and staff of *British Birds*, Directors and members of staff of SUNBIRD/WINGS Holidays, and Directors and members of staff of our printers. (Members of *BB* Notes Panels, the Rarities Committee, and other voluntary contributors - including bird photographers, even if one of their photographs is used in the competition - are eligible unless proscribed above.)
4. To win, a *British Birds* subscriber must correctly identify the species shown in ten consecutive photographs included in this competition. The 'Monthly Marathon' will continue until the prize has been won
5. In the event of two or more *BB* subscribers achieving the ten-in-a-row simultaneously, the competition will continue each month until one of them (or someone else!) achieves a longer run of correct entries than any other contestant.
6. In the event of any dispute, including controversy over the identity of any of the birds in the photographs, the decision of the Managing Editor of *British Birds* is final and binding on all parties.
7. No correspondence can be entered into concerning this competition.
8. The name and address of the winner will be announced in *British Birds*.

Announcement: Best Bird Books of the Year

All books voted 'Best Bird Book of the Year' which are still in print are available **post free** to *BB* subscribers through *BB* Bookshop every month. Those currently in print are as follows:

- | | | |
|---|--|--|
| 1980 <i>Population Ecology of Raptors</i> by Ian Newton (Poyser) £24.50 | 1990 <i>A Handbook to the Swallows and Martins of the World</i> by Angela Turner (Helm) £27.99 | 1996 <i>The Birds of Israel</i> by Hadoram Shirihai (Academic Press) £75.00 |
| 1983 <i>Seabirds: an identification guide</i> by Peter Harrison (Helm) (3rd edn) £27.99 | 1991 <i>Distribution and Taxonomy of Birds of the World</i> by Charles G. Sibley & Burt L. Monroe, Jr (Yale) £80.00 | 1997 <i>The Historical Atlas of Breeding Birds in Britain and Ireland 1875-1900</i> compiled by Simon Holloway (Poyser) £25.00 |
| 1984 <i>Field Guide to the Birds of North America</i> by the National Geographic Society (National Geographic) (3rd edn) £12.99 | 1992 <i>Kingfishers, Bee-eaters and Rollers: a handbook</i> by C. Hilary Fry, K. Fry & A. Harris (Helm) Pbk £18.99; Hbk £29.99 | 1998 <i>A Field Guide to Birds of The Gambia and Senegal</i> by Clive Barlow, Tim Wachter & Tony Disley (Pica Press) £28.00 |
| 1985 <i>A Dictionary of Birds</i> edited by Bruce Campbell & Elizabeth Lack (Poyser) £49.95 | 1993 <i>Handbook of the Birds of the World</i> (vol. 1) edited by Josep del Hoyo, Andrew Elliott & Jordi Sargatal (Lynx Edicions) £110.00 | 1999 <i>Collins Bird Guide</i> by Lars Svensson, Peter J. Grant, Killian Mullarney & Dan Zetterström (HarperCollins) £24.99 |
| 1986 <i>Shorebirds: an identification guide to the waders of the World</i> by Peter Hayman, John Marchant & Tony Prater (Helm) £29.99 | 1994 <i>The New Atlas of Breeding Birds in Britain and Ireland</i> by David Wingfield Gibbons, James B. Reid & Robert A. Chapman (Poyser) £40.00 | By ordering all your bird books through 'BB Birdshop' (see advertising pages v & vi this month) you will help to subsidise <i>BB</i> , to your own benefit and that of all subscribers. Thank you. |
| 1988 <i>Wildfowl: an identification guide to the ducks, geese and</i> | 1995 <i>Woodpeckers: a guide to the woodpeckers, piculets</i> | |



Recent reports

Compiled by Barry Nightingale & Anthony McGeehan

This summary of unchecked reports covers 8th November to 12th December 1999.

White-billed Diver *Gavia adamsii* Filey Brigg (North Yorkshire), 12th-17th November; another, Flamborough (East Yorkshire), 13th-14th November.

Pied-billed Grebe *Podilymbus podiceps* Stanton Harcourt Dix Pit (Oxfordshire), 9th-14th November; Benbecula (Western Isles), 28th November to 2nd December.

Cattle Egret *Bubulcus ibis* Martin Mere (Lancashire), 4th-12th December.

Glossy Ibis *Plegadis falcinellus* Kilcoole (Co. Wicklow), 4th-12th December

Tundra Swan *Cygnus columbianus columbianus* 'Whistling Swan', Ardmore Point, Lough Neagh (Co. Tyrone), 25th November.

Black Duck *Anas rubripes* Bannow Harbour (Co. Kerry), 4th-5th December.

Canvasback *Aythya valisineria* Abberton Reservoir (Essex), 8th November to 12th December.

Lesser Scaup *A. affinis* Female, Knockaderry Reservoir (Co. Waterford), 13th-21st November.

White-tailed Eagle *Haliaeetus albicilla* Cley-Thornham area (Norfolk), 21st November, then other north Norfolk localities until 12th December; long-stayers in East Yorkshire present until at least 22nd November, and in Suffolk until 2nd December.

Long-billed Dowitcher *Limnodromus scolopaceus* Belfast Lough RSPB Reserve (Co. Down), 3rd December.

Franklin's Gull *Larus pipixcan* First-winter, Newport (Co. Mayo), 3rd December.

Bonaparte's Gull *Larus philadelphia* Bridlington North Bay (East Yorkshire), 27th November; Drift Reservoir (Cornwall), 28th November.

Ivory Gull *Pagophila eburnea* Aldeburgh/Southwold area (Suffolk), 7th-12th December.

Mourning

Dove *Zenaida macroura* North Uist (Western Isles), 13th-15th November.

Red-rumped Swallow Porthgarra (Cornwall), 13th November.

Bohemian Waxwing *Bombycilla garrulus* Influx into, mainly, east-facing coastal areas of England and Scotland: peak counts included 100 Holme (Norfolk) and 80 Snettisham (Norfolk), 10th November; 54 Stalham (Norfolk) and 70 Overstrand (Norfolk), 15th November; 104 Edinburgh (Lothian), 28th November, rising to 136 by 7th December; 60 Heaton (Northumberland), 19th November, and up to 160 from 23rd November; 35 Aberdeen (Grampian), 28th November; 43 Bradford (West Yorkshire), 27th November; 200 Blaydon (Tyne & Wear), 2nd December; 65 Middlesbrough (Cleveland), and 300 over Vane Farm RSPB Reserve (Tayside), 7th December;

numerous flocks of 20 or fewer.

Desert Wheatear *Oenanthe deserti* Near Rimac (Lincolnshire), 14th-16th November; with long-stayer still at Cresswell (Northumberland), to at least 16th; Holkham (Norfolk), 27th November to 7th December; Burnham Overy, 9th-12th December.

Dusky Warbler *Phylloscopus fuscatus* Abbotsbury (Dorset), 14th-15th November; Wells Wood (Norfolk), 15th-16th November; St Agnes (Scilly), 12th-13th November.

Penduline Tit *Remiz pendulinus* Two, Shapwick Heath (Somerset), 12th November; Dungeness (Kent), 2nd December; Berney Marshes (Norfolk), 5th December.

Brown Shrike *Lanius cristatus* Ballyferrier (Co. Kerry), 22nd November to at least 10th December (first Irish record).



J. Harriman

33. Brown Shrike *Lanius cristatus*, Co. Kerry, Ireland, November 1999.



Robin Chittenden

34. Desert Wheatear *Oenanthe deserti*, Norfolk, December 1999.



Rob Wilson



Phil Palmer

35 & 36. Short-toed Eagle *Circaetus gallicus*, Scilly, October 1999



J. Harriman

37. Bohemian Waxwing *Bombycilla garrulus*, Hull, November 1999.



Tony G. Collinson

39. American Black Tern *Cblidonias niger surinamensis*, Weston-super-Mare, Somerset, October 1999.



Mike McDonnell

38. Ivory Gull *Pagophila ebornea*, Aldburgh, Suffolk, December 1999.



Nic Hallam

40. Mourning Dove *Zenaida macroura*, Carinish, North Uist, Western Isles, November 1999.



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BB BookShop



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BEST BIRD BOOKS OF THE YEAR

All books voted 'Best Bird Book of the Year 1983-99' (listed in full under 'Announcements' in this issue, page 54) are available POST FREE. Please order here, giving title(s) and author(s), or on an additional sheet.

BOOK OF THE MONTH

Robson *A Field Guide to the Birds of South-East Asia* (New Holland) 104 colour plates, 504pp (Special price until 29.2.2000; thereafter £35.00)

£29.99

SPECIAL OFFERS

Ehrlich, Dobkin & Wheye <i>The Birdwatcher's Handbook</i> (OUP)	(was £8.95)	£5.00	<input type="checkbox"/>
Flegg & Hosking <i>Eric Hosking's Classic Birds</i> LIMITED EDITION (HarperCollins)	(usually £50.00)	£28.00	<input type="checkbox"/>
Snow (ed.) <i>The Birds of the Western Palearctic</i> 2-VOLUME CONCISE EDITION (OUP)	(was £150.00)	£99.00	<input type="checkbox"/>

NEW THIS MONTH

Aspinwall, Dylan, Beel & Ellison <i>A Field Guide to Zambian Birds Not Found in Southern Africa</i> (ZOS)	£19.95	<input type="checkbox"/>
Coulcher <i>The Sun Islands: A Natural History of the Isles of Scilly</i> (Book Guild)	£17.95	<input type="checkbox"/>
Francis & Shirihihi <i>Ethiopia: In search of endemic birds</i> (Francis)	Paperback £10.00	<input type="checkbox"/>
Jackson <i>Dictionary of Bird Artists of the World</i> (Antique Collectors' Club)	£45.00	<input type="checkbox"/>
Lockwood, McKinney, Paton & Zimmer <i>A Birder's Guide to the Rio Grande</i> (ABA)	Ringbound £25.95	<input type="checkbox"/>
Reeves <i>Hedgehogs</i> (Poyser)	£21.00	<input type="checkbox"/>

COMING SOON - ORDER NOW

Clements <i>Birds of the World - A Checklist, 5th Edition</i> (Pica Press) DUE FEBRUARY	£35.00	<input type="checkbox"/>
Kazmierczak & van Perlo <i>A Field Guide to the Birds of the Indian Subcontinent</i> (Pica Press) NOW DUE MARCH 2000	Paperback £19.95	<input type="checkbox"/>
Kennedy, Gonzales, Dickinson, Miranda & Fisher <i>A Guide to the Birds of the Philippines</i> (OUP) DUE MARCH 2000	Paperback £34.95	<input type="checkbox"/>
MacKinnon & Phillips <i>A Field Guide to the Birds of China</i> (OUP) DUE MARCH 2000	Hardback £60.00	<input type="checkbox"/>
	Paperback £29.95	<input type="checkbox"/>
	Hardback £55.00	<input type="checkbox"/>
Mead <i>The State of the Nation's Birds</i> (Whittet) DUE SPRING 2000	Paperback £0.99	<input type="checkbox"/>
Ranft & Konig <i>Owls: Double CD</i> DUE SPRING 2000	£24.99	<input type="checkbox"/>
Short & Horne <i>Toucans, Barbets and Honeyguides</i> (OUP) DUE MARCH 2000	£40.00	<input type="checkbox"/>
Urban, Fry & Keith <i>Birds of Africa Volume 6, Picathartes to Oxpickers</i> (Academic Press) DUE SUMMER 2000	£TBA	<input type="checkbox"/>

RECOMMENDED BOOKS

Europe & Western Palearctic

Adamian & Klem <i>A Field Guide to the Birds of Armenia</i> (AUA)	Field cover £35.99	<input type="checkbox"/>
Hardback	£39.99	<input type="checkbox"/>
Baker <i>Warblers of Europe, Asia and North Africa</i> (Helm)	£32.00	<input type="checkbox"/>
Beaman & Madge <i>The Handbook of Bird Identification: Europe and the Western Palearctic</i> (Helm)	£65.00	<input type="checkbox"/>
British Birds <i>The British Birds List of Birds of the Western Palearctic</i>	£2.00	<input type="checkbox"/>
Cramp <i>Birds of the Western Palearctic</i> (OUP) volumes 1-7, 9 - £90 each volume 8 - £95		
	<input type="checkbox"/> vol.1 <input type="checkbox"/> vol.2 <input type="checkbox"/> vol.3 <input type="checkbox"/> vol.4 <input type="checkbox"/> vol.5 <input type="checkbox"/> vol.6 <input type="checkbox"/> vol.7 <input type="checkbox"/> vol.8 <input type="checkbox"/> vol.9	
Hagemeijer & Blair <i>The EBCC Atlas of European Breeding Birds</i> (Poyser)	£55.00	<input type="checkbox"/>
Harris, Tucker & Vinicombe <i>The Macmillan Field Guide to Bird Identification</i> (Macmillan)	£14.99	<input type="checkbox"/>
Jonsson <i>Birds of Europe With North Africa and the Middle East</i> (Helm) reprint	Paperback £15.99	<input type="checkbox"/>
	Hardback £29.99	<input type="checkbox"/>
Kightley, Madge & Nurney <i>Pocket Guide to the Birds of Britain and North-West Europe</i> (Pica Press)	£11.95	<input type="checkbox"/>
Mullarney, Svensson, Zetterström & Grant <i>Collins Bird Guide - The Most Complete Field Guide to the Birds of Britain & Europe</i> (HarperCollins) BEST BIRD BOOK OF 1999	£24.99	<input type="checkbox"/>
Peterson, Mountfort & Hollom <i>Collins Field Guide: Birds of Britain & Europe</i> 5TH EDITION (HarperCollins)	£14.99	<input type="checkbox"/>
Sacchi, Ruegg & Laesser <i>Where to Watch Birds in Switzerland</i> (Helm)	Paperback £14.99	<input type="checkbox"/>

North America

Griggs <i>Collins Pocket Guide: Birds of North America</i> (HarperCollins)	£16.99	<input type="checkbox"/>
National Geographic <i>A Field Guide to the Birds of North America</i> 3RD EDITION	Paperback £12.99	<input type="checkbox"/>
Pranty <i>A Birder's Guide to Florida</i> (ABA)	£21.00	<input type="checkbox"/>
Pyle <i>Identification Guide to North American Birds Part 1. Columbidae to Ploceidae</i> (Slate Creek)	£27.95	<input type="checkbox"/>
Schram <i>A Birder's Guide to Southern California</i> (ABA)	£25.95	<input type="checkbox"/>
Taylor <i>A Birder's Guide to Southeastern Arizona</i> (ABA)	£18.50	<input type="checkbox"/>

South & Central America & Caribbean

de la Pena & Rumboll <i>Illustrated Checklist: Birds of Southern South America and Antarctica</i> (HarperCollins)	£19.99	<input type="checkbox"/>
iffrench <i>A Guide to the Birds of Trinidad and Tobago</i> (Helm)	Paperback £32.00	<input type="checkbox"/>
Howell & Webb <i>Where to Watch Birds in Mexico</i> (Helm)	Paperback £19.99	<input type="checkbox"/>
Raffaele, Wiley, Garrido, Keith & Raffaele <i>Birds of the West Indies</i> (Helm)	£35.00	<input type="checkbox"/>
Ridgely & Tudor <i>The Birds of South America</i> (OUP)	vol.1 £70.00 <input type="checkbox"/> vol.2	<input type="checkbox"/>
Rodner, Restall & Lentino <i>Checklist of the Birds of Northern South America</i> (Pica Press)	Paperback £14.95	<input type="checkbox"/>
Stiles & Skutch <i>A Guide to the Birds of Costa Rica</i> (Helm)	£40.00	<input type="checkbox"/>

Africa, Middle East & Indian Ocean Islands,

Barlow, Wacher & Disley <i>A Field Guide to the Birds of the Gambia and Senegal</i> (Pica Press)	£28.00	<input type="checkbox"/>
Garbutt <i>Mammals of Madagascar</i> (Pica Press)	£30.00	<input type="checkbox"/>
Harris, Shirihihi & Christie <i>The Macmillan Birder's Guide to European & Middle Eastern Birds</i> (Macmillan)	£17.99	<input type="checkbox"/>
Keith, Urban & Fry <i>The Birds of Africa</i> (Academic) Volumes: 1 £85 <input type="checkbox"/> 2 £85 <input type="checkbox"/> 3 £85 <input type="checkbox"/> 4 £85 <input type="checkbox"/> 5	£99.00	<input type="checkbox"/>
Kemp <i>Sasol Birds of Prey of Africa and its Islands</i> (New Holland)	£19.99	<input type="checkbox"/>

Kingdon <i>The Kingdon Field Guide to African Mammals</i> (Academic Press)	£29.95	<input type="checkbox"/>
Morris & Hawkins <i>Birds of Madagascar: a Photographic Guide</i> (Pica Press)	£28.00	<input type="checkbox"/>
Porter, Christensen & Schiermacker-Hansen <i>Field Guide to the Birds of the Middle East</i> (Poyser)	£29.95	<input type="checkbox"/>
Sinclair, Hockey & Tarboton <i>Sasol Birds of Southern Africa</i> (New Holland)	£19.99	<input type="checkbox"/>
Sinclair & Langrand <i>Birds of the Indian Ocean Islands</i> (New Holland)	£17.99	<input type="checkbox"/>
van Perlo <i>Collins Illustrated Checklist Birds of Southern Africa</i> (HarperCollins)	Paperback £19.99	<input type="checkbox"/>
van Perlo <i>Illustrated Checklist: Birds of Eastern Africa</i> (HarperCollins)	Paperback £16.99	<input type="checkbox"/>
Zimmerman, Turner & Pearson <i>Birds of Kenya and Northern Tanzania</i> (Helm)	£40.00	<input type="checkbox"/>
Zimmerman, Turner & Pearson <i>Field Guide to the Birds of Kenya and North. Tanzania</i> (Helm)	Paperback £16.99	<input type="checkbox"/>

Asia & Pacific

Coates & Bishop <i>A Guide to the Birds of Wallacea</i> (Dove)	£44.00	<input type="checkbox"/>
Grimmett, Inskipp & Inskipp <i>Birds of the Indian Subcontinent</i> (Helm)	£55.00	<input type="checkbox"/>
Grimmett, Inskipp & Inskipp <i>Pocket Guide to the Birds of the Indian Subcontinent</i>	Paperback £17.99	<input type="checkbox"/>
Gurung & Singh <i>Field Guide to the Mammals of the Indian Subcontinent</i> (Academic Press)	Paperback £17.50	<input type="checkbox"/>
Harrison & Worfolk <i>Field Guide to the Birds of Sri Lanka</i> (OUP)	Paperback £29.95	<input type="checkbox"/>
Harrison & Worfolk <i>Field Guide to the Birds of Sri Lanka</i> (OUP)	Hardback £55.00	<input type="checkbox"/>
Inskipp, Inskipp & Grimmett <i>Field Guide to the Birds of Bhutan</i>	Paperback £16.99	<input type="checkbox"/>
Inskipp, Lindsey & Duckworth <i>An Annotated Checklist of the Birds of the Oriental Region</i> (OBC)	£10.00	<input type="checkbox"/>
Jeyarajasingam & Pearson <i>A Field Guide to the Birds of West Malaysia and Singapore</i> (OUP)	Paperback £29.95	<input type="checkbox"/>
Jeyarajasingam & Pearson <i>A Field Guide to the Birds of West Malaysia and Singapore</i> (OUP)	Hardback £55.00	<input type="checkbox"/>
Kazmierczak & Singh <i>A Birdwatchers' Guide to India</i> (Prion)	£18.75	<input type="checkbox"/>
Lekagul & Round <i>A Guide to the Birds of Thailand</i> (Saha Karn Bhact)	£45.00	<input type="checkbox"/>

Australasia

Heather & Robertson <i>Field Guide to the Birds of New Zealand</i> (OUP)	Paperback £25.00	<input type="checkbox"/>
Heather & Robertson <i>Field Guide to the Birds of New Zealand</i> (OUP)	Hardback £50.00	<input type="checkbox"/>
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Simpson & Day <i>A Field Guide to the Birds of Australia</i> (Helm)	Paperback £24.99	<input type="checkbox"/>
Thomas & Thomas <i>The Complete Guide to Finding Birds in Australia</i> (Thomas)	Paperback £13.95	<input type="checkbox"/>

World

del Hoyo, Elliott & Sargatal <i>Handbook of the Birds of the World</i> (Lynx)	<input type="checkbox"/> vol.1 <input type="checkbox"/> vol.2 <input type="checkbox"/> vol.3 <input type="checkbox"/> vol.4 <input type="checkbox"/> vol.5 £110.00 each	<input type="checkbox"/>
Wells <i>World Bird Species Checklist: with alternative English and scientific names</i> (Worldlist)	£29.50	<input type="checkbox"/>

Monographs

Byrkjedal & Thompson <i>Tundra Plovers: The Eurasian, Pacific and American Golden Plovers and Grey Plover</i> (Poyser)	£27.95	<input type="checkbox"/>
Chantler & Driessens <i>Swifts</i> Second Edition (Pica Press)	£28.00	<input type="checkbox"/>
Chapman <i>The Hobby</i> (Arlequin)	£19.95	<input type="checkbox"/>
Clark & Schmitt <i>A Field Guide to the Raptors of Europe, The Middle East and North Africa</i> (OUP)	Paperback £25.00	<input type="checkbox"/>
Clark & Schmitt <i>A Field Guide to the Raptors of Europe, The Middle East and North Africa</i> (OUP)	Hardback £55.00	<input type="checkbox"/>
Cleere & Nurney <i>Nightjars</i> (Pica Press) (accompanying CD £14.99)	<input type="checkbox"/> £30.00	<input type="checkbox"/>
Densley <i>In Search of Ross's Gull</i> (Peregrine Books)	£34.95	<input type="checkbox"/>
Feare & Craig <i>Starlings and Mynas</i> (Helm)	£32.00	<input type="checkbox"/>
Forsman <i>The Raptors of Europe and the Middle East: A Handbook of Field Identification</i> (Poyser)	£29.95	<input type="checkbox"/>
Fuller <i>The Great Auk</i> (Fuller)	£45.00	<input type="checkbox"/>
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British Birds

Volume 93 Number 2 February 2000

HISTORY RESEARCH

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'European news' becomes 'The European Bird Report'

For the past 23 years, we have published in *British Birds*, at six-monthly intervals, an increasingly valuable and comprehensive compilation of records from more and more European countries. Data have been supplied by a correspondent in each country, appointed by or representing the relevant national ornithological society, rarities committee or equivalent organisation. In addition, accepted records have been extracted from every relevant journal or other publication. Thus, 'European news' has provided an accurate listing for reference purposes of all the most interesting records (including irruptions, range extensions or contractions, and population increases or decreases, as well as verified rarity records). It has, to all intents and purposes, been a European Bird Report. It has not been renamed as such, however, in deference to the Association of European Rarities Committees (which has, over the past several years, been attempting to compile just such a Report for 1994), since we had no wish to compete with such a compilation. Now that the AERC has announced that it has discontinued this attempt (*Brit. Birds* 93: 86-88), we intend to try to provide this service to European ornithologists. This will entail several changes.

First, and most important, the task has become much larger than it was when we started in 1977. This is compensated for, however, by the advances in technology, with compilation very much easier using a

computer than it was in the old typewriter-scissors-sellotape-and-tippex days, and communication much quicker by e-mail than by airmail. For the past 23 years, the compilation has been carried out anonymously by *BB*'s Managing Editor, but we are delighted to announce that, from the next report, compilation will be achieved jointly with a co-compiler, who will eventually take over as sole compiler. We recently requested help from volunteers (*Brit. Birds* 92: 612) and, from among eight first-class offers, have accepted that from Colin Davies.

Secondly, we aim to convert the current six-monthly listings into a document that more closely resembles a traditional bird report. It will probably be several years before it is possible to produce an annual report including all of Europe's records for a single year, simply because each country takes a different length of time in which to assess its records. We intend, however, to publish each report in two parts, one covering non-passerines and the other passerines, so that related records will be more likely to be published together. In time, we hope that the concept of a year's records all appearing in one report will come closer and closer to being realised.

The first part of the next pair of compilations that will form The European Bird Report, containing records from some 40 countries, is almost complete and will be published this spring.





Mike Langman

The influx of redpolls into Western Europe, 1995/96

R. Riddington, S. C. Votier and J. Steele

ABSTRACT Winter 1995/96 saw a huge influx of Common Redpolls *Carduelis flammea* and Arctic Redpolls *C. hornemanni* into Britain and Western Europe. Two forms of redpoll were involved, the nominate race of Common Redpoll *C. f. flammea* ('Mealy Redpoll') and the Eurasian race of Arctic Redpoll *C. b. exilipes*, and there is no evidence of any arrivals from other than northern Eurasian populations. Three main influxes were recorded in the north and east of Britain. The first two, in early and mid November, were immediately preceded by or coincided with substantial movements through Utsira in southwest Norway, Heligoland off the northwest coast of Germany, and Falsterbo in southern Sweden; the last of the three arrivals occurred in early December and was associated with the onset of very cold weather, but not with large movements farther north and east. On the British east coast, numbers were the largest since 1975.

Heading drawing. Two Arctic Redpolls and one Common Redpoll.

The irruption was absorbed in Britain, and no significant movements were recorded through bird observatories on southern and western coasts. Return spring migration was heavy through southern North Sea sites (which experienced little of the autumn arrival), but was much less apparent farther north.

Two species of redpoll occur in Western Europe (fig. 1). Common Redpoll *Carduelis flammea* is a familiar breeding bird and/or winter visitor throughout much of the region, while Arctic Redpoll *C. hornemanni* is a rare visitor, mostly in autumn and winter, from breeding grounds on the northern tundras of North America, Europe and Asia. Within both species, there are a number of recognisable subspecies (Knox 1988; Svensson 1992), some of which are migratory while others are predominantly sedentary (Clement *et al.* 1993). For example, both the nominate race of Common Redpoll *C. f. flammea* (widely referred to as 'Mealy Redpoll'), which breeds from Scandinavia (except the south) and Finland eastwards across north Asia, and across much of northern North America, and the Eurasian form *exilipes* of Arctic Redpoll migrate each year in varying numbers to wintering areas south of their breeding grounds. Conversely, Common Redpolls of the races *cabaret* and *islandica* (known respectively as 'Lesser Redpoll' and 'Icelandic Redpoll') are typically much more sedentary: the former breeds from Britain and Ireland, southern Norway and southwest Sweden south to the Alps, while *islandica* is confined to Iceland.

In northern breeding areas, food resources often vary markedly from year to year. As a consequence, summers when population levels are high (a result of good breeding success following a winter of abundant seed availability) tend to be succeeded by an autumn of widespread seed failure. When this happens, unusually large southward migrations occur which may be termed 'eruptions'. Later in the autumn, severe weather may compound these pressures and act as an additional stimulus for southward movement. In such years, populations which are normally sedentary may become migratory, too.

In the autumn and winter of 1995/96, an unprecedented arrival of redpolls occurred

in Western Europe. A combination of the factors described above forced birds to move west and south from their breeding grounds in Norway, north and central Sweden, Finland and northern Russia. Redpolls were recorded in large numbers throughout many parts of Western Europe, with unusually high numbers of both Mealy and Arctic Redpolls in many areas. Similar invasions have taken place in previous winters (notably 1984/85 and 1990/91), but, while these pronounced influxes have received a great deal of attention from birdwatchers, they have been rather poorly documented. This short paper aims to describe the scale, timing and subspecies composition of the 1995/96 influx, with particular reference to Britain and Ireland.

Methods

There are several problems associated with documenting invasions of common species. Large numbers of observations, from many different sites and observers, are difficult to collate and put into context. Indeed, such a blanket approach often tells us more about patterns of observer coverage than about ecological processes. Added to this, the highly variable appearance and somewhat confusing taxonomy of the 'redpoll complex' make the task even harder. Acknowledging these difficulties, we attempted to devise a methodology to minimise such biases. For Common Redpolls, therefore, we used data only from those sites where observer coverage was systematic during the 1995/96 winter, and also during the preceding and subsequent winters. Daily log counts from bird observatories in Britain and Western Europe were chosen for this purpose. Although not free from many of the biases that affect observational fieldwork, bird observatories are typically sited in important coastal migration areas, and are covered on most days, in a similar way, by the same, experienced observers. These factors mean that, for comparative analysis both within

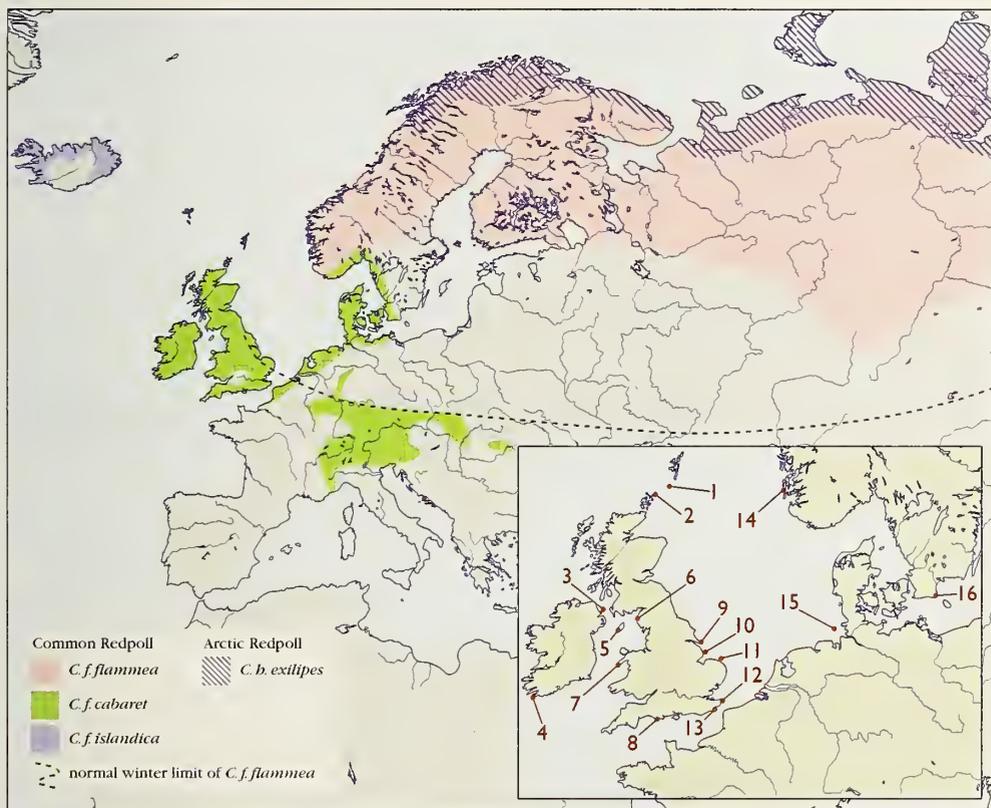


Fig. 1. Breeding ranges in Europe of Common *Carduelis flammea* and Arctic Redpolls *C. bornemannii*. Nos. 1-16 indicate location of bird observatories which provided data on Common Redpolls: 1 Fair Isle; 2 North Ronaldsay; 3 Copeland; 4 Cape Clear; 5 Calf of Man; 6 South Walney; 7 Bardsey; 8 Portland; 9 Spurn; 10 Gibraltar Point; 11 Sheringham; 12 Sandwich Bay; 13 Dungeness; 14 Utsira; 15 Heligoland; 16 Falsterbo.

and between seasons, our data are as accurate and reliable as possible without a predetermined methodology. In essence, we have sacrificed greater geographical coverage in favour of more systematic and rigorous data from a smaller number of sites.

All bird observatories in Britain and Ireland, together with four others in Western Europe, were sent a series of simple forms on which to record Arctic and Common Redpoll sightings on a daily basis from September 1995 to May 1996. Recorders were asked to differentiate recognisable subspecies of redpoll where possible, and also to distinguish between those days when there was observer coverage of the site but no redpolls were seen and those when no observers were present. Finally, they were asked to provide a monthly summary of redpoll counts in the previous and subsequent winters (1994/95 and 1996/97, respec-

tively). Thirteen British and Irish observatories responded to our request for data, as did three foreign stations, making 16 study sites in total (fig. 1).

In addition, all records of Arctic Redpolls accepted by the British Birds Rarities Committee (BBRC) for the winter 1995/96 (see Rogers *et al.* 1996-1999) were analysed. Although these data are not derived in the same systematic manner as those for Common Redpolls, they nevertheless provide an instructive insight into the distribution of this tricky species (see Votier *et al.* 2000).

Results

To investigate the magnitude and timing of the arrival in 1995/96, and to compare it with the winters immediately before and after, we analysed data from six sites in detail. These encompassed two from the east coast of Scotland (Fair Isle, Shetland, and

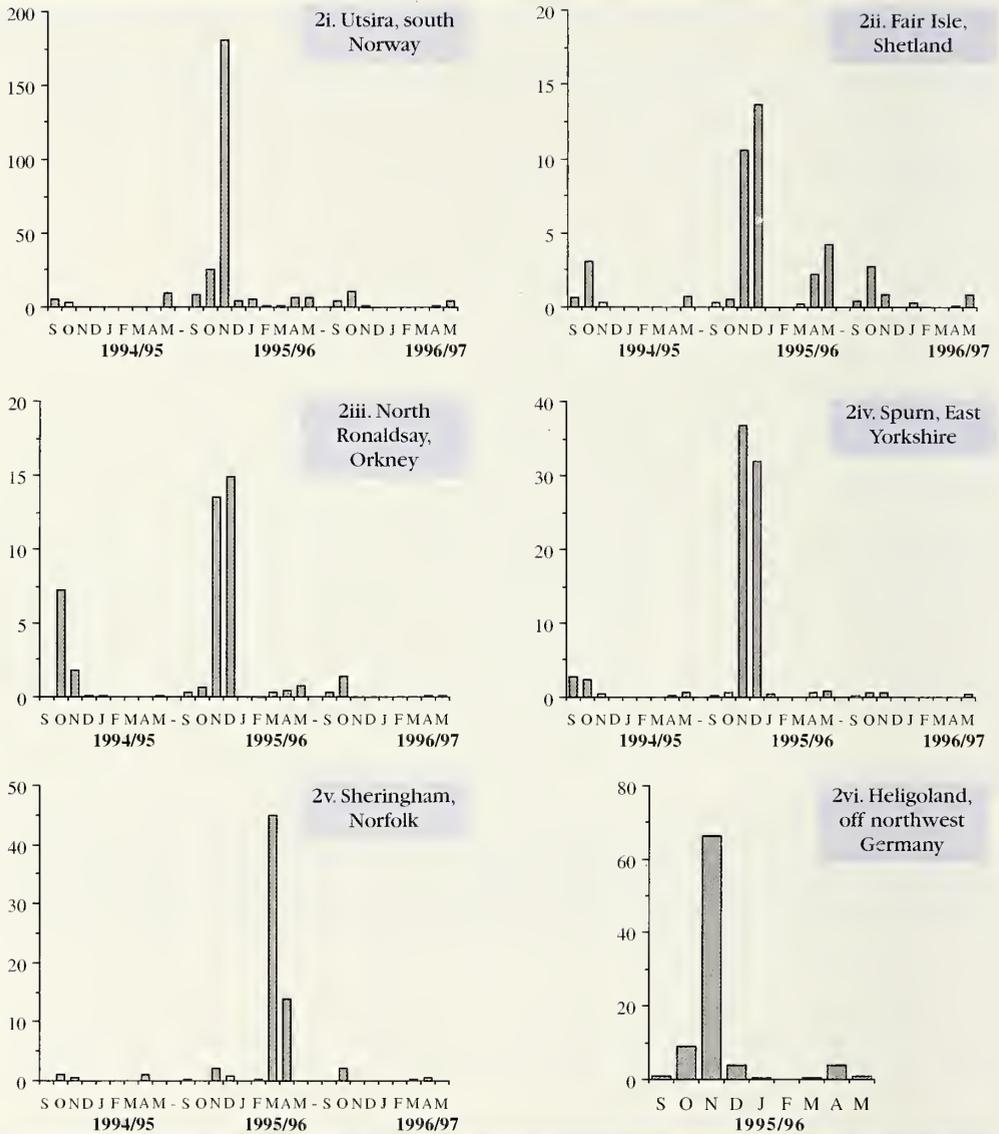


Fig. 2. Mean daily counts of Common Redpolls *Carduelis flammea* at six sites in Western Europe for each month September-May in the three winters 1994/95-1996/97. For Heligoland (2vi), data are available only for 1995/96.

North Ronaldsay, Orkney), two from the east coast of England (Spurn, East Yorkshire, and Sheringham, Norfolk), one from the west coast of Norway (Utsira) and one from the northwest coast of Germany (Heligoland). All of these sites are in areas where the redpoll invasion was pronounced. Summary data are provided for remaining sites, which either are in areas that were largely unaffected by the influx or did not have sufficient observer coverage to permit more detailed analysis.

To analyse magnitude and timing of the influx, counts of all Common Redpoll subspecies were pooled. At most sites, the majority of individuals were not assigned to subspecies with complete confidence. This is quite understandable given the difficulties of identification if views are brief, as, for example, at Falsterbo in south Sweden and at Sheringham, where a large proportion of the records are of birds passing over on active migration. Consequently, we include all 'unknown' redpolls (i.e. those not assigned

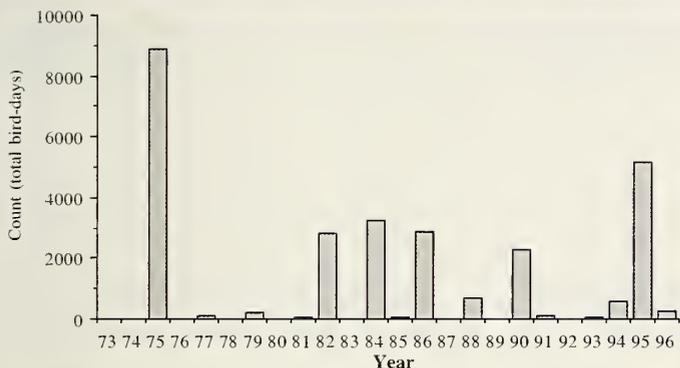


Fig. 3. Autumn counts of Common Redpolls *Carduelis flammea* at Falsterbo, south Sweden, 1973-96.

to race) in these figures, but exclude all known Arctic Redpolls. While this may introduce a small bias into our results, in that some fly-over 'unknowns' may relate to Arctics, this is likely to be negligible and to have no effect on the general patterns shown here.

Scale and timing of the influx

To assess the magnitude of the influx, we calculated, for the six sites listed above, mean daily counts of Common Redpolls for each month from September to May in each of the three winters 1994/95-1996/97 (for Heligoland, data were available only for 1995/96). These equate to 'mean bird-days' per month, but are corrected for the number of days on which a site was manned (fig. 2). This method of handling the data does not differentiate between new arrivals and long-stayers, i.e. between one redpoll present for

30 days and 30 redpolls present for one day. Indeed, the whole concept of 'bird-days' has been widely criticised as a form of analysis, but for the data available to us this is the most meaningful way to present and compare differences between sites and years.

The data in fig. 2 illustrate dramatically the magnitude of the winter 1995/96 invasion. For all of the British sites, plus Utsira, mean daily counts during

the peak month of the invasion were at least one and often two orders of magnitude greater than those during the same month in the two non-invasion winters. The quantity of Common Redpolls arriving in Western Europe meant that record numbers were registered at many sites.

Fig. 3 presents 24 years of redpoll counts in autumn (11th August to 20th November) at Falsterbo, where the daily visible-migration count has been carried out in exactly the same way and, for the most part, by the same observer during that period. This clearly identifies 1995/96 as a major invasion year. Numbers at Utsira were described as 'extraordinary', and the same is true for some British sites. For example, at Spurn, only three autumns since 1975 have produced daily totals of 20 or more Mealy Redpolls (up to 40 in October 1975, up to 46 in November 1984, and up to 94 in November

Table 1. Summary of Common Redpoll *Carduelis flammea* records at nine bird observatories in southern and western Britain and Ireland in winter 1995/96.

Observatory	Peak month	Mean daily count	Peak daily count (date)	% Mealy <i>C. f. flammea</i>
Gibraltar Point, Lincs.	January	3.85	27 (10th)	29.0%
Sandwich Bay, Kent	December	1.45	8 (5th, 17th)	24.4%
Dungeness, Kent	November	3.03	21 (4th)	0
Portland, Dorset	October	1.00	15 (18th)	0
Bardsey, Gwynedd	May	2.03	10 (6th, 17th)	0
South Walney, Cumbria	December	0.39	5 (7th)	25.0%
Calf of Man, I. of Man	May	0.48	6 (7th)	0
Copeland, Co. Down	October	0.89	3 (29th)	0
Cape Clear, Co. Cork	October	2.26	40 (21st)	unknown

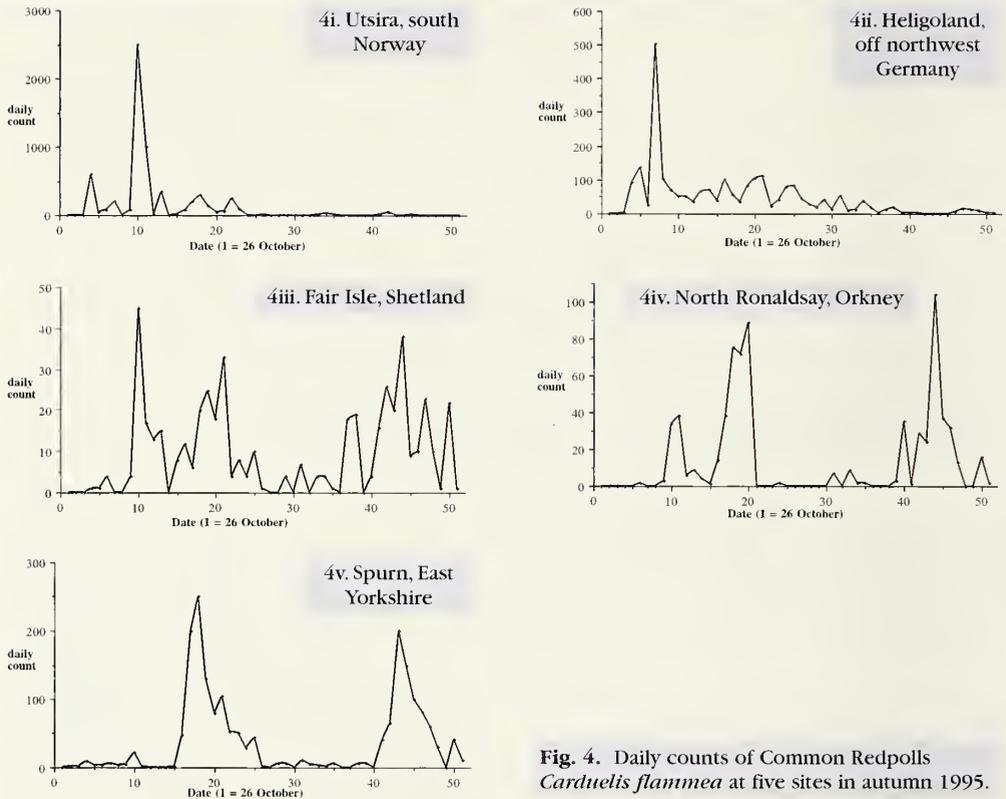


Fig. 4. Daily counts of Common Redpolls *Carduelis flammea* at five sites in autumn 1995.

1985); compare this with the peak count in 1995/96 of 250 Mealies on 12th November. Numbers of Common Redpolls at observatories in southern and western Britain, however, were very low, and the 1995/96 invasion largely petered out before reaching these areas (table 1). Indeed, both Portland, Dorset, and Dungeness, Kent, reported that the winter of 1995/96 was a very poor one for migrant redpolls.

The histograms in fig. 2 present a crude view of the timing of the influx at the sites concerned, but, in order to provide a more detailed picture of arrivals in autumn, we plotted daily counts for late October to mid December 1995 for five sites (fig. 4). In the Northern Isles, there were two main arrivals in November, on 4th and on 12th-14th; counts on both Fair Isle and North Ronaldsay were then modest until December, when there were further arrivals on 4th and 8th. At Spurn, there was only a very small arrival of redpolls on 4th November, but a pronounced influx on 11th-12th (with 250 on 12th), after which numbers decreased through the month; in December, the main arrival was on

7th, when a further 200 were recorded. The synchrony of these arrivals in the Northern Isles and Yorkshire clearly indicates that redpolls were reaching Britain on a broad front. The small numbers in November at coastal sites south of Yorkshire (including both Gibraltar Point, Lincolnshire, and Sheringham) suggest, however, that redpolls in the southern half of Britain had already made landfall farther north, and that, as the birds spread south and west, their numbers were comparatively less concentrated.

On the Continent, the major arrivals of Common Redpolls were in late October/early November. At Utsira, 600 on 29th October were followed by 2,500 on 4th November; smaller movements of 200-300 on 11th-12th November and 250 on 16th perhaps correspond with mid-November arrivals in Britain. At Heligoland, too, the first large counts were on 29th-30th October (138 on 30th), while the main arrival, of 503, occurred on 1st November; smaller movements followed in mid November, with 103 on 10th and 105 on 14th.

Table 2. Percentages of Common Redpoll *Carduelis flammea* of nominate race ('Mealy Redpoll') recorded during autumn 1995. Note that all figures for Falsterbo refer to ringing data only.

Observatory	No. of 'bird-days' 25th Oct.-15th Dec.	% redpolls identified	% Mealy <i>C. f. flammea</i>
Fair Isle, Shetland	486	100%	100%
Spurn, East Yorkshire	1,881	100%	99.7%
Utsira, south Norway	6,247	100%	99.8%
Falsterbo, south Sweden	1,091	99.5%	63.5% (and 36.4% Lesser <i>C. f. cabaret</i>)

It is interesting that, at Sheringham, counts were modest in November and December, and the large numbers were of birds returning to northern breeding grounds in spring (fig. 2v). That such movements were less marked farther north, at least in Britain, perhaps indicates that north-bound spring migrants opted for a shorter crossing of the North Sea, from southeast England.

Subspecies composition

At three of the six sites studied in detail, together with Falsterbo in Sweden, virtually all Common Redpolls were identified to subspecies during the peak period of late October to mid December (table 2). At these sites, the vast majority were Mealy Redpolls. In addition, 'almost all' Common Redpolls seen at North Ronaldsay were also Mealy Redpolls (A. Duncan *in litt.*). Very small numbers of Lesser Redpolls were reported from northern sites with the exception of Falsterbo, where over one-third of redpolls ringed were Lessers.

It is interesting also that there were no confirmed sightings of Icelandic or Greenland individuals *C. f. islandica/rostrata*, though a claim of an Icelandic Redpoll trapped on Utsira was not accepted by the Norwegian rarities committee (G. Mobakken *in litt.*). This is in marked contrast to the autumn of 1997, at least in northern Britain, where good numbers of these subspecies were recorded (Reid & Riddington 1999). This suggests that the factors stimulating the invasion originated in northern Eurasia and did not affect populations of redpolls in Greenland and Iceland.

Small numbers of Mealy Redpolls were recorded at sites where they are normally extremely scarce. South Walney, Cumbria, for

example, recorded its very first Mealy Redpolls (three singles) during December 1995. About a quarter of redpoll records at both Gibraltar Point and Sandwich Bay, Kent, during their peak months (January and December, respectively) referred to Mealy Redpolls, this being a higher proportion than normal.

Arctic Redpolls

A total of 431 records of Arctic Redpolls has been accepted by the BBRC for the period 2nd November 1995 to 29th May 1996 (Rogers *et al.* 1996-1999), completely eclipsing the previous highest total, of 90 in winter 1990/91 (Rogers *et al.* 1991-1995). During the 1995/96 winter, there were no accepted records of the nominate race of Arctic, and it seems likely that most, if not all, individuals were of the Eurasian race *exilipes*.

Monthly totals of Arctic Redpolls are listed in table 3. There was an extremely broad scatter of records, involving a total of 38 counties across Britain, although with a marked bias towards northern and eastern parts, and evidence of a general southward and westward spread as the winter progressed. Large arrivals in Shetland and Orkney during November and December contrast with an absence of sightings there during the rest of the winter, perhaps suggesting a lack of suitable wintering habitat in the Northern Isles. Early observations of individuals on the east coast of Britain were widespread, as the birds arrived on a broad front. By December, they had penetrated the central areas of Britain, with records from western counties and, remarkably, even Scilly. The broad scatter of records through January-March is probably due to the discovery of large wintering flocks of redpolls;

Table 3. Monthly totals of Arctic Redpolls *Carduelis borehemanni* in Britain, November 1995 to May 1996.

County	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Angus	0	0	2	4	0	0	0	6
Caernarfon	0	0	0	0	0	1	0	1
Cambridgeshire	0	0	3	0	0	0	0	3
Cheshire	0	1	1	0	0	1	0	3
Cleveland	1	2	0	0	7	3	0	13
Cumbria	0	1	1	0	0	0	0	2
Denbigh	0	0	0	0	2	0	0	2
Derbyshire	0	9	4	1	5	2	0	21
Dorset	0	0	0	2	0	0	0	2
Essex	0	5	0	0	1	0	0	6
Fife	0	0	0	2	0	0	0	2
Gloucestershire	0	0	0	1	0	0	0	1
Greater London	0	0	0	1	0	0	0	1
Greater Manchester	0	0	0	2	5	1	0	8
Hertfordshire	0	0	0	1	0	0	0	1
Lancashire	0	2	3	0	1	0	0	6
Leicestershire	0	5	0	0	0	0	0	5
Lincolnshire	1	11	1	1	1	0	0	15
Lothian	0	0	1	0	0	0	0	1
Moray & Nairn	0	6	0	0	0	0	0	6
Norfolk	4	12	16	36	7	0	0	75
Northeast Scotland	3	2	55	0	2	0	0	62
Northamptonshire	0	1	3	0	0	0	0	4
Northumberland	1	7	0	1	1	0	0	10
Nottinghamshire	0	1	1	1	0	2	0	5
Orkney	13	27	0	0	0	0	0	40
Outer Hebrides	0	0	1	0	0	0	1	2
Pembrokeshire	0	0	0	1	0	0	0	1
Perthshire	0	1	2	1	0	0	0	4
Scilly	0	1	0	0	0	0	1	2
Shetland	28	11	0	0	0	0	2	41
Staffordshire	0	4	0	4	6	0	0	14
Suffolk	0	5	2	0	3	0	0	10
Worcestershire	0	0	4	0	0	0	0	4
Yorkshire, East	3	5	0	0	0	0	1	9
Yorkshire, North	1	2	0	0	4	1	0	8
Yorkshire, South	0	8	1	9	2	0	0	20
Yorkshire, West	1	5	3	2	4	0	0	15
TOTALS	56	134	104	70	51	11	5	431

many apparently new arrivals may simply reflect an increase in observer awareness and more interest in searching for the rarer species, rather than genuine new arrivals. The five Arctic Redpolls recorded during May represent a tiny fraction of the many birds moving north, often too rapidly to be identified with certainty.

More specific arrival times match closely those of Common Redpolls, since virtually all Arctic Redpolls were recorded within flocks of that species. Clearly, those conditions that

prompted an irruption of the latter species also stimulated Arctics to move.

Discussion

The autumn and winter of 1995/96 witnessed one of the largest invasions of redpolls in the last 25 years, and one that was probably more widespread than the irruptions of 1984/85 and 1990/91. Mealy Redpolls formed the bulk of the invading birds, although there were also large numbers of Arctic Redpolls, and the pattern of the move-

ments suggests that they originated entirely from the northeast.

Arrivals on the east coast of Britain appeared to occur in three waves, in early and mid November and in early December, but the scale of the arrival varied at different times according to the site involved. The first wave was closely correlated with very large movements through Scandinavia and Heligoland, and, although numbers moving on the Continent remained high through the period of the second arrival, the large totals in eastern Britain in mid November may have been partly related to easterly weather conditions during that period. By the time of the third wave, which was apparent across a very broad front in eastern Britain, passage through Utsira and Heligoland had all but dried up, suggesting that the severe weather and easterly winds in early December may have contributed in large part to the major arrival in Britain, or at least to the coastal grounding of migrant birds. The invasion itself appears to have been absorbed across Britain where there were sufficient food supplies to support the immigrant birds, with records from the south and west coasts being very sparse. Return passage was noted through Norfolk, particularly in March, in stark contrast to the lack of any significant arrival there in the peak invasion period of

November-December.

Among the Mealy Redpolls was a small but significant proportion of Arctic Redpolls, with record numbers being noted by the end of the winter. The percentage of Arctics is impossible to determine, but the numbers reported are almost certainly a considerable under-estimate of the true figures involved. Intense scrutiny of three large redpoll flocks which were relatively easy to observe (at Garlogie, Northeast Scotland, and at Langham and Cromer in Norfolk) revealed the true extent of plumage variation within and between the two species (see Votier *et al.* 2000); it also resulted in much collective head-scratching, and a considerable number of submitted and acceptable records. There were many other large flocks which did not receive anything like the same attention, but which must also have contained Arctic Redpolls. Numerous individual and some collective lessons were learned by those who observed such flocks. Among the most important of these were the need for excellent views to confirm the key identification features, and also that, in good views, some relatively dull birds were identifiable as Arctics, while others which may initially have looked 'promising' were clearly Mealy Redpolls (see Votier *et al.* 2000).

Acknowledgments

We owe a great debt of thanks to all the birders who carefully observed and counted redpolls at the study sites during the three winters, and particularly those who took time to extract data and respond to our request: David Anning (Bardsey Bird Observatory), Tim Bagworth (Calf of Man Bird Observatory), Martin Cade (Portland Bird Observatory), John Cudworth (Spurn Bird Observatory), Alison Duncan (North Ronaldsay Bird Observatory), Jochen Dierschke (Heligoland Bird Observatory), Fair Isle Bird Observatory, Bill Makin (South Walney Bird Observatory), Neville McKee (Copeland Bird Observatory), Geir Mobakken (Utsira Bird Observatory), Ken Preston (Cape Clear Bird Observatory), Sandwich Bay Bird Observatory, Kevin Shepherd, Mike Young-Powell & Tim Wright (Sheringham Bird Observatory), Göran Walinder (Falsterbo Bird Observatory), David Walker (Dungeness Bird Observatory) and Kev Wilson (Gibraltar Point Bird Observatory).

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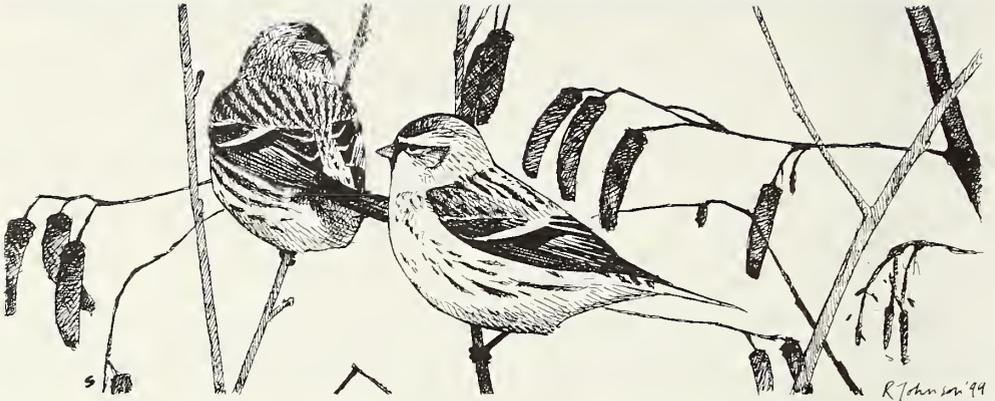
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Arctic Redpoll *Carduelis hornemanni exilipes*: an identification review based on the 1995/96 influx

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and A. M. Stoddart*

The identification of Arctic Redpolls *Carduelis hornemanni* has been exhaustively covered, and the main criteria used to separate them from Common Redpolls *C. flammea* have been well described (Lansdown *et al.* 1991; Stoddart 1991; Czaplak 1995; Millington 1996; Shirihai *et al.* 1996; Steele 1996). Nevertheless, the high degree of variation among redpolls and the possibility of subjective interpretation of a number of characters render at least some individuals extremely difficult to identify. The 1995/96 influx of redpolls into Western Europe (Riddington *et al.* 2000) gave many observers a chance rigorously to test the identification criteria against large numbers of birds in mixed flocks of Common Redpolls of the nominate race *flammea* (known as 'Mealy Redpolls') and Arctic Redpolls.

In an attempt to clarify the range of varia-

tion exhibited by redpolls, we have drawn on the huge resource of information gathered together in the form of the highest-quality submissions of records to the British Birds Rarities Committee (BBRC). In order to illustrate the plumage variation and key features of Arctic Redpoll, we also reproduce here some of the hundreds of photographs which aided the assessment of the 1995/96 records. Although, over the last five years, a combination of plumage features and structure has allowed the separation of greater numbers of Arctics in the field, there remains the occasional individual which, on present knowledge, may not be identifiable. This paper is based largely on a working set of BBRC guidelines developed by AMS, KDS, Pete Ellis and Doug Page in order to ease the task of record assessment.

In the following account, only the race

exilipes of Arctic Redpoll is considered. Although, in some cases, the nominate race could not be excluded, most (if not all) Arctics recorded during the 1995/96 influx were of the race *exilipes*, and all references are to that subspecies only. In addition, the nominate race of Common Redpoll is referred to as Mealy Redpoll, and the race *cabaret* as Lesser Redpoll.

Identifying redpolls is best achieved by concentrating on a number of key features which are subject to considerable individual variation. Other factors which may affect appearance include actions and posture, distance, light, temperature, age/sex and plumage wear: all of these need to be borne in mind when attempting to identify any individual. While some Arctics are strikingly eye-catching (plate 41), the high degree of variation and the difficulties of keeping track of individuals within often large and highly mobile flocks of very similar-looking birds (plate 42) make for one of the thorniest problems in birding. The main confusion risk is with Mealy Redpoll, but Lesser Redpoll can also present an additional identification problem.

The key features for identification are discussed systematically below, with reference to photographs. Additional characters, including bill structure, plumage density (which will influence structure), prominence of wingbars, and general size and build, are more subjective and variable, but are touched upon in the captions.

Structure

Potentially, this is almost the most useful character of all, but probably only to observers already familiar with both species. Although structural features are subtle, they seem to be more constant than plumage characters, so that the majority of Arctic Redpolls show an appearance which, once learnt, is highly distinctive. The effect is largely a result of feather density, but it manifests itself in several ways.

Although measurements overlap considerably, *exilipes* Arctics, because of their greater feather mass, appear larger and bulkier than Mealy Redpolls. This impression is heightened by the paleness of their plumage. Extra feathering around the 'face', particularly around the bill, can obscure the bill base,

which will accentuate yet further the characteristic 'pushed-in face' and 'steep-forehead' look of these already small-billed birds (plate 44). Seen head-on, Arctics show a fatter, broader head with a fat-cheeked appearance and flat crown.

The feather bulk also creates the impression of a very small eye, imparting a rather attractive 'cute' or 'naive' expression (plates 60 & 61). In side-on view, Arctics show very dense nape and neck-side feathering, so that the head merges smoothly with the body, giving the hunched, bull-necked appearance so typical of many individuals. This dense feathering of the nape, together with dense underpart feathering, lends a considerable 'depth' to the bird, contributing to its powerful, front-heavy look. From the rear, a greater breadth is usually visible across the nape, mantle and rump, producing a rather 'lark-like' impression when the bird is on the ground (plate 41). As a result of this dense plumage, Arctic Redpolls seem to have greater difficulty in keeping their rump covered, the whiteness regularly 'peeping out' much more readily than is the case with a Mealy Redpoll (plates 50, 51 & 56). Arctics also usually show shaggier feathering on the lower belly and flanks, giving a heavy rear 'undercarriage' and contributing to a long-bodied appearance (plate 41).

Because of their feather mass, the impressions given by Arctic Redpolls with sleeked-down feathers and those with fluffed-up feathers can be very different. On the ground, the birds look very long and solid-bodied, front-heavy and neckless, with a shaggy 'undercarriage' and long tail. When feeding in birches *Betula* or alders *Alnus*, they may show a similar appearance, though mitigated by their acrobatic behaviour, such as hanging upside-down and twisting to reach seeds. When perched upright, however, they gradually relax their feathers, and the final effect can be almost that of a sphere, with hugely inflated, billowing flanks and rump often overlapping, or even obscuring, the wings (plates 44, 45, 50, 51 & 56).

Bill sizes of Arctic and Common Redpolls overlap, but the 'classic' Arctic bill is small, short and relatively fine, with a straight or concave upper mandible. On some Arctics, it is strikingly tiny.

White rumps

According to Svensson (1992), a redpoll with 10 mm or more of unstreaked white on the rump will surely be an Arctic, and such birds are extremely attractive (plate 43). Although some show only 10 mm of unstreaked white (plate 44), these are still reasonably identifiable; on more extreme individuals, the depth of unstreaked white can be at least 20 mm. Other, apparently 'good' Arctics show a largely white rump with small fine streaking intermixed, which can be confusing (plate

45); this streaking can be so extensive as to resemble closely that on Mealy (plates 46-48). The variation - ranging from Mealies through young Arctics to adult Arctics - is subtle, but the extremes are distinctive (plates 49-51).

It is important to remember that dark feather bases will be more obvious as birds become more worn (particularly during late winter and in spring), and that these same markings are more obvious when the rump feathers are fluffed up.

Stere Young/Birdwatch



41. Arctic Redpoll *Carduelis hornemanni exilipes*, Langham, Norfolk, February 1996. Some *exilipes* are large, powerful-looking finches with strikingly pale plumage. This individual shows Arctic's typical flat and broad head shape with steep forehead and rather bull-necked appearance. The shaggy, heavy underparts and broad, almost 'lark-like' structure are also typical.

Robin Chittenden



42. Arctic *Carduelis hornemanni exilipes* and Mealy Redpolls *C. flammea flammea*, Cromer, Norfolk, January 1996. A flock of redpolls at Cromer contained at least four *exilipes*, though as many as 12 may have been present through the winter; at least two *exilipes* are shown here (third and fifth from right), but a number of other very pale individuals are not obviously identifiable from the photograph. Note at least one buffy Lesser Redpoll *C. f. cabaret* (seventh from left).



Robin Chittenden

43. Arctic Redpoll *Carduelis hornemannii exilipes*, Langham, Norfolk, March 1996. A 'classic' individual, showing extensive area (10-20 mm) of unstreaked white on rump and very pale general plumage. Arctic has a tendency to fluff out its rather dense plumage, which can enhance the amount of white visible on the rump.



Stere Young/Birdwatch

44. Arctic Redpoll *Carduelis hornemannii exilipes*, Langham, Norfolk, February 1996. Some (usually young) *exilipes* show a rather narrow area of unstreaked white on rump, with streaking from mantle invading only the upper portion of rump, and a pale panel in centre of mantle. Note the rather small, 'pushed-in' bill.



George Reszeter

45. Arctic Redpoll *Carduelis hornemannii exilipes*, Langham, Norfolk, February 1996. An apparently 'classically' pale *exilipes*, but, as the rump feathers are fluffed out, a lot of small dark feather bases are revealed. A number of *exilipes* (usually females and immatures) show grey streaks across the rump and can be confused with Mealy Redpoll *C. flammea flammea*. The streaking will become more obvious as the white tips abrade through the winter.



Martin S. Scott

46. Mealy Redpoll *Carduelis flammea flammea*, Garlogie, Northeast Scotland, March 1996. Most Mealies show a contrastingly pale rump, which can extend to a pale panel on centre of mantle; the rump, however, is still very heavily streaked *blackish*.

P.J. Dunn



47. Unidentified first-winter female redpoll, probably Arctic *Carduelis hornemanni exilipes*, Filey, North Yorkshire, 1996. Some redpolls show a frustratingly ambiguous rump pattern: this one has a broad white rump with mantle streaking extending into the upper portion, a pattern not incompatible with *exilipes*, but the finer dark streaks throughout are a little strong and suggest Mealy Redpoll *C. flammea flammea*. Other supporting characters have to be used to identify such individuals.

John M. Gardner



49. Mealy Redpoll *Carduelis flammea flammea*, Wintersett, West Yorkshire, 9th March 1996. A whitish rump with heavy streaking is typical of Mealy. Rest of upperparts are rather brownish, although there is a slight 'frosting' on crown and nape, and the bill is typically longer-looking than on Arctic Redpoll *C. hornemanni exilipes*.

Martin S. Scott



48. First-winter Arctic Redpoll *Carduelis hornemanni exilipes*, Garlogie, Northeast Scotland, March 1996. Probably at the extreme end of the range for *exilipes*, with extensive fine grey streaks on an otherwise extensive white rump. Note narrow black centres to upperpart feathers, paler lower scapulars, and short, 'pushed-in' bill.

John M. Gardner



50. First-winter male Arctic Redpoll *Carduelis hornemanni exilipes*, Wintersett, West Yorkshire, 9th March 1996. The dense plumage of *exilipes* is apparent only when fluffed out: compare this individual with the fluffed-out Mealy *C. flammea flammea* in plate 49. Other features often associated with *exilipes* include the clean 'face' with warm buff wash (young birds), and rather broad white greater-covert wingbars.



John M. Gardner

51. Adult male Arctic Redpoll *Carduelis bornemanni exilipes*, Wintersett, West Yorkshire, 9th March 1996. Adult *exilipes* tend to be much greyer on the upperparts than do young birds and to show a more extensive white rump (though note that the first-winter male in plate 10 has its rump partially obscured). Combination of fresh, rather rounded tips to rectrices, fresh tertials, and rose-pink on rump show this individual to be an adult male.



Martin S. Scott

52. Adult male Mealy Redpoll *Carduelis flammea flammea*, Garlogie, Northeast Scotland, March 1996. Some adult male Mealies can have an unstreaked but pink rump, and this bird can be identified as Mealy by rather brown-toned upperparts and long-looking bill. Any Arctic Redpoll *C. bornemanni exilipes* with this amount of pink on the rump should be a strikingly pale grey bird overall (cf. plate 51).

Undertail-coverts

The undertail-coverts of Arctic Redpoll can be completely unmarked white (plate 53) or have a shaft streak on the longest two or three feathers, any such markings ranging from a thin grey line to a stronger, darker streak with lateral expansion of up to 2 mm (though 5 mm is technically possible). More typically, they show a rather narrow streak in the centre of the longest undertail-covert, which can be difficult to see in the field (plate 55), a significant difference from the heavily marked pattern of most Mealy Redpolls (plate 56). The undertail-coverts of Lesser Redpolls show only fine streaks, but almost invariably a buffy wash (plate 57).

It is difficult to confirm the presence or absence of undertail-covert streaking in the field, even on well-marked Mealies. Such streaking can sometimes be almost impossible to see, and apparent lack of markings can mean simply that the undertail-coverts were not observed well enough for streaks to be seen. The importance of good views cannot be stressed enough.



S. A. Reeves

53. Arctic Redpoll *Carduelis bornemanni exilipes*, Garlogie, Northeast Scotland, March 1996. Presence or absence of streaking on the undertail-coverts can be difficult to determine in the field. If seen well, such unmarked birds as this are typically *exilipes*.

P.J. Dumm



54. Unidentified first-winter redpoll, probably Arctic *Carduelis bornemannii exilipes*, Filey, North Yorkshire, 1996 (same bird as in plate 47). The other extreme of the range of *exilipes* compared with plate 53. While this bird is heavily marked, a single prominent streak is confined to the longest undertail-covert and fine markings elsewhere are very small; the shape of the streak also differs from that of typical Mealy *C. flammea flammea*, being rather even in width throughout its length. Such individuals as this have caused wide debate within the BBRC.

M. Williams



55. Arctic Redpoll *Carduelis bornemannii exilipes*, Foremark Reservoir, Derbyshire, 13th January 1996. A large number of *exilipes* show a lone fine streak on the longest undertail-covert which can be difficult to see in the field.

Martin S. Scott



56. Mealy Redpoll *Carduelis flammea flammea*, Garlogie, Northeast Scotland, March 1996. Mealy typically shows distinct streaking on almost all of the undertail-coverts; the streaks are usually darker than on *exilipes* and differ in shape, being very broad at the feather base and tapering to a point.

John Hewitt



57. Arctic *Carduelis bornemannii exilipes*, Mealy *C. flammea flammea* and Lesser Redpolls *C. f. cabaret*, Winterset, West Yorkshire, December 1995. An excellent comparative photograph, showing differences in amount and shape of undertail-covert streaking between *exilipes* (left), *flammea* (centre) and *cabaret* (right). Note that *cabaret* has only poorly streaked undertail-coverts, but they are distinctly washed buff.

Underparts/flanks

The most distinctive Arctic Redpolls are often pure white below, with only one or two fine pencil-streaks on the flanks, usually stopping before the rear flanks (plate 58). This can vary, with some showing two or three prominent 'tramlines' extending well down the

flanks, but again usually not reaching the rear flanks (plate 59). Certain individuals, however, may be confusing, exhibiting characters akin to *exilipes*, but with three rows of very heavy streaking which extend all the way to the rear flanks, suggesting Mealy (plate 60).



John M. Gardner



George Reszeter

58. Adult male Arctic Redpoll *Carduelis bornemannii exilipes*, Winterset, West Yorkshire, 9th March 1996 (same bird as in plate 51). An attractive individual, with just a few dark spots at sides of upper breast, diffuse streaks along flanks and small spots of rose-pink. The 'face' is rather clean and cold-looking, enhancing the small-eyed appearance.

59. Arctic Redpoll *Carduelis bornemannii exilipes*, Langham, Norfolk, February 1996. A strikingly white-rumped individual, but with bold 'tramlines' along flanks, although only fine spotting on breast sides. In fluffed-out posture, the white feather bases of the lower scapulars merge with the rump to form an obvious 'Y' of white. This bird also shows suggestion of streaking on sides of the undertail-coverts.



S. C. Votter

60. Probable Arctic Redpoll *Carduelis bornemannii exilipes*, Langham, Norfolk, February 1996. Underpart pattern on some redpolls can be confusing: the very heavy streaking (extending to rear flanks) on this individual suggests Mealy *C. flammea flammea*, but general 'cleanness' of underparts, slight buff wash to 'face', upperpart pattern and very deep-based bill all suggest *exilipes*. On this view alone, such birds as this one are probably not identifiable with any certainty.

Upperparts

The upperparts of Arctic Redpoll generally show narrower dark feather centres than do those of Mealy. Some adult male Arctics are distinctly grey-toned above (plate 62), but more typically show pale upperparts with a slight brownish-buff cast, and a pale central panel to the mantle (plate 63). Although young Arctics can sometimes be confusingly brown-looking on the upperparts, they do usually still show a pale panel in the centre of the mantle and also pale rear scapulars (plate 64).

A 'plain-faced' expression is produced by Arctic's minimally demarcated, 'ghosted' ear-covert outline, or, in some cases, not even that; the ear-coverts do not, therefore, stand out as a darker area within the otherwise pale 'face'. Owing to the paler, more uniform head pattern, the eye of Arctic Redpoll stands out more clearly (plate 62).

Young Arctics show an attractive and obvious warm buff or coppery wash to the 'face' and throat, extending to the upper breast (plate 61).

Robin Chittenden



61. Arctic Redpoll *Carduelis bornemanni exilipes*, Langham, Norfolk, March 1996. Most young *exilipes* show a rather clean 'face' and upper breast with a distinct warm coppery wash. The flat-headed and small-eyed appearance lend a 'naive' or 'cute' look to many. This individual also shows a rather narrow greater-covert wingbar.

Martin S. Scott



62. Arctic Redpoll *Carduelis bornemanni exilipes*, Garlogie, Northeast Scotland, March 1996. A big, bullish, probably adult *exilipes* showing very grey upperparts with extremely narrow dark feather centres. Identification of these types of Arctic is straightforward.



S. C. Votier

63. Arctic Redpoll *Carduelis bornemannii exilipes*, Langham, Norfolk, February 1996. Another 'broad-beamed' *exilipes* showing powerful cheek muscles, bull-neck and deep-based bill. The upperparts are fairly standard, with rather narrow blackish feather centres and a distinct buff-brown colour to the scapulars.



S. C. Votier

64. Arctic Redpoll *Carduelis bornemannii exilipes*, Langham, Norfolk, February 1996. Some (usually young) *exilipes* are very brown-backed, but show contrastingly pale lower scapulars (cf. plate 59). In all other respects, this is a 'classic' Arctic.

BBRC's assessment of claims of Arctic Redpoll

The above details should clarify the essential criteria used by the BBRC when dealing with claimed records of Arctic Redpoll. These identification characters are summarised in table 1.

The Committee's task in assessing such a large number of claims from the 1995/96

influx was eased considerably by the high quality of much of the submitted narrative, photographs and artwork. Some of the artwork found most useful by the Committee is reproduced here (figs. 1-3), and was much appreciated both for its practical help in record assessment and for its aesthetic attributes.

Broad white Greater-Low bar, buffy median low bar. Tertiaries brown with faintly broad pale edgings. Pale edgings to secondaries forming pale panel with dark base. Primaries brown with dull pale edgings.

Pale buff brown around colour to sides of mantle with double white transverse down center contrasting with the narrow dark brown streaker

Sandy wash to crown + ear-coverts, paler whitish nape/neck forming pale collar

Red crown patch Blackish lores + chin, pale forehead short stubby yellow bill



Fine sparse streaking on breast sides + flanks against pure white background. Shaggy thigh feathering when visible.

about 15 mm of unstreaked pure white rump. Light flicking in the top of the rump come down to the middle tertial.



one very narrow shaft streak on longest undertail coverts feather



Arctic Redpoll (bird G)
Rutland Water
5/1/96.

The denser feathering especially on the flanks + nape/neck gave it a very stocky appearance often appearing bull-necked + deep-chested. Sometimes the tail would appear very long compared to the neck but this depended on the angle

J. Wright

Fig. 1. Arctic Redpoll *Carduelis boremanni exilipes*. Left, Rutland Water, Rutland, 5th January 1996; right, Broomhead Reservoir, South Yorkshire, 5th March 1996.

Sandy wash to crown + ear-coverts whitish nape/neck sides forming collar.

Sandy brown wash to mantle sides gradually fading into white towards the middle

Blackish lores, chin + forehead short, stubby yellowish bill. red crown patch.



Pure white underparts with light brown flecking to breast-sides + flanks.

Blackish brown wings with broad white Greater-covert bar. whitish edgings to Tertiaries, Secondaries, primaries and Tail feathers.



undertail-coverts bound one narrow shaft streak on the longest feather.

Pure white rump with brownish flecks coming down to the middle tertial from the middle tail-covert was unmarked down to the upper tail-covert.



Arctic Redpoll
Broomhead Reservoir (S. Yorks)
5/3/96

J.W.

J. Wright

Prominent broad white supercilium bulging in front of the eye, but broken on forehead by black feathering above bill.

Arctic Redpoll (3 birds).
Barbrook Plantation, DERBYS.
17TH, 24TH + 25TH Dec. 1995.
E. A. FISHER.

Bill appeared shorter & more conical than 'Mealy Redpoll', with straight Culmen.

Nape egg-white, (far paler than any of the adjacent 'Meales').

Edges to primaries & secondaries clean white - brownish tinged in almost all 'Meales' seen.

Underparts clean white, with 2 rows of narrow greyish streaks along glanks. (Not on lower glanks).

Mantle pale grey with v. slight buff tinge. Streaking darker grey. Obvious white central panel.

Tertials on (B) v. broadly edged white (esp. outer webs). Obvious at some range!

Broad white tips to G. covs, increasing in size inwardly.

Rump clean white & unmarked for c. 15mm. Uppertail-covs mid-grey edged white, though greyish wash noted across this region.

Prominent blackish area at base of secondaries on all 3 birds. Not obvious on 'Mealy'.

Undertail-coverts appeared clean white, but persistent observation revealed a very narrow 'pencil width' shaft-streak on one of the longest pair. Bird (C) was almost identical, but the single shaft streak was marginally broader.

Prominent broad white supercilium, meeting on forehead.

Nape (+ head in general) ghastly-white.

Bill as (A)

Entire underparts very clean white, almost completely unmarked, except for subtle pink wash on sides of upper breast & single row of 4 narrow streaks (- on left glank only).

Mantle buffish-white with prominent white central panel.

Large unmarked white rump - estimated length c. 20mm! Grey upper-tail-covs broadly edged white.

"Snow-ball"

Supercilium (+ head in general) buffish-white.

Nape whitish.

Bill conical with straight culmen - looked minute! At times, barely projected beyond feathering! "Pushed-in-face".

Mantle buffish-white, with messy-white central panel.

Tertials (+ Remiges & metrices) narrowly fringed white.

(B) Undertail covs completely unmarked white.

-Rounded

Underparts clean white with 2/3 rows of messy greyish streaks along glanks.

-Rump as (A). All birds appeared appreciably larger & bulkier than 'Mealy Redpoll', especially so for (B), but only marginally so for bird (C). All birds also looked larger headed, with thicker neck, and, slightly longer tail.

G. covts broadly tipped white, narrower than (A) & (B), but clearer & more prominent than on most 'Meales'.

Tips of tail feathers pointed & appeared to be worn - suggesting age as 1st W.

I found the consistency of the feathering of all 3, noticeably different to that of 'Mealy Redpoll' & a sizer / "slugger". And, when looked for, noted on the G or so others seen to date.

When seen head on / rear on, all birds looked particularly broad across the shoulders, especially (A)+(B). Ashley Fisher 1/96.

E. A. Fisher



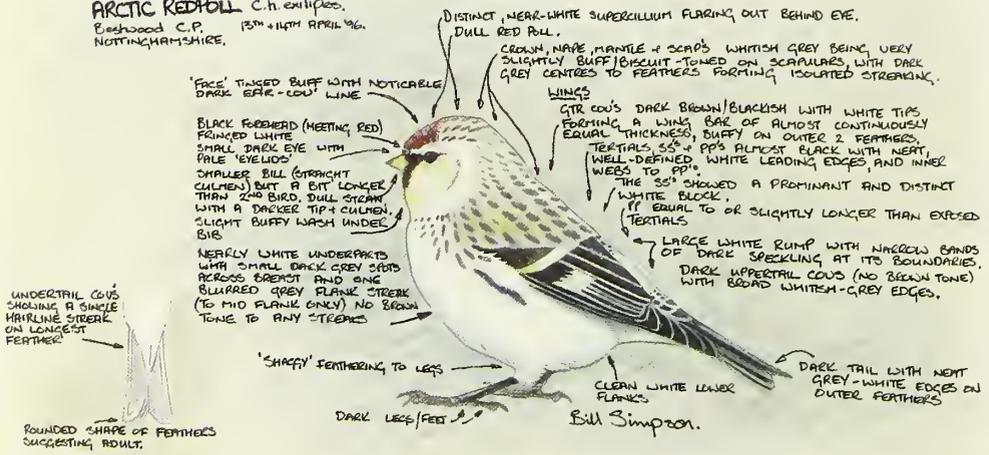
E. A. Fisher

Fig. 2. Arctic Redpoll *Carduelis hornemannii exilipes*. Left, Barbrook Plantation, Derbyshire, 17th & 24th-25th December 1995; right, Blackburn Meadows, Rotherham, South Yorkshire, 17th-23rd February 1996.

Bill Simpson

ARCTIC REDPOLL *C.h. exilipes*.
Bestwood C.P. 13th + 14th APRIL '96.
NOTTINGHAMSHIRE.

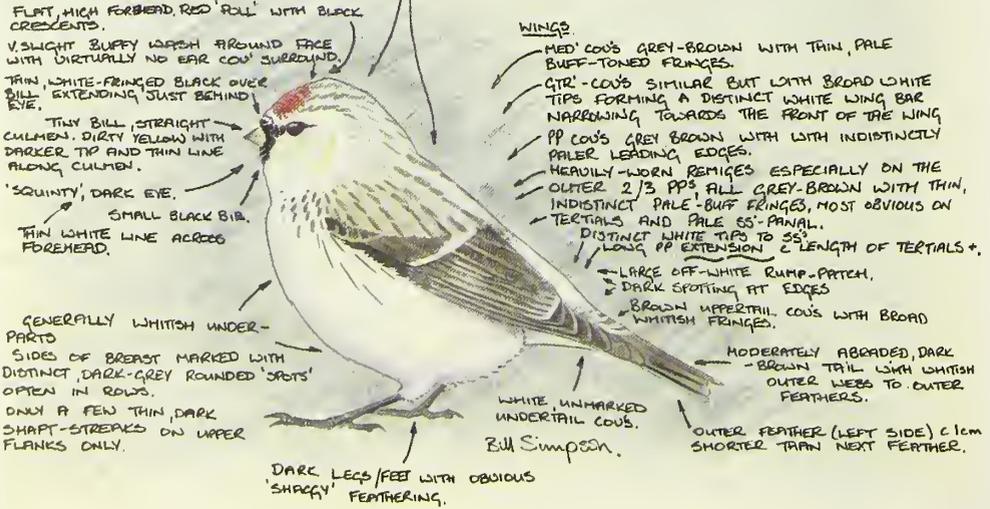
SIZE. OBVIOUSLY BULKIER, MORE BULL-NECKED, AND AS LARGE AS THE LARGEST MORNINGS.



ARCTIC REDPOLL *C.h. exilipes*
Bestwood C.P. 14th - 18th APRIL '96.
NOTTINGHAMSHIRE.

SIZE. ALTHOUGH BULL-NECKED AND BULKY THIS BIRD WAS NOTICEABLY SMALLER THAN THE LARGEST MORNINGS.

CROWN, NAPE AND CENTRE OF MANTLE WHITISH WITH A GREY WASH, SCAPULARS TINGED BUFF OR BUFF-GREY, UPPERPARTS MARKED WITH ISOLATED DARK BROWN-GREY STREAKS (THINNER AND PALER ON NAPE).



Bill Simpson

Fig. 3. Arctic Redpoll *Carduelis bornemanni exilipes*, Bestwood Country Park, Nottinghamshire. Top, 13th & 14th April 1996; bottom, 14th-18th April 1996.

Table 1. Features used to separate Arctic *Carduelis hornemanni exilipes* and Mealy Redpolls *C. flammea flammea* in the field.

Feature	Usefulness	Arctic	Mealy
Structure	Subtle differences open to interpretation; useful mostly to experienced observers.	'Loose' feathering giving bulky appearance, and small-looking bill. Often fluffs up feathers, giving more distinctive appearance.	Generally sleeker-looking than Arctic, and often appears a little smaller, despite overlap in body size. Bill often looks a little longer.
Rump	Variable, but detail of rump at rest is <i>critical</i> for identification.	Should always show a white rump. On 'classic' birds this is extensively unstreaked, but considerable variation. Some show some fine greyish streaks, but on an extensive white base; any streaking will become more prominent with wear, but may be present through winter.	Rump always streaked (except on adult males), despite base colour often being whitish; streaking may thin towards centre of rump, but should never show extensive unstreaked white. Adult males can cause confusion as they may show unstreaked rump, but this will always be strongly pink or pinkish-red.
Undertail-coverts	Rather variable, and can be very difficult to see well enough to confirm pattern.	Always white, unmarked on adult males at least, but fine streaks (usually only on central feathers) are frequently shown by females and immatures.	Whitish, but usually with fairly broad dark arrowhead markings; extent of these is variable and, on birds with limited marks, good views often required to see them. Adult males may be unmarked.
Underparts and flanks and 'face'	Usually easy to see in the field, and essential to observe these well, but rather variable.	On the most 'obvious' birds, streaking usually rather fine on upper breast and flanks, ending before undertail-coverts. Females and immatures may be more heavily marked, but ground colour should always be white, typically with attractive pale bronze wash on 'face'.	Streaking variable, but usually heavier (particularly on flanks) than on Arctic. Ground colour often rather sullied and greyish, and 'face' looks greyer and less clean. Again, adult males may cause confusion, showing less underpart streaking, but will be strongly suffused with pink.
Upperparts	Easy to see and useful, but rather variable, with some overlap.	Rather pale and greyish ground colour with dark streaks on the most 'obvious' birds; even browner individuals show fairly extensive block of central mantle with whitish ground colour. Greater-covert wingbar may be very broad and white when fresh, but varies with wear.	Darker grey-brown than most Arctics, but often shows paler central panel like many Arctics. Wingbars generally narrower, but variable.

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 **Looking back**

ONE HUNDRED AND FIFTY YEARS AGO: 'Migration of the Ring Ouzel (*Cinclus aquaticus*) [*Turdus torquatus*].- The number of ring ouzels passing southward this autumn has been astonishing. Large flocks were seen continually on the downs [at Lewes, East Sussex] from September to nearly the end of October [1849]. No one can ever recall their being so plentiful before.' 'Occurrence of the Fire-crested *Regulus* (*Regulus ignicapillus*).- I have much pleasure in being able to record the capture of a fire-crested *Regulus* [Firecrest]. On the 3rd instant a specimen of this bird was caught by some boys in a lane near Whixley [North Yorkshire]. When first seen it was in company with some titmice [*Parus*]. (*Zoologist* 8: 2698-2699, February 1850)

ONE HUNDRED YEARS AGO: 'Red-billed Chough.- At the last

meeting of the Hampstead Scientific Society, I was enabled to exhibit a very fine mounted specimen of the Red-billed Chough (*Pyrrhocorax graculus*) [*P. pyrrhocorax*], which was shot from among a flock of Rooks [*Corvus frugilegus*] near Hendon [London] during last summer (1899).' (*Zoologist* 4 (New Series): 82, February 1900)

FIFTY YEARS AGO: 'In the call-note of the Yellow Bunting [Yellow-hammer] (*Emberiza citrinella*) (the "twit" of *The Handbook*), ... I have always detected a difference in pitch of the alternate notes ... Sounding like "chip" or "tchick" to my ears, every other note drops by such a minor degree as to fall somewhere between "tchick" and "tcheck".' (*Brit. Birds* 43: 56-57, February 1950)

TWENTY-FIVE YEARS AGO: 'The bird ringing scheme in Britain,

run by the British Trust for Ornithology, is the largest outside North America, but there is cause for disquiet in the relatively small output of published analyses and of other papers making use of ringing data.... The sheer quantity of data being gathered by Britain's 1,600 or so ringers is staggering. About half a million birds are ringed each year, while there is an unknown but undoubtedly very large number of recaptures... [but] Such serious deficiencies must make one wonder whether there is any justification for such large-scale ringing. Even the relatively small interference in the life of a bird caused by catching and ringing it should not be carried out solely to provide a satisfying, interesting, indeed at times exciting, hobby for a small number of people.' (*Brit. Birds* 68: 53-56, February 1975)

'Birds Britannica': a request for help

Flora Britannica by Richard Mabey was an award-winning account of the cultural importance of Britain's flowers. Now, Richard Mabey and Mark Cocker are preparing a companion volume, entitled *Birds Britannica*. The new book will follow a similar format and chart the ways in which birds are, equally, involved with our everyday lives. At this preparatory stage, we wish to enlist public help in mapping out these themes.

The intention is both to investigate old, traditional beliefs and myths about birds, and to record new stories that have sprung up in recent times. In combination, they will, we hope, create a type of modern folklore: a Domesday account of the part that birds play in Britain's cultural life.

Of the traditional folklore, we wish to establish how much of it actually survives. For example, are there people who still believe that the call of a Tawny Owl *Strix aluco* is a prophesy of doom? Does anyone still count the sight of a Raven *Corvus corax* as a sign of bad luck, or two Magpies *Pica pica* as a token of good fortune? Certain regional vernacular names, such as 'Bonxie' for *Catbaracta skua*, are widely used by birders, but do any other country names, such as 'Goatsucker' for *Caprimulgus europaeus*, 'Yaffle' for *Picus viridis* or 'Harnser' for *Ardea cinerea*, still have currency? Equally, do you know of place names that commemorate the way that birds have helped shape the identity of our landscape? We also want your examples of poetry, literature and songs that celebrate our relationship with birds.

Another important goal is to record what one might call 'new myths': those that have arisen in recent years. The 'scapegoating' of the Sparrowhawk *Accipiter*



Frederick J. Watson

Tawny Owl

nisus, the Ruddy Duck *Oxyura jamaicensis* and the Magpie are three classic examples. In the case of the first of these, has the Eurasian Sparrowhawk been blamed for more than simply the destruction of all of Britain's songbirds?

Among the other stories that we wish to tackle are:

- White-tailed Eagles *Haliaeetus albicilla*, their re-establishment and their part (as representations) in annual rituals on the Scottish islands.
- Golden Eagles *Aquila chrysaetos*, the myths of their taking puppies and babies as well as lambs.
- Red Kites *Milvus milvus*, one-time urban scavengers (fond of pilfering washing) turned symbol of Celtic Wales, and now re-established in England and Scotland.
- Cranes *Grus grus* of Broadland.
- Coots *Fulica atra*: why 'Queer as a coot'?
- Stone-curlews *Burbinus oedipnemus* have traditional autumn gathering-grounds, but are there any field names that commemorate this?
- Gulls *Larus*, once ocean-going symbols of freedom, now habitués of urban refuse-tips.
- Feral Pigeons *Columba livia*: yarns, such as those concerning their habit of travelling on the London Underground.
- Cuckoos *Cuculus canorus*, their regional names and

modern mythology; the tradition of the letters to *The Times* about the first Cuckoo of spring.

- Golden-winged Warbler *Vermivora chrysoptera*, the Tesco carpark and the extraordinary events surrounding similar crowd-pulling rarities.
- Long-staying birds that almost become institutions, such as the Hermaness Black-browed Albatross *Diomedea melanophris* or the New Brighton Iceland Gull *Larus glaucooides*.
- The remarkable lengths to which people have gone either to see a bird or to clinch its identity (e.g. Richard Richardson wandering around on Arnold's Marsh at Cley looking for the webbed footprints of Britain's first Semipalmated Sandpiper *Calidris pusilla*).

Having gathered your thoughts and memories (and also your relatives' and friends' memories), please write, with any clippings, pictures or letters, to *Birds Britannica*, c/o Random House, 20 Vauxhall Bridge Road, London SW1V 2SA, or to me at one of the addresses below. Any material used will be fully credited in the book.

Acknowledgment

The inclusion in *British Birds* of this appeal for help in the compilation of *Birds Britannica* has been subsidised by a donation from Chatto & Windus.

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Minutes of the 5th Conference of European Rarities Committees

Tom Conzemius, on behalf of the AERC

ABSTRACT This shortened version of the Minutes summarises the decisions taken at the meeting of the Association of European Rarities Committees held at Lednice, Czech Republic, during 17th-21st September 1999.

Main aims of the AERC

The main aims of the Association of European Rarities Committees are:

- To foster closer co-operation between rarities committees.
- To improve standards of record assessment by bringing record assessment practices in different countries closer together.
- To help and encourage the establishment of new committees.
- To help new committees to develop, through providing advice and information.
- To exchange information on how best to produce annual reports (through discussion and exchange of reports).
- To raise awareness of the issue of escapes, and of the biological importance of escapes.
- To raise awareness of and to seek agreement on taxonomic issues.
- To develop a network of identification experts who, within their areas of expertise, are prepared to help other committees in the assessment of records.
- To improve networking between committees and to establish partnerships between established and newer rarities committees.
- To promote the role of rarities committees in the birding community via the AERC-homepage, with the aim of persuading birding tourists to submit records to the appropriate rarities committees all over Europe and the World.

Updating AERC guidelines

The following updates have been added to the Guidelines:

The national reports should include the homepage address of the AERC <http://aerc.mypage.org>

Every national rarities committee should have its own national homepage with an updated list of species that should be reported. These national homepages should also each include information on Category E species in that country.

Every national rarities committee should provide its data to the AERC on request (in a compatible format).

All national rarities committees should give reasons for non-acceptance of a record, on request, to the appropriate bird-watcher.

All comments made by committee members and specialist consultants should be confidential prior to publication of any decisions. Information concerning records under consideration, or decisions prior to publication, or other committee matters should normally not be discussed outside the committee, except through the secretary or chairman, to whom all outside enquiries should be directed.

New Rarities Committees in Europe

Since the last meeting (in 1997 in Blahova), several new rarities committees have been created or are ready to start. Laszlo & Jozsef Szabo from Romania presented information on their newly created rarities committee. Unfortunately, Sancar Baris from Turkey was not able to attend the meeting, but the AERC will offer every possible help to establish a Turkish Rarities Committee. Andrea Corso from Italy discussed the newly created Italian Rarities Committee, which will not replace the existing Italian committee (COI), which considers only the first five records of every species, but will work in co-operation with it, following the AERC guidelines.

Partnership between Rarities Committees

To fulfil the aim of fostering closer co-operation between rarities committees, the AERC offered the opportunity of partnerships between established rarities committees and new rarities committees. The first such partnerships were created in Lednice:

Finland/Estonia

Hungary & France/Romania

Cyprus/Italy

Britain (BBRC)/Latvia [to be confirmed by the Latvian RC]

Czech Republic/Slovakia

Other rarities committees may propose partnership or ask for help in seeking a partner.

AERC webpage

(<http://aerc.mypage.org>)

The AERC webpage was set up by Jan Pollet and is now maintained by Marnix Vandegehuchte. It will soon have links to every national rarities committee. A birder visiting a foreign country will be able easily to check which species should be reported to that country's rarities committee. He or she can submit the record on a standard European form (downloadable from the AERC-homepage).

European report

The idea, born on Heligoland in 1991, of a *European Bird Report* published by the AERC has finally been deemed not to be feasible, owing to a variety of technical problems.

European List

Mainly owing to lack of taxonomic agreement, a list of all the species recorded in those European countries with a rarities committee is still not ready for publication.

It was agreed that the area covered by the AERC's European List should include Cyprus and the Canary Islands.

Taxonomic Subcommittee

The AERC's Taxonomic Subcommittee, established in 1997, comprises Dr Alan Knox and Prof. David Parkin (GB), Andreas Helbig (D) and George Sangster (NL), and seeks international agreement on taxonomic issues. On behalf of the Subcommittee, George Sangster has identified about 350 taxonomic and nomenclatural issues relating to the West Palearctic List. For many of these, information is incomplete and the AERC urges researchers to study and record all identifiable forms in the WP and to publish relevant informa-

tion concerning the practicality of diagnosis, areas of sympatry, intergradation or hybridisation, and similar matters. As a first stage of the Subcommittee's deliberations, the list of about 350 issues has been reduced to the following short list for prioritised consideration:

Bewick's Swan *Cygnus columbianus*
 Bean Goose *Anser fabalis*
 Brent Goose *Branta bernicla*
 Common Teal *Anas crecca*
 Soft-plumaged Petrel *Pterodroma mollis*
 Manx Shearwater *Puffinus puffinus*
 Great White Heron *Egretta alba*
 Tawny/Steppe Eagle *Aquila rapax*
 Lesser Golden Plover *Pluvialis dominica*
 Common Snipe *Gallinago gallinago*
 Herring Gull *Larus argentatus*
 Water Pipit *Anthus spinoletta*
 Yellow Wagtail *Motacilla flava*
 Pied Wagtail *M. alba*
 Grey-cheeked Thrush *Catbarus minimus*
 Yellow-browed Warbler *Phylloscopus inornatus*
 Bonelli's Warbler *P. bonelli*
 Chiffchaff *P. collybita*
 Great Grey Shrike *Lanius excubitor*
 Carrion Crow *Corvus corone*
 Citril Finch *Serinus citrinella*
 Common Redpoll *Carduelis flammea*

The Taxonomic Subcommittee is working on the basis that stability should be maintained unless there are good scientific reasons for change, and that the evidence for this has been published, preferably in a refereed journal. Inevitably, the inadequacy of some of the present information means that some issues will take longer to resolve than others.

Escapes

The AERC aims to ensure that the escape problem is more widely discussed between rari-

ties committees. Information flow should greatly improve with:

Space on homepages for Category D and E species, making information easily accessible via the links on the AERC homepage.

Category E species listed on each country's website.

Links to homepages including information on feral bird populations, on the AERC homepage.

It is also intended to set up a search engine for webpages including information on species likely to become escapes.

Creation of Mongolian RC

Peter Barthel presented information on the newly created Mongolian Rarities Committee. The Mongolian situation is complicated by the fact that there are almost no local birdwatchers or ornithologists, but many tourists visiting the country and publishing unsubstantiated reports. A Mongolian Rarities Committee was, therefore, urgently needed. This international committee will, initially, have only one Mongolian member, but will follow the AERC guidelines.

Creation of an international Slender-billed Curlew Committee

The Slender-billed Curlew *Numenius tenuirostris* is the most endangered bird species of the Palearctic Region. Today, the World population of Slender-billed Curlew has declined rapidly and probably does not exceed a few hundred birds. The lack of data on Slender-billed Curlew ecology has made it difficult to identify appropriate conservation measures to safeguard the species.

One of the tools to reverse this trend is the creation of an international database storing all



65. Participants in 5th Conference of European Rarities Committees, Czech Republic, September 1999. FRONT ROW Left to right, Dr Tom Conzemius (Luxembourg), Gunter De Smet (Belgium), Dr Martin Vavrik (Czech Republic), Andrea Corso (Italy), Marc Duquet (France), Prof. Colin Bradshaw (Great Britain), Gunnlaugur Þráinsson (Iceland). SECOND ROW Marnix Vandegheuchte (Belgium), Tony Marr (Great Britain), Dr Bernard Volet (Switzerland), Judy Dawes (Cyprus), Lionel Maumary (Switzerland), Hannu Jännes (Finland), Ricard Gutierrez (Spain), Vilju Lilleleht (Estonia). THIRD ROW László Szabó (Romania) (standing), Jozsef Szabó (Romania), David Whaely (Cyprus), Martin Riesing (Austria), Andras Schmit (Hungary), Dr Josef Chytil (Czech Republic), Patric Lorgé (Luxembourg), Jeff Gordon (Cyprus). BACK ROW Dr Alan Knox (Great Britain), Dr Gabor Magyar (Hungary), Tibor Hadarics (Hungary), Peter Barthel (Germany), Christine Barthel (Germany), Cecilia Johansson (Sweden), Dr Walter Mergen (*Carl Zeiss*), Christian Cederroth (Sweden). Absent from photograph: Vasyil Demchshyn (Ukraine).

available Slender-billed Curlew records. That was started in 1991 by the ICBP and continued in the framework of successive conservation initiatives for the species. Unfortunately, Slender-billed Curlews are likely to be seen in countries that lack an established rarities committee, and there is no formal process for the assessment of claims. It was, therefore, agreed to launch a Slender-billed Curlew Assessment Committee under the aegis of the AERC. Its objectives are:

1. To assess the acceptability of records of Slender-billed Curlews in countries where no national rarities committee exists.

2. To assist, on request, every national rarities committee in the assessment of Slender-billed Curlew records.
3. To encourage European rarities committees to collect as much detail as possible for every encounter.
4. To stimulate the submission to the relevant authorities of every Slender-billed Curlew observation, including historical and specimen records.

All reports, whether judged as proven or as unproven, will be kept, together with supporting documentation, to facilitate eventual future reassessment.

The current members of this AERC committee are Peter

Barthel (Germany), Andrea Corso (Italy), Marc Duquet (France), George Handrinos (Greece), Gabor Magyar (Hungary), Dr Jimmy Steele (GB) and Didier Vangeluwe (Belgium).

Meeting 2001

The next meeting of the AERC will take place in September/October 2001 in Poland.

Acknowledgments

The AERC Secretariat wishes to thank Dr Walter Mergen from *Carl Zeiss* for sustained sponsorship over the years. The superb local organisation was co-ordinated by Dr Josef Chytil.

Dr Tom Conzemius, Secretary, Association of European Rarities Committees, 38 Kiischteeue, L-6113 Junglinster, Luxembourg





Notes

Combined mobbing of Northern Goshawk by three other raptor species

At 11.55 hours on 10th November 1995, at the Remolar-Filipines Reserve on the Llobregat Delta, Barcelona, Spain, we recorded what seemed to be a co-ordinated attack by three species of raptor on a subadult female Northern Goshawk *Accipiter gentilis*. The reserve comprises 110 ha of saltmarsh and reedbeds fringed by scattered trees and a poplar *Populus* wood. The goshawk was perched in the upper part of a bare poplar on the edge of the marsh when, suddenly, all the raptors over the marsh headed towards the tree. First, a nearby female Common Kestrel *Falco tinnunculus* started to dive and attack the goshawk, being quickly followed by a juvenile Marsh Harrier *Circus aeruginosus* (a winter visitor to the area) and a pale-morph Booted Eagle *Hieraaetus pennatus* (one of two over-wintering). The kestrel was succeeded by the harrier, which passed very close to the hawk; then came the Booted Eagle, which, attacking with its feet and claws extended, gently brushed the goshawk; immediately thereafter, the kestrel made another pass, then the harrier and the kestrel once more. It seemed that all three mobbing raptors were waiting until the previous one had finished before mounting their own attack. After ten attacks by the kestrel, four by the harrier and one by the eagle, the goshawk left the tree; the kestrel pursued it for about 1 km, 'pecking' at its body and tail and looping around the much bigger raptor. The episode ended when the goshawk disappeared into the poplar wood.

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This Northern Goshawk, the only one of its species in the area, had been extremely active during the autumn and early winter of 1995, having captured several species of bird, including pigeons (Columbidae), waders (Charadriiformes) and ducks (Anatidae). Given that Northern Goshawks can prey on raptors up to the size of a Common Buzzard *Buteo buteo*, and that Common Kestrels are among the most frequently captured (113 out of 243 victims, or 46.5%: Uttendörfer 1952), a kestrel might be expected to see a goshawk as an enemy, even outside the breeding season, the latter being a period when goshawks may kill other raptors in nest defence (Newton 1979). On the other hand, *BWP* (vol. 2) reports Common Kestrels defending winter territories against other raptors. What seems remarkable is that all three flying raptors combined their efforts in order to frighten the goshawk from its perch, despite reports of Northern Goshawks nesting in close proximity to Booted Eagles (Díaz Robledo 1991). No mention of antagonistic behaviour among the three bigger species appears in *BWP*.

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Adult Mallards repeatedly diving

On 8th July 1996, at Eccleston Mere, Lancashire, I noticed two adult Mallards *Anas platyrhynchos*, a male and a female, diving. Each dive lasted between 10 and 20 seconds, and in a 15-minute period they dived about 20 times. I estimated the depth of the water at that part of the mere to be about 2 m, and, since the ducks always dived in roughly the

same area, it seems likely that they were after a stationary food supply on the bottom. No other ducks were present.

BWP (vol. 1) states that adult Mallards occasionally dive to depths of 1-2 m for 6-10 seconds. In this instance, the number of dives and their lengthy duration seem unusual.

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Common Buzzard feeding on apple

On 2nd January 1996, at Sidborough Nature Reserve, Morchard Bishop, Devon, I watched a Common Buzzard *Buteo buteo* feeding on an apple. This was a windfall of a cultivated dessert variety, slightly bruised but not rotten. The buzzard first inspected and took one peck at the apple, and then held it firmly on the ground with its talons and devoured most of the fruit. The buzzard then proceeded to tear pieces of turf from the closely cut grass as if hunting for earthworms. A second

Common Buzzard joined the first and observed its actions, but did not feed. The weather at the time was mild, but cloudy and damp; 2.5 mm of rain were recorded on the reserve that day.

Fruit is not among the foods of Common Buzzard listed in *BWP* (vol. 2), but *The Handbook* (vol. 3) refers to this species taking the berries of cranberry/bilberry *Vaccinium*.

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Feeding behaviour of Osprey on long passage stopover

From at least 22nd August to 6th September 1995, an Osprey *Pandion haliaetus* was present in the Steer Point area of the River Yealm estuary, Devon. I made prolonged observations on most days, noting its feeding behaviour in different weather conditions.

Hunting success was greatest when the tide was about halfway up, either rising or falling. At high water, fish were presumably spread out over a much larger area and also, perhaps, too close to the mainly heavily tree-lined estuary banks to allow for a diving attack. When the water was calm, the Osprey dived at a very shallow angle to the surface, usually less than 30°; capture rate was low, with many dives aborted, and those in which a plunge was made often being unsuccessful. In conditions when the wind caused ripples on the water's surface, the Osprey dived at a much steeper angle, usually exceeding 60°,

and often from a greater height; rate of capture was high, with first diving attempts often successful.

An interesting series of observations was made on the morning of 3rd September. There was virtually no wind, the water was quite still, and the rising tide about halfway up; passing heavy showers occurred. E. Griffiths and I had watched the Osprey since about 07.00 GMT as it sat inactively in a low waterside tree for some 40 minutes. A heavy shower then disturbed the water surface and the bird almost immediately took off. Within three minutes, it made its first dive, which was successful, but it dropped the fish after landing on a perch. It resumed hunting in, by now, dry, calm conditions, but without success. It then perched and did not hunt again for 90 minutes, when a light breeze disturbed the water surface; this lasted only

ten minutes, during which the Osprey made no dives (presumably, it did not locate any fish). By this time, the tide was much higher (see above). The next feeding attempt was in the early afternoon, by when a force 3 wind was rippling the water surface. The Osprey achieved almost instant success, despite hunting only about one hour after high tide;

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Juvenile plumage of European sandgrouse

In his note on the juvenile plumages of Black-bellied *Pterocles orientalis* and Pin-tailed Sandgrouse *P. alchata* (*Brit. Birds* 89: 95-96), Richard Vaughan indicated that the descriptions given in *BWP* (vol. 4) are incorrect. He supplied photographs of both species to support his view that, contrary to statements in *BWP*, juveniles are clearly separable from adult females. In fact, juvenile plumage of sandgrouse is more complex and interesting than this suggests. Below, following Cramp & Simmons (1977), we refer to the first set of contour feathers grown by a sandgrouse chick as juvenile plumage, and the next set, acquired after the post-juvenile moult, as immature plumage if it differs from that of breeding adult.

The chicks of two sandgrouse species (Pin-tailed and Double-banded Sandgrouse *P. bicipinctus*) of which we have direct experience of aviary-reared birds completed the growth of their juvenile plumage within 4-6 weeks of hatching; at this age, they were about two-thirds the size of adults and could fly short distances. In juvenile plumage, Double-banded Sandgrouse were basically brown with pale and white markings, giving a barred general appearance: this plumage was much more like that of the adult female (brown, with pale and white spots and bars) than that of the adult male (grey/beige, with white spots and distinctive black and white forehead stripes), but was clearly distinguishable because it was barred rather than mottled/spotted and was paler than the female (see photographs in Hinsley & Hockey 1989). Juvenile plumage of Pin-tailed chicks was basically mottled brown (with plain white belly) and hence also clearly different from both adult male and adult

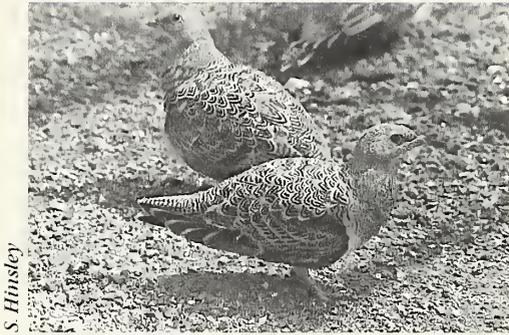
the strike was made above a main channel.

From prolonged observations, it would appear that, where possible, the Osprey hunted in those conditions most favouring success. This would suggest that it had some experience and was thus at least a second-summer individual (this also indicated by its plumage).

female: each contour feather had a U-shaped pattern of alternating bands of black/dark brown and yellow/light brown which followed the outline of the visible part of the feather (Urban *et al.* 1986); the feathers on the breast were less boldly marked, the general appearance being mottled brown, and there were no dark breast bands; the head was mottled and spotted reddish-brown. We could not determine the sex of either species in this plumage.

One to two months after juvenile plumage was fully grown, the birds began to moult again. This moult was complete but for one or more outer primaries, and was finished by the time the birds were about six months old. Double-banded Sandgrouse could be sexed as soon as these new feathers began to appear, because they were the same as adults.

In the case of Pin-tailed, an immature plumage, distinct from adult breeding, was grown. In this, the mantle, back and rump feathers were barred black/dark brown and yellow/light brown ('zebra' feathers: Urban *et al.* 1986), the bars running straight across the feathers at right-angles to the shafts; the chest feathers were dull brick-red with a dark terminal band, creating a sharp contrast with the white belly feathers, and the head and upper neck were again mottled and spotted brown, with white throat. We observed this same plumage pattern with three wild Pin-tailed Sandgrouse caught in Spain which, at about three months old, had started moulting into 'zebra' feathers and had already replaced some inner primaries. Pin-tailed could be sexed in this plumage by differences in the colours of the new lesser coverts: on males, these were deep chestnut with a narrow white subterminal band and a narrow black



S. Hinsley

66. Above, Pin-tailed Sandgrouse *Pterocles albata* in juvenile plumage. This individual has just started its primary moult (new primary just visible below the coverts), but is not yet showing any body moult.



S. Hinsley

67. Above, juvenile Pin-tailed Sandgrouse *Pterocles albata* in body moult. Note contrast between the juvenile feathers (U-shaped markings) and the new striped 'zebra' feathers. This individual is also showing new (red) feathers on the chest, but the dark terminal band between breast and belly is barely visible owing to angle of view; new primaries can be seen, too. The male in the background also has some 'zebra' feathers on the mantle. (The two other, partly visible birds are male Double-banded Sandgrouse *P. bicinctus*.)



S. Hinsley

68. Left, fully moulted immature Pin-tailed Sandgrouse *Pterocles albata*. The body feathers are of the 'zebra' type, and the head and neck mottled and spotted; the white and black lesser coverts identify this individual as a female, and it has retained an outer primary (looks pointed); short central tail-feather extensions can also be seen.

edge, whereas on females they were white, shading into yellow/orange, with a black edge. Unmoulted juvenile primaries were clearly distinct from those of the immature plumage, being edged pale brown around the tips, rather than white as on the new feathers. The central tail feathers of the juvenile plumage ended in distinct points, but were not elongated; in the immature plumage, the points were elongated, but not to the same extent as on adults.

Pin-tailed Sandgrouse is the only *Pterocles* species to show a seasonal plumage change (see Cramp 1985 for details). Of interest in the current context is that the 'zebra' feathers of the immature plumage are similar to the barred feathers typical of non-breeding adults. The appearance of these barred feathers is most noticeable on males, owing to the sharp contrast they create with the green and golden-yellow breeding plumage of the mantle and back (this contrast can be seen on the male on the right in Vaughan's photograph of Pin-tailed Sandgrouse, which

shows 'zebra' feathers in the mantle). With our aviary-bred Pin-tailed, juveniles remained separable from adults in non-breeding plumage because the adults retained some breeding-plumage feathers, especially on the head and neck. Juveniles were still distinguishable from adults following the pre-breeding moult, because they retained some immature feathers on head and neck. This difference, however, would have been hard to detect at a distance, and was not apparent in flocks of Pin-tailed Sandgrouse observed through a telescope in Spain in April (about one month before breeding began).

The juveniles of both species in Vaughan's photographs (taken in September) are probably between three and five months old and are in post-juvenile moult. The Black-bellied juvenile appears to be about halfway through its body moult and, from the grey feathers showing on the chest, it is obviously a male; it also has the dishevelled appearance typical of a bird in heavy body moult. The young Pin-tailed look a little younger in that

their moult is less advanced, but the growth of new feathers producing the reddish chest and dark band separating the chest feathers from the white belly can still be seen.

This moult pattern, in which the juvenile plumage (sexes indistinguishable) is replaced within a few months of hatching by an adult-type plumage (sexes distinguishable) appears to be the norm for *Pterocles* species. The more complex moult of juvenile Pin-tailed Sandgrouse, with the growth of 'zebra' feathers rather than a breeding-type adult plumage, is presumably a consequence of the seasonal plumage differences unique to this species. Thus, Vaughan was correct in claiming that sandgrouse juvenile plumage is separable from adult plumage, but this cannot be inferred from his photographs

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because they are of birds in post-juvenile moult. Moreover, as a general description, the phrase 'resembles female' (Cramp 1985) is not unreasonable, given that the juvenile plumage is more similar to adult female than to adult male.

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Common Sandpiper diving to escape Merlin

On 25th June 1992, at lake Flåkevatn in Froland, Aust-Agder, southern Norway, I noticed a few Common Sandpipers *Actitis hypoleucos* nervously squeaking at me on the shore about 150 m away, probably having young hidden in the vegetation. They were restless, and often made short flights low over the water. Suddenly, I noticed an adult Merlin *Falco columbarius* coming from the nearby wood and landing in a tree close to the edge of the lake; as it was partly hidden by branches, I could not decide which sex it was, but its size clearly suggested a female. The sandpipers seemed not to have spotted the danger, and continued with their noisy choir. The Merlin was obviously interested in the waders, and after a few minutes it rushed out from the tree and set off after a single Common Sandpiper that was flying slowly and unsuspectingly over the water about 200 m out from the shore. At that point, I thought

that the wader was doomed; I could not see how it could possibly get away from the swift raptor. As the falcon got closer, the sandpiper became aware of it and tried to escape by zigzag flight. This was unsuccessful, but then, just as I was waiting to see sandpiper feathers in the air, something unexpected happened: I noticed a splash and the sandpiper was gone. The Merlin continued on without its prey and vanished behind a nearby hill. It all happened very quickly, leaving me a little confused about the disappearance of the sandpiper. I looked for it at the spot where it had disappeared, and when, after 5-10 seconds, it suddenly popped up on the lake's surface there was no longer any doubt over what had happened: facing death, the wader had realised that the only way to escape was to dive into the water. On returning to the surface, it lay there for a few seconds, clearly shocked, before returning to the safer, dry shore.

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EDITORIAL COMMENT

This is a particularly good, well-observed account of what is a fairly well-known and quite well-documented behaviour (see e.g. review in *Behaviour* 8: 130-173).



Letters

Taxonomic status of bernicla and nigricans Brent Geese

Syroechkovski *et al.* (1998) have recently published the results of a study of Brent Geese *Branta bernicla* in northwest Yakutia, Russia. They claimed to have located a previously unknown contact zone of Dark-bellied Brent Goose *Branta (b.) bernicla* and Black Brant *B. (b.) nigricans*. If valid, these observations would be significant because they would provide the first documentation of the interactions of *bernicla* and *nigricans* on the breeding grounds and would confirm suspicions that the *nigricans* population is expanding towards the west. Five colonies were found; in each of these both *bernicla* and *nigricans* were identified. Of a total of 154 pairs, eight were stated to represent mixed pairs. Five individuals showed intermediate character states. The authors concluded that the new data cast 'considerable doubt' on the thesis that *bernicla* and *nigricans* are separate species (Stepanyan 1990; Millington 1997; Sangster *et al.* 1997). I believe, however, that this interpretation is flawed because the identity of the claimed *nigricans* is questionable and the stated taxonomic rationale is inconsistent with current views on the significance of hybridisation. Although the identity of the reported *nigricans* is seriously questionable, I argue that, even if mixed colonies indeed exist, no reliable inferences regarding the degree of reproductive isolation can be made from the observations of Syroechkovski *et al.* (1998).

Because no descriptions of the claimed *nigricans* were provided, their identity can be determined only with the two published photographs. The character states of the males depicted in plates 164 and 165 are, however, those of *bernicla*,

and are inconsistent with *nigricans*. The male supposed *nigricans* in plate 164 is structurally unconvincing, while its mantle and scapulars are even on the pale side of the range of variation shown by *bernicla* and far from the blackish-chocolate of *nigricans*. Although upperparts of Asian populations of *nigricans* ('*orientalis*') are rather browner than those of North American populations, they are not nearly so pale as on the individual in plate 164. The belly appears too pale and the flank patch is not typical of *nigricans*. Both the top edge of the flank patch and neck collar on this bird do appear whiter, but this most likely represents a photographic burn-out, as shown on the wings of the Glaucous Gull *Larus hyperboreus* behind (where detail is compromised, too).

Plate 165 represents a pure pair of *bernicla*, not a mixed pair. The difference in the flank patch of the female *bernicla* in plates 163 and 165 and the more prominent patch of the alleged male *nigricans* in plate 165 is mostly due to the fact that the female has its flanks obscured by its wings. The colour and tone of the upperparts and underparts of the male (supposed *nigricans*) in plate 165 appear closer to *bernicla* in this photograph. Also, the shape and length of neck, as well as the head and bill shape, suggest *bernicla* rather than *nigricans*. The collar also is not convincing for *nigricans* and falls within the range shown by *bernicla*, while the flank patch is again wrong for *nigricans* (on which it should be larger, whiter, and more isolated and with intrusive dark chevrons); it is the typical flank patch shown by *bernicla*. If the individuals shown in the plates are representative of the observed '*nigri-*

cans', this would cast serious doubts about the identity of all the *nigricans* observed by Syroechkovski and co-workers. Moreover, if the putative intermediates had character states intermediate between *bernicla* and the alleged *nigricans* (= *bernicla*), they were most likely also *bernicla*. Based on these findings, I question the existence of mixed colonies, mixed pairs and hybrids in northwest Yakutia.

Syroechkovski *et al.* (1998) interpreted their findings on the basis of the Biological Species Concept (BSC), whereas Millington (1997) and Sangster *et al.* (1997) explicitly stated that they had used the Phylogenetic Species Concept (PSC). These concepts provide different criteria by which to delimit species taxa; the BSC focuses on the reproductive isolation of taxa, whereas the PSC focuses on the diagnosability of taxa, which is taken as evidence that taxa have unique evolutionary histories. If mixed pairs and hybrids are documented, they would offer some clues about the reproductive compatibility of taxa, but do not counter the suggestion, based on the presence of diagnostic differences, that *bernicla* and *nigricans* should be treated as separate phylogenetic species.

Even if mixed colonies and mixed pairs of *bernicla* and *nigricans* are documented, however, and the BSC is used to infer species limits, it is not immediately clear whether these taxa should be lumped in a single species. One reason is that there has been much confusion about the meaning of 'reproductive isolation' (Key 1981). Syroechkovski *et al.* (1998) misrepresented the BSC by stating that reproductive isolation means the absence of interbreeding. Ever since the intro-

duction of the BSC in ornithology (Mayr 1940), ornithologists have been aware that otherwise perfectly acceptable species are able to interbreed under certain circumstances. Given the fact that about 10% of all currently recognised bird species are now known to have hybridised with at least one other species (Grant & Grant 1992), it is unrealistic to cite evidence of hybridisation as grounds that undermine and invalidate specific status for *nigricans*. If speciation of Brent Geese is considered 'certainly not completed' because a few mixed pairs and hybrids are reported (Syroechkovski *et al.* 1998), then speciation in many widely accepted species of Anatidae that are known to have hybridised (Gillham & Gillham 1996) should also be considered as not complete, and many distinct species should be combined in more inclusive 'species'. If taken to its logical conclusion, the strict view on speciation and reproductive isolation adopted by Syroechkovski *et al.* (1998) will lead to unpalatable taxonomies because sympatric species, and even members of different genera, also produce hybrids, and would have to be combined in large variable 'species'.

Clearly, a strict interpretation of reproductive isolation will cause, rather than solve, problems. Recognising this problem, Mayr (1982) explained how interspecific hybridisation is consistent with 'reproductive isolation'. In cases of hybridisation, two species 'seem to remain "reproductively isolated" in the sense that they do not fuse into a single population, in spite of the leakage of certain of their genes' (Mayr 1982: 285). Reproductive isolation means that taxa will not fuse into a single population, and should not be construed as an absence of interbreeding.

Two types of 'isolating barriers' are recognised, which

prevent the complete fusion of two species in a single population (Mayr 1996): 'pre-mating isolating barriers' and 'post-mating isolating barriers'. Pre-mating isolating barriers reduce or prevent hybridisation and include seasonal, ecological and behavioural differences (affecting mate choice). Post-mating isolating barriers reduce the reproductive success (fitness) of mixed pairs, and include lowered viability or fertility of the offspring and failure of hybrids to attract mates. If species limits in Brent Geese are interpreted with the BSC, the presence and extent of these barriers should be critically examined.

Because pair formation takes place on the wintering grounds, Syroechkovski *et al.* (1998) inferred that formation of mixed pairs may occur only when immatures of different taxa meet in the breeding area and subsequently migrate together to the same wintering area and form pairs. The alleged mixed pairs of *berniclea* and *nigricans* in north-west Yakutia were interpreted as the result of a recent contact on the breeding grounds which allows young *nigricans* to migrate with *berniclea* to western Europe. Although this interpretation would explain how mixed pairs are formed, it does not provide a proper test of the degree of assortative mating in *nigricans*. The incidence of hybridisation appears to be related to the availability of conspecific partners. It is well known that individuals are more prone to hybridise with another species if few or no potential conspecific mates are available (e.g. Hubbs 1955; Grant & Grant 1997; Nuechterlein & Buitron 1998). I suggest that the meaning of mixed-pair formation and hybridisation by Brent Geese should be considered in this light.

Although, in western Europe, *nigricans* is recorded with increasing frequency, *nigricans*

is still sufficiently rare for lone individuals to experience considerable difficulty in finding a *nigricans* mate. Because *nigricans* individuals generally are not in the position to choose a member of their own taxon, circumstances in Europe do not allow reliable inferences to be made about the mate preferences of *nigricans* Brent Geese. Thus, if a *nigricans* establishes a pair bond with a *berniclea*, this cannot be taken as evidence that these taxa do not discriminate between members of their own taxon and those of others. Based on these considerations, I do not regard observations of mixed pairs or even hybrids of *berniclea* and *nigricans* as incompatible with the view that these taxa are separate species.

In their taxonomic discussion, Syroechkovski *et al.* (1998) focused on interbreeding, but did not discuss the possibility that the alleged hybrid *berniclea* and *nigricans* have reduced fitness. A comprehensive review of well-studied animal hybrid zones (Barton & Hewitt 1985) has shown that, in many such zones, hybrids have reduced fitness, and that most hybrid zones are stable owing to a balance between dispersal of individuals into the hybrid zone and reduced hybrid fitness. Post-mating isolating barriers may, therefore, be a crucial factor in the maintenance of reproductive isolation. It has been shown that, even if mate choice is random and hybridisation is extensive, post-mating isolating barriers may still result in complete genetic isolation (e.g. Bigelow 1965). In the absence of information on the fitness of the alleged hybrid *berniclea* x *nigricans*, their lack of reproductive isolation remains conjectural.

What this reflection makes vivid is that inferences of species limits under the BSC are no simple matter. Given the many problems and uncertainties in the assessment of reproductive isolation, as well as more funda-

mental problems with the BSC itself (Raven 1986; Mayden 1997; Sangster *et al.* 1998), I prefer the PSC, which recognises species by their characters rather than their sex life. This approach separates evolutionary pattern from underlying evolutionary processes which generate and maintain diversity. Character variation is directly observable; this approach, therefore, takes nature as it is, and does not necessitate speculations about the possibility, existence and future outcome of hybridisation. All three taxa in the complex possess diagnostic character states, which is evidence that these taxa have unique evolutionary histories. Accordingly, since ornithologists have agreed that *bernicla*, *nigricans* and *brotta* are distinct taxa, treatment of these taxa as species better represents the known diversity within the complex.

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EDITORIAL COMMENT

We have received the following reply:

It is gratifying that our paper on Brent Geese has generated so much interest. It was our intention to describe the situation in northern Siberia and provide new information to stimulate discussion. The taxonomic question was just one issue, which should be considered in the context of the recent expansion of the breeding range of the species, its migration patterns and its conservation status. In his critique, Sangster focuses on the taxonomic aspects and expresses doubt about the identification of individuals of the subspecies *B. b. nigricans*

and the existence of mixed colonies, mixed pairs and hybrids. He states that 'All three taxa in the complex possess diagnostic character states', but does not define the relevant characters or explain how their diagnostic nature was assessed. Almost all recent authors have treated *bernicla* and *nigricans* as conspecific, but Sangster *et al.* (1997) treated them as separate species without any discussion and citing only Millington (1997) as a basis for this decision. Millington did not discuss the issue either, commencing his paper with the statement that 'Despite past uncertainty, the current taxonomic situation is clear: Black Brant, Dark-bellied Brent Goose

and Pale-bellied Brent Goose are three closely related but separate species. They each breed and winter independently and are identifiable in all plumages.' Adult Black Brants are claimed to differ from adult Dark-bellied Brents in the darker and browner upperparts and underparts, the tendency of the white neck-collar to be more prominent and, most importantly, the strikingly pale flank patch. Brief mention is made of presumed hybrids that 'simply appear to show various mixed characters' - in apparent contradiction of the claim of independent breeding. Cramp & Simmons (1977) referred to the neck-collar as the most important distin-

guishing feature of *nigricans*, noting that the extent of pale flank barring on *bernicla* is 'highly variable, with some individuals showing ... as much as *nigricans*.'

Over the last 12 years, we have visited the Russian Arctic every summer and have seen and caught many Brent Geese from all over Siberia, including birds identified as pure *bernicla* and as pure *nigricans*. We also know both subspecies from their wintering sites in England, the Netherlands, Germany, Washington and Mexico. We found that the differences between the two subspecies are not so clear-cut as they often appear in Europe. We observed considerable variation in coloration of the mantle and scapulars, prominence of the white flank patch, and the shape and extent of the neck collar; this leads us to conclude that many poorly marked *nigricans* would remain unidentified if they appeared in Europe. Although the photographs published with our paper are not perfect, owing to the conditions at the time being unfavourable for photography, we remain convinced that those of *nigricans* show the major identification features: the broad white neck collar and the obvious white patch on the flanks (which is not an artefact of the photographs). Sangster has noted that some birds of the Siberian population of *nigricans*, often treated as a separate subspecies *orientalis*, are lighter on the mantle than American individuals.

Even if the birds in the published photographs were *bernicla* rather than *nigricans*, the ringing recoveries in the area (six from the USA and two from the Netherlands) prove

the co-existence of two populations in the Olenyok and western Lena Delta.

Concerning Species Concepts, we follow Haffer (1997), who referred to the BSC (Biological Species Concept) as the most efficient tool in ornithological research. We agree with Eck (1996), who considered the Phylogenetic Species Concept (PSC) as less convincing, whilst accepting the mutual fertility of many such species: 'In how many species should *Homo sapiens* be divided?' The PSC refers to species when populations have different 'diagnosable character states' (Sangster *et al.* 1997). The observed greater variation in Brent Geese in Siberia, and the current discussion about the identification, indicate that the taxa are much more alike, possibly representing a cline from east (North America) to west (Taimyr). They are not in every case morphologically clearly separable and even might not suit the PSC.

Our observations have demonstrated that the two subspecies have recently met in the area and that they are interbreeding. We agree that the presence of a few mixed pairs and apparent hybrids is insufficient evidence to prove the conspecificity of the two forms. Further research is required to clarify the extent of hybridisation and the survival ability of hybrid offspring. It would be equally valid, however, to maintain the generally accepted view that these two forms are conspecific, and we believe that information (not yet published) gathered in the Olenyok Delta and on the Anabar River in 1998 supports this view. With growing interest in the species' status, we plan to publish further detailed

information on the cline in morphology to demonstrate fully the extensive variation of Brent Geese throughout Siberia.

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Emerging new species

The Taxonomic Subcommittee of the British Ornithologists' Union Records Committee (BOURC) has been enlarged to deal with the ever-increasing workload on taxonomic developments related to 'emerging new species' (*Brit. Birds* 92: 490), and the British Birds Rarities Committee has decided to form a group that will investigate methods of field identification of these 'new species' and others that may be separated in the future (*Brit. Birds* 92: 546). It all sounds very laudable, and any attempt at standardising the issues involved should receive support, but I am sure that I am not alone in thinking that we seem to be putting the cart before the horse by not clarifying what actually makes a species.

How many birdwatchers, whilst clamouring for a 'split', can actually articulate what they mean by a species, and how many scientists agree on common taxonomic criteria that clearly define what a species is? There are some excellent papers that look at the subject in depth, published in the *Bulletin of the British Ornithologists' Club* (vol. 112A and vol. 117, no. 2), which I think that all birdwatchers should read. I am not a scientist, but the conclusion that I draw is that we are now no nearer knowing what a species is than was Darwin when writing *The Origin of Species*, where he stated that 'No one definition has as yet satisfied all naturalists; yet every naturalist knows vaguely what he means when he speaks of a species'. The point is that there is not one satisfactory definition that suits all situations, and there never has been. Currently, the trend is to move away from the Biological Species Concept towards phylogenetic principles, which may seem to clarify certain criteria, but tend to make others more confusing. In this, there appears to be no limit to the characteristics that can be used to define a species, but how

valid are they? For instance, as I understand it, DNA analysis could tell us anything about a bird, from which genus it belongs to, down to its individuality; consequently, if one accepts the extremes of phylogenetic principles, each individual bird could be regarded as a separate species. This, of course, is ridiculous, but where is the line to be drawn on such trivia? Also, how far should vocal characteristics be used (when does a local dialect become a diagnostically different song), and what role should geographical isolation play? There are a lot of intractable arguments here, which have to be faced before a decision is made.

It is quite correct that the BOURC should be the determining body responsible for making the decisions relating to new species in the UK (and I assume that it liaises with the international Standing Committee on Ornithological Nomenclature), but I suggest that, before promoting any further taxon to specific status, the BOURC's Taxonomic Subcommittee should publish which of the various principles of taxonomy it is using, or is proposing to use, and what criteria it considers valid in defining what makes a species.

As I am not a scientist, I am, perhaps, able to look at these problems from a more detached viewpoint, and my plea is for a simpler approach to speciation that we can all understand. There will always be 'grey areas' that defy definition, and this needs to be admitted and, where necessary, the safer but more certain path adopted. We should not be too eager to dispense with subspecific status on the basis of inferiority, and I fully agree with Martin Collinson (*Brit. Birds* 92: 118-119) when he says that 'Intraspecific diversity should be recognised and celebrated whether we can tick it or not'. Let us, therefore, be more courageous, and admit to that which we do not know, and

be more cautious about that which we think we know.

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EDITORIAL COMMENT

Tony Marr, the Chairman of the BOURC, has commented as follows: 'Chris Wheeler has described well the problem facing the BOURC, and list committees in other countries, in trying to determine the answer to a simple question: What is a species? The debate continues on whether to follow one species concept or another.

'The two principal concepts - the Biological Species Concept (BSC) and the Phylogenetic Species Concept (PSC) - each have their supporters, but neither provides the perfect answer to the problem. There are pluses and minuses in each concept, and a consensus appears to be emerging that the right approach is to take the best from each.

'The BOURC's newly enlarged advisory Taxonomic Subcommittee (TSC) has now held its first meeting, at which it tackled the questions of species concepts and the working definitions to be used to determine species boundaries. A full statement on its conclusions will be issued soon, together with a shortlist of species for priority action affecting the British List.

'A further development is that the TSC has two Continental European members, which will assist in co-operation and co-ordination on taxonomic issues across Europe, through the Association of European Rarities Committees. We shall also continue to work closely with taxonomists in the USA on matters of common concern.'

Moult and age of first-year 'white-winged' gulls

The identification of gulls (Laridae) is amongst the most topical (and thorny) issues facing birders throughout the Holarctic, as evinced by the continued publication of increasingly refined identification literature (e.g. the excellent papers by Garner *et al.*, *Brit. Birds* 90: 25-62, 369-383). Often central to the identification of any gull to species is determination of its age, for which it appears that the terminology used at present leaves room for ambiguity. At the risk of sounding iconoclastic, I should like to raise a question about ageing certain gull species based upon the seasonal system: are 'first-winter' gulls necessarily in their 'first-winter plumage'? This seems to be something that has been taken for granted, but which appears not to be the case for at least some individuals of some species.

Traditional moult timings for gulls were outlined first by Dwight (1925), and presumably were based largely upon temperate-breeding species such as Ring-billed *Larus delawarensis* and eastern US and British populations of Herring Gull *L. argentatus*. Recent studies (Howell & Corben in press) have brought into question the traditional moult and plumage sequence patterns (e.g. as discussed by Grant, 1986, pp. 16-18), and raise a question concerning 'white-winged' gulls.

In California, most first-year Thayer's Gulls *L. (glaucoides?) thayeri*, Herring Gulls *L. a. smithsonianus* and Glaucous-winged Gulls *L. glaucescens* retain apparently full juvenile plumage into January or even later (Howell *et al.* 1999). As an extension of these field studies, I reviewed published photos of Kumlien's *L. (glaucoides?) kumlieni*, Iceland *L. g. glaucoides* and Glaucous Gulls *L. hyperborens*. Taking only the clearest photos in Grant (1986), the apparently uniform

plumage pattern and wear of the first-year Iceland Gulls shown in Photographs 423 & 424 and the first-year Glaucous Gulls in Photographs 399-402 suggest that these birds have a single generation of feathers (i.e. are in juvenile rather than 'first-winter', first-basic, plumage). Similarly, I believe that the first-year Kumlien's Gulls shown in Figures 3-6 of Zimmer (1991) and Plates 11-13 of McGeehan & Garner (1997a) are also in juvenile plumage. Other examples include excellent photos of apparently full juvenile Glaucous Gull (Anon. 1992, p. 44) and Iceland Gull (Anon. 1994, p. 6), both taken in January and labelled 'first-winter'.

Interestingly, for both Iceland and Glaucous Gulls, Witherby *et al.* (1941) and Pierre Devillers (in Cramp & Simmons 1983) appear to support these conclusions about moult. For Glaucous Gull, Witherby *et al.* (1941) noted that 'The juvenile body-plumage is only partially moulted and often very little'; and Iceland Gull is said to be similar. Devillers noted for both species that the post-juvenile (first-prebasic) moult is 'very limited, ... often only a few scattered feathers'; that some juvenile Iceland Gulls 'show no moult as late as March'; and that some juvenile Glaucous Gulls show 'sometimes none [= no moult] at all' (presumably until the summer of their second calendar year). This accords well with field observations of Thayer's Gulls. I note, however, that for 'Iceland and Kumlien's (and indeed Glaucous)' Gulls, McGeehan & Garner (1997a, p. 95; 1997b, p. 272) apparently interpreted *BWP* to mean that the 'first-winter' (in the sense of first-basic) plumage *looked like* the juvenile plumage, rather than that the 'first-winter' plumage can be *exactly the same feathering* as the juvenile plumage. I also note for Glaucous (and Iceland) Gulls, that Grant (1986,

p. 148) stated that first-winter, a plumage supposedly 'acquired by post-juvenile body moult, summer to October', is 'sometimes indistinguishable from juvenile plumage' - presumably because *it is the same plumage*. Indeed, I am aware of little (or no) evidence that migratory juvenile Glaucous or Iceland Gulls moult more than a feather or two (if that) by October.

In order to address this issue and collect meaningful data, observers need to break from the traditional mindset and abandon preconceptions concerning the timing of post-juvenile (first-prebasic) moults. An appreciation of the full range of variation in juvenile and 'first-winter' (first-basic) plumage patterns (e.g. of scapular and mantle feathers) is also central to the issue. Good, *close-range* views (sadly, not always possible at many British gull-watching locales) are essential to determine which generations of feathers are involved in a bird's 'first-winter' plumage and to help evaluate how many 'first-winter' (*sensu* Grant 1986) Iceland and Glaucous Gulls are in fact juveniles. At the same time, I recognise that, for birds with predominantly 'white' plumage, distinguishing between feather generations may not always be possible.

I thank Chris Corben (who first pointed out *juvenile* Thayer's Gulls to me in March and April) for his stimulating discussions and insights, and Martin Elliott, Peter Pyle, Bert McKee and Jon King for discussions on this subject, and hope that this letter provokes people to look anew at moult and the precise age-determination of 'white-winged' and other gulls.

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Honey-buzzards in southern England

The recent paper on European Honey-buzzards *Pernis apivorus* (*Brit. Birds* 92: 326-346) is an interesting addition to the literature. Nevertheless, certain statements made in it and the appended Announcement by the Rare Breeding Birds Panel can clearly be construed as criticism of lack of sharing of information by local ornithologists. As founder member of two English Raptor Groups formed in southern counties in the 1990s, I know for a fact that returns of nests in those counties have been submitted to the RBBP via English Nature for several years now. Unwillingness to submit information is out of date in those counties, and in my view there is a danger of the paper and Announcement disaffecting ornithologists who do not favour 'hands-on' methods. With any large bird, there is always a risk that eggs or small chicks will be knocked off even large nests if the sitting adult is flushed, and large chicks leave prematurely if the nest tree is climbed. One 1990s case of a dead New Forest Honey-buzzard nestling found near the nest tree was strongly suspected to be due to this. This reduces success, although does not qualify as nest 'failure'. The rates quoted of total failure in the Netherlands, where the large population can easily withstand intrusion, seem high to me. Of 56 British nests monitored in southern England, all were left

unclimbed and only three (5%) failed. Behavioural reactions to nest visits can draw unwanted attention to nests, especially in public areas, resulting in eggs being at risk in subsequent years.

The paper gave the impression that nest removal in winter is routine in the New Forest, 'removing the focus for returning pairs'. This is not the case with the two Raptor Groups known to me. Protection measures are considered only if persons unknown to the Raptor Groups climb nest trees. Evidence has included broken branches and rope burns, but, even then, protection methods other than nest removal are preferred. As I understand it, the licensing authorities require Schedule One licence applicants to liaise with local Raptor Groups to avoid duplication of disturbance. Landowner permission is also mandatory. Despite this, evidence of anonymous disturbance has been more frequent in the 1990s than in the previous three decades (co-ordinator of the Hampshire Raptor Group, verbally) and has influenced Raptor Group judgement on subsequent demands for access.

Widespread breeding in Britain is nothing new. In the nineteenth century, Honey-buzzards were found breeding 'from Hampshire up to Aberdeenshire and East Ross-shire' (Saunders 1899). I disagree that the figures

suggested by Brown (1976), Spencer *et al.* (1990), Batten *et al.* (1990) and Ogilvie *et al.* (1999) 'undoubtedly reflect a real increase over the past 30 years'. I believe Roberts *et al.* would agree that these authors had very incomplete information to hand. Does the population in fact fluctuate? When I began birdwatching in the early 1970s, bird books suggested that a glimpse of a Honey-buzzard in the New Forest was all that could be hoped for. In fact, when I learned how to look, I found them throughout the Forest. In the 1980s, numbers there fell to a low ebb, before increasing again in the 1990s. One difficulty in assessing breeding numbers is the presence of non-breeding pairs and individuals, which can shift localities over the summer. Non-breeding pairs have also been recorded bringing food to platforms which they have built.

Pete Combridge

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EDITORIAL COMMENT

Dr Ken Smith, on behalf of the Rare Breeding Birds Panel, has commented: 'This letter, and others received in a similar vein, indicate the sensitivity concerning this species, but we have received a very positive response from a majority of key workers and Raptor Study

Groups involved with the species, and plan to go ahead with a co-ordinated effort in 2000. During this winter, we shall be agreeing census plans with the RSGs and licensed observers to ensure that the methods adopted are safe for Honey-buzzards, and will yield reliable and repeatable results.'

Long-tailed Rosefinch distribution

Contrary to the statement in the paper on Long-tailed Rosefinch *Uragus sibiricus* that I recently co-authored with Vadim Ryabitsev (Ryabitsev & Wilson 1999), details are available for the occurrence of this species in the Ural valley.

A single female Long-tailed Rosefinch was collected near Chapaevo (Chapayev), Kazakhstan, in November 1958 (Gavrilov *et al.* 1968). Chapaevo lies at approximately 50°N on the right (west) bank of the Ural river, so the record relates to the small northwestern part of Kazakhstan lying between the Volga and Ural rivers, and hence is within the Western Palearctic. Farther south in the Ural valley, two Long-tailed Rosefinches were seen in riparian willow *Salix* scrub some 60 km north of Gur'ev (Gur'yev) (47°08'N, 51°59'E) in March 1974 (Gubin *et al.* 1977). Again, these birds were either within the Western Palearctic or at least very close to the region's eastern boundary.

Outside the breeding season, Long-tailed Rosefinch has thus

occurred within the Western Palearctic in both Russia (Ryabitsev & Wilson 1999) and Kazakhstan. Further records of this kind in eastern European Russia not included by Ryabitsev & Wilson (1999) relate to the republics of Bashkortostan and Tatarstan and the Ul'yanovsk region (As'keev & As'keev 1999). In 1999, breeding (by at least two pairs) again took place in the area northwest of Ekaterinburg, where it was confirmed in 1998 (Postnikov in press).

I am grateful to Professor Edward Gavrilov of the Zoological Institute in Almaty for drawing my attention to the Ural valley records as first published (the earlier one is also in Kovshar' 1974) and for confirming that they are the only ones in that part of Kazakhstan. Vadim Ryabitsev kindly provided a pre-publication copy of S. N. Postnikov's note on breeding by Long-tailed Rosefinches in 1999.

M. G. Wilson

Alexander Library, Edward Grey Institute, South Parks Road, Oxford OX1 3PS

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Recent BBRC decisions

This monthly listing of the most recent decisions by the British Birds Rarities Committee is not intended to be comprehensive or in any way to replace the annual 'Report on rare birds in Great Britain'. The records listed are mostly those of the rarest species, or those of special interest for other reasons. All records refer to 1999 unless stated otherwise.

ACCEPTED: **Marsh Sandpiper** *Tringa stagnatilis* Tresco (Scilly), 25th July. **Terek Sandpiper** *Xenus cinereus* Minsmere (Suffolk), 27th-28th May.

M. J. Rogers, Secretary, BBRC, 2 Churchtown Cottages, Towednack, St Ives, Cornwall TR26 3AZ



Reviews

Island Eagles: 20 years observing Golden Eagles on the Isle of Skye

ISLAND EAGLES

By Ken Crane
and Kate Nellist.

Cartwheeling Press, Isle of
Skye. 142 pages, 23 sketches.

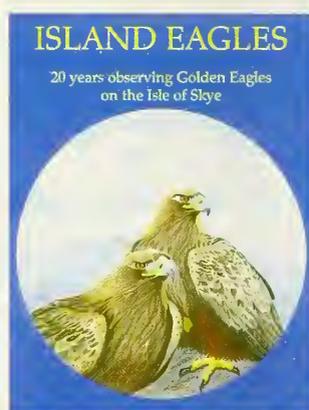
ISBN 9536033 0 X.

Paperback, £10.00.

I wish there were more bird books like this one. Some of today's ornithological literature is almost unintelligible, much is described as 'worthy but dull' and most of the rest is about rarities and identification. Thank goodness for a lively, honest account of fieldwork and investigation and – most of all – for the writers' unashamed enjoyment of the birds themselves.

Ken Crane and Kate Nellist

have given us a rare insight into the lives of the Golden Eagles *Aquila chrysaetos* that they have known and studied on Skye for 20 years, blending a wealth of detail on individual birds and events into a larger picture of home-range occupation, breeding success, prey relationships and conservation problems. They take us out there on the hill with them, slogging the miles, sitting cramped in observation posts and following every move of every eagle seen. Sometimes, it will make you green with envy – have you ever seen ten Golden Eagles in the air together, or watched one cleverly rob a Fox *Vulpes vulpes* of a Rabbit *Oryctolagus cuniculus* that it has just painstakingly caught?



Raptor enthusiasts will really enjoy this book. I hope that it will inspire others too: buy it, read it, get out there and follow the authors' example.

Mike Everett

Atlas der Brutvögel der Steiermark

ATLAS DER BRUTVÖGEL DER STEIERMARK

By Peter Sackl and
Otto Samwald.

BirdLife Austria, Graz, 1998.
432 pages; 168 colour plates;
maps and diagrams. ISBN 3-
85333-034-7. ATS 498.

This 'Atlas of the Breeding Birds of Steiermark (central Austria)' was compiled from data collected during the 1980s, with additional records up to 1996. The maps are clear, and supported by diagrammatic information, including the altitudinal distribution of each species – a useful feature for this mountainous region. The text, in German, is presented in a familiar format, but it is good to see a section on threats and conservation measures. There would have been room for extra information, but this is a useful, and user-friendly, local atlas.

Norbert Schaffer

The Sun Islands: a natural history of the Isles of Scilly

THE SUN ISLANDS

By Patrick Coulcher, with
paintings by John Hamilton
and Frank Wootton.

The Book Guild, Lewes, 1999.
175 pages; 66 colour plates;
11 maps; over 20 line-drawings.
ISBN 1-85776-348-3.
Hardback, £17.95.

This book is not a scientific treatise, nor does it claim to be. The author, clearly as spellbound as I am about the place, describes his experiences, limited mostly to spring visits, in a walk-about, poetic style. There is a chapter on each main island and island group, each prefaced by an outline map, and sketches of the topography, which are pleasing to the eye. The bird sketches are less so, and the one labelled 'guillemot' is a Black Guillemot *Cepphus grylle*, out of place in this book. So, this is not for the average *BB* reader, and a scatter of misleading comments makes it

of questionable value even for visitors with a more casual interest in the wildlife. For example, St Agnes is not the place to see nesting Chaffinches *Fringilla coelebs* and Willow Warblers *Phylloscopus trochilus* – neither species breeds in any numbers on any of the islands – and to imply that you may find a Caspian Plover *Charadrius asiaticus*, mentioned in the chapter on Bryher, when there has been just one Scilly record – on St Agnes – is, well, plain silly. More research on the birds was needed. On flowering plants, the author is sound, but, for example, his over-romantic use of 'Wild Gladioli' to describe *Gladiolus byzantinus*, a colourful escape from cultivation, is irritating, and two other exotic escapes, the African Corn Lily *Ixia* and the Harlequin Flower *Sparaxis*, get not a mention. For me, this book is an opportunity missed and a disappointment.

Barry Nightingale

A Birder's Guide to the Rio Grande Valley

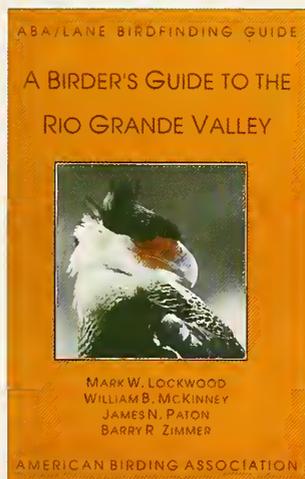
A BIRDER'S GUIDE TO THE RIO GRANDE VALLEY

By Mark W. Lockwood, William B. McKinney,
James N. Paton and Barry R. Zimmer.
American Birding Association, Colorado Springs, 1999.
288 pages; 40 maps; black-and-white drawings.
ISBN 1-878788-18-3.
Wire-o-binding, \$23.95.

This is an updated version of earlier Lane/ABA guides, incorporating new or expanded-old sites and updated status of some species; the odd defunct site has been dropped. The previous bar-graph checklist has been replaced by a fully annotated checklist with the region's spe-

cialities highlighted. As a bonus, a new section details the region's butterflies, with brief notes on habitat, status and flying times. This is as near a definitive guide as one could hope for, and is a must for visiting birders.

David Holman



Irish Bird Song

IRISH BIRD SONG

By Seamus Byrne.
New World Music, Suffolk,
1999. 61 minutes.
7677 1 50460 2 9
CD, £10.95.

Bird songs to relax by. Half an hour of singing Song Thrush *Turdus philomelos* (with Wren *Troglodytes troglodytes* and Wood Pigeon *Columba palumbus* in the background) recorded in Devil's Glen, Co. Wicklow, followed by half an hour of more singing Wrens (and a tinkling stream) recorded on Cape Clear Island, Co. Cork. Two very different locations, but, essentially, its 'Wrens with Song Thrush' and 'Wrens without Song Thrush'.

J. T. R. Sharrock

Dictionary of Bird Artists of the World

DICTIONARY OF BIRD ARTISTS OF THE WORLD

By Christine E. Jackson.
Antique Collectors Club,
Woodbridge, 1999.
550 pages; numerous colour
and black-and-white photo-
graphs; over 4,000 entries
for artists (excluding con-
temporary artists).
ISBN 1-85149-203-8.
Hardback, £45.00.

This weighty tome is a well-produced, excellent reference book and represents a considerable achievement by the author. The scope is very wide, including painters of farmyard chickens and heaps of dead gamebirds. All the artists listed are dead. Entries provide information on artistic



style, current location of works and, most interestingly, recent sale prices. There is a very readable chapter on the history of bird art. Paintings illustrated range from the exquisite to the frankly hideous.

Hilary Burn

The Daily Telegraph Nature Notes

THE DAILY TELEGRAPH NATURE NOTES

By Robert Burton,
with 48 drawings
by Michael Woods.
111 pages. ISBN 0-340-
72884-1. Hardback, £7.99.

Those who enjoy the Behaviour Notes in *British Birds* will probably also appreciate these short essays, each topical for the time of year, taken from the author's regular column in *The Daily Telegraph* (which was previously compiled by his father, Dr Maurice Burton, for over 40 years, from 1949 to 1989). We all know the country name of 'Storm Cock' for the Mistle

Thrush *Turdus viscivorus*, but I had not heard it called 'Jeremy Joy', which is 'apparently a corruption of January Joy, an illusion to the way the Mistle Thrush starts to sing at the beginning of the year' This little book (the size of a book of verse) is filled with such snippets.

J. T. R. Sharrock

Rare Birds of the Netherlands

RARE BIRDS OF THE NETHERLANDS

By Arnoud B. van den Berg and Cecilia A. W. Bosman.
Pica Press, Sussex, 1999.
397 pages; almost 800 diagrams and maps; over 300 colour photographs.
ISBN 1-873403-88-07.
Hardback, £30.00.

This is a lovely book, extremely well produced on high-quality paper, with numerous excellent photographs of the rare birds it describes (of the 468 species recorded in the Netherlands, only two have not been docu-

mented by a published photograph or sonogram). All species accounts are in both English and Dutch, as are the photograph captions, and there is an English summary of the detailed 27-page introduction (throughout which bilingual captions allow interpretation of the many tabular analyses).

The period 1800-1996 is covered, with additional reports for some species for 1997-98 bringing the text right up to date. The book adheres to the decisions of the Dutch rarities committee, the CDNA (whose predecessor, the CDA, formed in April 1957 - more than two years before the formation of the BBRC in August 1959 - was the

first rarities committee in Europe). The systematic list includes entries for all Dutch rarities, with attention focused on those that have been considered by the CDNA in at least one year since 1989 (a subsequent volume will deal with the regular species). Each species account contains histograms charting annual and seasonal occurrence, a map showing geographical distribution of records, and a list of every record, following a summary text. Reference is made to all published articles and photographs of each record, which provides a valuable cross-reference. I recommend this work to anyone with an interest in the occurrence of rarities in north-west Europe.

Adam Rowlands

Birds of Madagascar: a photographic guide

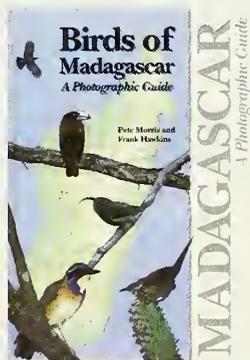
BIRDS OF MADAGASCAR

By Pete Morris and Frank Hawkins.
Pica Press, Sussex, 1998.
316 pages; 450 colour photographs.
ISBN 1-873403-45-3.
Hardback, £28.00.

Nearly a decade has passed since the publication of Olivier Langrand's pioneering *Guide to the Birds of Madagascar*. Despite its many shortcomings, that book was instrumental in focusing birders' attentions on this avifaunal paradise. Indeed, the wealth of information covering vocalisations, behaviour, rediscoveries, species new to science, and so on, all revealed in this new photographic guide, demonstrates how much has been achieved in the last ten years.

A general introduction depicting the distinctive habitats of the country is followed by a section on conservation. The latter underlines the important contribution that can be - and has been - made by visiting

ornithologists. A guide to 19 of the most popular sites provides helpful advice on access, and also details the key species. The section on the Madagascar Checklist could, however, have benefited from emphasis being given to Madagascar/Malagasy endemics.



The real meat in the book is in the species accounts and the accompanying photographs. Perhaps surprisingly for a photographic guide, the texts are extremely detailed, and they obviously reflect the field knowledge of the authors. Some of the photographs of the endemics are superb, and will no doubt coax many more birders to visit

Madagascar. Photographs of some of the other endemics are understandably poor. The guide could, however, have benefited from more photographic emphasis on the local birds (e.g. two photographs devoted to Pied Avocet *Recurvirostra avosetta*, including one of a juvenile - of a doubtful benefit in Madagascar, where the species has been recorded only twice - yet, on the same page, just one small photograph of Madagascar Pratincole *Glareola ocularis*). Only three extant endemics are not portrayed by a photograph, and they are illustrated by mediocre colour paintings instead. The decision to use paintings for widespread African species, such as Harlequin Quail *Coturnix delegouei*, is, however, difficult to understand. The research value of the book would have been enhanced if details of the date and location of the photographs had been provided.

In conclusion, this photographic guide will be an essential purchase - for both the photographic material and its written content - for anyone planning to visit Madagascar.

Nick Gardner

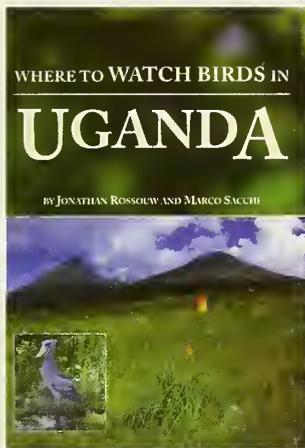
Where to Watch Birds in Uganda

WHERE TO WATCH BIRDS IN UGANDA

By Jonathan Rossouw
and Marco Sacchi.

Uganda Tourist Board,
Kampala, 1998. 110 pages;
70 colour photographs;
18 colour maps.
Softback, £14.99.

This attractive little guide covers 14 major sites in the country, concentrating mostly on National Parks, Forest and Wildlife Reserves. The introductory section deals with birding itineraries, literature, travel and health information, and includes a list of useful addresses and contacts. A systematic checklist of the birds of Uganda is included, showing their status at 15 sites (though no indication of seasonality.) Each site section gives details of the locality, key species, access, facilities and a list



of larger mammals. I thoroughly recommend this guide to anyone planning a birding trip to Uganda, though it should be used in conjunction with a backpackers' guide, and visitors should make themselves aware of the current security situation, especially in border areas.

Iain Robertson

Weißstorch im Aufwind? (White Storks on the up?)

WEIßSTORCH IMAUFWIND?

Edited by Holger Schultz.
NABU (Naturschutzbund
Deutschland), Bonn, 1999.
622 pages; 185 figures
and 134 tables.
ISBN 3-925815-00-7.
Softback, DM 59
plus post and packing.

A large section of this volume, the proceedings of an international symposium held in Germany in 1996, is devoted to the results of the 5th International Census of White Storks *Ciconia ciconia*. There are reports from most participating countries, many showing encouraging population increases, together with papers covering

ecology, conservation, migration and wintering. The whole is a comprehensive and up-to-date survey of the conservation status of one of Europe's most fascinating, well-loved and best-studied species. Papers are in English or German, sometimes both, but always with, at least, an English summary.

Ian Carter

Holger Schultz

Weißstorch im Aufwind? White Storks on the up?



MAHLE OPERATED BY
JUN TOWN LIMITED
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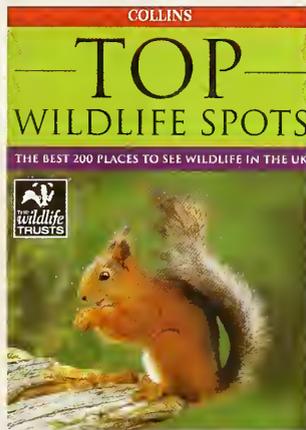
Top Wildlife Spots: The Wildlife Trusts' Nature Reserve Guide

TOP WILDLIFE SPOTS

HarperCollins, London.
Information on the top 200
UK Reserves. 256 pages.
ISBN 0-00-220178-X.
Paperback, £6.99.

A nicely laid-out book suitable for carrying on your travels, so that you can quickly find somewhere to visit. Each page features a Wildlife Trust reserve, with a clear map, easy directions for finding it and a summary of the important species and features to see. But it is not comprehensive: it includes 200 reserves, which is only one-tenth of those in the Wildlife Trusts' care.

Robert Burton



ALSO RECEIVED

Birds of Europe, with North Africa and the Middle East

By Lars Jonsson, translated by David Christie, distribution maps by Magnus Ullman. (Christopher Helm, London, 1999. 559 pages. ISBN 0-7136-5238-1. £15.99) (First edition 1992, reviewed *Brit. Birds* 86: 23-24)

Wings over the Valley:

a bird watcher's Wales diary
By John Green. (Artery, London. 191 pages. ISBN 0-9513909-5-3. Paperback, £9.99).



News and comment

Compiled by Bob Scott and Wendy Dickson

Taxonomic developments

The first meeting of the enlarged Taxonomic Sub-committee (TSC) of the British Ornithologists' Union Records Committee (see *Brit. Birds* 92: 490) was held at Swanwick in Derbyshire on 4th December 1999. The six members of the TSC – Dr Martin Collinson (Scotland), Dr Andreas Helbig (Germany), Dr Alan Knox (Scotland), Professor David Parkin (England), Dr Tony Prater (Wales) and George Sangster (Netherlands) – met for the first time, under the chairmanship of Tony Marr, the BOURC Chairman.

The meeting followed the Association of European Rarities Committees (AERC) meeting held in the Czech Republic in September 1999, and pursued the AERC's aim of seeking international agreement on taxonomic issues.

The TSC tackled the questions of species concepts, the working definitions that it will use to determine species boundaries, and, following on from the AERC meeting, the list of species for priority action in Britain.

A fuller statement on the TSC's conclusions on species concepts and species definitions will be issued in due course, but it was regarded as important to publicise immediately the short-list of species for prioritised con-

sideration affecting the British List, which is as follows:

- Tundra Swan *Cygnus columbianus*
- Bean Goose *Anser fabalis*
- Brent Goose *Branta bernicla*
- Common Teal *Anas crecca*
- Common Snipe *Gallinago gallinago*
- Herring Gull *Larus argentatus*
- Yellow Wagtail *Motacilla flava*
- Pied Wagtail *M. alba*
- Carrion Crow *Corvus corone*
- Common Redpoll *Carduelis flammaea*

A first report is in preparation on the species currently under analysis, whose resolution may affect the British List, and is expected to be published in spring 2000.

The TSC is following the AERC view that stability should be maintained, unless there are good scientific reasons for change and the evidence has been published, preferably in a refereed journal. Inevitably, the inadequacy of some of the present information means that some issues will take longer than others to resolve.

A summary of the Minutes of the September 1999 AERC meeting, with the full list of species being considered for priority action across Europe, is published in this issue (pages 86-88).

New Honorary Subscriber

We are delighted to announce that Derek Goodwin has accepted the Editorial Board's invitation to become an Honorary Subscriber.

In accepting this accolade, Derek Goodwin joins a select group of a dozen ornithologists, each of whom has made major contributions to British, European or World ornithology, as well as to the success of *British Birds*: I. J. Ferguson-Lees, P. A. D. Hollom, Guy Mountfort, E. M. Nicholson, Bill Oddie, Dr Malcolm Ogilvie, Dr Chandler S. Robbins, Michael J. Rogers, Major R. F. Rutledge, Dr P. O. Swanberg, Prof. Dr K. H. Voous and D. I. M. Wallace.

Derek was a staff member in the Department of Ornithology at the British Museum (Natural History), now The Natural History Museum at Tring. He is, however, probably best known to *British Birds* subscribers as the author of several classic books, including *Bird Behaviour* (1961), *Pigeons and Doves of the World* (1967), *Crows of the World* (1976) and *Birds of Man's World* (1978). For the past 23 years (since July 1976: *Brit. Birds* 69: 238), he has worked behind the scenes for *British Birds* as one of the eight members of the Behaviour Notes Panel.

Coincidentally with the award of Honorary Subscriber-ship, Derek has decided to retire from the Behaviour Notes Panel, much to the regret of his fellow members, who have enjoyed not only his knowledgeable comments, but also his humorous interjections, many of them in the form of poems.

Harry Cawkell (1915-1999)

When Dungeness Bird Observatory was formed in 1952, H. A. R. (Harry) Cawkell was a 'natural' for the role of Hon. Secretary. He knew the area, he knew all the people, and he had all the skills necessary. On 15th December 1999, Harry died suddenly in his cottage overlooking his beloved Midrips. Holding an official observatory position for some 47

years, Harry had set yet another notable record. Harry's ashes will be scattered at Dungeness, and his niece has asked that anyone who wishes to remember Harry should make a donation by cheque to Dungeness Bird Observatory (11 RNSSS, Dungeness, Romney Marsh, Kent TN29 9NA).

Black Grouse plan launched

The Game Conservancy Trust (GCT) and the RSPB have been appointed joint lead partners by the Government for the Black Grouse Biodiversity Action Plan. Implementing the plan will be carried out in conjunction with Scottish Natural Heritage, the Government's nature conservation adviser in Scotland. Scotland holds the majority of the UK's Black Grouse *Tetrao tetrix*, a species that has suffered a 75% decline in the last decade. The North Pennines and Northumberland together provide the last English stronghold, with some 800 males, whilst a further 150 males remain in Wales.

The action plan identifies such measures as changes in agriculture, deer management and forestry policies that need to be taken. For further information, contact Julian Hughes, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

Changes to the British List

The BOU Records Committee has announced the following changes to the British List:

Iberian Chiffchaff *Phylloscopus brebmii*

This newly 'split' species will be added to Category A on the strength of one seen and tape-recorded at Brent Reservoir, Greater London, on 3rd June 1972. A paper for *British Birds* describing this occurrence in detail is in preparation by Dr L. A. Batten. The British Birds Rarities Committee has accepted one subsequent record (Scilly) and is currently assessing two other reports (Devon and Dorset).

Griffon Vulture *Gyps fulvus*

Following a review, the details of the only record for Britain – two seen together at Ashbourne, Derbyshire, on 4th June 1927 (*Brit. Birds* 21: 96-97) – were considered to be insufficient to eliminate other species of vulture or the possibility of escape from captivity. The species has accordingly been removed from Category B of the British List (*Ibis* 142: 177-179).

Purple Swamp-hen *Porphyrio porphyrio*

Since this species is widely kept in captivity, one of indeterminate race (perhaps a 'hybrid' between races) seen and photographed at Sand-scale Haws, Cumbria, on 23rd-28th October 1997 (*Birding World* 10: 399, 462-466) is considered likely to have been an escape. The record has been placed in Category E (*Ibis* 142: 177-179), which does not form part of the British List.

With the addition of Iberian Chiffchaff to Category A and the removal of Griffon Vulture from Category B, the total number of species on the British List remains at 553.

Swedish Loon Conference

For three days in mid August 1999, the Swedish Society for Nature Conservation, together with the Wetland International Loon/Diver Group, hosted an international conference near Gothenburg on the subject of research on and management of diver *Gavia* populations. Topics included population trends, threats, pressures on breeding

populations, pollutants, acidification, and the conflicts that can ensue when divers come in contact with Man.

Many of these conflicts are being addressed in different parts of the World, but include recreational activities on breeding lakes, drowning in fish nets and traps, falling water levels on breeding lakes, and

chemical contamination of food supplies. Long-term studies of Red-throated Divers *G. stellata* in Shetland were described, contrasting their migrations with those of the Scandinavian population.

For further details, write to Dave Okill, Heilina Bretta, Cauldham, Tronda, Shetland ZE1 0XL.

Black Sea colour-ringing

During the 1999 breeding season, some 1,500 nestling Great Cormorants *Phalacrocorax carbo* and 50 Great Black-headed Gulls *Larus ichthyoides* were colour-ringed at Sivash, a major wetland complex between the Black and Azov Seas. The work was undertaken by the Azov-Black Sea Ornithological

Station, Ukraine, and the Italian Wildlife Institute, Emilia, with funding from the Italian Fishery Directorate. The project is aimed at assessing the origin and trends of the Central Mediterranean wintering populations. Both species were fitted with colour-rings (mauve-pink on the cormorants and yellow on the gulls)

engraved with black letters.

Please report all rings observed to Nicola Baccetti, INFS, via Ca Fornacetta 9, I-40064 Ozzano Emilia BO, Italy; email: infszumi@iperbole.bologna.it or to Bob Scott at abscott@tiny-world.co.uk

Birds and aircraft at Lough Foyle

We all know that, at times, birds and aircraft just do not mix. At times, however, quite amazing stories get drawn to our attention. Way back in 1981, the RSPB acquired a lease from the Crown over a core area of Lough Foyle, Co. Londonderry, Northern Ireland. This was in recognition of some of the key bird populations that winter on the estuary or pass through on migration. These include internationally important numbers of Whooper Swans *Cygnus cygnus* (up to 1,500) and Bar-tailed Godwits *Limosa lapponica* (up to 4,000), and, during periods of migration, as many as 36,000 waterfowl. Indeed, the importance of the site is further recognised by its designation as an Area of Special Scientific Interest (the Northern Ireland equivalent of the SSSI) and by the current process of designation as a Ramsar Site and Special Protection Area (EU Birds Directive) being undertaken by the Department of the Environment (ND).

At the same time as this was progressing, the City of Derry Airport (supported by the Secretary of State for Northern Ireland) was preparing a proposal to extend the airport runway across the mudflats -

including the land managed by the RSPB. Ironically, no-one had thought to contact the 'owners' (i.e. the RSPB) about the application to build an airport runway on the reserve. The left hand of Government was apparently undertaking work to protect the site, while the right hand was planning to destroy it. Here was an area lush with Eelgrass *Zostera marina* and supporting wintering/migrating populations of over 4,000 light-bellied Brent Geese *Branta bernicla brota* and up to 4,000 Dunlins *Calidris alpina*.

Political implications will, of course, drive this planning proposal and its potential economic benefits for the region. There are, however, certain considerations that need to be taken on board, and this appears not to have happened at this stage. Only the Government can tackle the problem of melding the joint responsibilities of national interest with international conservation responsibility. The RSPB has a clear duty to the wildlife, its members and its responsibilities as a registered charity. Long may it rattle the Government's cage!

Checklist of the Birds of Tunisia

An annotated checklist of the birds of Tunisia is in preparation. The authors (P. Isenmann, T. Gaultier, M. Czajkowski, I. Essetti and M. Smart) seek unpublished records. They can be sent to Paul Isenmann, CEFE/CNRS, 1919 Route de Mende, F-34293 Montpellier Cedex 5, France, or by e-mail to isenmann@cefe.cnrs-mop.fr

County Recorders

County, Regional and Bird Observatory Recorders' names and addresses are listed biennially in *British Birds*, and were last published in May 1999 (*Brit. Birds* 92: 256-258). We have recently been informed of the following changes:

Cambridgeshire Richard Allison's address is now 3 Vermuyden Way, Fen Drayton, Cambridgeshire CB4 5TA.

Devon Mike Langman's address is now 38 Brantwood Drive, Paignton, Devon TQ4 7TD.

Isle of Wight Graham Sparshott, Leopard's Farm, Haven Street, Ryde, Isle of Wight PO33 4DR, is now the Recorder for the Isle of Wight Ornithological Group.

Musselburgh - for birds and people

Good news for birders in the Lothians has been the construction of three new hides overlooking six shallow, clay-lined pools at Musselburgh. This development has taken place within a coastal complex that includes intertidal zones, grassland, developing woodland and a lagoon system. This is a Local Authority site, owned by the East Lothian Council, and for many years operated on, as a dumping ground, by Scottish Power. With the aid of Land Fill Tax from Scot-

tish Power, the RSPB has developed the facilities (bearing in mind such potential hazards as vandalism), which now provide some splendid high-tide bird-watching. This site has yet further potential for visitors, and an even greater potential for conservation.

The future of a further lagoon is still under debate. It could well become a superb wader scrape and high-tide wader roost to rival that in Belfast Harbour, Northern Ireland, where local

authorities, industry and the conservation movement have combined to create a truly magnificent facility for both birds and people. At high tide at Musselburgh, the waders currently go elsewhere, are unprotected and are susceptible to disturbance.

Let us hope that the chance to consolidate this area into a very important wildlife site will not be missed.

If you are visiting, high tide is the best time, and the east bank of the mouth of the River Esk is the best place.



Monthly Marathon



Wendy Dickson

69. Sooty Shearwater *Puffinus griseus*, Northumberland, September 1993

The ninth stage of the competition featured two photographs of the same species (December's plates 283 & 284, repeated here as 69 & 70), in both of which it appears 'headless'. Since Chicken (i.e. Red Junglefowl *Gallus gallus*) is not on the Western Palearctic List, we can rule that species out straightaway.

With quiz-photos like this, we always have to be careful that the background habitat, in this case water, does not lead us down the wrong track. The picture of the bird in flight, on its own, reveals so little that it could suggest all sorts of things. When considered together with the second photograph, however, there seems no obvious reason to suspect that we are not indeed dealing with a true water-

bird. In view of its darkness and long-looking wings, either a skua *Stercorarius* or a member of the shearwater/petrel family (Procellariidae) seem good bets. From then on, it becomes more difficult, and reaching the correct conclusion may be more a matter of gut-instinct than of critical analysis. In other words, it may not be so difficult to form an opinion on the bird's identity as it is to pinpoint the identifying features.

Taking the flight-shot first, a number of clues suggest a shearwater rather than a skua. First, the tail looks very short, indeed so short that the feet are just visible, and, secondly, what looks almost like a 'web' between the inner trailing edge of the left wing (especially) and the body corresponds with the rather

prominent rear scapulars of a shearwater (cf. plate 195 in Harrison 1987). Some participants in this contest may have been misled by the impression of the mystery bird's carpal joints being positioned close to the body, with long upswept hands. The bend at the inner wing is in fact, however, the angle between the inner arm (the humerus) and the outer arm (the radius and ulna), not the carpal joint.

Further clues pointing towards a shearwater can be gathered from the swimming bird. There is only a short extension of the primaries beyond the tail — on all of the smaller skuas this would be longer — and the tertials of the mystery bird are proportionately shorter than those of the skuas. In all but the darkest examples of juvenile and



Ross McGregor

70. Sooty Shearwater *Puffinus griseus*, New Zealand, March 1998

non-breeding adult skuas, the upperpart feathers have distinct light tips, rather than the diffuse fringes visible on the mystery bird.

Assuming that we are correct so far in identifying the bird as a shearwater, we must now work out which one. The general darkness of the plumage eliminates all but one or two of the species that occur in the Western Palearctic. The most likely candidate is Sooty Shearwater *Puffinus griseus*, and in all respects our bird looks very like a Sooty. But can we be sure that it is not a very dark Balearic Shearwater *Puffinus mauretanicus* (a few of which can be almost as dark as Sooty, at least when showing as little of their underparts as the mystery bird)? To be honest, I am not sure that a dark Balearic, viewed against the light and with so little of the underbody visible, might not look very like this. I would expect to see slightly more contrast between greyish breast-sides/flanks and darker upperparts. Perhaps, too, the wingtips would be less likely to extend beyond the tail on a Balearic?

In life, when we could see the whole bird, the skua option would not cross our minds, and the bird would be identified without a second thought. But mystery photographs are a different matter, and usually require a bit of guesswork. On the basis that it would have to be an exceptionally tricky photograph of an extremely dark Balearic to appear as Sooty-like as this, the best guess has to be that it is a Sooty Shearwater. Commiseration to anyone who opted for Balearic!

Contestants named this seabird as Sooty Shearwater (51%), Arctic Skua *Stercorarius*



71. 'Monthly Marathon'. Photo no. 163. Eleventh stage in eleventh 'Marathon' (or first stage in twelfth 'Marathon'). Identify the species. Read the rules (see page 54), then send your answer on a postcard to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th March 2000. **Note: This could be the start of a new Monthly Marathon competition, and your chance to win a SUNBIRD holiday to Africa, America or Asia.**

parasiticus (21%), Great Skua *Catbaracta skua* (14%) and Balearic/Mediterranean Shearwater (13%), with less than 1% each for Pomarine Skua *S. pomarinus*, South Polar Skua *C. maccormicki* and Pale-footed/Flesh-footed Shearwater *Puffinus carneipes*.

The leading group of competitors (all on nine-in-a-row sequences of correct answers) has now been whittled down to three: Nick Barlow (Coventry), Diederik Kok (Netherlands) and Peter Sunesen (Denmark). Hoping, perhaps, that the leaders will all fail at some stage, their nearest rivals are Volker Konrad (Germany) and Jakob Sunesen (Denmark), who have each achieved a sequence of three, and Hugh Delaney (Dublin), R. M. R. James (Derby), Steve Mann (Nottinghamshire), Jean-Yves Peron (France) and Stephen M. Root (North Yorkshire), who

are all on two. Every other contestant is now on one or zero.

If only one of the three leaders succeeds at the next hurdle, he will win the eleventh Marathon and the SUNBIRD holiday prize, and the twelfth Marathon will commence; if all three succeed or if two succeed and one fails, this eleventh Marathon will continue for at least one more stage; if all three fail, the chasing pair will, if they succeed, step in as the leaders, and the Marathon will have at least six stages still to run.

Killian Mullarney

Reference

Harrison, P. 1987 *Seabirds of the World: a photographic guide*. London.



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Recent reports

Compiled by Barry Nightingale and Anthony McGeehan

This summary of unchecked reports covers 13th December 1999 to 16th January 2000.

Great Shearwater *Puffinus gravis* Willen Lake (Buckinghamshire), 27th December.

Cattle Egret *Bubulcus ibis* Long-stayer at Martin Mere (Lancashire) until 16th January; Henfield (West Sussex), 1st-12th January.

Glossy Ibis *Plegadis falcinellus* Papa Westray (Orkney), 5th January. **Red-breasted Goose** *Branta ruficollis*

Waldringfield (Suffolk), 3rd-9th January; Southwold (Suffolk), 4th-16th January.

Black Duck *Anas rubripes* Long-stayer at Stithian's Reservoir (Cornwall) until 16th January; Slapton Ley (Devon), 1st-14th January.

Canvasback *Aythya valisineria* Long-stayer at Abberton Reservoir (Essex) until 16th January. **Lesser Scaup** *A. affinis* Long-stayer at Drift Reservoir (Cornwall) until 16th January.

King Eider *Somateria spectabilis* Mounts Bay (Cornwall), 2nd-16th January. **White-tailed Eagle** *Haliaeetus albicilla*

Long-stayers in Swaffham/Docking/Brancaster area (Norfolk) until 14th January, and another along North Norfolk coast, 11th-15th January; Benacre (Suffolk) until 16th January.

Gyr Falcon *Falco rusticolus* Giant's Causeway (Co. Antrim), 28th December to 2nd January, then Rathlin Island (Co. Antrim), 6th-8th January.

Greater Yellowlegs *Tringa melanoleuca* Long-stayer at Benbecula (Western Isles) until 21st December.

Pomarine Skua *Stercorarius pomarinus* Small influx along Suffolk coast in early January, including 23 between Dunwich and Aldeburgh, 7th January.

Laughing Gull *Larus atricilla* St Mary's (Scilly), 7th-14th January. **Iceland Gull** *L. glaucooides*

Small influx noted in many areas in Ireland. Peak counts: eight at Newport (Co. Mayo) on 15th

January; eight at Ballina (Co. Mayo) on 16th January; six at Belfast on 9th January. **Ross's Gull** *Rhodostetia rosea*

First-winter, Nimmo's Pier, Galway City (Co. Galway), 3rd-16th January; Unst (Shetland), 9th January.

Ivory Gull *Pagophila eburnea* Long-stayer at Aldeburgh until 31st December; Lewis (Western Isles), 10th-16th January. **Forster's Tern** *Sterna forsteri*

Long-stayer at Tollesbury

(Essex) until 23rd December; West Mersea (Essex), 2nd-4th January. **Zitting Cisticola** *Cisticola juncidis*

La Claire Mere (Guernsey), 1st-9th January. **Pallas's Leaf Warbler** *Phylloscopus proregulus*

St Levan (Cornwall), 31st December. **Arctic Redpoll** *Carduelis boremanni* Mey (Highland), 9th January. **Little Bunting** *Emberiza pusilla*

Shepley (West Yorkshire), 15th January.



David Chapman

72. Ring-billed Gull *Larus delawarensis*, Copperhouse Creek, Cornwall, December 1999.



Mike McDonnell

73. Black Duck *Anas rubripes*, Stithians Reservoir, Cornwall, November 1999.

George Reszeter



Alan Tate

Mike McDonnell



74 & 75. Top left and above, Ivory Gull *Pagophila eburnea*, Aldeburgh, Suffolk, December 1999.

76. Left, White-tailed Eagle *Haliaeetus albicilla*, Cockley Cley, Norfolk, December 1999.



George Reszeter

77. Sora Crane *Porzana carolina*, Stover Park, Devon, January 2000. This sought-after species, present from mid-month, will be (if accepted) the thirteenth record for Britain and the first since October 1991.

 Rare Bird News supplies all its information free to *British Birds*. Call 0881-888-111 for the latest, up-to-date news (28p/min cheap rate; 41p/min other times, including VAT)

Christmas Puzzle

Compiled by Peter Lansdown

Sponsored by *Vinicola Hidalgo SA*



MANZANILLA
LA GITANA

How thoroughly do you read *British Birds* and how much do you remember? More importantly, perhaps, how capable are you at locating a particular subject at a later date? This puzzle is based exclusively on this year's issues of *British Birds* (Volume 92).

1. Canary Islands endemic in the Marathon.
2. According to the 1996 report, 40 individuals were recorded in Britain during the year.
3. The sharp increase in the number of confirmed nests in the UK in 1997 did not conceal the species' continuing decline.
4. An all-time record annual total of this scarce migrant in Britain was set in 1997.
5. The Bird Illustrator of the Year's rarest subject.
6. The British & Irish grand total of this rarity moved on to 694 after 1998.
7. There was a spring influx of this southern species in Switzerland in 1996.
8. One to four pairs are known to have nested in Britain in every year since at least 1986.
9. Poland's second record was in 1998; its first was in 1987.
10. The Editor advises us not to panic despite various set-backs including this species' sudden 'crash'.

Solution

The puzzle on page v of the December 1999 issue could be solved by searching the pages of ten of the 12 issues of volume 92.

BERTHELOTSPITIT (October, p. 545)

MELODIOUSWARBLER (January p. 27)

GREATBITTERN (August, p. 395)

WOODCHATSHRIKE (December, pp. 654-655)

LITTLECRAKE (July, p. 348)

REDFOOTEDFALCON (November, p. 569)

SHORTTOEDLARK (February, p. 75)

PURPLESANDPIPER (March, p. 141)

SLENDERBILLEDGULL (June, p. 291)

COMMONREDPOLL (September, p. 444)

The two additional species could be found by reading vertically downwards from the L of BERTHELOT'S PIPIT on the top line (giving LITTLE TERN) and diagonally upwards to the left from the P of COMMON REDPOLL on the bottom line (giving PLATE THREE). As the puzzle is based exclusively on the contents of volume 92 of *British Birds*, the latter clue refers to the upper plate on page 44, in the January issue, which shows a Dark-throated Thrush *Turdus ruficollis* of the nominate red-throated race. The two answers required were, therefore, Little Tern and Dark-throated (or Red-throated) Thrush.

The three winning entries, drawn from those received by the closing date of 15th January, were sent in by K. R. Burch (Beckenham, Kent), Emma Hattersley (Chesterfield, Derbyshire) and Elaine Cook (High Wycombe, Buckinghamshire), each of whom will receive a case containing three bottles of *La Gitana* sherry, courtesy of the competition's sponsors, *Vinicola Hidalgo SA*.



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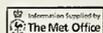
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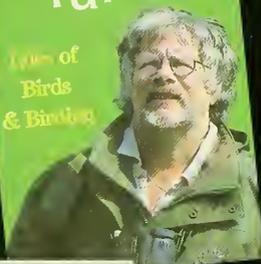
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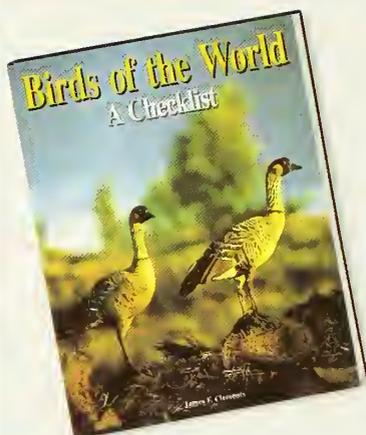
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The European Bird Report

Non-passerines, including near-passerines

*Compiled by J. T. R. Sharrock
and Colin Davies*

from information supplied by National Correspondents

ABSTRACT This biannual feature, formerly called 'European news', has now been renamed, as announced in the Editorial last month (*Brit. Birds* 93: 58).

Inaugurated 23 years ago (*Brit. Birds* 70: 218), these compilations provide the only reliable, continent-wide report on population trends and significant, nationally accepted records of rarities. Some of the highlights in this forty-sixth compilation include:

- Flock of Greater Flamingos *Phoenicopterus ruber* in Switzerland
- First Black-shouldered Kite *Elanus caeruleus* in Denmark
- About 16,500 breeding pairs of Griffon Vultures *Gyps fulvus* in Spain
- First Lesser Spotted Eagle *Aquila pomarina* in Spain
- First Swinhoe's Snipe *Gallinago megala* in Israel

Data are supplied for this Report by a network of National Correspondents (see page 128) appointed by each country, and are also extracted from published reports of verified records. A few entries (always marked by an asterisk) are still subject to assessment by the relevant rarities committee (and will be either confirmed or deleted in a future Report), but all others are accepted, verified records.

As well as covering the whole of Europe, records notified by the National Correspondents for nearby countries within the Western Palearctic are also included. This forty-sixth compilation, covering non-passerines, includes officially notified records from 35 countries.

This Report aims to include *all* records of:

1. Significant breeding-range expansions or contractions.
2. Major irruptions of erupting species.
3. Asiatic vagrants.
4. Nearctic species (excluding ducks, waders and gulls in Great Britain and Ireland, where they are regular).
5. Other extralimital vagrants.
6. Major national rarities, including the first five national records, even if the species is common elsewhere in Europe.

Unless otherwise stated, all records refer to nationally accepted records of single individuals.

Black-throated Diver *Gavia arctica*

BULGARIA Largest-ever count: 135 in total during count organised by the Bulgarian Society for the Protection of Birds/BirdLife Bulgaria in January 1999.

JORDAN First record: Aqaba from 10th November 1987 to 16th March 1988 (*Sandgrouse* 21: 10).

Great Northern Diver *Gavia immer*

LUXEMBOURG First record: Esch-Sûre on 8th-26th December 1996 (*Regulus* 17: 39, 51-54).

White-billed Diver *Gavia adamsii*

BULGARIA Vagrant: 20th March 1992 (*Riv. Ital. Orn.* 68: 184).

IRELAND Fifth record: 4th October 1996 (*Irish Birds* 6: 287).

Pied-billed Grebe *Podilymbus podiceps*

IRELAND Fourth and fifth records: February to 23rd March 1997 and 10th October 1997 to 31st March 1998, and 11th-14th December 1997 (*Irish Birds* 6: 287).

NETHERLANDS First record: Akersloot, Noord-Holland, on 19th-21st April 1997 (*Dutch Birding* 21: 69).

Great Crested Grebe *Podiceps cristatus*

FAROE ISLANDS Second record: 12th-19th December 1993 (*DOFT* 93: 66).

**Black-browed Albatross
*Diomedea melanophrys***

FRANCE Vagrant: 25th November 1998, Ouessant, Finistère*.

Fulmar *Fulmarus glacialis*

DENMARK First breeding: two pairs in north-western Jutland in 1998 (*DOFT* 93: 125).

Soft-plumaged Petrel *Pterodroma mollis*

ISRAEL First record: Eilat on 25th March 1997 (*Sandgrouse* 21: 49-50).

JORDAN First record: Aqaba on 25th March 1997 (*Sandgrouse* 21: 10).

Atlantic Petrel *Pterodroma incerta*

ISRAEL First record: Eilat on 31st May 1982 (*Sandgrouse* 21: 47-48).

JORDAN First and second records: Aqaba on 31st May 1982 and Aqaba on 18th-24th April 1989 (*Sandgrouse* 21: 10).

Cory's Shearwater *Calonectris diomedea*

MOROCCO Large numbers: over 10,000 at sea off Western Sahara coast on 17th October 1998.

POLAND Second record: Vistula mouth on 12th September 1998 (only previous record was in September 1912).

**Streaked Shearwater
*Calonectris leucomelas***

ISRAEL First record: two, probably three, at Eilat from 21st June to 18th September 1992 (*Sandgrouse* 21: 50-51).

JORDAN First and second records: two or three off Aqaba from 21st June to 18th September 1992, and Aqaba from early May to summer 1993 (*Sandgrouse* 21: 11).

**Pale-footed Shearwater
*Puffinus carneipes***

ISRAEL First record: Eilat on 15th August 1980 (*Sandgrouse* 21: 51).

JORDAN First record: Aqaba on 15th August 1980 (*Sandgrouse* 21: 11).

This is the first mention of this species in these compilations.

Sooty Shearwater *Puffinus griseus*

JORDAN Fourth and fifth records: Aqaba on 28th April 1983, and 19th-20th April 1985 (*Sandgrouse* 21: 11).

**Balearic Shearwater
*Puffinus mauretanicus***

ISRAEL First record: Ma'agen Mikhael on 1st March 1982 (*Sandgrouse* 21: 54).

Little Shearwater *Puffinus assimilis*

ISRAEL First record: Ma'agan Mikhael on 23rd January 1988 (*Sandgrouse* 21: 55).

**Mascarene/Audubon's Shearwater
*Puffinus atrodorsalis/iberimineri***

ISRAEL First record: Eilat on 18th-21st June 1992 (*Sandgrouse* 21: 55-58).

**Wilson's Storm-petrel
*Oceanites oceanicus***

FRANCE Vagrant: off Belle-île, Morbihan, on 11th October 1998*.

ISRAEL First record: Eilat on 1st June 1983 (*Sandgrouse* 21: 58-59).

JORDAN First record: Aqaba on 1st June 1983 (*Sandgrouse* 21: 11).

POLAND First record: Gdansk on 5th October 1997 (*Notatki Orn.* 14:152).

European Storm-petrel
Hydrobates pelagicus

ISRAEL First record: Ma'agan Mikhael on 27th September 1982 (*Sandgrouse* 21: 59-62).

Leach's Storm-petrel
Oceanodroma leucorhoa

POLAND Vagrants: two on 5th October 1997 and one on 19th October 1997 (*Notatki Orn.* 14: 152).

Swinhoe's Storm-petrel
Oceanodroma monorhis

FRANCE Second record: off Belle-île, Morbihan, on 11th October 1998*.

NORWAY First and second records: tape-captured and ringed at Jaeren, Rogaland, on 13th August 1996 and 9th August 1997.

SPAIN Second record: 13th August 1997 (*Ardeola* 46: 131).

Madeiran Storm-petrel
Oceanodroma castro

ISRAEL First record: Eilat on 6th July 1983 (*Sandgrouse* 21: 62-63).

Red-billed Tropicbird
Phaethon aethereus

JORDAN First record: two off Aqaba on 5th July 1983 (*Sandgrouse* 21: 11).

Northern Gannet *Morus bassanus*

FRANCE Breeding status: 13,500 pairs in 1997 (*Ornithos* 6: 2).

SWITZERLAND First record: River Rhine at Basel, near frontiers with France and Germany, on 22nd June 1998 (*Orn. Beob.* 96: 160).

Pygmy Cormorant
Phalacrocorax pygmeus

BULGARIA Largest-ever counts: 10,383 in census in January 1999 (*Important Bird Areas in Bulgaria*, 1999, no. 11, p.7).

NETHERLANDS First and second records: Mastwijk, Montfoort, Utrecht, on 23rd-24th January 1999, and Oostvaardersplassen, Lelystad, Flevoland, on 12th June 1999*.

POLAND Vagrant: 15th June 1997 (*Notatki Orn.* 14: 153).

ROMANIA Overwintering: 650-1,000 in January and February 1999.

White Pelican *Pelecanus onocrotalus*

SPAIN Vagrant/escape: first-winter at Marismas del Guadalquivir on 6th-7th December 1997 (*Ardeola* 46:132).

Dalmatian Pelican *Pelecanus crispus*

BULGARIA Census total: 80 breeding pairs in Srebarna Reserve, Sillistra region, in 1998, with 99 young birds (*Branta* 1998, no.3).

Lesser Frigatebird *Fregata ariel*

ISRAEL Second record: Eilat on 6th May 1999* (first was on 1st December 1997, *Brit. Birds* 93: 22-27).

JORDAN First record: Aqaba on 1st December 1997 (*Sandgrouse* 21: 11).

Great Bittern *Botaurus stellaris*

FAROE ISLANDS Fourth record: 12th-18th January 1996 (*DOFT* 93: 66).

Night Heron *Nycticorax nycticorax*

BELARUS First breeding record: 27 nests in mixed colony with Grey Herons *Ardea cinerea* and Great Cormorants *Phalacrocorax carbo* in Brest region on 28th July 1999.

JORDAN First breeding record: colony in Kefar Ruppin area of Israel spread to both sides of River Jordan in 1989 (*Sandgrouse* 21: 12).

Cattle Egret *Bubulcus ibis*

POLAND Third record: 13th August 1997 (*Notatki Orn.* 14: 153).

Black Heron *Hydranassa ardesiaca*

ISRAEL First record: Eilat on 19th-20th October 1982 (*Sandgrouse* 21: 63-65).

This is the first mention of this species in these compilations.

Western Reef Egret *Egretta gularis*

BULGARIA First record: dark morph at BSPB Reserve Poda Lagoon near Burgas on 1st June 1999 (*Poda Information Newsletter*, 1999, no. 4-5, p.1).

Little Egret *Egretta garzetta*

FAROE ISLANDS Second to fourth records: 2nd-3rd December 1993, 20th May 1995, and 18th October 1995 (*DOFT* 93: 66).

GREAT BRITAIN First breeding records: pair raised three young at Brownsea Island, Poole Harbour, Dorset, in 1996; up to seven pairs at

other localities may also have bred (*Brit. Birds* 92: 126).

JORDAN First breeding record: colony in Kefar Ruppim area of Israel spread to both sides of River Jordan in 1989 (*Sandgrouse* 21: 12).

Great White Egret *Egretta alba*

BELARUS Increased breeding: at least 40 nests in one of two known mixed colonies with Grey Herons *Ardea cinerea* in 1999 (eight nests in 1997).

BULGARIA Largest-ever count: 799 in census in January 1999.

IRELAND Second to fourth records: 8th October to 29th November 1997, 26th October 1997 and, presumably the same, 31st October to 3rd November 1997, and 29th November 1997 to 22nd February 1998 (*Irish Birds* 6: 291).

POLAND Breeding: second locality, pair in 1998 and 1999 at Slonsk reserve.

UKRAINE Expansion of breeding range: over past three years, breeding range has expanded by 350-400 km to the west and northwest within the country.

Black-headed Heron *Ardea melanocephala*

ISRAEL First record: Eilat from 19th October to 15th December 1987 (*Sandgrouse* 21: 65-66).

JORDAN First record: Aqaba from 19th October to 15th December 1987 (*Sandgrouse* 21: 12).

Goliath Heron *Ardea goliath*

JORDAN First record: Aqaba on 23rd March 1977 (*Sandgrouse* 21: 12).

Yellow-billed Stork *Mycteria ibis*

JORDAN First record: Aqaba on 18th April 1996 (*Sandgrouse* 21: 12).

Black Stork *Ciconia nigra*

FRANCE Breeding status: 22-35 pairs in 1997 (*Ornithos* 6: 2).

White Stork *Ciconia ciconia*

FRANCE Breeding status: 219 pairs in 1997 (*Ornithos* 6: 3).

Glossy Ibis *Plegadis falcinellus*

FRANCE Breeding status: two pairs in 1997 (*Ornithos* 6: 3).

LUXEMBOURG First record: Weiler-La-Tour, on 7th-8th May 1996 (*Regulus* 17: 40, 49-50).

SPAIN Biggest-ever flock: 58 at Brazo del Este, Marismas del Guadalquivir, on 25th November 1998 (*Ardeola* 46: 151).

Sacred Ibis *Threskiornis aethiopicus*

SPAIN Escapes/vagrants: adults at Málaga on 21st February 1997 and at Marismas del Guadalquivir on 8th and 15th July 1997 (*Ardeola* 46: 132).

Eurasian Spoonbill *Platalea leucorodia*

FINLAND Large numbers: 33 individuals between 14th September and 25th October 1998.

FRANCE Breeding: 50-60 pairs in 1999, including first breeding record, of one pair, in Charente-Maritime.

SWEDEN Major invasion: 19 in September 1998, including one flock of 15.

Greater Flamingo *Phoenicopterus ruber*

FRANCE Breeding status: 13,500 breeding pairs (*Ornithos* 6: 4).

SWITZERLAND Third record: flock of six immatures (one bearing a Camargue ring) from 1st September to 5th November 1998 (*Orn. Beob.* 96: 161).

Mute Swan *Cygnus olor*

FAROE ISLANDS First and second records: 12 from about 25th May to 22nd June 1995, and two from about 15th January to 1st February 1996 (*DOFT* 93: 66).

Tundra Swan *Cygnus columbianus*

JORDAN First record: Aqaba from 18th November 1988 to 17th January 1989 (*Sandgrouse* 21: 12).

NETHERLANDS Fifth record of nominate race ('Whistling Swan'): 28th November 1997 to 8th February 1998 (*Dutch Birding* 21: 65), returning 18th December 1998.

ROMANIA Vagrant: 21st January 1999.

SPAIN Vagrant: 8th December 1997 (*Ardeola* 46: 132).

Bean Goose *Anser fabalis*

IRELAND First record of race *rossicus*: four in Co. Louth from 27th December 1997 to 22nd February 1998 (*Irish Birds* 6: 291).

Barnacle Goose *Branta leucopsis*

LUXEMBOURG First to fourth records: four

records, concerning 89 individuals, the first of which was 78 at Remich on 21st-25th February 1996 (*Regulus* 17: 40, 46-48).

Brent Goose *Branta bernicla*

DENMARK Highest-ever one-day count and total for whole season: 51,500 passing Kongelunden, Zealand, on 23rd May 1997 (*DOFT* 93: 21), with spring total of 79,429 (*Fugle på Sjælland* 1997: 23).

Red-breasted Goose *Branta ruficollis*

BULGARIA Lowest counts for the last decade: only 137 in whole of Bulgaria during census in January 1999 (*Important Bird Areas in Bulgaria*, 1999, no. 11, p.7); in January 1997, there was a count of 62,653 (*Brit. Birds* 90: 239).

Egyptian Goose *Alopochen aegyptiacus*

SWITZERLAND Vagrant: 1st June 1998 (*Orn. Beob.* 96: 162).

Ruddy Shelduck *Tadorna ferruginea*

ICELAND Second record: 22nd-24th May 1999* (first record was in 1892).

Common Shelduck *Tadorna tadorna*

CZECH REPUBLIC Third breeding record: pair with nine young on 16th June 1997.

Cotton Pygmy-goose

Nettion coromandelianus

JORDAN First record: female at Aqaba on 9th-10th April 1997 (*Sandgrouse* 21: 13).

This is the first mention of this species in these compilations.

American Wigeon *Anas americana*

NETHERLANDS Vagrants: adult males from 15th February 1997 to 15th March 1997, 25th-27th February 1997, and 31st May to 2nd June 1997 (*Dutch Birding* 21: 66).

SPAIN Vagrants: 16th October to 15th November 1997, and 6th December 1997 (*Ardeola* 46: 133).

Common Teal *Anas crecca*

NETHERLANDS Vagrant of Nearctic race *carolinensis*: 15th June 1997 (14 previous records, but this is the first in June; *Dutch Birding* 21: 69).

SPAIN Vagrants of race *carolinensis*: two males on 17th January 1997 (*Ardeola* 46: 134).

Black Duck *Anas rubripes*

SPAIN Third record: first-winter at Cospeito lake, Lugo, from 14th December 1996 to 2nd January 1997 (*Ardeola* 46: 134).

Garganey *Anas querquedula*

SWITZERLAND Overwintering: 4th December 1998 to 26th February 1999 (*Orn. Beob.* 96: 162).

Blue-winged Teal *Anas discors*

NETHERLANDS Vagrant: 20th April to 11th May 1997 (*Dutch Birding* 21: 66).

SPAIN Vagrants: 15th-23rd April 1996, 17th-28th February 1997, and 6th-21st February 1997 (*Ardeola* 46: 134).

Ring-necked Duck *Aythya collaris*

FINLAND Fourth record: male from 14th May to 2nd July 1998.

SPAIN Vagrant: 17th January 1996 (*Ardeola* 46: 134).

Lesser Scaup *Aythya affinis*

BELGIUM First record: first-winter at Rodenhuiuze, Gent, on 15th-25th February 1996 (*Dutch Birding* 21: 268-269).

DENMARK Third record: 13th-14th February and 4th March 1998 (*DOFT* 93: 130).

IRELAND Fourth record: 10th May 1997 (*Irish Birds* 6: 293).

Spectacled Eider *Somateria fischeri*

NORWAY Fourth record: third-year male on 15th June 1997.

Steller's Eider *Polysticta stelleri*

FAROE ISLANDS First and second records: adult male from 13th April to 30th May 1994 and on 12th May 1995, and second-year male on 29th June 1996 (*DOFT* 93: 66).

NETHERLANDS Fifth record: adult male on 11th-12th January 1997 (*Dutch Birding* 21: 66).

Long-tailed Duck *Clangula hyemalis*

JORDAN First record: pair off Aqaba on 4th-8th January 1983 (*Sandgrouse* 21: 13).

Common Scoter *Melanitta nigra*

FINLAND First record of race *americana*: 13th May 1998.

POLAND First record of race *americana*: Wladyslawowo, Gdansk, on 8th February 1995 (*Notatki Orn.* 14: 155).

Surf Scoter *Melanitta perspicillata*

DENMARK Vagrant: 5th January 1998 (*DOFT* 93: 130).

SPAIN Vagrant: 21st December 1996 to 18th January 1997 (*Ardeola* 46: 134).

Bufflehead *Bucephala albeola*

SPAIN Second record: 25th November 1997 to 10th January 1998 (*Ardeola* 46: 134).

Barrow's Goldeneye
Bucephala islandica

SPAIN First record: Laxa, laguna de Traba, A Coruña, from 26th January to 22nd March 1997 (*Ardeola* 46: 134).

Common Goldeneye
Bucephala clangula

AUSTRIA Fourth breeding record: female with young in 1999.

FRANCE First breeding record: female with four young at Moselle, Lorraine, in 1999.

SPAIN First record for the Balearics: female on Mallorca on 2nd-18th December 1997 (*Anuari Ornitológic de les Balears* 12: 204-205).

Smew *Mergellus albellus*

FAROE ISLANDS First record: adult male on 13th-14th May 1994 (*DOFT* 93: 67).

Ruddy Duck *Oxyura jamaicensis*

IRELAND Breeding estimate: about 50-54 pairs in 1998 (*Irish Birds* 6: 217-222).

White-headed Duck
Oxyura leucocephala

JORDAN First record: two off Aqaba from December 1987 to February 1988 (*Sandgrouse* 21: 13).

Oriental Honey-buzzard
Pernis ptilorhyncus

ISRAEL Vagrant: 14 during 30th April to third week in May 1999 (first record was at Eilat on 14th May 1994; *Sandgrouse* 21: 66-67).

JORDAN First record: 13th May 1995, same as Kibbutz Lotan, Israel (*Sandgrouse* 21: 13).

Black-shouldered Kite
Elanus caeruleus

DENMARK First record: Skagen on 29th-30th March 1998 (*DOFT* 93: 131).

Red Kite *Milvus milvus*

DENMARK Breeding status: 21 pairs in 1998 (*DOFT* 93: 125).

GREAT BRITAIN Breeding status: 130 wild pairs reared 119 young, and at least 54 pairs from released stock reared 199 young, in 1996 (*Brit. Birds* 92: 131).

SPAIN Dramatic decline in Balearics: just eight pairs on Menorca in 1998, compared with about 135 pairs in the late 1980s (*Quercus* 160: 16-18).

White-tailed Eagle
Haliaeetus albicilla

DENMARK Breeding status: five pairs in 1998 (*DOFT* 93: 125).

GREAT BRITAIN Re-establishment scheme: 12 pairs reared nine young in 1996 (*Brit. Birds* 92: 132).

Lammergeier *Gypaetus barbatus*

DENMARK First record: immature at Skagen, N-Jutland, on 12th-15th June 1999*, bleached primaries indicating an introduced bird from the Alps.

FRANCE Breeding status: 30 pairs in 1997 (*Ornithos* 6: 6).

GIBRALTAR Fourth record: juvenile on 28th September 1998 flying south with European Honey-buzzards *Pernis apivorus*, but did not cross Strait of Gibraltar.

Egyptian Vulture
Neophron percnopterus

HUNGARY Vagrant: immature found dead in January 1998.

SWITZERLAND Vagrant: 25th May 1999.

Rüppell's Griffon Vulture
Gyps rueppellii

SPAIN Probable vagrants: in Strait area, between Tarifa and Algeciras, at least three different birds present in period 25th August to 10th December 1997, and five between 6th September and 15th October 1998 (there were just three observations previously accepted) (*Ardeola* 47, in prep.).

Griffon Vulture *Gyps fulvus*

NETHERLANDS Vagrant: 2nd June 1997 (*Dutch Birding* 21: 69).

SPAIN Census results: about 16,500 breeding pairs in 1999, a dramatic increase from about 3,200 pairs in 1979 and about 8,000 pairs in

1989 (better coverage is thought to account for only a minor part of the results).

Monk Vulture Aegyptius monachus

FRANCE Breeding status: four pairs in 1997 (*Ornithos* 6:6).

Hen Harrier Circus cyaneus

ITALY First breeding record: Emilia-Romagna region in May-June 1998 (*Riv. Ital. Orn.* 68: 206-207).

Pallid Harrier Circus macrourus

DENMARK Influx: at least 15 during May 1999, ten of which were at Skagen, N-Jutland*.

SWITZERLAND Vagrants: 11th April 1998, and 18th-19th October 1998 (*Orn. Beob.* 96: 163).

Dark Chanting-goshawk Melierax metabates

MOROCCO Vagrant: first-year on 2nd April 1999 was the first record since 1996.

Common Buzzard Buteo buteo

FAROE ISLANDS First record: 19th December 1994 (*DOFT* 93: 67).

Long-legged Buzzard Buteo rufinus

AUSTRIA Vagrant: 30th May 1999.

SWITZERLAND Vagrant: 10th October 1999 (11 previous records).

Lesser Spotted Eagle Aquila pomarina

SPAIN First record: subadult at Ciutadella, Menorca island, Balearics, on 10th-24th September 1998 (*Ardeola* 47, in prep.).

Spotted Eagle Aquila clanga

CYPRUS Fourth record: 5th October 1998 (*Cyprus Rarity Report* 1998).

NETHERLANDS Vagrant: 23rd-31st August 1997 (first record since 1985; *Dutch Birding* 21: 69).

SPAIN Vagrant: 4th February 1997 (*Ardeola* 46: 136).

SWITZERLAND Vagrants: 22nd October 1998, 8th December 1998 and 20th December 1998 (*Orn. Beob.* 96: 163).

Tawny Eagle Aquila rapax

ISRAEL First record: Urim on 1st-2nd November 1992 (*Sandgrouse* 21: 67).

Steppe Eagle Aquila nipalensis

ESTONIA First and second records: adult on 15th-16th May 1993, and immature on 14th May 1999*.

POLAND Vagrants: 15th May 1997, and 15th July 1997 (*Notatki Orn.* 14: 156).

Booted Eagle Hieraaetus pennatus

BELGIUM Fifth record: light-phase at Angreau, Angre, on 14th May 1997.

LUXEMBOURG Second record: 14th April 1996 (*Regulus* 17: 40).

NETHERLANDS Fourth record: adult pale-phase from 17th July to 14th August 1997 (*Dutch Birding* 21: 69).

SWITZERLAND Vagrant: 29th August 1998 (*Orn. Beob.* 96: 164).

Lesser Kestrel Falco naumanni

FRANCE Breeding status: 48 pairs in 1997 (*Ornithos* 6: 7).

SWITZERLAND Fifth and sixth records: male at Vouvry on 21st-23rd May 1999, and two females, also at Vouvry, on 23rd May 1999.

Red-footed Falcon Falco vespertinus

LUXEMBOURG Third record: 19th May 1997 (*Regulus* 17: 40).

Eleonora's Falcon Falco eleonora

POLAND Vagrant: 16th October 1997 (*Notatki Orn.* 14: 157).

Lanner Falcon Falco biarmicus

SPAIN Fourth record: 19th January 1996 (*Ardeola* 46: 137).

Saker Falcon Falco cherrug

ESTONIA First record: adult at Linnuse, Muhu Island, on 15th May 1999.

Black Grouse Tetrao tetrix

GREAT BRITAIN Population decline: full census located 6,510 displaying males in Britain in 1995-96 (*Bird Study* 46: 1-15); as recently as 1991, there were estimated to be over 25,000 displaying males (*Brit. Birds* 89: 31).

Common Quail Coturnix coturnix

DENMARK Best-ever year: total of 208 in 1997 exceeds the 119 in 1995 (*DOFT* 93: 29).

ICELAND First record: 23rd October 1998*.

Corn Crake *Crex crex*

CROATIA Census: about 100 pairs on lowlands near River Odra.

GREAT BRITAIN Breeding status: 605 pairs or singing males in 1996, including three in Wales (*Brit. Birds* 92 :138).

IRELAND Census: 151-155 singing males in 1998 (cf. 165 in 1993 and 781-795 in 1988; *Irish Birds* 6: 159-168).

Purple Swamp-hen
Porphyrio porphyrio

JORDAN First record: one overwintering at Bet Shean, Israel, in 1989 was also seen in Jordan (*Sandgrouse* 21: 15).

MOROCCO Continuing range expansion: five breeding sites in 1999.

Common Coot *Fulica atra*

JORDAN First confirmed breeding record: eight to 15 pairs, each with four or five young, at Qa' al Azraq in 1995 (*Sandgrouse* 21: 15).

Red-knobbed Coot *Fulica cristata*

PORTUGAL Vagrant: Quinta do Lago on 9th September 1996.

Common Crane *Grus grus*

DENMARK Breeding status: 11-13 breeding pairs in 1998 (*DOFT* 93: 125).

Demoiselle Crane *Anthropoides virgo*

JORDAN First record: Aqaba on 20th-21st March 1995 (*Sandgrouse* 21: 15).

Little Bustard *Tetrax tetrax*

CYPRUS Second recent record: 12th December 1998 (*Cyprus Rarity Report* 1998).

Houbara Bustard
Chlamydotis undulata

CYPRUS Third record: 24th November 1998 (*Cyprus Rarity Report* 1998).

Black-winged Stilt
Himantopus himantopus

BELARUS Second breeding record: pair with young in Brest region on 25th July 1999.

Crab-plover *Dromas ardeola*

JORDAN First record: four at Aqaba on 19th July 1987 (*Sandgrouse* 21: 16).

Oriental Pratincole
Glareola maldivarum

ISRAEL First record: Eilat on 17th April 1999*.

Black-winged Pratincole
Glareola nordmanni

DENMARK Vagrant: 8th May 1998 (*DOFT* 93: 132).

POLAND Vagrants: 21st August 1997, and 21st September 1997 (*Notatki Orn.* 14: 157).

Killdeer Plover *Charadrius vociferus*

SPAIN Second record: 14th November 1997 (*Ardeola* 46: 137).

Lesser Sand Plover
Charadrius mongolus

GREAT BRITAIN First record: Pagham Harbour, West Sussex, on 14th-16th August 1997 (*Brit. Birds* 92: 570).

ISRAEL First record: Eilat on 23rd April 1983 (*Sandgrouse* 21: 67-68).

Greater Sand Plover
Charadrius leschenaultii

HUNGARY Second record: 24th-25th May and 1st-12th June 1997 (*Túzok* 3: 144).

SPAIN Second record: 11th to 13th August 1996 (*Ardeola* 46: 137).

Caspian Plover *Charadrius asiaticus*

CYPRUS Vagrant: 16th-20th April 1998 (*Cyprus Rarity Report* 1998) and Paralimni Lake on 3rd May 1999* (plate 78 on page 122).

Dotterel *Charadrius morinellus*

SWITZERLAND Second breeding record: adult with one juvenile on 7th July 1998 (first breeding record was in 1965; *Orn. Beob.* 96: 164).

American Golden Plover
Pluvialis dominica

NETHERLANDS Vagrant: 30th July to 9th August 1997 (*Dutch Birding* 21: 70).

Pacific Golden Plover
Pluvialis fulva

DENMARK Vagrant: 22nd-25th July 1998 (*DOFT* 93: 132).

SPAIN Second record: 2nd March 1996 (*Ardeola* 46: 137).

Sociable Lapwing *Vanellus gregarius*

HUNGARY Fifth record: 18th May 1997 (*Túzok* 3: 144).

POLAND Vagrants: 12th April 1997, 15th August 1997, 17th-22nd August 1997, and 16th November 1997 (only seven previous records; *Notatki Orn.* 14: 158).

SPAIN Vagrant: 7th February 1997 (*Ardeola* 46: 137).

White-tailed Lapwing *Vanellus leucurus*

DENMARK Second record: Salthammeren, Bornholm, on 15th May 1999*.

HUNGARY Third record: 25th September 1997 (*Túzok* 3: 144).

POLAND Vagrants: 15th May 1997, and 18th May 1997 (*Notatki Orn.* 14: 158).

Semipalmated Sandpiper

Calidris pusilla

NETHERLANDS Fifth record: 16th July 1997 (*Dutch Birding* 21: 70).

SPAIN Third record: 7th-9th June 1997 (*Ardeola* 46: 137).

Long-toed Stint *Calidris subminuta*

ISRAEL First record: Eilat on 25th-26th

August 1991 (*Sandgrouse* 21: 68-69).

Least Sandpiper *Calidris minutilla*

BELGIUM First record: adult at Rodenhuize, Gent, on 3rd-14th August 1996.

SPAIN Second record: 19th and 20th August 1996 (*Ardeola* 46: 137).

This is the first mention of this species in these compilations.

White-rumped Sandpiper

Calidris fuscicollis

BELGIUM Second record: adult at Zeebrugge on 18th August 1996.

SPAIN Vagrant: 8th November 1996 (*Ardeola* 45: 106).

Baird's Sandpiper *Calidris bairdii*

ITALY First record: Macchiatonda Reserve, Lazio, on 5th-6th October 1997 (*Riv. Ital. Orn.* 68: 207).

SPAIN Vagrant: 1st to 8th November 1996 (*Ardeola* 44: 106).

Pectoral Sandpiper *Calidris melanotos*

ISRAEL First record: Eilat, on 15th-26th May 1983 (*Sandgrouse* 21: 69).



Theodoros Poulis

78. Male Caspian Plover *Chbaradrius asiaticus*, Paralimni Lake, Cyprus, 3rd May 1999*.

POLAND Vagrants: 18th August 1997, and two on 19th November 1997 (*Notatki Orn.* 14: 158).

SPAIN Vagrant: September 1995 (*Ardeola* 45: 106).

Sharp-tailed Sandpiper *Calidris acuminata*

FRANCE Second record: adult in Camargue on 10th-27th April 1999*.

IRELAND Second record: 14th-15th September 1997 (*Irish Birds* 6: 297).

Purple Sandpiper *Calidris maritima*

FRANCE First record for Sardinia this century: Sassari on 18th February 1996 (*Aves Ichnusae* 1: 41).

Stilt Sandpiper *Micropalama himantopus*

DENMARK First record: Vejlerne, N-Jutland, on 23rd-24th April 1998 (*DOFT* 93: 132).

Buff-breasted Sandpiper *Tryngites subruficollis*

DENMARK Vagrant: 4th August 1998 (*DOFT* 93: 132).

SPAIN Vagrant: 8th October 1993 (*Ardeola* 45: 106).

SWITZERLAND Vagrant: Witzwil on 3rd October 1999 (five previous records).

Pintail Snipe *Gallinago stenura*

ISRAEL First record: Eilat on 1st-10th November 1984 (*Sandgrouse* 21: 69-70).

JORDAN First record: Eilat, Israel, also seen in Jordan, on 3rd November 1984 (*Sandgrouse* 21: 16).

Swinhoe's Snipe *Gallinago megala*

ISRAEL First record: Hula Valley from 28th February to 4th March 1998 (*Sandgrouse* 21: 70-71).

Long-billed Dowitcher *Limnodromus scolopaceus*

ITALY Second record: 11th May 1997 (*Riv. Ital. Orn.* 68: 207).

Slender-billed Curlew *Numenius tenuirostris*

GREECE Vagrants: three on coast south of Lake Ismaris, Thrace, on 20th April 1998.

MOROCCO Vagrant: 11th February 1998*

(first since 1995).

Marsh Sandpiper *Tringa stagnatilis*

CANARY ISLANDS Vagrant: adult in Fuerteventura on 7th December 1998.

Greater Yellowlegs *Tringa melanoleuca*

SPAIN Second record for Spanish mainland: 22nd March 1998 (*Ardeola* 47, in prep.).

Lesser Yellowlegs *Tringa flavipes*

CANARY ISLANDS Vagrant: Tenerife on 7th and 10th October 1998.

SPAIN Vagrant: 15th-16th October 1997 (*Ardeola* 46: 140).

Green Sandpiper *Tringa ocbropus*

FAROE ISLANDS Second record: 15th September 1996 (*DOFT* 93: 67).

Terek Sandpiper *Xenus cinereus*

SPAIN Wintering: first-winters at Ebro delta, Tarragona, from November 1995 to April 1996, and from August 1996 to February 1997 (*Ardeola* 45: 107).

Common Sandpiper *Actitis hypoleucos*

FAROE ISLANDS First breeding record: July 1996 (*DOFT* 93: 67).

Spotted Sandpiper *Actitis macularia*

NORWAY Second record: Utsira, Rogaland, on 28th May 1997.

SPAIN Vagrant: 1st September 1996 (*Ardeola* 45: 107).

Wilson's Phalarope *Phalaropus tricolor*

BULGARIA Vagrant: 25th-26th August 1992.

Grey Phalarope *Phalaropus fulicarius*

PORTUGAL Unprecedented numbers: well over 1,100 individuals in August 1996 during pelagic transects parallel to Portuguese coast.

Pomarine Skua *Stercorarius pomarinus*

CYPRUS Second record: off Paphos headland on 10th April 1999*.

ICELAND Huge movement: 800 on 4th May 1999* and about 2,000 on 5th May 1999*.

SWITZERLAND Vagrant: 11th-13th September 1998 (*Orn. Beob.* 96: 167).

Great Skua *Catharacta skua*

DENMARK Highest-ever count at a single locality: 231 passing Hanstholm, N-Jutland, on 9th September 1997 (*DOFT* 93: 35-36).

HUNGARY Vagrant: 2nd November 1997 (*Túzok* 3: 146).

South Polar Skua

Catharacta maccormicki

ISRAEL First record: pale morph at Eilat on 3rd-6th June 1983 (*Sandgrouse* 21: 71-72).

JORDAN First record: Aqaba on 3rd-6th June 1983 (*Sandgrouse* 21: 17).

Sooty Gull *Larus hemprichii*

ISRAEL First record: three at Eilat on 1st June 1983 (*Sandgrouse* 21: 72-73).

JORDAN First record: Aqaba on 29th April 1989 (*Sandgrouse* 21: 17).

Brown-headed Gull

Larus brunnicephalus

ISRAEL First record: Eilat on 12th May 1985 (*Sandgrouse* 21: 74-76).

This is the first mention of this species in these compilations.

Laughing Gull *Larus atricilla*

GIBRALTAR Fourth record: first-summer on 3rd April 1999.

ITALY First record: immature at Modica, Ragusa, Sicily, on 7th December 1996 (*Riv. Ital. Orn.* 68: 207).

MOROCCO Correction: adult on 16th May 1996 (not 6th May as stated in *Brit. Birds* 92: 72-73).

PORTUGAL Second record: first-winter in Carcavelos area, Lisboa, on 14th-21st January 1996.

SPAIN Vagrant: 25th January 1997 (*Ardeola* 46: 140).

Franklin's Gull *Larus pipixcan*

IRELAND Second and third records: 17th-18th August 1997 (*Irish Birds* 6: 301), and 11th-21st October 1998.

Little Gull *Larus minutus*

LUXEMBOURG Fourth record: 15th November 1997 (*Regulus* 17: 41).

Sabine's Gull *Larus sabini*

BULGARIA First record: 15th May 1988 (*Riv. Ital. Orn.* 68: 185).

DENMARK Best-ever year: 437-440 in 1997 (*DOFT* 93: 36).

IRELAND Influx: 890 in 1997, with peak on 28th-29th August (cf. grand total of 954 previously; *Irish Birds* 6: 302).

ISRAEL First record: Eilat, on 3rd July to 2nd August 1989 (*Sandgrouse* 21: 73-74).

JORDAN First record: Aqaba, on 3rd July to 2nd August 1989 (*Sandgrouse* 21: 17).

POLAND Vagrant: 18th-20th May 1997 (*Notatki Orn.* 14: 160).

SWITZERLAND Vagrant: 11th September 1998 (*Orn. Beob.* 96: 169).

Bonaparte's Gull *Larus philadelphia*

HUNGARY First record: Dunatetőtlen, Bödöszék, on 18th-24th May 1997 (*Túzok* 3: 144).

NORWAY Third record: third-year on 10th April and again during 23rd April to 10th May 1996.

Grey-headed Gull *Larus cirrocephalus*

ISRAEL First record: Eilat from 15th March to 10th April 1989 (*Sandgrouse* 21: 76).

SPAIN First record: Marismas del Guadalquivir on 30th-31st July and 15th August 1971 (*Ardeola* 46: 140).

Slender-billed Gull *Larus genei*

SWITZERLAND Vagrants: six adults on 30th May 1999.

Audouin's Gull *Larus audouinii*

FRANCE Breeding status: 54-60 pairs in 1997 (*Ornithos* 6: 11).

SWITZERLAND Third record: 3rd September 1998 (*Orn. Beob.* 96: 169).

Ring-billed Gull *Larus delawarensis*

BULGARIA Vagrants: 28th February 1993 and 2nd August 1993 (*Riv. Ital. Orn.* 68: 185).

CANARY ISLANDS Vagrants: first-winters on La Palma in April 1997, and on El Hierro in November and December 1997.

DENMARK First record: adult at Margrethe Køg, S-Jutland, from 15th May to 13th June 1999*.

POLAND Fifth record: immature at Krakow on 30th January 1998 (first inland record).

SPAIN Vagrants: 18 individuals in winter 1995/96 (*Ardeola* 45: 107-108).

Lesser Black-backed Gull *Larus fuscus*

CYPRUS First record of race *heuglini*:

Larnaca on 23rd November and 2nd-3rd December 1998 (*Cyprus Rarity Report* 1998).

Yellow-legged Gull *Larus cachinnans*

ICELAND Second record of race *micrabellis*: adult from 26th March to 2nd April 1999*.

LUXEMBOURG First record of race *cachinnans*: Moselle River on 17th January 1999.

Iceland Gull *Larus glaucooides*

NORWAY First record of race *kumlieni*: adult on 27th March 1995.

POLAND Vagrant: 19th January to 6th April 1997 (*Notatki Orn.* 14: 160).

SPAIN Vagrant: 14th and 20th-28th December 1997 (*Ardeola* 46: 141).

Glaucous Gull *Larus hyperboreus*

HUNGARY Vagrants: 9th February 1997 and 5th-6th December 1997 (*Túzok* 3: 149).

SPAIN Best-ever winter: ten individuals on northern coasts during January to March 1996 (*Ardeola* 45: 109-110).

Ross's Gull *Rhodostethia rosea*

NETHERLANDS Vagrant: 22nd October 1997 (*Dutch Birding* 21: 72).

Kittiwake *Rissa tridactyla*

JORDAN First record: Aqaba on 27th November and 1st December 1997 (*Sandgrouse* 21: 18).

Ivory Gull *Pagophila eburnea*

NETHERLANDS Third record: first-summer on 17th May 1997 (*Dutch Birding* 21: 73).

Royal Tern *Sterna maxima*

MOROCCO Large numbers: at least 300 in Bay of Dakhla, Western Sahara, on 8th August 1998.

SPAIN Vagrant: 23rd September 1996 (*Ardeola* 45: 110).

Lesser Crested Tern *Sterna bengalensis*

SPAIN First record for the Balearics: adult at Albufera de Mallorca on 16th August 1997 (*Anuari Ornitológic de les Balears* 12: 207-208).

Roseate Tern *Sterna dougallii*

FRANCE Breeding status: over 100 pairs in 1997 (*Ornithos* 6: 11).

ISRAEL First record: Eilat on 4th-20th November 1982 (*Sandgrouse* 21: 77).

SLOVENIA First record: adult at Strunjan, Adriatic Sea, on 19th August 1999.

Arctic Tern *Sterna paradisaea*

ISRAEL First record: Eilat on 2nd July 1982 (*Sandgrouse* 21: 77-78).

JORDAN First record: at least three of nine birds summering off Eilat during June to August 1983 flew into and from Jordanian waters (*Sandgrouse* 21: 18).

Bridled Tern *Sterna anaethetus*

ISRAEL First record: two at Eilat on 25th July 1980 (*Sandgrouse* 21: 78).

Sooty Tern *Sterna fuscata*

ISRAEL First record: Eilat on 27th July 1980 (*Sandgrouse* 21: 79).

Saunders's Tern *Sterna saundersi*

ISRAEL First record: Eilat on 12th-25th June 1988 (*Sandgrouse* 21: 80-82).

Whiskered Tern *Chlidonias hybridus*

FINLAND First record: 10th July 1975 (eight records since).

Black Tern *Chlidonias niger*

DENMARK Breeding status: 36-41 pairs in 1998 (50% decline compared with 1997; *DOFT* 93: 125).

FRANCE Breeding status: 237 breeding pairs (*Ornithos* 6: 12).

MOROCCO Huge spring migration along the Atlantic coast: two resting flocks of about 5,000 at sea on 26th April 1999.

White-winged Black Tern *Chlidonias leucopterus*

JORDAN Large numbers: 10,000-12,000 at Aqaba sewage-works on 30th April 1996 (*Sandgrouse* 21: 18).

LATVIA Largest-ever breeding colony: about 200 pairs at Idena fishponds in 1999.

Brünnich's Guillemot *Uria lomvia*

DENMARK Vagrants: 21st January 1998, 23rd January to 3rd March 1998, and 28th February 1998 (*DOFT* 93: 133).

Marbled Murrelet
Brachyramphus marmoratus

SWITZERLAND First West Palearctic record: first-winter, showing characteristics of race *perdix*, found drowned at Zollikon, Zurich, during 15th-18th December 1997 (*Orn. Beob.* 96: 171).

Atlantic Puffin *Fratercula arctica*

POLAND Vagrant: March 1991 (*Notatki Orn.* 14: 163).

African Collared Dove
Streptopelia roseogrisea

ISRAEL First record: Eilat on 29th December 1979 (*Sandgrouse* 21: 82-83).

JORDAN First record: bird from Eilat fields, Israel, flew into Jordan on 19th October 1997 (*Sandgrouse* 21: 19).

Collared Dove *Streptopelia decaocto*

MOROCCO Major expansion of breeding range: now present on a wide coastal area covering over 2,000 km, as well as in most



Arnoud B. van den Berg

79 & 80. Adult Eagle Owl *Bubo bubo*, Sint Pietersberg, Maastricht, Limberg, Netherlands, 5th June 1999.



Arnoud B. van den Berg

large cities; first recorded breeding was as recent as 1986 (*Brit. Birds* 80: 12).

Oriental Turtle Dove
Streptopelia orientalis

ISRAEL First record: Eilat on 4th September 1984 (*Sandgrouse* 21: 83-86).

Laughing Dove
Streptopelia senegalensis

SPAIN Second and third records: 26th March 1995, and 16th May 1997 (*Ardeola* 46: 141).

Namaqua Dove *Oena capensis*

CYPRUS First record: Paphos on 16th-18th April 1998 (*Cyprus Rarity Report* 1998).

Rose-ringed Parakeet
Psittacula krameri

GREAT BRITAIN Population growth: a complete count of all known roosts on 9th October located 1,508 birds, representing a relatively modest increase in this introduced population since 1986, when 1,000 birds were estimated (*Bird Study* 46: 112-115).

Oriental Cuckoo *Cuculus saturatus*

ISRAEL First record: Eilat on 17th August 1985 (*Sandgrouse* 21: 86-87).

Eurasian Scops Owl *Otus scops*

FAROE ISLANDS Second record: 11th August 1995 (*DOFT* 93: 68).

Eagle Owl *Bubo bubo*

NETHERLANDS First breeding record: pair raised four young at Sint Pietersberg, Maastricht, Limberg, in 1997 (only 12 previous records of the species; *Dutch Birding* 21: 73) (plates 79 & 80).

Snowy Owl *Nyctea scandiaca*

ICELAND Breeding: pair in 1998 was the first confirmed breeding since 1973.

Ural Owl *Strix uralensis*

CZECH REPUBLIC First breeding for more than 70 years in Sumava Mountains: adult feeding two fledged juveniles in 1998 (*Buteo* 10: 115-119).

Great Grey Owl *Strix nebulosa*

POLAND Vagrants: 9th-10th August 1993, 19th March 1996, 9th February 1997, and

12th September 1997 (*Notatki Orn.* 14: 164).

Short-eared Owl *Asio flammeus*

IRELAND First breeding in Northern Ireland: pair bred in Co. Antrim in 1997 (*Irish Birds* 6: 305).

Marsh Owl *Asio capensis*

SPAIN First twentieth-century record: first-year female found injured by gunshot at Bahia de Cadiz marshes on 10th December 1998 (*Ardeola* 47, in prep.).

Tengmalm's Owl *Aegolius funereus*

NETHERLANDS First record of singing since 1987, in former breeding region: March to 12th April 1999.

Alpine Swift *Tachymarptis melba*

HUNGARY Second record: 27th September 1998.

White-rumped Swift *Apus caffer*

PORTUGAL Possible breeding: one to five birds in Mertola area between 19th May and 24th July 1996, but breeding could not be proved.

Little Swift *Apus affinis*

CYPRUS Vagrant: 8th April 1998 (*Cyprus Rarity Report* 1998).

SPAIN Vagrants and possibility of breeding: two entering a cave at La Plata range, Tarifa, Cadiz province, in May 1996, and up to five in July 1996 (*Ardeola* 45: 110); also, El Bujeo, Tarifa, on 15th March 1997, and Getares, Algeciras, on 6th May 1997, both sites at the Strait area (*Ardeola* 46: 141).

Little Green Bee-eater *Merops orientalis*

JORDAN Possibly first breeding: pair in Aqaba on 11th April 1996 (*Sandgrouse* 21: 20).

Blue-cheeked Bee-eater

Merops superciliosus

BULGARIA First to fifth records: 27th May 1988, two on 4th September 1993, three on 18th September 1993, 26th June 1994, and 11 on 3rd October 1996 (*Riv. Ital. Orn.* 68: 185-186; cf. *Brit. Birds* 88: 37).

DENMARK Third record: 6th July 1998 (*DOFT* 93: 134).

NORWAY First record: near Bergen, Hordaland, on 22nd June 1998.

SPAIN Second record: 25th April 1997 (*Ardeola* 46: 141).

Hoopoe *Upupa epops*

GREAT BRITAIN Breeding record: pair raised three young in Montgomery, Wales, in 1996 (first confirmed breeding in Britain since 1977; *Brit. Birds* 92: 147).

Grey-headed Woodpecker *Picus canus*

NETHERLANDS Third record: female at Brun-

summerheide, Brunssum, Limburg, on 5th-7th April 1985 (second record was at same location in 1981/82, and first was in 1974; *Dutch Birding* 21: 74).

White-backed Woodpecker *Dendrocopos leucotos*

SWITZERLAND Second to fifth records: male at Prättigau from 31st May to 13th June 1997, male at Prättigau on 29th March 1998, male and female at Prättigau on 5th-10th April 1998, and female at Sarganserland on 19th April 1998 (*Orn. Beob.* 96: 173).

National Correspondents

Countries for which records are included in this compilation are shown in bold.

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drinos. HUNGARY Dr Gábor Magyar. ICELAND Gunnlaugur Pétursson. IRELAND Paul Milne. ISRAEL Hadoram Shirihi. ITALY Marco Gustin. JORDAN Vacant. LATVIA Dr Jānis Baumanis. LITHUANIA Dr Petras Kurlavicius. LUXEMBOURG Dr Tom Conzemius. MACEDONIA Branko Micevski. MALTA Joe Sultana. MONTENEGRO Dr Vojislav F Vasić. MOROCCO Dr Michel Thévenot. NETHERLANDS Drs. Arnoud B. van den Berg. NORWAY Runar Jábekk/Bjoern Ove Hoeyland. POLAND Dr Tadeusz Stawarczyk. PORTUGAL Dr João Carlos Farinha. ROMANIA Jozsef Szabo. SERBIA As Montenegro. SLOVAK REPUBLIC Dr A. Dorolova. SLOVENIA Iztok Geister. SPAIN Dr Eduardo de Juana. SWEDEN Tommy Tyrberg. SWITZERLAND Dr N. Zbinden/ Dr Bernard Volet. TUNISIA Thierry Gaultier. UKRAINE Dr Igor Gorban.



Recent BBRC decisions

This monthly listing of the most recent decisions by the British Birds Rarities Committee is not intended to be comprehensive or in any way to replace the annual 'Report on rare birds in Great Britain'. The records listed are mostly those of the rarest species, or those of special interest for other reasons. All records refer to 1999 unless stated otherwise.

ACCEPTED: **Pied-billed Grebe** *Podilymbus podiceps* Singleton Lake (Kent), 27th February to 23rd March; Stanton Harcourt (Oxfordshire), 9th-14th November. **Madeira/Cape Verde Petrel** *Pterodroma madeira/jeae* Prawle Point (Devon), 17th August. **Little Shearwater** *Puffinus assimilis* Gwennap Head (Cornwall), 13th August. **Lesser Scaup** *Aythya affinis* Saltholme Pools and Reclamation Pond (Cleveland), 6th June to 31st July. **Gyr Falcon** *Falco rusticolus* Stenness (Orkney), 21st January. **Black-winged Pratincole** *Glareola nordmanni* Cley, Titchwell and Terrington Marsh (Norfolk), 17th July to 30th August. **Greater Yellowlegs** *Tringa melanoleuca* Elmley (Kent), 16th,

30th-31st March. **Franklin's Gull** *Larus pipixcan* Willen Lake (Buckinghamshire), 30th June to 1st July. **Calandra Lark** *Melanocorypha calandra* Fair Isle (Shetland), 16th-17th May. **Pied Wheatear** *Oenanthe pleschanka* North Ronaldsay (Orkney), 21st-24th October. **Blyth's Reed Warbler** *Acrocephalus dumetorum* Fair Isle (Shetland), 2nd-3rd June. **Booted Warbler** *Hippobolais caligata* Hartlepool Headland (Cleveland), 20th-21st September. **Western Bonelli's Warbler** *Phylloscopus bonelli* Spurn (East Yorkshire), 2nd June. **Lesser Grey Shrike** *Lanius minor* Wormiston (Fife), 17th-18th October.

M.J. Rogers, Secretary, BBRC, 2 Churchtown Cottages, Towednack, St Ives, Cornwall TR26 3AZ



The Best Annual Bird Report Awards



The general standard of annual bird reports in Britain has improved very significantly during the nine years that these awards have been presented. Assessed independently by five judges, each representing a different organisation and each concentrating on a different area of expertise, this year's top report scored 94%, whereas the one that was rated lowest scored only 20%. Of the 43 reports submitted for consideration this year, however, no fewer than 35 achieved a score of over 50%.

The very high score of the winner, *Suffolk*, sets a target that it will be difficult

for future entrants to reach. Perhaps equally remarkable is the achievement of SK58, which claimed seventh place without the benefit of the 5-point (6%) bonus awarded to those reports published within 12 months of the year that they cover. If that report (covering a single 10-km square bordering Rotherham, Sheffield and Worksop) had been for the current year, it would have been equal second with *Norfolk*, yet SK58 Birders has a membership of just 41 (compared with the Suffolk Naturalists' Society's 1,200 members and the Norfolk & Norwich Naturalists' Society's 500 members).

During the assessment process, the five

Table 1. The top annual bird reports published in 1999.

Position	County/area	Editor	Score
1st	Suffolk	Gary Lowe	94%
2nd	Norfolk	Giles Dunmore	86%
3rd	Fife	David S. Fotheringham	85%
4th	Avon	A. H. Davis	84%
5th	Derbyshire	R. M. R. James	82%
6th	Nottinghamshire	Bernie Ellis	81%
7th	SK58 (1997)	Andy Hirst	80%
8th	Dorset	Stephen Smith	79%
9th=	Leicestershire & Rutland	M. P. Skevington	78%
9th=	Lothian	David J. Kelly	78%
9th=	Surrey (1997)	Shaun Peters	78%

Suffolk was first in the category for large bird clubs (over 400 members); *Fife* was first among those produced by medium-sized clubs (200-400 members); and *SK58* was first in the category for small bird clubs (under 200 members). The top bird-observatory report was *Fair Isle* (edited by Paul & Helen Baker), in 29th position, with a score of 66%.

judges frequently commented on the enormous amount of time, effort, dedication and expertise which had been put into the production of these reports, first by the observers collecting, recording and submitting their observations, and then by the records committees, recorders and editors who turned these data into readable and accessible documents for the benefit of local birdwatchers today and researchers in the future. We are filled with admiration.

Whilst the high standards of county bird reports and small, local bird reports are, indeed, a cause for congratulations and pride, the continuing parlous state of reports produced by the bird observatories is difficult to explain. We have previously, on more than one occasion, suggested that the editors of bird-observatory reports should have a look at some of the best of the other bird reports in order to benefit from their ideas concerning content, presentation, design and production. There has, however, been almost no attempt by the bird observatories to raise their standards in the way that has been achieved by all other bird reports. This is clearly shown by the fact that county bird reports averaged 75%, and reports covering smaller areas averaged 67%, but the bird observatories (even including *Fair Isle's* good 66%) averaged only 48%. We draw attention to this yet again not out of any desire to criticise, but in the hope that at

least one or two bird-observatory-report editors will take up the challenge, and have a look at the reports produced not only by *Suffolk* and *Norfolk*, but perhaps also especially those produced by smaller organisations, such as *Fife* and *SK58*. We are supporters of the bird-observatory network and it would give us great pleasure to see a bird-observatory report up among the leaders next year.

Finally, we should like to draw special attention to the innovative use by the winner, *Suffolk*, of tinted boxes within the main text, headed 'FIELDNOTES' and containing interesting snippets of relevant information. We felt that this 'worked', and might be adopted more widely (though it does need to be used sparingly and only when appropriate).

Our aim is for this competition to encourage as well as to reward the production of high-quality bird reports (in respect of both content and presentation). A copy of the judges' scores will, therefore, be sent to any official report editor or recorder who requests a copy from the address below and who supplies a SAE. Comments on the judging and advice concerning report content and production are published periodically in *newsACRE*, the organ of the Association of County Recorders and Editors, to which all appropriate officers are strongly encouraged to belong.

J.T.R. Sbarrock (British Birds), Robert Gillmor (Society of Wildlife Artists), Derek Moore (British Trust for Ornithology), Michael J. Rogers (Association of County Recorders and Editors) and Reg Thorpe (British Birds Rarities Committee)
c/o Fountains, Park Lane, Blunham, Bedford MK44 3NJ

The year's best reports can be obtained as follows:

AVON Dr H. E. Rose, c/o 12 Birbeck Road, Bristol BS9 1BD (£5.50 incl. p&p)

DERBYSHIRE R. W. Key, 3 Farningham Close, Spondon, Derby DE21 7DZ (£6.00 incl. p&p)

DORSET Miss W.J. Adams, 16 Sherford Drive, Wareham, Dorset BH20 4EN (£6.00 + £1.20 p&p)

FAIR ISLE Administrator, Fair Isle Bird Observatory, Fair Isle, Shetland ZE2 9JU (£7.00 incl. p&p)

FIFE D. E. Dickson, 2 Burrelton Court, Bankhead, Glenrothes, Fife KY7 4UN (£6.00 incl. p&p)

LEICESTERSHIRE & RUTLAND Mrs Sue Graham, 5 Brading Road, Leicester LE3 9BG (£6.60 incl. p&p)

LOTHIAN D. J. Kelly, 149 High Street, Prestonpans, East Lothian EH32 9AX (£6.50)

NORFOLK Mrs M. J. Dorling, 6 New Road, Hethersett, Norfolk NR9 3HH (£7.00 + £1.00 p&p)

NOTTINGHAMSHIRE Howard Broughton, 5 Park Road, Plumtree Park, Nottingham NG12 5LX (£6.00 incl. p&p)

SK58 Andy Hirst, 15 Hunters Drive, Dinnington (£4.95)

SUFFOLK Suffolk Naturalists' Society, c/o The Museum, High Street, Ipswich IP1 3QH (£7.50 + £1.00 p&p)

SURREY J. Gates, 159 Stoughton Road, Guildford, Surrey GU1 1LQ (£4.50)



Looking back

ONE HUNDRED YEARS AGO: 'ORNITHOLOGICAL NOTES FROM NORFOLK. The rarities for the year [1899] have not been many, and one cannot but be impressed with the growing scarcity of the Hobby [*Falco subbuteo*], Kestrel [*F. tinnunculus*], Magpie [*Pica pica*], Quail [*Coturnix coturnix*], Woodcock [*Scolopax rusticola*], Ruff [*Philomachus pugnax*], Spotted Crake [*Porzana porzana*], Bittern [*Botaurus stellaris*], Teal [*Anas crecca*], Garganey [*A. querquedula*], and Wild Duck [*A. platyrhynchos*]. 1899 seems to have passed without the record of a single Waxwing [*Bombycilla garrulus*], Black-tailed Godwit [*Limosa limosa*], Spotted Crake, Eider Duck [*Somateria mollissima*], Glaucous Gull [*Larus hyperboreus*] (last visitation

1895), Great Northern Diver [*Gavia immer*], or Fulmar Petrel [*Fulmarus glacialis*].' (*Zoologist* 4 (Fourth Series): 97, March 1900)

FIFTY YEARS AGO: 'ROOKS BREAKING WALNUTS ON HARD COW-DUNG.' (Title of a classic Note, *Brit. Birds* 43: 81, March 1950)

TWENTY-FIVE YEARS AGO: 'Viewpoint. C. J. Bibby. Who took the birds out of British ornithology? Where has the love of birds among ornithologists gone? The huge and admirable growth of serious ornithology in Britain in recent years seems to have reduced the true amateur to near-extinction.... With so much time spent counting, identifying, or investigating the moult

of the greater coverts, how indeed does time remain for pleasure? ... Undoubtedly there is now more ornithological talent in Britain than ever before, but much of it seems to be diverted to mindless pursuits or frustrated by professionalism in its worst sense. How sad that the tick-hunting craze leaves no time to look at the birds, common and rare, because there is another to be collected on the other side of the country before the end of the weekend.... Why, I wonder, do some of the most skilled identifiers of birds in the country prefer to flock like sheep to well-known areas, taking directions to the very bush to see other people's finds?' (*Brit. Birds* 68: 100-102, March 1975)

Separation of American and Great Bitterns

Peter G. Lansdown

Of the 60 American Bitterns *Botaurus lentiginosus* recorded in Britain and Ireland up to the end of 1998, only ten have occurred since 1957. Four of these have been in Ireland, three in England, two in Wales and one in Scotland, with the easternmost individual in Dorset. The similar Great Bittern *B. stellaris* is restricted as a breeding bird in Britain and Ireland to ten localities in England, though it is more widespread, albeit in small numbers, in winter.

Great Bittern is larger than American Bittern, with, comparatively, a shorter, thicker bill, a shorter neck, a stockier body and both longer and broader wings. Without the extraordinarily rare opportunity of direct comparison, however, size and structure are of little use in the identification process. Great Bittern has a relatively plain bill, with a slim, dark culmen line which is normally confined to its distal half, and a dull, pale, greenish or bluish gape. In contrast, American Bittern has a broad, dark culmen line from the base of the bill, where it is often thickest, to the tip, and a conspicuous, bright lemon-yellow gape. The black forehead and crown,

clean-cut, buff supercilium and diffuse, dark loreal line of Great Bittern differ markedly from American Bittern's rich rusty-brown forehead and crown, creamy-buff supercilium, well-defined dark loreal line and inconspicuous dark eye-stripe behind the eye.

Great Bittern's buff ear-coverts, which usually contain peripheral slim, dark barring, and its buff rear neck and neck-sides, with their neat lines of dark bars and chevrons, do not contrast greatly with its nevertheless conspicuous, broad, dark moustachial stripe. American Bittern's unmarked, rich buff-brown ear-coverts and its plain brown or grey-brown rear neck and neck-sides are, however, clean-cut, contrasting with its thick, dark moustachial stripe. Depending on posture, the moustachial stripe of American Bittern can often be inconspicuous, as on the individual in plate 83. Comparatively, the Nearctic species typically has a narrower central streak down the chin and throat and a greater number of foreneck stripes, which are broader and largely rich chestnut rather than blackish or brown-and-black.

The differences between the two species

are not, however, confined to the bill, head and neck. The mantle and scapulars of Great Bittern have irregular-shaped, black feather-centres with broad, tawny-buff fringes, and its inner wing-coverts are similarly, though less heavily, patterned, and so there is little contrast between these feather tracts. The mantle and scapulars of American Bittern are rich, dark brown, neatly barred with black, and with even, narrow, buff



81. American Bittern *Botaurus lentiginosus*, Gwent, November 1981.

P. Manssternian

82. Great Bittern *Botaurus stellaris*, Netherlands, December 1977.

fringes to the feathers, creating a near-uniform tortoiseshell look. An adult American Bittern's inner wing-coverts are similar, though a shade paler, while those of a juvenile and a first-year are dull buff, delicately vermiculated with black, and are thus contrastingly paler in general appearance than the mantle and scapulars.

The secretive lifestyles of the two species, combined with their choice of often extensive reedbed or marshland habitat, are not conducive to prolonged views. Even quite a brief, unexpected encounter with one of these bitterns should, however, be sufficient to allow a firm identification. On the

and inner wing-coverts contrast with its conspicuously buff-barred black primary coverts, primaries and secondaries. The pattern is more complex and the contrast even greater on a flying juvenile or first-year American Bittern, with its almost solidly dark brown mantle and scapulars, uniform-looking, pale greyish-buff inner wing-coverts, unmarked dark primary coverts, primaries and secondaries, and buff-brown trailing edge to the inner primaries and secondaries, though a flying adult American Bittern lacks such contrast owing to its darker brown inner wing-coverts.

J.B. & S. Bottomley

83. American Bittern *Botaurus lentiginosus*, Florida, USA, February 1980.

ground, despite their similarities, they present rather different impressions. Great Bittern is basically buff in general appearance, liberally splashed with irregular black marks. American Bittern is browner and more uniform, though with a very striped look to the fore-face and a broadly striped fore-neck. In flight, Great Bittern's coarsely black-marked tawny-buff mantle, scapulars

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84. Below: Great Bittern *Botaurus stellaris*, Essex, February 1993. The widely spread foreneck-stripes are typically two-toned.

85. Top right: Great Bittern *Botaurus stellaris*, Essex, February 1993. The most obvious characters are the general buff coloration, liberally and intricately marked with black, and the black forehead, crown and moustachial stripe.

86. Middle right: American Bittern *Botaurus lentiginosus*, Florida, USA, April 1996. The strikingly striped bill and fore-face and contrastingly paler and greyer inner wing-coverts catch the eye on an otherwise brown, comparatively uniform bird.

87. Bottom right: American Bittern *Botaurus lentiginosus*, Florida, USA, April 1996. The numerous foreneck-stripes are chestnut, thinly edged with black.



George Reszeter



Chris Knights



George Reszeter



Chris Knights

The Red Kite Breeding Survey



Arnout B. van den Berg

As a result of the continued population expansion of the Red Kites *Milvus milvus* in central Wales and the success of the ongoing re-establishment programme in England and Scotland, it has become increasingly difficult to keep track of the total number breeding in Britain. In 1999, the Welsh Kite Trust was aware of 181 breeding pairs, mainly in central Wales, but acknowledged that an unknown proportion of Welsh breeding pairs was likely to have gone undetected. The situation in the Chilterns in southern England is similar. The Southern England Kite Group located 75 breeding pairs in 1999, but, as in Wales, strongly suspected that other pairs went undetected.

Re-established populations in the east Midlands (seven pairs) and central and northern Scotland (four and 30 pairs respectively) are still relatively small and, in these areas, it is still realistic for fieldworkers to locate all (or almost all) breeding pairs. Away from central Wales and the re-established populations, there are several sites where isolated breeding pairs of Red Kites have been reported in recent years. These sites are mainly in central and southern England and breeding has been proven at sites in Hampshire and northeast Suffolk. It is fair to say that breeding pairs could now be encountered just about anywhere in Britain.

In order to obtain as detailed a picture as possible of the size and extent of the Red Kite populations in Britain, a full breeding census will be carried out this year. This will aim to provide an accurate baseline from which to measure population changes in the future and so help to assess the effectiveness of conservation measures in Wales and the re-establishment programme in England and Scotland. The core populations, where Red Kites are known to be breeding, will be surveyed by project staff, volunteers and contract fieldworkers, but we would greatly appreciate the help of birdwatchers in trying

to find other potential breeding sites, particularly in areas away from the core populations.

We are keen to hear from birdwatchers who observe any of the following during the 2000 breeding season (March to July):

- two Red Kites seen together on more than one occasion at the same site, particularly if associated with an area of woodland,
- two Red Kites circling together over woodland and remaining in the same area for at least two minutes,
- a single Red Kite dropping down into woodland or flying within woodland below the level of the canopy, or
- one or more Red Kites seen at least twice during the period March to July in an area where the species is not usually encountered.

Sightings will be of particular value if they are reported quickly, since this will allow time for potential breeding records to be followed up by project fieldworkers during the current breeding season.

The Red Kite Breeding Survey is being organised by English Nature, Scottish Natural Heritage, the Countryside Council for Wales, the Welsh Kite Trust and the RSPB. For further information or to report sightings, please contact one of the following people:

WALES

Tony Cross, Welsh Kite Trust: 01597 860524; e-mail welsh.kites@virgin.net

ENGLAND

Ian Carter, English Nature: 01733 455281 or 07970 404831; e-mail ian.carter@english-nature.org.uk

Simon Wotton, RSPB: 01767 680551; e-mail simon.wotton@rsbp.org.uk

NORTHERN SCOTLAND

Brian Etheridge, RSPB: 01463 715000

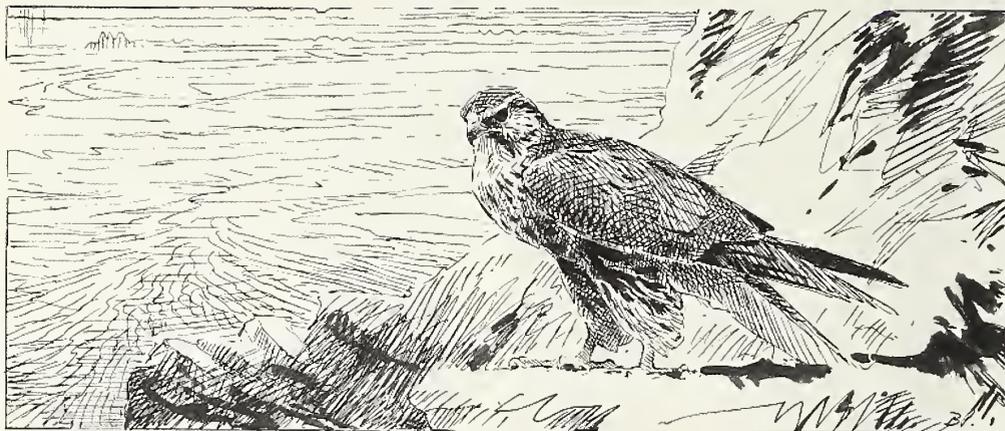
CENTRAL SCOTLAND

Kevin Duffy, RSPB: 0141 5764100



Saker Falcon diet: the implications of habitat change

Mark Watson and Roger Clarke



Bruce Pearson

ABSTRACT A study of the Saker Falcon *Falco cherrug* in northeast Kazakhstan in 1997 revealed a diet dominated by susliks *Spermophilus*, but including some birds, mainly gamebirds (Galliformes) and crows (Corvidae). Traces of prey remains from the previous season included smaller mammals of species that vary greatly in abundance from year to year. Saker breeding success was lower in those areas with taller vegetation, which held fewer susliks. With the collapse of collective farming in Kazakhstan, nomadic herders no longer graze large areas of steppe and alps, and the onset of vegetation succession appears to have reduced the abundance of susliks in some areas. Most grassland-species declines are due to agricultural intensification, but here is an example of negative conservation implications of the abandonment of grazing across large areas of Kazakhstan. If widespread, these land-use changes, together with pressure from falconers, could threaten total numbers of Saker Falcons.

The breeding range of the Saker Falcon *Falco cherrug* encompasses parts of Austria, the Czech Republic, Slovakia, Hungary, the former Yugoslavia, Romania, Bulgaria and Ukraine, stretches across the

steppes of southern Russia and Kazakhstan, the plateaux of Mongolia, Tibet, and west and central China, and extends to the edge of the Great Plain of eastern China. Small outlying populations breed to the south, in Turkey

and Iran. Six subspecies were recognised by Baumgart (1991), but Pfeffer (1992) and White (1995) drew attention to possible taxonomic revisions.

The World population of Sakers has been estimated at 35,000–40,000 pairs (Baumgart 1991), and in Europe this falcon has been classed as endangered (Tucker & Heath 1994). Sakers eat mainly mammals, especially susliks (ground-squirrels) *Spermophilus*, which are abundant on short vegetation in steppe grassland across much of the Western Palearctic (Cramp & Simmons 1980; Nowak 1991; Tucker & Heath 1994). In Kazakhstan, human depopulation has resulted in the abandonment of grazing in many areas. Succession has caused some of these areas to become unsuitable for susliks. Sakers are already threatened by the illegal trade in birds for falconry, so the impact of land-use change, which reduces the abundance of its main prey, could be significant. Three recent studies, in Austria (Frey & Senn 1980), Hungary (Bagyura *et al.* 1994) and Slovakia (Obuch & Chavko 1997), showed, however, that some Sakers could breed successfully by feeding mainly or exclusively on birds.

Study areas and methods

Fieldwork was carried out in northeast Kazakhstan from mid April to the end of June in 1997. Nine study plots were grouped in two areas, one in the Alakol Basin and one in the foothills of the Altai Mountains. The Alakol area was hot and arid, with a rocky substrate, while the Altai area was wetter and sub-alpine in character. The study plots were remote from permanent human habitation and had traditionally been subject to seasonal grazing by horses, sheep and cattle. This transhumance had ended in both areas by 1995.

Breeding success was calculated as the mean number of young fledged per pair that laid (productivity). During each nest visit, pellets and prey remains were collected from the nest itself and the ground below, as well as from nearby plucking posts and resting places. One nest was watched for a 24-hour

period, to monitor prey deliveries and to corroborate the result of the pellet analysis.

Pellet contents and prey remains were identified by comparing them with collections. We identified mammal hair by using microscopy to see the diagnostic patterns of the medulla (Teerinck 1991), and bird feathers from the structure of the downy barbules at the base (Brom 1986).

Quantification of prey was on the basis: detection in a pellet or as remains = 1 individual. There are two weaknesses in this, especially for pellets found at nests. First, a single prey individual may occur in all the pellets from a brood; and, secondly, remains from more than one prey individual of the same species may be indistinguishable in a single pellet. These weaknesses are, however, common to the other studies that we used for comparison.

Diet-diversity indices¹ were calculated for our own study, and for four others for comparison. In our analysis, prey were assigned to one of three classes: mammals, birds and reptiles. Beetles (Coleoptera) occurred in 12 (9%) of the pellets, but were ignored as inconsequential to diet.

Suslik abundance was measured in the nine study plots. A simple index was calculated, scoring 1 for each sighting, call and active burrow on up to six 400-m transects. Three of the transects were walked in areas where susliks were apparent, and three were selected at random. Resulting total scores for each area were divided by the total distance of transects to give an index of suslik abundance per 100 m of transect.

For each study area, suslik habitat quality was scored on a scale of 1–9, low scores reflecting long vegetation and poor habitat and high scores indicating short vegetation and good habitat. Since there was insufficient time to do this systematically at randomised points, it was based on a subjective general assessment within a radius of 2 km of each nest site.

Lastly, Saker breeding success, suslik abundance and habitat quality in the nine plots were examined using regression analysis.

¹ Using Levins' (1968) formula: diet diversity = $1/\sum p_i^2$, where p_i is the proportion of the diet in prey class i . This measures both diversity and evenness of diet, in that it gives values in the range of 1 to n , where n is the number of prey classes in the diet. High values (approaching n) indicate a broader diet, more evenly divided among the prey classes.

Table 1. Prey items identified from pellets and remains at nests of Saker Falcons *Falco cherrug* in northeast Kazakhstan, April-June 1997.

	Pellets	Uncaten prey remains
MAMMALS		
Red-checked Suslik <i>Spermophilus erythrogenys</i>	94	3
Long-tailed Suslik <i>Spermophilus undulatus</i>	7	1
Steppe Lemming <i>Lagurus lagurus</i>	0	1
Common Vole <i>Microtus arvalis</i>	0	1
Unidentified vole	2	-
Unidentified small mammal	1	0
Siberian Mole Rat <i>Myospalax myospalax</i>	0	1
Common Hamster <i>Cricetus cricetus</i>	0	1
Stoat <i>Mustela erminea</i>	0	2
Bobak Marmot <i>Marmota bobak</i>	0	8
<i>Artiodactyla</i> sp.	1	0
Unidentified mammals	3	6
<i>Mammals subtotal</i>	<i>108</i> (82%)	<i>24</i> (48%)
BIRDS		
Saker Falcon <i>Falco cherrug</i>	1	0
Black Grouse <i>Tetrao tetrix</i>	0	1
Chukar Partridge <i>Alectoris chukar</i>	0	2
Grey Partridge <i>Perdix perdix robusta</i>	0	7
Common Quail <i>Coturnix coturnix</i>	0	1
Unidentified gamebird	0	1
Rock Dove <i>Columba livia</i>	0	1
Common Cuckoo <i>Cuculus canorus</i>	1	0
European Bee-eater <i>Merops apiaster</i>	1	0
Calandra Lark <i>Melanocorypha calandra</i>	0	1
Sky Lark <i>Alauda arvensis</i>	0	1
Unidentified lark	1	-
Pied Wagtail <i>Motacilla alba</i>	0	1
Pied Wheatear <i>Oenanthe pleschanka</i>	0	2
Eurasian Jackdaw <i>Corvus monedula</i>	0	3
Carriion Crow <i>Corvus corone</i>	0	2
Unidentified crow	10	-
Rosy Starling <i>Sturnus roseus</i>	0	1
Unidentified small passerines	4	-
Unidentified birds	3	2
<i>Birds subtotal</i>	<i>21</i> (16%)	<i>26</i> (52%)
REPTILES		
Unidentified	2 (2%)	0
TOTALS	131	50

Diet

Prey found in pellets and prey remains at nests in northeast Kazakhstan (table 1) showed that the diet was dominated by Red-checked Susliks *S. erythrogenys*, but otherwise included a range of mammal and bird species. Second to susliks, the most frequent prey appeared to be crows (Corvidae) and gamebirds (Galliformes), although the latter were evident only in remains, and seven of

our ten pellet records of crows came from the same nest. The registration of Saker feathers in one pellet simply reflected the fact that surviving chicks ate their siblings as broods were reduced, presumably as a result of limited food availability.

The results of observations of feeding behaviour at the nest watched for 24 hours are summarised in table 2. The chicks were fed five times in the period from 14.55 hours on 13th May to 15.30 hours on 14th May. Both parents were hunting, but on two occasions the male brought food and made a food-pass to the female; as with other raptors, it is the female that usually feeds the nestlings (Pfeffer 1990). It is possible that the male brought more items than we recorded, as food-passes could have occurred out of sight.

The nest observations supported the findings of the pellet analysis, showing reliance on susliks, but also that Sakers switch to other species according to their availability. For example, in the canyons surrounding this nest, there were flocks of up to 60 Eurasian Jackdaws *Corvus monedula* containing many recently fledged juveniles that the falcons could catch easily.

Our sample included mammals of smaller body size than susliks, but species which raptors can find easily and catch in large quantities in irruption years (Sludskiy 1969). For example, we recorded the Steppe Lemming *Lagurus lagurus* and Common Vole *Microtus arvalis* in pellets, but only as traces from unoccupied nests in one study area in the Altai; these were judged to be remains from the preceding season, but they

Table 2. Frequency, duration and types of prey delivered to a brood of four female Saker chicks at about 20 days old, northeast Kazakhstan, May 1997.

Day	Feed number	Time (hrs)	Item	Fed by	Food-pass from male
13th May	1	16.13-16.32	Suslik	Female	No
	2	18.19-18.32	Suslik (juv.)	Female	Yes
14th May	1	08.34-08.51	Eurasian Jackdaw (juv.)	Female	No
	2	10.12-10.27	Suslik (juv.)	Female	Yes
	3	15.00-15.19	Suslik	Female	No

Table 3. Comparison of five studies of Saker Falcon *Falco cherrug* diet in the breeding season. For explanation of diversity index, see 'Methods'.

	NE Kazakhstan 1997 (this study)		SE Kazakhstan 1984-87 (Pfeffer 1990)		Slovakia 1978- 1995 (Obuch & Chavko 1997)		Hungary 1986-91 (Bagyura <i>et al.</i> 1994)		Austria (Frey & Senn 1980)	
	PELLETS	REMAINS	PELLETS	REMAINS	REMAINS Upland Lowland				REMAINS	
Sample size	131	50	834	2,317	1,236	704			197	
Percentages:										
MAMMALS	82	48	55	16	23	32			19	
<i>Susliks</i>	77	8	22	6	21	30			11	
<i>Gerbils</i>	0	0	29	0	0	0			0	
BIRDS	16	52	45	84	77	68			81	
<i>Pigeons</i>	0	2	?	44	66	47			28	
REPTILES	2	0	0	0	0	0			0	
Diversity index	1.41	2.00	1.98	1.37	1.55	1.78			1.50	

Table 4. Productivity, habitat quality and suslik abundance by study area, northeast Kazakhstan, April-June 1997. For method of calculations of productivity, habitat score and suslik abundance, see 'Methods'.

Study area	Number of breeding attempts	Mean productivity	Habitat score	Suslik abundance index
ALAKOL				
DEPRESSION	3	1.00	7	2.84
A	2	1.00	5	1.56
B	1	0.00	4	1.30
C	1	4.00	7	0.42
D	3	2.00	8	4.58
E	1	1.00	7	2.26
F				
ALTAI FOOTHILLS				
G	1	2.00	5	1.25
H	0	0.00	1	0.29
J	4	3.00	9	3.00

show that Sakers switch to these species in years when their numbers are high. Although no lemmings or voles were trapped or seen in any of the study areas in 1997, in June 1996, a point count of 27 Steppe Lemmings had been made 400 m from a Saker nest in

the study area J (S. Starikov verbally).

We compared our results with those of other studies (table 3). On the basis of pellets, our study revealed low diet diversity and the greatest dependence on susliks. A similar study by Pfeffer (1990) recorded

significant numbers of gerbils *Meriones* in Saker pellets from southeast Kazakhstan; this species is similar in size to susliks. Results based on prey remains showed the highest proportions of birds, and those based on pellets showed the lowest. This was particularly striking in our sample from northeast Kazakhstan.

Most of the pellets we collected were from nestlings. Of 101 pellets containing suslik remains, 76% included claws, whereas only 10% contained the teeth or jaws, and not one contained a skull. Teeth were unlikely to have been totally digested, as vertebrae and the ends of limb bones were commonly found in pellets. We concluded that adults generally removed the heads of susliks, and fed the rest to their young.

Breeding success, suslik abundance and habitat quality

We compared Saker breeding success, suslik abundance and suslik habitat quality across study plots (table 4). Saker breeding success was positively related to areas with high suslik abundance (fig. 1), and in turn to areas containing good habitat for susliks in terms of short vegetation (fig. 2). Area D was excluded from the analysis in fig. 1, as the suslik-abundance index for this area was very low, at 0.42, yet the nest there had the highest productivity of four female young and the earliest fledging date. The adults were seen returning to the nest with susliks caught beyond a cliff-line and outside the

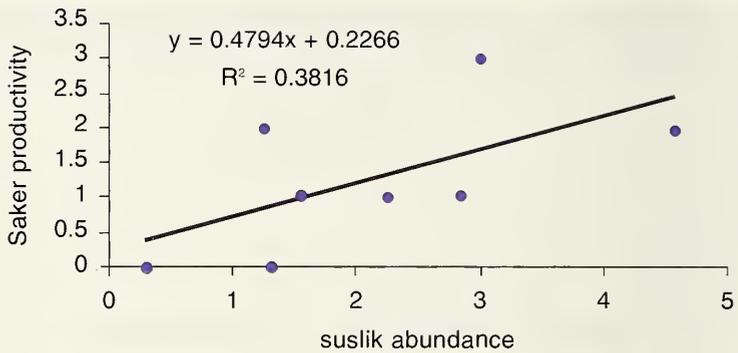


Fig. 1. Saker Falcon *Falco cherrug* breeding success and food: the relationship between mean productivity per area and mean suslik abundance per area ($P < 0.05$).

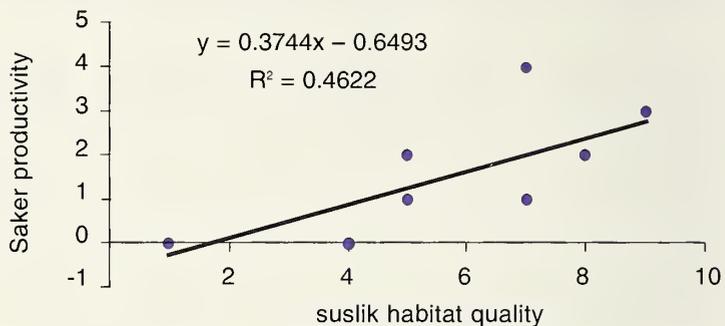


Fig. 2. Saker Falcon *Falco cherrug* breeding success and suslik habitat quality: the relationship between mean productivity per area and suslik habitat-quality score (1 = long vegetation, low habitat quality; 9 = short vegetation, high habitat quality) ($P < 0.05$).

area where suslik abundance was measured. This illustrates the difficulty of assessing hunting habitat over a large area in rugged terrain.

In area H, where suslik abundance was lowest and vegetation succession most advanced after grazing had been abandoned, three pairs of falcons held territories but did not breed. In 1996, three nests there had produced 14 young (I. S. Vorbiev verbally).

Seasonal variation in prey availability also affected diet composition, as susliks aestivate and remain below ground in response to high air temperatures and the dying-back of green plants in midsummer in arid steppe (Nowak 1991). In the Alakol area, suslik availability was much reduced by the end of June (daily suslik counts were 20% of those made in April). By contrast, this was not a factor in the Altai, where conditions were cooler and wetter owing to higher altitude.



Stefan Danko

88. Saker Falcons *Falco cherrug*, Hungary, May 1990.

DISCUSSION

Bias in dietary studies

Studies of prey remains rather than pellets are biased towards larger birds. Some caution is therefore required in interpreting the results. Prey remains from larger birds include many feathers and bones, particularly from wings and legs, which are easier to find and identify than, say, fragments of mammal hair. Our samples revealed few susliks among prey remains and many in pellets (table 1), reflecting the fact that mammals are more entirely consumed than are birds. Combining data from pellets and remains is often recommended for assessing raptor diet, in order to counter the biases of each method (Simmons *et al.* 1991). We, however, regard pellets as generally the more reliable indicator of relative proportions of prey taken by Sakers, where the main prey types are fairly even in size and therefore not

disproportionately shared among young. Nevertheless, pellet analysis may still give some distortion of respective frequencies of prey types, because a less frequent item (in our study, birds) is more noticeable against a background of a frequent prey item where parts of many individuals are harder to distinguish (susliks). This, however, could mean only that birds were even less important than is shown by the pellet data.

The implications of habitat change

Our data show variation in Saker breeding success related to suslik abundance and habitat quality within a single year. Since it is known that all the study plots were extensively grazed up to 1995, the data provide only circumstantial evidence of habitat change due to differential succession between areas with different climates and

substrates. If the effects of these land-use changes are widespread and alternative prey are not available, Saker numbers could be much reduced in the future. To be certain that a trend is occurring, data are clearly required from several years. Such a process is, however, already documented for Bulgaria, where cessation of grazing in the early 1990s caused declines in susliks and reduced Saker numbers to fewer than ten pairs (Bob Scott *in litt.*). Up to 1990, the Bulgarian population was 20-40 pairs (Tucker & Heath 1994).

Declines in suslik abundance may also affect other raptors. A single sample of five Long-legged Buzzard *Buteo rufinus* pellets from area J contained only remains of Red-cheeked Susliks. Steppe Eagles *Aquila nipalensis* and Eastern Imperial Eagles *A. beliaea* in Central Asia are also dependent on susliks and, since these birds are larger, they may require a much higher biomass of prey than do Sakers in order to breed successfully. In Bulgaria, Golden Eagles *A. chrysaetos* and Long-legged Buzzards are believed to have declined as a result of habitat change affecting the abundance of their main prey (Bob Scott *in litt.*).

Lemmings, voles and other species showing cyclical population fluctuations

were represented in our sample only as traces in pellets that had survived from the previous year. Brandt's Vole *Microtus brandti* has been recorded frequently in the Saker's diet in Mongolia (Baumgart 1991), where higher Saker productivity (Ellis *et al.* 1995) could be explained by switching to this species in irruption years. In Tibet, a similar phenomenon has been observed whereby Sakers were observed to concentrate at high density to feed on Black-mouthed Pikas *Ochotona melanostoma* (P. J. Leader verbally); although small in body size, this mammal was superabundant and easy for the falcons to catch. Fledglings of ground-nesting birds such as larks (Alaudidae) also provide high concentrations of prey at specific times of year; in late June, Sakers have been observed catching young larks that cannot fly simply by chasing them on the ground (A. Levin verbally).

As a generalist predator, the Saker Falcon may be well adapted to taking other prey in response to reduced abundance and availability of susliks. For example, in a study from Hungary, where loss of meadows to cultivation and other development has resulted in widespread loss of habitat for European Susliks *Spermophilus citellus*, one pair of



H. D. Brandt

89. European Suslik *Spermophilus citellus*.

Saker Falcons fed its chicks mainly on racing pigeons *Columba livia* (Bagyura *et al.* 1994). Pigeons are also important for Sakers in the Czech Republic and Slovakia, where susliks formed only 6% of prey remains collected from the late 1970s to the mid 1990s, whereas 44% were of domestic pigeons (Danko *et al.* 1994; Obuch & Chavko 1997). In Austria, pigeons constituted 28% of prey items identified by Frey & Senn (1980). Domestic pigeons are slightly larger than susliks in body size, with a published mean weight of 425 g (Ratcliffe 1993). Feeding on racing pigeons could make Sakers more vul-

nerable to human persecution.

Usually, it is agricultural intensification that causes declines in grassland-species assemblages (Tucker & Heath 1994). This small-scale study, however, provided circumstantial evidence that abandoning agriculture by stopping large-scale grazing in Kazakhstan may further affect a species that is already at risk from over-harvesting for falconry (Watson 1997). Monitoring of Saker Falcon numbers in relation to habitat change on a wider scale and over longer periods is essential to determining the real impact of this phenomenon.

Acknowledgments

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Notes

Great Skua apparently killing Little Egret

At 08.51 GMT on 19th October 1995, near Keyhaven, Hampshire, I noticed a Great Skua *Catbaracta skua* in fierce pursuit of a Little Egret *Egretta garzetta* about 1 km away over nearby saltmarsh. The egret was soon seized by the left wing and tumbled into the waters of the Solent, from where it struggled free and laboured into the air, only to be further pursued and forced once more to the surface of the water. It again rose and attempted to escape, this time aided by the activity of an adult Black-headed Gull *Larus ridibundus*, which briefly mobbed the skua. The skua,

however, soon closed on the egret and, at 08.56 hours, forced it for a third and final time into the water.

The two were now at least 1.5 km offshore, and this, combined with my low angle of view (1-2 m above sea level), prevented me from observing details of the struggle on the water. I continued to watch until the tide drifted them out of sight (after about 15 minutes), and remained watching the Solent until 10.00 hours without seeing either again.

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EDITORIAL COMMENT

Although this is typical behaviour for a Great Skua, the Little Egret is perhaps an unusual victim. *BWP* (vol. 3) records Grey Heron *Ardea cinerea* being attacked (killed?) occasionally, but does not mention any species of egret as prey of Great Skua.

Identification of apparent hybrid Mediterranean × Black-headed Gull

An odd gull *Larus* present during September–November 1995 at Cliffe, Kent, was assumed to be an adult Mediterranean *L. melanocephalus* × Black-headed Gull *L. ridibundus* hybrid. On 29th October and 25th November, I had good and prolonged views of this bird. The head pattern was that of a typical winter Black-headed, as were its bill, mantle colour and general build, as well as the legs (seen only briefly). At rest, the closed wing looked all white, similar to that of adult Mediterranean Gull, but with the longer projection beyond the tail as shown by Black-headed.

In flight, the only difference from Black-headed Gull was a much broader white primary wedge which had no black tips, but which still contrasted with the inner primaries and secondaries (as on Black-headed). The extent of the white, though difficult to determine, probably covered primaries 1 to 8, with perhaps the two inners being the usual pale grey. On the spread wing, some grey patches could be seen on the inner webs of what probably were

primaries 6, 7 and 8 (i.e. those that would not normally be white on a Black-headed). The underwing appeared mainly pale with some darker grey patches, none of which was as dark as on Black-headed Gull.

The one missing feature which should, I think, have been present was a dark outer web to the first primary. Although Grant (1982, *Gulls: a guide to identification*) suggested that this is a second-winter feature, my own observations indicate that it is shown to a variable extent by most adult Black-headed Gulls (as well as Bonaparte's *L. philadelphia* and Slender-billed Gulls *L. genei*), and it is always present on adult Mediterranean Gulls. As the primaries were the only visible Mediterranean Gull feature, why was the dark outer web not present?

In my opinion, this was an aberrant Black-headed Gull showing all-white primaries. I believe that the individual variability of all bird species is perhaps not appreciated, and that sometimes a hybrid origin is assumed too readily.

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Tawny Owl eating Roe Deer carrion

On 21st April 1996, near Scaup Farm, Kielder, Northumberland, I found several pellets from a Tawny Owl *Strix aluco*. One contained a number of teeth, some set in a section of lower mandible, from a young Roe Deer *Capreolus capreolus*. Mikkola (1983, *Owls of Europe*) made no reference to Tawny Owls taking carrion. *BWP* (vol. 4) states that this owl has been recorded taking young sheep,

in addition to other, smaller species, as carrion, but no mention is made of Roe Deer.

It may not be uncommon for Tawny Owls to feed on carrion, but, as there would rarely be any hard parts ingested from such large carcasses, evidence in pellets is probably rare. Presumably, the owl was starving for it to bother with part of a carcase so lacking in flesh.

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Roosting behaviour of Common Swifts

On the evening of 10th June 1994, many Common Swifts *Apus apus* were in the skies above Lackford Wildfowl Reserve, a series of gravel-pit lakes in the valley of the River Lark, 8 km north of Bury St Edmunds, Suffolk. Towards dusk, numbers increased dramatically, and several thousand were wheeling at high speed just above the willows and sallows *Salix* along the margins of the lakes.

At dawn on the following morning, we were at the reserve. At first light, no swifts were visible, but at about 04.30 GMT we looked up to see several hundred in the sky above. Instead of flying and gliding around in the usual rapid manner, each one was maintaining a more or less stationary position on gently flapping wings, mostly between 100 m and 200 m above ground, with a small number higher than this; they were not in a close flock, but spaced out, with some individuals visible through binoculars up to 800 m away. All the birds were facing in the same northerly direction (into the wind) and appeared to be, in effect, hovering, but with some slight movement forwards or up and down from time to time. Weather conditions were fine and sunny, with a largely clear sky

and a gentle north breeze of about force 2. The air temperature was mild, about 12°C, and there had been no precipitation in the previous 24 hours.

This behaviour continued for about three-quarters of an hour, and the swifts gave every appearance of roosting or resting on the wing. We observed them through binoculars, and there appeared to us to be no question of the 'hovering' being some sort of unusual feeding activity. The birds were completely silent throughout this period. Is this the normal roosting mode of swifts at high altitude during the night, and on this particular morning had these birds for some reason roosted until well after dawn and descended much lower than is usual? At about 05.15 GMT, we suddenly noticed that the 'hovering' had ceased and normal feeding and flight had been resumed; many of the swifts had descended to near ground level again, and 14 were caught in mist-nets.

In a combined total of 140 years of birdwatching, none of us had ever seen behaviour remotely resembling that described, nor can we trace any description of similar behaviour in the literature.

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Black woodpecker observation

There have been over 100 claimed sightings of Black Woodpecker *Dryocopus martius* in Britain, but none has been verified and accepted (*Ibis* 137: 590).

On 10th July 1999, I was in my home at Blunham, Bedfordshire, when I spotted a large black bird on my lawn. Its shape was that of a woodpecker, but it looked

completely black. It then stretched its head forward to pick up a food item from the ground, and the whole of its crown was brilliant scarlet. I grabbed my binoculars and watched it for a moment or two, before it flew away behind some bushes into some trees.

Even before I looked at it through binoculars, I knew that it was not a Black Woodpecker. It was too small, and its shape and behaviour, as well as its size, were those of a Green Woodpecker *Picus viridis*. Through binoculars, at a range of 30 m, I could easily see the speckled breast of a juvenile. If, however, I had not both had intimate knowledge of Green Woodpecker and had binoculars to hand - in other words, if I had been an ordinary, observant, interested member of the general public - I would have sworn that the bird (1) was wholly black, (2) except for a bright red crown, and (3) was definitely a woodpecker.

J. T. R. Sbarrock

Fountains, Park Lane, Blunbam, Bedfordshire MK44 3NJ

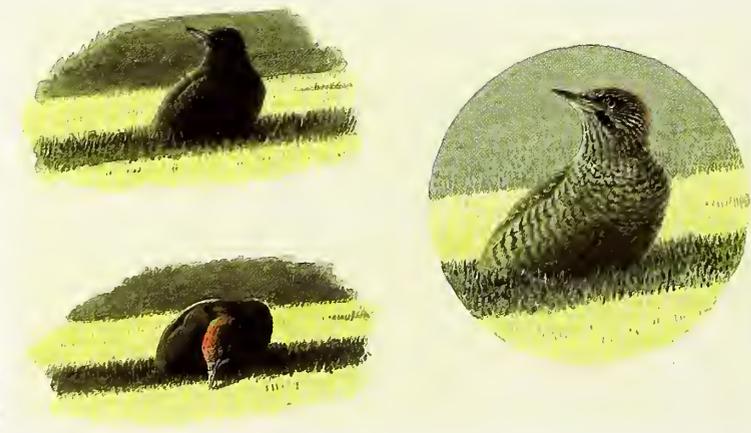


Fig. 1. Black woodpecker: illustration (drawn from rough sketches) showing appearance of a juvenile Green Woodpecker *Picus viridis* when seen in deep shade and bright sunlight.

Polygyny by Song Thrush

Since 1995, in an area of gardens and farmland near Graffham, West Sussex, I have marked Song Thrushes *Turdus philomelos* with individual combinations of colour rings. On 16th April 1996, I observed a pair of Song Thrushes collecting earthworms from a cattle-grazed pasture and flying into the hedgerow of an adjacent garden; I located the nest, which contained four young approximately six days old. Subsequent observations revealed one of the pair to be colour-ringed; it had been trapped close to

the nest site on 15th January 1996 and was assumed to be a male, as it regularly sang in the area around the garden. On 17th April, I visited the nest again to ring the young, but the brood had been taken by a predator.

On 20th April, the colour-ringed male was again collecting earthworms on the same pasture and taking them to a farm hedgerow (site B) 150 m away from the garden nest site (A). A nest was found containing five newly hatched young; I watched this nest regularly over the next few days, and it became

apparent that the colour-ringed bird was the only male bringing in food. During this period, the male would sing in the area of the farm hedge before flying back to the garden, where he would also sing vigorously; such behaviour suggested that both areas were within this male's territory.

On 25th April, a female was found incubating four eggs at site *A*, 5 m from the previously preyed-on nest. Both the close proximity to the previous nest and the timing of nesting (Song Thrushes require a short interval between nest failure and re-laying in April) strongly suggest that this was the same female as that observed on 16th April. On 29th April, I watched the male take food to nest *B*, and then fly to site *A* and appear to call the female off that nest. Moments later, the pair appeared together and flew to a nearby sports pitch. The female began to feed immediately, with the male staying nearby and appearing to watch over her; after several minutes of this behaviour, the pair flew back to site *A* and the female resumed incubation.

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EDITORIAL COMMENT

Derek Goodwin has commented: 'It seems likely that his involvement with the fledged young from the farm-hedge nest prompted the male to desert or neglect the later-hatched young from the garden nest (see penultimate paragraph above). From what I can recall reading over the years, this happens in about 50-70% of cases where males of usually monogamous species are concerned. Len Howard gave a heart-rending (because of the deserted female's distress) example of this with the Great Tits *Parus major* that she fed and studied. When domestic geese *Anser anser* used to be widely kept with one male to two or more females, it was well known that, if a female was allowed to incubate, the gander when the goslings hatched would be so obsessed with his parental "duties" (guarding and escorting) that he would neglect to fertilise the eggs of any geese still, or again, laying.

'Contrary to what is sometimes written (even once by the great Charles Darwin!), domestication has *not* caused males of geese, domestic ducks (of Mallard *Anas platyrhynchos* origin, not Muscovies *Cairina moschata*), Canaries *Serinus canaria*, etc., to become polygamous; they are merely ready to *copulate* with other females as they would do, if and when they got the chance, in a wild state.

'This Song Thrush, like Len Howard's male Great Tit, would appear, however, to have been a bigamist, until the greater urge to feed one brood of young prevailed.'

The male then returned to the sports pitch and began catching worms, which he took to site *B*.

All five young from the farm-hedge nest (*B*) fledged on 3rd May, while the eggs in the garden nest (*A*) hatched on 7th May, but the young died two days later. During this period, the ringed male was frequently seen feeding the fledglings from nest *B*, but no observations were made on nest *A*. The female at the latter then seemingly disappeared, and no further nests were found in area *A* for the remainder of the breeding season. The male continued to sing in both areas, and two further broods were raised with the farm-hedge (*B*) female.

As no unringed male was ever seen singing in either territory, or suspected of being involved with the provisioning of young, the evidence appears to indicate a case of polygyny. *BWP* (vol. 5) makes no mention of anything other than strictly monogamous pair-bonds for the Song Thrush, and I can find no reference to any form of polygamous behaviour by this species.

Observations at exceptionally large Redwing roost

In winter 1992/93, at a site some 3 km north of Mold and about 8 km south of the River Dee, Clwyd, I made regular observations at a roost of Redwings *Turdus iliacus*. This was situated in a plantation of Sitka Spruce *Picea*

sitchensis measuring 300 m from north to south and about 120 m from west to east, lying in a shallow valley bounded by meadows and woodland. The spruces were quite well grown, many 7-8 m or taller, and

the plantation also contained a number of Silver Birches *Betula pendula* and was fringed on the western side by a few Scots Pines *Pinus sylvestris*.

The roost built up quickly from late November, and when the first count was made, on 13th December, 5,000-7,000 Redwings entered from the north, flying along a valley from the direction of the River Dee; a few hundred arrived from the west and northwest, and very few from the east, with numbers coming from the south small compared with those flying in from the north. While this pattern was constant throughout the three-month duration of the roost, most counts were taken at the northern approach, from where it was impossible to record Redwings entering from the south (the converse held true, of course, when counts were made from the southern end). After 24th February the roost quickly broke up, with Redwings totally absent by the first week of March. Counts, with dates and direction of entry, are listed below.

On less cloudy evenings, arrival was protracted, with individuals starting to trickle in some 1½ hours before dusk, and peak arrival about 30-45 minutes before heavy dusk, with latecomers pitching in instantly (earlier arrivals often landed in large trees overlooking the roost, or made a couple of circuits before entering). When the largest numbers were entering, parties of 100-200 Redwings arrived in compact groups or

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Mistle Thrush taking off from water

On 19th March 1994, at Colwick Country Park, Nottinghamshire, Stuart Green and I observed a Mistle Thrush *Turdus viscivorus* floating in the water in the middle of the lake. We watched it for approximately 15

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EDITORIAL COMMENT

What was presumably the very same Mistle Thrush, recorded on the same date and at the same locality, was observed alighting on and taking off from the water by Brian Marsh (*Brit. Birds* 91: 236). Mr Marsh provided a more detailed account, but, in his observation, the thrush remained on the water for only about two minutes. In an editorial comment to that Note, we stated that the behaviour was exceptional and suggested that it was an extreme form of bathing. See also *Brit. Birds* 42: 183.

Date	No.	Entry from:
13 Dec. 92	5,000-7,000	North
18 Dec. 92	6,000	North
23 Dec. 92	5,000	North
24 Dec. 92	1,200	South
25 Dec. 92	2,000-3,000	South
28 Dec. 92	6,000+	North
4 Jan. 93	5,000	North
6 Jan. 93	2,500-3,000	South
24 Jan. 93	7,000	North
3 Feb. 93	6,000-7,000	North
22 Feb. 93	2,500	North
23 Feb. 93	2,000	North
24 Feb. 93	200-300	North

sometimes in a line perhaps 100 m wide. On days with heavy cloud cover, arrivals were condensed into a much shorter period, and, in the main, the birds entered at once. From the numbers recorded, I would estimate that 10,000 Redwings were using the roost at the time of peak counts.

Although the roost was used by small numbers of thrushes in most winters, the only other large occupation was in winter 1990/91, with up to 3,000 Redwings and some 2,000 Common Starlings *Sturnus vulgaris* during February. There has been no large roost at the site since 1993; a few hundred Redwings used the plantation in 1994/95, but their numbers never reached more than 500-600.

Full details have been published in the *Clwyd Bird Report*.

minutes, during which it remained floating, motionless, and we assumed that it was ill or even dying. Suddenly, the thrush rose out of the water and flew away, appearing perfectly fit and in good condition.



Letters

County bird reports

I should like to suggest that the time has now come to review the value of the county bird reports in their present form, since, in principle, they have not changed their format in the last 50 years.

The publication of systematic lists every year, often summarising the same type of basic material, is no longer relevant to the study of local species. Many more of the records could be reduced to tables, saving time, money and paper; they could, perhaps, be published only every other year, or even every five years, when trends are more easily visible.

Secondly, I should like to propose that county reports be separated into two parts, since

the time lag between the end of the calendar year and the publication of the annual report has become unacceptably long, owing to the sheer volume of records and the limited time of those who do the editing.

Part one, published no later than the February of the following year, could cover the breeding species (surely the most important part of the county societies' work). Today, this information is usually not published until well into, or after, the following breeding season. Other than as an historical record, its value has been diminished.

Part two could then contain the rest of the systematic list, papers, and so on, which would

be acceptable at a later date in the following calendar year.

I am very conscious of the hard work put in by county-report editors and their committees, but the time has come - and perhaps the year 2000 is an appropriate moment - to review the traditional system.

Philip S. Redman

20 rue Dauphine, 75006 Paris, France

EDITORIAL COMMENT

A copy of this letter has been passed to the Association of County Recorders and Editors (ACRE).

Ruddy Shelducks in Britain and Ireland

Following the publication of the above paper (*Brit. Birds* 92: 225-255), a small number of corrections and additions have been brought to my attention.

Jeffrey Wheatley (*in litt.*) has pointed out an inaccuracy concerning the breeding records in Surrey (*Brit. Birds* 92: 234). The breeding record at Chertsey Weir 'in 1992' was in fact in 1991, the mistake stemming from a typing error that I made when collating the original information. Chertsey Weir is very close to Queen Mary Reservoir, where there was also a breeding record listed for 1991. It seems probable that these two breeding records were one and the same. That being the case, the total number of breeding records for Britain during 1986-97 should have been four, not five; and the total for 1974-97 should have been six, not seven (*Brit. Birds* 92: 251). As a consequence, the record of two juveniles at Fren-

sham Great and Little Ponds, Surrey, from August to November 1992 (*Brit. Birds* 92: 233) could not have related to the offspring of the Chertsey Weir pair.

Mr Wheatley also located a record of two Ruddy Shelducks *Tadorna ferruginea* shot at Ripley, Surrey, on 22nd October 1892 (Bucknill 1900). That record brings the total for the 1892 invasion to a minimum of 61 birds, not 59 as stated in the paper (*Brit. Birds* 92: 240, 251).

Peter Dare (*in litt.*) reported that, at 09.59 BST on 29th July 1994, he was seawatching at Covehithe, Suffolk, when he saw a flock of four birds fly in from far out to sea to the east. He identified them as either Ruddy Shelducks or Egyptian Geese *Alopochen aegyptiacus*. They reached the coast some three quarters of a mile [1.2 km] north of the observer near Benacre Broad and then turned north towards Lowestoft. Although

their identification was not confirmed, it seems highly likely that they were indeed Ruddy Shelducks, particularly since a flock of four was seen the very same day in Lincolnshire, subsequently moving north up the east coast to Co. Durham, back to Yorkshire and probably then on to Northumberland (*Brit. Birds* 92: 235-236). Remarkably, this sighting evokes the record of eight Ruddy Shelducks which were seen to fly in off the sea at Thorpe Mere, Suffolk, on 5th July 1892, during that year's invasion (*Brit. Birds* 92: 240). It is further evidence, albeit not cast-iron, to suggest that wild birds did reach Britain in 1994.

Keith Vinicombe

11 Kennington Avenue, Bishopston, Bristol BS7 9EU

Reference

Bucknill, J.A. 1900. *Birds of Surrey*. London.

Reliability of multi-observer records

May I be permitted to draw the attention of all those of your recent correspondents who seem to think that birdwatchers who operate on their own are all potential liars (*Brit. Birds* 92: 212, 481-482) to the correspondence about Britain's first Cetti's Warbler *Cettia cetti*, in Hamp-

shire in 1961 (*Brit. Birds* 57: 365-366; 58: 225-227, 516-520; 59: 204-206)? That episode, concerning a singing individual, originally reported to show plumage characters of a Moustached Warbler *Acrocephalus melanopogon*, was described, by R. H. Charlwood and the late D. D.

Harber, as an instance of 'mass hallucination'.

Of course, that could not possibly happen today. Could it?

Michael Sbrubb

Hillcrest, Llanurtyd Wells, Powys
LD5 4TL

Rutland

I write as one who was raised in Rutland, long before it was taken over by Leicestershire in 1974.

May I ask you, please, to make all your readers, and especially your contributors (including the Rarities Committee), aware that Rutland regained its indepen-

dence on 1st April 1997?

To be strictly accurate, therefore, observations at Rutland Water (e.g. *Brit. Birds* 92: 573, 574) should be 'credited' to Rutland, and observations at Eye Brook Reservoir (e.g. *Brit. Birds* 92: 565) should be 'credited' to

both Leicestershire and Rutland (since the reservoir lies astride the county boundary).

A. M. Macfarlane

60 Holden Park Road, Southborough, Tunbridge Wells, Kent
TN4 0EP

Long-tailed Rosefinches in Europe

Table 1, listing recent records of Long-tailed Rosefinches *Uragus sibiricus* in Europe (*Brit. Birds* 92: 503), omitted three records in Belgium (and there has been a fourth since).

Small numbers have been kept in captivity in Belgium since at least 1976, with instances of successful breeding in captivity in 1984 (2 young) and 1987 (14 young). The species is commonly offered for sale in

the birdmarket in the Antwerp area and the price fell from 3,500 BEF in 1988 to 900 BEF in 1989 (Janssen 1989, 1990). Importation is still going on from Hong Kong to Brussels, for sale in the Netherlands and France, as well as in Belgium.

Paul Herroelen

Leuvensesteenweg 347, B-3370
Boutersem, Belgium

References

- Herroelen, P. 1994. Notes on trade, breeding in captivity and escaped rare birds in western Europe, especially in Belgium. Unpublished 47-page report to AERC.
- Janssen, L. 1989. Enkele indrukken op de Antwerpse vogelmarkt tijdens de tweede helft van 1989. [Some impressions of the Antwerp bird market in the second half of 1989.] Unpublished 17-page report.
- 1990. Persoonlijke vaststellingen bij een kanariebedrijf in het Antwerpse (mei-december 1989). [Personal records made in a canary business in the Antwerp area (May-December 1989).] *Linkeroever* 12: 33-36.

1995	1st-9th October	Antwerp-Deurne	(<i>Dutch Birding</i> 17: 270)
1996	29th February to 4th March	Gent-Drogen	(<i>Dutch Birding</i> 18: 104)
1997	11th February	Cherq (near Tournai)	(<i>Dutch Birding</i> 19: 93)
1999	27th October	Blankenberge	(<i>Dutch Birding</i> 21: 371)

The commercialisation of ornithology

The letter from Dr W. R. P. Bourne (*Brit. Birds* 92: 260-261) raised a few thoughts. His comment that the Corn Crake *Crex crex* is the only species obviously threatened by human activity in Britain misses the point. The point is that birding in much of our countryside is not so enjoyable these days as it was in the past, because there are fewer birds and less other wildlife to watch. The countryside may look the same, but much of it

has become an industrial farming complex devoted to the growth of monocultures.

Many bird species are in decline that should not be. Of the species mentioned by Dr Bourne, Sky Lark *Alauda arvensis*, Northern Lapwing *Vanellus vanellus* and Corn Bunting *Miliaria calandra* seem to have declined because of farming practices, and the Song Thrush *Turdus philomelos* has

declined probably owing to at least partly to the use of molluscicides (the agricultural equivalent of the gardeners' slug pellets).

Although many birds can take care of themselves, many would also do a lot better if all human beings were more environmentally aware.

Robin Chittenden

65 Sandringham Road, Norwich
NR2 3RZ



Reviews

The Birdwatchers' Yearbook and Diary 2000

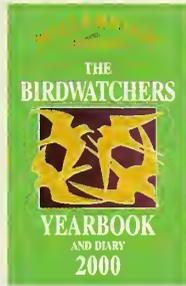
BIRDWATCHERS' YEARBOOK & DIARY

By John E. Pemberton,
1999. 320 pages.
ISBN 0-9553840-1-2.
Paperback, £13.50.

How ever did we find information about birdwatching in the UK prior to the first *Birdwatcher's Yearbook* in 1981? This twentieth, Millennium, edition includes, remarkably, more information than ever. There is a notable increase in the number of nature reserves listed and, most helpfully, e-mail addresses. This edition marks the anniversary year by devoting its 'Features' section to the work of

the British Trust for Ornithology. This includes an excellent paper by John Tully, a BTO volunteer from Avon, on how Trust survey information can be used at a local level, providing a good example to us all. If you have not bought a Yearbook for several years, it is about time that you invested in an update.

Julian Hughes



The Birds of Corsica: BOU Checklist No. 17

THE BIRDS OF CORSICA

By Jean-Claude Thibault
& Giles Bonaccorsi.
British Ornithologists' Union,
Tring, 1999. 172 pages; 35
colour plates. ISBN 0-9074-
4621-3. Hardback, £22.00.

Following the established format of the series, the authors present an authoritative account of past and present ornithological data on Corsica. Succinct and readable introductory sections cover general history, geology and geography, climate, vegetation, history and trends of breeding species, migration, conservation, ornithological history and data collection. It is encouraging to learn that the two major habitats on the island, maquis and forest, are being little affected by degradation or development, whereas, predictably, most wetlands and other coastal areas are continually being damaged by tourism

and agricultural developments. Furthermore, conservation laws and enforcement give the birds of Corsica a much safer existence and a better prognosis than on almost all other Mediterranean islands.

The Systematic List gives full status to 324 species and runs to 102 pages, presenting a wealth of definitive information. The current population of Corsican Nuthatch *Sitta whitebeadi* is given as a healthy 2,000-3,000 pairs, while the insular form of Citril Finch *Serinus citrinella corsicana* is currently estimated at 10,000+ pairs. There are 24 pages of Appendices, which detail unconfirmed and rejected species, population trends of breeding birds, census figures for many migratory and wintering wetland or coastal species, and census figures of breeding gulls. There are 34 excellent colour plates of habitats and views. A gazetteer and a list of references complete this first-rate publication.

Nick Dymond

A Birder's Guide to The Bahama Islands

A BIRDER'S GUIDE TO THE BAHAMA ISLANDS

By Anthony W. White.
American Birding Association,
Colorado Springs, 1998.
320 pages; 66 maps; 8 colour
plates; line drawings.
ISBN 1-878788-16-7.
Wire-o-binding, \$26.95.

What an excellent guide! The introduction gives lots of information about the islands and then there is a series of chapters on each island or group. Every one of these chapters includes a clear map and its own bibliography. Another chapter gives details on where to find the 'specialities', and this is followed by a complete checklist and a 19-page bibliography. Not always a

ABA/LANE BIRDFINDING GUIDE

A BIRDER'S GUIDE TO THE BAHAMA ISLANDS (INCLUDING TURKS AND CAICOS)



ANTHONY W. WHITE
AMERICAN BIRDING ASSOCIATION

feature of such guides, this one is well written and a pleasure to read. I recommend it.

Andy Mitchell

ALSO RECEIVED

*Birds of Africa:
from seabirds to seed-eaters*

By Chris & Tilde Stuart. (New Holland, London. 176 pages. ISBN 1-86812-777-X. Hardback, £24.99)

The Birds of Britain & Europe

THE BIRDS OF BRITAIN & EUROPE

By Paul Doherty.

Narrated by Bill Oddie.
Bird Images Video Guides,
Sherburn in Elmet, 1999.
Four-volume video guide;
running time 11 hours 30
minutes. £17.95 (+£2.00
p&p) per video or
£69.95 (+£5.00 p&p)
for full set of four.

This set of videos represents the new edition of a collection, earlier versions of which have been reviewed previously in *British Birds* (90: 159). Although the number of videos has been reduced from seven to four, the running time has increased by 50% and the number of species has increased from approximately 450 to 551. The title is somewhat modest, since these videos now represent near-complete coverage of the avifauna of Europe, North Africa (including the Canary Islands) and the Near East (Israel). Only a handful of regularly occurring species are absent, and a selection of vagrants is included. Over 80% of the footage is new.

The videos are of consistently high quality, with commentary provided by the familiar voice of Bill Oddie. Each species is introduced with a description of range (including status in Britain) and each sequence is accompanied by details of location and month. Although the level of

coverage for each species is somewhat constrained by the time available, a range of relevant plumages (male, female and juvenile) is included for most species, together with many examples of subspecific variation. In some cases, the footage displays races that are only extralimital to Britain, which is sometimes recorded in the commentary (e.g. Common Crossbill *Loxia curvirostra balearica*), but at other times is not (e.g. Broad-billed Sandpiper *Limicola falcinellus sibirica* and northern Bullfinch *Pyrrhula pyrrhula pyrrhula*). In general, the taxonomy is relevant to our rapidly changing times, with footage of 'Caspian' *Larus cachinnans cachinnans* and 'Siberian' Gulls *L. (fuscus) beughini*, for example. For a very small number of species, coverage is limited to stills, but, elsewhere, slowed-down footage, freeze-frames and stills are used to good effect, in combination with moving footage, to display relevant identification features (e.g. tail patterns of wheatears *Oenanthe*, and first-primary difference between Rufous *Luscinia megarhynchos* and Thrush Nightingales *L. luscinia*). Songs and calls are included where useful, particularly for most passerines. Some of the footage of singing individuals - for example, most of the warblers - is especially good. The condensed nature of the commentary can lead to the odd

ambiguous comment - for example, that winter male Pied Wheatear *O. pleschanka* has plumage tones typically paler than those of eastern Black-eared *O. hispanica melanoleuca* - but in most cases it provides a concise summary of salient features, which complements the footage (and a field guide) well.

Personally, I have occasionally found difficulty in interpreting some footage of flying birds (an effect of the digital enhancement?), but most sequences are excellent. It is a measure of the photographer's achievement that all European swifts (Apodidae) are included, including White-rumped *Apus caffer* from Spain. There are numerous highlights, which for me included the stunning adult summer Ross's Gull *Rhodostethia rosea*, the perched Red-necked Nightjar *Caprimulgus ruficollis* and a creeping Lanceolated Warbler *Locustella lanceolata*.

These videos may have limited appeal to experienced, well-travelled observers (although there is the challenge of trying to identify the specific locations, e.g. the range of species filmed at Oukaimeden in the Moroccan High Atlas), but they certainly bring to life the birds of Europe and represent an excellent achievement from this well-known photographer. These informative videos will provide interest for many birdwatchers at a reasonable price.

Adam Rowlands

Hedgehogs

HEDGEHOGS

Nigel Reeve



Poyser Natural History books are rather daunting at first browse. Their texts are packed with citations and interspersed with graphs and tables full of technical information. Dip into *Hedgehogs*, however, and you will find that it is extremely readable. There are interesting accounts of the Hedgehog *Erinaceus europaeus* in folklore, a useful discussion of hibernation and a chapter on 'Malentities and misfortune'. The book appears to contain all that is known about these endearing mammals - including their predation on ground-nesting birds.

Robert Burton

HEDGEHOGS

By Nigel Reeve,

illustrated by Ruth Lindsay.

Academic Press (Poyser
Natural History), London,
1999. 313 pages; 20 colour
plates; numerous figures and
tables. ISBN 0-85661-081-X.

Hardback, £21.00.



News and comment

Compiled by Wendy Dickson and Bob Scott

Wildfowlers and the RSPB

It is not often that we come across a joint report produced by the RSPB and the British Association for Shooting and Conservation (BASC). We should not, however, be too surprised, as, for different reasons, the two organisations are both seeking larger bird populations, and a considerable degree of co-operation exists between the two. Just how much is known of this co-operation by the members of the two organisations we cannot say, and we suspect that there is a minority on both sides that would feel a little uncomfortable about the situation. We can only say to those minorities that they should find time to look at a recent publication, *Geese and*

Local Economies in Scotland - a report to the National Goose Forum by the RSPB and BASC.

The report demonstrates that geese bring significant benefits to rural economies in Scotland by attracting winter tourism by birdwatchers and shooters. These economic benefits are likely to be significant in comparison with the estimates of the damage caused to agriculture by goose grazing. While individual farmers may suffer income losses, the benefits are spread more widely through the community via the providers of accommodation, food and drink, transport, and so on. Some individual farmers gain an income by allowing access to their land for

goose-shooting, but as yet few gain any financial benefit by allowing visitors access for wildfowl-viewing.

The report concludes that the benefits which geese bring to local economies are often not captured by those who bear the burden of the costs. In view of this, there is support for intervention to ensure that farmers are rewarded appropriately for managing their land in a way which supports healthy goose populations and not in a way that simply recompenses them for their loss.

For further details, write to the BASC, Trochry, Dunkeld, Tayside PH8 0DY.

The State of the UK's birds 1999

The first of what is intended to be an annual publication by the RSPB and the BTO, *The State of the UK's Birds 1999* reports on the fortunes of the country's breeding birds at the end of the twentieth century. The major message from the report is that, in general, progress towards achieving the UK Government's Biodiversity Action Plan targets, one of the measures of the Government's success in fulfilling its biodiversity and sustainability obligations, is far from satisfactory. Farmland bird populations are at their lowest levels for decades, and they continue to fall; an index shows them to be 40% lower than in the mid 1970s. Recent evidence of declines in Northern Lapwing *Vanellus vanellus*, House Sparrow *Passer domesticus* and Common Starling *Sturnus vulgaris* populations suggests that these species need to be added to the list of priority species requiring conservation action.

The story is not all doom and gloom, however, with a number of breeding species steadily increasing and population recoveries of birds of prey and some passerines such as Dartford Warbler *Sylvia undata*. Where specific conservation action has been taken, frequently led by the RSPB, for species that have been declining for decades, this has resulted in a reversal in the fortunes of those species. Although Cirl Bunting *Emberiza cirlus*, Stone-curlew *Burbinus oedipnemus* and Corn Crake *Crex crex* may never regain their former abundance within the UK, they do provide hope for currently declining farmland species.

Copies of *The State of the UK's Birds 1999* are available free of charge from RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL, and it can also be found on the RSPB website (www.rspb.org.uk).

Changes at Spurn

We first visited Spurn in the mid 1950s, and there, standing on the 'Narrow Neck', was an enthusiastic young ornithologist counting the visible migration. This was John Cudworth, who from 1954 served on the Spurn Bird Observatory Committee, since 1963 as Chairman. In this role, he succeeded Ralph Chislett, co-founder of the Observatory. The name of John Cudworth became synonymous with Spurn, but ill health has now forced him to retire. We wish him a speedy recovery, so that he can return soon to the 'Narrow Neck'.

The Tenth Pan-African Ornithological Congress

The tenth congress will be held in Kampala, Uganda, during 3rd-8th September 2000. To register or to offer papers, contact the PAOC on e-mail: eanhs@imul.com

Future of the Tees Estuary

A blueprint for the future of the Tees Estuary has been unveiled. *Tees Estuary - present and future*, the culmination of a year's work by the Environment Agency, Durham University, English Nature and the Industry and Nature Conservation Association, reports on the estuary's present state and suggests a strategy for future improvements. Major issues covered include the growth of algae in the river, which blankets birds' feeding grounds such as the important Seal Sands area, endocrine-disrupting substances which can affect fish reproductive systems, nitrification of ammonia leading to oxygen depletion in the river, oxygen demand of polluted sediments on the river bed, and direct toxicity assessment. All this clearly has major implications for the future of all wildlife using the area.

For further details, contact the Environment Agency, North East Office, Rivers House, 21 Park Square South, Leeds LS1 2QG.

Capercaillie and Black Grouse

Sadly, we all know only too well how difficult it has become to see Capercaillie *Tetrao urogallus* and Black Grouse *T. tetrix* in Britain. Both species have undergone serious declines, and major recovery programmes are under way through a partnership of conservation organisations. To support this work, *British Birds* is backing a new code of conduct for birdwatchers who wish to see these intriguing species. We urge all subscribers to read a copy and to follow the guidelines.

For a free copy, write to RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL, or consult the RSPB's website: www.rspb.org.uk

Top of the pops

Ever since the BTO Garden Bird-Watch started in 1995, a table of the top ten species has been published. In the third quarter of 1999, a new species made it into the chart, in tenth place. The Wood Pigeon *Columba palumbus* has displaced the Common Starling *Sturnus vulgaris*. Currently, the top three places go to Blue Tit *Parus caeruleus* (87% of all gardens), Blackbird *Turdus merula* (85%) and House Sparrow *Passer domesticus* (77%).

BBC Wildlife magazine has published the results of its survey, put to 1,000 British residents, concerning which they consider to be the 'top ten' animals worldwide and as UK residents. This was a repeat of a similar survey conducted in 1991. It has to be said that birds did not get much of a look-in. On the World front, elephant slipped from top to third, with dolphin moving up from second to first, and tiger moving up from third to second. The only bird, 'penguin', was a new entry in eighth place.

At least the birds did a little

better in the UK chart. Dolphin was again top, having jumped up from sixth, followed by fox and hedgehog. The first bird was Barn Owl *Tyto alba*, in sixth place, and there were two new entries: Robin *Erithacus rubecula* and Golden Eagle *Aquila chrysaetos* at ninth and tenth respectively.

In view of the fact that this news was becoming available in the festive season, we attempted our own straw pole for bird popularity by looking at Christmas cards. With many birding friends, and others who know that we are interested in birds, we received a goodly supply of cards featuring birds. Ignoring cartoon birds, and putting those of foreign origin to one side, we managed 40 species, 22 appearing only once and 13 twice. The remaining top five were headed, not surprisingly, by the Robin (21 cards), followed by Barn Owl (seven), Yellowhammer *Emberiza citrinella* (six), Tree Sparrow *Passer montanus* (four) and Mute Swan *Cygnus olor* (three).

Cap Gris-Nez trespass

The Pas-de-Calais region of northern France is now of easy access to British birders. Central to the region is Cap Gris-Nez, which has become famous over the years for its bird migration and now attracts observers from all over Europe. In addition, the Cap has become a tourist attraction in its own right and visitor numbers now exceed one million each year. The pressure on the environment is increasing, but the local inhabitants have, so far, withstood the impact well.

Unfortunately, the impression has developed on the part of some birdwatchers that the fields and open areas are available to anybody to wander

across at will, especially if there is no sign to the contrary. This is not so, any more than it is in England. Not only at Cap Gris-Nez but also elsewhere in France, it is essential that everybody keeps to the roads and public paths unless he or she has specific permission from the landowner. Failure to observe this simple rule is potentially providing further 'ammunition' for the hunting lobby, just when some headway is being made to curb its 'traditional rights'.

It is worth bearing in mind that the Birdwatchers' Code of Conduct states that you should adhere to the code just as firmly when abroad as when you are in the UK.

Come off the fence, RSPB!

The Spring 2000 issue of the RSPB magazine *Birds* is a particularly impressive copy to mark the new millennium. Non-members should join immediately to be able to delve into the delights of its excellent articles and superb photographs. We could not, however, help noticing the reply to a letter on the 'Mailbox' page. Following a letter reporting a lack of insects squashed on car windscreens and bumpers compared with 20 or 30 years ago, the RSPB states: 'Many people mention the same *apparent dearth* of insects, particularly moths "in the headlights" at night. Changes might be due to chemical use, climate change or, especially, simple habitat change in recent decades. The effects on bird and bat populations are difficult to measure but *could be significant*.' (Our italics.)

Come on, RSPB! Of course there is a *dearth* and of course it is *significant*. Why not say so? We might want some scientific evidence as to the reasons, and therefore hedge our bets over the causes with a certain amount of doubt, but to be cautious over the fact that a shortage of insects causes a shortage of birds is taking it a little too far.

Hampstead Heath

We rarely mention annual reports in this column unless they contain something rather special. A slim A4 production which has just reached us - Hampstead Heath Ornithological Report number 53 for 1998 - is a splendid read. It is full of some classic 'Oddie', which is not surprising as it was compiled by W. E. Oddie. The story of the Arctic Tern *Sterna paradisaea* and the Marsh Harrier *Circus aeruginosus* will recall similar events in the lives of many birders.

Copies are available, price £2.50 (including p&p), from John Benson, 33A Woodsome Road, London NW5 1SA.

Millennium gannets

On 18th January 2000, the Royal Mail produced the latest in the millennium collection of postage stamps that have been appearing throughout 1999 and will continue at monthly intervals in 2000. This latest set of four includes two stamps of an ornithological nature. The 19p stamp features a close-up of a Barn Owl *Tyto alba* with a strap line 'Third Millennium/Muncaster'; and the 64p features a gannet *Morus* colony with the strap line 'Seabird Centre/North Berwick'. We have previously reported (*Brit. Birds* 92: 267) on the appointment of the new Director for the Centre, and we understand that opening is now scheduled for May 2000. One of the highlights will be the relay of pictures from seabird colonies in the Firth of Forth, home of the famous Bass Rock colony of Northern Gannets *Morus bas-*

sanus. It is therefore somewhat regrettable that the birds featured on the stamp are Cape Gannets *M. capensis*, rather a long way from home so far as Berwick is concerned.

We understand that this misidentification was spotted in late 1999, when the stamps were previewed to the Press, and a spokesman commented along the lines that they were only representative seabirds! Linking them to North Berwick seems a rather grave error. The Scottish Seabird Centre is aware of the error(?), but nonetheless has produced a special-edition first-day cover, available at a price of £6.95 (including p&p) from the Centre, The Harbour, North Berwick EH39 4SS.

Thanks to Martin Brewer, who first pointed out the identification to us.

Hybrid raptors

There was a time when an escaped raptor (usually, but not necessarily, with jesses and/or bells) could present an interesting identification challenge; not least because the country of origin was unknown and virtually any of the World's 300-plus raptor species was a possibility! The situation has now changed dramatically, as the successful development of artificial-insemination techniques has led to a steady growth in hybrids in captivity and even further crossing, so that three different species may be present in one individual's ancestry. This could provide some 'difficulty' with escaped birds in the field. So, just what are the numbers involved?

At the end of 1999, there were over 4,400 raptors registered in captivity in the UK. In addition, there would be a considerable number of those species that do not require registration, e.g. foreign species such as Harris's Hawk *Parabuteo unicinctus* and commoner UK species such as Common Kestrel *Falco tinnunculus* and Eurasian Sparrowhawk *Accipiter nisus*. Over 1,100 of the registered birds were hybrids. Among the latter are the to-be-expected Peregrine Falcon *Falco peregrinus* × Saker Falcon *F. cherrug* and Peregrine × Lanner Falcon *F. biaruicus*, together with the altogether unexpected, which include Golden Eagle *Aquila chrysaetos* × Steppe Eagle *A. uipalensis*, Gyr Falcon *F. rusticolus* × Merlin *F. columbarius* and Peregrine × Common Kestrel.

If that is not enough, how would you feel about identifying a Peregrine × Red-necked Falcon *F. chibquera* or, even worse, the result of a pairing between a male New Zealand Falcon *F. novaeseelandiae* and a female that had been produced through the hybridisation of a Gyr and a Peregrine?

Identifying escaped raptors will never be the same again.

Sky Lark statistic

The RSPB has recently completed a research programme on the Sky Lark *Alauda arvensis*, funded by Tesco Stores Ltd, as part of one of the Government's Biodiversity Action Plans (BAPs). We all know that Sky Larks have declined, but the link between the decline and autumn-sown cereal crops has now been conclusively demonstrated. Survey work between 1996 and 1999, covering 24 farms in four counties of southern England, found twice the density of Sky Larks in spring-sown crops compared with autumn-sown cereals. Between 1968 and 1996, spring-sown cereals grown in the UK decreased from 73% to just 16% of the total cereal area. The Sky Lark population dropped by 75% on farmland over the same period.

Socotra: birds and plants

The island of Socotra in the Arabian Sea lies some 350 km off the coast of the Republic of Yemen. Thirty species of bird nest on the island, six of which are endemics; and over 800 species of plant have been recorded, of which over 270 are endemic. As part of a conservation education programme on the island, BirdLife International and the Royal Botanic Garden Edinburgh on behalf of the Darwin Initiative have produced an extremely colourful booklet in English and Arabic. Further information from Richard Porter, BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA.

National Exhibition of Wildlife Art

Promoted as 'the largest open selling exhibition of wildlife art to be held outside London', the sixth NEWA will be held at the Road Range Gallery, Mann Island, Pier Head, Liverpool, from 31st March to 16th April. Over 350 works will be on show, by artists living in the UK or the Republic of Ireland, with a maximum of three works per artist.

Entry to the Exhibition is free, and it will be open daily (10 a.m. to 6 p.m. from Monday to Friday; 10 a.m. to 4 p.m. on Saturday; and 11 a.m. to 4 p.m. on Sunday).

Birding on the web

In recent years, there has been a steady and almost unstoppable growth in Internet sites devoted to every subject imaginable. Birds and birding have not missed out, and the list continues to expand. At the request of the editorial board, Martin Collinson has compiled a short list of sites that he has visited or used regularly. We hope to expand this list with suitable additions and recommendations (with some accompanying notes) as they are submitted to us.

1. The British Ornithologists' Union website: <http://www.bou.org.uk>
2. Two sites with extensive photo-libraries and identification notes on gulls: <http://www.martinreid.com/gullinx.htm> and <http://www.west.net/~dj/gulls.htm>
3. An American website devoted to the 'cryptospecies of *Loxia* Crossbills', with sound files of all the various 'forms': <http://www.research.amnh.org/ornithology/crossbills/index.html>
4. The 'Fat Birder' site, with extensive links to other useful sites, and lots of information about birding in the UK and abroad: <http://www.fatbirder.com>
5. The RSPB website: <http://www.rspb.org.uk>

Experienced helpers needed in Israel

The Israel Ornithological Center (IOC) is inviting experienced birdwatchers to assist in the Autumn Migration Survey of Soaring Birds (August-October 2000). The hundreds of thousands of raptors, storks and pelicans that migrate over Israel are counted every year. The IOC will fund food and lodging for birdwatchers who participate in this project for four weeks or more. Participants will, however, need to pay their own travel expenses to and from Israel.

Anyone interested should send his or her CV to the IOC at Israel Ornithological Center SPNI, Atidim Industrial Park, PO Box 58020, Tel Aviv 68101, Israel; tel. +972-3-6449622; fax +972-3-6449625; e-mail ioc@netvision.net.il

County Recorders

County, Regional and Bird Observatory Recorders' names and addresses are listed biennially in *British Birds*, and were last published in May 1999 (*Brit. Birds* 92: 256-258). We have recently been informed of the following changes:

Cambridgeshire Richard Allison's address is now 3 Vermuyden Way, Fen Drayton, Cambridgeshire CB4 5TA.

Devon Mike Langman's address is now 38 Brantwood Drive, Paignton, Devon TQ4 7TD.

Isle of Wight Graham Sparshott, Leopard's Farm, Haven Street, Ryde, Isle of Wight PO33 4DR, is now the Recorder for the Isle of Wight Ornithological Group.



Monthly Marathon

January's bird (plate 32, repeated here as plate 90) was a brown, streaky thing and, just to make it more difficult (at least for birders used to field identification), it was in the hand. We can, however, quickly narrow down the hunt: the only West Palearctic species with white outer tail feathers and streaked plumage are the larks (Alaudidae), the pipits *Anthus*, a few of the finches (Fringillidae) and the buntings and North American sparrows (Emberizidae). It is not a lark: it is too small and richly coloured. Although it is of small-pipit size (the hand is a useful addition for scale here), it is not one of them either, since almost all the small pipits would show little if any primary projection and none would show bright-edged tertials. None of the streaked finches, nor any of the North American sparrows on the Western Palearctic list, shows this pattern of white. It is a bunting *Emberiza*, and shows classic, rather notched, tertials. That bit was easy and, let us face it, the bird never looked like anything other than a bunting.

When we identify buntings in the field, it is usual to look at their 'faces', and not their tertials. As a birder who sees most of his buntings in the field, I have to confess that I found this hand-held bird very difficult, and got it wrong at first.

There are lots of buntings to choose from: most show white outer tail feathers, most are streaked, and most show this tertial pattern (although often not so bright). It is necessary to look much more carefully to narrow it down, and even then there may have to be a bit of reference-searching to nail it. The mantle is heavily streaked with black. The feather fringes are a rather warm rufous-brown on the central mantle, a little greyer



E. F. J. Garcia

90. Little Bunting *Emberiza pusilla*, Milford, Surrey, 20th April 1991 (*Brit. Birds* 85: 551).

buff towards the sides and then rather rich brown again on the scapulars. The whole impression, despite the greyish-buff fringes on the mantle, is rather dark and richly coloured and, critically, there are no obvious pale braces. The median coverts have black centres and rather buffy but wide fringes, forming a wingbar. The greater coverts have dingy-buff tips, forming an indistinct greater-covert wingbar. The tertials have big, wide, rufous-chestnut fringes that notch the black centres, and the secondaries also have rufous-chestnut fringes, forming a rather bright patch. The tail pattern is very clear, and may prove helpful later (it is much more useful on this bird in the hand than it would be in the field), while what can be seen of the underparts is rather cold and whitish.

Of the species with tertials showing this classic, notched *Emberiza* pattern, Yellowhammer *E. citrinella*, Pine *E. leucocephalos*, Black-faced *E. spodocephala*, Little *E. pusilla*, Rustic *E. rustica*, Yellow-browed *E. chrysophrys* and some Reed

Buntings *E. schoeniclus* could match this individual for brightness. For completeness, however, it is also necessary to consider Cretzschmar's Bunting *E. caesia*, Ortolan Bunting *E. hortulana* and Lapland Longspur *Calcarius lapponicus* (although the notching of the dark centres is greater than would be shown by those species).

The short primary projection, lack of a chestnut greater-covert panel and absence of whiter wingbars eliminate Lapland Longspur from the equation, whilst the apparent lack of any 'braces' or buff fringes on the mantle should rule out just about every Reed Bunting, as well as Pallas's Reed Bunting *E. pallasi*. Rustic Bunting would probably show more contrasting, brighter rufous scapulars, and Yellow-browed Bunting would normally have whiter wingbars. The whitish flanks, and probably also the intensity and colour of the streaking, rule out Cretzschmar's and Ortolan Buntings. Pine Bunting should look a bit colder and paler than this and would be expected to show bright white



91. 'Monthly Marathon'. Photo no. 164. Twelfth stage in eleventh 'Marathon' (or first or second stage in twelfth 'Marathon'). Identify the species. Read the rules (see page 54), then send your answer on a postcard to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th April 2000.

fringes to the primaries. Yellowhammer normally shows yellow fringes on the primaries, and that species is ruled out by the lack of any yellow or olive tones on such a richly coloured individual. All of these nine species also show a tail pattern which is sufficiently different from the one shown to exclude them, which is just as well, because the other features listed may be subject to variation and interpretation.

There are now only two species left; by a process of elimination we have arrived at Little Bunting or Black-faced Bunting,

and the only feature still to be considered is the tail pattern. Little Bunting shows an almost entirely white outermost rectrix with a dark shaft which widens to a narrow dark wedge towards the tip. Our bird has that. Black-faced Bunting, however, shows a similar - but subtly different - pattern, with a narrow white wedge on the inner web of the second outermost rectrix. This bird has that too, but on Black-faced Bunting the white is more extensive and extends well up the inner web. We can deduce, therefore, that this must be a Little Bunting.

If we could have turned the bird around, its identification would have been infinitely easier, with the diagnostic combination of a neat eyering, a dark ear-covert border restricted to the area behind the eye, nice warm tones around the 'face', and a little spiky bill. With an in-the-hand back view, it is only the tail pattern that clinches it. Identification is so much easier in the field (provided that the bird shows itself and stays around for long enough).

The majority (56%) of entrants got this one right, with 17% wrongly naming it as Black-faced Bunting, and other answers including Yellow-breasted *E. aureola*, Yellow-browed and Pallas's Reed Buntings, with the odd pipit and sparrow *Passer* for good measure.

The three leaders - Nick Barlow (Coventry), Diederik Kok (Germany) and Peter Sunesen (Denmark) - were all successful, each now achieving the ten-in-a-row sequence necessary to win a SUNBIRD holiday in Africa, America or Asia as soon as just one of them remains in the race. If all three fail at a future stage, however, their closest rivals - Jakob Sunesen (Denmark) on four, and R. M. R. James (Derby) on three - will take over the lead.

Jimmy Steele



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Recent reports

Compiled by Barry Nightingale and Anthony McGeehan

This summary of unchecked reports covers the period 17th January to 13th February 2000.

Red-breasted Goose *Branta ruficollis* Wells/Holkham (Norfolk), 27th January to 13th February. **Black Duck** *Anas rubripes* Females: Loch Fleet (Highland), 18th January to 7th February; Colliford Reservoir (Cornwall), 18th January. **Blue-winged Teal** *Anas discors* Male, Dunfanaghy (Co. Donegal), 23rd January. **Canvasback** *Aythya valisineria* Lade Gravel-pits (Kent), 29th January to 13th February; long-stayer, Abberton Reservoir (Essex), until at least 10th February. **Ring-necked Duck** *Aythya collaris* Three different males in Ireland: The Gearagh (Co. Cork), 16th January; Ross Castle (Co. Kerry), 26th January; Lough Fern (Co. Donegal), 26th January. **Booted Eagle** *Hieraaetus pennatus* Ashcott Corner Nature Reserve and surrounding area (Somerset), at least 6th February; near Glastonbury (Somerset), 9th February; Chew Valley Lake (Somerset), 11th-13th February. **Gyr Falcon** *Falco rusticolus* The one previously seen in general North Antrim area reappeared at Giant's Causeway (Co. Antrim), 20th January; Fair Isle (Shetland), 3rd-13th February. **Sora Crane** *Porzana carolina* Stover Country Park (Devon), 18th January to 13th February. **Franklin's Gull** *Larus pipixcan* Radipole Lake (Dorset), 13th February. **Bonaparte's Gull** *Larus philadelphia* Second-winter, Liscannor Bay (Co. Clare), to at least 13th February. **Ring-billed Gull** *Larus delawarensis* About 30 in Ireland, including eight at Nimmo's Pier (Co. Galway), 28th January. **Iceland Gull** *Larus glaucooides* Influx continues in Ireland, with many singles: largest counts: 35 at Lahinch (Co.

Clare), early February; 26 at Derry Dump (Co. Londonderry), 8th February. **Ross's Gull** *Rhodostetbia rosea* First-winter at Nimmo's Pier, throughout January to at least 13th February. **Ivory Gull** *Pagophila eburnea* Islay (Strathclyde), 23rd-24th January. **Bohemian Waxwing** *Bombycilla garrulus* Only one in Ireland in late January/early February: Bangor (Co. Down) (in AMcG's garden!), 30th January.

Pallas's Leaf Warbler *Phylloscopus proregulus* Bosherton Fish Ponds (Dyfed), 19th-20th January. **Arctic Redpoll** *Carduelis boremanni* Two near Brora (Highland), 31st January, at least three on 3rd February, one staying until 7th February. **Meadow Bunting** *Emberiza cioides* Hunstanton (Norfolk), of unknown origin, 6th-13th February.



Iain H. Leach

92. Red-breasted Goose *Branta ruficollis*, Wells, Norfolk, January 2000.



Steve Young/Birdwatch

93. Blue-winged Teal *Anas discors*, Grove Ferry, Kent, January 2000.



Mike Ashforth

94. Above: Iceland Gull *Larus glaucooides*, Whitby, Yorkshire, January 2000.

95. Right: Common Crane *Grus grus*, near Shapwick Nature Reserve, Somerset, February 2000.

96. Below: Canvasback *Aythya valisineria*, Lade, Kent, January 2000.



Mike McDonnell



Steve Young/Birdwatch

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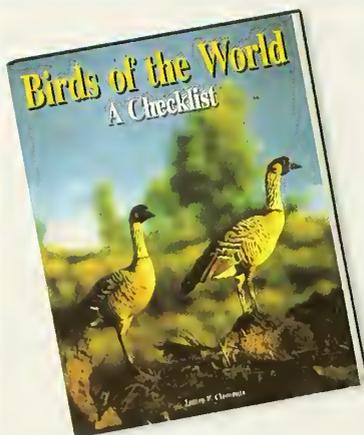
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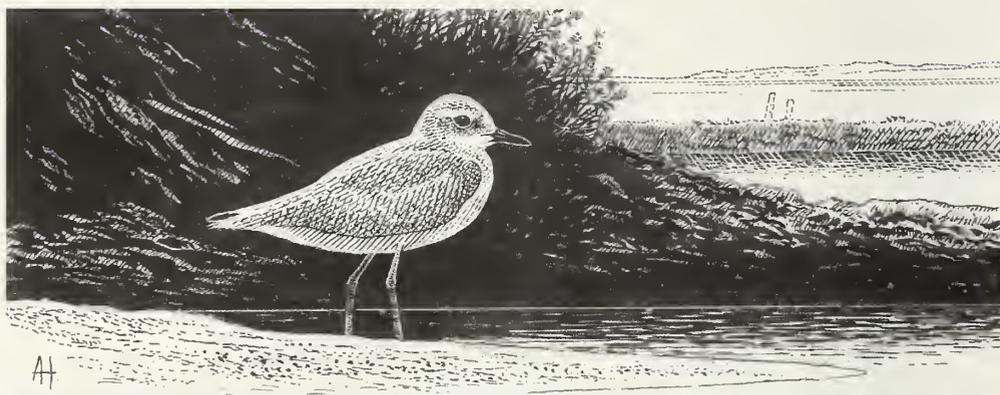
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Identification, taxonomy and distribution of Greater and Lesser Sand Plovers

*Erik Hirschfeld, C. S. (Kees) Roselaar
and Hadoram Shirihai*

Alan Harris



Greater Sand Plover

ABSTRACT Separating Greater *Charadrius leschenaultii* and Lesser Sand Plovers *C. mongolus* is far from simple, especially since the various subspecies of the two show some overlap in morphology and biometrics (as well as geographical distribution). On the basis of extensive field observations and detailed examination of about 300 museum specimens of each species, identification criteria are presented. Important characters are considered to be bill shape, length of bill nail, wing-bar shape, prominence of subterminal tail-bar and (in breeding plumage) shape of breast-band; other supporting or inconclusive characters are also discussed. A major pitfall is that the small race *columbinus* of Greater has a bill closely approaching that of Lesser, although never so blunt-tipped as on any race of the latter. For both species, populations are placed into geographical groups according to biometrics: from these data, supported where possible by other factors, subspecies are defined. Three races of Greater are recognised: nominate *leschenaultii*, *columbinus* and *crassirostris*. Five subspecies of

Lesser are recognised: nominate *mongolus* and *stegmanni* (the 'mongolus group'), and *pamirensis*, *atrifrons* and *schaeferi* (the 'atrifrons group', possibly an incipient separate species). Even in breeding plumage, subspecific identification of Lesser Sand Plover requires great caution, as wide variation occurs within populations and intermediates are frequent. Identification of juveniles and non-breeding adults is possible only with careful and precise assessment of structure, 'jizz', and upperwing and uppertail patterns. Greater (especially *columbinus*) has an earlier post-breeding (and pre-breeding) moult than Lesser, which does not moult until arrival on winter grounds. In Europe, a vagrant sand plover in full or nearly full summer plumage after mid August is likely to be a Lesser, as also are a small *mongolus/columbinus*-type in breeding plumage in July or early August and a small individual in active wing moult after September; by contrast, a small sand plover in full summer plumage in February or March is likely to be a *columbinus* Greater, as is a juvenile appearing in western Europe in June or early July.

From this study and existing literature, the global breeding distributions of each species and its subspecies are reassessed. A tentative picture of winter distributions of all races is drawn up, based on biometrics and to some extent on plumage darkness. Of particular note is the fact that western populations of nominate Greater appear to migrate at least partly southwest rather than southeast, and that a possible breeding population of Greater (resembling *columbinus*, but shorter-winged) exists along the Red Sea.

Distinguishing Greater Sand Plover *Charadrius leschenaultii* from Lesser Sand Plover *C. mongolus* is notoriously difficult, especially for observers with limited experience of the two species. Both are divided into several distinct subspecies, which sometimes approach or overlap each other in morphological appearance, in some biometrics and in geographical distribution. Identification papers in the early 1980s (e.g. Sinclair & Nicholls 1980; Taylor 1982) even contained photographs of birds which were wrongly identified, which underlines the complexity of this species pair. Both species are highly prone to vagrancy, with at least 66 records of Greater and ten of Lesser in Europe, and 13 records of Lesser in North America south of Alaska.

This paper is based on field experience of tens of thousands of Lessers and thousands of Greater, including ringed individuals, in Bahrain, UAE, Oman, Turkey, Egypt, northeast Africa, Israel and Pakistan. Extensive museum

research has also been carried out by all three authors, especially by CSR in connection with his earlier texts for *BWP* (vol. 3). The latter were based largely on material in the zoological museums of Amsterdam (ZMA), Leiden (RMNH, now NNM) and Tring (BMNH): in ZMA and NNM, all relevant skins were measured and examined for plumage characters and moult; the same applies especially to breeding-plumaged adults in the BMNH (many of which are spring or late-summer/early-autumn birds from wintering or migration areas, rather than from breeding grounds), while less attention was paid to birds in juvenile and non-breeding plumages. Since the publication of *BWP*, additional specimens have been examined: all skins of both species in the collections of the zoological museums of Moscow (ZMMU, where many were from the breeding grounds) and Bonn (ZFMK), and a few from the collections of St Petersburg and Berlin. Data on about 300 specimens of each species are now avail-

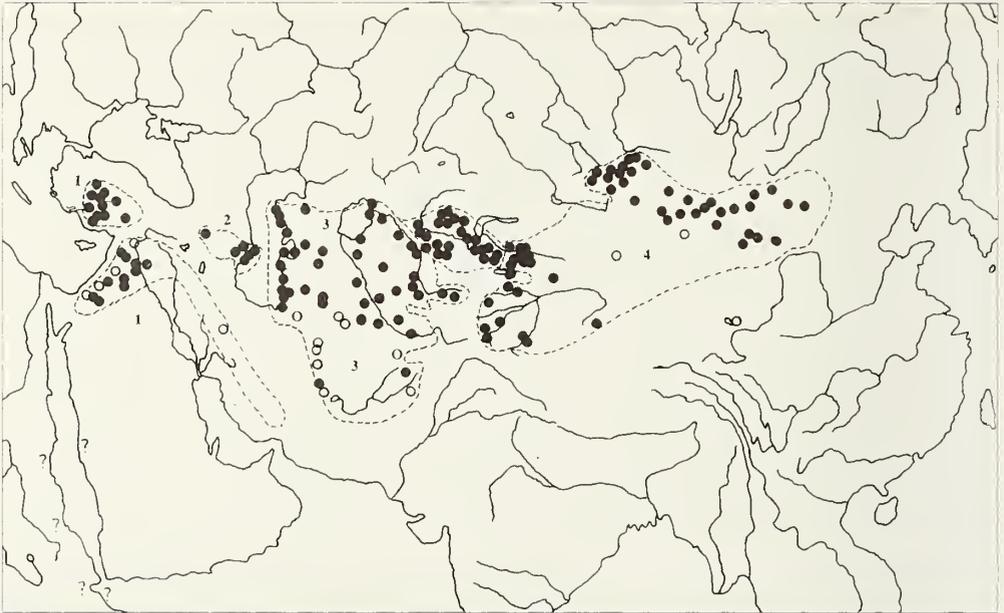


Fig. 1. Breeding distribution of Greater Sand Plover *Charadrius leschenaultii*.

Black dot = probable/definite breeding; open dot = possible breeding. Broken outline = probable breeding area of various populations: 1 Middle East group (*columbinus*); 2 Transcaucasian group (*crassirostris*?); 3 Transcaspiian group (*crassirostris*); 4 Eastern group (nominate *leschenaultii*).

Map based on examined specimens and on literature (Aharoni 1931; Andrews 1995; Banzhaf 1933; Baumgart *et al.* 1995; Beaman 1975; Bottema 1987; Cheng 1987; Dementiev & Gladkov 1951; Gavrin *et al.* 1962; Gladkov 1957; Hartert 1912-21; Kasperek 1992; Kitson 1979; Kozlova 1975; Kumerloeve 1961; Kurochkin & Mikhailov 1994; Lehmann 1971; Makatsch 1974; Mauersberger 1975, 1980; Mauersberger *et al.* 1982; Nadler 1989; Nadler & Königstedt 1986; Niethammer 1971, 1973; Niethammer & Niethammer 1967; Nogge 1973; Paevskii *et al.* 1990; Paludan 1959; Piechocki 1968; Piechocki *et al.* 1981; Radde & Walter 1889; Salikhbaev & Bogdanov 1961; Shirihai 1996; Shnitnikov 1949; Stepanyan 1990; Stephan 1994; Stresemann 1928; Sudilovskaya 1936, 1973; Sushkin 1938; Tourenq *et al.* 1996; Vaurie 1965; Vielliard 1969; Zarudnyi 1900).

able, about one-third of these from breeding grounds.

BWP (vol. 3) included much new information on the geographical variation of the two sand plovers. For example, Greater Sand Plover was split into three subspecies, whereas it had previously been treated generally as monotypic (especially as the rather distinctive western subspecies *columbinus* was poorly known at the time); and, for Lesser, the name *schaeferi* was revived to house the characteristically long-billed individuals wintering in the Greater Sundas in Indonesia. Although the measurements and short descriptions of the subspecies contained some information on the reasoning behind these taxonomic decisions, much was left unexplained, and the winter distributions of the various races were inadequately described. The present paper intends to shed more light on the subject.

Distribution and populations

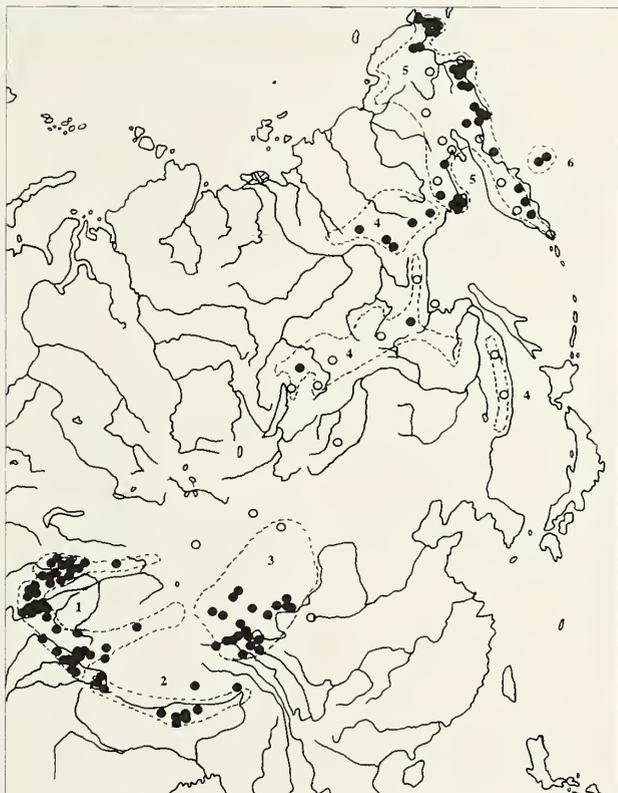
The summer distributions shown (figs. 1 & 2) are based on the existing literature and on findings from this study (see 'Biometrics and geographical grouping', page 178, for a full discussion). Non-breeding distributions are dealt with later (see page 185).

Greater Sand Plover (fig. 1) is divided into three subspecies: *columbinus*, *crassirostris* and nominate *leschenaultii*, with *columbinus* not only breeding closest to Europe, but also being the most similar to Lesser Sand Plover owing to its smaller size and 'weak' bill. The race *crassirostris*, which is easier to identify, also occurs in Europe, and, given the long-distance migrations undertaken by these sturdy birds, it is plausible that even the nominate form could turn up. Populations are estimated at below 10,000 individuals of *columbinus*, 65,000

Fig. 2. Breeding distribution of Lesser Sand Plover *Charadrius mongolus*.

Black dot = probable/definite breeding; open dot = possible breeding. Broken outline = probable breeding area of various populations: 1 *pamirensis*; 2 *atrifrons*; 3 *schaeferi*; 4 nominate *mongolus*; 5 nominate *mongolus/stegmanni*?; 6 *stegmanni*.

Map based on examined specimens and on literature (Abdusalyamov 1988; Bergman 1935; Cheng 1987; Dementiev & Gladkov 1951; Ivanov 1969; Johansen 1961; Kishchinski 1968, 1980, 1988; Krechmar *et al.* 1991; Kurochkin & Mikhailov 1994; Lobkov 1978, 1983; Mauersberger 1975; Mauersberger *et al.* 1982; Meyer de Schauensee 1937; Nadler & Königstedt 1986; Portenko 1963, 1972; Potapov 1966; Roberts 1991; Schäfer 1938; Shnitnikov 1949; Sillem 1934; Stegmann 1930-31; Stepanyan 1990; Stresemann 1940; Stresemann *et al.* 1938; Sudilovskaya 1936, 1973; Tomkovich & Sorokin 1983; Vaurie 1965, 1972; Vorob'ev 1963; Wannhof 1993; Yanushevich *et al.* 1959).



crassirostris and over 125,000 *leschenaultii* (del Hoyo *et al.* 1996).

Lesser Sand Plover (fig. 2) comprises five subspecies: *pamirensis*, *atrifrons* and *schaeferi* (collectively known as the 'atrifrons group'), and *mongolus* and *stegmanni* (together forming the 'mongolus group'). Population estimates are 30,000 *pamirensis*, at least 100,000 *atrifrons*, 25,000-100,000 *schaeferi*, and 25,000-100,000 *mongolus* and *stegmanni* combined (del Hoyo *et al.* 1996).

Vagrancy

Up to and including 1996, there were at least 66 accepted records of Greater Sand Plover in Europe, all between April and December, with a peak in midsummer (Mitchell & Young 1997; additional data from national rarities committees, see 'Acknowledgments').

During the same period, ten Lesser Sand Plovers were recorded in Europe, again with most (seven) in June and July. An April 1987 record from former Yugoslavia (see Mitchell & Young 1997) has not, so far as we are aware, been formally accepted and is therefore not included here. Although there are

about 25 published records of Lesser Sand Plover from Cyprus, Flint *et al.* (1997) concluded that none of these was acceptable.

In North America, Lesser Sand Plover is recorded as a migrant and possible breeder in Alaska, south of where it occurs as a vagrant, with records from Alberta, Ontario, Oregon (three), California (five), Louisiana (two), and even New Jersey on the eastern seaboard of the USA (J. Morlan *in litt.*).

Field identification

Traditionally, a large number of characters have been used when identifying the two species, but very few of them can be used on their own, and some are even misleading. Field characters which we consider to be, respectively, important, supportive or inconclusive are listed in table 1 (see page 166) and described in detail in the following text.

Size and general impression

Typically, Greater Sand Plover is a bulky bird, while Lesser Sand Plover is more delicate and usually looks smaller. The race *columbinus* of Greater, however, somewhat

Table 1. Relative importance of field characters for separating Greater *Charadrius leschenaultii* and Lesser Sand Plovers *C. mongolus*.

Important	Supportive	Inconclusive
Bill shape	Leg colour	Bill length in relation to eye
Wing-bar	'Jizz'; apparent length of leg and its position on body	Calls
Subterminal tail-bar	Feeding actions	Tarsus/bill-length ratio*
Shape of breast-band in summer plumage	Length of feet beyond tail (in flight)	White on sides of tail
Length of nail on bill	'Comma' mark on underwing	* <i>This character, however, important with band-beld birds.</i>
	Extension of cinnamon-rufous onto flanks	
	Extent of cinnamon-rufous on upperwing and back	
	Timing of body moult	

approaches Lesser in size and can cause confusion, even among experienced observers. Authoritative field guides (e.g. Alström *et al.* 1991; Hollom *et al.* 1988; Jonsson 1992) give total lengths of 19-21 cm for Lesser and 22-25 cm for Greater; these compare with 20-22 cm for Dotterel *C. morinellus*, and 18-20 cm for both Great Ringed *C. hiaticula* and Caspian Plovers *C. asiaticus*. Such measurements are, however, rather untrustworthy and should be used with great care (note that, even though Great Ringed and Caspian Plovers are given the same size range, any experienced birdwatcher would consider Caspian much larger, as its longer legs and bill make it look bigger than it really is).

A closer look at biometrics reveals an overlap between the two species. According to field guides, the wingspan of Lesser is in the range 45-58 cm and that of Greater within 53-60 cm, while figures published in *BWP* (vol. 3) show that wing and tarsus measurements overlap, as also do weights (Johnsgard 1981). Measurements by CSR, however, show virtually no overlap between the two species in bill length (see Bare parts, on page 169).

The difference in 'jizz' between the two sand plovers may be difficult for a novice to understand, but with experience it is not too difficult, even at long distances. Plates 97 & 98 depict the typical stance of a relaxed individual. It is, however, important to bear in mind that a bird's appearance changes with its posture and general health, and with the ambient temperature (fig. 3).

Greater Sand Plover is the larger-looking of the two. In side view, it has a proportion-

ately large eye situated in the middle of the head, which appears more square than Lesser's, with a flat crown. The long legs are well balanced by an attenuated rear, and the bird's weight is more evenly distributed in front of and behind the legs. Greater usually has a more horizontal stance and body shape, and can often recall a small Grey Plover *Pluvialis squatarola*.

On Lesser, the head is smaller and more rounded, and the eye is situated closer to the bill. The legs can look long, but the impression is that there is more 'weight' in front of the legs; the area behind the legs looks less attenuated and much less 'massive' than that in front.

The difference in general impression between Greater and Lesser Sand Plovers can be compared with that between Kentish Plover *C. alexandrinus* and Great Ringed Plover, the latter being the better-proportioned, more horizontal and 'better-balanced' of the two when relaxed.

Feeding behaviour

From studies in Kenya, Madagascar and Mauritius, Hockey (1993) suggested possible differences in the feeding behaviour of the two species. In brief, he concluded that Lesser Sand Plovers move shorter distances between pauses to search for prey than do Greater Sand Plovers, and that the latter move greater distances to capture prey and make longer pauses.

Hirschfeld & Stawarczyk (1993) also studied foraging behaviour in the Persian Gulf, but, rather than counting steps, looked at feeding rates (pecks per minute) and effi-



Alan Harris

Fig. 3. Typical postures of Lesser Sand Plover *Charadrius mongolus* (upper three) and Greater Sand Plover *C. leschenaultii* (lower three).

ciency (successful pecks per minute) and type of food. They distinguished between the races *columbinus* and *crassirostris* of Greater, and compared these with an unknown subspecies of Lesser (probably *pamirensis*) in two kinds of micro-habitat (sand and wet mud). They found that Lesser Sand Plovers did not feed on crabs at all, preferring worms, whereas, for *columbinus* and *crassirostris* respectively, 2% and 18% of successful pecks were at crabs; moreover, *columbinus* approached Lesser Sand Plover in feeding rate and feeding efficiency, but both differed greatly from *crassirostris*, whose feeding rate and success were remarkably low.

It is important to bear in mind that these studies were made on rather small sample sizes, and in a specific (tropical) environment. How these birds would forage when displaced from their normal environment and forced to feed on other prey is not known.

Calls

The call of Lesser Sand Plover has been described as a short, hard 'kit-kit' or 'kruit-

kruit', like that of Sanderling *Calidris alba*, and that of Greater as a softer and longer, churring 'prirrrt'. Observations in the Persian Gulf (EH), however, reveal considerable overlap in calls between the two species. Greater often utters short, hard calls, while Lesser, especially when chasing other birds, can give softer, churring calls. Softer calls (transcribed as 'drrrriid') were described in detail by Gebauer & Nadler (1992) for breeding Lesser Sand Plovers. We suggest that voice is of virtually no use when identifying vagrants.

No subspecific differences in voice are known.

Structure

From all available measurements, scattergrams were produced to show, for each species, the ratios of wing length to tarsus length, wing length to bill length, and bill length to bill depth (figs. 4-6, on page 168).

Millington (1988) proposed a formula involving tarsus length (from knee to foot) divided by bill length (from tip to where feathering meets culmen) for identifying the two species from photographs, the ratios

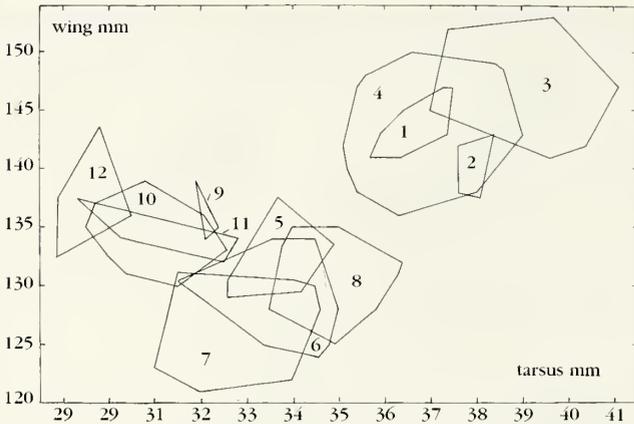


Fig. 4. Top (left), scattergram of wing length to tarsus length of Greater *Cbaradrius leschenaultii* and Lesser Sand Plovers *C. mongolus*.

Except where stated, samples are of adults from breeding grounds.

Greater (individual plots 1-4): (1) 10 breeders from Middle East, (2) 4 from Transcaucasia, (3) 26 from Transcaspia east to Syr Dar'ya, (4) 6 from E Kazakhstan and Kyrgyzstan eastwards, as well as 85 winter birds from Indonesia. Lesser (plots 5-12): (5-8) '*atrifrons* group', (5) 7 from E Alai Mts and Tien Shan, (6) 28 from Pamir, W Kun Lun, Ladakh and Lahul, (7) 14 from S Tibet (including data from Stresemann 1940), (8) 4 from Qinghai Hu (Kukunor) and upper Xining He, as well as 49 adult winter birds from Greater Sundas; (9-12) '*mongolus* group', (9) 3 from Lake Baikal area, (10) 21 breeders and adult migrants from Amurland and Ussuriland, (11) 6 from Chukotskiy, Koryakland and N Kamchatka region, (12) 5 from Commander Is.

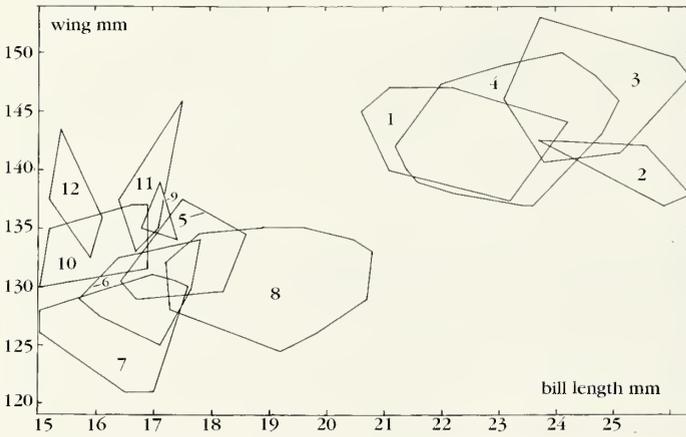


Fig. 5. Centre (above), scattergram of wing length to bill length of Greater *Cbaradrius leschenaultii* and Lesser Sand Plovers *C. mongolus*.

Details as for fig. 4, except: (2) 5 breeders, not 4; (3) 34 breeders, not 26; (4) includes 73 winterers, not 85; (7) 16 breeders, not 14; (8) includes 51 winter adults, not 49; (11) 7 breeders, not 6.

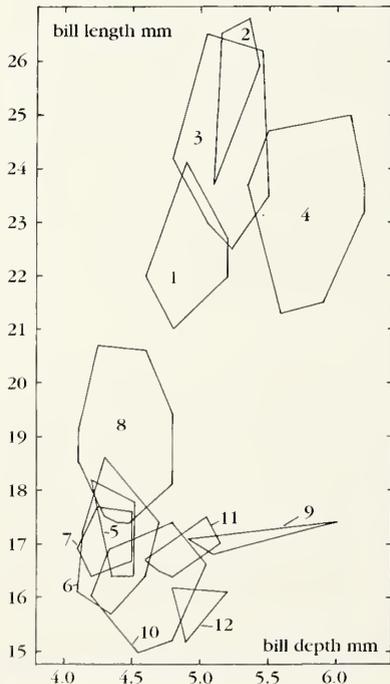


Fig. 6. Bottom (left), scattergram of bill length to bill depth of Greater *Cbaradrius leschenaultii* and Lesser Sand Plovers *C. mongolus*.

Details as for fig. 4, except: (2) 5 breeders, not 4; (4) includes 38 winter adults, not 85; (6) 25 breeders, not 28; (7) 7 breeders, not 14; (8) includes 54 winter adults, not 49; (10) 20 breeders and migrants, not 21.

Table 2. Average tarsus/bill-length ratios of Greater *Charadrius leschenaultii* and Lesser Sand Plovers *C. mongolus*.

	Tarsus/bill	Sample	Range	S.D.
GREATER				
<i>crassirostris</i>	1.55	75	1.43-1.66	0.071
<i>leschenaultii</i>	1.58	119	1.47-1.72	0.076
<i>columbinus</i>	1.66	49	1.54-1.78	0.085
LESSER				
<i>schaeferi</i>	1.86	66	1.70-2.03	0.105
<i>stegmanni</i>	1.87	39	1.77-2.11	0.109
<i>atrifrons</i>	1.88	14	1.81-1.98	0.081
<i>mongolus</i>	1.92	47	1.82-2.09	0.092
<i>pamirensis</i>	1.98	40	1.88-2.16	0.096

being 1.59:1 for Greater and 1.85-1.99:1 for Lesser. Although this formula seems to be fairly accurate, the ratio is difficult to determine, as the angle from which the photograph is taken needs to be considered. Average tarsus/bill-length ratios calculated from skins are given in table 2.

Although the tibia is often more exposed on Greater Sand Plover, this character is subject to much variation depending on air temperature and the individual bird's posture (belly feathers being fluffed out in colder weather).

Bare parts

LEGS. Leg colour is usually greyish-black or black on Lesser Sand Plover and yellow-green or greenish-grey on Greater. Some variation does exist, especially among young individuals, Lesser sometimes showing greenish-grey legs and Greater not infrequently having greyer legs. The toe joints of Lesser are concolorous with the rest of the legs, while Greater often (but not always) has darker toe joints. Beware, however, that the legs are often soiled from mud, algae and sand, and they can also become sun- or salt-bleached (as is often the case with, for example, Middle Eastern Kentish Plovers: Hirschfeld & Stawarczyk 1994).

BILL. See fig. 7. Both species have a black bill, that of Greater Sand Plover (of the two eastern subspecies) being the heavier and

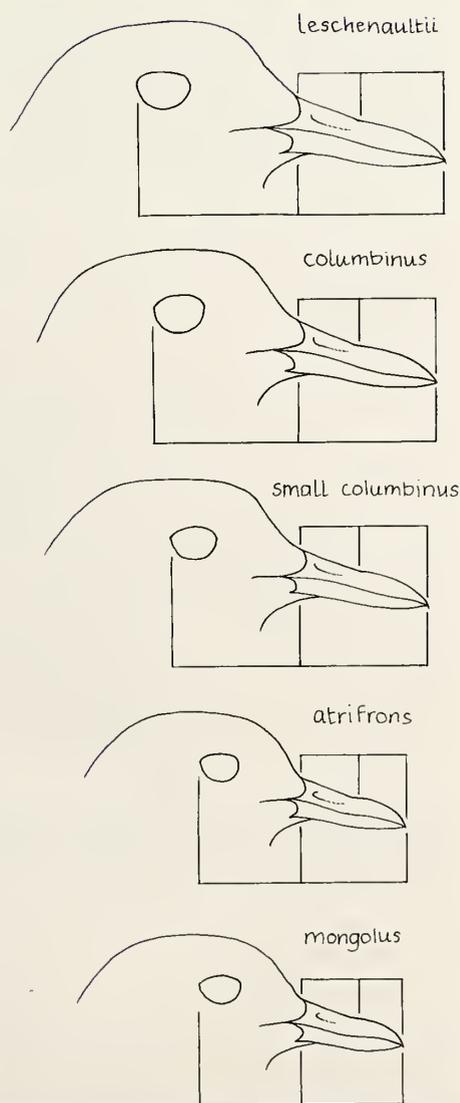


Fig. 7. Bill and head proportions of Greater Sand Plover *Charadrius leschenaultii* (top three) and Lesser Sand Plover *C. mongolus* (bottom two).

Hanne & Jens Eriksen



97. Lesser Sand Plover *Charadrius mongolus* in summer plumage, Oman, May 1991. This bird shows characters of the 'atrifrons group', with a black forehead, and with orange rather than rufous-tinged breast-band which extends to the flanks.

Arnoud B. van den Berg



98. Breeding-plumaged female Greater Sand Plover *Charadrius leschenaultii*, Turkey, March 1987. The pointed bill lacks the bulbous tip of Lesser Sand Plover *C. mongolus*. The dusty terracotta colour of this bird shows that it belongs to the subspecies *columbinus*. The bulkiness gives an impression of a Grey Plover *Pluvialis squatarola*.

Hadoram Shirihai



99. Breeding-plumaged male Greater Sand Plover *Charadrius leschenaultii* of subspecies *columbinus*, Israel, May 1987. The bill is pointed, lacking the blunt tip of Lesser Sand Plover *C. mongolus* (cf. plate 100). The faintly suggested pale rusty fringes to some of the larger scapulars and the ill-defined facial mask are typical of subspecies *columbinus*. The bill can be much shorter than on this fully grown individual.

longer. On Greater, the mandibles gently taper to form a long point (plates 98 & 107), whereas, on Lesser, they taper more steeply and produce a blunt tip (plates 100 & 108). A major pitfall is race *columbinus* of Greater (plate 99), which has a short and sometimes 'weak' bill, although it is never as blunt-

ended as on Lesser Sand Plover. Photographs need to be extremely sharp and taken at close range for this character to be determined accurately.

The bill shape of Lesser Sand Plover varies. All subspecies within the western 'atrifrons group' have a more slender and

pointed bill than the other subspecies, and in this respect their bill approaches that of race *columbinus* of Greater.

A character widely described as useful in the field is bill length in relation to the eye. Birds with bill length equal to or shorter than the distance between the base of bill and the rear of the eye are considered to be Lesser Sand Plovers, while those with a bill longer than this distance are thought to be Greater Sand Plovers. In our opinion, this rule may not always be reliable, as *columbinus* Greater can have a very short bill (*approaching* average length of Lesser). Nevertheless, those with the longer bill are always Greater, but shorter-billed individuals can be either Lesser or, albeit rarely, *columbinus* Greater.

In relation to total bill length, the nail (the 'hump' at the tip) is longer on Greater and shorter on Lesser, which contributes strongly to the latter's blunt-billed impression (fig. 7); this is conclusive on hand-held birds (plates 107 & 108). On Greater, the distance from beginning of nail to bill point is longer than the visible bill between forehead and nail; it is shorter on Lesser. Because of Greater's elongated bill tip, its nail may appear shorter than it actually is until measured (from photograph or in the hand). Measurements of 52 Lesser Sand Plovers in Bahrain and the UAE showed that the nail varied between 6.1 mm and 9.1 mm, while two Greater from the UAE had a nail of 10.4 mm and 11.2 mm

(Hirschfeld *et al.* pers. obs.). The bill nail of 42 nominate Lessers in the Zoological Museum of Copenhagen was 7.5-9.9 mm (all below 8 mm were juveniles) and that of 91 Greater was between 10.5 mm and 13.5 mm.

On skins and with birds in the hand, actual bill length is a valid character. Of 283 Greater, only 19 (all *columbinus*) had a bill length below 22 mm, with just two of those 20.7 mm or less. Of 317 Lessers, only 39 (virtually all *schaeferi*) had a bill of 19 mm or over, no more than four being 20 mm or more.

Flight pattern

In flight, the feet always project beyond the tail on Greater Sand Plover, while they are invisible or just barely visible on Lesser, but this can be difficult to assess subjectively.

Shirihai *et al.* (1996) highlighted a difference in the wing-bars of the two species. On the primaries, the rear edge of Greater's wing-bar bulges, while it is straight and of even width on Lesser (plate 102; fig. 8). Although very difficult to observe in the field, this can be seen on photos, or in video recordings when wing movements are frozen.

Shirihai *et al.* (1996) also described some important characters of the tail, although with some overlap between the species. Greater's tail has a dark subterminal bar which, in the field, contrasts well with the



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Fig. 8. Differences in flight between Greater Sand Plover *Charadrius leschenaultii* (two at left) and Lesser Sand Plover *C. mongolus* (two at right). Note Greater Sand Plover's 'bulging' primary-bar, toe projection beyond tail, and tail pattern; and Lesser Sand Plover's dusky under primary coverts.

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100. Adult Lesser Sand Plover *Charadrius mongolus* of the 'atrifrons group', Oman, September 1995. This bird shows a 'jizz' recalling Kentish Plover *C. alexandrinus*. The bill is blunt, with the tip not so tapered as on adult *columbinus* Greater *C. leschenaultii* (cf. plates 98 & 99).

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101. Juvenile Greater Sand Plover *Charadrius leschenaultii*, probably of eastern subspecies *crassirostris* or *leschenaultii*, Oman, September 1995. Large eye, squarish head and general bulkiness identify this bird as a Greater Sand Plover. The bill is rather short compared with that of adult Greater, but is thick-based and pointed; the fringes to the coverts are typical of fresh juveniles.

paler base and (in fresh plumage) a white terminal band; the tail of Lesser looks more evenly sandy-brown, and the slightly darker (narrower and more ill-defined) subterminal bar is generally obscure or virtually impossible to see in the field (fig. 8). The tail may often be important when identifying single

vagrants. Greater also has more white on the tail sides than Lesser, but this, too, is a subjective character difficult to judge on a lone bird.

Both species exhibit a 'comma' mark on the carpal joint of the underwing. It is grey and wider on Lesser (fig. 8), while Greater



Hadoram Shribat

102. Adult female Greater Sand Plover *Cbaradrius leschenaultii* of subspecies *columbinus*, Israel, March 1991. The pronounced widening of the white wing-bar on the inner primaries is visible.

has a paler, narrower marking. If a flying bird shows a strong 'comma' mark, it is likely to be a Lesser Sand Plover.

Moult

BODY. Timing of body moult can be useful when identifying an adult sand plover in summer. Races *lescheuaultii* and *crassirostris* of Greater Sand Plover have a later post-breeding body moult than *columbinus* and have usually acquired non-breeding plumage by mid August. Race *columbinus*, with a much earlier post-breeding moult, gains non-breeding plumage as early as July (Cramp & Simmons 1983): this is due to its earlier breeding, with juveniles appearing in, for example, the Persian Gulf by mid June.

In spring, *columbinus* has usually acquired breeding plumage by February, while *crassirostris* and *lescheuaultii* moult in February-March/April (Cramp & Simmons 1983). Beware that second-years may moult into summer plumage later than adults.

Unlike Greater Sand Plover, Lesser Sand Plover does not start its post-breeding moult (apart from white specks which appear on the forehead soon after nesting) until arriving in winter quarters; head and body are moulted from late August onwards. The pre-breeding moult is also later than Greater's, head and body moult starting from early April to early May.

WING. Wing moult of races *lescheuaultii* and *crassirostris* of Greater starts in mid July, is then suspended, and is completed by November-December (sometimes January); race *columbinus* does not suspend its moult,

which starts in late June to mid July and is completed by September. Lesser Sand Plover begins wing moult in August, and has completed it by December or, occasionally, not until February (Cramp & Simmons 1983).

When identifying a vagrant sand plover in Europe, therefore, bear in mind the following:

- A small *uoungolus/columbinus*-type in breeding plumage appearing in July or early August can be strongly suspected of being a Lesser Sand Plover, and is rather unlikely to be a *columbinus* Greater.
- A small individual in full summer plumage in February or March is likely to be *columbinus*.
- A small bird in active wing moult after September is likely to be a Lesser, and not a *columbinus* Greater.
- A vagrant in complete or near-complete summer plumage after mid August is likely to be a Lesser.
- A juvenile in Western Europe in June or early July is almost certainly a *coluubinius* Greater.

Breeding plumage

Both species have a fairly bright breeding plumage, with black head markings and a more or less orange breast (fig. 9, on page 175). All subspecies exhibit sexual dimorphism. In general, females have less black on the head (although many show quite a lot of black), this being replaced by greyish-brown or by rufous-cinnamon mottling. Females (and most males) of Greater Sand Plover do not show a black border to the breast-band.

Female Lessers lack or have restricted rufous-cinnamon on forecrown, lower nape and upper mantle, and their breast-band is usually narrower, especially in the centre.

Lesser Sand Plover

Lesser Sand Plovers can be divided into two subspecies groups: 'atrifrons group' (races *atrifrons*, *pamirensis* and *schaeferi*), tradi-

tionally characterised by jet-black forehead in breeding plumage; and 'mongolus group' (*mongolus* and *stegmanni*) with white on forehead, in which respect they resemble Greater Sand Plover. New studies have shown, however, that as many as 15-20% of breeding Lesser Sand Plovers on the Chukotkiy Peninsula in Siberia (believed to belong to subspecies *stegmanni*) have a jet-black

Table 3. Subspecific variation of breeding-plumaged male Lesser Sand Plovers *Charadrius mongolus*. Note that *schaeferi* is somewhat intermediate, closest to *mongolus*; *pamirensis* is very similar to *atrifrons* and not readily identifiable except by distribution and size. On females, black facial markings often reduced (mottled lines) or partly absent, on ear-coverts brown and less extensive (in 'atrifrons group' especially, females can lack black altogether).

	'MONGOLUS GROUP'			'ATRIFRONS GROUP'	
	<i>mongolus</i>	<i>stegmanni</i>	<i>atrifrons</i>	<i>schaeferi</i>	<i>pamirensis</i>
Bill	Appears relatively rather strong and short, with rather well-developed nail and gonyx	Shortest and stubbiest of all races, with well-developed nail and gonyx	Short, narrow, with less developed nail and gonyx	Very fine and slender, as <i>atrifrons</i> (but slightly longer)	Very similar to <i>atrifrons</i>
Face mask	Most extensive white forehead (often divided by narrow black line) of all races; black of mask extends well onto crown and above eye; white line from above eye to above ear-coverts; narrow black line between white forehead and cinnamon crown	Extensive black mask with small white patches, therefore with wider darker lines in between and in surrounding areas	White on forehead much reduced (as small dots/flecking in front of eye) or totally lacking; black of forehead usually extends over smaller area	Pattern of mask as for <i>atrifrons</i>	Forehead sometimes with more white than <i>atrifrons</i> ; some show small white spots in front of eye
Head and breast-band	The rufous is dark, intense and rather extensive	Breast-band very broad and tinged chestnut-rufous, extends to flanks	Rufous of head pale (more orange than chestnut); breast-band tinged orange rather than chestnut (but still deeply pigmented) and extends to flanks	Breast-band reduced in area, but mainly orange and paler than <i>atrifrons</i>	Breast-band pale rufous-cinnamon, narrow and ill-defined
Border to breast-band	Narrow black line	Black line variable, but generally appears strong and large	Virtually no indication of black line bordering upper breast	Absent or virtually absent	As <i>atrifrons</i>



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Fig. 9. Summer plumages of Lesser Sand Plover *Charadrius mongolus* (upper six) and Greater Sand Plover *C. leschenaultii* (lower four).

forehead, which should be the norm for members of the 'atrifrons group' (Anders Wirdheim verbally; plate 106). It is also important to bear in mind that 'atrifrons' Lessers acquire white patches on the forehead very soon after leaving the breeding grounds, rendering subspecific identification in the field of a summer or autumn vagrant unreliable. (Biometric differences exist, see below, but placing winter-plumaged birds in subspecies groups can be controversial, even

if they are trapped: see e.g. Hirschfeld *et al.* 1996.)

As the sexes are similar to each other in breeding plumage (though females often have ear-coverts that are browner and more mottled, less uniform black), racial identification in spring and summer may appear less complicated than is the case with Greater Sand Plover, which shows greater sexual dimorphism. In fact, this is not so, because the populations of Lesser show much more

variation than these two plumage types might suggest; intermediates with larger or smaller white patches on a black forehead are frequent.

The following characters, derived from our own skin studies, and from raw data provided by CSR for *BWP* and for Shirihai (1996), indicate subspecific identity of summer-plumaged Lesser Sand Plovers in the hand (table 3).

Only birds from southern Tibet and northern Sikkim (race *atrifrons*) invariably have a uniform black forehead; they also have rather dark brown-grey upperparts and a dark and saturated broad rufous-orange breast-band. Farther to the northwest and northeast, birds from Lahul, Ladakh and Kashmir (here considered inseparable from *atrifrons*), as well as those of the upper Huang He in southeast Qinghai, China (*schaeferi*), average slightly paler grey-brown and are generally somewhat paler and less extensively rufous on the breast. The forehead is usually uniform black, but a few individuals show a small white spot at each side of the forehead.

Those from the Pamir, western Kun Lun and Tien Shan mountains (*pamirensis*), along with populations of northeast Qinghai and

neighbouring Gansu (here considered inseparable from *schaeferi*), are paler still, with drab grey rather than brownish mantle, scapulars and tertials, and narrower and paler rufous-cinnamon breast-band which may be less sharply defined at the rear. Small white forehead patches are more often present, and a few migrants from southern China and western Indonesia, supposed to originate from Qinghai or perhaps from southern Mongolia (possibly *schaeferi*), have white patches almost as large as on some Greater Sand Plovers, with rather narrow black surrounding lines.

The question of breeding in Mongolia is unresolved. Observations by Mauersberger (1975) and Kurochkin & Mikhailov (1994) may refer to migrants; others are thought to involve misidentified Greater Sand Plovers (Nadler & Königstedt 1986), which in this region sometimes show much black on the forehead. According to Baltdelger (in Tourenq *et al.* 1996), Lesser Sand Plover breeds, albeit rarely, in northeast Mongolia between 112° and 116°E.

Populations from Transbaikalia and the Amur area (nominate *mongolus*) are the palest of all. The white forehead patches are prominent, and the plumage is rather close

Table 4. Subspecific variation of breeding-plumaged male Greater Sand Plovers *Charadrius leschenaultii*. Note that nominate *leschenaultii* is somewhat smaller than *crassirostris*, approaching *columbinus* in size. On females, black facial markings are reduced or absent.

	<i>leschenaultii</i>	<i>crassirostris</i>	<i>columbinus</i>
Bill	Strong, with curved nail and obvious, angled gonys	As nominate, but on average somewhat longer and thinner	Smallest of the races, short and slender
Upperparts	Usually 'clean' grey-brown, often lacking cinnamon tinge, and thus similar to Lesser Sand Plover, but may show narrow rufous margins	Paler grey-brown, usually lacking rufous-cinnamon tinge, but may show narrow rufous feather margins	Extensive and wide rufous-cinnamon fringes, also on female
Face mask	Variable, but occasionally fully black	Wider and complete, with white forehead patch small or absent	Ill-defined pattern, with extensive white area causing black of forehead to be broken
Breast-band	Narrow at centre (see fig. 9) and deeper rufous, hardly extending to lower breast or onto flanks; also more sharply demarcated	Broader, less sharply demarcated and generally paler, but with narrow centre (see fig. 9), and rufous often extending obscurely to flanks	Wide and rufous, more of a blotch on the breast and extending well onto flanks
Border to breast-band	Normally lacking	Sometimes present as thin black line; often absent	Absent

to that of nominate Greater Sand Plovers breeding in the same general area. Farther to the northeast, approaching the Pacific shores, the birds become gradually darker again, although the white forehead patches are still obvious (but see remarks above on Chukotskiy breeders).

The darkest Lesser Sand Plovers occur on the Commander Islands, in the Kamchatka region and in the northeast Magadan region, including Chukotskiy (*stegmanni*). They have darker and browner upperparts, less grey than on Transbaikalia birds, the nape and breast-band are darker, deeper tawny-rufous or russet and less tawny-ochre, and the breast-band is very broad. The white forehead patches are rather small and surrounded by bold black lines, and the rufous breast-band and white chin are often separated by a black bar (usually absent on Transbaikalia-Amur populations, and only occasionally present on those from farther southwest in central Asia).

Greater Sand Plover

Subspecific variation is summarised in table 4.

Little can be added to the information given in *BWP* (vol. 3). The breeding plumage of birds from the Middle East (*columbinus*) is generally rather pale, but the rufous is extensive. On the male, the black areas on the face are usually reduced and narrow and the black on the ear-coverts is sometimes restricted and partly replaced by rufous-cinnamon. On the female, the dark lines are often absent or indicated merely by mottled brown or greyish feathering. In fresh plumage, mantle, scapulars and tertials of both sexes often show extensive pale rufous-cinnamon feather fringes, and the rufous-cinnamon of the broad breast-band extends over the flanks, gradually becoming more mixed with white towards the rear. When worn, the upperparts are more uniformly pale sandy-grey, the breast-band is sometimes narrower and more sharply defined and the sides of the breast are often partly suffused brown-grey.

In populations from eastern Kazakhstan and Kyrgyzstan eastwards (nominate *leschenaultii*), the black areas on the face of the breeding male are broader and more distinct, the black stripe over the ear is prominent, and the white patches on the forehead

are slightly to considerably smaller. The female often shows similar dark areas, though mottled black, brown or grey. The upperparts are purer brown-grey (less extensively tinged rufous, but much individual variation) when fresh, and paler drab grey (less pale cinnamon or sandy) when worn. The breast-band is slightly deeper rufous, much narrower, and more sharply defined at the rear, the rufous not extending towards the flanks, though the latter may sometimes show a slight rufous tinge when the plumage is fresh.

The breeding plumage of birds from Transcaucasia (probably *crassirostris*, but see below) and Transcaspiya (definite *crassirostris*) is about as dark as that of eastern populations, although the breast-band is broader and less sharply defined at the rear. In this, these birds resemble Middle Eastern *columbinus*, although the cinnamon averages deeper in colour.

In all populations, however, the general colour is strongly influenced by bleaching and abrasion, becoming gradually paler after the spring moult, with the breast-band becoming gradually narrower and more distinct (unless heavily worn). Identification of race based on plumage characters alone is not advocated: measurements are more trustworthy.

Non-breeding plumage

In plumages other than adult breeding, specific or subspecific identification cannot be made on plumage alone, but should be based on structure (including measurements), 'jizz', and patterns of upperwing and uppertail (see above and below). Non-breeding plumages are shown in fig. 10.

ADULTS. On both species, the upperpart feathers (including most of wing-coverts, but mainly median and lesser, as well as tertials) are predominantly dull grey-brown, indistinctly and finely tipped/edged lighter. The head pattern is duller compared with breeding plumage, with a broad white forehead and a variable whitish supercilium. Largely white below, with fairly large brown-grey breast-side patches which can join in centre of breast.

IMMATURES/FIRST-SUMMERS. As adults of the respective species/subspecies, but spring/breeding plumage may be less

advanced and less complete. Primaries are relatively more worn and bleached.

JUVENILES. Reminiscent of adult non-breeding, but upperparts browner and extensively fringed buff, especially on mantle, scapulars and median/lesser coverts; chest area more strongly tinged sandy or buff. Note that assessment of structure, size and shape needs caution, as young birds, not fully grown, can appear atypical.

Biometrics and geographical grouping

This section aims to justify the current subspecific groupings of the two species, using biometric data from about 300 sand plovers of each species collected from a wide variety of locations. The data are contained in tables 5, 6 & 7.

For all birds examined, wing length, tarsus length, bill length (from feathering at forehead) and bill depth (at the level of the arched nail near tip) were measured. All data in the tables refer to adults unless otherwise noted. Juvenile wings, on average about 3 mm shorter than adult, are excluded from the analysis of geographical variation; in other measurements, juveniles from age of about three months (for tarsus, probably even earlier) are similar to adults. Sexes are virtually alike (females on average often slightly larger than males; see *BWP* 3), so the data on both sexes are combined.

An explanation of the nomenclature used to name subspecies is given in Appendix 1 (page 188).

Greater Sand Plover (table 5)

Specimens of Greater Sand Plover from the breeding grounds (see fig. 1, on page 164) were split into four geographical groups.

1. Middle East group. Birds from inland Levant, Syria and western Iran, taken March-June. None of the skin labels noted that the individual had been incubating or caring for young, but the breeding plumage of all was characteristic of *columbinus* (the race supposed to breed in the region) and differed from that of birds from the Caspian Sea and farther east. A number of specimens, taken by J. Aharoni, had a collecting date, but only 'Syrian Desert' as locality; according to Aharoni (1931), the birds are 'commonly

encountered in the Syrian Desert in the breeding season and undoubtedly breed'. The species is now well known to breed in Syria (e.g. Bottema 1987; Baumgart *et al.* 1995), though breeding sites and densities may vary between years, depending on local rains. Birds from Turkey were not examined; these, too, are usually considered to be *columbinus*, and this is supported by plumage characters, but note that specimens from Transcaucasia, close to the Turkish border and sometimes also referred to as *columbinus* (e.g. in *BWP* 3), differ in measurements.

2. Transcaucasian group. Specimens from Armenia (Sardarabad steppe near Yerevan) and eastern Azerbaijan (Mugan steppe, Baku area), taken in second week of June. This sample was small and consisted only of males.

3. Transcaspiian group. Specimens from western Transcaspiia, March-June. The majority were from near the shores of the Caspian, with a minority from farther east in the Karakum and Kyzylkum deserts. Those taken in March (Gasani-Kuli and Mangyshlak Peninsula, on or near the shore) were probably still on migration, but are included in the breeding sample as they did not differ in plumage or measurements from birds obtained during late April to June in the same area or along the Kara-Bogaz Gol and in the Karakum and Kyzylkum deserts.

4. Eastern group. The few April-July specimens from farther east (eastern Kazakhstan, Issyk-Kul' in eastern Kyrgyzstan, northern Xinjiang, Tuva and Mongolia) were lumped together, and even then formed a rather small sample. Data from a much larger sample of wintering birds from Indonesia were therefore added to the Eastern group in the analysis (the Indonesian birds are undoubtedly of eastern origin, and this is supported by the close similarity in measurements between central Asian and Indonesian specimens).

It is quite likely that the breeding grounds of the Transcaspiian and Eastern groups as recognised here meet each other, and that the artificial geographical boundary constructed between these groups either is non-existent or lies somewhat farther to the west or east. The boundary is here taken to be between about 66°E and 75°E, as three specimens from the Kyzylkum desert at about

Table 5. Measurements in mm of Greater Sand Plover *Charadrius leschenaultii*. Figures show average (S.D.; sample) and range.

	WING	TARSUS	BILL LENGTH	BILL DEPTH NEAR TIP
Breeders				
(1)	143.1 (2.64; 13) 137-147 (mostly 141-145)	36.8 (0.84; 13) 35.7-37.9	22.5 (1.08; 13) 21.1-24.1	4.92 (0.234; 13) 4.6-5.2
(2)	139.4 (2.63; 5) 137-142	38.0 (0.45; 4) 37.6-38.6	25.7 (1.22; 5) 24.7-26.9	5.24 (0.134; 5) 5.1-5.4
(3)	146.6 (3.42; 33) 140-155	38.8 (1.49; 31) 36.2-42.1 (mostly 38-41)	24.8 (1.10; 31) 23.0-27.0	5.26 (0.282; 32) 4.5-6.0 (mostly 4.6-5.2)
(4)	146.2 (2.60; 6) 142-150	37.1 (0.96; 5) 36.2-38.1	23.6 (1.80; 6) 21.6-25.4	5.65 (0.228; 6) 5.4-6.0
Migrants and winter birds				
(5)	143.5 (3.59; 12) 140-150	36.9 (1.34; 12) 34.5-38.5	21.7 (1.21; 11) 20.1-22.7	5.01 (0.232; 10) 4.6-5.3
(6)	142.8 (4.51; 28) 134-151	36.5 (1.03; 21) 34.1-38.3	22.9 (1.03; 27) 20.8-24.3	5.08 (0.187; 27) 4.8-5.6
(7)	140.0 (4.84; 12) 135-152	36.9 (1.70; 12) 33.5-39.8	23.0 (1.21; 12) 21.1-25.1	5.18 (0.174; 12) 4.9-5.5
(8)	146.4 (4.03; 11) 138-152	38.3 (1.07; 11) 36.7-40.0	24.5 (1.58; 11) 21.9-27.4	5.44 (0.330; 11) 4.9-6.0
(9)	146.2 (3.64; 21) 142-153	37.3 (1.41; 21) 35.5-40.2	23.8 (1.11; 21) 22.2-25.4	5.96 (0.296; 21) 5.5-6.4
(10)	146.6 (3.87; 21) 140-153	38.0 (1.35; 21) 36.1-40.0	24.7 (1.06; 21) 22.8-26.5	5.76 (0.220; 21) 5.5-6.3
(11) (a)	143.0 (3.67; 56) 136-151	36.8 (1.32; 119) 34.2-39.6	23.3 (1.07; 125) 21.0-26.5	5.85 (0.269; 40) 5.4-6.2
(11) (b)	140.2 (3.29; 50) 133-147			

Origins

- (1) W Iran, Syria and inland Levant, Mar-June = *columbinus*.
- (2) Armenia and E Azerbaijan (Transcaucasia) = *crassirostris*?
- (3) W Transcaspia from E shore of Caspian (Mangyshlak Peninsula, Kara-Bogaz Gol, Gasan-Kuli) east through Karakum and Kyzylkum deserts to central Syr Darya (Kzyl-Orda area) = *crassirostris*.
- (4) E Kazakhstan, Issyk-Kul' (Kyrgyzstan), Xinjiang (W China), Tuva Republic and Mongolia = *leschenaultii*.
- (5) Egypt and coastal Levant (26-33°N), July-Feb = *columbinus*.
- (6) coasts of central Red Sea (19-22°N; Jeddah in Saudi Arabia, Port Sudan and Suakin in Sudan), June-Mar = *columbinus*.
- (7) coastal Eritrea, Djibouti, N Somalia and Yemen (10-16°N), all year = *columbinus* + *crassirostris* mix.
- (8) Persian Gulf and Oman (20-30°N), Aug-Apr = *columbinus* + *crassirostris* + *leschenaultii* mix.
- (9) E & S Africa, Comoros, Aldabra and Madagascar (2°N-30°S), Sept-Apr = *leschenaultii*.
- (10) Karachi (S Pakistan), July-May = *leschenaultii*.
- (11) Indonesia, Aug-May, wing given separately for adult (a) and juvenile (b), other data combined (ages similar) = *leschenaultii*.

66°E (near Kzyl-Orda) are similar to Transcaspian birds from farther west, and three from easternmost Kazakhstan and Issyk-Kul' at about 75°E appear to belong to the Eastern group; according to fig. 1, the species is widespread in the intervening area, but none was examined from there.

On the basis of measurements, the four geographical groups clearly form at least three subspecies.

Subspecies recognised in Greater Sand Plover

1. *columbinus*. Small, slender-billed birds of the Middle East group (1 in figs. 4-6, on page 168).

2. *leschenaultii*. Equally small birds from the Eastern group (4 in figs. 4-6), differing from Middle East birds in much thicker bill.

3. *crassirostris*. Birds from the Transcaspian group (3 in figs. 4-6), with tarsus (mainly over 38 mm) and bill (mainly over 24 mm) clearly longer than previous two races (in the other groups, chiefly below 38 mm and 24 mm, respectively), but with bill depth intermediate between groups 1 and 4; bill-length difference is also supported by data of Cheltsov-Bebutov (1976), means 24.2 mm (n = 73) for Transcaspian birds and 21.7 mm (n = 20) for Eastern birds. Transcaucasian specimens (sample 2 in figs. 4-6) are more problematic, being close to Transcaspian

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103. Adult summer Greater Sand Plover *Charadrius leschenaultii*, Oman, April 1994. Probably of subspecies *leschenaultii*, as indicated by the sharply demarcated breast-band. This bird looks rather slim, probably owing to the heat.

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104. Adult Lesser Sand Plover *Charadrius mongolus* moulting into winter plumage, Oman, September 1995. The bill of this bird is much blunter than that of *columbinus* Greater Sand Plover *C. leschenaultii*. A pale individual such as this can resemble Kentish Plover *C. alexandrinus*. Winter-plumaged sand plovers can be difficult to age in the field (and in the hand), but the remnants of orange shown by this individual reveal it as an adult.

birds in plumage and measurements, but with wing shorter and bill averaging even longer; the sample is too small to decide whether they form a separate race, and we combine them with *crassirostris* until further data become available.

Lesser Sand Plover (tables 6 & 7)

On the basis of measurements, the breeding populations are clearly separable into two groups: the '*atrifrons* subspecies group' and the '*mongolus* subspecies group', the former having rather short wings and less deep bill, and relatively longer tarsus and bill lengths.



Jan Unoson

105. Breeding Lesser Sand Plover *Charadrius mongolus*, Chukotskiy Peninsula, Siberia, June 1992. Within range of subspecies *stegmanni*, showing an extensively black forehead. The narrow black upper border to the breast-band is typical.



Nick Dymond

106. Hand-held immature Greater Sand Plover *Charadrius leschenaultii* of subspecies *leschenaultii* or *crassirostris*. Although there is a tendency towards bulbousness near the tip of the bill (more obvious on the two eastern subspecies), this is not so pronounced as on Lesser Sand Plover *C. mongolus*.



Nick Dymond

107. Hand-held adult Lesser Sand Plover *Charadrius mongolus*. The blunt bill with rounded point and an obvious bulbous outer half are typical. Note the gentle slope of the upper mandible, resembling the outline of a well-sliced cheese.

A scattergram of wing length to tarsus length (especially) or bill length to bill depth clearly separates most individuals of these groups (see figs. 4-6, on page 168), which may form two incipient species.

1. The 'atrifrons group'. Measurements of the various breeding populations overlap greatly, but birds from southern Tibet (2 in table 6) tend to have short wings and those from eastern Qinghai (1 in table 6) have a long bill. A large winter sample from western Indonesia (13 in table 6; see also figs. 2 & 4) is even longer-billed than eastern Qinghai

Tibet and farther west. The difference is not very marked on the few birds examined, but more so in Stresemann's (1940) larger sample from southern Tibet and (especially) northern Sikkim, which included the type specimen of *atrifrons* (average wing of seven adults 123.7 mm, of nine juveniles 122.6 mm; total range 118-126 mm, once 128 mm). Moreover, those from southern Tibet have clearly darker upperparts than other populations, and the difference in wing length between darker and paler wintering birds supports the recognition of separate

Table 6. Measurements in mm of Lesser Sand Plover *Charadrius mongolus* of 'atrifrons group'. Figures show average (S.D.; sample) and range.

	WING	TARSUS	BILL LENGTH	BILL DEPTH NEAR TIP
Breeders				
(1)	130.1 (3.11; 16) 125-135 (mostly 129-134)	34.0 (1.57; 16) 31.5-38 (mostly 32-35)	18.0 (1.02; 16) 16.0-19.0 (mostly 17.5-19)	4.29 (0.144; 4) 4.2-4.5
(2)	126.0 (3.47; 17) 121-133 (mostly 121-128)	32.8 (1.37; 20) 30.4-35	16.7 (0.68; 23) 15.0-17.7 (mostly 16-17)	4.33 (0.152; 7) 4.1-4.5
(3)	129.1 (2.89; 20) 123-134 (mostly 127-132)	33.7 (1.06; 20) 32.2-35.5	16.8 (0.84; 20) 15.7-17.8	4.36 (0.151; 19) 4.1-4.6
(4)	129.1 (2.44; 12) 125-134 (mostly 127-131)	33.3 (1.39; 12) 31.6-35.0	17.3 (0.64; 9) 16.7-17.8	4.38 (0.182; 11) 4.1-4.6
(5)	132.0 (2.85; 8) 129-137	33.7 (1.39; 9) 32.1-35.8	17.3 (0.83; 8) 16.4-18.2	4.44 (0.187; 8) 4.2-4.7
Migrants and winter birds				
(6)	129.0 (2.45; 7) 126-132	33.1 (1.05; 7) 32.0-34.3	18.0 (0.63; 7) 17.5-18.7	4.54 (0.176; 7) 4.3-4.8
(7)	126.8 (1.17; 6) 125-129	32.3 (1.79; 6) 30.5-33.9	17.1 (0.50; 6) 16.6-17.6	4.30 (0.155; 6) 4.0-4.5
(8)	129.1 (0.74; 5) 128-130	33.5 (1.23; 5) 32.3-34.8	17.3 (0.85; 5) 16.6-18.0	4.60 (0.265; 5) 4.3-4.8
(9)	124.1 (3.01; 4) 120-127	32.6 (1.09; 4) 31.7-33.9	18.2 (0.97; 4) 17.6-18.9	4.30 (0.234; 4) 4.0-4.5
(10)	130.4 (1.52; 5) 129-132	32.5 (0.81; 5) 31.6-33.4	17.1 (0.88; 5) 15.9-18.0	4.27 (0.044; 5) 4.2-4.3
(11)	126.9 (3.56; 6) 122-131	33.9 (1.41; 6) 32.0-35.3	18.2 (0.68; 6) 17.7-19.3	4.42 (0.250; 6) 4.2-4.7
(12)	127.3 (2.31; 5) 125-130	33.8 (1.44; 5) 31.8-34.7	17.5 (0.97; 5) 16.1-19.3	4.41 (0.292; 5) 4.1-4.8
(13) (a)	130.8 (2.84; 53) 126-135	34.8 (1.09; 50) 33.5-37.1	18.8 (0.82; 58) 17.4-20.7	4.46 (0.185; 53) 4.1-4.8
(13) (b)	127.2 (2.28; 24) 124-132	34.5 (1.82; 5) 33.5-36.4	18.6 (0.72; 29) 17.2-20.4 (both mostly 18.2-19.5)	4.45 (0.187; 6) 4.3-4.8

Origins

- (1) Qinghai Hu (Kukunor) and upper Xining He area (NE Qinghai, China), including data from Stresemann (1940) = *schaeferi*.
- (2) S Tibet (Xizang Zizhiqu, China) and N Sikkim (India), including data from Stresemann (1940) = *atrifrons*.
- (3) W Himalayas (Lahul, Kashmir, Ladakh) = *atrifrons* < *pamirensis*.
- (4) Wakhan (E Afghanistan), Pamir (E Tajikistan and westernmost Xinjiang, China) and W Kun Lun Mts (NW Tibet & SW Xinjiang) = *pamirensis*.
- (5) E Alai Mts and Tien Shan (Kyrgyzstan and NW Xinjiang) = *pamirensis* (slightly) < *mongolus*.
- (6) E Africa = *pamirensis*.
- (7) Red Sea and N Somalia = *atrifrons*.
- (8) Persian Gulf and Oman = cf. *pamirensis*.
- (9) Karachi (brown-tinged upperparts) = *atrifrons* > *pamirensis* (or mix of both: large S.D.).
- (10) Karachi (grey-tinged upperparts) = *pamirensis*.
- (11) Sri Lanka = *schaeferi* + *atrifrons* mix (or intermediates).
- (12) Calcutta and Andaman Is = *schaeferi* + *atrifrons* mix (or intermediates).
- (13) Sumatra, S Borneo and (especially) Java, data separated for adult (a) and juvenile plus first adult with juvenile wing (b) = *schaeferi*.

smaller/darker and larger/paler subspecies (e.g., birds from Karachi clearly fall into two groups on colour and size, irrespective of season: see samples 9 and 10 in table 6). Specimens from easternmost Afghanistan, the Pamirs in Tajikistan and western Xinjiang, and the western Kun Lun mountains hardly differ in size or colour from birds of the northwest Himalayas; those from the eastern Alai and Tien Shan ranges are very slightly larger and paler and more often

show small white patches on the forehead in breeding plumage.

Unfortunately, no specimens from the eastern Tien Shan or other mountain ranges in northern Xinjiang were examined. Some migrants from western Xinjiang had markedly long wings and bill, and may originate from northern Xinjiang. The long bill of the latter suggests at least some intergradation with long-billed birds of the 'atrifrons group' from Qinghai, but their long wings



Hanne & Jens Eriksen

108. Juvenile Lesser Sand Plover *Charadrius mongolus*, Oman, September 1997. This bird has a very short bill that looks pointed, but it is far too short for a Greater Sand Plover *C. leschenaultii*. Furthermore, the eye is small, and the bird's silhouette is more like that of Kentish Plover *C. alexandrinus* than that of Grey Plover *Pluvialis squatarola*.

and partial white forehead may also indicate even intergradation with nominate *mongolus* of the 'mongolus group' (e.g. in as yet undetected breeding sites in the mountains of the Altai or Gobi regions).

2. The 'mongolus group'. Samples of the various breeding populations were small (table 7). They differed sometimes considerably in average measurements, and some of the outlines in figs. 4-6 hardly overlap, but the variation would probably have been much greater and the overlap more extensive if larger samples had been available. The only population perhaps separable subspecifically on measurements is that of the Commander Islands, with on average shorter bill and tarsus than the other populations, and with longer wing.

These two groups form five subspecies.

Subspecies recognised in Lesser Sand Plover

As outlined above, three subspecies are recognisable in the 'atrifrons group'.

1. *atrifrons*. A small, dark, short-billed race in southern Tibet and northern Sikkim.
2. *pamirensis*. A larger, paler, short-billed race in the western part of the range of the 'atrifrons group'.
3. *schaeferi*. A larger, paler, long-billed subspecies in the eastern part of the range of the 'atrifrons group'.

In the 'mongolus group', at least two subspecies can be recognised, but how these are to be defined is more difficult to establish. Paler individuals breed from Lake Baikal east to the Amur area and north to the Verkhoyansk mountains, and darker ones from Kamchatka north to Chukotskiy and east to the Commander Islands, while more or less intermediate birds occur on the Pyasina Peninsula in the northern Sea of Okhotsk. In terms of size, all mainland breeders are more or less similar, whereas Commander birds differ mainly in their short tarsus and bill. The 'mongolus group' could be seen to comprise three races (paler long-legged birds with variable bill length in the west of the range, darker long-legged and fairly long-billed birds from Kamchatka north to Chukotskiy, and darker short-legged and short-billed birds on the Commanders), but variation in bill length of western specimens and in tarsus length of Kamchatka-Chukotskiy birds is large, and samples of breeders examined were too small to support extensive splitting. Only two subspecies are recognised here.

4. *mongolus*. A paler race from Lake Baikal to Amurland and the Verkhoyansk range.

5. *stegmanni*. A darker, short-legged race on the Commanders, and provisionally including population from Kamchatka to Chukotskiy (latter considered intermediate, matching Commander birds in plumage—and sometimes in tarsus length, but not bill length, so

Table 7. Measurements in mm of Lesser Sand Plover *Charadrius mongolus* of nominate 'mongolus group'.

Figures show average (S.D.; sample) and range.

	WING	TARSUS	BILL LENGTH	BILL DEPTH NEAR TIP
Breeders				
(1)	136.0 (2.65; 3) 134-139	32.1 (0.25; 3) 31.9-32.4	17.1 (0.30; 3) 16.8-17.4	5.10 (0.200; 3) 4.9-5.3
(2)	133.7 (2.40; 6) 130-137	31.3 (1.00; 6) 30.0-32.6	16.0 (0.82; 6) 15.0-16.9	4.74 (0.432; 6) 4.4-5.6
(3)	136.6 (4.44; 7) 133-146 (mostly 133-138)	31.5 (1.77; 7) 29.3-34.2 (mostly 30-33)	16.8 (0.38; 7) 16.4-17.5	4.94 (0.299; 6) 4.6-5.4
(4)	137.1 (4.02; 5) 133-144	29.4 (0.73; 5) 28.9-30.5	15.7 (0.44; 5) 15.2-16.2	4.98 (0.164; 5) 4.8-5.2
Migrants and winter birds				
(5)	133.9 (2.88; 23) 129-139	31.2 (1.03; 18) 29.9-32.8	16.3 (0.75; 20) 15.0-17.4 (mostly 16-17)	4.72 (0.383; 19) 4.3-5.2
(6)	134.3 (2.94; 13) 128-139	31.7 (0.65; 9) 30.8-32.3	16.8 (0.93; 10) 15.8-17.7	4.75 (0.225; 10) 4.5-5.1
(7)	134.8 (3.49; 5) 130-139	31.9 (0.97; 4) 31.1-32.6	16.3 (0.59; 5) 15.6-17.2	4.75 (0.129; 4) 4.6-4.9
(8)	136.4 (4.03; 17) 129-145	30.7 (1.47; 15) 28.0-32.5	16.1 (0.81; 17) 14.7-17.2	4.82 (0.237; 20) 4.6-5.2
(9)	137.9 (1.56; 6) 136-140	32.3 (1.58; 5) 29.8-33.6	16.9 (0.62; 5) 16.1-17.4	4.84 (0.152; 5) 4.7-5.0
(10)	136.0 (3.72; 17) 130-142	31.2 (1.72; 16) 28.5-33.3	16.8 (0.57; 17) 15.8-17.6	4.76 (0.195; 16) 4.4-5.1
(11)	135.6 (4.79; 9) 131-146	29.6 (1.05; 6) 28.1-30.9	16.7 (0.72; 6) 15.8-17.6	4.76 (0.201; 6) 4.5-5.0

Origins

- (1) E Lake Baikal and W Stanovoi Mts, late May and June = *mongolus* (perhaps slightly ><*panirensis*).
- (2) inland of Russian Far East, 1st-17th July = *mongolus*.
- (3) NE Siberia (Chukotskiy, Koryakland and N Kamchatka region, including Karaginskiy I), May-Aug = *mongolus*><*stegmanni* or a separate, unnamed race.
- (4) Commander Is, May = *stegmanni*.
- (5) coasts of Russian Far East (Amurland, Ussuriland), early May and mid July to Sept = *mongolus* + *mongolus*><*stegmanni* mix (see 3).
- (6) E China, May and Aug-Oct = *mongolus*.
- (7) Thailand and Greater Sundas (W Indonesia), Aug-May = *mongolus*.
- (8) Japan (including Ryu Kyus), April-May and Aug-Sept (Ryu Kyus also in winter) = *stegmanni* + *mongolus*><*stegmanni* mix.
- (9) Philippines, Nov-May = *mongolus*><*stegmanni*.
- (10) Wallacea (Sulawesi, Moluccas, Kai), westernmost New Guinea (Vogelkop, Aru) and W Australia, Aug-May = *mongolus*><*stegmanni*.
- (11) E Australia and Solomons, Aug-Apr = *stegmanni* + *mongolus*><*stegmanni* mix.

far as can be judged from the small samples—and the more western 'mongolus group' individuals in measurements, except sometimes tarsus).

Subspecific winter distribution

The following conclusions are based largely on biometric data.

Greater Sand Plover (fig. 11, page 186)

Some wintering populations are clearly attributable to a single subspecies. All specimens from Egypt and the Levant coast (sample 5 in table 5, dated July-February) are *columbinus*, but for a single undated bird from northern Israel which has *crassirostris* measurements; and all Indonesian birds (sample 11) are nominate *leschenaultii*.

Perhaps more surprising is that, on measurements, East African and Karachi birds (samples 9 & 10) are also largely nominate, though apparently with some *crassirostris* admixed (the bill appears too deep for pure *crassirostris*, which, despite that name, has a more slender bill than nominate). It seems that at least part of the western population of nominate *leschenaultii* (from easternmost Kazakhstan, Kyrgyzstan and Xinjiang) migrates southwest rather than southeast.

Samples 6-8 in table 5 are a mixture of various races. Birds from the Persian Gulf and Oman (sample 8) consist of two *columbinus* (both from southern Iraq, August), the remaining 11 being *crassirostris*, probably admixed with a few nominate *leschenaultii*. Those from the central Red Sea south to



S. L. Rivers

109. Greater Sand Plover *Cbaradrius leschenaultii* of subspecies *columbinus*, Israel, April 1996. Quite long, pointed bill. Obvious rufous-cinnamon fringes to upperparts show that this bird is of subspecies *columbinus*.



Ray Tipper

110. Lesser Sand Plover *Cbaradrius mongolus* of nominate subspecies *mongolus*, Hong Kong, April 1988. Note the dark line bordering the breast-band, and the dark, intense rufous coloration of the breast-band.

Somalia (samples 6 & 7) consist of ten probable *crassirostris* (August-February, one June) and 30 probable *columbinus* (mostly June-March), although as many as 13 of the latter have wing below 140 mm, whereas, of 25 adult Middle East *columbinus*, only one (a female from 'northern Syrian Desert', May) has wing below 140 mm. These samples include two adults with wing of 135 mm: one taken on 24th April 1919 on Aibat Island, off Saylac, northwest Somalia (close to Saad e' Din Island, where a pair with small pulli has been found: Archer & Godman 1937),

and another, with plumage condition indicative of possible breeding, taken on 15th May 1934 at Lake Assal in Djibouti. Although denied by Vaurie (1965), the rumour that a population of Greater Sand Plovers breeds along the Red Sea and in the Gulf of Aden may be true; as elsewhere, breeding sites are often occupied only temporarily and erratically, depending on local rains, and nests are difficult to find. It is possible that a population breeds along the Red Sea that is similar to *columbinus*, but with shorter wing and perhaps shorter tarsus.



Alan Harris

Fig. 10. Non-breeding plumages of Greater Sand Plover *Cbaradrius leschenaultii*. (Lesser Sand Plover *C. mongolus* in these plumages is almost identical.)

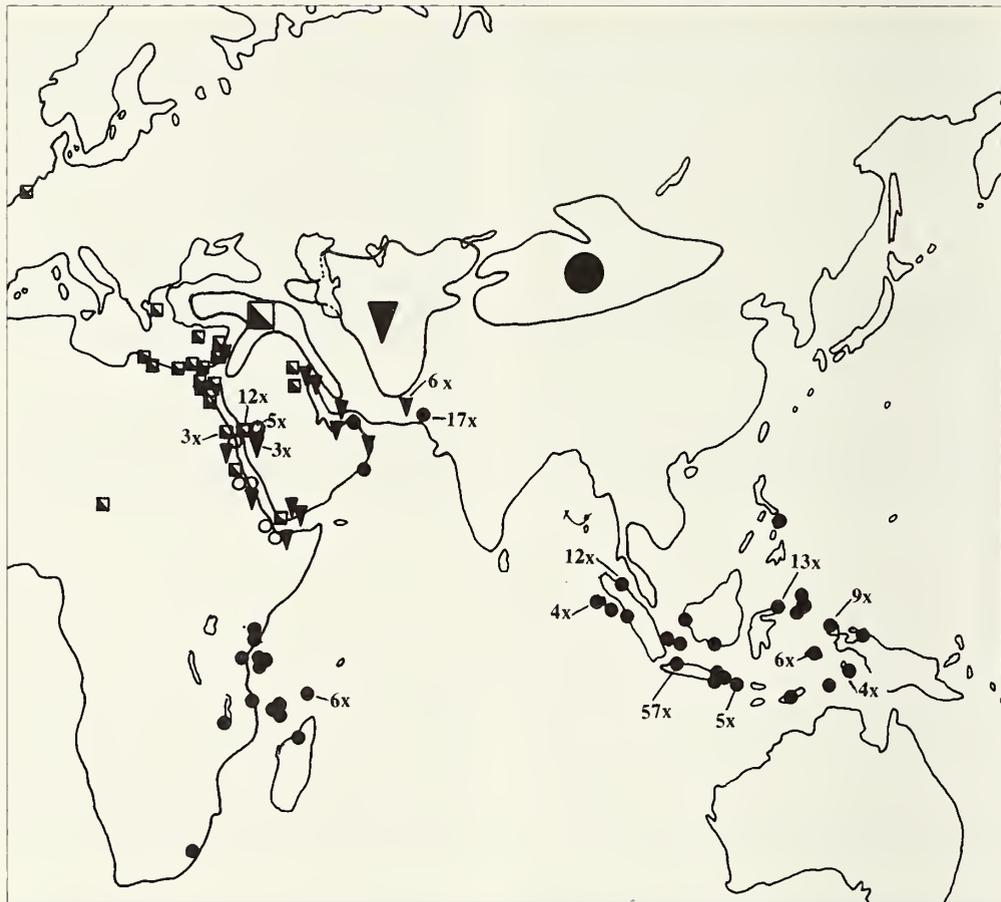


Fig. 11. Non-breeding distribution of races of Greater Sand Plover *Charadrius leschenaultii*.

Breeding ranges (in part hypothetical) outlined in black, with large symbol in centre. Bicoloured square = larger *columbinus* from Middle East; open dot = smaller *columbinus* possibly breeding along shores of Red Sea; black triangle = *crassirostris*; black dot = nominate *leschenaultii*. Numbers refer to larger samples from a site.

Lesser Sand Plover (fig. 12)

As discussed above, it is difficult to assign many Lessers to a particular race on measurements. Existing data are summarised in tables 6 & 7. Using biometrics in combination with darkness or paleness of plumage, we have presented a tentative picture of subspecific winter distribution in fig. 12; this is considered the best possible interpretation of the data according to present knowledge, but it is far from being definitive. Some individuals appear intermediate, or seem likely to belong to an atypical population of a particular subspecies, while the possibility of the existence of as yet undiscovered

breeding populations has also to be borne in mind.

Nevertheless, the race *schaeferi* is easy to recognise by measurements and plumage, as are *stegmanni* from the Commander Islands and *mongolus* from inland East Siberia. While *atrifrons* and *pamirensis* are separable from the others as a group, within that group variation from typical *atrifrons* to typical *pamirensis* is clinal and some specimens from wintering grounds are therefore hard to assign to one or the other. Similarly, the Anadyr and Chukotskiy population is more or less intermediate between *stegmanni* and nominate *mongolus*.

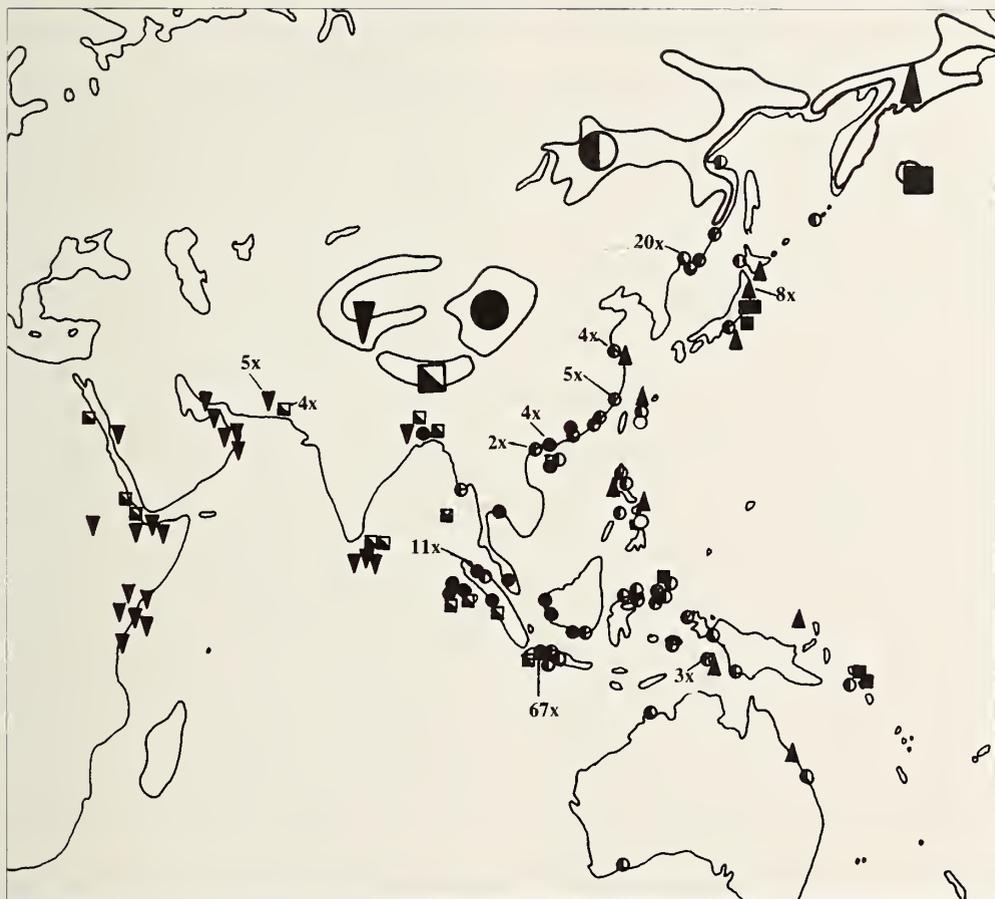


Fig. 12. Non-breeding distribution of races of Lesser Sand Plover *Chavardrius mongolus*.

Breeding ranges (in part hypothetical) outlined in black, with large symbol in centre. Black downward-pointing triangle = *pamirensis*; bicoloured square = *atrifrons*; black dot = *schaeferi*; bicoloured dot = nominate *mongolus*; black upward-pointing triangle = *stegmanni* (Kamchatka-Chukotskiy population); black square = typical *stegmanni* from Commander Is. Numbers refer to larger samples from a site.

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Appendix 1

Nomenclature of subspecies of Greater Sand Plover

The correct naming of the three races is difficult to establish. Of the valid names available, the taxon *leschenaultii* was described by Lesson in 1826 from a

wintering bird in Pondicherry (southeast coast of India); *geoffroyi*, described by Wagler in 1827, was based on winterers from Pondicherry and Java; *columbinus* Wagler, 1829, was based on a juvenile or winter-plumaged bird taken by Hemprich & Ehrenberg in Arabia (probably on coast of Red Sea); and *gigas* Brehm, 1855, was based on a bird taken in

November in Suez. Only the name *crassirostris* of Severtzov, 1873, was based partly on breeding birds, but the type series came from localities as far apart as 'Perovsk [now Kzyl-Orda, Kazakhstan], Chatir-Kul [now Chatyrköl, south-central Kyrgyzstan], and the eastern coast of the Caspian Sea near the Gulf of Krasnovodsk [western Turkmenistan]'.

Although relatively few of the many winter birds from India in the BMNH were examined, and none from Pondicherry, it is likely that Pondicherry is visited only by individuals of the Eastern group, especially as eastern populations predominate even as far west as southern Pakistan (Karachi) and East Africa, and the specimens from that part of Indonesia nearest to Pondicherry (18 skins from Simeuluë, Nias and western Sumatra) are all of eastern origin according to measurements. The name *geoffroyi* is a newer name for birds of the same eastern origin.

The type of *columbinus* is still available at the Zoological Museum in Berlin: from its measurements (wing 135 mm, bill 22 mm: Ticehurst 1929), the small, short-billed Middle East population should be known by this name. Moreover, of 33 skins examined from the northern and central Red Sea, only two are definitely Transcasian birds by measurements, the remainder (all small and short-billed) being similar to Middle East breeders; also, a bird ringed on 7th September 1981 at Suakin (Sudan) was recovered in its probable breeding area in inland Syria on 3rd April 1982 (*Wader Study Group Bull.* 55: 39). The name *gigas* is a junior synonym of *columbinus*, as concluded from measurements of the type (wing 137 mm, bill 22.5 mm: Ticehurst 1929) and from its wintering site.

Two localities from which the taxon *crassirostris* was described, Perovsk and the east shore of the Caspian, are within the breeding range of the Transcasian group. The third, Chatir-Kul, is not known to harbour breeding Greater Sand Plovers (it has Lesser instead), although the Chatir-Kul specimen is dated 8th August 1867 and is thus probably a migrant, from either the Transcasian or the Eastern group. Nevertheless, as both other localities are in the breeding range of the Transcasian group, the name *crassirostris* is preferred for this group, in accordance with Cheltsov-Bebutov's (1976) proposal in his revision of the Soviet forms of Greater Sand Plover.

Thus, as in *BWP* (vol. 3), three races are recognised, *columbinus*, *crassirostris* and nominate *leschenaultii*, though the boundaries between the subspecies differ somewhat from those given in *BWP* (see fig. 1).

Nomenclature of subspecies of Lesser Sand Plover

For the five possible races, the following taxon names are available. In the *mongolus* group: *mongolus* Pallas, 1776, described from the salt lakes close to the Mongolian border (in Russia; type obtained 28th-31st May 1772 at Tarey-nor, south of Kulusutay in southern Buryat Republic); *cirrbepidesmus*, Wagler, 1827, no locality given (type in Paris Museum); *sanguineus* Lesson, 1828, no locality given (type in Paris Museum); *inornata* Gould, 1846, Australia; *mastersi* Ramsay, 1876, northeast Queensland; *litoralis* Stegmann, 1937, described from a male taken 18th May 1929 on Bering Island in the Commander Islands; as *litoralis* was already in use for another species of *Charadrius*, the name was replaced by *stegmanni* (by Stresemann in 1940).

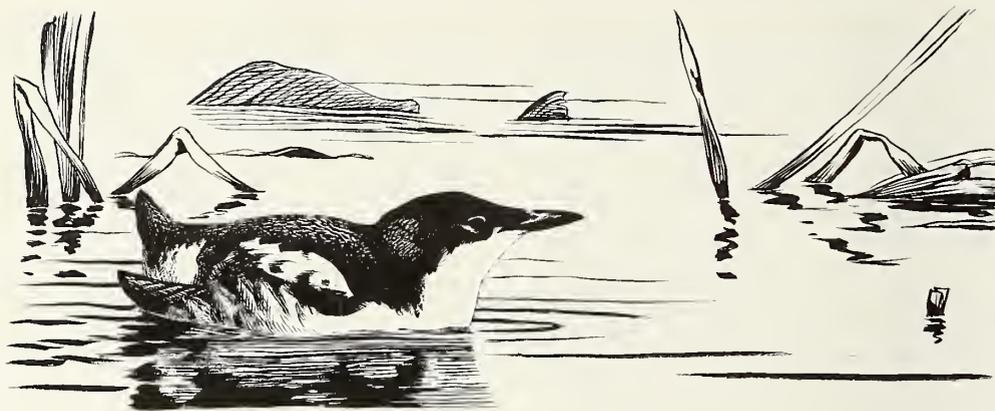
In the 'atrifrons group': *atrifrons* (name based on a breeding-plumaged adult male), described by Wagler

in 1829 from Bengal, is available, as well as *inconspicuus* Wagler, 1829, also from Bengal. Other valid names are *pyrrhoborax* Gould, 1837, without locality (type in Leiden Museum, obtained from St Petersburg Museum); *rufinellus* Blyth, 1843, from Calcutta; *pamirensis* Richmond, 1896, based on an adult male obtained 16th June 1894 at Tagdumbash Pamir (about 37.30°N, 75.15°E, western Xinjiang); and *schaeferi* Meyer de Schauensee, 1938, based on an adult male taken 13th June 1935 in Tibet at Schäfer's Camp 104, about 100 miles north of Jyekundo [= Yushu; the site of Camp 104 is south of the Bayan Har Shan Mts in southeast Qinghai, China, at about 34.20°N, 96.45°E according to Schäfer & Meyer de Schauensee 1939, but at about 33.50°N, 97.10°E according to Vaurie 1972].

In the 'mongolus group', the type locality Kulusutay of nominate *mongolus* is within the range of migrants of the paler and rather long-legged and long-billed birds breeding from northern Transbaikalia to Amurland; hence, the latter should be known by this name. For the darker, short-legged, short-billed birds from the Commander Islands, the name *stegmanni* can be used. If the dark but fairly long-legged and long-billed birds from the mainland between Kamchatka and Chukotskiy are to be separated as a subspecies, one of the other names (*cirrbepidesmus*, *sanguineus*, *inornata*, *mastersi*) is perhaps available; populations in this area are, however, better considered an intermediate form between nominate *mongolus* and *stegmanni*, thus recognising only two subspecies within the 'mongolus group', in agreement with, e.g., Kishchinski (1968), who considered all dark birds to be *stegmanni*.

In the 'atrifrons group', the type of *atrifrons* from Bengal is a small dark bird, inseparable from the breeding population of southern Tibet and northern Sikkim (Stresemann 1940), and hence the population of the central-southern Himalayas should be known as *atrifrons*. From (about) the same type locality as *atrifrons*, *inconspicuus* and *rufinellus* are likely to be synonyms of that, as most wintering birds examined from this area are also dark and small. The type of *pyrrhoborax* (dark and small, wing 125 mm, tarsus 32.5 mm, bill 16.6 mm) also belongs to *atrifrons*. The name *pamirensis* is available for the paler and larger but fairly short-billed birds from the Pamirs and neighbouring parts of Wakhan, Lahul, Ladakh and Kashmir, as well as from the western Kun Lun, eastern Alai and Tien Shan. The distinct pale, large and long-billed subspecies wintering in western Indonesia (average wing 130.8 mm, bill 18.8 mm) has probably to be named *schaeferi*. The type of *schaeferi* from southeast Qinghai, though long-billed, is almost as dark as *atrifrons* from southern Tibet and, although birds from nearby northeast Qinghai are about as pale as Indonesian birds (and as *pamirensis*), the bill appears to be shorter than in Indonesia: the wing of the type of *schaeferi* and that of another skin from southeast Qinghai are 128 and 131 mm, and the bill of both 19 mm; average wing of birds from northeast Qinghai is 130.7 mm, bill 17.6 mm (Meyer de Schauensee 1937; Stresemann *et al.* 1938; Stresemann 1940). The name *schaeferi* should perhaps be restricted to darker long-billed birds from southeast Qinghai, but, for stability in naming the taxon as recognised here, it includes paler, shorter-billed birds from northeast Qinghai, as well as paler long-billed individuals from unknown breeding grounds wintering in western Indonesia, in agreement with *BWP*.





Marbled Murrelet in Switzerland: a Pacific Ocean auk new to the Western Palearctic

Lionel Maumary and Peter Knaus

ABSTRACT Between 15th and 18th December 1997, a first-winter Marbled Murrelet *Brachyramphus marmoratus* of the Asian subspecies *perdix* was discovered dead in a fishing net at Zollikon, Lake Zurich, Switzerland. It constitutes the first record of this Pacific Ocean species for the Western Palearctic, accepted by the Swiss Rarities Committee as relating to a wild bird and placed in Category A. The circumstances of the finding and identification of the specimen are described, and an updated overview of the conservation status in the breeding range and of the taxonomy of this little-known, threatened auk is provided.

History of discovering the specimen

Between the mornings of 15th and 18th December 1997, fisherman Urs Bäumler found in his nets a drowned little bird. It was about the same size as a Little Grebe *Tachybaptus ruficollis*, but he could not identify it. The locality was at Zollikon, Lake Zurich (47°20' N, 8°34' E), 400 m beyond the borders of Zurich. The nets were placed 40 m

from the shore at a depth of 3-4 m. At that time of the year, the area is the favourite place for the fishing of spawning whitefish *Coregonus*. The drenched bird was carefully taken out of the net and the corpse was kept in a freezer for the next few days. In due course, U. Bäumler informed René von Allmen, who had asked him to preserve any bird drowned in his nets.

In spring 1998, R. von Allmen brought the bird to his taxidermist, Bruno Ambauen, who



Peter Knaus

111. Marbled Murrelet *Brachyramphus marmoratus* of Asian subspecies *perdix*, found dead between 15th and 18th December 1997 in Lake Zurich, Switzerland. Note the lack of a white partial collar and the more extensive dark plumage on nape and lores, features which exclude the nominate subspecies.



Peter Knaus

112. Marbled Murrelet *Brachyramphus marmoratus* of Asian subspecies *perdix*, found dead between 15th and 18th December 1997 in Lake Zurich, Switzerland. Note the dark juvenile belly feathers.

Table 1. Measurements (in mm) of the two forms of Marbled Murrelet *Brachyramphus marmoratus* and those of the Swiss specimen found in 1997.

Measurements of *B. m. marmoratus* are from British Columbia, those of *B. m. perdix* from Sea of Okhotsk (Sealy *et al.* 1982; Shibaev 1990). Figures give mean \pm S.D. (sample) when available, with range in parentheses below. Bill width of Swiss specimen was 5.0mm.

	Total length	Flattened wing	Exposed culmen	Bill height	Tarsus
<i>B. m. marmoratus</i> (Harrison 1985)	250 (240-260)				
male (Shibaev 1990)		134.2 \pm 1.2 (25) (128-140)	15.5 \pm 0.3 (36) (13.2-17.4)	6.0 \pm 0.1 (26) (5.4-6.6)	16.2 \pm 0.2 (37) (15.1-17.6)
female (Shibaev 1990)		132.6 \pm 1.8 (23) (122-139)	15.3 (32) (13.7-17.6)	5.8 \pm 0.1 (23) (5.3-6.8)	15.9 \pm 0.3 (39) (13.9-17.3)
<i>B. m. perdix</i> (Flint <i>et al.</i> 1989)	330				
male (Sealy <i>et al.</i> 1982)		141.6 \pm 4.0 (7) (135-146)	20.3 \pm 1.4 (6) (18.2-22.2)	6.4 \pm 0.3 (5) (6.0-6.6)	17.4 \pm 0.9 (6) (15.9-18.5)
male (Shibaev 1990)		141.2 (136-147)	20.2 (18.9-22.2)		18.1 (17.0-18.7)
female (Shibaev 1990)		138.3 (130-145)	19.6 (18.8-21.0)		18.0 (16.8-19.0)
Swiss specimen	300	141	18.2	6.0	19.0

also could not identify the species. R. von Allmen collected the mounted specimen and exhibited it in his private collection. It was not until September 1998 that Jürg Kägi, by chance, discovered the bird, which he thought was a young Black Guillemot *Cepphus grylle*. He took some photos and wrote about his findings to Raffael Winkler, at the Naturhistorisches Museum Basel, who in turn informed the Swiss Rarities Committee. There, the bird was correctly identified by LM from photographs as a first-winter Marbled Murrelet *Brachyramphus marmoratus* of the Asiatic subspecies *perdix* (plates 111 & 112). The specimen was examined at the session of the Swiss Rarities Committee on 28th November 1998, and the subspecies was unanimously admitted to Category A of the Swiss List (Knaus & Balzari 1999). This record represents also the first observation of the species for the Western Palearctic. The specimen is now exhibited at the Naturhistorisches Museum Basel (no. 99-004).

Description of the specimen and measurements

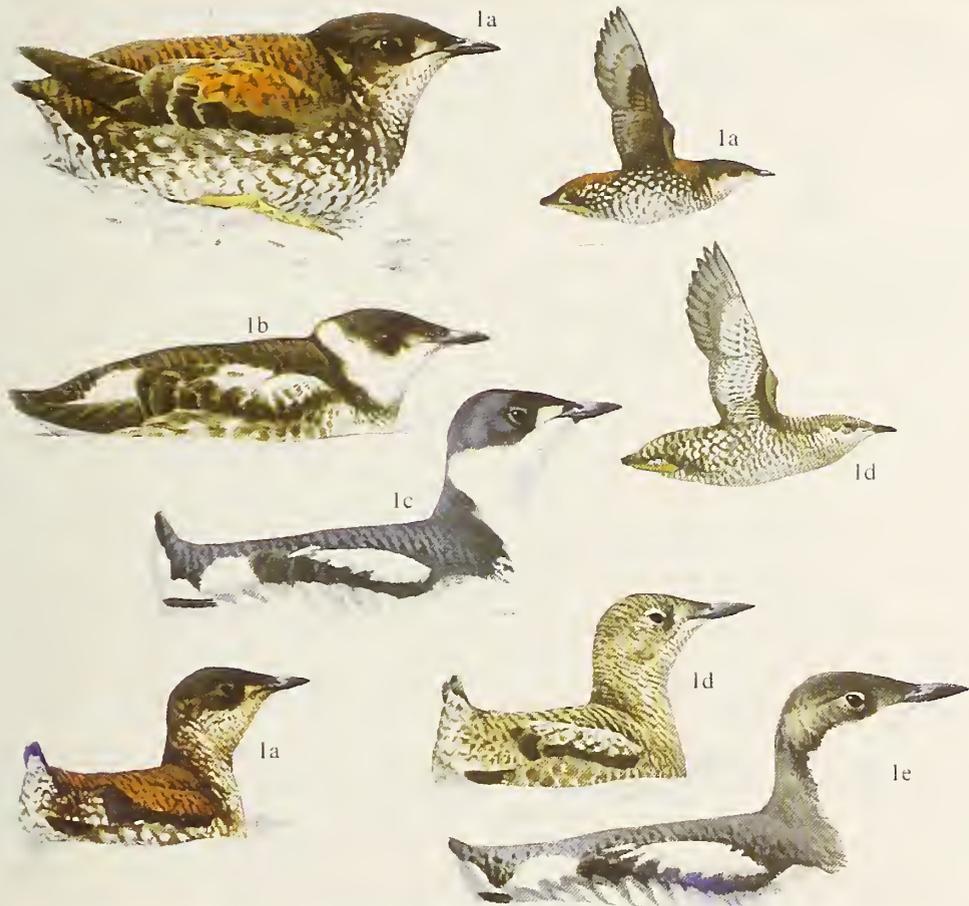
Small, neckless auk with brownish-grey upperparts; dark crown, dark colour

extending below the eye straight to the gape; white crescent below the eye; indistinct whitish patches on both sides of the nape; white scapulars; upperwing and tail uniformly dark, all rectrices blackish; chin, throat, breast and belly white, the latter marked with brownish-black patches; fine and long, slightly downcurved dark bill; legs brownish-pink, feet blackish.

The body feathers seem to be completely moulted, with the exception of the dark juvenile belly feathers. The plumage looks fresh, without any visible abrasion on remiges. Measurements are given in table 1.

Identification

The only similar small auk with white scapulars is the closely related Kittlitz's Murrelet *B. brevirostris*. That species was, however, excluded by its paler appearance in winter, created by the whiter 'face' with a contrasting dark eye, and its much shorter bill. The identification of the subspecies was confirmed through the generally larger size (table 1) and the different colouring (especially the lack of a white partial collar: see fig. 1 & plate 111), which excluded the nominate American subspecies *marmoratus* (Harrison 1985, 1987; Shibaev 1990; Ralph *et al.*



Ian Levington

Fig. 1. The two subspecies of Marbled Murrelet *Brachyramphus marmoratus* (from Gaston & Jones 1998). 1a = adult summer, nominate subspecies; 1b = recently fledged juvenile, nominate subspecies; 1c = adult winter, nominate subspecies; 1d = adult summer, *B. m. perdix*; 1e = adult winter, *B. m. perdix*. Note the lack of a white partial collar and the more extensive dark plumage on nape and lores in winter plumage of *B. m. perdix*.

1995; Enticott & Tipling 1997; Gaston & Jones 1998).

Origin

When the question of origin was discussed, the likelihood of an escape was quickly dismissed, since no Marbled Murrelet is known to be kept in captivity. Furthermore, there was no evidence of human assistance: this species lives in remote areas, and all feathers of the specimen looked fresh. In addition, young birds are more likely to be genuine vagrants than adults.

Although at first sight an unlikely candidate for natural vagrancy to the Western Palearctic, this case is not without precedent. There were already European records

of four other small Pacific Ocean auks: Parakeet Auklet *Cyclorhynchus psittacula*, Crested Auklet *Aethia cristatella*, Ancient Murrelet *Syntliboramphus antiquus* and Tufted Puffin *Lunda cirrhata* (Horring 1933; Risberg 1990; Waldon 1994; Cederroth 1995).

Taxonomy

The Marbled Murrelet is currently separated into two phenotypically distinct subspecies (figs. 1 & 2): a smaller one in North America (*B. m. marmoratus*) and a larger one (about 50-70 g heavier) in Asia (*B. m. perdix*). The Asian form was described as a separate species in 1811, but was lumped with *B. marmoratus* in the twentieth century (cf. AOU 1998).

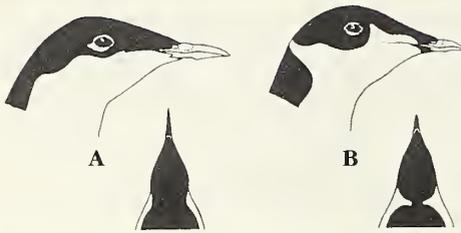


Fig. 2. Head patterns of Marbled Murrelet *Brachyramphus marmoratus*: A = Asian form *perdix*, B = North American form *marmoratus* (from Konyukhov & Kitaysky 1995).

Molecular data from Zink *et al.* (1995) do, however, show a degree of differentiation between *perdix* and *marmoratus* comparable to that between well-differentiated species (using mitochondrial DNA). Other recent analyses of both cytochrome *b* sequences and allozymes suggest that *B. m. perdix* is genetically distinct from other brachyramphine murrelets (Friesen *et al.* 1996). In the view of those authors, this form clearly represents a distinct species, referred to as the Long-billed Murrelet *B. perdix*, supporting its earlier classification. It is in most regards similar to the North American form in terms of its feeding, breeding, moult and habitat ecology, but, unlike its American counterpart, it is migratory. While the evidence for separation is considered by some authors to be inconclusive and to require further examination (Monroe & Sibley 1993;

113. Winter-plumaged Marbled Murrelet *Brachyramphus marmoratus* of Asian subspecies *perdix*, Cedar Key, Florida, USA, March 1994.



Linda Cooper

del Hoyo *et al.* 1996), the American Ornithologists' Union did split the two forms recently (AOU 1998).

Breeding range

The Asian Marbled Murrelet breeds on the coast of the Pacific Ocean, from east Kamchatka through the Kurile Islands and Sakhalin Island and along the shores of the Okhotsk Sea south to northeastern Hokkaido (fig. 3; AOU 1998; Gaston & Jones 1998); in this last region, it is either a very rare breeder or only occasional (Brazil 1991). The nominate subspecies breeds from the Aleutian Islands through Alaska and British Columbia south to California. Most of the North American population breeds in the Alexander Archipelago, Prince William Sound and Kodiak Archipelago in Alaska (Piatt & Ford 1993). The maximum distance inland at which breeding radio-tagged Marbled Murrelets have been found is about 100 km, although most appear to nest less than 60 km inland (Ralph *et al.* 1995).

Ecology

This murrelet's ecology is poorly known, as the species is nocturnal and non-colonial on its breeding grounds, which are scattered in forested areas. Only four nests of *B. m. perdix* were found in Russia during the 22 years from 1963 to 1984 (Shibaev 1990). Coniferous forests, especially of East Siberian Larch *Larix daurica*, provide the most important breeding habitat in northern Siberia. On Hokkaido Island in Japan, a breeding female with three eggs was collected in June 1961, as well as four fledged young in August 1982 (Brazil 1991). Up to 1993, 17 nests of *B. m. marmoratus* had been found in Alaska (Piatt & Ford 1993). Unlike most seabirds, Marbled Murrelets fly inland to nest solitarily on mossy branches or in hollows of large trees in old-growth coniferous woods. The flightless juveniles presumably stay there until they fledge (Harrison 1985), or perhaps use the nearest river or stream to reach the sea (Konyukhov & Kitaysky 1995). Some fraction of the population nests on the ground in Alaska (Piatt & Ford 1993).

At sea, they feed mainly inshore, rarely venturing more than a few kilometres offshore (Sealy 1975; Harrison 1985). During

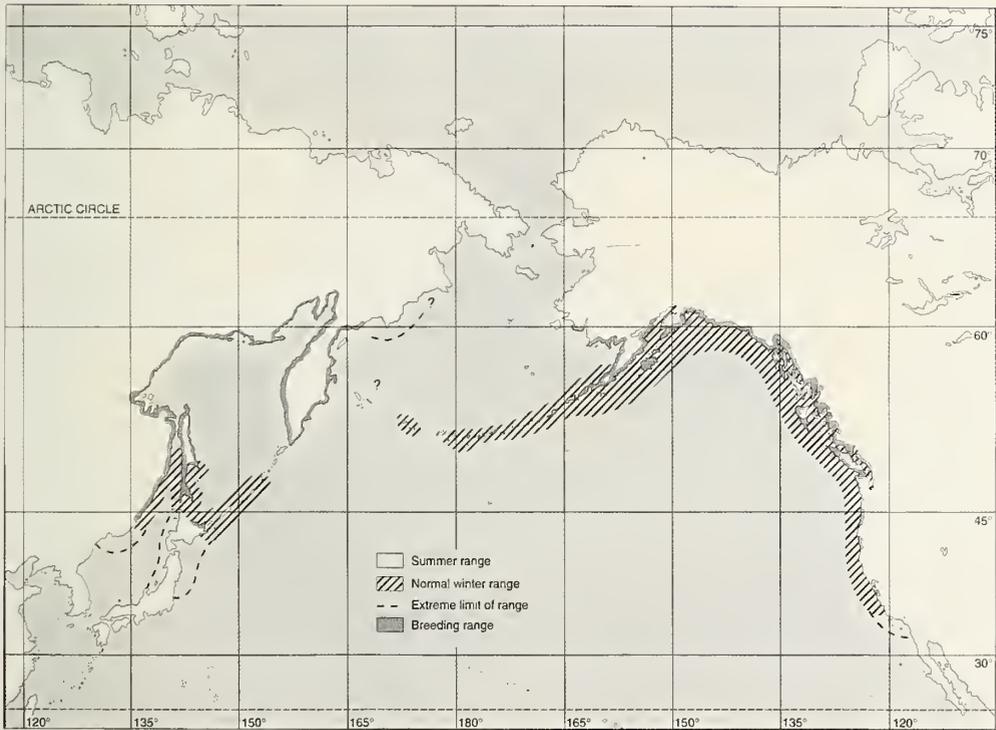


Fig. 3. Breeding and wintering distributions of the Marbled Murrelet *Brachyramphus marmoratus* in the Pacific Ocean (from Gaston & Jones 1998).

summer, however, they have been recorded at up to 75 km from land (Morgan *et al.* 1991). Year-round use of coastal freshwater lakes, usually within 20 km of the ocean, is known from Sakhalin and Kamchatka as well as along the west coast of North America (Carter & Sealy 1986). The diet is dominated by crustaceans and small fish, usually caught at less than 30 m under the surface, and generally within 500 m of the shore (Sealy 1975).

Conservation status

Although widespread, the Marbled Murrelet is one of the four species of Pacific auk listed in *The World List of Threatened Birds* (Collar *et al.* 1994). Marbled Murrelets are declining in numbers throughout most of their range owing to conflict with logging interests, vulnerability to oil pollution, and drowning in gill nets (Ralph *et al.* 1995). They have almost disappeared from several parts of their range, especially in the south, and are under pressure from loss of habitat in other areas.

The species is listed officially as 'threatened' in Canada and 'endangered' in California, Oregon and Washington (Friesen *et al.*

1996). In Alaska, where 85% of the 300,000 North American Marbled Murrelets reside (Ralph *et al.* 1995), a possible 50% decrease from 1972 to 1992 has been suspected (del Hoyo *et al.* 1996). Outside Alaska, the species is probably even more restricted in its breeding to high-volume old-growth forests than is the Northern Spotted Owl *Strix occidentalis*, and it has recently become an important symbol for the saving of old-growth forests in the Pacific Northwest (Piatt & Ford 1993). The sharply declining Russian population, estimated at 50,000 to 100,000 individuals, is also under increasing threat from the logging of prime old-growth forests. This logging activity has accelerated in recent years, particularly on Sakhalin Island and the Kamchatka Peninsula, apparently without regard for wildlife considerations (Konyukhov & Kitaysky 1995). To make matters worse, intensive development of the oil industry on the Okhotsk and Bering Sea shelves is proceeding without appropriate control and is, according to Konyukhov & Kitaysky (1995), potentially threatening to shelf ecosystems in general.

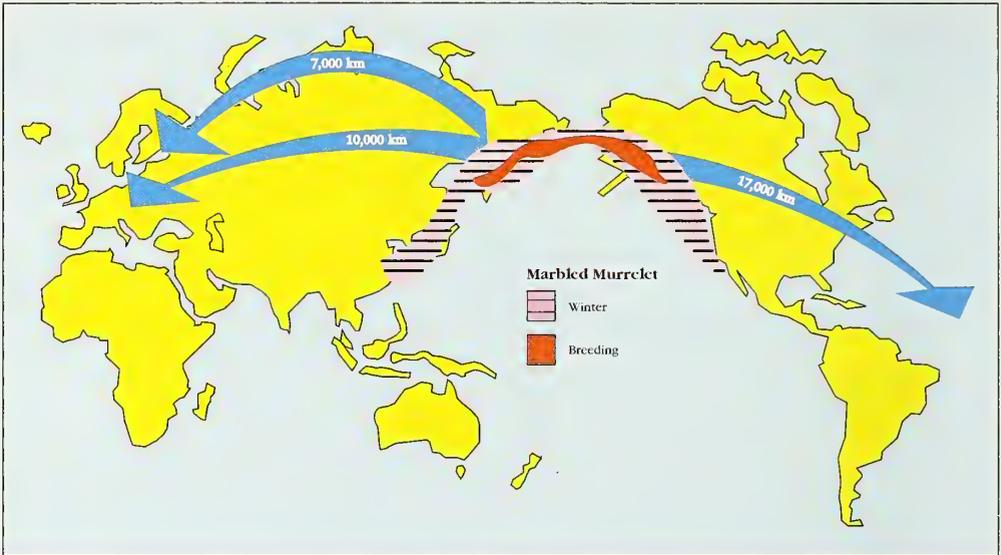


Fig. 4. Hypothetical routes of the Swiss Marbled Murrelet *Brachyramphus marmoratus*: (a) direct northern route (7,000 km); (b) route through continental Siberia (10,000 km); (c) route crossing North America and the Atlantic Ocean (17,000 km).

The Marbled Murrelet was one of the five species most severely affected by the *Exxon Valdez* oil spill in 1989 (Piatt & Lensink 1989).

Movements

The Russian population is the most migratory, leaving its breeding grounds in September and October for the Sea of Okhotsk, where it spends the winter. A few remain off Sakhalin, but many migrate south to Japan (Hokkaido, Honshu), where most records are from November to March (Brazil 1991). A few occasionally reach the Sea of China south to Fujian (Etchécopar & Hùe 1978; Cheng 1987), Korea and Taiwan. Other noteworthy records are of a first-year found on 26th October 1967 180 km inland on Lake Khanka, and of an adult on 13th July 1980 more than 200 km inland, on the Bikin River (Shibaev 1990). The most northerly record is of one bird collected near Kolyuchin Bay on the north coast of the Chukotskiy Peninsula (Bédard 1966). In North America, there are 36 confirmed records of the form *perdix*, 23 of which are from far inland or from the Atlantic coast of Newfoundland, Massachusetts, North Carolina, South Carolina and Florida (Mlodinow 1997). Interestingly, these records are from localities much farther east than the American subspecies is known to

occur during its breeding and non-breeding seasons (fig.3; Jehl & Jehl 1981; Sealy *et al.* 1982; Ralph *et al.* 1995).

Circumstances of the appearance of the Marbled Murrelet in Switzerland

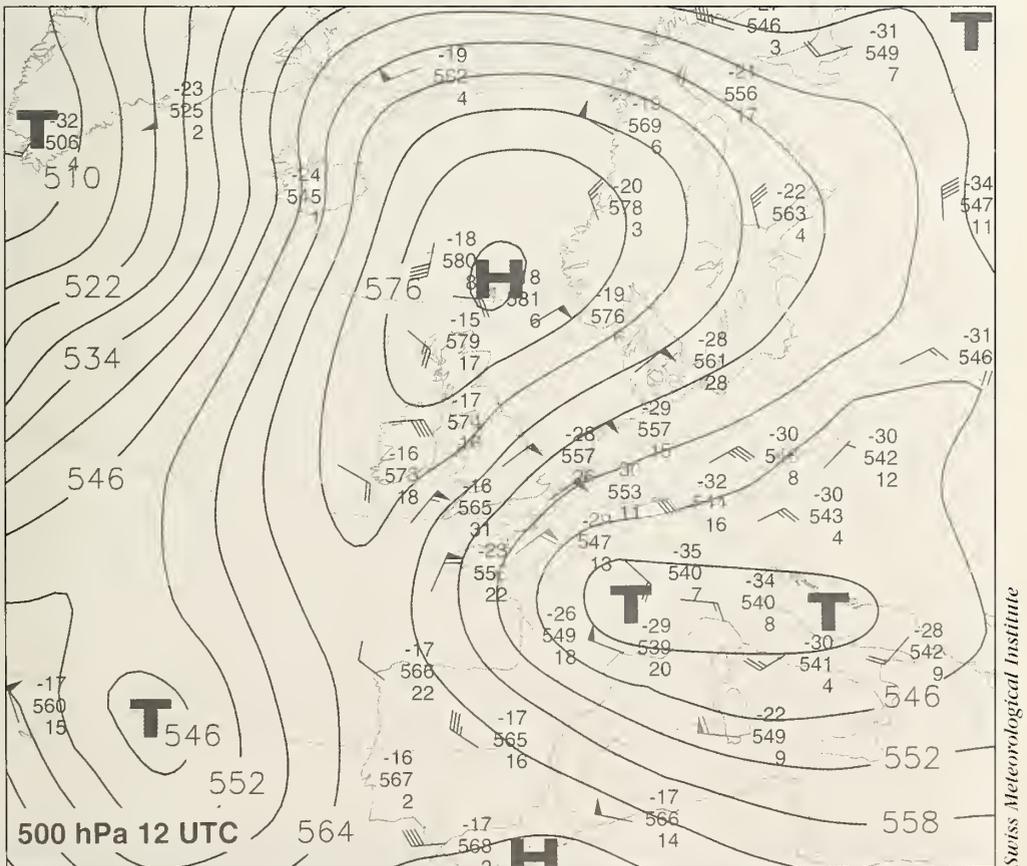
With its strictly Pacific Ocean distribution, the Marbled Murrelet is one of the least expected vagrants to this side of the planet, and certainly not to be expected in the most continental location possible in Central Europe (at least 600 km from the North Sea and the Atlantic Ocean, 300 km from the Mediterranean Sea). Indeed, the only other auk ever recorded in Switzerland was a Common Guillemot *Uria aalge*, collected in January 1836 at Vevey, Lake Geneva (Winkler 1999). In addition, the small and declining population size of the Marbled Murrelet makes the Swiss record even more extraordinary. The Asian subspecies is, however, migratory, at least in the northern part of its breeding range, and has proved capable of long-distance vagrancy south to Taiwan, north to the Chukotskiy Sea and (presumably) east to inland lakes and the Atlantic coast of North America, more than 10,000 km from its nesting grounds. The possibility of misoriented birds flying in the opposite direction to that of the sea from their nest

has been put forward in those cases when grounded fledglings have been discovered far inland (Ralph *et al.* 1995). Unlike the low skimming flight over water, the commuting flight overland between the nesting site and the sea occurs at great height (Harrison 1985). This could expose the birds - especially fledglings leaving the nest - to storms. Furthermore, the flight is described as swift and direct, but not powerful, which could make this species liable to be drifted by strong winds, as in the case of other classic Siberian vagrants to Western Europe (cf. Cottridge & Vinicombe 1996).

The shortest way to Europe would be a straight route from the Sea of Okhotsk through Yakutia to the Lena, Taimyr Peninsula, Kara Sea, Barents Sea, Finland and the Baltic Sea, totalling 'only' 7,000 km, instead of some 10,000 km through continental Siberia (fig. 4). The hypothesis of a northern route could be supported by the Chukotskiy

Sea record. On the other hand, analysis of the weather maps from the Swiss Meteorological Institute reveals strong north winds over Central Europe on 14th December 1997, turning to northeasterlies over western Russia and the Baltic Sea and to easterly winds over Central Europe on 15th December 1997 (fig. 5). A possible scenario for the appearance of the murrelet on Lake Zurich could be that the bird followed a flock of Tufted Ducks *Aythya fuligula*, a large number of which winter on Swiss lakes, which hold 22% of the wintering population of Western Europe (Géroutet 1987). Ringing recoveries have shown that some of them originate from the Ob and Yenisey Basins, 4,500 km from Switzerland. If, instead, the murrelet crossed North America and the Atlantic Ocean following the same latitude, it must have travelled at least 17,000 km, which is less likely.

Of the 16 Pacific Ocean auk species, four



were already on the Western Palearctic list: (1) Parakeet Auklet, collected on Lake Vättern, Sweden, in December 1860 (Risberg 1990); (2) Crested Auklet, collected at sea, northeast Iceland, in August 1912 (Hørring 1933); (3) Ancient Murrelet, adult observed at Lundy, Devon, England, during three consecutive springs from 27th May 1990 to 29th April 1992 (Waldon 1994); and (4) Tufted Puffin, adult observed at Lagoaset, Halland, offshore in Laholmsbukten, Sweden, on 1st and 8th June 1994 (Cederroth 1995).

There are records of two other Pacific Ocean species in the Western Palearctic: Aleutian Tern *Sterna alentica* in Great Britain (1979; Dixey *et al.* 1981), and Glaucous-winged Gull *Larus glaucescens* in the Canary Islands (1992; de Juana & Comité de Rarezas de la Sociedad Española de Ornitología 1998) and Morocco (1995; *Porphyrio* 9: 170). A Swiss report from 1969 of the latter species has been rejected owing to the circumstances of its finding not having been confirmed (Winkler 1999).

The Ancient Murrelet, which has a similar distribution to that of Marbled Murrelet, has been recorded occasionally far inland in North America, most frequently in October and November. These appearances have been associated with offshore storms and poor visibility along the Pacific coast. Just like the British Ancient Murrelet, which spent three consecutive springs at a latitude similar to that of its British Columbian breeding areas, the Swiss Marbled Murrelet was at precisely the mean latitude (47°) of the species' normal winter range. As the Marbled Murrelet is able to survive on fresh-water lakes for considerable periods (Carter & Sealy 1986), the good condition of the bird collected in Lake Zurich, apparently diving after fish, is not surprising.

This amazing record gives the opportunity to raise concern in Europe for this little-known, threatened auk and to plead for the implementation of conservation measures within its breeding range.

Acknowledgments

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Looking back



ONE HUNDRED AND FIFTY YEARS AGO: 'I have just obtained a bird which is in the list of your desiderata, and I therefore hope it will be acceptable to you. As the bird agrees in every respect with the description given of the stork (*Ardea Ciconia*), except that it is brown or cinereous everywhere but on the belly...' 'Your kind favour is just received; and you seem desirous of hearing from me immediately, supposing it will reach you before the bird takes its departure. I have taken my pen to say that the bird will be acceptable to me, either dead or alive.' 'Knowing that you will be anxious to hear of the arrival of the stork, I can not delay repeating my best thanks for so valuable an acquisition...it arrived at about 5 o'clock in the evening, when it took some fish as soon as liberated.' 'The stork is so much changed in plumage [and] now better accords with *Ardea nigra* [Black Stork *Ciconia nigra*] than heretofore, for at a

distance the whole upper parts appear black, but on a nearer view are found to be dark glossy green, except the upper part of the back, which has a resplendence of purple, each feather margined with dark green.' (*Zoologist* 8: 2700-2703, April 1850)

ONE HUNDRED YEARS AGO: 'The aspects of bird-life in the Great Yarmouth district [Norfolk] are exceedingly interesting, and must have been peculiarly so in the earlier part of the century, prior to the improved drainage of the marsh-lands, the encroachments of the sportsman, the agriculturist, and the builder, the advent of railways, and many other untoward circumstances...When first I remember the fens they were full of Terns, Ruffs, and Redlegs; and yet the old fenmen declared there was not a tenth part of what they remembered when boys. Now these very parts which were the best are totally drained, dry as a bowling green, and oats are

grown where seven or eight years back one hundred and twenty-three Snipes were killed in one day by the same gun...the marshes at that time [were] swarming with Bitterns, Grebes, Ruffs, and Avocets.' (*Zoologist* Fourth Series 4: 153-154, April 1900)

TWENTY-FIVE YEARS AGO: 'Further to my note on a Razor-bill *Alca torda* swimming on its back below the water surface... I had a rather similar experience at Penzance, Cornwall, ... involving a Guillemot *Uria aalge*. BERNARD KING.'

I strongly suspect that hedgerows have, of themselves, assumed too large an importance in the conservation and farming issue in the sense that trying to preserve them, while accepting as inevitable a system of farming in which they have become an anachronistic and expensive nuisance, does not seem very logical. M. SHRUBB: (*Brit. Birds* 68: 159, 165-167, April 1975)



Obituaries

James Brian Bottomley (1919-1999) and Sheila Bottomley (1913-1999)

Everyone who knew Brian and Sheila Bottomley personally or through their photographs will have been shocked and saddened by the news of their deaths in a car crash in Cornwall on 16th November 1999.

Brian joined the British Army before the Second World War and served as an officer and glider pilot in the Airborne Division, taking part in the Battle of Arnhem. Sheila also served in the Forces, and it was their mutual interest in ornithology that brought them together. They settled at Grange-over-Sands in Westmorland (now Cumbria), where their bird photography began. They joined the Nature Photographers' Portfolio in 1957, the Zoologists' Postal Club in 1959 and the Nature Photographers' Society in 1959. In 1964, they moved from Westmorland to a cottage near St Ives in West Cornwall.

Whilst they were best known for their wonderful bird-photographs, they were both also very knowledgeable on many aspects of natural history; their photographic subjects included insects, reptiles, and both small and large mammals. They generously shared their expertise with anyone who had similar interests, and were most amiable companions. They were also very hospitable and, in turn, were always welcomed by farmers to record various aspects of local wildlife.

They submitted their work regularly to the Royal Photographic Society's annual exhibition, and were awarded the Society's much-sought-after Exhibition Medal in 1960: an award made in recognition of many years of acceptance of previous work. At around this time, they began to experiment with new approaches, turned more to 35-



Courtesy of Robin McLaren

114. Sheila & Brian Bottomley in the 1960s.

mm cameras, and began their unique experiments in photographing waders, for which they can truly be classed as innovators. They pioneered the technique of photographing birds by stalking them, which Brian likened to the tactics employed in military fieldcraft. He described it in 'Bird-photography by stalking' (*Brit Birds* 61: 546-549, plates 63-74). It should be remembered that new cameras and lenses have made this method infinitely easier today than it was then.

It is difficult to overstate the pioneering contribution that the Bottomleys made to British nature photography. Though less widely appreciated than the late Eric Hosking's development of the use of flash for bird photography, their demon-

stration that 'away-from-the-nest' photography, particularly by stalking, can produce quality photographs was a major contribution. They exploited the 35-mm cameras and long lenses that were being introduced in the 1960s, at a time when most other bird-photographers were still using medium-format and large-format equipment, either from a small hide (notably on the Hayle Estuary in Cornwall) or by the stalking technique. Their photographs taken in this manner brought to the attention of others the possibility of photographing rarities and vagrants for documentary purposes.

They were much in demand as lecturers, in Cornwall and elsewhere. Brian and Sheila both served on the Council of the Cornwall Bird Watching and

Preservation Society, and, for many years, Brian served on the Council of the Cornwall Wildlife Trust, to which they donated many of their glass plates, negatives, prints and colour slides.

They were the only workers who invariably claimed joint authorship of all they did – all photographs were credited to 'J. B. & S. Bottomley' – and some club members often questioned how two people could produce one photograph, particularly when, by rotation, their period of office as Presidents of the ZPC

became due. One member of that Club made so bold as to ask them this question, and was told that they had found that Sheila was better at choosing the right moment to 'press the button', but that Brian performed the subsequent chemical magic.

Some of the best examples of their work are the photographs of the Hayle Long-billed Dowitcher *Limnodromus scolopaceus* (Bottomley & Bottomley 1995, 'PhotoSpot 37. Long-billed Dowitcher': *Brit. Birds* 88: 429), which resulted in considerable

advances in dowitcher identification (Wallace 1968, 'Dowitcher identification: a brief review': *Brit. Birds* 59: 366-372), and a fine series in the BTO's *Guide to the Identification and Ageing of Holarctic Waders* (Prater, Marchant & Vuorinen 1977).

Brian and Sheila were elected as Fellows of the Royal Photographic Society and as Honorary Subscribers of this journal (*Brit. Birds* 88: 440).

V. S. Paton, J. A. Paton, R. J. Chandler and Harold Hems

Geoffrey A. Pyman MBE (1920-1999)

Although he always said that he was self-educated, it was at Maldon Grammar School that Geoff Pyman first became interested in natural history.

In 1939, he joined the Essex Yeomanry, and spent six years in the Middle East, taking part in the siege of Tobruk and the Battle of El Alamein before his unit moved to Syria. It was during the German retreat that Geoff acquired a pair of German binoculars. Although field guides were somewhat lacking in those pioneering days, Geoff had, as a boy, corresponded with W. E. Glegg, author of *A History of the Birds of Essex* (1929), who, upon hearing of Geoff's departure overseas, lent him a copy of *The Birds of Europe and North Africa* by R. G. Wardlaw Ramsey (1923). With no illustrations, and with descriptions of museum skins rather than birds in the field, the identification challenge provided by warblers and large birds of prey was considerable.

After the War, Geoff became the Essex Birdwatching and Preservation Society's first General Secretary (1949-56). He not only edited the *Essex Bird Report* from 1949 until 1970, but was also County Recorder for the first seven years. He was elected Chairman of the Society (1959-64), Chairman of the Recording Committee (1970-85),

Vice-president (1958-91), and finally, and deservedly, President (1991-99).

In 1959, Geoff's ornithological knowledge, administrative expertise and reliability were recognised and utilised by the newly formed Rarity Records Committee, later to be renamed the British Birds Rarities Committee, when he was drafted in to become the Committee's first Hon. Secretary (*Brit. Birds* 52: 241-244), and he compiled its first three reports (*Brit. Birds* 53: 153-173, 409-431; 54: 173-200). He remained a voting member of the BBRC for 12 years, until 1970. Among Geoff's other ornithological publications, his investigations 40 years ago into 'The status of the Red-crested Pochard [*Netta rufina*] in the British Isles' (*Brit. Birds* 52: 42-56) are still referred to today.

Geoff's name is also synonymous with the Essex Wildlife (formerly Naturalists') Trust. In 1958, he chaired its formation committee, and, when the Trust was created in 1959, he became its first Chairman (1959-66), then Vice-chairman for 12 years, Chairman of the Reserves Management Committee

for 14 years, Editor of the *Journal* for ten years, and remained on the Council of Management for 40 years, where he was busy to the last. He was an all-round naturalist, interested in all aspects of wildlife, not just birds, and was an expert botanist and lepidopterist.

In 1980, Geoff retired from the position of Principal Administrative Officer of Essex County Council, and was awarded the MBE. He rightly regarded this as recognition for services to conservation as much as for civic duties.

Nick Green



115. Geoff Pyman in the early 1960s.

Courtesy of Essex Wildlife Trust

Compiled by David Gibbons

Stone-curlew and Sky Lark likes and dislikes

The Stone-curlew *Burbinus oediceenus* is one of the rarest and most threatened of breeding birds in the UK, where it occurs at the northwestern edge of its World range. A recent study by the RSPB (Green *et al.* 2000) has revealed some fascinating insights into the species' likes and dislikes.

This study revealed that Stone-curlews prefer to nest on free-draining sandy soils with stones, possibly because eggs and chicks are well camouflaged against this background. The adults were most active at night, although their activity during the day increased during chick rearing, when the parents were working hard to care for their young. Adults foraged up to 3 km from the nest, making frequent excursions to grazed short-grassland, both semi-natural and improved, in order to find earthworms or invertebrates associated with the dung of grazing animals. Manure heaps were particularly sought after later in the summer, presumably because they were good sources of invertebrate prey. The highest densities of Stone-curlews were on short, semi-natural grassland and heath, although nearly half of all nesting attempts were on spring-sown arable, principally beet, but also barley. Autumn-sown cereals were avoided. Stone-curlews were most likely to nest in spring-sown arable if the crop was short and sparse at the time of egg-laying, probably because it allowed the incubating Stone-curlews to see

potential predators at long range. They were also more likely to breed on spring arable if there was short semi-natural grassland and sheep pasture for them to forage in nearby. More surprisingly, perhaps, they were more likely to nest on arable that was at least 3 km from the nearest motorway, trunk-road or A-road. The most likely explanation for this was that traffic noise, vehicle movements and headlights disturbed them. The arable-nesting part of the Stone-curlew population in the UK would probably be doubled in numbers if many otherwise suitable fields were not rendered useless by traffic disturbance.

A recent study undertaken by the BTO (Chamberlain *et al.* 1999) has investigated the effects of habitat type and management on the abundance of Sky Larks *Alauda arvensis* in the breeding season. Using a combination of both an extensive volunteer-based survey of Sky Larks and a more intensive survey on lowland farms in England, the study demonstrated a clear preference for set-aside and spring cereal by this declining species. Early in the season (before mid May) densities on set-aside were particularly high, while those on spring-sown and winter-sown cereals were lower, but similar to one another. Later in the season, densities on winter cereals declined markedly, while those on set-aside and spring cereals remained high. On the intensively studied lowland farms, crops that were shorter than

30 cm in height were more likely to be occupied. Winter cereals reached this height earlier in the season than did spring cereals and became unsuitable by mid May, probably because the Sky Larks were unable to move around in the taller, denser crop. This probably explains why densities of Sky Larks in winter cereal fell later in the season. This and other studies demonstrate the importance of vegetation structure to the Sky Lark, which shows a clear preference for the less-dense or shorter swards characterised by set-aside and spring cereals.

Each of these studies demonstrates the importance of less-intensive forms of agriculture to farmland bird populations. In particular, the switch from spring to autumn sowing has reduced the suitability of farmland for both the Stone-curlew and the Sky Lark. The research points to ways in which the agricultural environment could be made more sympathetic for both species.

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This feature, contributed by the RSPB's Research Department, reports the most interesting recent scientific news relevant to the conservation of Western Palearctic species.



House Sparrows repeatedly robbing Common Starlings

On several dates between 7th May and 1st June 1995, in my garden in Wilmslow, Cheshire, I observed interesting behaviour by House Sparrows *Passer domesticus*. Typically, a sparrow would follow about 5 cm behind a group of Common Starlings *Sturnus vulgaris* as the latter probed for invertebrates on the lawn. When a starling extracted a food item, the sparrow would 'make a grab for it'; this was a systematic, repeated behaviour rather

than merely opportunistic, the sparrow persisting for up to three minutes until it was successful. The success rate was about one 'theft' for every four 'grabs'. Captured items were invariably taken off to the nest and presumably fed to nestlings. Although the majority of observations concerned a single female House Sparrow, a second female and a male were also involved at times.

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House Sparrows interacting with small mammals

In the back garden of our house in Bingley, West Yorkshire, a four-sided peanut-filled wire basket suspended about 1.25 m above the ground and 10 cm or so from a wall has always attracted birds. On 22nd February 1993, a Wood Mouse *Apodemus sylvaticus* emerged from a crevice in the wall on to a ledge, leapt across the gap, clung to the basket and fed. Since then, Wood Mice and, from 25th May 1995, Bank Voles *Clethrionomys glareolus* have often fed singly in this way.

On 10th June 1995, a female House Sparrow *Passer domesticus* and a Bank Vole

were feeding on opposite sides of the basket; if either moved suddenly, the other hastily retreated, this occurring on three occasions. Two days later, a Bank Vole was on the basket while half a dozen sparrows waited in a nearby bush; whenever one of the sparrows flew towards the vole, the latter fled into the wall, but it was back on the nuts within seconds. Soon afterwards, a cock sparrow was feeding on the basket when a Wood Mouse appeared on the ledge, stared at him, and made as if to attack; the sparrow hurriedly took flight.

Godfrey Priestley and Peggy Priestley

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House Sparrow learning to exploit opening of automatic doors

Throughout January 1993, at Nantes-Atlantique airport, France, I witnessed a beautiful example of understanding (or adaptation) by a male House Sparrow *Passer domesticus*. The sparrow came to eat crumbs of bread or cakes inside the cafeteria, but he needed to solve the problem of the automatic doors, which opened from time to time as one or more people passed through. The bird apparently understood the relationship between the doors opening and people passing through. Standing near the doors, he watched and entered as soon as the doors were activated, on occasion brushing against people to get past. Once inside, he fed below

and on tables. When sated, he flew to land opposite the doors and waited for them to open in order to go out.

This behaviour, acquired (not innate), lasted throughout the entire month while I was at the airport. Only this one sparrow had apparently understood how to exploit these food resources. Other House Sparrows were outside, but they did not attempt to follow the example of this ingenious individual. I think that he must have been entering the cafeteria all summer when the doors were permanently open, and in the autumn, when the doors closed, he still found a means of entering.

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Letters

Injuries caused by fish to birds' feet

I was interested to read the recent letters (*Brit. Birds* 92: 484-485) concerning possible causes of injuries to seabirds' feet. I observed a similar incident some years ago, which showed the speed at which fish can remove a bird's feet, though in this case a landbird was the victim.

While sitting on the deck of a motor launch moored off Rabida island in the Galapagos, just after dawn on 31st March 1991, I saw a Galapagos Dove *Zenaida galapagoensis* fly into the calm sea, perhaps 20 m away from the launch. It was unable to rise off the surface of the water, and sat there, floating. I went below to change into swimming trunks to go and rescue the bird, but, by the time I had got back on deck, there were clear signs that fish were active beneath it. The bird was struggling, and fish could be seen rising to the surface.

I swam to the dove, which was dead by

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the time that I arrived. I lifted it out of the water, and saw that its feet had been eaten completely away. I left it in the water and the fish quickly returned to feed. The bird's body disappeared within a few minutes. The boat crew thought that the fish involved were Concentric Puffer Fish *Sphaerides annulatus*, which were invariably present beneath the launch whenever we moored.

Although this incident involved a bird that could not rise from the water, it does demonstrate that a small bird's feet can be completely removed by relatively small fish. Admittedly, about four minutes had elapsed between the bird striking the water and my reaching it, but the possibility remains that a resting or sleeping seabird might be surprised, and lose part of its foot, or be so injured that it would lose the limb through a later infection.

Origin of inland auk records

On a glorious evening in June 1990, I was surprised to see a Razorbill *Alca torda* circling low over a large flooded gravel-pit in north Nottinghamshire. On landing, it was very nervous, but appeared to be fit and well. In the hour that followed, it left the pit several times and landed on adjacent pits, apparently uncomfortable in its surroundings. The following morning, it had returned to the original site and settled down for a two-week stay.

As the weather at the time of its arrival was hot and sunny, with no noticeable wind, I was at a loss to explain why it should appear so far (about 80 km) inland. My question was answered when I visited Spurn, East Yorkshire, the same day. As I reached a point about 16 km from the coast, I drove into a thick band of fog that, according to locals, had also been present during the previous two days and so presumably also at the time that the Razorbill became 'lost'.

The nearest breeding site of any auks on

the East Coast is at Flamborough/Bempton, and I surmised that the Razorbill had been flying south along the coast at the time. Having entered an area under the influence of a 'sea fret', or coastal fog, it had presumably passed inland over the shoreline before emerging into the sunlight. Once flying over dry land and out of sight of sea, the disorientated bird presumably continued its journey south before seeking refuge in the evening at a gravel-pit.

Watching the weather report, it was clear that the coastal fog had been present in a continuous band from Lincolnshire north to the Firth of Forth. The bird appeared fit and well with no sign of injury or oil contamination and was watched actively diving for fish each day during its long stay. It provided only the second county record in the twentieth century.

To test this theory, I checked the weather report when I received information about an inland auk during apparently excellent

weather conditions (under the influence of high-pressure systems). On 25th June 1998, a Puffin *Fratercula arctica* arrived at Rutland Water, Rutland, and, on 28th July 1999, a Common Guillemot *Uria aalge* took refuge on a Cambridgeshire river. Both birds arrived in fine weather and were apparently fit and well, but, at the times of their arrival, coastal fog extended from at least the Humber north to the Scottish border. I suggest that any inland seabird arriving during windless, hot

summer months may have become disorientated by coastal fog at its first point of crossing land. The timing and weather conditions mentioned also fitted well with the fly-through of a Fulmar *Fulmarus glacialis* at the same Nottinghamshire gravel-pit, so similar conditions may presumably affect shearwaters and petrels in a similar manner. Clearly, not all inland occurrences of seabirds are the result of gales and storms.

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EDITORIAL COMMENT

Low-flying species, such as auks, will clearly be at a disadvantage when there is coastal fog. Perhaps the initial parts of their unintentional inland journeys may be in wide estuaries?

Farms: for birds or for food?

I fear that Robin Chittenden (*Brit. Birds* 93: 150) missed the real point, which is that the higher populations from which 'farmland birds' are currently declining could not have been achieved without Man's usage of the environment. Thus, if Sky Larks *Alauda arvensis* are in decline because of the switch from spring-sown to winter-sown wheat, it follows that spring-sown wheat was beneficial. Man has cultivated wheat for millennia, so the current concern about population declines needs careful evaluation.

In recent radio and television interviews and in newspaper articles, spokesmen for several well-known bird-conservation and wildlife-conservation organisations have sug-

gested that farmers ought to discontinue autumn cultivation and sowing, and revert to spring cultivation and sowing, in order (1) to increase the feeding opportunities for larks, finches, buntings and sparrows in winter, and (2) to improve the suitability of the fields for ground-nesting birds in spring. This might well reverse the downward trend in numbers of 'farmland birds'. Surely, however, the purpose of farms is to produce food for the human population? If farmers need to be persuaded to readopt an old, less-efficient agricultural practice, for which they will doubtless (and rightly) require compensation, who is going to pay? In any case, is it sensible to try to 'put the clock back'?

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Concern regarding agricultural change

I wonder if any of our Neolithic ancestors suggested that removing the trees, and then grazing the area with sheep, degraded and sterilised the chalk hills (because it probably

did, for decades, if not centuries)? Now, we seem to be concerned that the lack of grazing is letting the scrub back in. Well! Well!

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Reviews

HANDBOOK OF THE BIRDS OF THE WORLD. VOL. 5. BARN-OWLS TO HUMMINGBIRDS

Edited by Josep del Hoyo, Andrew Elliott & Jordi Sargatal.

Lynx Edicions, Barcelona, 1999. 759 pages; 76 colour plates; numerous photographs; box features; 736 species accounts with maps. ISBN 84-87334-25-3. Hardback, £110.00.

In praising earlier volumes of this astonishing tour de force, *HBW* reviewers have practically exhausted the lexicon of superlatives. This volume is of exactly the same very high standard, which can hardly be improved upon. A true handbook, it is a weighty, handsome, magnificently illustrated, authoritative, comprehensive, up-to-date compilation of biological information concerning one-twelfth of the World's birds: the barn-owls, strigid owls, nightjars, swifts, hummingbirds and their bizarre and lesser-known relatives. Each

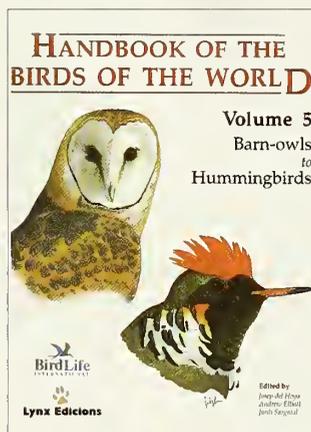
species account is complete, with a colour map of World range, taxonomic and descriptive notes, a list of subspecies, mini-essays on habitat, foraging, breeding and movements, a responsible statement on status and conservation, and an ample bibliography. All species and many subspecies are portrayed in the delightful and informative plates, by 19 renowned artists who have somehow been persuaded to paint in similar styles.

The orders embrace ten families, each starting with a lengthy and scholarly but easy-to-read essay, generously illustrated with

new and stunning colour photographs, with well-researched discussion of systematics, morphology, habitat, habits, voice, food and feeding, breeding, movements, relationship with Man, and status and conservation. Some essays summarise what follows in the species accounts, and others go much farther: the hummingbird and owl family essays amount to 175 pages. You will be enthralled to read them and delighted by the photographs depicting the weird and wonderful lives of oilbirds, frogmouths, potoos, owlet-nightjars and tree-swifts (to titillate you with some of the less familiar family names). Wonderful birds!

Pervading the entire work is the conservation message, so ably spelled out by Nigel Collar in his 16-page Foreword to this volume, which should be compulsory reading for all of the World's politicians, developers and consumers - i.e. all of us - for it tells what will be the shape of life on Earth before we have moved very far into this new millennium.

C. H. Fry



A FIELD GUIDE TO THE RAPTORS OF EUROPE, THE MIDDLE EAST AND NORTH AFRICA

By William S. Clark, with illustrations by N. John Schmitt.

Oxford University Press, Oxford, 1999. 371 pages;

48 colour plates and 193 colour photographs.

ISBN 0-19-854661-0. Paperback, £25.00.

This field guide covers all Western Palearctic diurnal raptors, including vagrants: 54 species in total. The bulk of the book is taken up with 48 high-quality plates and a separate section of species accounts averaging four to five pages per species. The distribution maps are clear and up to date and

descriptions of plumage are reasonably thorough, but little space is devoted to flight characteristics, despite their importance in the identification of many raptors. An appendix includes three to seven photographs of each species, most taken by the author, and not all of the highest quality.

Whilst this is undoubtedly an attractive and well-produced book, it is unclear at whom it is aimed. For those without a special interest in raptors, both the *Collins Bird Guide* (1999) and *The Handbook of Bird Identification* (1998) cover most West Palearctic species well and include illustrations that, to my eye, are as good as, if not better than, those in this volume. For raptor enthusiasts looking for more detailed information, Dick Forsman's *The Raptors of Europe and the Middle East* (1999) has a more comprehensive text and a far superior collection of photographs.

Ian Carter

BIRDLIFE IN OMAN

By Hanne Eriksen & Jens Eriksen.
Al Roya Publishing, Muscat, 1999.
99 pages; map; over 150 coloured
plates. Hardback, £19.95.

should be enough to prompt anybody interested in bird photography and birds of the Middle East to rush to obtain this attractive book.

As well as a really breathtaking portfolio of truly outstanding photographs, there is a brief text on all the regions of Oman and their habitats. A map shows how to get around this large and relatively undiscovered country. It is, however, the photographs that make it almost impossible to put the book down. It is hard to pick out

favourites, but the Common Greenshank *Tringa nebularia* attempting to devour an Arabian Toad *Bufo arabicus* (cf. *Brit. Birds* 91: plate 74) is stunning. Others depict rarely photographed species such as Great Knot *Calidris tenuirostris*, Collared Kingfisher

Todirhamphus chloris and Sooty Gull *Larus bembriichii*. Crab-plover *Dromas ardeola* is still not on my list, so its stunning image reminds me to get back to the Middle East soon.

The United Arab Emirates, and even Yemen, have long been popular with birders from Europe, but I can recommend Oman as an extension to those countries. Ecotourism is being encouraged, and access and facilities are excellent. There are many bird secrets still to be unlocked, and, should you go, you will find this wonderful book an ideal companion.

Derek Moore



To anyone who follows the coveted *British Birds* Bird Photograph of the Year award, the Eriksens will be no strangers. They have won four times in the last decade. This

ROTHIEMURCHUS:
NATURE AND PEOPLE ON
A HIGHLAND ESTATE
1500-2000

Edited by T. Chris Smout
& Robert A. Lambert.
Scottish Cultural Press,
Dalkeith, 1999. 150 pages;
black-and-white
photographs and line-
drawings.
ISBN 1-84017-033-6.
Paperback, £9.99.

This book presents a series of papers that describe, in piece-meal fashion, the human and natural history of the famous Rothiemurchus estate. Of most interest are perhaps the accounts of the long-term management of the estate's woodlands and their remaining biodiversity. Broader issues of tourism and land ownership are also tackled.

Martin Collinson

ALSO RECEIVED

*The Origin and
Evolution of Birds*

By Alan Feduccia. (Yale University Press, London. 466 pages. ISBN 0-300-07861-7. Hardback £45.00, Paperback £17.95) (First edition reviewed *Brit. Birds* 90: 251.)

WHERE TO WATCH BIRDS
IN SWITZERLAND

By Marco Sacchi, Peter Rugg & Jacques Laesser;
translated by
Michael Wilson.
A & C Black, London, 1999.
192 pages; 79 black-and-
white photographs
and maps.
ISBN 0-7136-5183-0.
Paperback, £14.99.

This guide covers 45 sites with, for each one, a brief general introduction, followed by information under a number of headings: Recommended routes (walks of up to 15 km), Calendar, Useful tips, Access, Accommoda-

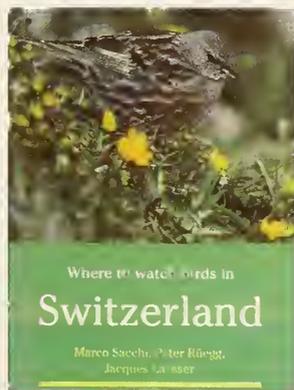
tion, Site protection, Disabled access, and Nearby sites. The site accounts are enhanced by clear maps and some excellent black-and-white habitat photographs.

A factor in the authors' choice of sites was their accessibility by public transport (Switzerland has 'the densest and most efficient public transport system in the world'). Although such guides are not designed to be read from cover to cover, I still found the repetition for virtually every site of the problems of disturbance rather patronising. For anyone unfamiliar with the country, the lack of a site index is regrettable, though there is a useful checklist of the birds of Switzerland.

Not one of the best of its genre, this book may not appeal

much to those birders used to doing their own research when planning a trip. It would, however, be useful for someone with a more general interest who is visiting Switzerland.

Ian Dawson



ATLAS DAS AVES
INVERNANTES DO
BAIXO ALENTEJO

By Goncalo L. Elias, Luis M. Reino, Tiago Silva, Ricardo Tome & Pedro Geraldès.
Sociedade Portuguesa Para o Estudo das Aves, Lisbon, 1999.
416 pages; 173 illustrations;
173 maps; numerous tables and graphs.
Paperback, £28.99.

This wintering bird atlas covers approximately one-sixth of Portugal: the horizontal band immediately north of the Algarve and south of Estremadura and the Alto Alentejo. This region is characterised by a low density of human population (17 per km²), but a diversity of habitats, with coastal lagoons, scattered lakes, thickets with strawberry trees and oleander, cork-oak groves and forests, sandy heaths and dunes with pines, olive planta-

tions, vineyards, almond orchards, and rice fields.

This is a standard-format distribution atlas, but, for the average *British Birds* reader, this one stands out, since the Portuguese text is complemented by extensive and excellent English translations (condensed to about one-third of the length of the original, but providing everything which an English-speaking reader would need).

Each species receives double-page spread treatment, the attractive maps (with blue dots) occupying one-third of a page, a black-and-white illustration another one-third, with a page of Portuguese text, and one-third of a page of English translations.

The British visitor would surely appreciate Cattle Egrets *Bubulcus ibis*, Wood Larks *Lullula arborea*, Zitting Cisticolas *Cisticola juncidis* and Sardinian Warblers *Sylvia melanocephala* in almost every square,

and a good scattering of Black-shouldered Kites *Elanus caeruleus*, Little Bustards *Tetrax tetrax* and Calandra Larks *Melanocorypha calandra*.

An example of the interest that this atlas would provide for British readers can be shown by a quote: 'The Iberian Chiffchaff *Phylloscopus brehmii* is a common breeder throughout Portugal showing an apparent preference for the western and southern parts of the country. During the winter the species commonly detected is the Common Chiffchaff *Phylloscopus collybita*. ... Sadly the fate awaiting many Common Chiffchaffs migrating to southern Portugal is to be trapped for human consumption, together with countless thousands of other songbirds. The impact of such mortality on the status of breeding populations is currently unknown.'

J. T. R. Sbarrock

SCOTLAND'S NATURE IN
TRUST: THE NATIONAL
TRUST FOR SCOTLAND
AND ITS WILDLIFE AND
CROFTING MANAGEMENT

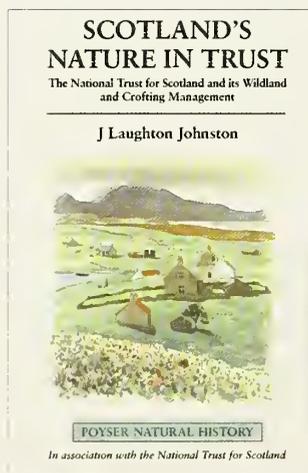
By J. Laughton Johnston.
T. & A. D. Poyser Ltd,
London, 1999, 266 pages;
11 maps; 70 colour
photographs and numerous
black-and-white
illustrations.
ISBN 0-85661-122-0.
Hardback, £27.95.

In his preface, the author notes that 'The average Scottish citizen probably perceives the [National Trust for Scotland] as a rather old-fashioned body influenced by landowning interests and supported by middle-class people, which looks after Victorian and older grand estate houses, their gardens and estates.' This is certainly true, so it is with some surprise that we learn that the NTS

owns twice as much land in Scotland as does the RSPB, including 31,000 ha of SSSIs. This book attempts both to showcase and to criticise aspects of the Trust's holistic approach to land management in some of Scotland's most valuable wildlife areas, and does so successfully (albeit in a conversational style liberally punctuated with excla-

mation marks, which might not appeal to every reader). The colour photographs are splendid, and the illustrations by John Busby are, of course, delightful, although some of them have been clumsily reproduced. This is an honest and competent appraisal of some aspects of the Trust's work, but I am not sure who 'needs' this book. It is full of interesting information, and is certainly worth reading, but my advice is to give it a thorough perusal in the bookshop before deciding whether to buy.

Martin Collinson



ENGLISH COUNTRY DAWN

New World Music, Suffolk,
1999. 56 minutes.
7677-1-50232-2-8 CD.

Evocative sounds, in the same series as *Irish Birdsong* (reviewed *Brit Birds* 93:103).

J. T. R. Sbarrock



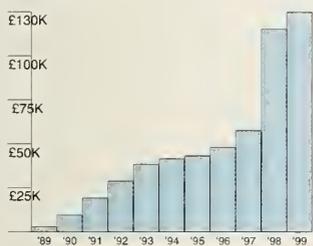
News and comment

Compiled by Bob Scott and Wendy Dickson

Bird Fair 2000

This summer's British Bird-watching Fair at Rutland Water will take place from Friday 18th to Sunday 20th August (put it in your diary now).

Last year's Fair raised the record sum of £130,000 for conservation projects associated with the coastal forests in Brazil, a country which holds nearly 10% of the World's globally threatened species. The success of this Fair, initiated 11 years ago by Tim Appleton and Martin Davies, has been extraordinary, with the amount of money raised for conservation increasing every single year:



The profits from this year's Fair will, for the first time, not be targeted on conservation in one country, but will be devoted to seabird conservation. This will help to draw attention to the facts, as stated by Dr Colin Bibby during the preview of this year's Fair, that whereas one-eighth of the World's landbirds are globally threatened, one-third of the World's seabirds are in that category. Albatrosses are especially vulnerable, and Robert Gillmor's design for posters and leaflets promoting this year's Fair shows a Wandering Albatross *Diomedea exulans*.

Shearwaters on the web

If you want to know all about the Balearic Shearwater *Puffinus mauretanicus*, try logging on to <http://www.life-puffinus.org>

Rats on Ramsey

Some time in the nineteenth century, a shipwreck occurred on the south coast of Ramsey Island, Pembrokeshire, and the fleeing Common Rats *Rattus norvegicus* started a colony that has been present on the island ever since. Over a period of time, they seriously threatened many of the ground-nesting birds, including Manx Shearwater *Puffinus puffinus*. After a slightly chequered history as a nature reserve (compared with the other Welsh islands), Ramsey was eventually purchased by the RSPB in 1992, with the intention of conserving the rather depleted seabird colonies and, coincidentally, one of the few significant populations of Northern Lapwing *Vanellus vanellus* in Wales.

The RSPB unfortunately inherited, in addition to the rats, populations of feral domestic Cats *Felis sylvestris* and Red Deer *Cervus elaphus*.

A recent management technique has been to plant cereal patches on the island farm, with the intention of providing an increased amount of food for birds. Unfortunately, this has been much to the liking of the rats, and they now pose a serious threat to the island's birdlife.

Working with Sorex Ltd, a rodenticide specialist, the RSPB is using a second-generation anticoagulant rat bait at some 1,000 bait-stations throughout the island. The entire programme is being carefully monitored, with Sorex offering guidance and advice.

Further information is available from Sorex Ltd (tel: 0151-420-7151) or the RSPB's Pembrokeshire Warden, Tegfan, Caerbwddi, St David's, Pembrokeshire SA62 6QP.

Birds of Crete 1998

Of the Mediterranean islands, Crete attracts less attention than some of the more high-profile sites such as Cyprus or Lesvos. Denis Townsend has now compiled the 1998 report for the island, which he states may be his last, but he considers ornithology on Crete to be in good hands. In addition to the visiting birdwatchers who have supplied their records, there is now a small handful of resident observers, including Michaelis Dretakis, who is undertaking a PhD on the breeding birds of the island. He is also looking closely at some of the geographical races that occur on Crete.

For further information, contact Stephanie Coghlan, 25 Thorpe Lane, Huddersfield HD5 8TA.

Ringed Ring Ouzels

Birders across the UK are asked to look closely at Ring Ouzels *Turdus torquatus* this spring and summer, as part of an effort to discover more about this declining upland bird. Ring Ouzels in England and Scotland have been colour-ringed during the last two years, and bird-watchers are asked to report any sightings during migration, the breeding season and, particularly, in late summer, since almost nothing is known about where Ring Ouzels spend the eight weeks before southward migration. Colour combination, location (six-figure grid-reference if possible) and date for each sighting should be sent to the Ring Ouzel Study Group, c/o Julian Hughes, RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL; or e-mail: ringouzel@hotmail.com

Manx Bird Atlas and stamps

In 1998, the Manx Bird Atlas Project began an ambitious programme to survey the 671 1-km squares on the Isle of Man, to establish the distribution and abundance of breeding, wintering and migrant species. Using a combination of species counts, line-transects, point-surveys, timed visits and regular monitoring of key sites, the surveys will continue for five years and involve large numbers of islanders, including some 510 participants in the Garden Bird-watch Scheme and over 200 people in wider field surveys. Considerable support has come from the Manx Government, and visits and talks to schools throughout the island have linked the project to the National Curriculum.

To highlight the work of the Atlas, the Isle of Man Post Office is producing (on 5th May 2000) a set of four new WWF stamps titled 'Song Birds of Man' and featuring Barn Swallow *Hirundo rustica* (22p), Spotted Flycatcher *Muscicapa striata* (26p), Sky Lark *Alauda arvensis* (64p) and Yellowhammer *Emberiza citrinella* (77p). The colour samples in advance of production show some very attractive stamps, but it must be said that the quality of the artwork is not so accurate as we have come to expect of stamps from the Isle of Man. Further details may be obtained from Philatelic Bureau, Post Office Headquarters, PO Box 10M, Spring Valley Industrial Estate, Douglas, Isle of Man IM99 1PB.

They have got a clue

We recently spotted this clue in a crossword puzzle: 'Smart move by a tow-headed charmer' (6). Crossword-puzzle aficionados will realise that the answer is TWITCH.

The RSPB's 25 years in the Yare Valley

In 1975, the RSPB signed its first lease in the Yare Valley, Norfolk, at Strumpshaw Fen, and began a programme that, over the next 25 years, saw an initial purchase of 28 ha expand to the present reserve covering 803 ha.

Highlights over the 25 years have included isolating Strumpshaw Broad from the polluted River Yare in 1978; Marsh Harriers *Circus aeruginosus* breeding for the first time in the twentieth century in 1980; the first Swallowtail *Papilio machaon* caterpillars found in 1985; the last Coypu *Myocastor coypus* in 1986; the highest-ever count of Bean Geese *Anser fabalis* (475) in 1991; the start of EU-funded management for the Great Bittern *Botaurus stellaris* in 1996; Otters *Lutra lutra* re-established on the reserve and Avocets *Recurvirostra avosetta* nesting for the first time in 1997; breeding waders, including Northern Lapwing *Vanellus vanellus*, Common Redshank *Tringa totanus*, Oystercatcher *Haematopus ostralegus* and Common Snipe *Gallinago gallinago*, topping 150 pairs and a record six nests of Marsh Harriers in 1998; and the first summering Great Bittern since 1992 in 1999.

The reserve's diversity of habitat and associated wildlife resulted in its declaration as a National Nature Reserve in 1997.

For further information and instructions for visitors, contact RSPB, Stalham House, 65 Thorpe Road, Norwich NR1 1UD.

Mediterranean Gull meeting

Until the late 1970s, the breeding range of the Mediterranean Gull *Larus melanocephalus* was virtually confined to Ukraine and Greece, with very small numbers elsewhere. The 1980s and 1990s saw some notable range extensions into southern, central and western Europe, with the population in these new areas soaring to over 3,000 pairs. The colonisation and spread attracted attention and colour-ringing programmes were initiated in 12 European countries.

This growth in interest and research led to the holding, in September 1998, of the First International Mediterranean Gull Meeting, at Le Portel, northwest France: a highly suitable venue, as this is probably the key hotspot for Mediterranean Gull observation in western Europe. The meeting attracted delegates from 14 countries. The Proceedings of this first meeting contain 25 papers (most in English) documenting the current knowledge on population levels, distribution and migration, and can be ordered (25 Euro, incl. p&p, by Eurocheque or International Money Order) from Werkgroep Melano, Lisztlaan 5, +384 KM Vlissingen, The Netherlands.

London's Mayor

You may or may not be a resident of the capital and eligible to vote in the forthcoming mayoral elections. One thing is certain, however: you must be aware that the pace of the election is hotting up and that the procedures surrounding the selection of the candidates have been chaotic. Potentially, the new Mayor will be a powerful figure, and amongst his or her responsibilities will be the London environment and its biodiversity, which should have equal status with the other aspects of the city's management. Let us hope that, whoever is elected, the new Mayor has the will and the ability to approach nature conservation in a more sensible manner than that applied to the selection process.

Recorder's change of address

West Midland Bird Club Recorder, Tim Hextell, has moved to 39 Windermere Road, Handsworth, Birmingham B21 9RQ; tel: 0121 551997.

The Birds Directive

In 1979, the European Union adopted the 'Wild Birds Directive', which became a major milestone in European nature conservation and provided a legal framework for bird protection throughout the Union. We have mentioned the 'Directive' on many occasions in this column, sometimes to praise its workings and sometimes to point out where member states have been ignoring it (the recent situation regarding hunting in France being a prime example).

A highly readable summary of the present position, 20 years after its adoption, is in *Wings* (no.15, winter 1999), the quarterly magazine of BirdWatch Ireland, 8 Longford Place, Monkstown, Co. Dublin.

Alternatively, you can visit the homepage of the Environment Directorate of the European Commission at: <http://europa.eu.int/comm/dg11/nature/home.htm>

'The Wild Bird Photographer of the Year'

More than £4,000 is available in prizes in a new competition, run by *Bird Watching* magazine, with the photographic retailer Jessops as the main sponsor. Entry forms for the contest are available at all the company's larger branches and in the March and April issues of the magazine. The closing date for entries is 28th April 2000. Prizes will be awarded for the best portfolio of three images showing different aspects of the entrant's work (e.g. a bird portrait, an action shot, a group of birds, an aspect of bird behaviour, or an abstracted image).

The judges will include David Cottridge, Mike Wilkes, David Cromack, and *Digital Photo FX* Editor Peter Bargh. The four main sections will be (1) conventional images by professional and semi-professional photographers; (2) conventional images by amateur photographers; (3) an under-21 award; and (4) a digital-image award.

For full details, obtain an entry form or write to *Bird Watching*, Apex House, Oundle Road, Peterborough PE2 9NP.

Drink to the Caper

Vinícola Hidalgo y Cía. S.A. - sponsors of our annual Christmas puzzle - has bottled, for a second year, its 'Palo Cortado Viejo', a sherry 'of truly outstanding quality and great age', originating from the turn of the nineteenth/twentieth centuries, and previously reserved for private use by the Hidalgo family. The label, which will be used only for this bottling, depicts a Capercaillie *Tetrao urogallus*, and each one is individually numbered (only 1,200 bottles are available).

In its press release, *Vinícola Hidalgo* says: 'the Capercaillie once abounded throughout many of Europe's forests, but now, with a devastating combination of habitat loss and disturbance by Man, this beautiful bird is now restricted to just the more remote corners of Europe such as the Scottish Highlands, the Pyrenees and the mountains of Asturias in Spain.

The conservation campaign launched by SEO-BirdLife International hopes to protect these last populations from further depletion by preserving the habitat and protecting them from any disturbance.

'*Vinícola Hidalgo* has taken the initiative to dedicate the profits from the sale of this wine towards the Capercaillie Conservation Campaign.' For more information, contact Timothy Holt, *Vinícola Hidalgo y Cía. S.A.*; tel. + 34 956 360516; fax. + 34 956 363844; e-mail: vinicolahidalgo@vinicola-hidalgo.es

Why swamp-ben?

Several correspondents have asked why *Porphyrio porphyrio* is called Purple Swamp-hen rather than Purple Swamphen.

The marvellous Cambridge University Press (now in Penguin) guide to punctuation, *Mind the Stop* by G. V. Carey, explains the evolution over the course of time from two words to a hyphenated word to a single word (e.g. boat man to boat-man to boatman), but comments that 'What we decide to do about hyphens in these compound words does not matter very much so long as we use a reasonable amount of commonsense (or common-sense?); G. V. Carey goes on, however, to draw attention to words such as public-house, which, if the hyphen is dropped, becomes publichouse, in relation to which he comments: 'I for one can never read this horrid word without wanting to run the "ch" together, as in "artichoke". If the compounding of two words into one is...displeasing or confusing to the eye, I submit that they should be left hyphenated for good and all.'

Since 'ph' is pronounced as 'f' in English, and it is not a Purple Swamphen, we need to retain the hyphen in Swamp-hen. (JTRS)

New Recorders

David J. Kelly, 149 High Street, Prestonpans, East Lothian EH32 9AX, has replaced Ian Andrews as Recorder for Lothian.

Andy Thorpe, 30 Monearn Gardens, Milltimber, Aberdeen AB13 0EA, has replaced Andy Webb as Recorder for Northeast Scotland.

Andrew Self, 16 Harp Island Close, Neasden, London NW10 0DE, has replaced Andrew Moon as Recorder for the London Area - the area within a 20-mile (32-km) radius of St Paul's Cathedral.



Monthly Marathon

February's mystery bird (plate 71, repeated here as plate 116) is clearly a medium-sized leaf-warbler *Phylloscopus*. There are no obvious wing-bars or tertial tips, and apparently no central crown stripe, so we can immediately rule out a number of species. Its bill and primary projection both appear short, while the most prominent plumage feature is the strong contrast between the rather 'cold', plain, greyish upperparts and the prominent, brighter, green fringes to the flight feathers (and possibly also the tail). At least the sides of the rump also have a brighter greenish hue. Any thoughts of either Western Bonelli's *P. bouellii* or Eastern Bonelli's Warbler *P. orientalis* are readily dispelled by the bird's strong facial pattern, not least its bold supercilium and apparently incomplete eye-ring.

The bird is a chiffchaff. But which one? We now have Common Chiffchaff *P. collybita*, Iberian Chiffchaff *P. brebimii*, Canary Islands Chiffchaff *P. cauariensis* and Mountain Chiffchaff *P. sindianus* to choose from. We are on difficult ground here: all are very similar and are often safely separated only by



G. P. Catley

116. Common Chiffchaff *Phylloscopus collybita*, probably of the Siberian form *tristis*, Lincolnshire, March 1989.

their voice or in the hand (see Peter Clement & Andreas Helbig, *Brit. Birds* 91: 361-376). The mystery bird's underparts do, however, apparently lack any yellow tones, and both the ear-coverts and the supercilium are clearly buff, again with no obvious yellow. Our bird is clearly not the familiar West European *P. c. collybita*, nor the essentially similar Iberian Chiffchaff. Canary Islands Chiffchaff is similar to nominate *collybita*, but is often darker above and with a brownish hue at least to the flanks. Mountain Chiffchaff fits our mystery bird better, although many are even colder above. The photograph's background could easily portray a British east coast location in late autumn or

winter, and this provides a small clue. The mystery bird is indeed a Common Chiffchaff, probably of the Siberian form *P. c. tristis*, photographed by Graham P. Catley in Lincolnshire in March 1989.

Monthly Marathon can be won only by those with sufficient skill, but, as with all games and sports, a touch of luck is also needed at times. If you opted for Mountain Chiffchaff, you were wrong, but you do have our sympathy.

Entrants' answers were Common Chiffchaff (69%), Booted Warbler *Hippolais caligata* (19%), Eastern Bonelli's Warbler (5%), Western Bonelli's Warbler (4%) and Mountain Chiffchaff (3%).

The leading competitors all got this one right, so Nick Barlow (Coventry), Diederik Kok (Netherlands) and Peter Sunesen (Denmark) have all now achieved sequences of 11 consecutive correct answers. The competition will continue until two of them drop out, leaving one clear winner. (If all three fail at some stage, the Marathon will continue until there is an outright winner with at least ten in a row.)

Paul Holt



117. 'Monthly Marathon'. Photo no. 165. Thirteenth stage in eleventh 'Marathon' (or first or second stage in twelfth 'Marathon'). Identify the species. Read the rules (see page 54), then send your answer on a postcard to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th May 2000.

For a free brochure, write to SUNBIRD (MM), PO Box 76, Sandy, Bedfordshire SG19 1DF; or telephone 01767 682969.



Recent reports

Compiled by Barry Nightingale and Anthony McGeehan

This summary of unchecked reports covers the period 14th February to 12th March 2000.

Cattle Egret *Bubulcus ibis* Long-stayer in Lancashire, until 9th March. **Glossy Ibis** *Plegadis falcinellus* Rossbeag (Co. Kerry), 13th February. **Red-breasted Goose** *Branta ruficollis* Long-stayer in Norfolk, until 12th March. **Black Duck** *Anas rubripes* Long-stayers in Highland, until at least 16th February; in Cornwall, until 19th February; and Beesands Ley/Slapton Ley (Devon), 27th February and 6th March. **Blue-winged Teal** *Anas discors* Long-stayer in Kent, until 4th March. **Canvasback** *Aythya valisineria* Long-stayer in Kent, until 17th February. **Lesser Scaup** *Aythya affinis* Long-stayer in Cornwall, until 12th March. **King Eider** *Somateria spectabilis* Long-stayer in Cornwall, until 12th March. **White-tailed Eagle** *Haliaeetus albicilla* Long-stayers in Suffolk, until 19th February; in Norfolk, until 12th March; and Orford (Suffolk), 23rd February. **Booted Eagle** *Hieraetus pennatus* Long-stayer in Somerset and Devon, until at least 12th March. **Gyr Falcon** *Falco rusticolus* Long-stayer in Shetland, Western Isles, and Orkney (all the same bird?); Goonhilly Down (Cornwall), 3rd March; Lamorna (Cornwall), 4th March; Carn Gloose/Cape Cornwall area (Cornwall), 5th-10th March; Poul-nasherry Bay (Co. Clare), 4th-5th March. **Sora Crane** *Porzana carolina* Long-stayer in Devon, until 12th March. **Common Crane** *Grus grus* Two, Killorglin (Co. Kerry), 12th March. **Laughing Gull** *Larus atricilla* Dungeness (Kent), 7th and 12th March. **Franklin's Gull** *Larus pipixcan* Radipole/Weymouth Bay area (Dorset), until 2nd March. **Bona-parté's Gull** *Larus philadelphia* Drift Reservoir (Cornwall), 11th-

12th March. **Iceland Gull** *Larus glaucooides* Large numbers in early March: 60 Poul-nasherry Bay, 35 Derry City Dump (Co. Londonderry), 25 Killybegs (Co. Donegal), and 30 Kilcummin (Co. Mayo). 'Kumlien's Gull' *L. g.*

kumlieni Approximately ten reported, Ireland. **Ross's Gull** *Rhodostethia rosea* Ullapool (Highland), 17th February; Nimmo's Pier (Co. Galway), January to at least 11th March; Poul-nasherry Bay, 28th-29th Feb-



Mike Malpass

119 & 120. 'Kumlien's Gull' *Larus glaucooides kumlieni*, Whitby Harbour, North Yorkshire, January 2000.



Mike Malpass

George Reszeter



121 & 122. Gyr Falcon *Falco rusticolus*, St Just, Cornwall, March 2000.

George Reszeter



ruary. **Forster's Tern** *Sterna forsteri* Long-stayer in Essex, until 12th March. **Common Stonechat** *Saxicola torquata* Small influx in East Anglia, with up to 25 in Blows Downs area (Bedfordshire), end February/early March; ten at Holme (Norfolk), 2nd March; 12 at Galley Hill, Luton (Bedfordshire), 5th March. **Yellow-browed Warbler** *Phylloscopus inornatus* Helston sewage-works (Cornwall), 4th-12th March. **European Serin** *Serinus serinus* Trewellard (Cornwall), 6th-8th March.



George Reszeter

123. Common Chiffchaff *Phylloscopus collybita* of the Siberian race *tristis*, Lower Moor sewage-works, Pershore, Worcestershire, February 2000.



Mike Malpass

124. Franklin's Gull *Larus pipixcan*, Cheddar Reservoir, Somerset, March 2000.



George Reszeter

125. Lesser Scaup *Aythya affinis*, Drift Reservoir, Cornwall, March 2000.



Giary Bellingham

126. Iceland Gull *Larus glaucooides*, Nimmo's Pier, Co. Galway, Ireland, February 2000.

Mike McDonnell



127. Above, Meadow Bunting *Emberiza cioides*, Hunstanton, Norfolk, February 2000.

Gary Bellingham



128. Left, Ross's Gull *Rhodostethia rosea*, Nimmo's Pier, Co. Galway, Ireland, February 2000.

129. Below left, Snow Bunting *Plectrophenax nivalis*, Llanddulas, Denbighshire, February 2000.

130. Below right, Little Bunting *Emberiza pusilla*, Shepley, West Yorkshire, February 2000.

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Wintering Slavonian Grebes in coastal waters of Britain and Ireland

Richard J. Evans

Dan Powell



ABSTRACT Counts of wintering Slavonian Grebes *Podiceps auritus* around the coasts of Britain and Ireland were collated from county bird reports for the period 1986/87-1992/93. Mean peak values were calculated for the midwinter period for each site, and these were summed in turn to give county and country population estimates. The population wintering in coastal waters was estimated to be 648 individuals in Britain and 55 in Ireland. Making allowance for small numbers wintering on inland waters, the total wintering population was estimated to be 725-730 for Britain & Ireland, 50% higher than the estimate in the *Winter Atlas* (Chandler 1986). More than half of the wintering population was found at the top ten sites. Legal protection, at least in the UK, of the most important wintering sites is inadequate under the existing legislative framework.

From the results of the *Winter Atlas* project, Chandler (1986) estimated the wintering population of Slavonian Grebes *Podiceps auritus* at around 400 for Britain and 30-40 for Ireland, and considered that the estimate of 670 quoted by Prater (1981) was too high. It was clear from studies by the RSPB in the Moray Firth (Evans 1998), largely during several winters

following the *Winter Atlas* fieldwork, that some important locations for Slavonian Grebes had not been mapped, or that numbers had possibly increased in the ten winters following *Atlas* fieldwork. Detailed surveys elsewhere (e.g. Christer 1989) suggested that numbers at other locations may have been underestimated.

Accurate population estimates for win-

tering waterfowl are essential in assessing the importance of individual sites for site-safeguard and statutory designations. Ten years after the *Winter Atlas*, a review of the status of wintering Slavonian Grebes in Britain and Ireland seemed appropriate. This review was given extra impetus following a marked decline in the small Scottish breeding population in 1994 (RSPB unpublished data). If the Scottish breeding birds were wintering locally, factors affecting wintering birds off the British coast would be having an effect on the size of the British breeding population.

Methods

Divers *Gavia* and 'rare' grebes were not systematically covered by national waterfowl-monitoring schemes up to 1992/93 (National Wildfowl Counts/Birds of Estuaries Enquiry, now combined as the Wetland Bird Survey). Reliable counts of seaducks, divers and grebes are difficult to come by through the national scheme, because of its reliance on preset dates and because of the requirement for good weather and calm sea conditions for counts of gatherings of these birds to be accurate. These do not always coincide, and counts of seaducks, divers and grebes are reliable only when census dates are chosen for their good conditions (Kirby *et al.* 1993).

The numbers of Slavonian Grebes wintering at given localities were determined from a review of published literature.

Primary sources were county and country bird reports, supplemented by reports on site-specific surveys where available (e.g. Christer 1989; Evans 1998). Slavonian Grebes are sufficiently scarce and interesting for birdwatchers usually to count them at individual sites (which are often regular and highly specific for Slavonian Grebe: pers. obs.). A high proportion of precise counts tend to be included in county bird reports, but are summarised to varying degrees. It was, however, usually possible to obtain winter counts for the main sites, at least for areas with reasonable observer coverage.

An attempt was made to collate counts for each location for each winter month from September to April for the period 1986/87-1992/93, although data were not found for many months and sites. In Ireland and parts of Scotland, many areas appeared to have had irregular coverage, so data from 1980 to 1992/93 were used in the collation for these areas with lower coverage, so as to avoid important sites being overlooked. Pre-1986/87 data were, however, not included in the calculation of site means.

Preliminary examination of the data suggested that some localities were more important in early and late winter, presumably because these sites were used by Slavonian Grebes on migration. Calculation of the national population estimates was therefore based on the birds' midwinter distribution, when numbers at individual sites were



Robin Chittenden

131. Adult winter-plumaged Slavonian Grebe *Podiceps auritus*, Norfolk, January 1991.

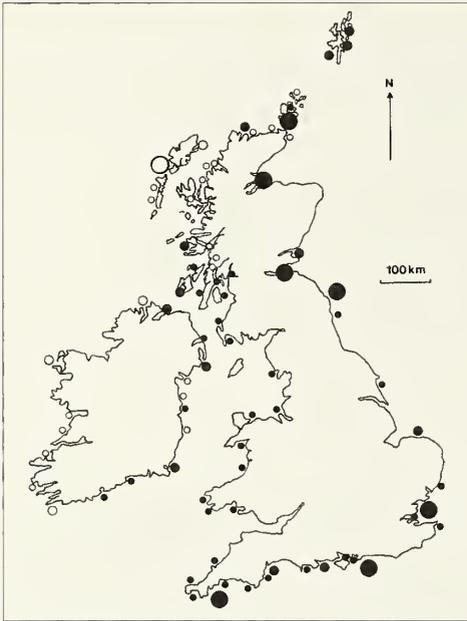


Fig. 1. Principal wintering sites of Slavonian Grebe *Podiceps auritus* in Britain and Ireland. Small dots: up to 9 birds; medium dots: 10-25 birds; large dots: more than 25 birds. Hollow symbols indicate sites from which recent data are lacking.

assumed to be stable. The period December to February was chosen, rather than a single month, in order to allow for varying levels of coverage and the effects of weather. The highest count was taken for each site in this three-month period in each winter. The highest counts were regarded as more realistic estimates of the numbers using a site than an average of all counts would be, because of the particular problems in counting small grebes (see below).

The importance of wintering waterfowl sites is conventionally assessed using mean peak values. In order to check for any effects of skewing in favour of either very high or very low counts, it was decided also to calculate median midwinter peak values for each site. Both mean and median values were summed to give county and country totals in turn. The differences between mean and median values were negligible, so mean values alone were used to describe population levels. Mean peak values were also calculated for September to April, to identify sites the importance of which might be greater outwith the midwinter period.

In the cases of Highland Region

(excluding the Moray Firth), the Western Isles and Orkney, data from county bird reports were insufficient to calculate the population sizes. The estimate for Orkney was derived, therefore, from the survey of Scapa Flow (Christer 1989) and an interpretation of information given in bird reports for the rest of the archipelago. Estimates for Highland Region and the Western Isles were based on a combination of bird-report data, personal observations and data in Webb *et al.* (1990).

Results

The totals of county means were 648 for Britain and 55 for Ireland. Mean and maximum values for December to February and for September to April for each coastal county or recording area are shown in tables 1-4. Country totals are summarised in table 5. The distribution of the main sites is shown in fig. 1.

Results are summarised, county by county, below. The main sites are identified, with internationally and nationally important sites listed first, then other regular sites. The 1% level for national importance was based on the revised population estimate presented in this paper: any site with a mean peak population greater than seven birds was classed as 'nationally important'. The qualifying level for international importance (1% of the northwest European wintering population) is 50 individuals (Cranswick *et al.* 1997): any site with a mean peak population greater than 50 was classed as 'internationally important'. Counts given in parentheses are mean midwinter peak counts, unless otherwise stated. For sites where count data were infrequent owing to lack of coverage, maximum counts indicate the possible importance of the site and are shown in parentheses in the text; but mean peaks for the period 1987/88-1992/93 were still used in the calculation of the county and country population estimates. Maximum counts are shown county by county in tables 1-4; minimum counts are not given, as there was no way to distinguish poor coverage from low numbers at individual sites. For sites where numbers regularly peaked outwith the midwinter period, means for both midwinter (December to February) and September to April are shown in the text.

England

CORNWALL Sites holding nationally important numbers: south Cornwall (Falmouth to St Austell) (28) and Maenporth (7). Other sites: Camel estuary (5), Seaton (5), St Ives (3), Looe (3), Mount's Bay (3) and Lynher (2). Peak totals generally occurred during midwinter.

DEVON Nationally important sites: Exe Estuary/Dawlish Warren (14) and Torbay (6). Other sites: Start Point to Slapton, Wembury (3). Peak numbers occurred from November to March and an increase in numbers occurred regularly in spring at Dawlish Warren, when the mean value for September to April was 20 birds.

DORSET Nationally important: Poole Harbour (18). Other sites: Portland Harbour (5) and Christchurch Harbour (3). Peak December to March.

HAMPSHIRE Main sites: Hayling (3), Langstone Harbour (4), Hill Head (2), Calshot (2) and Netley (2). Peak months December to March. Langstone Harbour (4) and Hayling (9) held nationally important numbers in the spring.

SUSSEX Bird reports summarised counts for whole coast. Nationally important sites: Pagham Harbour to Selsey Bill (30) and Chichester Harbour (8). Occasional counts of up to nine birds from sites along the coast east of Pagham (e.g. Worthing and Bexhill). Peak numbers generally occurred during midwinter.

KENT No nationally important sites. Main sites Medway (2), Cliffe (2) and Sandwich Bay (maximum 4). Peak month February.

ESSEX Bird reports summarised monthly counts for the whole coast (32). The Essex coast was

nationally important for wintering Slavonian Grebes. The main site was the River Blackwater complex and the adjacent Dengie coast. Peak months December to March.

SUFFOLK No nationally important sites; records mainly of singles at widely scattered sites.

NORFOLK Bird reports summarised data for the whole north coast (14), which was nationally important. Holkham Bay particularly important during October to November (mean 15 for September to April). Peak November and December.

LINCOLNSHIRE No nationally important sites. Records mainly of one to three birds from Gibraltar Point and Witham Mouth.

YORKSHIRE No nationally important sites. Records mainly of singles from widely scattered sites, including Flamborough, Filey and Scarborough.

CLEVELAND No regular coastal sites.

DURHAM No regular coastal sites.

NORTHUMBERLAND Bird-report data were generally summarised. Nationally important site: Bamburgh to Holy Island (27). Other sites: Druridge Bay (2) and occasional records from Seaton Sluice and Berwick. Peak months November to March.

CUMBRIA No nationally important sites. Records, mainly of singles, from a wide range of sites, including Foulney, Cavendish Dock and Walney.

LANCASHIRE No nationally important sites. Irregular records, mainly of singles from a widely scattered range of sites.

CHESHIRE No nationally important sites. Records relate mainly to singles at Hilbre Island.

AVON No regular coastal sites.

SOMERSET No regular coastal sites.

Table 1. Mean and maximum numbers of Slavonian Grebes *Podiceps auritus* wintering at coastal sites in bird-recording areas in England, 1986/87-1992/93.

County	Mean Dec-Feb	Mean Sept-Apr	Maximum Dec-Feb	Maximum Sept-Apr
Cornwall	64	72	70	74
Devon	25	30	38	44
Dorset	29	30	40	40
Hampshire	18	25	18	29
Sussex	43	44	66	66
Kent	4	5	8	9
Essex	32	36	77	77
Suffolk	2	2	4	5
Norfolk	14	23	27	32
Lincolnshire	2	3	5	5
Yorkshire	2	3	5	5
Cleveland	1	1	1	1
Durham	1	1	1	1
Northumberland	28	38	53	80
Cumbria	1	2	2	4
Lancashire	1	1	1	1
Cheshire	1	1	1	1
Avon	1	1	1	1
Somerset	0	0	0	0
TOTAL	269	318	418	475

Scotland

FIRTH OF FORTH The Firth of Forth held internationally important numbers (68). Within the Firth of Forth, the following sites were nationally important in their own right: Gosford Bay (41), Aberlady/Gullane Bays (9), Musselburgh (10) and Largo Bay (15). There was an exceptionally high count of 163 for the whole firth in February 1987. Peak months were January to March. Mean values for September to April were: whole firth (76), Gosford Bay (48), Aberlady Bay (14), Musselburgh (12) and Largo Bay (17).

REST OF FIFE Nationally important site: Kinshaldy (Tentsmuir coast) (14). Other site: Tayport (2). Peak totals often occurred in the late-winter/spring period, with Kinshaldy recording counts of 62 in April 1983 and 54 in April 1992.

TAYSIDE No regular sites.

NORTHEAST SCOTLAND No nationally important sites. Most records were from the Aberdeen-to-Peterhead coast.

MORAY FIRTH The Moray Firth as a whole held internationally important numbers (52 midwinter, 67 September to April). Within the Moray Firth, the following sites were nationally important in their own right: Burchhead Bay (12 midwinter, 13 September to April), the Inverness Firth (7 midwinter and September to April), the Cromarty Firth (14 midwinter, 19 September to April) and the Outer Dornoch Firth (21 midwinter, 28 September to April). Peak months October to April.

CAITHNESS No nationally important sites. The highest counts were from Sandside (maximum 5) and Dunnet (maximum 3) Bays on the north coast. Records also from Thurso Bay (maximum 2), Sinclair's Bay and Murkle Bay.

ORKNEY Bird-report data were too limited to calculate site means. Nationally important site: Scapa Flow (maximum 43). Other sites: Wide Firth

(maximum 14), Millsands, Inganess Bay and Eynhallow Sound (all north Mainland); North Ronaldsay, Sanday, Stronsay, Papay Sound (maximum 6) and Shapinsay. On the basis of the Scapa Flow survey and numbers at other sites as recorded in the bird reports, the wintering population around the coast of Orkney was estimated at 50. Nationally important numbers (19) also occurred on the freshwater Loch of Harray and lower numbers on the adjacent Loch of Stenness. Peak numbers occurred during the midwinter period.

SHETLAND Nationally important sites: Tresta Voe (13), Whiteness Voe (10) and Catfirth (10), and 11 in Sullom Voe in 1992/93. In 1982/83, there were counts of nine at Dales and six off west Yell. Small numbers at several other sites. Peak numbers occurred during December to March.

WESTERN ISLES Bird-report data indicate that the species was under-recorded until very recently. Nationally important site: Sound of Taransay/Luskentyre Banks, Harris (maximum 41 in 1991/92). Records also from Benbecula (Ballivanich and Strome) and South Uist (North Bay, Ardivachar, Askernish and Grogeny). Thom (1986) included a count of 22 in Loch a Tuath, Lewis.

NORTH & WEST HIGHLAND Bird-report data were too few to calculate site means. Some sites with high counts in the past appear not to have been counted recently, and it is possible that some sites could have been overlooked. From the information available from the currently known wintering sites, the wintering population for the whole of north and west Highland region was conservatively estimated to be about 35 birds. Nationally important sites: Loch Eriboll (maximum 10), Loch Ewe (maximum 8 from county bird report, 9 recorded by Webb *et al.* 1990). Other current sites: Gruinard Bay (maximum 5), Loch Gairloch, Loch Torridon, Loch Linnhe (up to 9 recorded by Webb

Table 2. Mean and maximum numbers of Slavonian Grebes *Podiceps auritus* wintering at coastal sites in bird-recording areas in Scotland, 1986/87-1992/93. * = estimated

County/area	Mean Dec-Feb	Mean Sept-Apr	Maximum Dec-Feb	Maximum Sept-Apr
Firth of Forth	69	76	163	163
Rest of Fife	11	24	19	54
Tayside	3	3	3	3
Northeast	1	1	2	2
Moray Firth	52	67	66	71
Caithness	0	3	2	8
Orkney*	50	50	50	50
Shetland	38	43	46	46
Rest of Highland*	35	35	35	35
Western Isles*	25	25	42	42
Argyll	39	68	44	72
Clyde	2	2	5	5
Dumfries & Galloway	14	14	22	22
TOTAL	339	411	499	573

et al. 1990). Sites with past records where current status is unknown: Kyle of Tongue, Loch Sligachan (up to 23: Thom 1986) and other sea-lochs on Skye.

ARGYLL Nationally important sites: Loch Indaal (Islay) (17 midwinter, 30 September to April), Loch na Keal (Mull) (11 midwinter, 12 September to April), Sound of Gigha (4 midwinter, 13 September to April). Other sites with records of only one or two birds: Loch Sween, Loch Craignish, Loch Fyne

Wales

CLWYD No regular coastal sites.

ANGLESEY No nationally important sites. Regular at Beddmanarch Bay (2). Data latterly lumped with Caernarfon (below) in *Welsb Bird Reports*.

CAERNARFON Nationally important site: Conwy Bay (maximum 11). A count of eight off Criccieth in October 1989. Peak month generally February.

MERIONYDD Nationally important site: Tremadog Bay (9, but 21 recorded in March 1987).

CEREDIGION No nationally important sites.

and Colonsay. Peak months usually February to April at most sites.

CLYDE No nationally important sites. Most regular site Ardmore Point (maximum 4).

ARRAN Normally no more than one per year.

DUMFRIES & GALLOWAY Nationally important sites: Loch Ryan (7) and Luce Bay (14 in 1990/91 and 1991/92). Peak months November to February.

Records mainly of singles, most frequently from Borth and Ynyslas.

PEMBROKE No nationally important sites. Records generally of one or two birds, mainly from Angle Bay (but up to 4: Lovegrove *et al.* 1994) and St Bride's Bay (up to 7: Lovegrove *et al.* 1994).

CARMARTHEN No regular coastal sites.

GOWER Main site Whiteford Point/Burry inlet (5). Peak totals during midwinter.

GLAMORGAN No regular coastal sites.

GWENT No regular coastal sites.

Table 3. Mean and maximum numbers of Slavonian Grebes *Podiceps auritus* wintering at coastal sites in bird-recording areas in Wales, 1986/87-1992/93.

County/area	Mean Dec-Feb	Mean Sept-Apr	Maximum Dec-Feb	Maximum Sept-Apr
Clwyd	1	1	1	1
Anglesey	4	4	6	6
Caernarfon	15	15	25	25
Merionydd	9	12	16	16
Ceredigion	1	1	1	1
Pembroke	3	3	5	5
Carmarthen	1	1	1	1
Gower	5	5	6	10
Glamorgan	1	1	1	1
Gwent	0	0	1	1
TOTAL	40	43	63	67

Ireland

DOWN Main site: Strangford Lough (11); high counts in midwinter, but a minimum of 30 counted in March 1992.

ANTRIM Most frequently recorded in Belfast Lough. Maximum monthly count: four birds.

LONDONDERRY Main site: Lough Foyle (18, but counts of 43 and 51 in November 1991 and 1992 respectively, giving September-to-April mean of 30). Peak counts from October to April.

DONEGAL Main site: Lough Swilly (maximum 11 in early to mid 1980s, lack of data since). High counts mainly midwinter.

MAYO Main site: Blacksod Bay/The Mullet (maximum 13 in early 1980s). Records mainly February to March.

GALWAY Irregular records, mainly from the inner

part of Galway Bay: Rinvile (maximum 2), Parkmore (maximum 5), Kinvarra Bay (maximum 2), Auginish (6 on one occasion). One Galway Bay record also from Ballyvaughan, just in Co. Clare (below).

CLARE Irregular records from Ballyvaughan (maximum 1) in Galway Bay (above), New Quay (maximum 3) and Quilty (maximum 2).

KERRY Main sites: Ballinskelligs Bay (two records of 4 and 8 birds) and Sandy Bay, Castle Gregory (one record of 7). All records February to March.

CORK Main sites: Roaringwater Bay (maximum 10 in early 1980s) and Cork Harbour (2). Highest counts generally midwinter.

WATERFORD Main site: Dungarvan (3). No seasonal pattern. Counts apparently from all months October to March.

WEXFORD Main sites on the east coast from Ross-

Table 4. Mean and maximum numbers of Slavonian Grebes *Podiceps auritus* wintering at coastal sites in bird-recording areas in Ireland, 1986/87-1992/93.

County/area	Mean Dec-Feb	Mean Sept-Apr	Maximum Dec-Feb	Maximum Sept-Apr
Down	11	10	19	30
Antrim	2	2	2	4
Londonderry	18	19	26	51
Donegal	3	3	4	4
Mayo	1	3	1	5
Galway	2	2	3	6
Clare	1	1	1	1
Kerry	1	4	1	7
Cork	3	3	4	4
Waterford	3	3	4	6
Wexford	5	8	14	17
Dublin	2	2	3	3
Louth	1	1	1	1
Wicklow	1	1	1	1
TOTAL	54	62	84	140

lare Bay to Wexford Bay, including: Wexford Harbour (maximum 11), Ballinesker (maximum 11), Curracloe (maximum 12) and Rosslare (6 in March 1983); also Tacumshin (1). Highest counts from January to March.

WICKLOW Broad Lough (1 in 1985).

DUBLIN Main site: Baldoyle estuary (maximum 4); also Swords estuary, Skerries, Dun Laoghaire.

MEATH One record, Laytown (1).

LOUTH Single records: Carlingford Lough (1); the Hermitage (1); Gyle's Quay (1); Dundalk Bay (1). All apparently one-off records.

Discussion

The estimate for the size of the coastal wintering population of Slavonian Grebes in Britain and Ireland (703 individuals) was similar to that deduced by Prater (1981) and over 50% higher than that suggested by Chandler (1986). These differences could be caused by a number of factors. *Winter Atlas* fieldwork covered all species, and the methodology was not designed specifically for Slavonian Grebes, which, along with a range of other species, will probably have been under-represented in areas of low observer coverage. Some of the differences may also reflect population changes over the years. For example, numbers in Shetland increased recently, after a probable decline (D. Suddaby *in litt.*). It is also possible that improvements in the quality of optical equipment and increased observer interest have resulted in higher numbers being recorded at some sites.

Differences in approach are also to be found in the perceived detectability of winter-plumaged Slavonian Grebes on the sea. Prater (1981) recognised the difficulties involved in surveying some sites in winter conditions, while Chandler (1986) considered the species

to be 'comparatively conspicuous'. Slavonian Grebes can, indeed, be conspicuous at coastal wintering sites, but only under perfect, flat-calm conditions which allow accurate counting. Numbers counted can vary considerably according to sea conditions and light conditions. For example, in the Outer Dornoch Firth between December 1991 and April 1992, successive monthly counts were of 27, 5, 32, 0 and 42 in circumstances entirely explicable by changing counting conditions rather than changing numbers of grebes (RSPB unpublished data).

Numbers of Slavonian Grebes on the English and Welsh coasts are probably well known, but the data are poorer for Ireland and the remoter sea-lochs of north and west Highland and the Hebrides. Improved survey techniques in calm weather in these regions could result in the national wintering population estimates being increased further.

Differences between the current review and that by Prater (1981) include larger numbers being found in Cornwall, the Moray Firth, the Western Isles, north Wales and northern Ireland, and lower numbers at some sites on the south coast of England, as well as lower estimates for Shetland and Orkney,

Table 5. Mean and maximum numbers of Slavonian Grebes *Podiceps auritus* wintering at coastal sites in bird-recording areas in England, Wales, Scotland and Ireland, 1986/87-1992/93.

County/area	Mean Dec-Feb	Mean Sept-Apr	Maximum Dec-Feb	Maximum Sept-Apr
England	269	318	418	475
Wales	40	43	63	67
Scotland	339	411	499	573
Ireland	54	62	84	140
Great Britain TOTAL	648	772	980	1,115
GB & Ireland TOTAL	702	834	1,064	1,255

where Prater estimated about 100 to be present in each archipelago.

Comparison with the account in the *Winter Atlas* (Chandler 1986) is less easy. The main sites mentioned in the text are Orkney, the Outer Hebrides, the Dornoch Firth, the Firth of Forth, the Essex coast, Poole Harbour and the Exe Estuary. These continue to be important areas for wintering Slavonian Grebes, along with the Moray Firth, the West Sussex coast, west Cornwall and Lough Foyle, which were not identified as important in the *Atlas*.

Distribution in England was similar to that described by Prater (1981) and Chandler (1986), with the main concentrations along the South Coast, from Cornwall to Sussex, and along the coasts of Essex, Norfolk and Northumberland. Only very small numbers occurred regularly in the other coastal counties of England.

The most important wintering site for Slavonian Grebes in Wales (Tremadog Bay, Merionydd) was not shown by either Prater (1981) or Chandler (1986), but was recognised by Fox & Roderick (1990), Webb *et al.* (1990) and Lovegrove *et al.* (1994). Distribution was otherwise similar to that described by Chandler (1986).

Distribution in Ireland was similar to that described by Chandler (1986), but two additional important sites were identified in this study: Lough Foyle (Co. Londonderry) and Strangford Lough (Co. Down).

With the exception of Loch of Harray in Orkney, freshwater sites do not appear to be important for wintering Slavonian Grebes in Britain and Ireland. Chandler (1986) estimated inland wintering numbers at 10-15, about 3-4% of the *Atlas* population estimate. A similar proportion of the current estimate would be 20-25. A significantly higher number than this wintering on inland waters in Britain and Ireland seems unlikely, particu-

larly as many of the bird reports examined for this review covered areas with significant freshwater wintering sites for other species. This suggests a total wintering population for all sites in Britain and Ireland of about 725-730 Slavonian Grebes.

It is possible that a further review covering the winters since 1992/93 would reveal a higher wintering population. For example, surveys targeted at Slavonian Grebes wintering at Loch na Keal on the island of Mull between 1994/95 and 1998/99 gave a five-year mean of 27 birds (pers. obs.), compared with a mean of 11 in the current review. Lough Foyle has produced counts in excess of 50 in at least two of the winters since 1992/93 (C. Mellon *in litt.*) and the Moray Firth held a maximum of 163 birds in December 1997 (Stenning & Croke 1998). In Hampshire, numbers in the western Solent have increased since 1993 (5), with 12-16 wintering regularly from 1994/95 onwards, while a handful of other sites in that county have each held up to ten birds (*Hampshire Bird Reports*). A further review of Slavonian Grebe counts would, however, suffer from the problems associated with lack of coverage of the remote sites on the west coasts of Scotland and Ireland identified in this paper. More-detailed surveys of these sites, in conjunction with a further paper review, would give a more accurate estimate of the wintering population of Slavonian Grebes. A similar approach could usefully be used for wintering Black-necked *P. nigricollis* and Red-necked Grebes *P. griseogena* and possibly wintering divers, but this is beyond the scope of the current paper.

The top ten wintering sites in Britain identified by this review are the Firth of Forth, the Moray Firth, Scapa Flow/Loch of Harray, Pagham Harbour, south Cornwall, the Essex coast, Luskentyre, Bamburg, Poole

Harbour, and Islay. These ten areas accounted for just over 50% of the British wintering population, which would qualify the Slavonian Grebe for inclusion on the list of *Red Data Birds in Britain* (Batten *et al.* 1990) as a locally wintering species, in addition to its status as a rare breeding species. The list of the ten most important wintering areas for Slavonian Grebes in the UK would be identical, except that Lough Foyle would replace Islay. The Slavonian Grebe does not, however, qualify for inclusion as a locally wintering amber-listed species on the list of Birds of Conservation Concern in the United Kingdom, Channel Islands and the Isle of Man (Gibbons *et al.* 1996), because not all of the main wintering areas for Slavonian Grebe are covered by the Wetland Bird Survey (WeBS sites are used in the more recent list to assess the status of localised non-breeding waterfowl). It would be desirable for any future review of the British or UK *Red Data* bird list to take account of the numbers and distribution of non-breeding waterfowl not well covered by the existing Wetland Bird Survey network, such as Slavonian Grebe and Long-tailed Duck *Clangula hyemalis*. In

Ireland, the top sites were Strangford Lough, Lough Foyle, Lough Swilly, Blacksod Bay, Galway Bay, Roaringwater Bay, Wexford Harbour, Ballinesker and Curracloe.

In Ireland, Strangford Lough and Lough Foyle are proposed Special Protection Areas under the terms of the EC Directive on Wild Birds. In Britain, with the exception of Scapa Flow, south Cornwall and Luskentyre, all of the ten main sites are proposed Special Protection Areas (Pritchard *et al.* 1992). Current UK Government guidance (which is for site-protection under the EU Directives on Wild Birds and on Species and Habitats to be delivered via the SSSI network) does not, however, afford protection to areas below the low-water mark, which are the areas used by wintering Slavonian Grebes as well as wintering seaducks (Kirby *et al.* 1993). Boundaries of and management prescriptions for proposed Special Protection Areas and proposed Ramsar sites should be drawn to include the areas below the low-tide mark if important concentrations of wintering Slavonian Grebes are to be afforded adequate protection under the Directives.

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Status of the form *barabensis* within the '*Larus argentatus-* *cachinnans-fuscus* complex'

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ABSTRACT Between 19th July and 1st August 1997, at the Chany Lakes in southwestern Siberia, data were collected on phenotype features and behaviour of the local populations of gulls *Larus* belonging to the taxonomically vague form *barabensis*. These were compared with data from the literature and museum material on the morphological, oological and behavioural characters of *L. c. cachinnans* and *L. (fuscus?) heuglini*, as well as those of some other related gull forms. In size, proportions and coloration, *barabensis* most closely resembles *heuglini*, while also showing

some admixture of *cachinnans* characters. The authors conclude that *barabensis* is a well-defined taxon that has arisen as a result of introgression by *cachinnans* genes into *beuglini* populations as the latter expanded their range southwards. They suggest that *barabensis* be treated as a subspecies of *L. beuglini* unless the latter's status as specifically distinct from Lesser Black-backed Gull *L. fuscus* is proven to be unwarranted.

The various forms of large gull *Larus* that breed in Europe and, particularly, Asia have for some time been a source of much confusion among taxonomists. Traditionally, they have been treated as subspecies of the Herring Gull *L. argentatus* or the Lesser Black-backed Gull *L. fuscus*, although the populations breeding in south Europe and southwest Asia have often been regarded as representing a third species, the Yellow-legged Gull *L. cachinnans* (see e.g. Garner & Quinn 1997). As a group, all these populations are generally referred to as the '*Larus argentatus-cachinnans-fuscus* complex'. For the sake of clarity, the different populations are here referred to by their scientific names.

The large white-headed gulls inhabiting lakes of the Ishim, Barabinsk and Kulunda steppes, between 52° and 58°N in the Omsk region of southwest Siberia (fig. 1), are among the least well-studied Palearctic representatives of this complex. This is manifested, in particular, by the wide variation in opinion regarding their systematic position. They have been placed by various authors in different species, either Herring Gull or Yellow-legged Gull, being regarded either as a local population within a particular subspecies (namely, '*L. argentatus taimyrensis*') or as another, separate subspecies (*L. cachinnans barabensis*) (Dement'ev 1951; Johansen 1960). A further view is that these gulls are closely related to the northern form *beuglini* (Filchagov 1993), apparently of European origin, which, in turn, is regarded either as an independent species, commonly referred to as 'Siberian Gull' or 'Heuglin's Gull' (Stepanyan 1990), or as a subspecies of Lesser Black-backed Gull (Cramp & Simmons 1983). The probable genealogical relationship between *barabensis* and the Armenian Gull *L. (cachinnans?) armenicus* has also been discussed (e.g. Filchagov 1993). In

recent reviews of the Russian avifauna, *barabensis* is not accepted as a valid race, on the grounds that it is not sufficiently distinct from such taxa as *taimyrensis* or nominate *cachinnans* (Stepanyan 1975; Yudin & Firsova 1988).

Significantly, all these discussions have taken place in the almost complete absence of reliable data on the morphological features, field characters and natural history of the gulls in question (Garner & Quinn 1997). The aim of the present study is to fill, at least partly, the gap in our knowledge of these 'enigmatic' birds.

The range of *barabensis* extends westwards to, probably, the eastern foothills of the southern Urals, some 600 km west of the well-documented breeding colonies on Tennis Lake (locality 2 in fig. 1); in addition, a few *barabensis*-type gulls (which cannot be distinguished with certainty from *beuglini* types) occur farther west, at the Volga-Kama confluence and in Nizhniy Novgorod region (5 & 6 in fig. 1). This gull very probably breeds also in the Kulunda steppe (locality 3 in fig. 1). In northeast Kazakhstan, individuals with *cachinnans*-type features but with wingtip pattern approaching that of *barabensis* are rather common, and may be hybrids between those two forms.

From 19th July to 1st August 1997, we conducted field studies in two localities about 80 km apart within the breeding range of *barabensis*. On the Malye Chany Lake (54°40'N, 78°E), we captured gulls, and made tape recordings in a non-breeding flock consisting of about 20-30 individuals. On the Bol'shie Chany Lake (54°40'N, 77°E), similar studies were carried out in a nesting colony on Uzkoredkiy Island during the period when most of the chicks had already left the nest. Altogether, 12 adults (six males and six females) were captured, and from these, as well as from ten chicks, blood samples were



Fig. 1. Breeding areas of different populations of the '*Larus argentatus-cachinnans-fuscus* complex'. Note areas of hybridisation. Western populations of *taimyrensis* appear almost indistinguishable from *heuglini* and eastern ones from *vegae*.

obtained for subsequent genetic analysis. We compared the characteristics of these gulls with those of the few (12) others held in the collection of the Museum of Zoology (Moscow State University), as well as with series of *cachinnans* specimens from the Caspian Sea, and of *heuglini* and *taimyrensis*.

General features of breeding biology

On the lakes of the Barabinsk lowlands (up to 105 m above sea level), the gulls breed in at least two different habitats. Colonies are most often situated at shallow lake margins, bounded on the shore side by a broad belt of very dense, almost impenetrable reedbeds. Nests are placed either on a layer of dead, flattened reeds or on a carpet of jetsam carried ashore by the action of the waves; they are sometimes built on the abandoned lodge of a Muskrat *Ondatra zibethicus*, but never more than 3-5 m from open water that is 0.5-1.5 m deep. The nest itself is a bulky structure, 30-120 cm across and up to 30 cm

in height, constructed of dead reed stalks and leaves. According to Khodkov (1981), the largest colonies are found mainly in this habitat type. They comprise up to 200 pairs and occupy an area of up to 10 ha, with minimum distance between nests averaging 8.8 m (range 3-25 m), although most reedbed colonies are rather small, consisting of 10-40 breeding pairs. Some nests are apparently used for many years (Khodkov 1981).

A second habitat type consists of small, dry islands partly covered with woods of tall, mature birch *Betula*. There, the gulls use level and open sandy-clay areas on the central, highest part of the island, as well as low earth bluffs along its shores, nesting among low, generally sparse grassy vegetation. Nests in such habitat are usually far less bulky than those in reedbeds; not infrequently, the nest looks simply like a shallow depression in the ground, carelessly lined with a thin layer of dry grass. In contrast to reedbed colonies, the nests on small islands are widely dispersed, being separated by distances of about 20 m and more. It was in

Table 1. Mean size (in mm) of *barabensis* eggs compared with corresponding data on some other representatives of the '*Larus argentatus-cachinnans-fuscus* complex'. Figures show means with (in parentheses) S.D. and range where available.

TAXON/ POPULATION	LOCALITY	SAMPLE (NO.)	LENGTH	BREADTH	SOURCE
<i>armenicus</i>	Transcaucasia (Sevan Lake)	113	68.1 (2.3; 61.5-74.9)	48.1 (1.4; 45.1-51.0)	Filchagov 1993
<i>armenicus</i>	Transcaucasia (Sevan Lake)	153	68.3 (2.9; 59.4-75.9)	48.7 (1.6; 42.5-52.0)	Buzun 1993
<i>cachinnans</i>	Black Sea	185	72.8 (63.3-80.5)	50.4 (44.6-58.5)	Kostin 1983
<i>cachinnans</i>	E Azov region	311	70.9 (63.0-79.6)	50.4 (46.0-53.5)	Kazakov & Yazykova 1982
<i>cachinnans</i>	Volga delta	66	71.2 (65.7-81.5)	49.6 (44.4-52.8)	Lugovoy 1958
<i>cachinnans</i>	SW Caspian Sea	56	72.0 (61.0-79.0)	49.0 (40.0-52.0)	Dyunin 1948
<i>cachinnans</i>	SE Caspian Sea	126	70.1 (2.9; 63.0-78.2)	48.6 (1.6; 42.1-52.3)	Panov <i>et al.</i> 1990
<i>cachinnans</i>	N Turkmenistan (Lake Sarykamysh)	70	71.8 (2.7; 65.6-77.6)	50.0 (1.7; 47.4-53.2)	Filchagov 1993
<i>cachinnans</i>	Aral Sea	705	71.0 (64.0-84.0)	50.0 (44.0-55.0)	Ismagilov 1955
<i>cachinnans</i>	NE Kazakhstan	926	71.3 (3.2; 60.9-81.9)	49.7 (1.6; 40.6-60.0)	Zykova & Panov unpubl.
<i>cachinnans/ barabensis</i> (?)	N Kazakhstan (Zharkol' Lake)	47	72.8 (67.0-82.0)	50.3 (45.0-57.0)	Samorodov 1970
<i>barabensis</i>	SW Siberia (Saltaim Lake)	43	70.8 (2.5; 66.2-76.1)	48.9 (1.3; 46.4-51.9)	Filchagov 1993
<i>barabensis</i>	SW Siberia (Chany Lakes)	42	70.1 (1.8; 66.0-73.7)	48.1 (1.5; 44.5-51.3)	Khodkov 1981
<i>beuglini</i>	Barents Sea (Kanin Pen.)	91	70.0 (3.0; 63.0-76.8)	48.2 (1.6; 45.0-56.3)	Filchagov 1993
<i>beuglini</i>	Gulf of Ob'	44	69.0 (2.2; 65.1-76.3)	49.1 (1.3; 45.6-51.6)	Filchagov 1993
<i>beuglini</i>	NW Siberia (Yamal Pen.)	21	70.2 (64.4-75.2)	48.0 (46.1-49.8)	Danilov <i>et al.</i> 1984
<i>taimyrensis</i>	N Siberia (W Taimyr Pen.)	30	71.7 (2.7; 66.0-76.5)	50.8 (1.3; 48.5-53.5)	Filchagov <i>et al.</i> 1992
<i>taimyrensis</i>	N Siberia (E Taimyr Pen.)	46	73.4 (3.5; 66.8-82.0)	50.5 (1.2; 47.8-52.3)	Filchagov <i>et al.</i> 1992
<i>vegae</i>	E Siberia (Chukotka)	30	73.8 (2.8; 68.1-77.5)		Filchagov 1993

such a colony that we carried out our study on Uzkoredkiy Island.

The spring arrival of gulls in the Barabinsk lowlands begins in mid April, continuing up to mid June, and the main hatching period apparently commences in the last third of May. Nests inspected by Khodkov (1981) on 7th May held eggs containing

embryos about half the size of a newly hatched chick; on 10th-12th June, chicks three to 18 days old were present in a colony. In 1997, on Uzkoredkiy Island, despite the very early and warm spring, the majority of young were still not able to fly in late June, and in a few nests we found newly hatched chicks.

Being in general a late breeder, *barabensis* thus differs sharply from *cachinnans*. In a population of the latter inhabiting Tengiz Lake in northeast Kazakhstan, the locality closest to (about 1,000 km south of) the breeding range of *barabensis*, the first few chicks in 1978 appeared on 8th and 9th May, while the start of mass hatching was observed on 14th May. It would thus appear that the whole breeding process of *barabensis* takes place almost a month later than that of the most northerly *cachinnans* populations. For comparison, the earliest breeding dates for the northern form *benglini* are indicated by the following: a nest on the Yamal Peninsula tundra, examined on 27th June, held three eggs close to hatching; and, on the Kola Peninsula, the first newly hatched chicks were observed on 29th June (Danilov *et al.* 1984; Filchagov & Semashko 1987).

Table 1 compares egg sizes of two populations of *barabensis* with those of other gull populations of the Black Sea-Caspian Sea region and Siberia. There appears to be a tendency towards a decrease in egg size from southwest to northeast, from the breeding range of *cachinnans* to that of *barabensis*. In both *barabensis* populations, egg width differs highly significantly¹ from that of the nearest *cachinnans* breeders, at Tengiz Lake. The same applies to differences in length between eggs from the latter locality and those of the Chany Lakes *barabensis*, while egg-length difference between *cachinnans* and the population of *barabensis* from Saltaim Lake (56°N, 72°E) is not significant. The eggs of both populations of *barabensis* are significantly longer² than those of *benglini* from the Gulf of Ob', while those of Chany Lakes *barabensis* are also significantly narrower³, but egg-width difference between *benglini* (Gulf of Ob') and *barabensis* (Saltaim Lake) is not significant.

In summary, the egg size of *barabensis* seems to be rather close to that of *benglini* populations from both the Kola Peninsula and the Yamal Peninsula. Farther east, throughout the breeding range of *taimyrensis*, increase in egg size is gradual, apparently a result of the influx of *vegae*

genes from eastern Siberia. The whole picture of geographical variation accords well with data on clinal variation in body size among gulls of the taxa chain *cachinnans-barabensis-benglini-taimyrensis-vegae* (see below).

Morphometric features of *barabensis* populations

As can be seen from table 2, *barabensis* is characterised by its relatively small size. In almost all measurements it tends to be smaller than gulls from the breeding range of nominate *cachinnans* (especially those *cachinnans* of the Black Sea region). At the same time, *barabensis* seems to be slightly larger than *armenicus*, although the latter has, on average, a relatively longer wing. In general, it can be said that, in terms of size and proportions, *barabensis* is intermediate between *cachinnans* of the Caspian region and adjacent eastern areas and more northerly *benglini*; our supposition is that *barabensis* is the product of secondary intergradation between those two taxa. Supplementary arguments to support this hypothesis are presented below.

We believe the apparent similarity in biometrics between *barabensis* and *taimyrensis* to be the result of two independent processes, namely the interbreeding of *benglini* with two of its neighbours whose breeding ranges are situated to, respectively, the south (*cachinnans*) and the east (*vegae*) of the range of *benglini*. Bearing in mind the considerable similarity between *cachinnans* and *vegae* in size, proportions and coloration, it is not surprising that, in both cases, hybrid populations with similar characters have arisen: *barabensis* to the south of the range of *benglini* and *taimyrensis* to the east (see also Discussion).

Garner & Quinn (1997) suggested that *barabensis* is characterised by its 'noticeably small (sometimes very thin) bill'. Our data show, however, that the bill of *barabensis* is not, on average, shorter than that of *taimyrensis*, which is usually regarded as a large-billed gull. Moreover, the two taxa are similar in bill depth, although the gonydeal angle of *barabensis* is, possibly, less prominent than on *taimyrensis* and *cachinnans*. Compared with *cachinnans*, the bill of *barabensis* is, in general, shorter and nar-

¹ P<0.001.

³ P = 0.01.

² P<0.01; P<0.05.

Table 2. Some morphological variables (in mm and g) of *barabensis* in comparison with those of other representatives of the *Larus argentatus-cachinnans-fuscus* complex. Figures show means with (in parentheses) S.D., range and sample where available. Sources: own measurements; Mierauskas *et al.* (1991), Dement'ev (1951), Danilov *et al.* (1984), Buzun (1995), Cramp & Simmons (1983) and Dolgushin (1962). Note that all data for *armenicus* are from Buzun (1993).

	<i>cachinnans</i> (Black Sea)	<i>cachinnans</i> (Caspian region)	<i>barabensis</i>	<i>benghini</i>	<i>taimyrensis</i>	<i>armenicus</i>
Males						
Wing	464.6 (1.6; 55)		437.9 (10.2; 428-445; 8)	450.0 (435-465; 28) 443 (432-457; 4)	457.0	439.8 (12.5; 411-458; 18)
Bill length (culmen chord)	62.1 (0.4; 34)	60.0 (3.2; 53.9-63.4; 6)	58.1 (2.2; 55.3-61.2; 7)	54.7 (3.0; 49.2-58.8; 15)	55.3 (3.1; 51.9-59.2; 4)	52.3 (2.3; 48.1-56.5; 18)
Bill length (from nostril)	25.2 (21.9-28.2; 4)	24.6 (3.0; 21.3-28.8; 6)	25.3 (1.9; 23.2-28.7; 7)	24.8 (2.0; 20.7-27.3; 15)	25.5 (1.8; 23.7-27.9; 4)	22.9 (1.2; 21.2-25.4; 18)
Bill depth (at gonys)	19.5 (0.2; 35)	18.9 (0.7; 17.8-20.0; 6)	18.4 (0.7; 17.6-18.8; 7)	18.4 (0.9; 17.0-20.0; 15)	19.2 (1.1; 18.4-20.8; 4)	18.6 (1.0; 16.8-20.1; 18)
Bill depth (at nostril)	18.0 (15.6-19.7; 4)	17.5 (0.9; 16.5-18.8; 5)	17.5 (0.4; 16.8-17.9; 7)	17.4 (0.8; 15.8-18.4; 14)	17.5 (1.5; 16.0-19.5; 4)	17.2 (0.8; 15.5-18.3; 18)
Bill width	10.9 (8.9-11.8; 4)	10.8 (0.4; 10.1-11.3; 6)	10.9 (0.4; 10.5-11.5; 7)		10.6 (0.5; 9.9-11.2; 4)	
Combined head+bill length	133.6 (0.5; 35)		126.7 (3.0; 122.0-129.5; 6)			121.0 (2.6; 115.6-125.9; 18)
Sternum keel	86.2 (0.5; 35)		83.9 (3.9; 73.6-79.7; 6)			80.2 (2.6; 76.8-85.1; 17)
Tarsus	72.3 (0.4; 35)	70.2 (3.0; 65.4-73.7; 6)	67.3 (2.6; 63.6-70.5; 7)	66.4 (2.7; 61.2-71.2; 15)	67.0 (3.4; 65.0-72.4; 4)	68.7 (2.3; 64.3-73.7; 18)
Weight (g)	1317 (160.7; 1200-1500; 3)	835 (750-1193; 27)	1012 (97.9; 900-1070; 6)	1124 (113.0; 1015-1300; 5)	1260, 1300 (2)	857 (66.7; 785-960; 9)
				1179 (990-1350; 4)		

Table 2. cont.

	<i>cachinnans</i> (Black Sea)	<i>cachinnans</i> (Caspian region)	<i>barabensis</i>	<i>beuglini</i>	<i>taimyrensis</i>	<i>armenicus</i>
Females						
Wing	440.8 (1.0; 71)		417.9 (10.2; 40.4-430; 7)	434.5 (410-455; 20)	453.0 (32.8; 43.2-470; 3)	419.1 (400-436; 23)
Bill length (culmen chord)	56.3 (0.3; 71)	56.4 (4.2; 49.9-63.1; 6)	51.4 (1.9; 49.7-54.1; 11)	51.4 (3.7; 47.6-57.4; 6)	50.6 (2.2; 47.8-57.4; 8)	46.3 (2.1; 41.3-50.6; 22)
Bill length (from nostril)		23.7 (1.7; 20.9-26.1; 6)	23.5 (1.6; 21.7-26.5; 11)	24.4 (1.6; 21.8-26.2; 6)	24.3 (0.6; 23.7-25.2; 8)	20.7 (0.8; 19.1-22.6; 22)
Bill depth (at gonys)	17.2 (0.1; 71)	17.4 (1.3; 16.5-20.0; 6)	16.2 (0.9; 15.4-18.6; 11)	17.3 (1.0; 16.5-19.2; 6)	17.7 (0.7; 16.7-18.8; 8)	16.5 (0.51; 15.5-17.4; 22)
Bill depth (at nostril)		16.1 (1.0; 15.1-17.9; 6)	15.2 (0.7; 14.3-17.2; 11)	15.9 (1.2; 15.0-18.2; 6)	16.3 (0.9; 15.4-17.3; 8)	15.3 (0.7; 14.0-16.5; 21)
Bill width		9.8 (1.0; 8.4-11.3; 6)	9.7 (0.3; 8.7-10.6; 11)		10.3 (0.5; 9.6-11.2; 8)	
Combined head+bill length	122.9 (0.3; 71)		115.5 (2.3; 113.4-118.9; 6)			111.5 (3.0; 105.8-119.6; 22)
Sternum keel	80.4 (0.4; 71)		76.9 (2.3; 73.6-79.7; 6)			74.8 (3.1; 64.9-81.0; 23)
Tarsus	66.9 (0.3; 71)	65.6 (4.1; 62.3-72.5; 5)	61.3 (4.9; 58.2-65.6; 11)	64.6 (3.4; 60.5-69.8; 6)	62.8 (3.0; 59.7-67.6; 8)	64.1 (2.6; 58.4-68.0; 22)
Weight (g)		77.2 (700-1050; 16)	824.8 (100.1; 680-950; 9)	983 (924-1050; 7)	983 (121.0; 890-1120; 3)	708 (55.7; 605-775; 17)

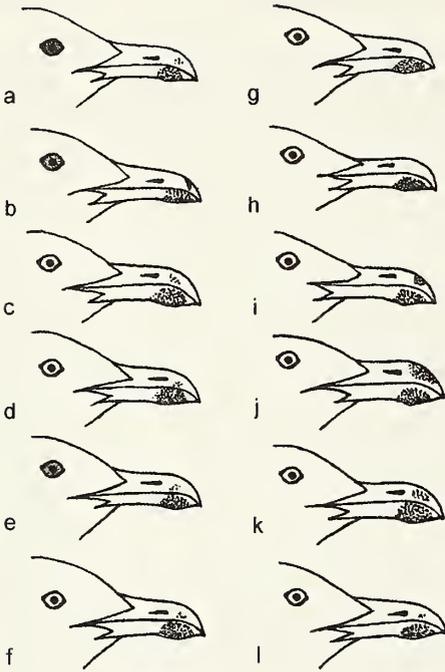


Fig. 2. Variations in bill shape and coloration and eye colour of *barabensis* gulls inhabiting the Chany Lakes.

Left six (a-f) males, right six (g-l) females. Slight admixture of brown tones in individuals b (also on rectrices), c, d, e, g and h. Dark pigmentation occupies about 80% of iris in individual a, about 50% in b and e, and 1-5% in f, h, j and l; in all others, iris completely yellow. (Individuals f, i and j also had wingtip pattern partly similar to that of typical *cachinnans*; on others, pattern closer to that of *heuglini*.)

rower, but it does not look disproportionately small when the compact appearance of the bird itself is taken into account. In the field, *barabensis* should definitely appear longer-billed than *armenicus*, since bill depth is practically the same in both taxa. It should also be emphasised that the size and shape of the bill of *barabensis* are quite variable; as fig. 2 shows, relatively small-billed (of the *heuglini* type) and large-billed (of the *cachinnans* type) individuals occur among both males and females.

Plumage coloration

Just as with body size and proportions, *barabensis* is intermediate between *cachinnans* and *heuglini* in all colour characteristics, being closer to the latter. The mantle is slate-grey, obviously lighter than on *heuglini*,

but tends to be a shade darker than on many birds from the breeding range of *taimyrensis*. Typically, it has a brownish tinge that is normally absent on *taimyrensis*, the upperparts of which appear bluish-grey. In contrast to *taimyrensis*, on which the tone of the mantle is quite variable, *barabensis* has a rather constant mantle colour, although lighter-mantled individuals sometimes occur (such birds usually have certain other colour characteristics which give them a *cachinnans*-like appearance).

It is apparent from fig. 3 that mean values of almost all features of the wingtip pattern of *barabensis* are also intermediate between those of *cachinnans* and those of *heuglini*. Within populations, we determined the proportions of individuals showing various intensities of black pigmentation on the primaries. This was assessed in terms of (1) the number of primaries bearing subterminal black markings; (2) the presence or absence of a white spot on the tip of the 9th primary (P9); (3) the maximum length of such a spot on P10 (and, if present, on P9); and (4) the size of the gap between the distal end of the grey wedge on P10 and P9 and the tip of the respective feather. In the last two characters, *barabensis*, being intermediate between *cachinnans* and *heuglini* and closer to the latter, does not differ, on average, from *taimyrensis*; significantly, however, in characters (1) and (2) it seems more closely to resemble *heuglini* than it does *taimyrensis*. The typical wingtip patterns of *barabensis* and of all other taxa under consideration are presented in fig. 4 (on page 237).

We could not ascertain any features that permit distinction between downy young of *barabensis* and those of other members of the '*L. argentatus-cachinnans-fuscus* complex'. On the few juvenile *barabensis* that we examined, the pale tertial fringes were not thin and of uniform width as is characteristic of nominate *cachinnans*, but were broad and extensively scalloped, in this respect matching those of typical *heuglini*. Examination of specimens in the Museum of Zoology (Moscow State University) showed that the latter type of tertial pattern occurs on many juvenile gulls from northeastern Kazakhstan (in particular, from the Semipalatinsk region).

Fig. 3. Comparison of some wingtip patterns characteristic of *barabensis* (bar) with those of *cachinnans* (ca), *beuglini* (heu), *taimyrensis* (tai) and *armenicus* (arm). (Data on *armenicus* from Buzun 1993, where some values, indicated by asterisk, are lacking.)

a: proportions of birds with black markings on P10-P5 (open bar), P10-P4 (shaded), P10-P3 (black).
b: proportions with white spots on tip of both P10 and P9 (open bar) and only on P10 (black).
c: max. length of white subterminal spot on P10.
d: max. length of white subterminal spot on P9.
e: distance between distal end of grey wedge on P10 and tip of feather.
f: distance between distal end of grey wedge on P9 and tip of feather.
 (For c-f, means, S.D. and ranges are shown; for *armenicus*, range values for c and e lacking.)

Bare-part colours

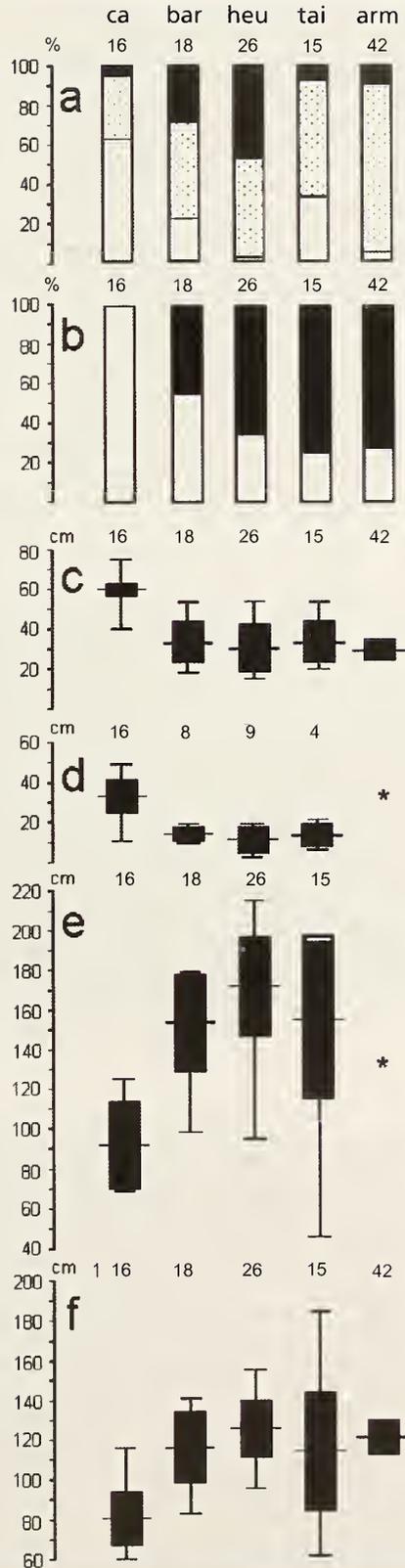
All 12 individuals of *barabensis* examined in the hand had a pale yellow iris. Five of these had no dark pigmentation, while four others had small dark brown speckles occupying 1-5% of the iris area; dark speckles covered about 50% of the iris on two individuals and 80% on one, so that their eyes looked dark (fig. 2). The colour of the eye-ring varied from orange with a yellow tint to orange-tinged red, being orange-red in most cases.

The legs and feet of all 12 were deep yellow, on some very brightly coloured. The feet of one had an orange tint.

The bill is bright yellow, with a reddish-orange gonydeal angle. Only two of the 12 individuals examined showed small blackish markings near the tip of the upper mandible, and on one the marking was reddish. These findings differ dramatically from observations made some 360 km northwest of our study area, on Saltaim Lake: there, dark markings of varying size were present on the bill (mostly the upper mandible) of 18 out of 29 adult *barabensis* examined in the hand during the breeding season (Filchagov 1993).

Some features of behaviour

By the beginning of our study on Uzkoredkiy Island, most gulls had already left the nesting colony and were on the water close to the shore. Groups comprising one or two adults together with up to three juveniles, and thus perhaps intact family parties, were seen only rarely at that time. The majority of juveniles





132 - 136. Gulls of the form *Larus beuglini barabensis*, Russia, July 1997. All by E. N. Panov

were gathered in loose aggregations of varying composition and containing from a few to about 15 individuals. These groups ('crèches') were very attractive to adult gulls, with a continual interchange of birds in the vicinity of such sites. Many adults, competing for the role of chick guardians, were involved in incessant antagonistic interactions, such as those previously described for *cachinnans* at Tengiz Lake (Panov & Zykova 1981).

Frequent conflicts were invariably accompanied by numerous Long-call displays. In the overwhelming majority of cases, the motor components of the displays were a quick lowering of the head down to the water surface, followed by stretching of the neck upwards and forwards at an angle of about 20-30°. This, the so-called 'argentatus-like' version of the Long-call display, is the one most frequently observed in most populations belonging to the '*L. argentatus*-

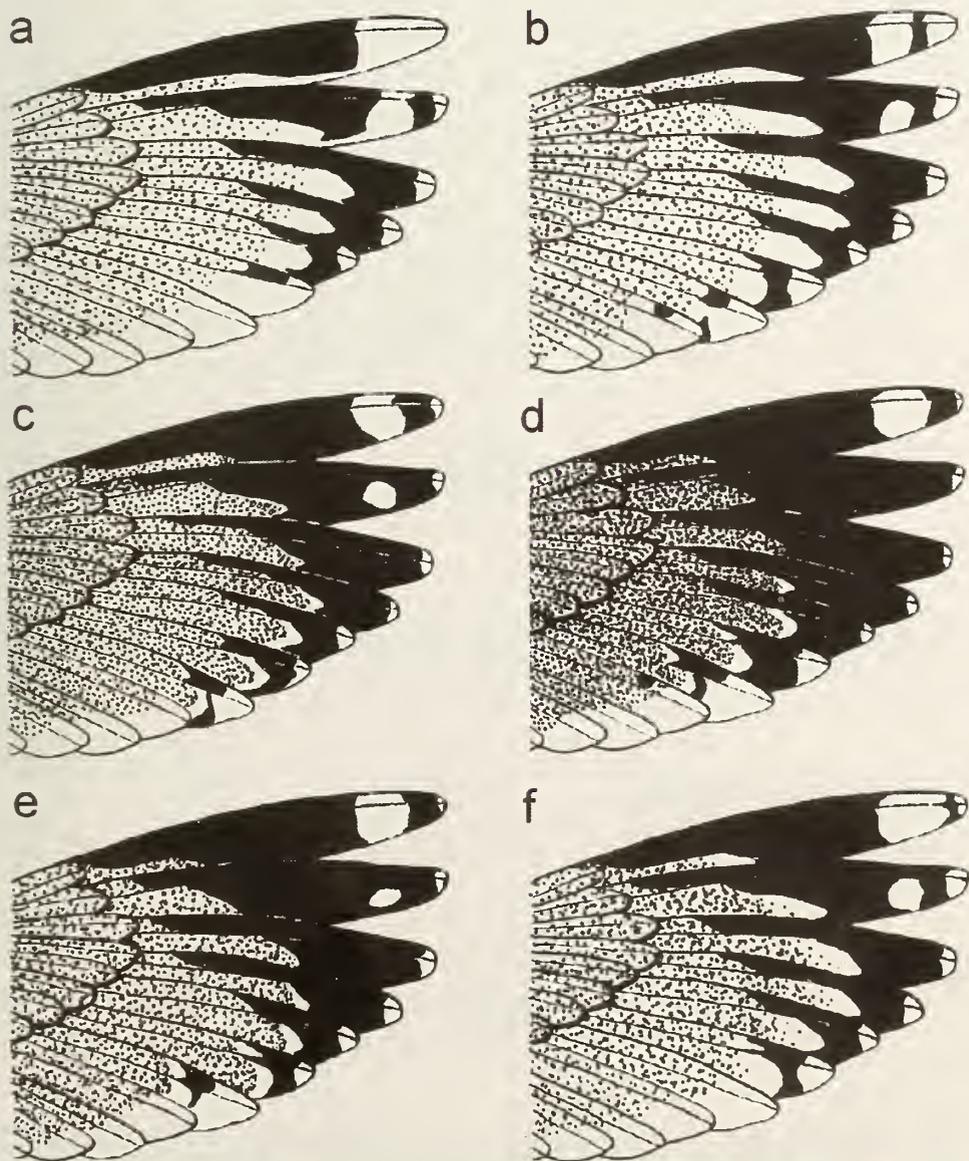


Fig. 4. Wingtip patterns most characteristic of *cachinnans* (a = lightest variant, b = darkest), *barabensis* (c), *beuglini* (d), *taimyrensis* (e) and *vegae* (f).

cachinnans-fuscus complex'. Another version, hitherto described only for nominate *cachinnans*, was, however, observed on three occasions: the characteristic component of this version is the vertical raising of the fully extended wings during the second phase of the performance (Panov *et al.* 1991).

It is important to note that the acoustic component of the Long-call display varies conspicuously among the Chany Lakes populations of *barabensis*. There are two obviously different types of call, and a continuum of variants intermediate between them. One of these types closely resembles that characteristic of nominate *cachinnans* (compare figs. 5e and 5f), while another has a 'fuscus-

like' structure (fig. 5d) and may, therefore, prove to be the typical constituent of *bengliini* signal behaviour.

Discussion

The results of this study clearly suggest that in practically all morphological features, including size, proportions and coloration, *barabensis* exhibits the greatest degree of resemblance to *bengliini*, while at the same time showing a slight admixture of *cachinnans* characters. This forces us to conclude that *barabensis* has arisen as a result of introgression of *cachinnans* genes into *bengliini* populations which have expanded southwards from their original breeding range. Preliminary behavioural data also

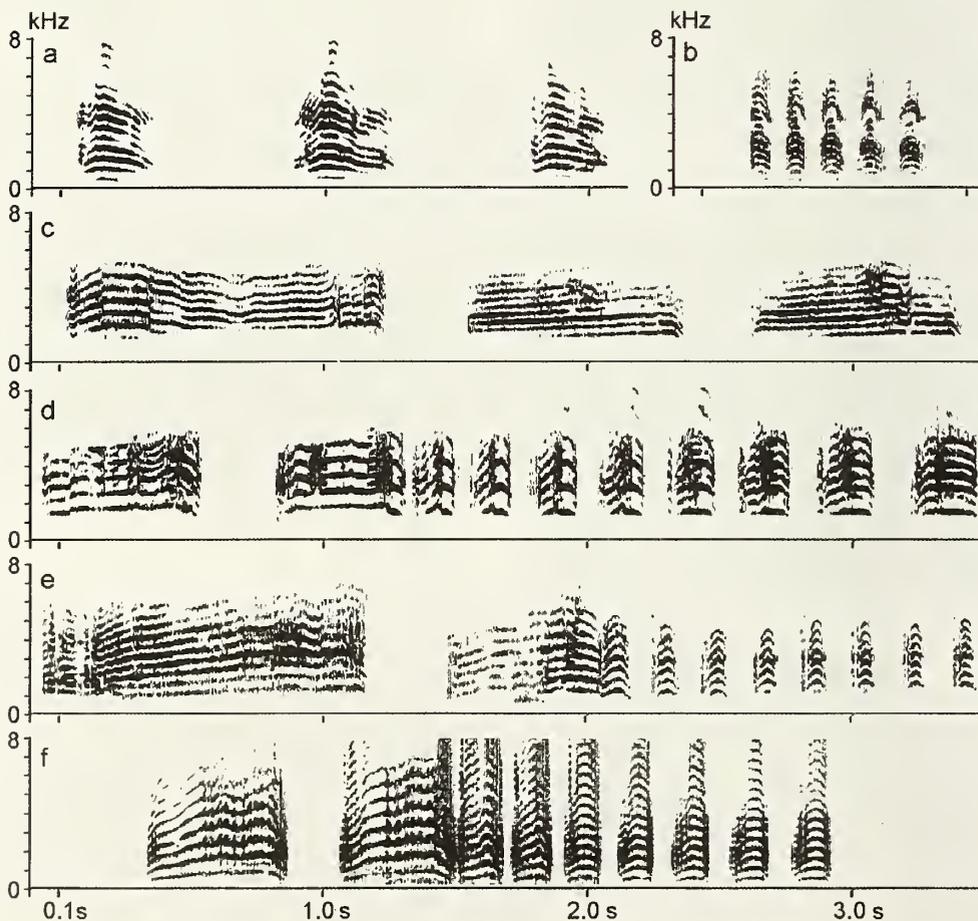


Fig. 5. Some acoustic signals of *barabensis* (a-e) and *cachinnans* (f). a: common call, used also to signal alarm; b: alarm call of 'staccato' type; c: different variants of Mew-call; d: 'fuscus-like' variant of Long-call; e: 'cachinnans-like' variant of Long-call starting with sound of Mew-call type; f: typical Long-call of nominate *cachinnans* (southeast Caspian).

Table 3. Characteristics of wingtip pattern of *barabensis* compared with some other representatives of the '*Larus argentatus-cachinnans-fuscus* complex'. Data for both sexes combined. P = primary. Data for *armenicus* from Buzun (1993).

Population	Sample	% (no.) with black markings on primaries			% (no.) with white spots on primaries			% (no.) with white spot on P9				Length in mm (S.D.; range) of white spot on primaries		Distance in mm (S.D.; range) between distal end of grey wedge and tip of primary	
		P10 -P5	P10 -P4	P10 -P3	P10 & P9	P10 only	both webs	outer web	inner web	P10	P9	P10	P9	P10	P9
<i>cachinnans</i> (Caspian region)	16	62.5 (10)	31.3 (5)	6.2 (1)	100.0 (16)	0.0	93.8 (15)	0.0	6.2 (1)	60 (3.0; 40-75)	34 (9.3; 12-50)	92 (21.9; 70-125)	80 (13.9; 60-115)		
<i>barabensis</i>	18	22.2 (4)	38.9 (7)	38.9 (7)	44.4 (8)	55.6 (10)	62.5 (5)	12.5 (1)	25.0 (2)	33 (10.1; 17-54)	15 (3.4; 11-19)	154 (24.7; 100-180)	116 (18.3; 82-140)		
<i>beuglini</i>	26	0.8 (2)	53.8 (14)	42.3 (11)	34.6 (9)	65.4 (17)	44.4 (4)	11.2 (1)	44.4 (4)	30 (11.5; 15-55)	12 (7.6; 3-20)	172 (24.8; 95-215)	126 (15.5; 95-155)		
<i>taimyrensis</i>	15	33.3 (5)	60.0 (9)	6.7 (1)	26.7 (4)	73.3 (11)	25.0 (1)	0.0	75.0 (3)	33 (9.7; 20-55)	15 (6.2; 7-22)	155 (41.0; 45-195)	113 (29.4; 60-185)		
<i>regae</i>	38	61.8 (21)	38.2 (13)	0.0	76.3 (29)	23.7 (9)	44.8 (13)	0.0	55.2 (16)	40 (10.0; 25-60)	17 (8.0; 5-30)	115 (18.0; 90-150)	77 (14.9; 45-95)		
<i>mongolicus</i>	37	15.6 (5)	59.4 (19)	25.0 (8)	86.5 (32)	13.5 (5)	62.5 (20)	3.1 (1)	34.4 (11)	39 (12.3; 13-62)	17 (8.4; 4-39)	145 (28.1; 91-197)	111 (15.2; 87-144)		
<i>armenicus</i>	42	c. 5	c. 85	c. 10	28.0 (11)	72.0 (31)	—	—	—	28 (5.5)	—	—	140 (9.2)		

support this hypothesis. While the southern limit of *benglini* and the northern limit of *barabensis* are uncertain, between their known ranges lies an area approximately 1,200-1,500 km broad of impenetrable bogs and marshes; no ecological barrier therefore exists that might otherwise keep the two apart.

Our conclusion runs counter to the view expressed by Dement'ev (1951), that *barabensis* should be regarded as the southern representative of *taimyrensis*. Furthermore, our data do not accord with the opinion of Johansen (1960), who considered *barabensis* to be a subspecies of *L. cachinnans*. The latter view is apparently based on the well-known intermingling of *barabensis* and *cachinnans* characters among large-gull populations of northeastern Kazakhstan (locality 8 in fig. 1), to the southeast of our study area. Evidently, gene-flow occurs from gulls in these regions into southern populations of *barabensis/benglini* inhabiting lakes in the southern part of Western Siberia.

Dement'ev's (1951) suggestion that *barabensis* is a constituent of '*L. argentatus taimyrensis*' was based on a genuine similarity between these two taxa. At the same time, Dement'ev (1951, 1952) stressed the unstable nature of differences between *benglini* and western *taimyrensis* populations, as well as the presence in the eastern part of the breeding range of *taimyrensis* of a considerable number of individuals with an admixture of *vegae* characters. Moreover, across the whole breeding range of *taimyrensis*, along with yellow-legged birds similar to *benglini*, individuals with pink legs (*vegae* character) often occur (see e.g. colour photos in Filchagov *et al.* 1992). Analysis of the *taimyrensis* sample in the Museum of Zoology (Moscow State University) undoubtedly shows that this pink-legged form is nothing other than *benglini* strongly influenced by *vegae* gene-flow from Eastern Siberia (see also Cramp & Simmons 1983: 815). Bearing in mind the existence of some similarity between *vegae* and *cachinnans* (see fig. 4), the deceptive superficial resemblance of two hybrid forms (*benglini* × *vegae* = *taimyrensis*, and *benglini* × *cachinnans* = *barabensis*) becomes readily explicable.

While the apparent phenotypic resem-

blance of *benglini*, *barabensis* and *taimyrensis* results from their close genealogical and genetic interrelationship, the similarity between *barabensis* and *armenicus*, which has lately attracted the attention of ornithologists (e.g. Filchagov 1993; Garner & Quinn 1997), is, in our view, no more than superficial and incidental, as is, for example, that between *armenicus* and California Gull *L. californicus* (Doherty 1992). We suggest that such a resemblance is the result of convergence that manifests itself, in particular, in the parallel intensification of melanism in *benglini* (whose characters are retained in *barabensis*) and in *armenicus*. What the causes of such a parallel evolution may be is an interesting question. Attempts to demonstrate ancient genealogical interrelationships between *benglini-taimyrensis-barabensis* on the one hand and *armenicus* on the other (Filchagov 1993; Buzun 1993) lack adequate empirical foundation and should be viewed as pure speculation.

To summarise, we believe that *barabensis*, despite its apparent hybrid origin, should be treated as a quite well-defined taxon (contrary to Stepanyan 1975 and Yudin & Firsova 1988) that is most closely related to *benglini*. It should be referred to as *L. benglini barabensis*, unless the independent species status of *benglini* (Stepanyan 1990) in relation to the Lesser Black-backed Gull is refuted by convincing argument derived from studies of comparative behaviour and genetics.

As a final point, it is worth noting that the eastern form *mongolicus* is very large, bigger even than *vegae*, and with a wingtip pattern broadly similar to that of *vegae* (cf. fig. 4f); it differs from the latter mainly in having much more black on the primaries (table 3). Comparative ethological studies (Panov & Monzиков in prep.) suggest that *mongolicus* is most closely related to *vegae*, both of which belong to the *argentatus* group within the complex, whereas *benglini* appears to be part of the *fuscus* group. *L. cachinnans* is somewhat apart from both; although it is assumed to be closer to *fuscus* than to *argentatus*, obvious gene-flow occurs between *L. argentatus* and *cachinnans* in European Russia (see Panov & Monzиков 1999).

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Range expansion of the Common Buzzard in Britain

Rob Clements

ABSTRACT The failure of the Common Buzzard *Buteo buteo* to re-establish itself as a breeding species in much of eastern Britain has been the subject of much speculation over the past 30 years. Recently, however, there is evidence that Common Buzzards are finally colonising areas of eastern England and Scotland from which they have been absent for over a century. They can now be observed within 30 km of the centre of London, and seem likely to colonise the remaining areas of suitable habitat within Britain in the near future.

This paper summarises the information that is currently available on the recent range expansion of the Common Buzzard *Buteo buteo* in Britain up to the end of 1997. The principal sources of data were the County and Regional Bird Recorders and the annual County Bird Reports.

The past

During the nineteenth century, as a result of human persecution, the Common Buzzard was exterminated as a breeding species in much of the eastern and midland counties of England (More 1865). By 1900, the only remaining population in southern England

was in the protected enclave of the New Forest (Clark & Eyre 1993). In Scotland and northern England, the species was restricted to the western counties, where the pressure of gamekeeping was less severe. During the twentieth century, as persecution diminished, there was a slow eastward spread from the species' stronghold in western Britain.

The 1968-72 *Breeding Atlas* (Sharrock 1976) confirmed that Common Buzzards were still absent from most of southeastern England. Exceptions were a small breeding population in West Sussex, a few records of confirmed breeding in the Chilterns of Oxfordshire/Buckinghamshire, and a solitary

record of probable breeding in the Brecks area of East Anglia. Common Buzzards were similarly absent from central England east of Shropshire and Staffordshire. The Lake District remained a stronghold in northern England, but Yorkshire, southern Lancashire and Co. Durham were devoid of the species. A few pairs persisted in the wilder parts of the Cheviots and Kielder Forest area of Northumberland. In southern Scotland, Common Buzzards were absent from much of the Borders and Lothian region. They were similarly absent from Fife and the eastern part of Aberdeenshire. A survey conducted by the British Trust for Ornithology in 1983 found little evidence of eastward expansion since 1968-72 (Taylor *et al.* 1988). Although that survey revealed an increase in the total British population, this increase was manifested only by infilling and consolidation of the Common Buzzard's current range, with no evidence of any expansion of range.

The 1988-91 *Atlas* (Gibbons *et al.* 1993) showed an increase in records and slight eastward spread within Hampshire, Wilt-

shire, Berkshire and Oxfordshire. Compared with 1968-72, however, there had also been a retraction from the three areas on the eastern edge of the Common Buzzard's range where pioneering individuals had been recorded. The West Sussex population appeared to have been reduced considerably, while the scatter of records in the Brecks had disappeared completely. There was one confirmed breeding record in the Chilterns area, but a reduction of total records within that area.

This apparent range contraction between the 1968-72 and 1988-91 surveys was surprising, coming during a period of re-establishment of many other raptor species, and a supposed reduction of threats from both pesticides and human persecution. Presumably, however, these isolated populations were vulnerable to a combination of human persecution and a lack of recruitment from the more westerly population.

In central England, there had been a slight eastward expansion of range within Worcestershire, Shropshire and Staffordshire. Farther

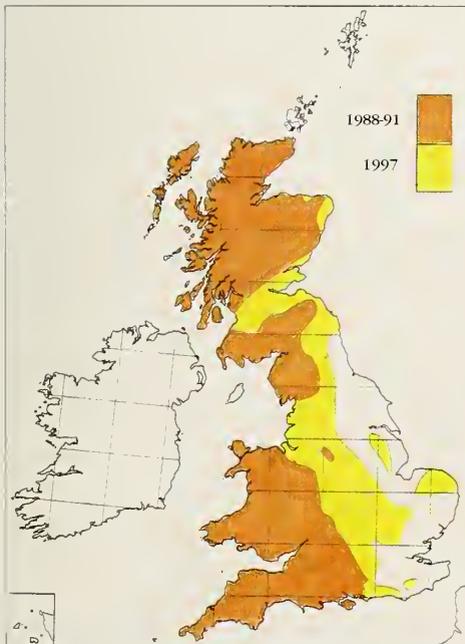


Fig. 1. Diagrammatic representation of spread of Common Buzzards *Buteo buteo* between 1991 and 1997 (based on Gibbons *et al.* 1993 and data presented here).

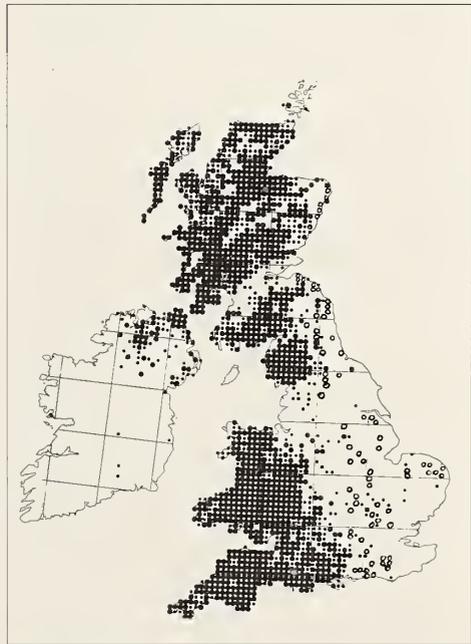


Fig. 2. Spread of Common Buzzards *Buteo buteo* into eastern Britain between 1991 and 1997. Filled dots show 1988-91 distribution (from Gibbons *et al.* 1993) and open dots represent 1997 records in previously unoccupied areas.

north, there was little sign of any major spread into Yorkshire or Northumberland.

In southern Scotland, there was evidence of an extension into coastal farmland in the southwest, and some eastward spread within the Borders region. In northeast Scotland, there had been some spread into Angus and Aberdeenshire.

The present

Since 1991, there has been a major expansion of the Common Buzzard's range in eastern Britain. Tables 1-5 compare the recorded population of Common Buzzards at the end of the 1988-91 survey period with the records for 1997. The county entries detail the available information on current numbers and distribution.

Southeast England (table 1)

Table 1. Number of pairs of Common Buzzards *Buteo buteo* holding territory in southeastern England.

County	1988-91	1997
Bedfordshire	0	4
Berkshire	1	10-12
Buckinghamshire	1	8-12
Essex	1	3
Greater London	0	0
Hertfordshire	0	4
Kent	0	0
Surrey	0	1
Sussex	10	25

BEDFORDSHIRE Breeding was first recorded in 1995, at Southill Park, when a pair was also present in the south of the county. By 1997, two pairs were confirmed breeding, and presence was recorded in several other locations.

BERKSHIRE A minimum of two pairs was present in the west of the county during the 1988-91 survey period. The 1991 Bird Report stated that one pair was present. By 1997, there were ten to 12 pairs, widely scattered within the county.

BUCKINGHAMSHIRE In 1991, the single pair of Common Buzzards recorded in the county represented the most easterly record during the 1988-91 survey period. By 1997, there was a minimum of eight pairs in the South Chilterns area and two pairs in the north of the county.

ESSEX Common Buzzards were first recorded

breeding in 1994, when a pair was present in the northwest of the county. In 1997, at least three pairs were present in the county.

GREATER LONDON No records of breeding yet, although casual sightings include one over Trafalgar Square in March 1997. It will be interesting to see whether Common Buzzards can adapt to London's varied habitats, which include suburban gardens and extensive parkland. The Hobby *Falco subbuteo* has bred in surprising places within Greater London in recent years; Common Buzzards may, however, require more space and seclusion.

HERTFORDSHIRE Common Buzzards were first recorded as breeding in 1996, by which time they were present at four widely scattered locations within the county. In 1997, four pairs were present during the breeding season.

KENT Common Buzzards have been recorded in summer in recent years, but no definite evidence of breeding has been received by the County Recorder. If breeding is proven in the next few years, it is most likely to involve birds spreading from the Ashdown Forest area in East Sussex. In the longer term, Common Buzzards from the expanding Sussex population should find much suitable breeding habitat in Kent.

SURREY In 1997, a pair of Common Buzzards was reported from a central area of the county, but breeding was not proven. As in Kent, there appears to be much suitable habitat, awaiting the species' arrival.

SUSSEX The 1988-91 *Atlas*, which showed no confirmed breeding records, undoubtedly understated the position in the county. Apparently, there were about ten pairs present at that time. By 1997, the population had grown to over 25 pairs (M. E. Kalaher *in litt.*), with confirmed breeding records from several locations along the South Downs, as well as from the experimentally released population in Ashdown Forest.

Central England (table 2)

Precise data are not available for the more westerly counties of the region, but all show an increase in range and numbers.

DERBYSHIRE There were two proven records of Common Buzzards breeding in 1991. By 1997, there was a further increase in sightings from all parts of the county and at least 15 pairs were present.

LEICESTERSHIRE (WITH RUTLAND) The 1991

Table 2. Number of pairs of Common Buzzards *Buteo buteo* holding territory in suitable habitat in central England.

County	1988-91	1997
Derbyshire	2	15+
Leicestershire (incl. Rutland)	0	3-4
Nottinghamshire	2	6+
Warwickshire	1	35+
West Midlands	0	2-3

Table 3. Number of pairs of Common Buzzards *Buteo buteo* holding territory in suitable habitat in eastern England.

County	1988-91	1997
Cambridgeshire	0	1
Huntingdonshire	0	1-2
Lincolnshire	0	15
Norfolk	0	9
Northamptonshire	1	20+
Suffolk	0	0

BIRD REPORT suggested that the Common Buzzard was a scarce visitor, but that breeding was a possibility. By 1995, though there was still no confirmation of breeding, sightings of ten or more Common Buzzards were reported from the Belvoir/Knipton area. In 1997, breeding pairs were present in four or more areas, as far east as Rutland.

NOTTINGHAMSHIRE In 1991, there were two records of confirmed breeding. By 1997, at least six pairs were present in the breeding stronghold of the Dukeries. Pairs at other locations within the county may also have bred.

WARWICKSHIRE In 1991, one pair bred within the county. By 1995, at least ten pairs were present; the Bird Report noted over 100 records from 40 sites, compared with four records from three sites in 1985. In 1997, the species was still increasing rapidly, with records from 85 sites and at least 35 pairs thought to be breeding.

WEST MIDLANDS A shortage of observers has been blamed for obscuring the real picture in this county. A pair was present in 1995, and probably two or three pairs were present in 1997.

Eastern England (table 3)

In eastern England, the situation is confused by the presence of experimentally released Common Buzzards in Norfolk. Table 3 shows that Common Buzzards have spread and consolidated within the western part of this region.

CAMBRIDGESHIRE In 1991, the Common Buzzard remained a rare visitor. By 1997, there was a small population in woodland in the southeast of the county, with up to four birds present. As yet, breeding has not been proven.

HUNTINGDONSHIRE In 1997, Common Buzzards were present in two areas in the west of the county.

LINCOLNSHIRE The 1991 Bird Report mentioned the species as only an occasional visitor. By 1997, there were probably 15 pairs in the county.

NORFOLK The 1991 Bird Report noted possible breeding. This was confirmed in 1992, although it was suggested that there were many released birds in the county. In 1997, breeding was confirmed at four locations, displaying birds noted at four further sites, and summering birds seen at a ninth. The Institute of Terrestrial Ecology has released Common Buzzards at a site near Sheringham during 1994-96. Since release sites are known to attract pioneering individuals from the West, the current population will undoubtedly contain both experimentally released birds and natural colonisers.

NORTHAMPTONSHIRE In 1991, the species was recorded as a regular visitor, with one record of a pair present in the breeding season. By 1995, Common Buzzards were re-established as a rare breeding species, with two or more seen together in 20 distinct areas of the county. By 1997, the population had continued to expand, with over 20 pairs thought to be breeding.

SUFFOLK As yet, there have been no recorded breeding attempts in the county, although display was noted at one site. With Common Buzzards present on the Cambridgeshire border, and an increasing population in Norfolk, the Brecks area within the county seems the most likely starting point for colonisation.

Northern England (table 4)

DURHAM The pair of Common Buzzards that bred in the south of the county in 1991 was the first confirmed since 1968. By 1995, the species' range had expanded, with breeding proven at two sites in the south of the county and in Weardale, and breeding probable at a further site in the south and in Teesdale. Two other pairs were suspected to have bred. In 1997, 15-20 pairs were present.

Table 4. Number of pairs of Common Buzzards *Buteo buteo* holding territory in suitable habitat in northern England. Yorkshire records refer to 1995, the latest year for which data are available.

County	1988-91	1997
Cleveland	0	0
Durham	1	15-20
Northumberland	4	43
Yorkshire, East	0	1
Yorkshire, Northeast	0	0
Yorkshire, Northwest	1	8
Yorkshire, South & West	0	1
Yorkshire, West	2	5

NORTHUMBERLAND In 1991, two pairs bred in the southwest, and two pairs were present elsewhere in the county. Since then, there has been a remarkable increase, with 14 pairs confirmed breeding in 1993 and 43 pairs confirmed breeding in 1997. The 1996 Bird Report noted that illegal persecution was responsible for the failure of five potential breeding pairs, and remained a limiting factor in the species' spread.

YORKSHIRE In 1991, two pairs bred in the west of the county and one pair in the northwest. Common Buzzards have subsequently increased both in range and in breeding numbers within the county, slowly moving away from the higher ground towards the farmland in the east. Persecution appears to remain a limiting factor in Yorkshire, with numbers low for such a large county with much suitable habitat. The North York Moors, for example, remain devoid of the species. By 1995, the population had reached around 15 pairs.

Eastern Scotland (table 5)

Table 5 shows a continuing spread into the areas of eastern Scotland that remained unoccupied in 1991.

BORDERS Common Buzzards were present in 97 tetrads of the region in 1991. By 1997, they were present in 355 tetrads, with a population estimated at over 500 pairs. In common with many counties where the population has expanded rapidly, numbers have become too large to be monitored accurately. A reduction in persecution, with the replacement of poison bait by Larsen traps as the main means of controlling crows (Corvidae), was suggested as the major reason for the increase.

FIFE Although individuals were present, there were no reports of breeding in 1991. By 1992,

Table 5. Number of pairs of Common Buzzards *Buteo buteo* holding territory in suitable habitat in eastern Scotland. Northeast Scotland records refer to the number of locations occupied rather than to breeding pairs.

County	1988-91	1997
Borders	42	171
Fife	0	27+
Lothian	2	60+
Northeast Scotland	40	100

there were seven pairs, with the population expanding to at least 27 pairs by 1997.

LOTHIAN In 1991, the population consisted of just two confirmed pairs. By 1997, numbers were described as too high to be monitored accurately, with over 60 occupied territories.

NORTHEAST SCOTLAND A survey in 1996 found at least 270 Common Buzzards either holding territory or breeding in areas where no buzzards were recorded during Atlas work in 1981-88 (Buckland *et al.* 1990). The population had expanded into the farmland areas of the Mearns and Buchan plain, with Common Buzzards present at over 100 localities by 1997.

The future

The current population of Common Buzzards in the counties of southeast England, comprising about 60 pairs, is scattered very thinly over a very large area. There are few locations where the density at present is in any way comparable to that in prime habitat in western England. To what extent Common Buzzards will consolidate in these newly colonised areas is uncertain. If persecution by gamekeeping interests re-emerges, this population is, of course, still very vulnerable. Large areas of the southeast, where intensive arable agriculture predominates, may be able to support only a very low density of breeding buzzards. Currently occupied areas, however, such as the Chiltern Ridge, the South Downs and parts of rural Hertfordshire and Bedfordshire, should be capable of supporting a population far above current levels. It is possible that the rapid eastward surge of the past few years will cease as the population consolidates and infills this new extension to its range. In the longer term, there are undoubtedly many parts of Surrey and Kent that appear to provide ideal habitat

for the species. It may be only a matter of time before the Common Buzzard has recolonised the whole of southeastern England.

In eastern England, the small but expanding populations in Norfolk and Lincolnshire should speed the further colonisation of this region. As in the Southeast, however, some areas of intensive agriculture seem unlikely to be able to support the species at any reasonable density. Conflict with game interests could slow the expansion into areas of coniferous forest in the Brecks and coastal Suffolk.

Farther to the north, much of Yorkshire remains unoccupied, with persecution appearing to be the main limiting factor. There, changing attitudes towards this species may allow further expansion of range.

Discussion

Two main reasons have been suggested in the past for the failure of Common Buzzards to recolonise eastern England and eastern Scotland. Persecution of isolated pairs on the eastern edge of their range was thought to be a factor (Gibbons *et al.* 1993). In addition, the overwhelming tendency of dispersing first-winter Common Buzzards to return to their area of origin in spring reduced the likelihood of the species rapidly extending its range into areas of past extinction (Walls & Kenward 1995).

There are several possible sources for the buzzards currently colonising eastern England. Common Buzzards from Continental Europe regularly overwinter in eastern England, especially Essex and Kent. There is, however, little evidence that these wintering visitors have ever stayed to breed. The absence of breeding records from Kent, the county most likely to attract migrant Continental Common Buzzards from the east, suggests that colonisation from the Continent is a minimal factor in the recent spread of the species into southeast England.

In recent years, the Institute of Terrestrial Ecology has released Common Buzzards at three sites in southern England: two in Sussex and one in Norfolk. In total, 52 individuals dispersed successfully from these sites over the period 1994-98 (R. E. Kenward *in litt.*). These experimental releases have obviously inflated the numbers of resident

Common Buzzards in those counties, but cannot account for the increase in numbers over the region as a whole. Release sites tend to attract pioneering birds from elsewhere, so their presence has undoubtedly speeded up a natural process of recolonisation.

The major source of the Common Buzzards recolonising eastern England is the growing population to the West. The infilling and consolidation process in what were marginal areas 30 years ago has provided surplus birds for the recent expansion of range. A 75-km² study area near Bristol provides evidence of the increase in numbers (Prytherch 1997). An area that supported 12-14 pairs in the early 1980s had seen an increase to 56 pairs by 1996. Although productivity of fledged young had dropped from nearly two per nest to only one, indicating that occupancy of the area was nearing saturation level, the number of fledged young had continued to increase over the study period; any juveniles that dispersed from this area would have to move east to find suitable unoccupied breeding habitat. The former 'border' counties of Northamptonshire, Oxfordshire, Berkshire and Hampshire have seen major increases in their Common Buzzard populations over the past ten years. Farther east, the number of pioneering Common Buzzards seeking new territories has obviously reached some critical level where the number of incomers exceeds any losses from human persecution and natural causes.

There is some evidence that eastern England may now be a more welcoming prospect for these incoming buzzards. Although, nationally, there may be no constant trend of either increase or decrease in buzzard persecution (Elliott & Avery 1991), many gamekeepers have moved from poisoned bait, as an agent of crow control, to the Larsen trap, which is much less likely to affect buzzards. In Northumberland, the remarkable increase in numbers has been linked to the recent amendment to the Wildlife and Countryside Act, which made landowners responsible for the illegal actions of their employees (Day *et al.* 1995). In addition, there is evidence that the population of Rabbits *Oryctolagus cuniculus*, an important food source, has increased markedly over recent years (Harris *et al.* 1995).

Prospects look good.

Acknowledgments

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Looking back



ONE HUNDRED AND FIFTY YEARS AGO: 'I have been struck [by] the excessive desire, which would appear to exist, not only to multiply genera and to fabricate names of a startling character to the common and unlearned reader, but also to change and to throw away numbers of those which have been already long in existence.' (*Zoologist* 8: 2724; May 1850)

ONE HUNDRED YEARS AGO: 'The Great or Norfolk Plover [Stone-curlew *Burbinus oedicnemus*] being not yet exterminated in East Anglia, I spent some time during last September and October in observing its habits.... EDMUND SELOUS.' (*Zoologist* Fourth Series 4: 173; May 1900)

FIFTY YEARS AGO: 'During our [L. S. V. & U. M. Venables] visits to various places in the islands we are repeatedly told either that

there is a marked downward trend in Corn-Crake [*Crex crex*] numbers or that the bird has almost or quite forsaken that particular district within living memory...observations indicate that the seeds of decline already exist in Shetland itself: (1) The drift of the Corn-Crake population to the rye-grass areas. (2) The early rye-grass harvest. This exposes many clutches of eggs which even if seen in time and left undisturbed are rarely successful. (3) The increasing use of mechanical mowing.' (*Brit. Birds* 43: 137-141; May 1950)

TWENTY-FIVE YEARS AGO: 'The Dartford Warbler's [*Sylvia undata*] future here is precarious, but its conservation is important because it is characteristic of a habitat for which England has international responsibility. C. J. BIBBY & C. R. TUBBS.'

'In the mid-1950's the study

of migration was the chief pursuit of many of our most active observers...Then, quite suddenly, it all stopped. The BTO, sensitive to changes in its financial support, re-ordered its priorities and had no option but to concentrate on population work...The collective enthusiasm of a whole generation of leading observers...just faded away...what seems to have taken [the] place [of migration studies], especially among many of the youngest and most energetic observers, is an unfortunate bias towards ringing for its own sake or, worse still, an interest in rarities alone. D. I. M. WALLACE.'

'New mammoth reservoir. Work is now far advanced in the construction of Empingham Reservoir in Leicestershire...the surface area will extend to 1,255 hectares, making this the largest man-made lake in England.' (*Brit. Birds* 68: 177-195, 202-203, 217; May 1975)



The return of the Red-billed Chough to England

Richard Meyer

ABSTRACT The decline of the Red-billed Chough *Pyrrhocorax pyrrhocorax* across southern Britain was caused mainly by human activities, and resulted in its extinction as an English breeding species. Examination of the species' current status and feeding ecology in West Wales, and of habitat availability in Cornwall, is used to assess the feasibility of an assisted return to southwest England. Wild 'cliffscape', with plentiful earth exposure, is optimal habitat, especially if backed up by sympathetic pastoral agriculture. Extensive vacant habitat in Cornwall appears to be at least the equal of that which exists in Wales.

When the last wild English Red-billed Chough *Pyrrhocorax pyrrhocorax* died in Cornwall in 1973 (Penhallurick 1978), a Celtic icon steeped in romance and an Arthurian legend disappeared. The return of the Duchy's national bird, once known as 'the Cornish Chough', is eagerly anticipated (Darke 1971). Re-establishment would bolster the United Kingdom status of the species, and recapture

an important region of historical occurrence. With extinction in Cornwall, the southernmost part of the UK population became that in West Wales, and the small and threatened relict Breton population became isolated (fig. 1). As the species is an indicator of maritime-cliff vigour (Cordrey 1996), its re-establishment would have implications for an entire ecosystem.

A largely sedentary species, the Red-billed

Chough will probably need help if it is to regain old haunts south of the Severn Estuary. First, there are some fundamental questions: 'What are its ecological requirements in southwest Britain?', 'Why did it die out in Cornwall, but not in Wales?' and, the key supplementary, 'Are there significant ecological differences today between the two regions?'

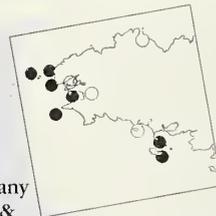
The Red-billed Chough in England

The Red-billed Chough is Britain's rarest resident crow. Nowhere else across its pan-Palaearctic range is it dependent on warm maritime cliffs (Coombs 1978; Goodwin 1986). In western Britain, at the edge of its climatic range, the species could not survive in the face of modernising post-Industrial Revolution agriculture (since about 1750) allied with opportunistic human persecution. An east-to-west (Kent to Cornwall) retraction was well underway by the start of the nineteenth century (Johns 1863; Rolfe 1966; Owen 1988; Meyer 1991; Holloway 1996).

Although no threat whatsoever to Man, Red-billed Choughs were inevitably damned as crows. A downward spiral of increasing rarity, egg-collection, and capture for trophies and pets had its denouement in the far west as the Cornish tin-mining crash in the 1870s caused miners' crofts (which broke up open ground), pit ponies and other livestock (traditionally grazed on clifftops) to vanish, allowing chough feeding habitat to scrub over. Finally, when railways opened up the far West Country in the late nineteenth century, this species, which thrived alongside



Fig. 1. Breeding-season distribution of Red-billed Chough *Pyrrhocorax pyrrhocorax* in Britain and Ireland in 1988-91 (from Gibbons, Reid & Chapman 1993) and in Brittany in 1970-75 (after Guerneur & Monnat 1980).



traditional pastoralism yet shunned Man, had its cliff fastnesses invaded by romantic Victorians. The Red-billed Chough could retreat no farther, unlike its Welsh and French cousins, and the Cornish population was doomed.

Ironically, a century later, during the planning of a possible re-establishment programme, two individuals (probably vagrants from Wales) were found by Steve Madge on the Rame Peninsula, west of Plymouth. They stayed for most of winter 1986/87 and, although subsidiary to the primary research, provided unique data that helped to flesh out otherwise anecdotal and historical Cornish information (Meyer 1990).

Main aspects of research

The following is a brief résumé of research findings which may be found in detail in Meyer (1991; in prep.). Pembrokeshire - 100 km away as any crow might fly - contains the nearest occupied chough habitat to Cornwall, and also the most similar. Two hundred 1-km squares in Wales and Cornwall were surveyed in detail, each being mapped for vegetation, topography and land use, giving, in all, 1.5 million packets of information, and these data were digitised to enable comparison in the future by satellite monitoring. The same squares were transposed onto Tithe maps of the 1840s for historical comparison over 150 years of chough decline. Data obtained from some 500 hours of observations of choughs feeding in different habitats were related to habitat availability (Meyer 1991).

Only two habitats created by modern farming were used, and these only negligibly. Traditional pastoralism (with arable components in autumn and winter) is important in Scotland (Monaghan *et al.* 1989), but in West Wales choughs spent over 64% of their time on coastal cliffs. With *unimproved* clifftop pasture included, usage increased to over 80%. Several maritime botanical communities are valuable, especially those characterised by well-drained, often shallow soils out of reach of humans and livestock, and therefore ungrazed (Evans *et al.* 1989).

Eccentric or untidy management may be exploited heavily. The chough's diet is mainly ground-living invertebrates, hence the need for largely frost-free conditions. Clumped food, such as ants - fed exclusively to nestlings - are exploited in season. Labels such as 'untidy' reflect a human perspective, but illustrate the chough's ability to exploit sympathetic human activity. Usually, it helps to look at habitat from an animal's perspective. For example, it is often said that Red-billed Choughs require 'short-grazed turf' (e.g. Bignal & McCracken 1993; Saunders 1993), yet short grass merely allows access to the substrate and is not of itself a resource. Short turf was in fact used for only 13% of feeding time, while exposed substrate (important for invertebrates: Key 2000) was utilised for more than three-quarters.

The future

Re-establishing lost species was called 'creative conservation' by the Nature Conservancy Council in 1985: offering respite for besieged nature and encouragement to conservationists and fundraisers. Although re-establishment of the Red-billed Chough has none of the potential for conflict with human rural activities, unlike contemporary raptor schemes, there are still important criteria to consider. These may be summarised as:

- Cause of the original decline
- Availability of suitable habitat and food resources
- Source of founder population and arrangements for post-release monitoring

It has been asserted that, if left alone, the Red-billed Chough may recolonise naturally, but the occurrence of vagrants from Wales, Brittany or Ireland (all incurring flight distances of at least 100 km) has been very sporadic. A captive-breeding programme based in Hayle, Cornwall, is generating birds genetically consistent with neighbouring populations.

Regional differences that existed 150 years ago disappeared as lowland agriculture and land-use practices became standardised in England and Wales. Islands provide, relative to landmass, the greatest length of coastline and, of course, always have southerly and westerly facets. The scarcity of these ideal potential sites off the English coast will not assist recolonisation, but a plicate coastline, with many promontories and a full range of aspects, is preferable to an unsuitable island. 'With much of the coastline under some form of designation or protective ownership ... there are today few major threats to this resource in the south-west' (Cordrey 1996).

Choughs now enjoy public goodwill, which will aid their protection even in areas popular with tourists, such as The Lizard, West Penwith and Land's End. Climate and morphology make these promontories virtual islands. Survival for more than six months of the two individuals which appeared at Rame Head, where there was no history of occupancy, suggests that potential habitat exists elsewhere. Further sites have

been identified on remote stretches through north Devon to Somerset (Meyer & Gowenlock 1996).

Since natural cliff-systems alone are unlikely to be sufficient, land management will be required in key areas. Human pressure – both from local residents and from visiting tourists – can be dangerous near a nest or if persistent, but it is rarely a problem because of the Red-billed Chough's early breeding season (eggs April-June; nestlings May-July). Coastal paths are busy for only a few hours each side of noon during the post-breeding season, when, in any case, the choughs are less vulnerable. By switching feeding grounds or dropping down the cliff-face, the choughs can avoid human beings,

often without being noticed, even by bird-watchers.

At the top of a short food chain, the Red-billed Chough is a good indicator of maritime-cliff vigour. The species' presence is indicative of a dynamic and complex maritime-cliff vegetation supporting a rich invertebrate biomass. Appropriate land management enhances this. Many species of crow take advantage of the opportunities created by Man, and, while the Red-billed Chough takes its place in this pantheon, Man should not promote himself as the sole agent of its survival. Indeed, by exploiting natural refugia, the species once inhabited Britain without human assistance (Owen 1985), though often, presumably, rather sparsely.

Acknowledgments

The research project was core-funded by Paradise Park, Hayle, Cornwall. Sincere gratitude is owed to all those who supported the project and helped in its execution, particularly HRH the Duke of Cornwall, Pat Monaghan, Stephen Evans, Jane Hodges, Bob Haycock, Ian Bullock, Steve Madge, Clive Mackay and Lyn Jenkins. I also wish to thank Mike Kent for his help in the production of this short paper, and Yvon Guerneur and Jean-Yves Monnat for information on status and distribution in Brittany. Permission to reproduce the map from Gibbons, Reid & Chapman (1993) was granted by T. & A. D. Poyser Ltd.

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Monthly Marathon

Oh, no! It's a not-very-sharp photograph of a rather plain warbler (plate 91, repeated here as plate 137).

The plainness and the general shape and lack of any marking save for a weak supercilium suggest one of the *Phylloscopus* warblers, perhaps one of the chiffchaff complex or a Willow Warbler *P. trochilus*. The face is, however, too plain for those, and the general colour tones and bright, pale legs should rule out that group altogether. *Sylvia* warblers can also be pretty much excluded, the one exception perhaps being Garden Warbler *S. borin*, but that species would never be such a warm brown colour, have such a long and yellowish-based bill or have such bright legs. Unstreaked *Locustella* warblers have extremely long and full undertail-coverts that would be very obvious in this picture, so we can eliminate them as well.

We are left – as perhaps most readers will have realised at first sight – with either an unstreaked *Acrocephalus* or a *Hippolais* warbler, although the passing similarity to a plain *Phylloscopus* should not be totally forgotten. When trying to sort out plain-looking warblers, shape and structure are very important.

Acrocephalus warblers generally show a graduated tail tip, with long undertail-coverts. At the other end, they tend to have a proportionally long bill and a fairly flat, sloping forehead, and are usually some shade of brown. *Hippolais* warblers, on the other hand, have a square-ended tail, with rounded corners, and often show a distinct pale edge to the outer tail feather. On the 'Marathon' bird, the undertail-coverts, although long, do not reach so far as they do on the reed warblers, which also have a bill that is usually



S. Michelsson

137. Singing Booted Warbler *Hippolais caligata*, Finland, June 1981

shorter, with a wide, heavy base. The *Hippolais* head is usually more rounded, and most members of the group are some shade of grey above, and are often more yellowish below.

Having said all that, sorting out these two groups can sometimes be extremely difficult, with a variety of features giving conflicting signals. Armed with the foregoing but simplistic guide, what of our bird? Well, the tail tip is apparently hidden behind a branch, so that is not much help. The warm browns of this bird suggest an *Acrocephalus*, and the hint of a faint dark border to the supercilium might lead to thoughts of Paddyfield Warbler *A. agricola*. But let's go back to the tail. We can see that there is a very faint pale edge to the outer feather, a good and reliable pointer to a 'Hippo.'

Just as views in the field are often not perfect, this is a 'soft' photograph, which does not aid a detailed analysis, so what other, more general clues can we look for? We have a rather dumpy-bodied bird, which is singing (the puffed-out throat and slightly open bill tell us that)

from inside a bush – not things one would expect from a Paddyfield Warbler. In fact, these features, together with the rather bland facial expression, the not very pronounced rear supercilium and, perhaps, even the dark-looking eye (usually distinctly lighter iris contrasting with the pupil on Paddyfield), together with those first thoughts of a *Phylloscopus*, lead us inevitably to Booted Warbler *H. caligata*.

Booted Warbler is something of an oddity and does not sit easily in the *Hippolais* group. In fact, some authorities recently decided that it, and its close relative the Olivaceous Warbler *H. pallida*, are better regarded as members of the genus *Acrocephalus*. In addition to all this, there are two distinct forms, *caligata* and *rama*, the latter sometimes (and rightly in my opinion) thought to be a separate species, Sykes's Warbler. But that's another story.

This singing Booted Warbler was photographed in Finland in June 1981 by S. Michelsson.

It was correctly identified by most competitors (64%), with

other answers being Melodious Warbler *H. polyglotta* (16%), Marsh Warbler *A. palustris* (11%), Paddyfield Warbler (7%) and Blyth's Reed Warbler *A. dumetorum* (2%). The three leaders - Nick Barlow, Diederik Kok and Peter Sunesen - all got it right, so the winner of this eleventh Marathon has still to be decided.



Steve Rooke



138. 'Monthly Marathon'. Photo no. 166. Fourteenth stage in eleventh 'Marathon' (or first or second stage in twelfth 'Marathon'). Identify the species. Read the rules (see page 54), then send your answer on a postcard to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th June 2000.

For a free brochure, write to SUNBIRD (MM), PO Box 76, Sandy, Bedfordshire SG19 1DF; or telephone 01767 682969.



Recent BBRC decisions

This monthly listing of the most recent decisions by the British Birds Rarities Committee is not intended to be comprehensive or in any way to replace the annual 'Report on rare birds in Great Britain'. The records listed are mostly those of the rarest species, or those of special interest for other reasons. All records refer to 1999 unless stated otherwise.

ACCEPTED: Lesser Scaup *Aythya affinis* St John's Loch (Caithness), 11th, 25th January; Cleethorpes (Lincolnshire), 5th-16th April; Bothal Pond (Northumberland), 1st May. **Greater Sand Plover** *Charadrius lesbeuaultii* Tynninghame (Lothian), 6th-7th June. **Broad-billed Sandpiper** *Limicola falcinellus* Holy Island (Northumberland), 25th May.

Marsh Sandpiper *Tringa stagnatilis* Abberton Reservoir (Essex), 9th-19th August. **Laughing Gull** *Larus atricilla* Hallington (Northumberland), 20th February; Canvey (Essex), 24th February. **Royal Tern** *Sterna maxima* Thorntonloch and Musselburgh (Lothian), 9th August. **Pallid Swift** *Apus pallidus* Holkham Meals (Norfolk), 27th October; West Runton

(Norfolk), 31st October; Covehithe and Southwold area (Suffolk), 31st October. **Calandra Lark** *Melanocorypha calandra* Farne (Northumberland), 28th April. **Hume's Warbler** *Phylloscopus humei* Reculver (Kent), 16th-18th October; Mundesley (Norfolk), 20th-23rd October.

M. J. Rogers, Secretary, BBRC, 2 Churchtown Cottages, Towednack, St Ives, Cornwall TR26 3AZ



Announcement

Honey-buzzard Census

As previously announced (*Brit Birds* 92: 345-346), the Rare Breeding Birds Panel is organising a census of breeding European Honey-buzzards *Pernis apivorus* in Britain this year.

Regional, county or area coordinators have been appointed, in

liaison with the County Recorders and the Raptor Study Groups, and will be responsible for organising coverage and following up casual reports. Coverage of all the regular, well-known areas has already been arranged. The purpose of this appeal is to ask observers to notify

the relevant County Recorder immediately of any Honey-buzzard that is seen this spring/summer. This will enable the surveyors to follow up such reports from any areas that are not already being monitored.



Compiled by Bob Scott and Wendy Dickson

Organbidexka and Booted Eagles

The recent newsletter of Organbidexka Col Libre, which exists to study and protect birds migrating over the Pyrénées, has an interesting article summarising the migration of Booted Eagles *Hieraaetus pennatus*. As a single individual has been seen at various places in Ireland, Kent, Cornwall and Somerset over the past year, the status of this species is particularly topical.

Out of a total number of 29,112 migrating birds of prey counted at Organbidexka in autumn 1999, 55 were Booted Eagles. This reflects the fact that the population breeding north of the Pyrénées in France is quite low - some 100-150 pairs (the bulk of the west European population breeds in Spain). It is thought that perhaps one-third of France's Booted Eagles use the western Pyrénées as their route south, while others pass along the Mediterranean coast and over the eastern passes, such as Eyme. Looking at counts since 1981, there have been quite wide fluctuations in numbers from year to year, but with no general trend. On the other hand, the numbers passing south in autumn 1998 were the highest for over 15 years (nearly 90 individuals), possibly indicating a good breeding season.

The bulk of the raptors passing at Organbidexka in 1999 were, as usual, Black Kites *Milvus migrans* (15,310) and European Honey-buzzards *Pernis ptilorhynchus* (9,755), with a good range of other species making this a very worthwhile site at which to spend a few days in the autumn. Visitors are always very welcome. For details, write to Ken Hall, The Anchorage, The Chalks, Chew Magna, Bristol BS40 8SN.

Decline in Lapwings

The British Trust for Ornithology (BTO) has announced the results of a survey of breeding Northern Lapwings *Vanellus vanellus* undertaken on behalf of the RSPB. Throughout England and Wales, the Lapwing has declined by some 49% in just 11 years, with the greatest loss in Wales, where the decline was 77%. The smallest recorded decline was in Yorkshire, but even there it was still a significant 28%. Apart from the possibility that, in some areas, increasing populations of Red Foxes *Vulpes vulpes* or Carrion crows *Corvus corone* may have had an impact, the declines seem to be directly due to agricultural changes. These include factors that will be well known to readers of this column, such as the switch from spring sowing to autumn sowing, increased use of pesticides, loss of grassland, increased use of machinery, and increased stocking levels. For further details, write to the BTO, The Nunnery, Thetford, Norfolk IP24 2PU.

Design award for 'BB'

British Birds has been awarded a Special Mention in this year's Charlesworth Award for Typographical Excellence in Journal and Serial Publishing 1999/2000 in the Small Publishers division.

Our congratulations go to the Designer, Mark Corliss, whose redesign of *British Birds* has now been acknowledged by the industry.

'BB' goes online!

BB now has its own website at www.britisbbirds.co.uk

Any comments on the website are welcome and should be addressed to Philippa Leegood, e-mail: design@britisbbirds.co.uk

New Recorder

Paul Stancliffe, 1 Heydor Flats, Garrison Lane, St Mary's, Isles of Scilly TR21 0JD, has taken over from Will Wagstaff as Recorder for the Isles of Scilly.

The Eric Hosking Charitable Trust

The Trust is inviting applications for its 2000 bursary.

In 1999, the Trust awarded two bursaries. The first went to Stephen Browne to help to fund a project concerning the Turtle Dove *Streptopelia turtur*, including the collection of information on the biometrics, pre-migratory moult, fat-deposition, and habitat use of the species on Ginak Island, The Gambia. This is part of a long-term project investigating reasons for the decline in numbers visiting the UK to breed.

The second 1999 award was made to Trace Williams, towards funding her research into the breeding decline of the Bali Starling *Leucopsar rothschildi*. The bursary money will be used to pay for adapted nestboxes, which will allow monitoring of captive breeding birds.

The aim of the Eric Hosking Charitable Trust is to sponsor ornithological research of this sort, through the media of writing, photography, painting or illustration. Bursaries of up to £500 are awarded to suitable candidates once a year.

The next closing date for applications is 30th September 2000. Anyone interested should write, requesting details and an application form, to The Eric Hosking Charitable Trust, Pages Green House, Wetheringsett, Stowmarket, Suffolk IP14 5QA; e-mail david@flpa-images.co.uk



Decline of House Sparrows in large towns

The dramatic decline in the numbers of House Sparrows *Passer domesticus* in the centre of London over the past 20 or so years is well documented and generally accepted (Summers-Smith 1999). Indeed, the matter of the decrease has already been raised twice in the House of Lords (*Hansard* 1.12.97, 3.2.99).

There is now some evidence, albeit very slight, that this decline is not merely a London phenomenon, but may, in fact, also be occurring in other large urban conglomerations. Table 1 shows the results of some

repeat censuses in urban areas, including the data from London.

The repeat censuses were carried out in the period 1995-97. The rates of decline given in column six of table 1 are plotted in fig. 1. These rates are not strictly comparable, since they cover different periods of time, some going back as far as 38 years, well before the current decline was suspected. It is tempting, however, to conclude from fig. 1 that the rate of decline is accelerating.

The decline is also shown by figures for typical densities for built-up areas derived

Table 1. Repeat censuses of House Sparrows *Passer domesticus* in large towns.

*Time interval (years) in parentheses.

** This is an autumn count; should be reduced by about 20% to allow for winter mortality and thus, to be comparable with the other counts, which were made in the breeding season.

*** The 35 ha include the 8 ha that were censused in 1959.

Location	Area (ha)	Year	House Sparrows (birds/ha)	Decrease		Source
				%	%/year*	
London:						
Kensington Gardens	112	1975	4.86**			Sanderson 1996
		1995	0.72**	85.1	4.3 (20)	
Buckingham Palace Gdns	14.5	1966	1.4/2.8			Sanderson 1999
		1996	0.07	90/95	2.6 (36)	
Glasgow:						
residential suburb	8	1959	4.9			Summers-Smith 1999
	35***	1997	0.06	98.8	2.6 (38)	
Hamburg:						
St Georg	?	1983	3.0			Bower 1999
		1987	0.8	73.3	5.2 (14)	
Rissen	493	1991	0.32			Bower 1999
		1997	0.15	53.1	8.9 (6)	

Table 2. Typical population densities of House Sparrows *Passer domesticus* for large built-up areas.

Location	Habitat	Period	Density (birds/ha)	Source
Various	urban	1959-70	2.7 to 10.5	Pinowski & Kendeigh 1977
Hamburg/London	urban	1995-97	0.1 to 0.8	Table 1
Various	suburban	1961-73	2.2 to 10.2	Pinowski & Kendeigh 1977
Glasgow	suburban	1997	0.1	Table 1

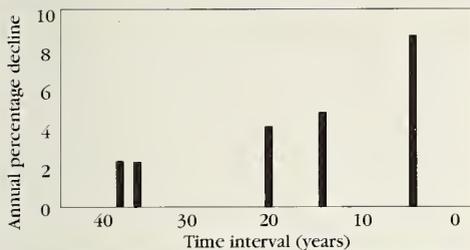


Fig. 1. Percentage rate of decrease of numbers of House Sparrows *Passer domesticus* as a function of the time interval between censuses (data from table 1).

from a number of independent censuses (table 2). Although Bower (1999) obtained a density of 1.4 birds/ha in an area in the centre of Hamburg, Germany, in 1998, this was based on a census area of only 13.7 ha. This area is probably too small to obtain a representative figure for a bird, such as the House Sparrow, that has clumped distribution. The area censused in the St Georg district of Hamburg is not given, though it appears to have been about 1 km² (100 ha); hence the value of 0.8 birds/ha should be valid. This value is very close to the 0.72 birds/ha found in the autumn census for Kensington Gardens in London in 1995.

The 1995-97 values in table 2 should be compared with those that I obtained for a small rural town (Guisborough, Cleveland, human population about 15,000) in 1997/98 (table 3). It should be noted that the density values in table 3 fall in about the middle of the range for built-up areas for the period

Table 3. Population densities of House Sparrows *Passer domesticus* in a small rural town (Guisborough, Cleveland), in 1997/98.

Habitat	Area censused (ha)	Year	Density of House Sparrows (birds/ha)
Urban	120	1998	5.4
Suburban	30	1997	4.0

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EDITORIAL COMMENT

Dr Denis Summers-Smith has offered to send details of the technique that he uses for censusing urban House Sparrows to anyone who is interested.

1959-73 (table 2), when the population is assumed to have been reasonably stable.

The decline in large towns is not only an interesting biological phenomenon, but may also be a matter for concern. I have suggested (Summers-Smith 1999) that a possible factor is increased pollution from the emissions from internal combustion engines. This will clearly be more severe in extensive built-up areas, where the greater amount of traffic is subjected to frequent stops at traffic lights with engines running, and there is limited possibility for effective dispersion of fumes because of the extensive area involved. The wider concern is that, if this is behind the House Sparrow decline today, perhaps it could be Man's turn tomorrow.

That suggestion is, of course, pure speculation, but, in my opinion, the potential consequences are so serious that further investigation of a possible 'large-town' effect should be instigated without delay.

What can be done? First, I suggest that either the BTO or the RSPB, or both, should instigate as soon as possible an investigation into the numbers of House Sparrows in Britain's large towns and cities. At the local level, county bird clubs/societies or individual birdwatchers, especially in places such as Birmingham, Manchester or Glasgow, could carry out House Sparrow censuses. Fieldwork should be during March-May and should cover about 50-100 ha. Experience shows that it should take about 25 hours, split over a number of visits.

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Recent reports

Compiled by Barry Nightingale and Anthony McGeehan

This summary of unchecked reports covers the period 13th March to 16th April 2000.

White-billed Diver *Gavia adamsii* Guinard Bay (Highland), 6th April. **Night Heron** *Nycticorax nycticorax* Rolleston-on-Dove (Staffordshire), 25th-31st March; Brixham (Devon), 8th April; Slimbridge (Gloucestershire), 14th-16th April; Winchelsea (East Sussex), 15th April. **Great White Egret** *Egretta alba* Selsey (West Sussex), 23rd March; near Ennis (Co. Clare), 26th-31st March; Drift Reservoir (Cornwall), 2nd-5th April. **Purple Heron** *Ardea purpurea* Bough Beech Reservoir (Kent), 6th April; Dinton Pastures Country Park (Berkshire), 5th-6th April; Chichester Gravel-pits (West Sussex), 8th April; Church Farm Marsh RSPB Reserve (Suffolk), 11th April; Minsmere (Suffolk), 15th-16th April. **White Stork** *Ciconia ciconia* Two over Tunbridge Wells (Kent), 25th March, presumably same, Burpham (Surrey), 28th-31st March; two (probably same) along North Norfolk coast, 2nd-5th April; singles near Welbeck (Nottinghamshire), 6th April; Darlington (Co. Durham), 7th April; Castle Howard (North Yorkshire), 8th-9th April; Rodbaston (Staffordshire), 11th April; Blyth (Northumberland), 15th April; Thrapston Gravel-pits (Northamptonshire), 16th April. **Lesser Scaup** *Aythya affinis* Long-stayer Drift Reservoir, to 21st March; one on Loch Harray (Orkney), several weeks up to end March; Rutland Water (Rutland), 8th-16th April. **Kentish Plover** *Charadrius alexandrinus* Teign Estuary (Devon), 1st-2nd April; Church Norton (West Sussex), 8th-9th April; Goldcliff Pill (Gwent), 9th April; Rye Harbour (East Sussex), 9th April. **Short-billed Dowitcher** *Limnodromus griseus* One, believed to be first-

winter, Mornington (Co. Meath), 16th March to 12th April (second Irish record). **Long-billed Dowitcher** *Limnodromus scolopaceus* Elmley RSPB Reserve (Kent), 8th and 16th April; adult in almost full summer plumage, Belfast Lough RSPB Reserve (Co. Down), 9th-10th April. **Marsh Sandpiper** *Tringa stagnatilis* Stanpit Marsh (Dorset), 10th-15th April. **Franklin's Gull** *Larus pipixcan* Cheddar Reservoir (Somerset), 17th-22nd March; between Keynsham and Willsbridge (Gloucestershire), 10th-11th April; Thamesmead (Greater London), 14th-16th April; Barking Bay (Essex), 15th-16th April. **Bonaparte's Gull** *Larus philadelphia* Drift Reservoir, to 17th March; Teign Estuary, 17th March to 15th April. **Gull-billed Tern** *Sterna nilotica* St Mary's (Scilly), 10th April. **Great Spotted Cuckoo** *Clamator glandarius* Keyhaven

(Hampshire), 2nd April; presumably same, Pennington Marshes (Hampshire), 8th-16th April. **Northern Wheatear** *Oenanthe oenanthe* Early arrival in southern England, including 200 Portland (Dorset), 13th March. **Penduline Tit** *Remiz pendulinus* Titchwell RSPB Reserve (Norfolk), 8th-9th April. **European Serin** *Serinus serinus* Selsey Bill (West Sussex), 25th March; Newhaven (East Sussex), 26th March; Sheringham (Norfolk), 1st April; Dungeness (Kent), 6th April; Beachy Head (East Sussex), 9th April; Landguard (Suffolk), 9th April. **Dark-eyed Junco** *Junco hyemalis* Undisclosed site in Hampshire, at least 5th-7th April. **Rustic Bunting** *Emberiza rustica* Spurn (East Yorkshire), 5th April; one picked up dead at Abergele (Conwy), 10th April, having been seen about a week earlier.



Mike Malpass

139 & 140. Great Spotted Cuckoo *Clamator glandarius*, Lower Pennington, Hampshire, April 2000.



Mike Malpass

Mike McDonnell



141. Purple Heron *Ardea purpurea*, Dinton Pastures Country Park, Berkshire, April 2000.



Steve Young/Birdwatch

142. Pallas's Rosefinch *Carpodacus roseus*, Rivacre Country Park, Cheshire, March 2000.

Mike Malpass



143. Rosy Starling *Sturnus roseus*, Ripon, North Yorkshire, April 2000.



Iain Leach

144. King Eider *Somateria spectabilis*, Marazion, Cornwall, March 2000.



Mike McDonnell

145. Ring-necked Ducks *Aythya collaris*, Bough Beech Reservoir, Kent, April 2000.

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British Birds

Volume 93

Number 6

THE NATURAL HISTORY MUSEUM
17 JUN 2000



**Black-browed
Albatross**

**Bird
Photograph
of the Year**

June 2000



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Keeping albatrosses off the hook

John Cooper

*Simple Simon met a fisherman,
Going to the Fair.
Said Simple Simon to the fisherman:
"What have you got there?"
"Albatrosses."*

This year, the British Birdwatching Fair at Rutland Water will donate all its profits to the Seabird Conservation Programme of BirdLife International. This major funding will allow the programme to commence its 'Save the Albatross' campaign, which aims to ensure that there are marked reductions in the numbers of seabirds that are drowned by becoming caught on long-line hooks.

When the 'walls of death' drift nets were banned by the United Nations in 1993, many fishing vessels, especially those that caught tuna *Thunnus*, switched to longlining, a technique deemed, within the fishing community, to be relatively environmentally friendly. Tell that one to the birds (and the turtles)!

Last year, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) estimated that, in the three most recent fishing seasons, over 100,000 albatrosses and petrels had been killed by a single fishery: that for Patagonian Toothfish *Dissostichus eleginoides* in the Southern Ocean. Many, if not most, of these birds were killed by illegal or 'pirate' fishing vessels.

Practically all the Southern Ocean albatrosses are regarded by BirdLife International, following IUCN (World Conservation Union) criteria, as 'Threatened'. Longlining, both for toothfish and for tuna, has been identified as the main reason for their threatened status (Robertson & Gales 1998). This is hardly surprising when a single longline set for tuna can be 100 km in length, and one set for North Atlantic Cod *Gadus morrhua* can carry up to 40,000 hooks. The bait on each hook is as attractive to a seabird as it is

to a large fish. Longliners in the Southern Ocean have caught up to 50 seabirds on a single line, although the adoption of mitigation measures is reducing this kill rate substantially.

Populations of such species as the Wandering Albatross *Diomedea exulans* have declined at most of their breeding stations. The presence of fish hooks around nests and in the stomachs of dead chicks, and the recovery of ringed birds by fishing vessels (although we must strongly suspect that only a small proportion is reported), have confirmed that longlining is a major factor in

Table 1. Estimated World populations of albatrosses (based on Gales 1998)

Species	Estimated no. annual breeding pairs
Wandering <i>Diomedea exulans</i>	8,448
Tristan <i>D. (e.) dabbenena</i>	1,003
Antipodean <i>D. (e.) antipodensis</i>	5,154
Gibson's <i>D. (e.) gibsoni</i>	6,077
Amsterdam <i>D. amsterdamensis</i>	13
Southern Royal <i>D. epomophora</i>	7,872
Northern Royal <i>D. (e.) sanfordi</i>	5,218
Waved <i>D. irrorata</i>	15,591
Short-tailed <i>D. albatrus</i>	174
Black-footed <i>D. nigripes</i>	58,498
Laysan <i>D. immutabilis</i>	607,059
Black-browed <i>D. melanopbris</i>	682,315
Campbell <i>D. (m.) impavida</i>	26,000
Shy <i>D. cauta</i>	12,200
White-capped <i>D. (c.) steadi</i>	75,175
Grey-backed <i>D. (c.) salvini</i>	76,654
Chatham Islands <i>D. (c.) eremita</i>	4,000
Grey-headed <i>D. chrysostoma</i>	92,275
Atlantic Yellow-nosed <i>D. chlororhynchos</i>	36,750
Indian Yellow-nosed <i>D. (c.) carteri</i>	36,492
Buller's <i>D. bulleri</i>	10,960
Pacific <i>D. (b.) platei</i>	18,170
Sooty <i>Phoebastria fusca</i>	15,655
Light-mantled <i>P. palpebrata</i>	21,567



Tony Palliser

146. Wandering Albatross *Diomedea exulans*, at sea, off Sydney, NSW, Australia, September 1996.

these declines. Observers on fishing vessels in the Southern Ocean have brought back sackfuls of drowned birds for identification (a walk-in deep-freeze down the corridor from my university office in Cape Town is full of them).

Elsewhere in the World, the pattern is being repeated. In the North Pacific, thousands of Laysan *D. immutabilis* and Black-footed Albatrosses *D. nigripes* are killed each year by longline fisheries operating out of Hawaii and Alaska (Cousins & Cooper in press). Each year, a few Short-tailed Albatrosses *D. albatrus* are reported killed in this way in Alaskan waters; this species occurs at only two known breeding sites, on Japanese islands, and has a total population estimated at only 1,200 individuals, with under 200 breeding pairs (table 1). In the cold, fish-rich waters off the coasts of southern Africa and South America, albatrosses and petrels continue to be drowned in large numbers. The Spectacled Petrel *Procellaria conspicillata*, a species that breeds only on Inaccessible Island in the Tristan da Cunha group, with a population estimated at 3,000-4,000 pairs, suffers an annual mortality from longlining of several hundred in Brazilian waters (Ryan 1998; Ryan & Moloney in press). What an

irony if this species, categorised as 'Endangered', should suffer a population collapse just a few short years after its recognition as a true species, distinct from the White-chinned Petrel *P. aequinoctialis* (Ryan 1998).

What is known about the incidental catch of seabirds in longline fisheries has been summarised in a global review commissioned by the Food and Agriculture Organization (FAO) of the United Nations. This review listed 61 species of seabird killed by longlines, of which 25 (39%) have been accorded 'Threatened' status (Brothers *et al.* 1999).

What can be done to reduce these levels of mortality? Brothers *et al.* (1999) set out in great detail the mitigation methods that will significantly reduce bird kills, but how can the political will be raised to implement them? BirdLife's Seabird Conservation Programme has identified four major objectives for its 'Save the Albatross' campaign. First, working through the BirdLife partnership in affected countries, it will aim to encourage the adoption of 'National Plans of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries', following the technical guidelines set out by the FAO. Secondly, it will work towards the speedy adoption of a 'Southern Hemisphere Albatross and Petrel

Agreement' in terms of the Bonn Convention on the Conservation of Migratory Species of Wild Animals. Thirdly, it will lobby for the adoption of strict trade controls for Patagonian Toothfish in an endeavour to eliminate the pirate fishing, by flag-of-convenience nations, that kills so many birds. Lastly, there is a need to persuade regional fishery bodies to adopt the enlightened ecosystem approach of CCAMLR, and take account of the incidental mortality of seabirds. This applies especially to the various tuna commissions.

The 'Save the Albatross' campaign can be helped by support for each BirdLife partner's national campaign. You will be supporting it if you attend this year's British Birdwatching Fair (Friday 18th to Sunday 20th August 2000). The BirdLife International Seabird Conservation Programme will be pleased to hear from anyone who can help its work: you can visit its website at www.uct.ac.za/depts/stats/adu/seabirds and e-mail the Programme's Co-ordinator at jcooper@botzoo.uct.ac.za

John Cooper, Co-ordinator, BirdLife International Seabird Conservation Programme, Avian Demography Unit, Department of Statistical Sciences, University of Cape Town, Rondebosch 7700, South Africa

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Looking back



ONE HUNDRED AND FIFTY YEARS AGO: 'Occurrence of the Bohemian Waxwing [*Bombycilla garrulus*] near London. I have notices of this bird having been killed last week [in mid January 1850] in many localities round London: Harrow-on-the-Hill, Kilburn (seven specimens), Eltham, Rainham, Wimbledon, &c.' (*Zoologist* 8: 2767; June 1850)

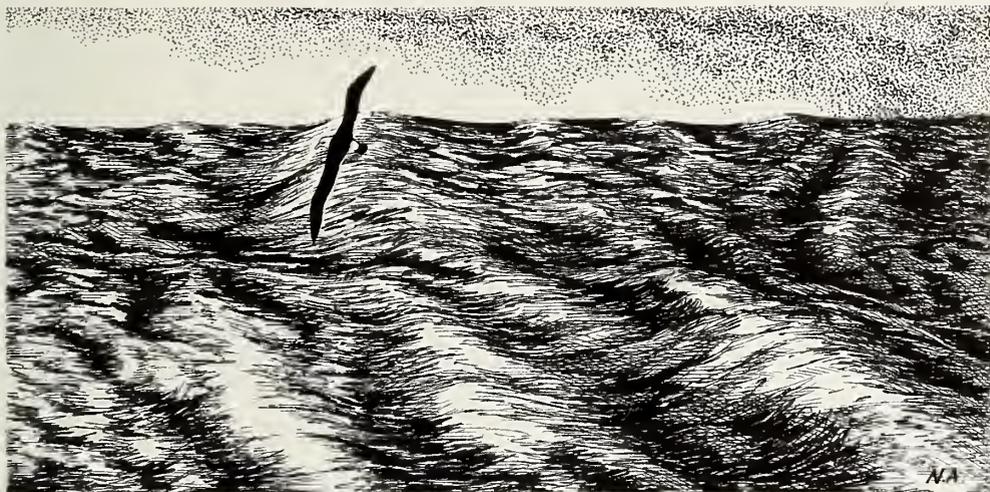
ONE HUNDRED YEARS AGO: 'In Southern Switzerland and Northern Italy a marked dearth

of bird-life prevails. This may in part be accounted for. Hundreds of small passerine birds are killed off for the markets.' (*Zoologist* Fourth Series 4: 228; June 1900)

FIFTY YEARS AGO: 'The increase in the breeding strength of the Black Redstart (*Poenicurus ocburo*) in England that occurred in 1948 was maintained in 1949, when twenty-eight or twenty-nine pairs are known to have bred and some nine to twelve other singing males were present in the

breeding-season. R. S. R. FITTER' (*Brit. Birds* 43: 175; June 1950)

TWENTY-FIVE YEARS AGO: 'At about 09.00 GMT on 2nd June 1975, Stephen Rumsey was walking through Field Croft on Fair Isle, Shetland, when he observed a small thrush-like bird with a well-spotted breast and a prominent red tail feeding in the open on newly ploughed land. It proved to be Britain's first-ever Hermit Thrush *Catbarus guttatus*. (*Brit. Birds* 72: 414-417)



Norman Arlott

Identification and ageing of Black-browed Albatross at sea

Frédéric Jiguet

ABSTRACT The Black-browed Albatross *Diomedea melanophris* is the most frequently recorded of all vagrant albatrosses in the North Atlantic. This paper provides guidelines to identify the species and to help in ageing immatures at sea. The Black-browed Albatross is best identified by underwing pattern and general silhouette, with bill pattern, when visible, often diagnostic. Individuals can be aged by using a combination of primary moult pattern and bill coloration. The primary moult is basically biennial, with two distinct phases: the three outer primaries (P8-10) are always moulted descendantly in year one, and P5-7 always ascendantly in year two.

The first primary moult of juveniles starts during the second winter.

Contrast between old and new outer primaries is often very obvious on immatures, so that precise scrutiny of primary ages at close range is usually not necessary. Bill coloration is variable, and there is some overlap between consecutive immature ages, but, taking into account the bienniality of the primary moult, bill pattern allows correct ageing. The underwing whitens with age, but remains much too variable, even when adult, to constitute a reliable criterion when ageing.



147. Adult Black-browed Albatross *Diomedea melanopbris*, Crozet Islands, southern Indian Ocean, December 1995. Note the species' typical underwing pattern.

The Black-browed Albatross *Diomedea melanopbris* is the most frequently recorded of all vagrant albatrosses in the North Atlantic. This is not surprising, since the Falkland Islands in the South Atlantic hold about 75% of the species' total World population, with about 350,000 breeding pairs (Woods & Woods 1997). Some of these birds possibly join migrating flocks of Great Puffinus *gravis* and Sooty Shearwaters *P. griseus* on their way to the North Atlantic. Two distinct races of Black-browed Albatross are recognised: the nominate race *melanopbris*, which breeds in the southern Atlantic, Indian and Pacific Oceans, and the race *impavida*, which is restricted to Campbell Island, off New Zealand. As the occurrence of *impavida* in the Western Palearctic is unlikely, the following discussion on identifying and ageing deals with the nominate race.

Results from recent phylogenetic analyses of cytochrome-*b* genes in albatrosses led Nunn *et al.* (1996) to resurrect two genera which were originally proposed by Reichenbach in 1852, but which were subsequently dropped from the taxonomy of the Diomedidae. These are *Phoebastria* for the North Pacific species, and *Thalassarche* for the smaller southern albatrosses, the latter

often referred to as 'mollymawks' and including the Black-browed. *Diomedea* and *Phoebastria* are then retained for, respectively, the 'great' albatrosses and the two 'sooty' albatrosses. For the purposes of the present paper, however, all but the last two species are treated as belonging to *Diomedea*.

Albatrosses are best distinguished from other seabirds by their huge size, considerably larger than the Northern Gannet *Morus bassanus*, and by their stout body, extremely long and narrow wings, and continuous powerful gliding flight. They glide up and down in wheeling arcs on stiff, motionless wings, alternately revealing their upperside and their underside, with only occasional flaps. In fresh winds, the wings are held slightly bowed and a little flexed at the carpal joint, while wing-flapping can occur quite frequently. In higher winds, the wings are strongly flexed and drawn towards the body. The combination of dark 'saddle' and upperwings, white rump and grey tail is characteristic of the five species of mollymawk at sea is generally considered problematic. Although bill coloration is frequently diagnostic, it is of little practical use in distant observations. Silhouette and underwing



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148. Adult Yellow-nosed Albatross *Diomedea chlororhynchos* of race *bassi*, Amsterdam Island, southern Indian Ocean. Note elongated silhouette, long neck and tail, bill length and coloration, and underwing pattern. Juvenile *chlororhynchos* is similar, but shows all-black bill.

pattern are better guides in such circumstances, but the coloration of the head and bill should be noted when possible in order to confirm identification.

Identification of adult

The Black-browed Albatross is a bulky mollymawk, with a thick neck and a large head. Its wingspan averages 240 cm, far bigger than that of the Northern Gannet (170 cm). Like all other mollymawks, it has a grey tail and blackish upperwings and saddle, contrasting with white rump and underparts. In fresh plumage, the upperwings and saddle are dark greyish-black. When worn, the dark upperparts are browner and the tail is darker. On the upperwings, the appearance of white outer primary shafts depends on the degree of wear of the feathers. The white or whitish head contrasts with the dark saddle, as does the rump, a feature not shared by grey-headed species. The black 'eyebrows' are obvious; slightly upcurved, they extend backwards from the front of each eye.

The underwing pattern remains the most reliable character for identification, although it is shared by the Grey-headed Albatross *D. chrystoma*. On the underwing of a fully

adult Black-browed Albatross, the dark primaries and dark leading and trailing edges enclose white coverts. These black margins are noticeably broader than on other mollymawks (except Grey-headed), because the lesser coverts are also dark and the greater coverts are sometimes (but not always) dark-tipped. The white central area is about twice



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149. Adult Salvin's Albatross *Diomedea cauta salvini*, Kerguelen Islands, southern Indian Ocean, November 1996. Underwing pattern is similar to that of Shy Albatross *D. c. cauta*, but bases of outer primaries are blackish, not white. Note grey head, and bill pattern.

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150. Adult Grey-headed Albatross *Diomedea chrysostoma*, Kerguelen Islands, southern Indian Ocean, December 1995. Note underwing pattern similar to that of Black-browed *D. melanophris*.

as wide as the black leading margin at the carpal joint, but is equal to it in width along the inner wing because of a dark wedge formed by some blackish median coverts (plate 147).

The bill of adult birds is orange-yellow with a reddish tip.

Adult Black-browed Albatrosses of the race *impavida* differ in showing a paler yellowish iris, and a dark transverse bar on the underwing across the axillaries and the inner greater coverts.

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152. Wandering Albatross *Diomedea exulans*, plumage stage 4 (following Harrison 1983), Crozet Islands, southern Indian Ocean, December 1995. Silhouette and flight action exclude confusion with all seabird species but Royal Albatross *D. epomophora*. Extensive black in the tail or presence of a dark breast band are, however, diagnostic of Wandering.



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151. Four-year-old Grey-headed Albatross *Diomedea chrysostoma*, Kerguelen Islands, southern Indian Ocean, January 1997. Note whitish head with obvious grey collar and blackish area around eye. Bill is black, with yellow upper and lower ridges.

Confusion species

Another species of mollymawk, the Yellow-nosed Albatross *D. chlororhynchos*, has already been recorded in European waters (see Harrop 1994). The occurrence of vagrant albatrosses in the Western Palearctic was discussed by Harrop (1994), and information on their identification was given by Jiguet *et al.* (1998); useful data were also provided by Warham *et al.* (1980) and Harrison (1983).

The nominate race *chlororhynchos* of the Yellow-nosed Albatross breeds on the Tristan da Cunha group and Gough Island in the South Atlantic. A few individuals regularly penetrate the western North Atlantic, off North America. The Yellow-nosed Albatross is noticeably smaller and more slender in build than the Black-browed, having a wingspan of only 200 cm, with slimmer wings, longer tail and longer neck. It more or less lacks the stout and full-chested appearance of other mollymawks that are likely to occur in the Western Palearctic. The adult has much more white on the underwing, although the dark anterior margin is still fairly broad, or at least broader than the posterior one (plate 148). The bill is black, with a red-tipped yellow upper ridge. The head of the Atlantic race is very pale grey, looking white at a distance, with a small black triangular mark in front of each eye. The upperwings and saddle are a

deeper black than on Black-browed. Juveniles have an all-black bill and a white head.

Two other mollymawk species could conceivably occur off European coasts, as they visit the South Atlantic during their non-breeding season. The Shy Albatross *D. cauta* has already turned up in the Western Palearctic: an individual of the nominate race was present in the north Red Sea at Eilat, Israel, from 20th February until 7th March 1981, when it was found dead (Shirihai 1996). The Shy Albatross, with a wingspan of 255 cm, is the largest of the mollymawks, and also the bulkiest, with a large neck, deep chest, and broad, large stiff wings. Its underwing is entirely white except for thin dark edges, a black tip, and a black 'thumbmark' at the base of the leading edge, this mark being a diagnostic feature (plate 149). The dark upperparts are greyer than on Black-browed, with a paler saddle of more limited extent; the pale grey saddle contrasts with the darker wings. The head coloration depends on the age and the subspecies (see Marchant & Higgins 1990 for details). Juveniles and immatures of the nominate race *cauta* show a white head (sometimes grey on juveniles) with a grey neck-collar, like that of Black-browed. The bill of the adult is pale grey with a yellowish tip, that of immatures being grey with black tip.

The Grey-headed Albatross could perhaps reach the North Atlantic. Slightly smaller than the Black-browed, with a wingspan of 220 cm, it has slimmer wings with shorter, thinner and more pointed 'hands', a shorter neck and a more rounded head. The underwing pattern is like that of Black-browed (see plate 150), often with less well-defined black margins, but the black leading margin is usually much broader than the trailing one (although, as with Black-browed, breadth of black trailing margin is subject to individual variation). The upperwings and saddle are a little greyer than on Black-browed. The head is grey, but it does not contrast with the dark saddle in the way that the white rump does, a feature generally easy to assess at sea, even at long range. The bill is black with yellow upper and lower ridges, and with a red tip to the upper ridge. As a result of body moult, three-year-olds and four-year-olds (and probably also two-year-olds) have an all-white head with a grey collar, and such individuals

are pitfalls when identifying Black-browed; structure, as well as bill coloration (all black, with yellowish developing on ridges), should, however, permit correct identification (see plate 151). The grey collar of white-headed immatures is usually broader and a richer brown-grey on Grey-headed, compared with a lighter grey on Black-browed. Grey-headed Albatrosses with extensive white on the 'face' and crown, a wide grey collar and an all-black bill are probably two years old.

A further albatross species has already been recorded in Europe. This is the huge and virtually unmistakable Wandering Albatross *D. exulans* (plate 152), which could conceivably be confused only with the Royal Albatross *D. epomophora*. Details on sex-related and age-related variations and subspecific differences in plumage of the Wandering Albatross were given by Jiguet *et al.* (1998).

Moult pattern

Detailed information on the moult of the Black-browed Albatross can be found in the report by Prince *et al.* (1993) of a study conducted by the British Antarctic Survey on South Georgia. The primary-moult pattern is basically biennial, with two distinct phases. The three outer primaries (P8-10, primaries numbered descendantly) are always moulted descendantly in year one, and P5-7 always ascendantly in year two. The innermost primary (P1) may be replaced in either phase. This holds true for both immature and

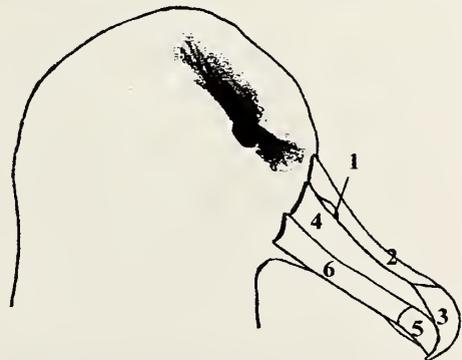


Fig. 1. The bill plates of an albatross *Diomedea* (based on Harrison 1983).

1: nostril; 2: culminicorn; 3: maxillary unguis; 4: latericorn; 5: mandibular unguis; 6: ramicorn.

adult stages (see fig. 2, illustrating the primary moult pattern up to seven years of age).

Juveniles do not moult any primaries in their first winter, the moult cycle starting during the second winter. Two-year-old immatures moult P8-10, and sometimes also P1; P2-7 are abraded juvenile feathers. On three-year-olds, the outer three primaries (P8-10) are old and contrast with the ascendantly moulted P2-7 (even P1 if not moulted in the second winter). Four-year-olds have a moult pattern similar to that of two-year-olds, but more inner primaries are replaced. Five-year-olds have a similar moult pattern to three-year-olds, but fewer inner primaries are moulted.

In summary, two-year-old and four-year-old immatures show three outer primaries newly moulted, while P5-7 are old and abraded; three-year-old and five-year-old immatures have newly moulted P5-7, while P8-10 are old and abraded. This results in a contrast between P8-10 and P5-7 at all immature ages except first-year. The contrast is not always obvious, even at close range, but can

sometimes be clearly discernible at sea; old feathers are usually shorter than new ones, resulting in slightly marked steps in the row of primaries. This applies during the species' breeding season, roughly from November to March, when no active moult is normally shown. Outside this period, ageing can be more complicated, as birds may be in active moult, so the moult pattern for each age-class may appear rather different from that described above (Prince & Rodwell 1994). It is also possible that geographical differences, differences among populations and even individual variation exist in the timing or extent of moult (e.g. young immatures probably moult earlier than older ones). Observations of Black-browed Albatrosses of the nominate race conducted on Kerguelen Islands, and on the moult status of some birds of the race *impavida* from New Zealand and Australia (Melville 1991), show that some variation does occur in the moult pattern, as some birds possess four outermost primaries of the same generation (invariably three in South Georgia, according to Prince *et al.* 1993). Caution is always

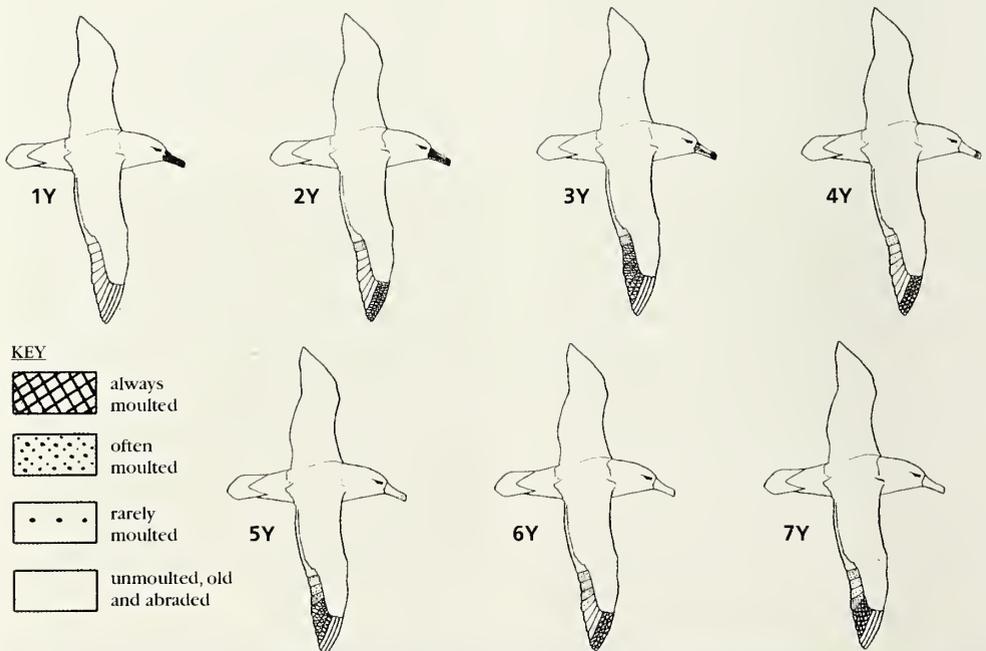


Fig. 2. Primary moult pattern of immature Black-browed Albatross *Diomedea melanophris* (based on Prince *et al.* 1993).

Primary moult starts during the second winter, with a basically biennial pattern; P8-10 (primaries numbered descendantly) always moulted in year one, and P5-7 in year two. Adult bill coloration is usually acquired at five years of age.

required, therefore, when using moult for ageing, but bear in mind the invariable bienniality of the moult pattern of the outer primaries, which, combined with the bill coloration, should allow almost all immatures to be reliably aged.

At certain times of the year, there is a possibility of misinterpreting the moult phase of an albatross. New feathers start to fade and discolour after about nine months, and then begin to resemble old feathers. New primaries are probably moulted as early as April (Melville 1991), but old, ragged primaries may still be retained until September (Prince & Rodwell 1994).

The moult pattern of the outer primaries exhibits the same bienniality in the Grey-headed Albatross, but the ascendant moult of the inner primaries when three years old involves only P6-7, and sometimes also P5 (but P2-7 on Black-browed), while the four innermost primaries are replaced when they are four or five years old, so that immatures can occasionally have primaries that are not renewed before their sixth year (Prince *et al.* 1993). The primary moult described by Furness (1988) and Melville (1991) for, respectively, the Yellow-nosed Albatross and the Shy Albatross seems also to fit the basically biennial pattern described by Prince *et al.* (1993) for the Black-browed and Grey-headed Albatrosses.



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153. Juvenile Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, March 1996. This individual is close to fledging, and shows a grey head, which probably fades to white soon after fledging.



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154. Juvenile Black-browed Albatross *Diomedea melanopbris* at nest, Kerguelen Islands, southern Indian Ocean, March 1996. This individual shows abnormal bill coloration, with yellow already apparent.



155. Two-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, January 1997. Yellow is appearing on the ridges of the dark, black-tipped bill.

Ageing in the field

The full adult coloration of the plumage and bill are generally acquired at six years. Five-year-old birds are generally adult-like in plumage, although they only rarely show an adult-like, but paler, bill. Fledging occurs in April-May, and ages are listed below in years from fledging to full adult.

Bill coloration is very variable among individuals within the same age-class, and also between years (Prince & Rodwell 1994): for example, the palest bills of three-year-olds can match the darkest bills of four-year-olds. When moult is taken into account, however, the process of ageing becomes much easier. Thus, moult combined with bill and plumage characteristics allows correct ageing. The terms given to the horny plates of the bill (fig. 1) are taken from Harrison (1983).

As observed on the Kerguelen Islands in the southern Indian Ocean and on South Georgia in the South Atlantic (Prince & Rodwell 1994), yellow on the bill of immatures appears first along the edges of the culminicorn and ramicorns, but only later on the latericorns. These observations are the reverse of what was stated by Harrison (1983), thus leading to even more potential confusion with white-headed three-year-old or four-year-old Grey-headed Albatrosses. It would be difficult to suppose that such discrepancies in the description of the development of bill colour could be related to

geographical variation in the nominate race of the Black-browed Albatross, as birds from the South Atlantic exhibit the same colour patterns as those from the South Indian Ocean. Another possibility is that the pattern described by Harrison (1983) could relate to birds of the New Zealand subspecies *impavida*, but this remains unclear. Comparing Black-browed Albatrosses observed in the Indian Ocean with those from South Georgia (Prince & Rodwell 1994), the Indian Ocean birds show on average a darker bill (especially, a darker tip) than Atlantic individuals of the corresponding age.

Juvenile and first-year Head white or, rarely, grey (plate 153), with grey hindneck and neck-collar. Bronzy brown bill with black tip, looking all-dark at distance (yellow rarely showing, but see plate 154). Underwing-coverts dark grey; thus, underwing looks blackish at distance. All feathers are new.

One-year-old Almost as juvenile, with no primaries moulted. White head and obvious grey hindneck and neck-collar (some grey-headed juveniles may retain the head coloration throughout their first year). Bill usually paler bronzy brown, with dark tip and base to culminicorn, but culminicorn and edges of ramicorns can become yellowish. Underwing-coverts still dark grey (see plate 164). All flight feathers are juvenile (tail may be moulted).

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156. Three-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, November 1996. Old outer primaries (P8-10) are generally obviously abraded at this age.

Nicolas Gasco



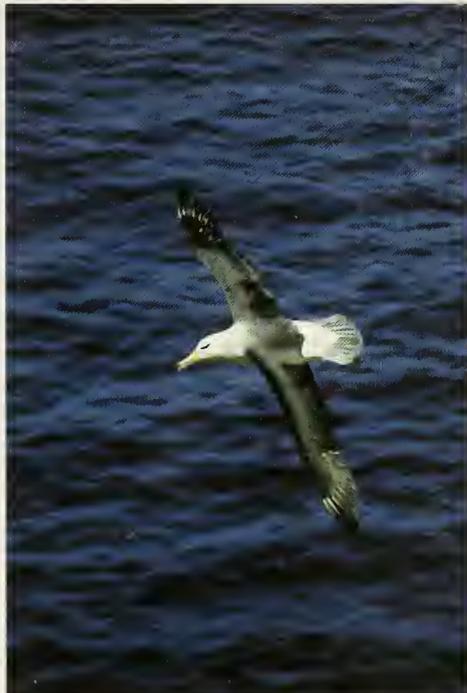
157. Adult Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, December 1996.

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158. Four-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, January 1997. Contrast in primaries between new P8-10 (also P1) and old P5-7 is frequently obvious, creating a 'pale-window effect' on the wing.

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159. Advanced four-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, January 1997.

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160. Four-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, January 1997. Note the greyish hindneck-collar.

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162. Five-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, November 1996. Grey collar can show well again at this age.

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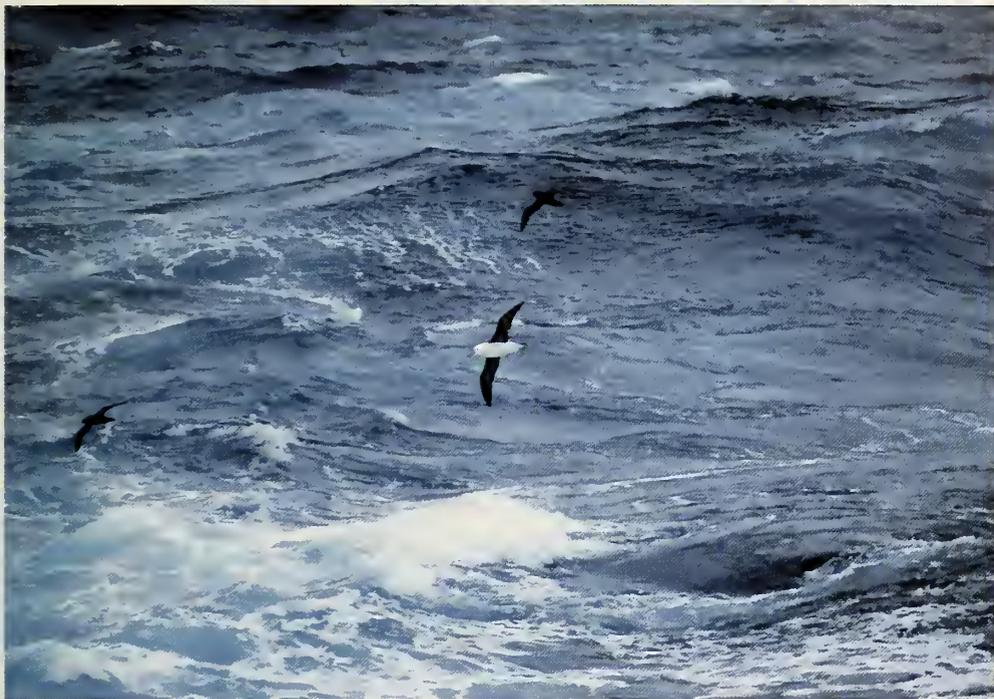


161. Five-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, November 1996. Contrast between old primaries P8-10 and new P5-7 is not so obvious as on three-year-old birds. Note the blackish wash on sides of bill.

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163. Adult Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, December 1995.



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164. One-year-old Black-browed Albatross *Diomedea melanopbris*, Crozet Islands, southern Indian Ocean, December 1995. Note bill coloration and underwing pattern. Primary moult has not yet started, and will begin during the second winter.



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165. Two-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, January 1997. White coverts starting to appear on underwing.



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166. Three-year-old Black-browed Albatross *Diomedea melanopbris*, Kerguelen Islands, southern Indian Ocean, November 1996. Note very dark underwing, but ragged, old P8-10, clinching the age of this individual.

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167. Four-year-old Black-browed Albatross *Diomedea melanophris*, Kerguelen Islands, southern Indian Ocean, November 1996. At this age, underwing is almost adult-like but a little dustier.

Nicolas Grasco



168. Three-year-old Black-browed Albatross *Diomedea melanophris*, Kerguelen Islands, southern Indian Ocean, December 1996. This bird shows a very pale bill for this age.

Nicolas Grasco



169. Adult Black-browed Albatross *Diomedea melanophris*, Kerguelen Islands, southern Indian Ocean, December 1996. Note broad black leading and trailing edges to underwing on this individual.



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170. Adult Black-browed Albatross *Diomedea melanophrys*, Crozet Islands, southern Indian Ocean, December 1995. This bird shows a very dark underwing pattern, the underwing-coverts being grey, thus matching two-year-old birds.

Two-year-old P8-10 new (sometimes also P1); P2-7 old and abraded (juvenile feathers). White head and greyish neck-collar. Bill dark with black unguis (and yellowish extreme tip), the other horny plates being dark grey with yellowish edges, and base and tip of culminicorn remaining black (plate 155). Underwing-coverts off-white with brown tips, creating pale panel along wing centre (plate 165).

Three-year-old P8-10 abraded; P2-7 new (even P1, if not moulted before). Head white, with greyish wash on hindneck, short eyebrows. Bill very variable, from mostly dark to pale yellowish with dark tip; usually variable amount of black at base of culminicorn, yellow-tipped black unguis, greyish latericorn centres and ramicorns (plates 156 & 168). Underwing has usually whitened and can approach that of adult, but can still, rarely, be dark (see plate 166).

Four-year-old P8-10 new, often contrasting strongly with very abraded P5-7 (often P3-4, too, but renewed P1-2 common). White head,

with eyebrow variably short or absent, and sometimes a grey wash on cheeks and hindneck, with greyish neck-collar faint or absent (see plates 158-160 for illustration of head-pattern variability). Dull yellow bill, with unguis having wash of black mixed with reddish. Underwing mostly adult-like, with a few grey-brown outer median coverts (plate 167).

Five-year-old P8-10 old, but generally not very abraded; P5-7 new. Neat black eyebrows begin to show; sometimes greyish cheeks and hindneck, and also greyish collar. Bill generally adult-like, but normally with discreet grey wash on lateral and distal horny plates (plates 161 & 162). Underwing adult-like.

From the sixth year onwards, bill and plumage coloration are almost adult-like, and most individuals of this age cannot be distinguished from adults, especially at sea.

Adult (See plates 147, 157, 163, 169, 170) White head and obvious black eyebrows; cheeks and hindneck white, rarely washed

grey. Underwing pattern variable, with greater coverts all-white or black-tipped (in latter case, reducing width of central white area: see plate 169), sometimes with some black outer median coverts. An intriguing bird observed at sea off Crozet Islands, in the southern Indian Ocean, showed an adult-like bill, but grey-smudged median and greater underwing-coverts, resulting in a dark underwing pattern almost matching that of two-year-olds (see plate 170). So, individual variation in underwing pattern has been seriously understated in previous literature, and correct ageing could not be made on this criterion alone.

Conclusion

Recognising an albatross at sea is fairly easy, but specific identification can be more problematic, particularly with distant birds, as observations are often brief and, in Europe, are generally unexpected. Attention should be paid to the general silhouette, and experienced observers should be able to distinguish between some species by silhouette and flight action. The essential keys for identification are, however, the contrasts on the

upperparts and the pattern of the underwing, while the bill coloration, if seen well, is always diagnostic. Special care should be paid to separate one-year-old, two-year-old and three-year-old Black-browed Albatrosses from (two-year-old) three-year-old and four-year-old (white-headed) Grey-headed Albatrosses, especially because juvenile Black-browed can show an all-grey head, and because bill patterns of immatures of the two species can be extremely similar (*contra* Harrison 1983). Differences in structure between the two species should, however, help to separate them at sea.

Finally, close views of an immature Black-browed should enable correct ageing on the basis of bill coloration and the moult stage of the primaries, while the underwing pattern varies too much to constitute a reliable ageing character. Of course, the distance of observation at sea often excludes the feasibility of checking the bill pattern, but it is worth looking at the primaries in order to age a vagrant immature Black-browed, since the moult contrast can sometimes be obvious, even at sea.

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Separating Acrocephalus and Hippolais warblers

There is a long-held belief that the length of the undertail-coverts can reliably separate members of the two genera *Acrocephalus* and *Hippolais*. To my knowledge, D. I. M. Wallace first suggested this in 1964 in his groundbreaking paper 'Field identification of *Hippolais* warblers' (*Brit. Birds* 57: 282-301), and subsequently it has appeared in most identification papers concerning the two genera. For example *The Macmillan Birder's Guide to European and Middle Eastern Birds* (1996) stated that the undertail-coverts of *Acrocephalus* warblers are 'long... reaching to three-quarters of tail length' and of *Hippolais* warblers 'fall roughly halfway along tail'.

There is some doubt, however, as to how useful this feature is in the field when attempting to separate Blyth's Reed Warbler *A. dumetorum* from Olivaceous Warbler *H. pallida* (in my opinion, a much-under-rated identification problem). This may also be relevant to the questioning of the taxonomic status of Olivaceous Warbler (*Dutch Birding* 19: 294-300). Dr Roger Riddington drew attention to this problem in his description of the Fair Isle Olivaceous Warbler of 1995. This bird had undertail-coverts extending more than halfway down the tail (*Birding World* 8: 218-220) with a length of 38 mm and total tail length of 54.5 mm (69.5%), whilst those of the Suffolk bird in the same year were described as 'extending to about halfway down the tail' (*Birding World* 8: 293-294). It is obvious from the Fair Isle bird that the undertail-covert/tail ratio of Olivaceous Warbler can almost overlap that described for *Acrocephalus* warblers.

What, however, of Blyth's Reed Warbler? Unfortunately, there is not a uniform difference. Of over 60 observed singing in trees at Alma Ata, Khazakhstan, in June 1985, my notes read 'many showed undertail-coverts reaching almost to the tail tip, but others (about 20%) had at least half of the tail exposed distal to the undertail-coverts when

seen from below.' I noted, at the time, that I felt that separation of Blyth's Reed Warbler from eastern Olivaceous Warbler was probably as difficult as separation from other *Acrocephalus* warblers. Other points whereby Blyth's Reed Warbler differed from the 'classic' view included:

- Several of the birds showed quite distinct contrast between the edges and centres on both tertials and secondaries. These birds were all seen in bright sunlight filtering through the canopy. Thus, even on spring adults, the wing is not always uniform (for an example see *Dutch Birding* 19: plate 283).
- The throat always seemed white and usually did not contrast with the rest of the underparts, but on two individuals there was a pale grey-brown suffusion across the breast, which did contrast with the throat. On both of these individuals and several others, the flanks were darker.
- Upperpart coloration varied considerably with the light. They never showed a grey cast to the plumage (in contrast to several birds in the Moscow region). In good light, they appeared to have a yellowish tint, whilst, in subdued light, they had a warm-brown look.
- Bare-part colours also varied with the light. The legs looked dark grey in poor light or in shade, but became pale brown in bright sun.

It seems to me that, using the traditional undertail-covert/tail ratio, it will be possible to separate only a minority of Blyth's Reed Warblers from Olivaceous Warbler, and these individuals would be at either end of the range. Other features - including tail shape, colour of outer tail feathers, strength of loreal markings, bill shape when seen from below (broad on Olivaceous, narrow on Blyth's Reed), call, tail 'pumping', and general coloration - should be used to support the identification. It should be remembered, however, that, with the exception of the pale outer tail feathers of Olivaceous Warbler, which can be extremely difficult to see in the field, there are no absolute separation features between the two species.

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Farms: for birds or for food?

Michael Lancaster posed a false choice in his letter (*Brit. Birds* 93: 205). Farmers, conservationists and politicians agree that farmland should produce both birds and food, and indeed many other things, such as attractive landscapes, clean water, areas for recreation, and rural employment.

The RSPB believes that the way to deliver these many different products is to ensure that the £3bn of subsidies that annually go into British farming, and have contributed to the rapid losses of wildlife, are redirected (not removed) into schemes to encourage environmentally friendly farming. Many such schemes exist, most are helping to stem wildlife losses, and Government has made some progress in putting more money into them, but much more needs to be done if our farmland bird populations are to recover.

Mark Avery

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Michael Lancaster asked 'Who is going to pay?' (to put the birds back into the countryside). Well, it is clearly going to be the same people who have unwittingly paid for three out of four Sky Larks *Alauda arvensis* to disappear from the countryside: the UK taxpayer. But, if change is achieved through redirection of current public subsidy, this need not cost the public purse much more money.

How can *BB*'s readers help put the birds back into the countryside? First, of course, support the RSPB's campaign to redirect subsidies. Secondly, contribute to survey work, such as the BTO/JNCC/RSPB Breeding Bird Survey, which will increasingly provide the data to show what needs to be done. Thirdly, as consumers, support those British farmers whose food is produced in an environmentally friendly way.

Provenance of the first British record of 'Kumlien's Gull'

During research for their paper on Iceland Gulls *Larus glaucooides* from the Braer disaster, Weir *et al.* (1995) discovered that The Natural History Museum, Tring, held a British specimen of the race *L. g. kumlieni* taken on 24th November 1869, which had been previously assumed to be of the nominate race. They pointed out that this would comprise the first British record for the race *kumlieni*, and it was subsequently accepted as such by the BOU Records Committee (1998). Unfortunately, the registration number (actually 1897.11.10.11) and, more importantly, the provenance of this specimen were given wrongly in each case. Both on its original label and in its register entry, the specimen is recorded only as having been taken at 'Breckness', but this was apparently misread as Brackness, which in turn was assumed to be Blacksness, a locality in Scalloway in Shetland (M. Pennington *in litt.*); in conse-

quence, both above references gave the provenance simply as 'Shetland'. In fact, Breck Ness is a locality in Orkney, about 3 km west of Stromness (R. McGowan *in litt.*). That the specimen indeed came from there is corroborated by the fact that it was obtained from Edward Hargitt, a collector closely associated with Orkney (e.g. Sharpe 1906) and whose collection contains other Orkney specimens taken immediately before and immediately after 24th November 1869.

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Britain & Ireland

I should like to register my wholehearted endorsement of the editorial decision to continue to maintain and foster links with the Republic of Ireland (*Brit. Birds* 92: 62-63). It is, in my view, the relevant organisations' prerogative to publish the decisions of the Irish Rare Birds Committee and the Northern Ireland Bird Records Committee in their own journals in the first instance. The report on rare birds produced by the British Birds Rarities Committee, and the running totals maintained for each species, would, however, be much the poorer without the inclusion of

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Irish records (even though the latter must, for the time being at least, be added one year retrospectively). I urge the *BB* team to continue to avoid jumping on the fashionable bandwagon advocated by the BOU and others, a position that makes absolutely no sense when dealing with the study and enjoyment of birds in their biogeographic context. The birds pay no heed to purely political boundaries; and the less politics and the more co-operation between national bodies the better, for the birds and for bird-watching in these islands.

Marsh Warblers breeding on Utsira

Encouraged by the report of a breeding pair of Marsh Warblers *Acrocephalus palustris* in Orkney in 1993 (Meek & Adam 1997), I consider it relevant to put on record a similar isolated breeding occurrence that took place on Utsira, Rogaland, western Norway, in 1996.

Preceded by an influx - large scale, by local standards - of Marsh Warblers in early June 1996 (Mobakken 1997), a pair stayed on into July, holding territory in the northern part of the island. Then, on 31st July, at least one adult was seen in close proximity to two juveniles. Both the adult birds and their two youngsters were then seen regularly throughout August. This record was accepted by the local records committee (LRSK/Rogaland) in March 1999.

The similarity of these two breeding records - both representing the first such records for their respective regions - is their isolated nature, being the results of ordinary return migration, but occurring in years with above-normal contingents of such out-of-range birds, making it more likely for pioneering individuals to set up breeding territories (as it is more likely for the two sexes to meet in such years). Indeed, the Utsira breeding was the first noted far outside the species' established breeding range, which is centred around the

Oslofjorden area in southeast Norway (see Syvertsen 1992).

Although this breeding record came as a small surprise, it was not unprecedented, Utsira having in the past claimed noteworthy breeding records of such eastern species (from a Norwegian perspective) as Red-backed Shrike *Lanius collurio* (in 1984) and Common Rosefinch *Carpodacus erythrinus* (the first for Rogaland county, in 1985).

As a digression, I found it intriguing that Meek & Adam (1997), after concluding that the one adult and all three juveniles in Orkney were positively identified as Marsh Warblers, left the other adult as of uncertain identity. Simple logic tells us that it, too, has to have been a Marsh Warbler; pure Marsh Warbler youngsters will have to have had both their parents of this species.

Personally, I find that the Marsh Warbler's pale yellowish legs and all-grey claws, lacking contrast, and to a lesser extent its jizz, are the most useful identification features.

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Bird Photograph of the Year

Sponsored by:

HANDBOOK OF THE BIRDS OF THE WORLD

One of the most enjoyable days of the year, for the judges involved, came around once again. This is the competition's twenty-fourth year.

After an initial scan to assess the general standard (phenomenally high!), we slowly projected all the entries, eliminating those that were not strongly supported by at least one judge. This gave an initial short-list of 33 transparencies. Only one photographer, Mike

Wilkes (our very first winner, *Brit. Birds* 70: 133-136), had all three of his entries still included at this stage, but another seven entrants still had two in the running: Terry Andrewartha, Neil Bowman, Richard Brooks, Tony Hamblin (last year's winner, *Brit. Birds* 92: 301-307), Dr Koshy Johnson, Alan Petty, and Gary Smith.

Even more detailed perusal and critical examination was needed to reduce the short-list to 17 (Dr Koshy Johnson being the only photographer with two still in at this final stage). Each judge then independently ranked each transparency from 1 to 17. After totting up the scores, the result was as follows:

1st	Montagu's Harrier <i>Circus pygargus</i> (plate 171)	Alan Petty (Kent)
2nd	Crag Martin <i>Ptyonoprogne rupestris</i> (plate 172)	Gordon Langsbury (Berkshire)
3rd=	Common Shelducks <i>Tadorna tadorna</i> (plate 173)	Tony Hamblin (Warwickshire)
3rd=	Steppe Eagle <i>Aquila nipalensis</i> (plate 174)	Dr Jens Eriksen (Oman)
5th	Turtle Dove <i>Streptopelia turtur</i> (plate 175)	Neil Bowman (Norfolk)
6th=	Osprey <i>Pandion haliaetus</i> (plate 177)	David Tipling (Kent)
6th=	Blue Tit <i>Parus caeruleus</i> (plate 176)	Terry Andrewartha (Norfolk)
8th	Red-legged Partridge <i>Alectoris rufa</i> (plate 178)	Mike Wilkes (Worcestershire)
9th	Black-winged Stilts <i>Himantopus himantopus</i>	Dr Koshy Johnson (East Yorkshire)
10th=	Barn Owl <i>Tyto alba</i>	Gary Smith (Norfolk)
10th=	Goldfinch <i>Carduelis carduelis</i>	David Chapman (Cornwall)
12th	European Nightjar <i>Caprimulgus europaeus</i>	Robert Snell (Staffordshire)
13th	Purple Swamp-hen <i>Porphyrio porphyrio</i>	Ray Tipper (Portugal)
14th	Griffon Vulture <i>Gyps fulvus</i>	Dr Koshy Johnson
15th	Water Rail <i>Rallus aquaticus</i>	Olaf Lessow (Germany)
16th	Red Kite <i>Milvus milvus</i>	Richard Brooks (Norfolk)
17th	Great Snipe <i>Gallinago media</i>	Chris Knights (Norfolk)

Other photographers whose work was included in the initial short-list were: Tony Clarke (Sheffield), Mark Darling (Lanarkshire), Howard Nicholls (Mid Glamorgan), John Power (Liverpool), Wayne Richardson (Middlesbrough), Roger Tidman (Norfolk), and Steve Young (Liverpool).

The Young Photographer of the Year award, sponsored by the Eric Hosking Charitable Trust, was won, for the fourth successive year, by David Norton (Essex), and we show one of his set of three photographs here (plate 179). The runner-up in this section, open to photographers aged under 26, was Oliver Slessor (London).

Alan Petty described the winning photograph (plate 171) thus: 'Several Montys were quartering the field at the back of the salt-pans in Kalloni [Lesvos, Greece] when this one suddenly spotted something below, applied full "airbrakes", and dived onto prey. This shot shows the wings and tail fully

extended before the dive.' The judges commented that it was the combination of the bird very actively engaged in hunting and the clearly visible (but not distracting) background, showing the harrier's feeding habitat, which were this photograph's winning qualities. It was aesthetically



171. BIRD PHOTOGRAPH OF THE YEAR. Female Montagu's Harrier *Circus pygargus*, Greece, May 1999. (Nikon F90X; 300-mm. f2.8, 2x teleconverter; 1/640, f5.6. Fuji Velvia 100 rated at 200 ISO.)
Alan Petty

pleasing and also informative. The bird, in its interesting pose, was pin-sharp. Alan will receive a set of the magnificent 12-volume *Handbook of the Birds of the World*, of which five volumes have been published so far, presented by this competition's sponsor, Lynx Edicions.

The second-placed photograph (plate 172) is likely to be especially admired by any bird-photographer who has tried to capture

on film the darting, weaving, elusive Crag Martin. The background is plain, with no habitat to add to its interest, but Gordon Langsbury's achievement is in obtaining the shot at all. He described the circumstances thus: 'This bird was nesting on the wall of a taverna. Using auto focus, I obtained this photograph while the bird was flying over the building.'

Tony Hamblin provided us with an evoca-



172. SECOND. Crag Martin *Ptyonoprogne rupestris*, Spain, May 1999. (Nikon F5; Nikkor 80-200 f2.8 AFS, 2x AF teleconverter; 1/800, f5.6. Fuji Sensia 100 rated at 200 ISO.) *Gordon Langsbury*

tive image of Common Shelducks flying over the Severn Estuary near Slimbridge, Gloucestershire (plate 173): 'a picture good enough to hang on the wall'. Each bird is clear and in a different posture from the next, with all equally spaced, and none overlapping, almost as if they had been carefully arranged for pleasing impact. Tony commented: 'Storm clouds were appearing in the northwest, with full sun where I was standing, when a small flock of Shelducks flew overhead. They circled again and I got just one frame which showed them all sharply (it's rare to get more than a couple or so [in focus]).'

We know Dr Jens Eriksen's work well, and several of his raptors have amazed us in past years. Are we getting blasé if we place this one (plate 174) only 'equal third' in this competition? This is a stunning shot, with - if anything - the bird too big in the frame, but this helps to emphasise the power of an eagle. This will doubtless be a very 'commercial' picture, likely to appeal to advertisers and calendar compilers. Jens tells us the story: 'Steppe Eagles are common winter visitors in our area [near Muscat, Sultanate of Oman], and I have photographed them for

several years. Most photos are of birds flying overhead, but occasionally I can get one seen from above. In this particular case, the eagle was taking off at about eye level, and I managed to get just one shot as it took off. The unworn, pale trailing edge to the wings suggests that this is a first-winter bird.'

Neil Bowman's Turtle Dove (plate 175) seems 'almost too good to be true', as it struts along, puffed up and displaying, against 'a Hollywood stage set' background. This was, by chance, the first transparency viewed by the judges, and set a standard by which all the others had to be judged. The circumstances, in the photographer's words, were as follows: 'This shot was taken from a hide at my feeding station, where Turtle Doves are regular visitors. I had been after a good shot of one displaying for the last three summers. The doves are generally busy feeding in the mornings, with most display activity in the afternoon. Unfortunately, the light in my hide is at its best in the morning. Eventually, my luck turned, and this male displayed in excellent light.' What a pity, the judges thought, that the object of this male's display (a female, or another male?) was not

also in the picture (perhaps too much to hope for), or that the exact circumstances were not described. That is not a criticism of the photographer, who, we realise, has to concentrate on what can be photographed, not on what might be going on 'around the corner', out of frame.

The phrase 'actively engaged in sunning' is a valid but strictly incorrect description of Terry Andrewartha's Blue Tit (plate 176), for the bird is totally inactive, absorbing the warmth of the sun. All it needs is a pina colada. Those more serious in their interest in this behaviour should consult Dr Ken Simmons's 1986 classic, *The Sunning Behaviour of Birds: a guide for ornithologists*. The photographer's account is as follows: 'I was in a hide in a woodland setting trying to photograph Long-tailed Tits [*Aegithalos caudatus*] gathering feathers for nesting material. I got into the hide nearly every day, and, after about two weeks, on a very hot day, with the temperature well into the 70s, this Blue Tit came and landed on a branch in front of the hide and started sunning. This lasted for about three minutes, which gave

me plenty of time to take this photograph.'

In contrast to the Blue Tit, there is no shortage of active behaviour to be seen in David Tipling's photograph of the Osprey (plate 177). The judges usually criticise (and dismiss) shots in which part of the bird is 'cut off' and is out of frame, but the missing wing-tips hardly matter on this stunning image. David described the circumstances thus: 'I spent seven days from dawn to dusk in a small hide overlooking a small pond [at Kangasala fish-farm in southern Finland] for this shot. The Ospreys would visit regularly to take the abundant trout. However, on only one day out of the week did the light and wind direction combine to make the perfect opportunity. The wind needed to blow from behind me to ensure that the Ospreys flew towards the camera. The Ospreys often dived so close that I regularly had to dry the front element of my lens from the splashes.' Yes, David, we do believe you.

Another all-action shot, with soil and stones flying, is Mike Wilkes' dust-bathing Red-legged Partridge (plate 178). Mike wrote: 'I noticed that a corner of a field was being

173. THIRD EQUAL. Common Shelducks *Tadorna tadorna*, Gloucestershire, November 1999. (Canon EOS 1N; Canon 500L f4.5; 1/750, f4.5. Fuji Sensia 100.) Tony Hamblin





174. THIRD EQUAL. Steppe Eagle *Aquila nipalensis*, Oman, December 1999. (Nikon F5; Nikkor 300-mm f2.8 AFS, 1.4x teleconverter; 1/400, f4. Fuji Velvia 50.) *Jens Eriksen*

175. FIFTH. Turtle Dove *Streptopelia turtur*, Norfolk, May 1999. (Canon EOS 1N; Canon 500-mm f4.5. Fuji Velvia 50.) *Neil Bowman*





176. SIXTH EQUAL. Blue Tit *Parus caeruleus*, Norfolk, April 1999. (Canon EOS 1N; 300-mm f2.8, 1.4x teleconverter.) Terry Andrewartha

used by RLPs for dust-bathing. There were little indentations in the ground, and feathers lying around. I have been waiting for the chance to take [photographs of] this action for many years. I set up my hide and, after many afternoons watching and waiting, I managed to get them in front of my hide tossing stones and dust high into the air.'

A winter scene, with colourful autumn leaves, and a Robin, the bird that exemplifies an English December. The circumstances surrounding David Norton's fourth-in-a-row prize-winning photograph (plate 179) were described by him as follows: 'This Robin photograph was taken in the garden in December 1999. The bird is very tame, so I decided to use my macro lens to get a better-quality photograph of it. Whilst it was accepting food from the hand, it also drank from this pool, where the sun just grazed its front. The important part of this encounter was appreciating how the Robin was carrying on its normal routine whilst fulfilling its own curiosity to see what I was doing.' David will receive a cheque for £100 and an

engraved glass goblet presented by The Eric Hosking Charitable Trust.

The prizes, which also include token cheques for the photographers of the transparencies placed second and third in the main competition, will be presented at a joint Press Reception with Bird Illustrator of the Year.

As in other recent years, a selection of the top photographs will be published in a forthcoming issue of the monthly magazine *Bird Watching*. We value this link with a publication which provides an excellent service to British ornithology by encouraging and developing an interest in responsible bird-watching among many newcomers to the hobby. This year, for the first time, the Editor of *Bird Watching*, David Cromack, was a member of the judging panel.

Next year's competition, in which photographs taken during the year 2000 will be assessed, will follow the usual format. Any new competitors should write for a copy of the Rules to the address given below.

Finally, the judges wish to report that the

general standard of entries continues to rise every year. Whereas, at one time, there was just a handful of potential winners, and we had merely to decide which of them was the best or most interesting, nowadays there are many photographs which do not even make

the initial short-list but which would formerly have been among the top half-dozen. Many images greatly admired by one or other of us have not even received a mention in this account. Bird-photography is thriving!

J. T. R. Sharrock, Richard Chandler, Robin Chittenden, David Cromack and David Hosking

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177. SIXTH EQUAL. Osprey *Pandion haliaetus*, Finland, August 1999. (Nikon F5; Nikkor 300-mm f2.8 AFS; 1/1,000, f4. Fuji Sensia 100.) *David Tipling*





178. EIGHTH. Red-legged Partridge *Alectoris rufa*, Warwickshire 1999. (Canon EOS 5, Canon 500-mm f4.5, 1/350 sec, f4.5. Fuji Sensia 100.) *Mike Wilkes*

179. The *British Birds* Young Bird Photographer of the Year Robin *Erithacus rubecula*, Essex, December 1999. (Nikon F-801s; 105-mm Micro-Nikkor, 1/125, f2.8. Fuji Sensia 100, rated at 200 ISO.) *David Norton*





Common Stonechat breeding in February in reedbed

On 26th February 1995, at Marshside Marsh RSPB Reserve, Merseyside, I noted an adult female Common Stonechat *Saxicola torquata* perched on a fence post with insect food in her bill. She flew into a thin bed of Common Reed *Phragmites australis* beneath the fence, on the landward edge of the saltmarsh. On closer examination of the reedbed, I found a nest containing several calling young, which the female was apparently feeding. There was no sign of the male, although both parents typically feed the nestlings (Johnson 1971), and on a return visit in the following week I failed to locate either adult or young stonechats.

I can find no reference to Common Stonechats breeding so early in the season. *BWP* (vol. 5) states that, in northwest Europe, this species may begin laying as early as March, and nestlings may be found in mid March (although a more typical date is mid April). In a 20-year study of a resident coastal population of Common Stonechats in Jersey, Channel Islands, Johnson (1971), found that, although pair-bonding and territory defence began in late January or early February, breeding itself did not start until late March.

The unusually mild weather during February 1995 is assumed to have been the stim-

ulus which produced such an early breeding attempt, with an unsettled period of showers and spells of sunshine during the weeks leading up to the event. Indeed, the winter of 1994/95 was one of the three wettest, and hence mildest, in Britain in the twentieth century (Cleave 1995). Unfortunately, below-freezing temperatures had returned to the area by the beginning of March, probably resulting in the loss of the brood.

This record is also thought to be possibly the first documented instance of Common Stonechats using a bed of Common Reed as a nest site. *BWP* lists (in order of preference) gorse *Ulex*, open grass, Heather *Calluna vulgaris* and heath *Erica*, Bracken *Pteridium aquilinum*, other low scrub, mixed low vegetation and stone walls as typical sites, while Johnson (1971) found that clumps of Marram Grass *Ammophila arenaria* and gorse bushes were the most widely used sites.

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EDITORIAL COMMENT

Dr Humphrey Crick has commented: 'This record is certainly extraordinarily early, as the earliest first-egg date calculated from a nest record card is 16th March, the average being around 1st May (from a sample of about 1,000 nest record cards from which we can calculate laying date). The year 1995 was an unusually warm and early nesting season. In fact, it was rather difficult to tell when the 1994 season ended and the 1995 season started: late broods were being reported in November, and there was only a brief break each side of the New Year during a period of severe gales, blizzards and freezing fog. A number of species which normally start early were recorded breeding in late January and early February, for example, Blackbird *Turdus merula*, Collared Dove *Streptopelia decaocto*, Tawny Owl *Strix aluco*, Mistle Thrush *T. viscivorus* and Great Crested Grebe *Podiceps cristatus*. January and February 1995 were, however, extremely wet, which must have held back some species. Presumably, there was sufficient insect food to allow this pair of Common Stonechats to take advantage of the unusual warmth.'

Common Starlings feeding from parked cars

On 24th September 1995, at St Ives, Cornwall, I noticed several Common Starlings *Sturnus vulgaris* feeding around the parked cars. They did not appear to be taking food from the ground, but seemed to be pecking scraps from the bumpers of cars. On closer inspection, I could see that they were eating a variety of insects which had been squashed on to the front of the cars while the latter were moving. As each new car arrived in the

car park, the birds would move to it and inspect the front for food. Along with the starlings were several House Sparrows *Passer domesticus*; these travelled around with the starlings, watching their every move and quickly feeding on any insects which fell to the ground. Since this episode I have paid more attention to birds in car parks, but have not noticed this behaviour anywhere else.

Sara McMabon

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EDITORIAL COMMENT

In 1994, David Brazier recorded Common Starlings pecking at the front of a large locomotive in a siding in Hampshire and Red-legged Partridges *Alectoris rufa* pecking insect remains from car registration plates on the Isle of Wight (*Brit. Birds* 91: 330). Earlier, in the 1970s, House Sparrows were recorded collecting insects from in and behind the radiator grilles of stationary cars, at which time their habit of taking dead insects stuck to the front of cars was said to be 'a well-known practice of this species' (*Brit. Birds* 77: 121). The behaviour described by Sara McMabon seems, somewhat surprisingly, not to have been recorded for Common Starling.

Nest-building by Mute Swans apparently in response to heavy rain

Over a number of years of observing the nest-building behaviour of Mute Swans *Cygnus olor* at Shibdon Pond, Tyne & Wear, I have noted on several occasions that the male will add material to the nest structure while the female is incubating. In 1995, I took more careful note of the exact circumstances surrounding this behaviour. On the three occasions when, during the incubation period, the male was seen to collect appreciable amounts of new material for incorporation into the nest, there had been significant rainfall within the previous twelve hours. This 'building activity' did not always occur during rain, but the vigour of the male's response did seem to be related to

the length of time over which rain had fallen and to the amount of rain involved: the highest rate of activity occurred on 23rd April, after considerable heavy rain in the previous 24 hours; further concerted building was observed on 8th May, during and after heavy showers.

Although this behaviour would appear to be an adaptive response by the male swan to a potential threat of flooding, the interesting aspect is that it seems to have been triggered by the rain itself and not by any perceived rise in water levels. At no time over the relevant period did the water level at the nest site vary by more than a centimetre or so.

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EDITORIAL COMMENT

This idea is interesting, if not surprising. More observations, with measured data, and an assessment of any other possible factors, would be most useful.



Monthly Marathon

In theory, identification of April's wader (plate 117, repeated here as plate 180) should be fairly straightforward. It is obviously small and, judging by the colour and extent of the hooded appearance, it is in summer plumage. The upstretched wing is, however, while neatly showing us most of the underside of the bird, obscuring the crucial upperparts that may well have led to a straightforward identification.

So, how do we proceed with this small wader? First, let us look at the shape and posture: it has short legs, a fairly horizontal stance, and a short fine bill. Next, the plumage, or what we can see of it. The head, throat and upper breast seem to be a dark greyish-brown; the clear-cut demarcation between the upper breast and the rest of the white underparts is very noticeable; and the rump and uppertail-coverts seem to be white, but there is just a hint of a dark centre (which allows us to rule out the two white-rumped species). At first, the legs look dark, but, on close inspection, may be showing a hint of paleness and, although they are in shadow and difficult to see properly in this photograph, they certainly do not look jet-black. The general impression of the bird is of a Temminck's Stint *Calidris temminckii*, especially with that clearly demarcated breast and hooded effect. But what about the other contenders? Well, ignoring for the moment the discussion on whether or not the bird has pale legs, the other stints and 'peeps' that show clean white underparts, lacking any streaking, in breeding plumage, are Baird's Sandpiper *C. bairdii*, Little Stint *C. minuta*, Least Sandpiper *C. minutilla*, Long-toed Stint *C. subminuta* and Red-necked Stint *C. ruficollis*. The apparently



David Tipling

180. Temminck's Stint *Calidris temminckii*, Norfolk, July 1989

extensive white sides to the rump and uppertail-coverts almost certainly rule out the first of these straight away, since Baird's Sandpiper shows a very broad dark centre to its rump and uppertail, with only narrow white sides.

Let us go back to the feature that we can see most clearly: the underwing. Views like this are rare in the field, and underwings are not often cited as an identification feature of small waders (although we do have to look for them on some larger waders, such as pratincoles *Glareola* and golden/grey plovers *Pluvialis*). On this photograph, however, Ian Lewington's research on our behalf at The Natural History Museum at Tring has shown that it holds the absolute clincher of the bird's identity. The clear and well-defined dark trailing edge is diagnostic of Temminck's Stint. No other small wader has an underwing pattern like this, with dark primary coverts and a dark trailing edge to the wing. All the other small *Calidris* species, although showing a similar pattern, have a much less well-defined dark trailing edge that gradually fades into the paler underwing. It is also only on

Temminck's that this dark trailing edge is so strongly marked along the entire length of the wing; on the other contenders, it fades out almost completely on the inner secondaries. Another feature worth reprising is the hooded appearance: all the other possible species would be likely to show a much paler throat than the bird in our photograph.

This individual was present at Holme in Norfolk during 21st-25th July 1989 (*Norfolk Bird Report*), during which time it attracted a lot of visitors, including David Tipling, who took this photograph.

Competitors named this bird as Least Sandpiper (61%), Little Stint (12%), Baird's Sandpiper (11%), Sanderling *C. alba* (7%), White-rumped Sandpiper *C. fuscicollis* (5%), Pectoral Sandpiper *C. melanotos* (3%) and Temminck's Stint (1%). All three leaders plumped for Least Sandpiper, so, after having achieved sequences of 12 in a row, are all now back at the start (our sympathy will not compensate for their disappointment, but the sponsor, Sunbird, has offered each of them a book of their choice as a consolation prize).

Only two entrants got it right: George Brown (Braintree, Essex) - who also identified the previous month's Booted Warbler *Hippolais caligata*, so is now on two in a row - and Christer Kalenius (Finland). Everybody else is back at the start, on zero, so this marathon eleventh Marathon is essentially starting all over again... Have a go!

Steve Rooke



181. 'Monthly Marathon'. Photo no. 167. Fifteenth stage in eleventh 'Marathon'. Identify the species. Read the rules (see page 54), then send your answer on a postcard to Monthly Marathon, Fountains, Park Lane, Blunham, Bedford MK44 3NJ, to arrive by 15th August 2000. With all competitors except two (one on two correct answers, and the other on one) back at the start line, **this Marathon is essentially starting all over again. Have a go!**

For a free brochure, write to SUNBIRD (MM), PO Box 76, Sandy, Bedfordshire SG19 1DF, or telephone 01767 682969.



Rarities Committee news

Grahame Walbridge to stay on BBRC for three more years

In September 1999, we asked for nominations for election to become the next member of the BBRC. We explained at the time that, should no suitable candidate be proposed, the longest-serving member, Grahame Walbridge, had agreed to waive his automatic entitlement to retire and would remain on the Committee for a further three years. This would allow him to complete a series of tasks that he was undertaking on behalf of the BBRC.

We received no nominations for membership, so are pleased to have Grahame continuing for another three years. He is an out-

standing member of the BBRC, not only because of his well-recognised abilities at bird identification, but also because of his detailed knowledge of observers nationally and particularly in the Southwest.

We are, however, concerned about the lack of individuals prepared to serve the birding community. It is an onerous, and sometimes thankless, task but it is also fascinating to see the range and standard of records submitted. It also acts as a stimulus to keep up to date with current identification, and most people who have served on the Committee have enjoyed the

experience.

The BBRC replaces one member each year and tries to maintain a membership that has a sound working knowledge of observers and records across the whole of Britain. In the next two years, we shall seek to replace Committee members who fulfil this function for East Anglia and Scotland. In three years' time, we shall need to find a replacement for Grahame. We hope that, by then, there will be birders willing to undertake this important role.

For more information, phone Colin Bradshaw on 0191 257 2389.



News and comment

Compiled by Bob Scott and Wendy Dickson

BOURC seeks new members

The British Ornithologists' Union is inviting applications and nominations for new members of its Records Committee (BOURC) to succeed Ken Shaw (who retires in April 2000) and Dr Alan Knox (who retires in April 2001). The term of office is usually eight to ten years, with the longest-serving of the ten members retiring each year. There are normally two meetings per year, each lasting one day, and other communication is by e-mail or by post.

The primary function of the BOURC is to maintain the official list of birds recorded in Great Britain (the British List) and to determine into which category (A, B, C, D, E) a record should be placed. In most cases, the identification of claimed additions to the British List is first assessed by the British Birds Rarities Committee (BBRC) and then confirmed by the BOURC, which then considers the likely origin of the bird in order to determine the category into which the record should be placed. Information on feral populations is monitored, and reviews are undertaken of older records. The BOURC also studies taxonomic advances, and initiates research in this field, through its six-member Taxonomic Sub-committee.

As well as bird identification, the skills of individual members include detailed knowledge of bird distribution, taxonomy, statistics, the cage-bird trade, genetics and historical research. Members are required to handle regular batches of paperwork, often of a detailed and complex nature, and to do so promptly and reliably. Access to e-mail facilities is a considerable advantage. The work is entirely voluntary and unpaid.

The present members are Tony Marr (Chairman), Tim Melling (Secretary), Colin Bradshaw (BBRC Chairman), Paul Harvey, Alan Knox, Ian Lewington, Eric Meek, Tony Prater, Ken Shaw and Roger Wilkinson.

Applications from, or nominations on behalf of, interested persons possessing the necessary motivation, outlining their relevant experience, knowledge and skills, are now invited for the posts to be filled during 2000 and 2001 (please indicate clearly to which year applications refer). They should be sent at once to Tony Marr (BOURC Chairman), Two Hoots, Old Hall Farm Barns, Cley next the Sea, Norfolk NR25 7SF; telephone & fax: 01263 741313; e-mail: bourc.chair@bou.org.uk

Ngulia Ringing Group

We have received the mouth-watering summary of the autumn 1999 activities at the Ngulia ringing station in Kenya. Over 265,200 Palearctic birds of 33 species ringed, including over 10,200 Marsh Warblers *Acrocephalus palustris*, and over 400 Afrotropical birds of 84 species ringed, including eight species for the first time. Recoveries included what may be the first-ever recovery of an Olive-tree Warbler *Hippolais olivetorum*

anywhere (from Mozambique) and 72 recoveries from 22 countries of Marsh Warbler. With over 4,000 Willow Warblers *Phylloscopus trochilus* ringed, there are still no recoveries. Experienced ringers who may be interested in helping with the project should contact Graeme Backhurst, Box 15194, Nairobi, Kenya; e-mail: graeme@healthnet.or.ke or David Pearson, 4 Lupin Close, Reydon, Southwold, Suffolk IP18 6NW.

Waders in the Yorkshire Dales National Park

The RSPB and the Yorkshire Dales National Park Authority have completed a major survey of the breeding waders in the National Park this summer. Declines in lowland wader populations between the early 1970s and late 1990s have seen numbers of Northern Lapwing *Vanellus vanellus* fall by over 45% and Common Snipe *Gallinago gallinago* by some 95% across the UK. With such major declines in the lowlands, many species of waders now have their breeding populations concentrated in the uplands, and areas such as the Yorkshire Dales National Park hold significant populations. Up-to-date information on species such as Eurasian Curlew *Numenius arquata*, Common Snipe, Northern Lapwing and Common Redshank *Tringa totanus* is vitally important if their future is to be secured. In total, the survey covered some 100 km² of moorland-edge pasture and meadowland. In addition, the RSPB resurveyed some upland bird study plots. For further information, call the Yorkshire Dales National Park Authority on 01756-752748.

Sandeel ban

It has been announced that large areas off the Scottish east coast will be closed to fishing for sandeels *Ammodytes*, following sustained pressure from the RSPB. It is hoped that this will particularly benefit Kittiwakes *Rissa tridactyla* and Atlantic Puffins *Fraterecula arctica*, whose young are dependent on a plentiful supply of sandeels, but this must be good news for many other seabirds also.

Farming and Wildlife in Ireland

Following a highly successful All-Ireland Bird Conference held at Ennis, Co. Clare, on the subject of bird and habitat conservation, the BirdLife partner in the Republic, BirdWatch Ireland, supported by the RSPB in Northern Ireland, has called for a more effective performance by the Irish Government on urgent conservation and farming issues. Shortcomings in the present Rural Environment Protection Scheme (REPS) from a habitat conservation perspective were highlighted by several delegates at the conference. Comparisons were drawn with the much more conservation-oriented Countryside Management Scheme now in operation in Northern Ireland, which concentrates on priority species and habitats. BirdWatch Ireland is asking for the current review of REPS to ensure that any replacement is more conservation friendly than has been the case in the last five years. There was also a call to speed up the process of designation of Special Protection Areas and Special Areas of Conservation under the EU Directives on Birds and Habitats. Let us hope that the Irish Government listens to the calls for greater input of ecological expertise into the whole question of agri-environment planning. For further details, contact BirdWatch Ireland, Rutledge House, 8 Longford Place, Monkstown, Co. Dublin; e-mail: bird@indigo.ie

'Wild Birds and the Law'

For many years, the RSPB has produced an information booklet entitled *Wild Birds and the Law: a plain guide to bird protection today*. The latest (January 2000) edition is now available from the RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL.

The Mink menace

Stephen Rumsey has reported some striking and important facts to us: 'Since we first started to create our nature reserve at Icklesham, East Sussex, in 1986, we have considered feral North American Mink *Mustela vison* to be a serious pest. Water Voles *Arvicola terrestris* had already disappeared prior to 1985, and when Water Rails *Rallus aquaticus* attempted to colonise they were quickly preyed upon by Minks. As a result, we instituted a regular trapping programme for Minks, which initially resulted in ten to 12 being trapped each year, declining to three or four per year during the last five years. The Water Rails successfully recolonised, and breeding pairs have increased to 30-60. Water Voles recolonised in 1995-96 and are now abundant and conspicuous.

'Two major problems occur with Mink trapping: one is the incidental capture of non-target species attracted to the bait in the trap, and the other is that it is very boring to have to check ten or a dozen wire-cage traps several times every day when, on almost every occasion, nothing at all is trapped. We can offer two solutions to these problems. The first is to bait with chicken eggs; Minks seem to be attracted to eggs, but few other species are, and certainly not the Water Rails, mice, shrews and even Blackbirds *Turdus merula* that were attracted to our initial bait of catfood or fish heads. Secondly, Trevor Squire has developed an indicator system that identifies which traps have been triggered. A fishing line connects the trap door to a marker on an adjoining pole. As a result, the person responsible for checking the traps has only to check the poles and their markers, using binoculars, rather than having to walk around the whole area to visit every trap. It is important, of course, to ensure that, if the fishing line breaks, the design is such that the marker indicates that the trap door has closed.

'We consider that regular trapping for Minks in their most-favoured territories can have a significant impact on the local population of Minks, and thereby can be of considerable benefit to their prey.'

Thirty to 60 breeding pairs of Water Rails are real evidence of success.

Cranes in France

A large number of Common Cranes *Grus grus* overwintered in northern France this year - 700 in Lorraine and 7,300 in Champagne-Ardenne. The return migration this spring has also been very concentrated. Although flights towards the northeast were noted on 17th January, there were relatively small numbers from then until 20th February. The first big wave took place on 21st February, with 18,400 counted in the Haut-Vienne region alone. On 22nd, it was estimated that 16,690 cranes were on the move, with another 15,300 on 23rd. At least 10,000 arrived at the Lac du Der on this last date. Things then went quiet until the second big wave over the weekend of 26th/27th February, when 17,520 were counted on the move. In just one week, about 81,500 cranes moved across France, a very high proportion of the total West European population, which is estimated at around 100,000 individuals.

It was interesting to note the reactions of the ordinary man-in-the-street to the spectacle. A petrol-pump attendant, for example, said, as one flock passed by, 'The winter is over' - just as someone in Britain might remark on hearing the first Cuckoo *Cuculus canorus* of spring. (Contributed by Ken Hall)

New bird for the Scilly List

You may be just a little too late to twitch this one. A Great Auk *Pinguinus impennis* was on St Mary's, Isles of Scilly, on an unknown date in the third century AD. The reported locality is Halangy Down (SV910124) on the north side of the island. We are indebted to Roger Penhallurick for details of this record, which is documented in an article by Paul Ashby in the journal *Cornish Archaeology* (no.35, 1999). The nearest known breeding grounds were apparently the Isle of Man, but it is possible that young, well-grown but flightless, may have swum with their parents for many hundreds of kilometres, and could well have occurred in Scilly waters. The author speculates that the Great Auk bones may be the remains of such visiting birds, but they may have been traded goods, so are not necessarily evidence that the Isles of Scilly was a former breeding site.

Nightingales - a mixed story

The results of the 1999 BTO census of Rufous Nightingales *Luscinia megarhynchos* are now available and show some surprising population trends in different parts of the United Kingdom compared with the previous survey in 1980. Well over 1,000 BTO members and volunteers participated in recording over 4,400 singing male nightingales, with 75% of them in Sussex, Kent, Essex, Suffolk and Norfolk. Seven counties - Devon, Greater London, Nottinghamshire, Shropshire, West Midlands, Cheshire and Dyfed - which recorded nightingales in 1980 had none in 1999. Further evidence of the species' withdrawal towards (and concentration within) the east and southeast of England comes from the declines in Wiltshire (-79%) and Oxfordshire (-78%) and increases in Suffolk (+135%) and Essex (+53%). Further details may be obtained from BTO, The Nunnery, Thetford, Norfolk IP24 2PU.

Northumbrian coast designated

The Government has announced that part of the Northumbrian coastline from Berwick in the north to Blackhall rocks in the south has been designated as a Special Protection Area and a Ramsar site. The area covers all stretches of rocky shore with the exception of the Lindisfarne National Nature Reserve, which is designated separately, but does not include stretches of sandy beach, with the exception of those which contain colonies of terns *Sterna*. The site qualifies for this designation because of its breeding populations of Little Terns *S. albifrons* as well as numbers of two migratory species: Purple Sandpiper *Calidris maritima* and Turnstone *Arenaria interpres*. Additionally, the coast holds

nationally important numbers of Sanderling *Calidris alba*, Great Ringed Plover *Charadrius hiaticula* and Common Redshank *Tringa totanus*, and supports a number of other key species including Arctic Tern *S. paradisaea* and European Golden Plover *Pluvialis apricaria*.

Morecambe Bay initiative

The part of Morecambe Bay situated between Fleetwood, Lancashire, to the south and Walney Island, Cumbria, to the north, attracts thousands of visitors, both human and avian, every year. With internationally important wintering populations of wildfowl and waders, as well as important numbers of breeding birds, the area has previously been designated a Site of Special Scientific Interest and is a candidate Special Area of Conservation for its marine environment. With so many important wildlife habitats in the one area, English Nature is developing a management scheme, in conjunction with local organisations and users, to ensure continued sustainable use of the Bay. As part of this process of raising awareness of the Bay's rich natural environment and cultural heritage, a full-colour booklet, *Morecambe Bay - the secrets of the sands*, has been published. For further information, write to English Nature, Juniper House, Murley Moss, Oxenholme Road, Kendal, Cumbria LA9 7RL.

Earth Day

If you feel that you want to do your own little bit to help the planet, try visiting the website: www.earthday.net

Changes of Recorder

- Mike Ilett, Nobland Green Farm, Wareside, Ware, Hertfordshire SG12 7SJ, has replaced Rob Young as Recorder for Hertfordshire.
- John A. Hobson, 23 Hillside Road, Storrington, Pulborough, West Sussex RH20 3LZ, has replaced Robin T. Pepper as Recorder for Sussex.
- Dan A. Carmichael, 2a Reres Road, Broughty Ferry, Dundee DD5 2QA, has replaced Mike Nicholl as Recorder for Angus & Dundee.
- Iain English, 21 Grant Court, Avon Grove, Hamilton, South Lanarkshire ML3 7UT, has replaced Ian Darling as Recorder for the Isle of May.
- David Smith, 3 Smithfield Lane, Dolgellau, Gwynedd LL40 1BU, has replaced Reg Thorpe as Recorder for Meirionnydd.
- Wayne Turner, Pumpkin Cottage, La Route des Adams, St Peter's, Guernsey GY7 9LH, has been appointed Recorder for Guernsey, Channel Islands.



THE HOBBY

By Anthony Chapman.
 Arlequin Press, 1999. 220
 pages; 16 tables; 7 figures; 18
 colour plates.
 ISBN 1-900159-26-0.
 Hardback. £19.95.

As a group of birds, raptors have always been firm favourites with birders. It is hardly surprising therefore that a wealth of written information on most Western Palearctic raptors exists, much of it widely read by the birdwatching fraternity at large. The Hobby *Falco subbuteo*, however, remains the exception to this rule, and is still generally considered as an elusive and mysterious bird by most bird-watchers. The species is indeed shy and retiring, and even dedicated fieldworkers who have spent years studying the bird have discovered how difficult a species it is to work with.

Anthony Chapman's book, *The Hobby*, will go a long way to dispelling some of the myths surrounding this species. His examination of the surprisingly considerable body of literature about the Hobby reveals a very comprehensive account of its life history. Apart from his own studies of the bird, Chapman draws on the work of half a dozen or so European biologists who have conducted medium-term or long-term research programmes on the species. Thus, the book provides in-depth information on breeding distribution and status across its entire range from western Europe to the Far East, breeding biology, from time of arrival from the wintering grounds to fledging and departure, hunting and diet, migration, wintering quarters, its status within Britain, and a section on population ecology.

This is a very well-written and well-researched monograph



that I wholeheartedly recommend. The book also offers a number of superb and very evocative colour photographs of the species, as well as numerous

Bruce Pearson illustrations - not in colour, but wonderful. Go out and buy it!

Jeff Baker

SWIFTS: A GUIDE TO THE SWIFTS AND TREESWIFTS OF THE WORLD

By Phil Chantler and Gerald Driessens.
 Pica Press, Mountfield,
 Sussex, 2000. 272 pages;
 24 colour plates; 97 maps;
 62 line-drawings. 2nd edn.
 ISBN 1-873403-83-6. £28.00.

This book provides excellent, comprehensive coverage of the two families. Each of the 96 species is treated under the headings that we have come to expect in this and competing family-handbook/fieldguide series: identification, distribution (with maps) and eight biology sections. Since the first edition (1995, reviewed *Brit. Birds* 89: 217), new information added to the text comes from 75-or-so recent references, taking the bibliography to a total of about 550 titles. Introductory essays on Relationships, Breeding, Roosting, Feeding, Mortality, Moulting, Flight, Conservation, Undescribed species, and Watching swifts - 26 well-illustrated pages in all - are most interesting and

readable. Line-drawings throughout the text are beautiful and informative. Most colour plates of these difficult-to-portray and often difficult-to-identify birds are good. Others are muddled and leave a lot to be desired.

C. Hilary Fry

SWIFTS

A Guide to the Swifts and Treeswifts of the World
 Second Edition



Phil Chantler and Gerald Driessens

Also received *Ecology and Conservation of Grassland Birds of the Western Hemisphere*

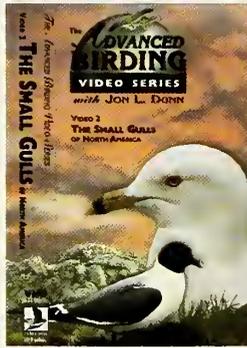
Studies in Avian Biology No. 19. Edited by Peter D. Vickery & James R. Herkert. (The Cooper Ornithological Society, Kansas. 299 pages. ISBN 1-891276-08-5. \$39.50 hardback, \$25.00 softback.)

THE SMALL GULLS OF
NORTH AMERICA

Narrator Jon L. Dunn.
Peregrine Video
Productions, 1999. Covers
14 species, running time
177 min. £17.95.

This production covers 18 forms, including some of the World's most beautiful gull species. After a brief introduction, each receives approximately ten minutes of detailed treatment, including maps, limited biometrics, stills, split-screen, and so on, even including line-drawings. Most images are captioned, and the quality ranges from poor to excellent, though viewers should not expect too much from video sources.

There is little with which to compare this tape except its predecessor, *The Large Gulls of North America*. The result is



favourable; quality is improved; editing effects work well; and there are fewer mistakes: I found only one specific misidentification. Errors are largely confined to treatment of the 'canus group', and inconsistencies in ageing at individual and species levels (e.g. Heerman's *Larus beermannii* alone is termed a '4-year gull', despite Ring-billed *L. delawarensis*, 'Mew' *L. canus* and Laughing *L. atricilla* all showing '3rd-year' plumages).

The narration is informative, yet repetitive, almost breathlessly continuous, and, as with *The Large Gulls...*, overemphasises subjective structural characters, and frequently contradicts accompanying images. Much may be due to editing, but misleading statements are made, such as the alleged lack of white 'tongues' on the primaries of nominate *canus*.

Nonetheless, this remains an excellent and invaluable video. Buy it, and drool over Red-legged Kittiwake *Rissa brevirostris*.

Martin Elliott

BILL ODDIE'S GRIPPING
YARNS; TALES OF BIRDS
AND BIRDING

By Bill Oddie.
Christopher Helm, London,
2000. 203 pages.
ISBN 0-7136-5268-3.
Paperback, £7.99.

This collection of over 60 tales of Bill Oddie's 'ups and downs, highs, lows and thrills and spills of his birding' is amusing and entertaining. Many of these tales have already been published in *Birdwatch* magazine, but here they are collected in one volume. The book is a good read, if you want light relief from the serious side of ornithology. Bill's anecdotes – of bird races, identification problems, holiday disasters and how to be in the right place at the wrong time – are written in his unique manner. I especially enjoyed some of his one-liners, such as 'Eastern Bluebird at St Margaret's? I don't think even a well-known twitcher would go for that.' Or, when talking about the mad dashes that are bird racing, he discusses the 'biggest act of faith' and the bird with the 'dodgiest credentials'. Buy it, and escape those birding blues.

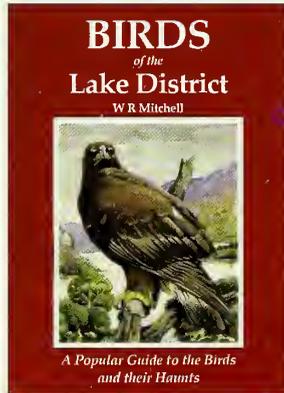
Dave Odell

BIRDS OF THE
LAKE DISTRICT

By W. R. Mitchell, with
illustrations by David Binns.
Castleberg Books, North
Yorkshire, 2000.
31 illustrations; 12 maps;
140 pages.
ISBN 1-871064-64-3.
Paperback, £6.50.

As the author quite rightly suggests, this book is aimed at the less knowledgeable amongst those that have ornithological interest. Nevertheless, it holds more than enough information for anyone with an appetite for learning. Not only does it give many historical facts and notions, but it is also full of anecdotes, many based on personal experience. Although it is probably aimed at the lucrative tourist trade, it should be on the bookshelf of all cradle Cumbrians.

The book is illustrated with a good measure of scraperboard



details by David Binns, and is worth buying for those alone, especially the Raven *Corvus corax* on the back cover.

John Callion

Also received

RSPB New Birdfeeder Handbook
By Robert Burton. (Dorling
Kindersley, London, 2000. 224
pages. ISBN 0-7513-03-631. £14.99)
(First edition reviewed *Brit. Birds*
91: 253)



Recent reports

Compiled by Barry Nightingale and Anthony McGeehan

This summary of unchecked reports covers the period 17th April to 15th May 2000.

White-billed Diver *Gavia adamsii* Between Catfirth and South Nesting (Shetland), 24th April; Gruinard Bay (Highland), 3rd May; Sound of Barra (Western Isles), 6th May; off Bloody Foreland (Co. Donegal), 6th May. **Pied-billed Grebe** *Podilymbus podiceps* Loch Osgaig (Highland), 24th-25th April. **Black-necked Grebe** *Podiceps nigricollis* Influx, particularly through midland and northern counties of England, including 25 Woolston Eyes Nature Reserve (Cheshire), 11th May. **Cattle Egret** *Bubulcus ibis* Past Brighton (East Sussex) and Worthing (East Sussex), then by River Cuckmere (East Sussex), 7th May. **Black Stork** *Ciconia nigra* Earl's Colne (Essex), 6th May; Sculthorpe (Norfolk), 7th May. **White Stork** *C. ciconia* Swallow Pond, Wallsend (Tyne & Wear), 18th April; Humber Bridge (East Yorkshire), 19th April; Oxtou (Nottinghamshire), 19th April; Hallcroft Gravel-pits (Nottinghamshire), 23rd April; Bankfoot (Perthshire), 23rd April; Kirriemuir (Angus), 27th April; three on Guernsey (Channel Islands), 27th April; Selsey (West

Sussex), 1st May; Ballinasloe (Co. Galway), early May; possibly same individual, Glenwherry (Co. Antrim), 8th May; near Nethybridge (Highland), 14th May. **Lesser Scaup** *Aythya affinis* Blagdon Lake (Somerset), 22nd April to 7th May; Fen Drayton Gravel-pits (Cambridgeshire), 24th April to 6th May. **Black Kite** *Milvus migrans* Banchory (Grampian), 28th April; Marazion (Cornwall), 1st May; Lockleaze (Gloucestershire), 3rd May; Ventnor Down (Isle of Wight), 7th May; Coombehaven (East Sussex), 8th May; Stodmarsh (Kent), 8th May; St Mary's Bay (Kent), 8th May; Dungeness (Kent), 9th May; Portland (Dorset), 10th May; St Buryan (Cornwall), 13th May; Blythburgh (Suffolk), 13th May. **Red-footed Falcon** *Falco vespertinus* Ogston Reservoir (Derbyshire), 29th April; Coombehaven, 10th May; Stodmarsh, 10th-12th May and three on 14th May; Bentley (Hampshire), 12th May; Lound Gravel-pits (Nottinghamshire), 12th May; Ropley (Hampshire), 12th May; Suffolk Water Park (Suffolk), 13th-14th May; Whitby (North Yorkshire), 14th May. **Little Crane** *Porzana parva* Dungeness, 14th May. **Black-winged Stilt** *Himantopus himantopus* Two, Pennington

Marshes (Hampshire), 29th April, and Sidlesham Ferry (West Sussex), 30th April. **Collared Pratincole** *Glareola pratincola* St Mary's (Scilly), 22nd April; Tresco (Scilly) and St Martin's (Scilly) 23rd April; St Mary's, 24th-27th April; St Martin's 28th-29th April. **Pacific Golden Plover** *Pluvialis fulva* Old Hall Marshes (Essex), 7th-9th May. **Broad-billed Sandpiper** *Limicola falcinellus* Ythan Estuary (Aberdeenshire), 3rd-6th May; Dawlish Warren (Devon), 13th-14th May. **Short-billed Dowitcher** *Limnodromus griseus* Individual that wintered at Boyne Estuary (Co. Meath) moved to Dundalk (Co. Louth), 10th-14th May. **Marsh Sandpiper** *Tringa stagnatilis* Pennington Marshes, 21st April; Pagham Harbour (West Sussex), 23rd April; Dungeness, 29th April; two, Oare Marshes (Kent), 11th May. **Lesser Yellowlegs** *T. flavipes* East Fleet, near Weymouth (Dorset), 8th-14th May. **Slender-billed Gull** *Larus genei* Two, Cley (Norfolk), 5th May. **Gull-billed Tern** *Sterna nilotica* Grove Ferry (Kent), 7th May. **Whiskered Tern** *Chlidonias hybridus* Burgh Castle (Norfolk), 7th May. **Snowy Owl** *Nyctea scandiaca* North Uist (Western Isles), 1st May. **Alpine Swift**



Bryan Thomas

182. Western Bonelli's Warbler *Phylloscopus bonelli*, St Agnes, Scilly, May 2000.

Tachymarptis melba Eglwys Nunydd Reservoir (Glamorgan), 4th May; Nanjizal (Cornwall), 10th May. **Little Swift** *Apus affinis* La Claire Mer Nature Reserve (Guernsey), 22nd April. **European Bee-eater** *Merops apiaster* Church Norton (West Sussex), 30th April and 7th May; Selsey Bill, 1st May; Gobbins (Co. Antrim), 1st May; Portland, 6th and 13th May; Sand Point (Somerset), 7th May; three, Gibraltar Point (Lincolnshire), 7th May; four, Benacre Broad (Suffolk), 10th May, presumably same four, Burgh Castle, 10th-11th May and

then Lowestoft (Suffolk), 11th May; Spurn (East Yorkshire), 13th May; two, Bangor (Gwynedd), 13th May; Swords (Co. Dublin), 14th May. **Calandra Lark** *Melanocorypha calandra* Fair Isle (Shetland), 13th May. **Short-toed Lark** *Calandrella brachydactyla* Up to two, St Mary's, 22nd April to 3rd May, one 8th May; Bryher (Scilly), 5th May; St Margaret's Island (Tyne & Wear), 25th April; South Gare (Cleveland), 30th April to 4th May; Portland, 2nd May; Breydon Water (Norfolk), 6th May; two, Dursey Island (Co. Cork), 7th-10th May;

Cape Clear Island (Co. Cork), 12th May; Conwy RSPB (Conwy), 12th-13th May. **Red-rumped Swallow** *Hirundo daurica* At least 21, 22nd April to 11th May: Tring Reservoir (Hertfordshire), 22nd April; Market Bosworth (Leicestershire), 22nd April; two at Dungeness, 22nd April; North Foreland (Kent), 22nd April; Slapton Ley (Devon), 25th-26th April; Holy Island (Northumberland), 26th-27th April; Portland, 29th April; Hall Sands (Devon), 30th April; Land's End (Cornwall), 1st May; Marazion (Cornwall), 2nd May; St Mary's, 1st-2nd

Iain Leach



183. Desert Warbler *Sylvia nana*, Spurn, East Yorkshire, May 2000.



Tony Collinson

184. Short-toed Lark *Calandrella brachydactyla*, South Gare, Cleveland, May 2000.

Robin Chittenden



185. Slender-billed Gull *Larus genei*, Cley, Norfolk, May 2000.



Alan Tate

186. Zitting Cisticola *Cisticola juncidis*, Portland, Dorset, May 2000.



187. Penduline Tit *Remiz pendulinus*, Titchwell, Norfolk, April 2000.

May and 11th-14th May; Lodmoor (Dorset), 3rd-4th May; Carnsore Point (Co. Wexford), 6th May; two, St Margaret's-at-Cliffe (Kent), 7th May; Scatness (Shetland), 8th May; St Agnes, 8th-10th May; Tophill Low Nature Reserve (East Yorkshire), 9th May; Loch of Hilwell (Shetland), 10th May; Grove Ferry, 11th May; Fair Isle, 11th May; Tacumshin (Co. Wexford), 14th-15th May. **Richard's Pipit** *Antbus novaeseelandiae* Calf of Man (Isle of Man), 23rd April; St Margaret's-at-Cliffe, 23rd April; Happisburgh (Norfolk), 27th April and two on 28th April; Portland, 30th April; Coombehaven Marsh, 4th-7th May. **Tawny Pipit** *A. campestris* Spurn, 19th-20th April and 13th-14th May; Leasowe (Merseyside), 22nd April; St Mary's, 23rd April and 28th-30th April; Holy Island, 27th April; Pegwell Bay (Kent), 1st May; Winterton (Norfolk), 5th-6th May; Blakeney Point (Norfolk), 14th May. **Red-throated Pipit** *A. cervinus* Holme (Norfolk), 22nd April and 7th May; Chanonry Point (Highland), 24th April; Portland, 12th May; Great Yarmouth (Norfolk),

14th May. **Alpine Accentor** *Prunella collaris* St Margaret's-at-Cliffe, 6th May; Corton (Suffolk), 13th May. **Blue Rock Thrush** *Monticola solitarius* Pendeen (Cornwall), 14th May. **Zitting Cisticola** *Cisticola juncidis* La Claire Mer Nature Reserve, 24th April. **Subalpine Warbler** *Sylvia cantillans* Up to 12, 20th April to 10th May; Fair Isle, 20th April, 7th-10th May; Beachy Head (East Sussex), 21st April; Birling Gap (East Sussex), 29th April; Eigg (Highland), 29th-30th April; Nanjizal, 1st May; two at Land's End, 1st-2nd May, one on 3rd May; Penmaenmawr (Conwy), 2nd May; three, Dursley Island, Cape Clear, Great Saltee Island (Co. Wexford), early May; East Chevington (Northumberland), 6th-7th May; Farne Islands (Northumberland), 10th May. **Sardinian Warbler** *S. melanocephala* St Mary's, 18th and 21st April; Roedean, Brighton (East Sussex), 21st April. **Desert Warbler** *S. nana* Spurn, 7th-11th May. **Western Bonelli's Warbler** *Phylloscopus bonelli* St Agnes, 30th April to 5th May; Bryher (Scilly), 2nd May. **Iberian**

Chiffchaff *P. brebmii* Bryher, 24th April; Great Tew (Oxfordshire), 28th-29th April; Sheepwash Urban Park (West Midlands), 29th April. **Red-breasted Flycatcher** *Ficedula parva* Flamborough Head (East Yorkshire), 27th April; St Mary's, 5th May; Spurn, 10th May. **Woodchat Shrike** *Lanius senator* St Agnes, 21st-28th April and 1st-6th May; Tresco (Scilly), 28th April and 3rd-6th May; Skomer (Dyfed), 29th April and 6th May; Bardsey (Gwynedd), 1st May; Portland, 7th May; Coombehaven, 9th May; Rimac (Lincolnshire), 12th May; near Abbotsbury (Dorset), 14th May. **European Serin** *Serinus serinus* At least 22, 22nd April to 14th May; Porthgwarra (Cornwall), 22nd April; Reculver (Kent), 22nd April; Southwold (Suffolk), 23rd April; St Margaret's-at-Cliffe, 23rd April; two over Pegwell Bay, 23rd April; Portland Bill, 24th April, up to two 27th April to 10th May; St Agnes, 26th April; Romsey (Hampshire), 26th April; Selsey Bill, 27th April and 1st-5th May; Landguard (Suffolk), 1st May; Dungeness, 5th and 8th May; Newhaven (East Sussex), 6th May; Birling Gap, 5th May; Kimmeridge Bay (Dorset), 6th May; Calf of Man, 6th May; Red Rocks (Merseyside), 7th May; Southwell (Dorset), 6th May; Church Norton, 7th May; Oakenholt RSPB (Clwyd), 10th May; Spurn, 14th May. **Pallas's Rosefinch** *Carpodacus roseus* Fair Isle, 11th-13th May. **Black-faced Bunting** *Emberiza spodocephala* Spurn, 13th-14th May. **Ortolan Bunting** *E. hortulana* Waxham Sands (Norfolk), 27th April; Queen Elizabeth II Reservoir (Surrey), 3rd-4th May; Beachy Head, 5th May; Lundy (Devon), 7th May; Aston-on-Trent Gravel-pits (Derbyshire), 6th May; St Agnes, 9th-10th May.

Iain Leach



188. Tawny Pipit *Anthus campestris*, Winterton, Norfolk, May 2000.



189. Subalpine Warbler *Sylvia cantillans*, Land's End, Cornwall, May 2000.

Paul Hopkins

George Reszeter



190. Bonaparte's Gull *Larus philadelphia*, Farmoor Reservoir, Oxfordshire, May 2000.



191. Blue Rock Thrush *Monticola solitarius*, Geevor, Pendeen, Cornwall, May 2000.

Paul Hopkins

Tony Collinson



192. Black-faced Bunting *Emberiza spodocephala*, Spurn, East Yorkshire, May 2000.



193. Alpine Accentor *Prunella collaris*, Corton, Suffolk, May 2000.

Gary Bellingham

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