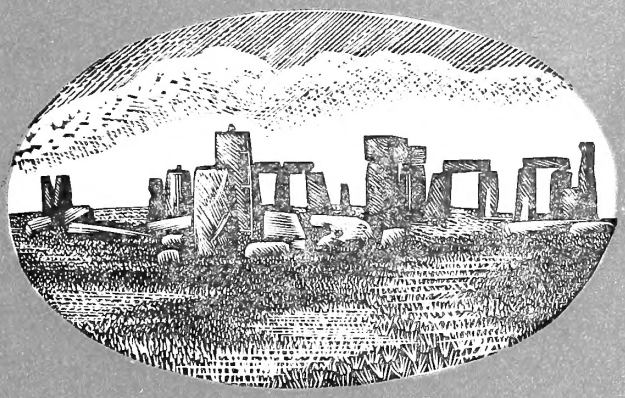
The Wiltshire Archaeological and Natural History Magazine



Volume 67 1972

Part A: Natural History

THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY

The Society was founded in 1853. Its activities include the promotion of archaeological and historical work and of the study of all branches of Natural History within the County; the safeguarding and conservation of the antiquities and the flora and the fauna of the region; the issue of a Magazine and other publications; excursions to places of archaeological and historical interest; and the maintenance of a Museum and Library.

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THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY MAGAZINE

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THE WILTSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY MAGAZINE

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PART A: NATURAL HISTORY

CONTENTS

AN OUTLINE OF THE GEOLOGY OF THE WILTSHIRE SECTION OF THE M4 MOTORWAY

by R. S. BARRON

The construction of a motorway across any county is liable to expose more rock than is already available for study in the existing individual quarries. Unfortunately, the exposures remain open only for a short period of time, usually for two or three months. Where the motorway has been cut below the level of the surrounding land there may be some vertical or inclined sections, but for safety reasons these sections are finished as 45° grassed slopes.

Since the motorway direction is about east-west and the dip of the rocks is about south-east, the M4 crosses a wide range of strata in their order of oldest to youngest in the direction of west to east. The relation of the M4 in Wiltshire to the motorway in adjacent counties is shown in FIG. 1.

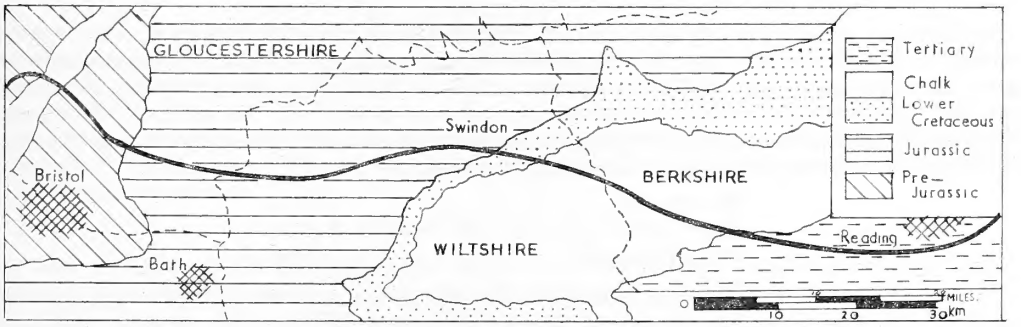


FIG. 1. Course of the M4 motorway through Gloucestershire, Wiltshire and Berkshire.

The succession of strata for Wiltshire is as follows:

Upper Cretaceous	Upper Chalk Middle Chalk Lower Chalk
Lower Cretaceous	Upper Greensand Gault Lower Greensand
Upper Jurassic	Kimmeridge Clay Corallian Oxford Clay Kellaways Beds
Middle Jurassic	Cornbrash Forest Marble

BURTON TO STANTON ST QUINTIN

The extension of the motorway eastwards from Tormarton was directed to the north side of the village of Burton and comes into Wiltshire before reaching the outskirts of Little-

ton Drew (FIG. 2). To provide an underpass for the minor road running south from Littleton Drew, the following section was exposed at ST 833797;

Thin bedded limestone	0·3–0·7 m.
Thick bedded limestone, with 20 cm. slabs	0·7 m.
Blue clay, as far as seen	3·0 m.

This section seemed to be typical of the Forest Marble, a formation which took its name from the Forest of Wychwood in Oxfordshire where some fossiliferous limestone slabs

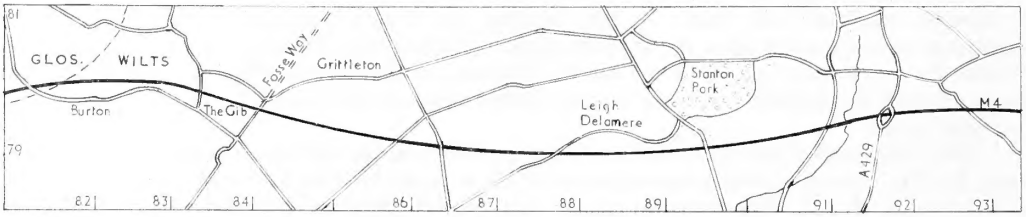


FIG. 2. Course of the M4 motorway in north-west Wiltshire.

were formerly polished to resemble marble. Prior to the M4 construction there were numerous small quarries from which current-bedded limestone had been extracted; such sections gave the impression that the Forest Marble is essentially a limestone formation. However, the M4 exposures showed that the formation consists of about 80% clay and 20% limestone. West of Leigh Delamere (ST 877790), the minor road was left on a ridge during the construction of the overpass bridge and showed a section:

Brown clay	0·7 m.
Blue clay	2·0 m.
Blue limestone	1·5 m.+

One mile (1·6 km.) farther to the east the line of the motorway passes about 200 m. south of an existing section of current-bedded limestone (ST 892793). It is at this point that a service station and picnic site is being built. Agreement has been reached with the Nature Conservancy that the section will be preserved and will form the north boundary of the picnic site.

On the south side of the motorway and on the east side of the minor road from Kington St. Michael the contractor decided to excavate into the Forest Marble to a depth of about 2 m. The rock was crushed and screened to provide surface dressing where required. The area of about 4 acres (FIG. 3) is now being restored for agricultural use.

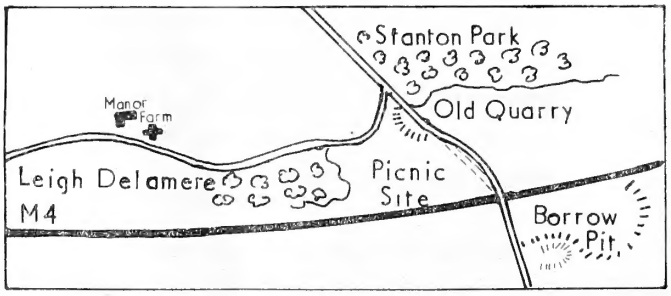


FIG. 3. Course of the M4 motorway near Leigh Delamere.

SECTIONS BELOW THE A429

As a result of the alternations of clay and limestone, the Forest Marble topography is undulating and in places small streams cut well down below the general surface level. The M4 planners decided to keep the general road level below the land surface except where the streams are crossed. For the crossing of the Chippenham-Malmesbury road (A429) at ST 916796 the motorway is about 9 m. below the A429. Considerable excavations were required; for the first 4 m. only clay was encountered, but for the last 3 to 4 m. massive blue limestone blocks had to be removed by blasting and hammering. Lithologically the massive limestone resembled Forest Marble, but fossil evidence established it to be Cornbrash. The brown clay at the top is possibly Kellaways Clay of the Oxford Clay formation. The measured section of the Cornbrash is as follows:

Bed	*Thickness*	
1	3·0 m.	Dark grey silty clay with occasional concretions, becoming sandier towards the base. Fossils include *Macrocephalites.*
2	0·9 m.	Silty limestones with abundant myids in life position.
3	0·6 m.	Massive grey limestone, weathering tough and orange-brown; packed with shell debris washed in: *Meleagrinella echinata*, *Anisocardia* and *Modiolus.*
4	3·0 m.	Dark grey limestone, well cemented. Includes fragmentary bivalves.
5	0·6 m.	Grey muddy limestone with well preserved fossils including zone fossil *Obovothyris obovata.*
6	0·6 m.+	Grey silty limestone with upper surface eroded and bored; the base was not seen.

After the road interchange, the motorway gradually rises to ground level and crosses a minor road. At this point (ST 925796) there were good exposures of Cornbrash with clusters of *Meleagrinella echinata.*

THE OXFORD CLAY SECTION

For the next 11 miles (19 km.) the M4 runs on the Oxford Clay, including the lower division of the Kellaways Beds. The route runs through Draycot Park where land reaches a height of 300 ft. O.D., but in another mile (1·6 km.) it has to cross the River Avon at 170 ft. O.D. Such topography necessitated a cutting about 20 m. deep, as shown in FIG. 4.

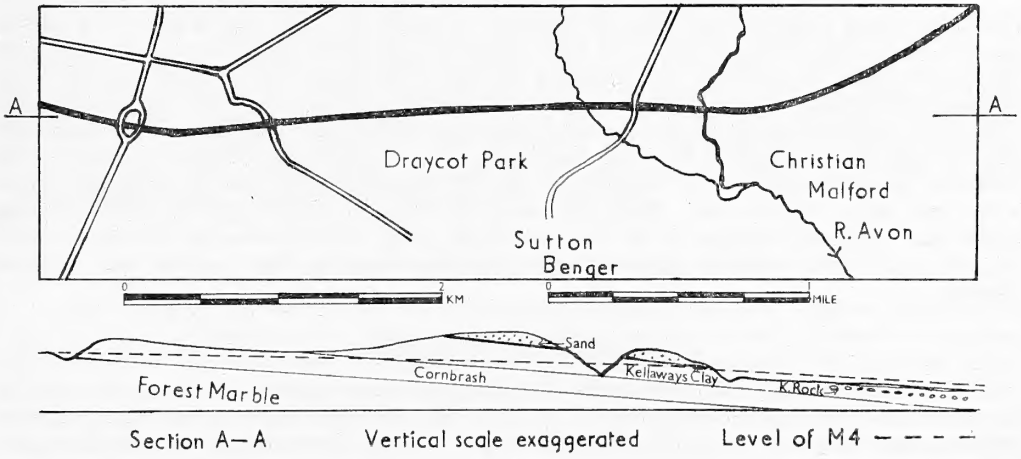


FIG. 4. Course of the M4 motorway near Draycot Park and section exposed.

The layer of sand lying above the clay was saturated with water and behaved like a quicksand; a layer of about 30 cm. thick had been leached into a silver sand. The vegetation of Draycot Park is clearly related to sandy soils. Below the sand came a dark grey clay containing an amount of bituminous oil. Provided all rainfall was swept off that oily surface, the clay afforded a brick hard foundation for the very heavy machinery which was used to scrape off the clay in thin films so that it could be conveniently pushed into the valley of the stream which flows into the Avon near Sutton Benger. Before the valley was filled there were exposures of Cornbrash at the sides of the stream.

The excavations through the Kellaways Clay enabled a number of fossils to be collected. Those that attracted most attention were parts of the large ammonite *Proplanites* sp.; one complete specimen was kindly presented to the Society's museum by Col. and Mrs. Moseley. By contrast in size, a long thin belemnite was fairly common. A comprehensive fauna was collected by Mr. Tucker and identified by Miss Beris Cox of the Institute of Geological Sciences. Mr. Tucker's report is available in the Society's library.

After crossing the River Avon the motorway settles on to a long level stretch raised slightly above the flat ground of Oxford and Kimmeridge Clays. The Kellaways Rock was crossed north of Christian Malford or 1½ km. north-east of Sutton Benger (ST 959798). The following is a measured section:

Bed	*Thickness*	
1	0·6 m.	Reddish sandy topsoil.
2	0·6 m.	Weathered plastic blue clay which is likely to be the base of the Oxford Clay proper.
3	0·9–1·2 m.	Red-brown ferruginous sands with boxstone concretions.
4	0·3–0 m.	Red weathering blue calcareous sandstone crowded with *Ornithella calloviensis*, *Cadoceras* sp.
5	0·45 m.	Unconsolidated ferruginous sands.
6	0·45 m.	Well consolidated sandy limestone with *Sigaloceras calloviense* and *Proplanulites koenigi*.
7	0·9 m.	Unconsolidated sands with large flat calcareous concretions containing *Gowericeras gowerianus* and other ammonites.
8	1·5 m.	Sandy clays with *Ornithella* sp., *Proplanulites* sp., and small *Gryphaea bilobata*.
9	10· m.+	Grey plastic clays.

Attention should be drawn to the fact that in 1841 the Great Western Railway Company was constructing its line from Swindon to Chippenham. The line of the M4 is almost exactly parallel for some distance and but 1·4 km. to the north. In both cases the engineers decided to raise the track or road about 3 m. above the surrounding fields and for those embankments many tons of clay were required. For the railway the clay was taken out of numerous small pits along the route and amateur geologists made full use of the abandoned pits. It was from Christian Malford that unique specimens of belemnites, together with some soft parts well preserved, were found. For the motorway clay was obtained only from a few very large 'borrow pits'. From that near Dodford Farm (ST 973808) an interesting fauna was collected. Farther to the east the whole of the wood known as The Shrub (SU 054838) was felled and clay removed; the abundant fossil at that horizon was *Gryphaea dilatata*.

CORALLIAN EXPOSURES

The M4 route was able to cross the Corallian outcrop at a point where the outcrop has its minimum width and no escarpment. North of Wootton Bassett the motorway crosses the A420 around Ballard's Ash and Midgehall Copse (FIG. 5). Three exposures near here give the following sequence:

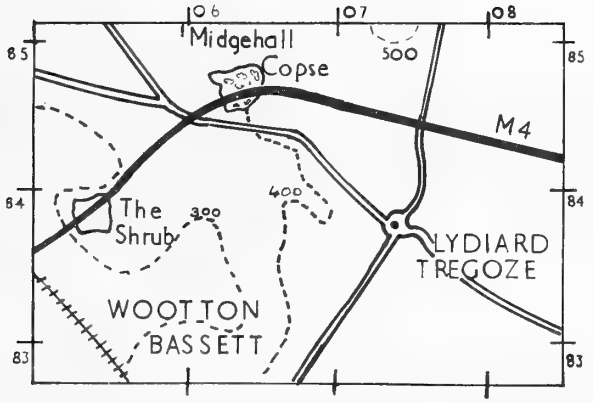


FIG. 5. Course of the M4 motorway near Midgehall Copse.

Bed	*Thickness*		
1	About 3 m.	Upper part of Coral Rag facies, a series of massive limestones, moderately fine grained with some complete fossils: *Bourguetia saemanni*, *Cidaris*. Exposed in a pit at SU 074845.	
2	About 5 m.	Lower part of Coral Rag facies, alternations of marly limestones with black clays crowded with echinoderm debris. In the limestones abundant *Thecosmilia annularis* in position of growth; site location, SU 068845.	
3	2·5 m.	Buff coloured pisolite with abundant *Nucleolites* in burrows. The base is sharp.	
4	1·0 m.	Laminated ferruginous silty sands.	Lower Calcareous Grit
5	0·6 m.	Mottled sandy clay with ferruginous nodules.	Lower Calcareous Grit
6	0·6 m.	Blue silty clay.	Oxford Clay

Beds 3 and below seen at SU 066845.

SOUTH OF SWINDON

The motorway now leaves the Jurassic rocks and comes on to the Lower Cretaceous before reaching the Chalk of north-east Wiltshire and the Berkshire downs. The choice of route no doubt presented some problems because the Gault Clay lying between the two Greensands is well known for its liability to slump. The route finally chosen was probably the one that avoided as many buildings as possible, but it involved a stretch along the slopes of Gault below Burderop Wood (SU 170813). Here the engineers encountered trouble; the bed prepared for the motorway was observed to be slipping sideways and extensive drainage and underpinning were required to establish a sound foundation. FIGS. 6 and 7 show the geological outcrops and a section for that area.

UPPER GREENSAND AND LOWER CHALK SECTION

After crossing the minor road from Badbury to Liddington at SU 199808, the road, for the first time since crossing the River Avon, runs below ground level. A section was exposed therefore showing the Upper Greensand/Lower Chalk junction and enabling fossil collections to be made, an activity undertaken by more than one of the Swindon schools. Unfortunately, the section was available mainly during the dry summer weather, when the numerous lorries threw up so much chalk dust that the line of the junction was obscured, making photographic records impossible.

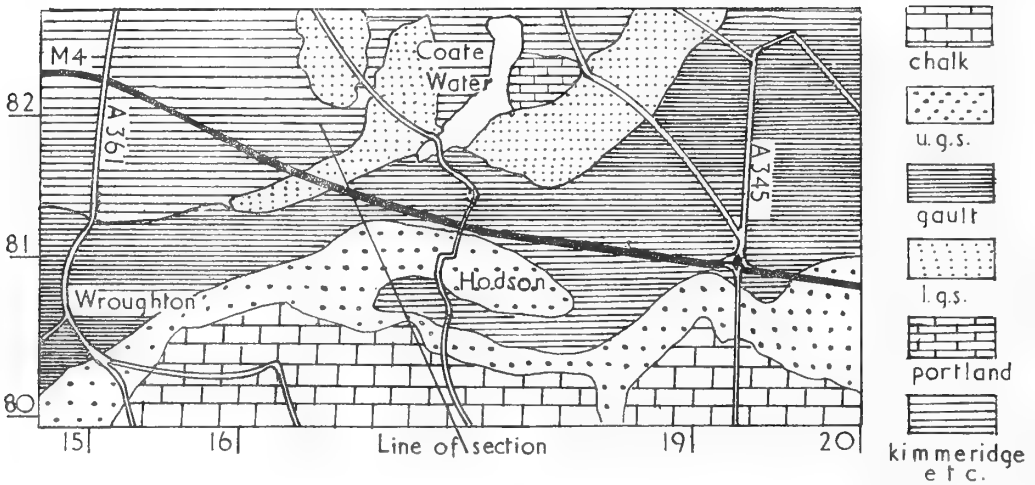


FIG. 6. Course of the M4 motorway south of Swindon.

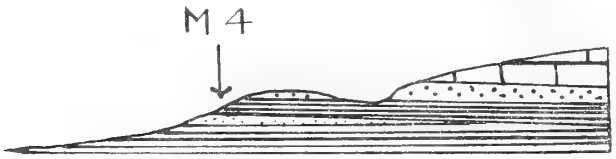


FIG. 7. Section across geological deposits near Hodson (see FIG. 6). (Not to scale).

Beyond Liddington the motorway continues up its slight gradient and geologically rises from Lower to Middle to Upper Chalk. Its direction changes from east to almost south-east so that after passing north of Baydon it passes out of the county.

ACKNOWLEDGEMENTS

I wish to thank Mr. Simon R. A. Kelly of Queen Mary College, University of London, for permission to publish the details of the sections of Cornbrash, Kellaways Rock and Corallian exposures, which were taken from his notes on the geology of the M4; also the Society's Librarian for access to Mr. Tucker's paper; and Messrs. Sir Robert MacAlpine for according access to the motorway during its construction.

BOTANICAL INTEREST CREATED BY THE CONSTRUCTION OF THE M4 MOTORWAY IN WILTSHIRE

by PHILIP HORTON, JOAN SWANBOROUGH and STEPHANIE TYLER

INTRODUCTION

Throughout the country naturalists as well as farmers have bemoaned the disappearance of attractive and productive countryside as the network of motorway expands. Inevitably valuable wildlife habitats such as ponds, hedgerows and trees are destroyed leading perhaps to local extinction of certain species. However, on the credit side new habitats do develop. Motorway banks and verges, with proper management, provide cases for both plant and animal life in a countryside which due to intensive agriculture is becoming more inhospitable. Eventually new copses will be formed from the far-sighted policy of planting young trees which, in turn, will attract a variety of animal life. Any user of an existing motorway will be aware of the frequency with which kestrels *Falco tinnunculus* are now seen hunting rodents or beetles along the verges. If the temptation to spray these verges with herbicides is overcome and if 'untidy, colourful weeds' are allowed to remain, the habitat should diversify for the benefit of both plants and animals.

In addition, during the construction of the M4 through Wiltshire, botanists have had the opportunity to see the appearance of various species now becoming local or even rare in the county. These species are predominantly annuals which were once common weeds of arable fields but which have become very much scarcer since the introduction and widespread use of herbicides sprays some 15–20 years ago, together with the more effective screening of agricultural seeds.

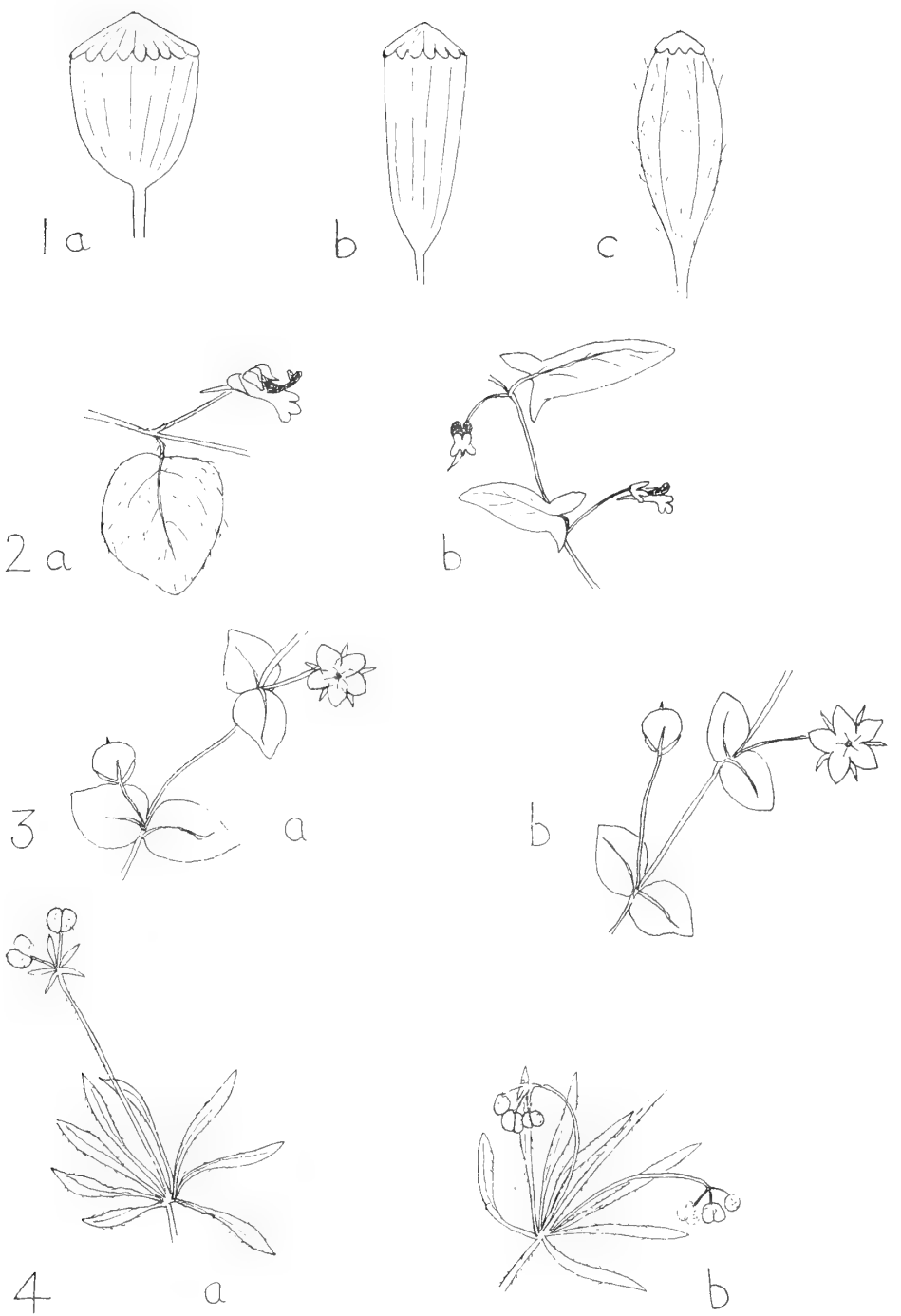
During the Spring and Summer of 1971 the disturbed banks of the M4 and adjacent fields were surveyed. The following is an account of the species recorded. Observations have been divided into 1. Species of frequent occurrence; 2. Species of local occurrence; 3. Species of single occurrence, and 4. Casuals and aliens.

1. SPECIES OF FREQUENT OCCURRENCE

The most conspicuous plant of of disturbed soil is the Common Corn Poppy (*Papaver rhoeas*). This species occurred at almost all the sites along the whole stretch of the motorway. One other species of poppy, the Long Smooth-headed Poppy (*Papaver dubium*) (Fig. 1.), was also frequent. An abundance of these poppies proved a useful indication that a site would produce an interesting flora. At sites in the Avon Valley from Seagry to Wootton Bassett poppies were infrequent and few species of interest were found. Ruderal species, in particular Common Persicaria (*Polygonum persicaria*) and Pale Persicaria (*Polygonum lapathifolium*), were dominant.

Elsewhere, arable weeds including Scarlet Pimpernel (*Anagallis arvensis*), Common Field Pansy (*Viola arvensis*), Sun Spurge (*Euphorgia helioscopia*) and its more diminutive relative, Dwarf Spurge (*E. exigua*), Field Madder (*Sherardia arvensis*), Small Toadflax (*Chaenorhinum minus*) and both the Broad and Narrow-leaved Fluellens (*Kicksia spuria* and *K. elatine*) (Fig. 2), with their small but attractive yellow and purple flowers, were common.

Although, as one would expect, the scarlet variety of *A. arvensis* was plentiful, purple, pink and blue varieties were also found at two sites (Leigh Delamere and Stanton). More



Figures 1–4. Sketches to show differences between closely related species.

FIG. 1. Fruits of (a) *Papaver rhoeas*, (b) *P. dubium*, (c) *P. argemone*.
FIG. 2. (a) *Kickxia spuria*, (b) *K. elatine*.
FIG. 3. (a) *Anagallis arvensis*, (b) *A. a. foemina*.
FIG. 4. (a) *Galium aparine*, (b) *G. tricornutum*.

ERRATUM. *Anagallis* species, FIG. 3 (a) and (b). Pedicels are longer in *A. arvensis* than in *A. foemina*, not vice versa as in diagram.

interesting still was the occurrence at Leigh Delamere of the blue subspecies *A. arvensis subsp. foemina* (Fig. 3).

A small colony of Treacle Mustard (*Erysimum cheiranthoides*) was found near the layby between Kington Langley and Stanton roundabout. Swine's Cress (*Coronopus squamatus*) and Ox-tongue (*Picris echioides*) were both frequent.

2. SPECIES OF LOCAL OCCURRENCE

These 'local' species are those met with at only one or a few sites but which might there be frequent to abundant. They include Corn Buttercup (or Devil's Currycomb, so-called because of the spiny projections on the fruits, *Ranunculus arvensis*), Pheasant's Eye (*Adonis annua*), Night-flowering Catchfly (*Silene noctiflora*), Venus's Looking-glass (*Legousia hybrida*), Wild Pansy (*Viola tricolor*), Corn Gromwell (*Lithospermum arvense*), Oxford Ragwort (*Senecio squalidus*) and the Long Rough-headed Poppy (*Papaver argemone*) (Fig. 1).

R. arvensis was claimed by W. Pitt in 1809 to be one of the worst weeds of arable land; Grose (1957) recorded this species as common to frequent in the North of the county, but it has since become scarce. In 1971 it was recorded as frequent in disturbed fields near Stanton and Leigh Delamere. It is characteristically fluctuating in its abundance and the buried fruits can remain viable for many years (Salisbury 1961).

A single plant of *A. annua* occurred in a field near Stanton and about 14 scattered plants were found in a nearby field and on the road verge. There were no records of this species in the North of the county up to 1888 (Preston 1888) and Grose (1957) stated it to be a diminishing species, rare in the Salisbury district and very rare in the rest of Wiltshire. One record from Rowde Court in 1932 was the only previous record for North Wiltshire. Germination of seeds in this species is intermittent and seeds may remain dormant in the soil for several years (Salisbury 1961). However, the lack of past records makes it unlikely that there was dormant seed at Stanton and the 1971 plants were therefore probably due to introduced seed.

S. noctiflora is distinguished from *S. alba* by its sticky stem and the rather wilted appearance of the flowers in the daytime when the petals are inrolled. Moreover, the petals are very pale pink with yellow undersides. Salisbury (1961) mentions that the seeds can retain their viability for up to five years and that seed production is considerable. He suggests that modern screening methods are mainly responsible for the plants decrease in England as it normally depends on repeated renewal from abroad, for, despite seed dormancy, in wet seasons the seed have a low viability. This Catchfly was found to be frequent to abundant at several adjacent sites near Leigh Delamere.

Grose (1957) recorded *L. hybrida* as not infrequent on the oolite in North Wiltshire but as rare on the chalk. He recorded it as abundant near Stanton Park and it was two sites near there that it occurred in 1971. However, it was also found in abundance on the chalk near Liddington in the East.

The Corn Salad (*Valerianella dentata*) was found in small numbers in a field near Stanton and in this same field the Pansy (*Viola tricolor*) was found together with *V. arvensis* and their hybrids. *V. tricolor* was very rare by 1957 (Grose). *S. squalidus* and *L. arvense* were both present in small numbers near Grittleton.

3. SPECIES OF SINGLE OCCURRENCE

These include Shepherd's Needle (*Scandix pecten-veneris*), Cornflower (*Centaurea cyanea*), Prickly Lettuce (*Lactuca serriola*) and the Pawnbroker's plant (*Galium tricornutum*) (Fig. 4). The latter is so called on account of the fruits which present the appearance of three hanging balls suggesting a pawnbroker's sign. Preston (1888) found this species to be not very uncommon around Chippenham whereas Grose (1957) found it to be uncommon and of uncertain occurrence. Generally it is much less frequent than formerly. The fruits occur with imported clover seed and it may be that it is to some extent dependent upon renewal

from abroad (Salisbury 1961). One plant of *S. pecten-veneris* was found in a field near Stanton; this is again a decreasing species. A single plant of *L. serriola* occurred on a road verge nearby.

Only one cornflower was seen and unfortunately this was just outside the county at Tormarton. It is perhaps surprising that no more were seen; it was hoped too that some Corncockles (*Agrostemma githago*) might turn up but this was not to be so. A field at Liddington, known to Mr. Donald Grose as formerly containing the plant in abundance, was inspected but without success.

4. CASUALS AND ALIENS

Three plants of the Creeping Bellflower (*Campanula rapunculoides*) were found on a road verge near Grittleton and a single plant near Stanton.

One record of great interest was the occurrence of a plant of the alien Yellow Vetch (*Vicia lutea*) on a chalk bank near Liddington.

The cultivated flax (*Linium usitatissimum*) cropped up in three sites: in two patches near Grittleton, a single plant on the Stanton roundabout and several plants near Dauntsey. This flax was formerly cultivated in North Wiltshire and so the Stanton and Dauntsey plants could well have germinated from dormant seeds. The patches of flax at Grittleton, however, were deliberately sown and amongst the patches were the brilliant red flowers of the garden species *L. grandiflorum* and other garden plants e.g. *Tropaeolum sp.* (nasturtium). Canary Grass (*Phalaris canariensis*) also cropped up near Grittleton and this probably originated from introduced bird seed. The undesirability of introducing species deliberately without reporting this to a local natural history society or local conservation trust is emphasized.

One plant of *Lappula echinata* (Bur Forget-me-not) was also found near Stanton, a most surprising find as its appearance in this country is usually associated with imported fleece!

DISCUSSION

Records of rare or local annuals, with one or two exceptions, were all either from the West between Grittleton and Stanton, an area lying on the oolitic limestone, or in the extreme East of the county where the underlying rock is chalk. Between the two the soil is heavy clay. Thus as one would expect the calcareous soils were rich in species. Moreover the central clay area is traditionally an area of permanent pastures whereas on the calcareous soils in the east and west arable farming has long been established. This factor too probably accounts for the richness of species because large reservoirs of cornfield weed seeds were probably lying dormant in the arable areas and when these were disturbed the seeds could germinate. No doubt such a germination is an annual event but it is normally short lived, as with the first application of herbicide the plants are destroyed. The construction of the motorway not only allowed this germination of annuals to produce both flowers and seeds but also encouraged it by bringing to the surface seed which had been lying at some depth.

The more unlikely records such as *Vicia lutea* and *Adonis annua* which were never common in the area where they occurred would have been brought in in imported cereal seed in recent years. The presence of *Silene noctiflora* was almost certainly due to such imports.

By next year the majority of these species will have again disappeared, submerged this time beneath the thick sward of grass with which the verges have been sown. However, with the co-operation of Wiltshire County Council a small site at Leigh Delamere will form one of the Road Verge Conservation Sites set up by the Wiltshire Trust for Nature Conservation and the Nature Conservancy. Here an attempt will be made to conserve these plants. It is hoped that the site will be rotovated annually to retain a suitable environment and seed collected locally during this summer will be sown to increase the diversity of plants at present growing in the site. All such introductions will be carefully recorded and with good fortune we hope these attractive but declining members of our flora will be retained.

The authors would like to thank the several people who supplied records for this article and in particular Mr. Donald Grose, for his advice and identification of certain specimens.

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SOME RECENT DISCOVERIES OF KIMMERIDGIAN REPTILES AT SWINDON

by J. B. DELAIR

INTRODUCTION

During the construction of the railway at Swindon last century, and during the period when brick-making there was an important local industry, the Kimmeridge Clay, in which most of the exposures occurred, yielded numerous fossilized reptilian bones. Despite the very considerable extent of these excavations, however, entire or part skeletons were rarities, most of the known specimens consisting of isolated teeth and vertebral centra, or detached limb bones. Many specimens, of course, were readily identifiable with forms better known from material found elsewhere, although others represented saurians of uncertain generic identity or peculiar to the Swindon district; and several additional forms, evidently new or unique, still await description.

Recent discoveries at Swindon of incomplete skeletons of Kimmeridgian reptiles exhibiting interesting and new osteological features were, therefore, noteworthy events. This paper constitutes a permanent record of two of these finds and the new details afforded by them.

THE CAMBRIA BRIDGE PLIOSAUR

During mid-December 1968, excavations connected with the installation of water mains adjacent to Cambria Bridge (OS sheet 157, grid ref. SU 14498438) exposed at a depth of approximately nine feet below local ground level a series of associated but disarticulated vertebrae and ribs of a moderately large pliosaur. Almost immediately, weather conditions deteriorated so badly that all site work was temporarily suspended. This, however, permitted the uninterrupted retrieval of not only all the exposed bones but also of many additional bones disclosed by further local digging. Site work recommenced early in February 1969, but produced only two large rib fragments and one further centrum. The material, now preserved in Swindon Museum and registered as G.77, therefore consists entirely of broken ribs, and dorsal centra, of which several possess variously incomplete neural arches. The *in situ* position and condition of the skeleton indicated that this individual had undergone very considerable dismemberment before burial and eventual fossilization.

The principal interest of this material lies in the shapes of the bases of the spinal canals, and in the character and angulation of the neural arches, which latter, although considerably fractured, exhibit little of the post-mortem crushing and distortion usually sustained by those elements. Also of interest are the clearly discernible Y-shaped markings present on the sides of some of the centra. These possibly represented former intercostal blood-vessels, similar to those noticed by Gunther (1924) on crocodilian centra from the Kimmeridge Clay of Shotover Hill, Oxfordshire. If so, then this is the first recorded instance of such evidence in pliosaurs.

It will be noticed that the first neural arch measured below lacks a matching centrum, it being estimated that it probably occupied a position in the vertebral column two places in front of the first centrum in the present series (believed to be the first dorsal). This neural arch, therefore, probably articulated with one of the pectoral centra. Neither of the pectorals, nor any of the cervicals have been preserved.

The centra are generally smooth throughout, laterally constricted, lack ventral keels, possess well marked haemal borders which are bevelled, and have flat or slightly concave terminal faces. The anterior lip of the base of the spinal canal tends to project forwards

		Centra						Neural Arches					
		Max. vertical Dia. of Centrum (Anterior Face)	Max. Transverse Dia. of Centrum (Anterior Face)	Antero-Posterior Length of Centrum (Ventrally)	Antero-Posterior Length of Spinal Canal	Max. Width of Spinal Canal (Anterior End)	Max. Width of Spinal Canal (Posterior End)	Max. Height of Arch (Base of Pedicle to Top of Spine)	Max. Height of Neural Spine	Antero-Posterior Length of Spine (Distal Extremity)	Max. Transverse Width of Arch	Max. Height of Neural Canal	
								$5\frac{1}{2}$*	$2\frac{1}{2}$	$1\frac{7}{10}$	$5\frac{2}{5}$	$1\frac{1}{10}$	Pectoral
Dorsal	1:	$4\frac{1}{10}$	$4\frac{3}{10}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{1}{5}$	$1\frac{9}{10}$						
	2:	$4\frac{2}{5}$	$4\frac{3}{10}$	$2\frac{3}{4}$	$2\frac{7}{10}$	$1\frac{1}{10}$	$1\frac{7}{10}$						
	3:	$4\frac{1}{2}$	$4\frac{3}{10}$	$2\frac{4}{5}$	$2\frac{9}{10}$	1	$1\frac{3}{4}$	—	—	—	$7\frac{7}{10}$	$1\frac{3}{10}$	Dorsal
	4:	$4\frac{3}{5}$	$4\frac{1}{4}$	$3\frac{1}{10}$	$3\frac{1}{5}$	$1\frac{1}{10}$	2						
	5:	$4\frac{7}{10}$	$4\frac{2}{5}$	$3\frac{2}{5}$	$3\frac{1}{4}$	$1\frac{1}{10}$	$1\frac{7}{10}$	—	—	—	$7\frac{9}{10}$	$1\frac{1}{10}$	Dorsal
	6:	$4\frac{7}{10}$	$4\frac{1}{2}$	$3\frac{3}{10}$	$3\frac{3}{10}$	$1\frac{1}{10}$	$1\frac{4}{5}$						
	7:	$4\frac{3}{5}$	$4\frac{3}{10}$	$3\frac{1}{5}$	$3\frac{3}{10}$	$1\frac{1}{10}$	$2\frac{1}{10}$						
	8:	$4\frac{3}{5}$	$4\frac{2}{5}$	$3\frac{1}{5}$	$3\frac{1}{4}$	$1\frac{1}{5}$	2						
	9:	$4\frac{3}{10}$	$4\frac{3}{10}$	$3\frac{1}{10}$	$3\frac{1}{4}$	$1\frac{3}{10}$	$2\frac{1}{4}$	—	—	—	$7\frac{1}{2}$	$1\frac{1}{2}$	Dorsal
	10:	$4\frac{3}{10}$	$4\frac{1}{4}$	$3\frac{1}{5}$	$3\frac{1}{10}$	$1\frac{3}{10}$	$2\frac{1}{10}$	$7\frac{2}{5}$	$4\frac{1}{4}$	$1\frac{9}{10}$	$7\frac{2}{5}$	$1\frac{1}{2}$	Dorsal
	11:	$4\frac{1}{4}$	$4\frac{1}{10}$	$3\frac{1}{10}$	$2\frac{9}{10}$	$1\frac{1}{5}$	2	—	—	—	$7\frac{1}{5}$	$1\frac{2}{5}$	Dorsal
	12:	$4\frac{1}{4}$	$4\frac{1}{5}$	3	$2\frac{9}{10}$	$1\frac{3}{10}$	2						

* All measurements are in inches.

beyond the main part of the terminal face, and is always narrower than the posterior lip. The base of the canal is gently rugose longitudinally, and is constricted laterally in every instance. The surfaces receiving the neural arches are markedly rugose, of ovate configuration, and have their long axes lying antero-posteriorly: these surfaces tend to become progressively shorter (relative to the main body of the centrum) the further back in the series one progresses.

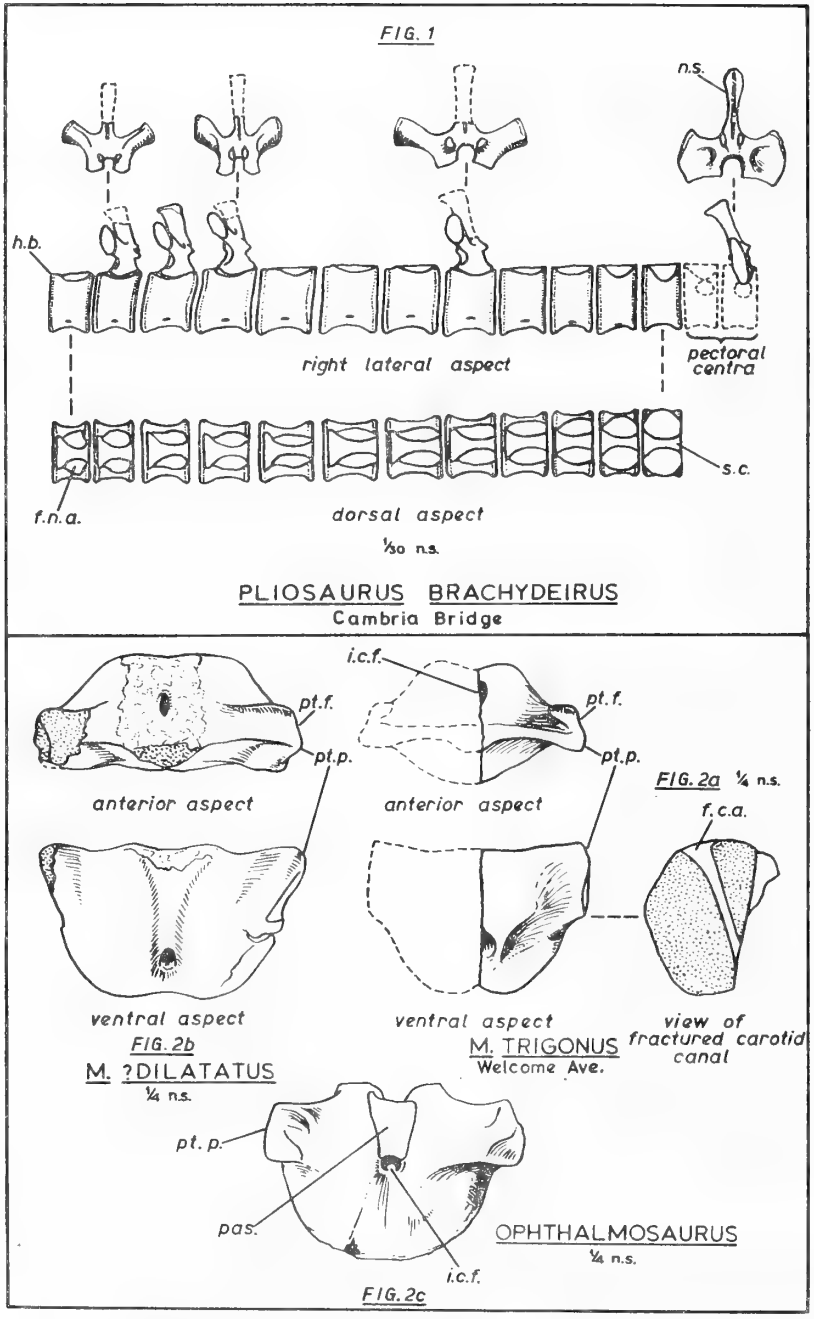
The neural arches, which articulate with the centra only by synchondrosis, are directed backwards (see Fig. 1), and are generally massive. The base of the neural spine is always thinner than the upper extremity, and the anterior edge carries a well marked longitudinal groove throughout.

None of the ribs have been preserved complete, although all exhibit the typical pliosaurian rib features; during life, the largest must have attained a length of five feet or more.

The available evidence suggests that these remains belong to a specimen of *Pliosaurus brachydeirus*, a species which, though fairly common in English Kimmeridgian strata, is still imperfectly known osteologically. Since none of the previous writers who have dealt with this form or its contemporaries (Lydekker, 1889, 122; Delair, 1959, 69; Tarlo, 1959, 283; Tarlo, 1959a, 39; Tarlo, 1960, 152, and Halstead, 1971, 566) failed to isolate distinctive features in pliosaurian dorsal vertebrae—due mainly to the general inadequacy of the available material—the present details, though incomplete, help to fill one of the gaps still existing in our knowledge of the osteology of this species.

THE WELCOME AVENUE ICHTHYOSAUR

Early in August 1970, during drain laying operations, disconnected remains of the forepart of the skeleton of a moderately sized ichthyosaur (*Macropterygius trigonus*) were encountered in Kimmeridge Clay, some $5\frac{1}{2}$ feet below the surface, on the north side of Welcome Avenue, Walcot (OS sheet 157, grid ref. SU 1552 8512). From the *in situ* position of these bones it was clear that the greater part of the skull had been smashed and disrupted by a mechanical digger before the existence of fossil bones in the clay there was realized.



FIGS. 1–2. Key to abbreviations.

f.c.a.: foramen for carotid artery. f.n.a.: facet for neural arch. h.b.: haemal border. i.c.f.: internal carotid foramen. pt.f.: facet for pterygoid. pt.p.: pterygoid process. pas.: parasphenoid. s.c.: spinal canal.

In this way much valuable evidence was irretrievably lost. Nonetheless, the surviving material is sufficiently varied and extensive to allow the relative proportions of at least some of the anterior elements in this species to be determined for the first time, and since associated ichthyosaur remains occur rarely in the Kimmeridge Clay, and published descriptions of them are rarer still, a proper record of this new information is clearly desirable.

The present material comprises portions of smashed jaws, several isolated teeth (including germ teeth), part of a bassisphenoid, an incomplete coracoid, a series of fifteen uncrushed vertebral centra (including the atlas and axis), and numerous fragmentary ribs. Of these remains only the bassisphenoid and the centra call for comment.

The right half only of the bassisphenoid has been preserved, since at some time it has been fractured vertically along the median line; this misfortune, however, reveals the precise course of the canal which in life received the carotid artery—a detail which, as far as the writer is aware, has not previously been observed in Kimmeridgian ichthyosaurs. This information is shown in Fig. 2a. Comparison with a bassisphenoid (specimen no: R.2162 BMNH) assigned by Andrews (1910, 13, text-Fig. 5) to *Ophthalmosaurus*—an ichthyosaur which, although very common in the Oxford Clay, also occurs in the Kimmeridge Clay—and with another (specimen 45984 BMNH) referred to *Ichthyosaurus* (*Macropterygius*) ?*dilatatus* from the Kimmeridgian of Swindon by Lydekker (1889, 30), shows the Welcome Avenue bassisphenoid to be quite distinctive (see Figs. 2b and 2c). Especially noticeable is the much squarer and less massively proportioned pterygoid process in the Welcome Avenue ichthyosaur, while there are also considerable differences in the shapes of the posterior extremities of these bones in the species just mentioned, and the internal carotid foramen is relatively much larger.

The vertebral centra are closely similar to those ascribed by earlier writers to *Macropterygius trigonus*, all the centra possessing markedly bevelled haemal borders. The dorsal centra, unlike the cervicals, also possess a flat peripheral area on both terminal faces located adjacent to the haemal borders, although in all other respects they are constructed on the usual ichthyosaurian plan. It is, however, interesting to note that none of the associated centra from Swindon catalogued by Lydekker (*ibid.*) exhibit either marked haemal borders or flat peripheral areas on the terminal faces. These differences, together with those present in the bassisphenoids of these individuals, suggests that both sets of bones represent specifically distinct ichthyosaurs and that the characters just described can henceforth be used when identifying newly discovered material in the future. Since both sets of remains include teeth, neither individual can be referred to the edentulous *Ophthalmosaurus*, which, moreover, possesses a bassisphenoid quite differently proportioned from those in the two Swindon species.

ACKNOWLEDGEMENTS

My best thanks are due to Mr. Woodward (of Swindon Museum) for notifying me of both discoveries, to Mr. Glover (site foreman at Cambria Bridge) for valuable assistance during the retrieval of the pliosaur remains, and to Dr. A. J. Charig (British Museum (Natural History), London) for allowing me access to the comparative material mentioned above.

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THE GREY WAGTAIL IN WILTSHIRE IN 1971

by LINDSAY and STEPHANIE J. TYLER

INTRODUCTION

Scattered records from past county bird reports give no real indication of the distribution and density of breeding pairs of Grey Wagtails (*Motacilla cinerea*). Peirson (1959) stated that this species bred on most suitable rivers in the county but no estimate was made of the size of the population.

The Grey Wagtail in Britain is traditionally a bird of the north and west, breeding on fast flowing, rocky streams and rivers. However, there is a sizeable population in the southern counties such as in Sussex where observers found 183 pairs in 1969 (Merritt *et al.* 1970), and in Surrey and Kent. There are also a few breeding records from several eastern counties and even from London in some years.

In Britain numbers of Grey Wagtails rose to a peak in 1960 but then followed a catastrophic decline after the 1962/63 winter (Parslow 1967). The Grey Wagtail after the Kingfisher (*Alcedo atthis*), was the most severely hit species by this hard winter. (Dobinson and Richards 1964). Sharrock (1969) found a similar pattern of an increase up to the end of the 1950s with a decrease after 1961 and a great decrease after the 1962/63 winter; he used British Trust for Ornithology nest record cards as well as the annual ringing totals and coastal passage data to assess a population index. He noted a gradual increase in the numbers of Grey Wagtails since 1963. In the New Forest in Hampshire the population in 1969 was as high as or higher than that before the severe winter (Tyler 1970) and in the Postbridge area of Dartmoor numbers were finally restored by 1967 (Dare and Hamilton 1968). Over the country as a whole the B.T.O. nest record cards suggest that the population had fully recovered from the severe winter by 1969 (Tyler—in press). The 1971 Wiltshire population would therefore be expected to be high.

The object of this survey in Wiltshire was to make a count of pairs to provide a baseline for comparison with future surveys.

METHODS

During 1969 and 1970 one river system, the Bybrook, was studied in detail and other rivers were more briefly visited. Observers throughout the county were contacted and asked for information about breeding Grey Wagtails in 1969 or 1970. Past county bird reports (*Wiltshire Archaeological and Natural History Magazine*, 1929–1933, 1946–1969) were searched for breeding records.

During 1971 all the main river systems in the county were inspected with particular attention being paid to previously known breeding sites and to other likely breeding sites such as weirs, sluices and bridges as shown on one-inch O.S. maps. Lack of time and observers restricted inspection of very small tributaries. Artificial lakes and ponds were visited as outfalls from these are a favoured site (Merritt *et al.* 1970). Areas near cress beds were also inspected as these provide good feeding areas.

Every river was inspected at least once, some being visited up to four times. Most visits were made during May as this is the most likely month for parents to be feeding young in the nest. However, the long breeding season of the Grey Wagtail (end of March to August) with pairs often double-brooded and sometimes treble-brooded, enabled searches to continue up to the end of August. If birds were not seen at suitable sites on a first visit, revisits were usually made.

Criteria used to define breeding were those used for B.T.O. atlas work. (See *B.T.O. News. Ornithological Atlas Supplement:* Instructions for the 1969, 1970 or 1971 Season.)

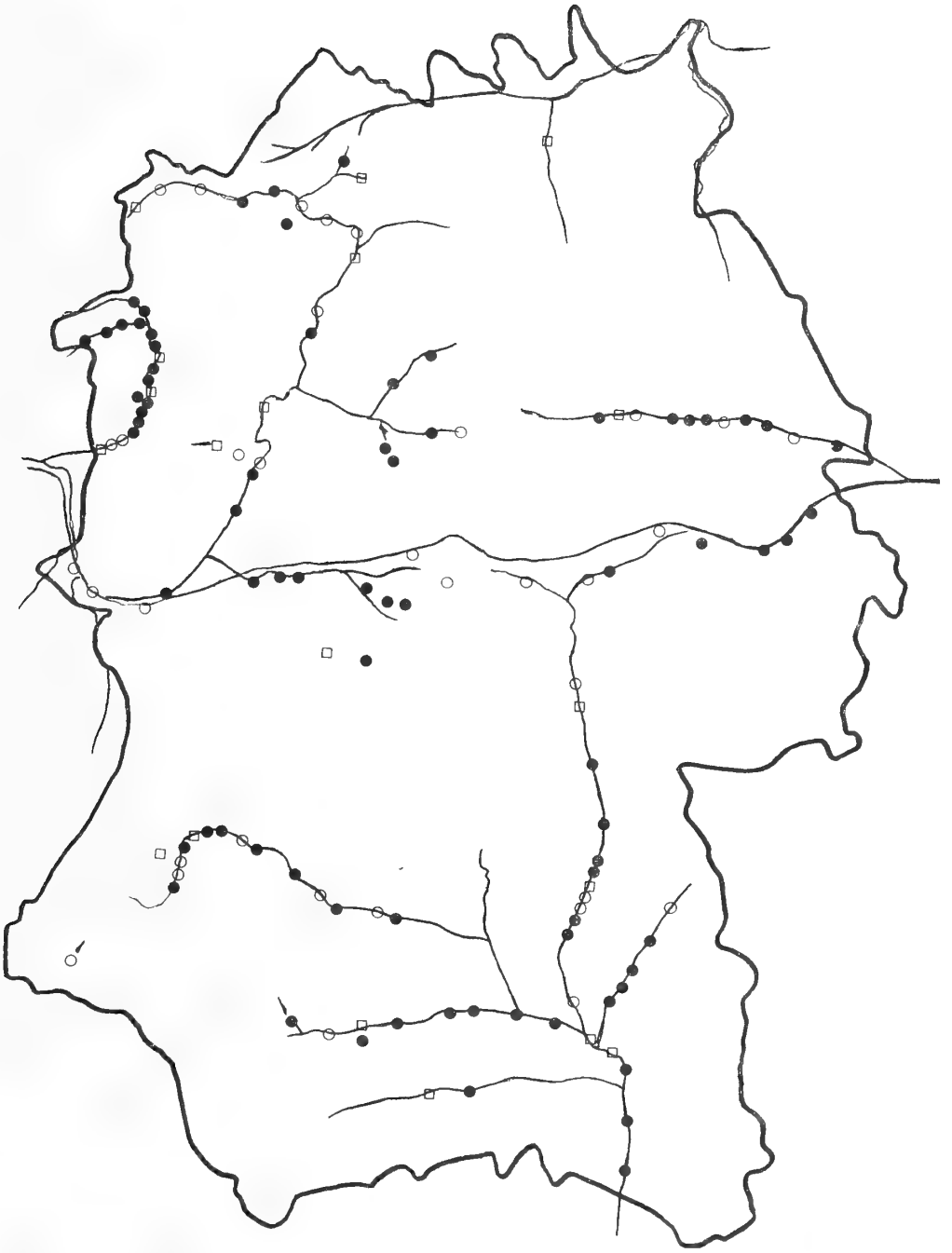

FIG. 1. Map of Wiltshire showing the distribution of pairs of Grey Wagtails (*Motacilla cinerea*) during the breeding season of 1971.

● Pair proved breeding ○ Pair probably breeding □ Pair present, possibly breeding

RESULTS

A total of 129 pairs were found in Wiltshire (Fig. 1), of which 76 pairs were proved breeding, 34 probably breeding and 19 present. Although this total is not the complete total of pairs in the county, as inevitably some pairs must have been overlooked, and coverage of rivers was necessarily somewhat unequal, a comparison of the density of Grey Wagtails on different rivers is still considered to be meaningful (Table 1).

TABLE 1. Density of breeding pairs of Grey Wagtails on Wiltshire rivers in 1971.

River	*Length of river surveyed*		*Number of pairs*	*Density* (distance between pairs)	
	Miles	Km		Miles	Km
Bybrook	16	26	20	0·8	1·3
Wylye	24	38	15	1·6	2·5
Kennett	18	29	11	1·7	2·6
Avon (Salisbury)	43	69	21	2·0	3·3
Avon (Bristol)	93	149	39	2·4	3·8
Bourne	12	19	5	2·4	3·8
Nadder	24	38	8	3·0	4·7
Ray	4	6	1	4·0	6·0
Ebble	14	22	2	7·0	11·0
Cole	2	3	0	0	0
Thames	11	18	0	0	0

The density of pairs was highest on the Bybrook in the north-west of the county with one pair approximately every 0·8 miles (1·3 km.). The rivers Wylye, Kennett and (Salisbury) Avon all had relatively high densities. On these rivers a map of the distribution of weirs and sluices closely parallels a map of the distribution of breeding Grey Wagtails such is the preference of the wagtails for these sites. In the north-east of the county only two pairs were recorded on the rivers Thames, Ray and Cole and one of these two pairs was just outside the county boundary.

Measurement of the rivers were made from one-inch O.S. maps. This method is obviously inaccurate because all meanders are not taken into account but it is sufficiently accurate for comparisons to be made between rivers.

Grey Wagtails showed a remarkable tolerance to the noise of traffic and the presence of people as pairs were found nesting in Melksham, within a few feet of the main road bridge over the Avon, in Chippenham and in Salisbury. Moreover, many pairs nested in the gardens of occupied mill houses.

Of 62 known nest sites, 52 (84%) were in walls by sluices or weirs, on ledges under bridges over sluices or weirs or in other structures associated with sluices or weirs. Five other nests were in ledges in walls, in each case within 20 yards (18 m.) of a sluice, weir or bridge. Two nests were under bridges well away from any sluice or weir, whilst the remaining three nests were in buildings close to rivers; two of these were by old mill sluices and the other close to a bridge. No nests were found in holes in banks.

DISCUSSION

Reasons for possible inaccuracies in the estimated population are given below:

(a) Many stretches of rivers between sluices, weirs or bridges were unchecked because of lack of time. These were usually slow flowing, deep stretches with low banks which were thought to include no suitable nest sites. A study of complete lengths of several rivers in the New Forest showed that Grey Wagtails do have a very definite preference for sluices and bridges and if not actually nesting in or on one of these man-made

structures, they nested in or against walls and banks close to such structures (Tyler 1970). Therefore it is considered that few pairs were missed by not inspecting entire lengths.

(b) An inadequate number of visits to some rivers, in particular the Ebble and the Bourne, meant that some pairs may have been overlooked. Pairs may be very inconspicuous during incubation and if the visit(s) coincided with incubation, pairs may then have been missed. Single-brooded pairs were also more likely to have been missed than those pairs having two or three broods.

(c) Some pairs may have been breeding on very small streams or away from water and these therefore may also have been overlooked.

(d) Subsequent nesting by a known pair at a site some distance from the first site may have been recorded as that of a second pair but this is not considered to be a likely source of error. It may be pointed out that a 'pair' observed throughout the breeding season may not necessarily consist of the same two birds. One or both birds of the pair may be replaced due to mortality.

Probable factors affecting the density of pairs of Grey Wagtails on a river include the rate of flow of the river, the depth of its water, the nature of the river bed and of the banks, the base richness of the water and the degree of pollution. All these factors affect the availability and the amount of food for Grey Wagtails.

Fast flowing rivers are generally rich in oxygen and can support aquatic insects such as dragonflies (*Odonata*) and stoneflies (*Plecoptera*), which may form an important part of the wagtails' diet. Base-rich rivers are richer in aquatic life than very acid rivers but as there are no very acid rivers in Wiltshire, this factor is unimportant. Deep rivers with muddy bottoms and steep banks are unsuitable for Grey Wagtails because the birds are unable to feed by probing about amongst stones at the edge; shallow rivers with exposed gravel at the edges provide a more suitable feeding area.

Thus the deep, muddy, slow flowing rivers Thames, Ray and Cole were unsuitable, as is reflected by the almost complete lack of pairs on these rivers. The similar lower parts of the Bristol Avon were also unsuitable for Grey Wagtails but pairs did occur at some but not all of the well-spaced weirs along this part of the river. In contrast the highly calcareous, rapidly flowing, shallow waters of the Bybrook with its stony bed provided an ideal feeding area and here breeding was not limited solely to mill-sluices, which are frequent along this river, but occurred in walls and in old stone bridges too.

The preference for fast flowing, shallow stretches is shown by the high density of pairs on the upper Wylye where a pair was found on average every mile between Wylye and Brixton Deverill. The bird was apparently absent from the more sluggish, deeper, lower reaches below Wylye although paucity of nest sites may also contribute to this lack of pairs.

The Grey Wagtail is a useful 'indicator' species. It is possible in a given area to make near total counts of pairs because these have such a restricted habitat and because of their conspicuousness. The population fluctuates due to severe winters but it may also be expected to be seriously affected by pollution of rivers either due to eutrophication or due to industrial effluent, or by other toxic materials that might impair reproductive success. Any decline in the population on any river despite favourable weather conditions could therefore be interpreted as due to a decline in the health of the river system.

CONCLUSION

The minimum breeding population of Grey Wagtails in Wiltshire in 1971 was 129 pairs. The status of this species is thought to be satisfactory and this figure may represent near maximum density under present day conditions.

ACKNOWLEDGEMENTS

We would like to acknowledge the friendly co-operation of numerous landowners and also to thank the following people who provided us with information: Mrs. R. G. Barnes, G. Boyle, E. J. M. Buxton, Mr. and Mrs. J. G. Cookson, Miss M. Cobern, F. P. Errington, Mrs. B. Fergusson, Miss B. Gillam, I. J. Gray, Rev. J. C. Hawksley, P. Horton, C. G. Lock, Fl. Lt. J. E. Major, B. J. Mead, Mr. and Mrs. D. Nye, C. Rice, J. C. Rolls, L. Rutter, W. Ruttledge, A. Smith, P. Smith, Mr. and Mrs. P. Toynton, G. L. Webber and I. W. Young.

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THE WEATHER OF 1971

by T. E. ROGERS

Month	*Temperature*	*Rainfall*	*Sunshine*
J	+	++	○
F	○	−−	○
M	−	○	○
A	○	+	○
M	○	−	+
J	−−	+++	−
J	++	−−−	+++
A	○	⊙	−
S	+	−−	++
O	++	⊙	++
N	−−	−	○
D	+++	−−.	−
Totals for 1971	9·07 °C (48·3 °F)	760·5 mm. (29·94 ins.)	1,545 hrs.
Yearly average figures (Marlborough):	8·78 °C (47·8 °F)	830·8 mm. (32·71 ins.)	1,426 hrs.

N.B. In all three columns: ○ signifies 'average'; − means 'distinctly below average'; −− means 'very much below average'. The + and ++ signs have comparable positive meanings.

To those who took holidays in June, it may come as a surprise to know that, for the third year running, rainfall was a little below average for the whole year. In fact, 1971 in Wiltshire was warmer and sunnier than any year since 1959.

The year started threateningly with a good covering of snow and day temperatures scarcely managing to struggle above freezing point, but by the end of the first week of January there was a marked improvement, and the most severe weather of the year was over. Despite the dampness of January, the rest of winter proved to be distinctly clement.

The overall statistics for the period March–May suggest a rather average spell, but the figures disguise the fact that there were several notable extremes. For example, we had moderate snow March 1st, a week when the sun was scarcely seen (April 3rd–9th), and a warm pleasant spell in mid-April, only to be followed by quite heavy snow over much of Southern England on April 26th. Indeed, this was the coldest late April day at the London Weather Centre since their records began.

June 1971 is not a month which the Meteorological Office will remember with pride. Despite the encouraging long-range forecast of below average rainfall in England and Wales, records for rain had been broken over much of Southern England by the 18th. In Marlborough 161·8 mm. (6·37 ins.) was recorded, a figure which easily exceeded the previous best (?) of 5·89 ins. measured in June 1882. However, it was not a month of unrelenting gloom, for the great bulk of the rain fell in two storms (69 mm. on 10th and 37 mm. on the 18th) and a surprising amount of cricket was played.

Nature was not long in redressing the balance, July being almost the perfect complement to June: no rain was recorded for the first three weeks and there was very nearly 50% more sun than usual, the brightest and warmest July since 1955. An undistinguished August was followed by a very pleasant Autumn. September, with a total rainfall of 14·3 mm. and 191·7 hrs. of sun, was the best since 1959, and the warm 'Indian Summer' continued well on into October.

In November maximum temperatures were reasonable, but at night air frost was recorded 16 times and on 7 of these occasions the temperature fell below −4°C (25°F). However, despite the prospect of an early Winter, December proved to be distinctly milder than usual.

WILTSHIRE BIRD NOTES FOR 1971

RECORDER: G. L. Webber. RECORDS COMMITTEE: Mrs. R. G. Barnes, M.B.O.U.; G. L. Boyle, M.B.O.U.; C. J. Bridgman, M.B.O.U.; Dr. E. A. R. Ennion, M.A., M.B.O.U.

The early winter months were fairly mild without any long periods of severe weather and Long-tailed Tit, Wren and Goldcrest seemed to increase their numbers to what must be their highest level since the 1962/63 winter.

Interesting species seen during the spring included a Firecrest at East Kennet, a pair of Black-tailed Godwit near Coate and a White Stork near East Knoyle.

The spring weather followed the pattern of recent years with cold adverse winds persisting well into April. These conditions appeared to cause some delay to the main arrivals of Warblers and Hirundines.

Whitethroats were still extremely scarce and there were very few breeding records. Spotted Flycatcher were unevenly distributed, common in some areas but very scarce in others.

High lights of the autumn were a Red Kite at Bishopstone and an Icterine Warbler at Calne in August. Later in the year Twite were identified near Ashmore, these being the first recorded in the county. An October Spotted Crake at Corsham is worthy of

mention as is the Bearded Tit at the same site in December, only the third record for the county.

The extensive building programme at the Swindon SF destroyed most of the wader pools causing a marked reduction in the number and variety of waders at this site.

At the end of these notes I have included a list of the earliest and latest dates on record for regular migrants to the county. In the bird notes only the first and last dates for 1971 are listed and in future if sufficient information is available summaries of migration patterns will be included.

LIST OF CONTRIBUTORS

C. F. Allan	CFA	Mrs. A. Maurice	AM
Miss M. J. Angell	MJA	Col. D. Morris	DM
T. Andrews	TA	J. E. Major	JEM
Mrs. R. G. Barnes	RGB	B. Macdonald	BM
G. L. Boyle	GLB	C. Mason	CM
S. Bradbury	SB	N. F. McMichael	NFM
T. G. Bryce	TGB	Miss D. N. Nye	DNN
D. M. Bryant	DMB	Brig. J. R. I. Platt	JRIP
Mrs. V. E. Brown	VEB	C. Rice	CR
E. J. M. Buxton	EJMB	J. C. Rolls	JCR
Miss M. Cobern	MC	A. J. Rycroft	AJR
J. G. Cookson	JGC	J. V. Rintoul	JVR
C. A. Cutforth	CAC	E. G. Smith	EGS
P. Curry	PC	M. H. Smith	MHS
Mrs. E. V. Forbes	EVF	A. Smith	AS
K. G. Forbes	KGF	Mrs. J. Stopford Beale	JSB
D. E. Fry	DEF	Mrs. S. J. Tyler	SJT
Mrs. I. Gandy	IG	P. Toynton	PT
Miss B. Gillam	BG	G. L. Webber	GLW
J. R. Govett	JRG	M. Webber	MW
J. C. Hawkesly	JCH	M. R. Wright	MRW
M. E. M. Harvey	MEMH	J. Wyatt	JW
A. J. Horner	AJH	I. W. Young	IWY
R. J. J. Hunt	RJJH	Marlborough College Natural History Society	MCNHS
Brig. S. P. M. Kent	SPMK	Salisbury Natural History Society	SNHS
P. G. Lansdown	PGL		
Mrs. V. Lawson	VL		

The following abbreviations are used in the text: GP, Gravel Pit; SF, Sewage Farm.

4. **Red-throated Diver.** One in winter plumage present in the Ashton Keynes area 27/30 Dec. (GLW, MW, BM, GLB, MHS, EGS).

5. **Great Crested Grebe.** Breeding reported from 10 sites. Spring flocks of 23 at Coate and 28, Ashton Keynes. (GLW, BG).

7. **Slavonian Grebe.** The bird reported in the 1970 report at Easton Royal was in fact recorded there on 9 Jan. 1971.

9. **Little Grebe.** Widely reported, numbers apparently much as in recent years.

27. **Gannet.** An adult found freshly dead in cereal field near Tan Hill, 15 Jun. Possibly driven inland by the strong NW wind of the previous day (BG).

28. **Cormorant.** An immature, Stourhead, 12 Sept. (DNN); 3 in flight near All Cannings, 27 May (JGC).

29. **Shag.** One in flight Swindon, 31 Oct. (GLW, MW).

30. **Heron.** This species is still increasing in the county, 115 nests were recorded this year compared with 106 for 1970. Ten heronries were occupied, 2 more than the previous year. Many sight records received.

38. **Bittern.** One seen regularly in the East Town Lake area 10 Jan./3 Mar. (GLB, EGS, MHS, BM, GLW, MW).

40. **White Stork.** One watched feeding in a field near East Knoyle 5 Jun., full descriptive notes supplied (DM). In view of the continuous easterlies prior to the bird being seen it may well have been a genuine immigrant.

45. **Mallard.** Maximum counts on major waters: *c.* 1500 Bowood Lake, 9 Oct. (JCR); *c.* 200 Braydon Pond, 26 Dec. (RGB); *c.* 200 Queens Park, 17 Jan. (CM); *c.* 250 Corsham Lake, 31 Oct. (JCR); *c.* 230 Fonthill Lake, 14 Nov. (PT); *c.* 160 Stourhead, 26 Sept. (MHS); *c.* 200 Wilton Water, 25 Aug. (MCNHS).

46. **Teal.** Numbers were much lower than usual at most waters. Double figures were only recorded as follows: 11 Bowood Lake, 6 Feb. (JCR); 15 Wilton Water, 14 Nov. (MCNHS); *c.* 30 Fonthill Lake, 26 Sept. (MHS).

47. **Garganey.** Five were seen at Stourhead 14/15 Mar. (DNN), an early date. Probably the same birds 22/28 Mar. (EGS, MHS, GLB). A single female at Coate Water, 11 Apl. (GLW).

49. **Gadwall.** Very few records, a reversal of the trend over the past few years. Four were seen at Wilton Water, 25 Dec., the first recorded there (JGC). 42 were seen at Fonthill Lake, 14 Mar. but numbers were usually much lower (SPMK, DEF, AJH, PT).

50. **Wigeon.** Numbers lower than usual at most waters but there were two large counts in the south of the county. *c.* 300 Clarendon Lake, 6 Mar.; *c.* 700 Britford water meadows, 6 Mar. (DEF, AJH).

52. **Pintail.** A single male at Wilton Water, 2 Jan. (JGC).

53. **Shoveler.** Four, Corsham Lake, 17/19 Apl. and 6 Sept. (JCR). 4 Queens Park, 17 Apl. (GLW); 3 Coate Water, 7 Mar., 10 Apl.; 2 there, 11/12 Apl. (BM, GLW, MW); 2 Corsham Lake, 5 Sept. (MJA, JCR); 2 Cole Park, 25 Oct. (EJMB); 2 Fonthill Lake, 3 Apl. (DEF, AJH). Single birds at Steeple Langford, 23 Feb. (RJJH); Corsham Lake, 29 Aug. (MJA, JCR); Wilton Water, 21 Oct. (MCNHS); Ashton Keynes, 14 Feb. (BG); Swindon SF, 2 Aug. (BM).

56. **Tufted Duck.** No breeding records received. 58 Ashton Keynes, 17 Oct. (BG); *c.* 100 Chilton Foliat, 21 Feb. (JCR); 38 Wilton Water, 9 Mar. (SPMK); *c.* 75 Fonthill Lake in Nov. (PT); *c.* 50 Stourhead, 26 Dec. (MHS); *c.* 20 Steeple Langford, 23 Feb. (RJJH).

57. **Pochard.** No breeding records. *c.* 100 Ashton Keynes, 17 Oct. (BG); *c.* 37 Braydon Pond, 10 Jan., *c.* 40 Corsham Lake, 31 Oct. (JCR); 47 Wilton Water, 9 Jan. (JGC); *c.* 80 Fonthill Lake, 4 Nov., *c.* 30 Edington, 14 Feb. (PT); *c.* 30 Clarendon Lake, 10 Mar. (DEF, AJH).

58. **Ferruginous Duck.** A first winter male seen on the R. Kennet between Axford and Mildenhall, 14 Feb. (MJA, JCR); also seen in the same area, 21 Feb. (BM, GLW, MW). Full descriptive notes submitted, this bird may well have been an escape.

60. **Goldeneye.** Five Ashton Keynes, 17 Jan., 4 there 14 Feb. and a pair 12 Dec. (BG); 3 Ashton Keynes, 27 Dec. (BM, GLW, MW); 2 at same site, 28 Dec. (MJA, JCR).

Ruddy Duck. A single male at Corsham Lake, 10 Apl./18 May (MJA, JCR).

70. **Goosander.** One 'red head', Westbury ponds, 9 Jan./4 Apl. (JRG, GLB, EGS, MHS); 2 females at same site 21 Nov./5 Dec. (JRG, MHS).
20 Mar. (GLW); a pair on Chitterne stream 30 Jan. (KGF).

73. **Shelduck.** A first winter bird Swindon SF, 13 Feb. (GLW). An adult at Coate Water,

75. **Grey Lag Goose.** A single bird at Stourhead, full descriptive notes supplied 17/24 Jan. (MHS). This bird may have been an escape.

81. **Barnacle Goose.** One at Wilton Water, 3/24 Oct. (JGC, MCNHS). Presumably the same bird present there during the spring of 1970.

82. **Canada Goose.** Two pairs bred at Wilton Water rearing 9 goslings (JGC). Fewer records than usual; 2 Coate Water, 31 Mar. and 5 Ashton Keynes, 4 Apl. (GLW).

84. **Mute Swan.** A flock of *c.* 40 feeding on meadows Steeple Langford, 23 Feb. (RJJH).

86. **Bewicks Swan.** Single birds were seen at Dauntsey, 1 Feb. (EJMB); Corsham Lake, 6 Nov. (JCR).

91. **Buzzard.** A greatly increased number of sight records received. There were five breeding records.

93. **Sparrowhawk.** Only two definite breeding records but seen commonly throughout the county.

94. **Goshawk.** One in flight near Everleigh, 9 Feb. (GLB). Jesses were not in evidence so the bird may have been a genuine visitor.

95. **Kite.** One seen well in flight at Bishopstone, 28 Aug. Full descriptive notes supplied, (CFA).

100. **Hen Harrier.** Ring tails were seen as follows: 1 Everleigh, 12 Mar. (GLB, EGS, MHS); at same site 18 Mar. (GLB); male in flight Haxton, 8 Apl. (CAC); male, Waterdene Bottom, 30 Oct. (SPMK); probably the same bird near Rushall 27 Dec. (GLB); 1 Bishopstone, 12 Dec. (DEF, AJH).

102. **Montagu's Harrier.** A male on the Plain, 18 May (PT); a female in another area, 30 May (DMB). A female in flight near Avebury 31, Jul. (PGL).

103. **Osprey.** One at Wilton Water, 17 Apl. (JGC); an immature in the Calne area, 14/18 Sept. (TA, EJMB, BG).

104. **Hobby.** There were 17 sight records but no definite breeding records. A late immature seen overhead Swindon, 2 Oct. (GLW).

105. **Peregrine.** Two records, an immature on the Imber Ranges, 22 Aug. (GLB); 1 Fyfield Down, 29 Nov. (MCNHS).

107. **Merlin.** A pair Lark Hill, 7 Feb. (GLB); a male near Salisbury, 20 Feb. (DEF, AJH); 2 during period 21 Nov. to the end of year in the Wootton Rivers area (JGC, MEMH); 1 female on the ranges 16 Dec. (PT); female Rushall, 27 Dec. (GLB). Single bird Grovely Wood, 15 Sept. (SNHS).

110. **Kestrel.** Five definite breeding records and a great many sight records, one observer commented that the species did not seem quite so numerous.

115. **Red-legged Partridge.** One definite breeding record and several sight records, these mostly in the north of the county.

116. **Partridge.** Probably a little more numerous.

117. **Quail.** Fewer records of calling birds than last year, one pair known to have bred.

118. **Pheasant.** An albino seen near Holywell in Feb. (JSB).

120. **Water Rail.** Widely reported throughout the county during Jan./Mar. and Aug./Dec. There were no records of summering birds, this species has only bred once in the county.

121. **Spotted Crake.** Heard calling at Corsham Lake, 9 Oct. (JCR). This observer is familiar with the call of this species and he also compared the call with a recording.

125. **Corncrake.** Calls heard from a grass field, Allington, 30 Apl. (JSB).

131. **Oystercatcher.** One in flight, Coate Water, 25 Apl. (BM, GLW, MW).

133. **Lapwing.** There appeared to be no significant change in the status of this species. The largest flock was *c.* 11,000 near Tilshead, 26 Oct. (PT).

135. **Little Ringed Plover.** An adult and a juvenile at Swindon SF. 3 Jul.; 4 there, 4 Jul.; single adult 5, 7 and 31 Jul. (BM, CM).

140. **Golden Plover.** Rather fewer records than usual, *c.* 120 Wilsford Down, 11/16 Apl., many of these were in summer plumage. (AJR). *c.* 20 with Lapwings at Beckampton, 18 Oct. (PT). Larger flocks: *c.* 1,500, Tytherington, 28 Dec. (JRG); *c.* 1,000 Wroughton airfield, 25 Dec. (GLW). There were several reports of smaller flocks.

145. **Snipe.** No breeding records received and winter numbers extremely low.

147. **Jack Snipe.** Only reported from Swindon SF, 1, 23 Jan., 2, 8 Apl., 1, 12 Apl. (BM, GLW).

148. **Woodcock.** No breeding records but 'roding' birds reported from several suitable breeding localities.

150. **Curlew.** Seven pairs probably bred.

154. **Black-tailed Godwit.** A pair in meadows near Coate Water, 11 Apl. (MRW). Full descriptive notes supplied.

156. **Green Sandpiper.** Wintered at Swindon SF. (GLW), Deverill (PT); up to 16 in autumn at Swindon SF. (CM); single birds reported from Wilton Water, Seagry, Sutton Benger, Lacock GP (JGC, MJA, JCR).

157. **Wood Sandpiper.** One present Swindon SF. 9/13 Aug. (BM, CM).

159. **Common Sandpiper.** Up to 6 during autumn at Swindon SF. (CM). First in spring, 14 Apl. Chippenham (TA); general by 25 Apl. Last seen 12 Sept. Ashton Keynes and Swindon SF. (BG, CM).

161. **Redshank.** One definite breeding record (GLW). First noted Great Bedwyn, 21 Mar. (SPMK).

165. **Greenshank.** One at Swindon SF. 13 Jul.; then single birds from 9 Aug./14 Sept. (CM, BM, GLW); 1 Steeple Ashton, 28 Nov. (MHS).

178. **Dunlin.** One Lacock GP. 27 Mar. (JCR).

184. **Ruff.** One Swindon SF. 22/23 Aug. (GLW, CM).

189. **Stone Curlew.** Two definite breeding records (BG, MC), few sight records.

198. **Great Black-backed Gull.** Three on stubble below Barbury, 31 Oct. (BM, GLW, MW); 1 near Salisbury, 23 Nov. (JCR).

199. **Lesser Black-backed Gull.** Regular throughout the year, *c.* 100 Great Cheverell, 2 Feb. (PT); up to *c.* 200 Swindon SF. late summer (GLW).

200. **Herring Gull.** Noted: Swindon up to 15; Bishops Cannings 34; Fyfield Down 7; Salisbury 3; Calne *c.* 100 (BG, RJJH, JCR, MCNHS, GLW).

212. **Black Tern.** One Steeple Langford, 14 May (SNHS); 2 Fonthill Lake, 30 Aug. (JEM); 3 Coate Water, 3 Jun.; 1 there 7 Sept. and 9, 9 Sept. (BM, GLW, MW); 1 Shearwater, 12 Sept. (MHS).

Common/Arctic Tern. One Steeple Langford, 30 Apl. (SNHS); 18 Shearwater, 23 May (MHS); 2 Wilton Water, 22 Aug. (JGC); 3 Keynes Park, 29/30 Aug. (BG, GLW); 2 there, 5 Sept. (GLW).

217. **Common Tern.** One Lacock GP., 4 May (JCR); 2 Ashton Keynes, 15 Jun.; 1 there, 1 Jul. (PT).

223. **Sandwich Tern.** Eight in flight near Wilton Water, call heard , 9 Oct. (JGC).

232. **Stock Dove.** A pair bred in the branches of a dense cypress at Hungerdown. (RGB).

234. **Wood Pigeon.** A pale leucistic bird seen near Hilperton during Feb./Mar. (MHS).

235. **Turtle Dove.** First seen Erlestoke, 20 Apl. (MJA, JCR); general by 25 Apl. Last record, 1 Swindon SF., 30 Aug. (BM, GLW).

Collared Dove. No apparent change in status.

237. **Cuckoo.** First record, near Erlestoke, 28 Mar. (AS). Last date, Swindon SF., 1 Sept. (GLW).

241. **Barn Owl.** A very welcome increase in the number of sight records and 5 pairs known to have bred.

246. **Little Owl.** No apparent change in status, many sight records. At least 5 breeding records.

247. **Tawny Owl.** Only one breeding record (MCNHS).

248. **Long-eared Owl.** Only one pair reported (BG).

249. **Short-eared Owl.** Seen regularly during winter months at Fyfield Down, maximum number 5; Everleigh 2 and 2 near Netheravon. One pair possibly attempted to breed but were disturbed by farming operations (GLB, BG, MCNHS, AS, MHS, EGS). A single bird at Standlynch Down, 23 Mar. (RJJH).

252. **Nightjar.** Only reported from Warminster and Bently Wood (EGS, MHS, DEF, AJH).

255. **Swift.** First noted Winterbourne, 22 Apl. (DEF, AJH); last date, 11 Sept. Corsham Lake (JCR, PT).

258. **Kingfisher.** Four definite breeding records and many sightings. One flew against a window and stunned itself, Landford, 11 Jun. (RJJH).

261. **Hoopoe.** One reported at Landford late in Apl. by Mrs. P. Griggs per (RJJH). A single bird seen on several occasions during Jun., details withheld in case breeding took place.

262. **Green Woodpecker.** Only two breeding records (JCR, AS). Sight records continue to increase.

263. **Great Spotted Woodpecker.** Four breeding records and five records of newly fledged young. Widely and regularly seen throughout the county.

264. **Lesser Spotted Woodpecker.** One record of a newly fledged juvenile and over 20 sight records.

271. **Woodlark.** Two accepted sight records, Savernake, 8 May (MCNHS); Steeple Ashton, 7 Oct. (EGS).

274. **Swallow.** First seen Clarendon, 26 Mar. (SNHS), general by 10 Apl. Only one roost reported, *c.* 100 Corsham Lake (MJA, JCR). Last seen Coate Water, 31 Oct. (GLW).

276. **House Martin.** First seen Salisbury, 1 Apl. (DEF, AJH), general by 17 Apl. Last date Steeple Ashton, 28 Oct. (MHS).

277. **Sand Martin.** Few records, first Salisbury 1 Apl. (SNHS). Last date Swindon, 19 Sept. (GLW).

288. **Great Tit.** One regularly entered house during Aug. and twice removed milk bottle tops (BG).

289. **Blue Tit.** Very poor breeding season in the Swindon area, many broods dying in the nest. Only two observers noted any increase in tit numbers during the autumn and apparently the 'irruption' failed to materialize in Wilts.

294. **Long-tailed Tit.** This species appears to be at its highest level for many years, a party of 52 seen near Steeple Ashton in Aug. (EGS, MHS).

295. **Bearded Tit.** Heard calling from reed bed at Corsham Lake, 28 Nov., a female trapped there 11 Dec. (MJA, JCR). Probably still present 28 Dec. This is only the third county record and all have been at Corsham.

296. **Nuthatch.** Two breeding records and many more sightings than in recent years.

299. **Wren.** Several observers commented on the abundance of this species.

300. **Dipper.** Three definite breeding records all on the Bybrook (SJT); seen on the Nadder (RJJH); Fonthill (PT); Bowood Lake (JCR); R. Frome (JRG). A pair seen at Bishopstone (SNHS).

302. **Fieldfare.** Last in spring, Chippenham 5 May (TA). First in autumn, 2 Oct.Corsham (JCR). Numbers appeared lower than usual during Nov./Dec.

304. **Redwing.** Last in spring, Chippenham 20 Apl. (TA). First in autumn Fyfield Down, 26 Sept. (BM, GLW, MW).

307. **Ring Ouzel.** Three Marlborough, 16 Sept. (MCNHS).

308. **Blackbird.** A pair noted with hoar frost on their rumps, tail and primary tips after a night of fog and frost 4 Jan. (BG). At Malmesbury a female was flushed from a nest containing 3 eggs 8 May, on 21 May the nest still contained 3 eggs. On 30 May the nest now had 4 eggs and these finally hatched on 11 Jun. (EJMB). 3 males noted probing duckweed along shoreline of R. Kennet. (MC).

311. **Wheatear.** First seen, 2 on plough Coate Water, 1 Apl. (GLW); rather scarce on spring passage. Two pairs known to have bred. Last date, Teffont Down, 17 Oct. (GLB).

317. **Stonechat.** No breeding records, wintering birds seen in suitable areas throughout the county.

318. **Whinchat.** First seen Chippenham, 12 Apl. (TA); no breeding records received. Last date 28 Nov. Fyfield Down (MCNHS).

320. **Redstart.** First seen Steeple Ashton, 16 Apl. and the last record also there, 8 Oct. (EGS, MHS). Few breeding records.

322. **Nightingale.** First heard singing Bowood, 4 Apl. (JCR); slightly fewer records than usual.

327. **Grasshopper Warbler.** First noted Braydon Pond, 18 Apl. (RGB). Fewer singing birds than in 1970.

333. **Reed Warbler.** First noted Coate Water, 18 Apl. (GLW). Last date 3 Oct. Corsham Lake (JCR). Bred at Coate Water *c.* 35 Pairs, Corsham Lake *c.* 12 pairs, Christian Malford 1 pair and 1 pair Wilton Water.

337. **Sedge Warbler.** First seen Corsham Lake, 15 Apl. (JCR, MJA); last date at same site 26 Sept.

340. **Icterine Warbler.** One near Calne, 18 Aug. a full description submitted (TA).

343. **Blackcap.** First seen Salisbury, 1 Apl. (SNHS); last date, 3 Oct. Ham Hill (BM, GLW).

346. **Garden Warbler.** One at Underhill, 21 Apl. (NFM). Last seen Workaway Drove, 13 Sept. (MC).

347. **Whitethroat.** More widely reported this year but still only at a fraction of former numbers. First seen Coate Water, 15 Apl. (GLW); last date 3 Oct. Overton Down (MCNHS). A few breeding records.

348. **Lesser Whitethroat.** First noted Bratton and Chippenham, 20 Apl. (MJA, JCR, TA); last seen Steeple Ashton, 30 Sept. (MHS).

354. **Willow Warbler.** First heard singing Steeple Ashton, 7 Apl. (EGS, MHS); 1 trapped Corsham Lake, 17 Sept. (JCR).

356. **Chiffchaff.** First at Chippenham, 28 Mar. (TA); last date 23 Nov. Chippenham (CR). Wintering bird also at Chippenham, 8/9 Dec. (TA).

357. **Wood Warbler.** A passage bird Pewsey, 29 Apl. (BG). Two breeding records from southern areas. Only late date Chippenham, 8 Aug. (TA).

364. **Goldcrest.** A large number of records, numbers of this species must be at an extremely high level.

365. **Firecrest.** A single bird at East Kennet, 10 Apl., descriptive notes supplied (JCH).

366. **Spotted Flycatcher.** First noted at Neston, 7 May (MJA, JCR); last date 2 Oct. Seagry (RGB).

368. **Pied Flycatcher.** Only 2 records: a male Corsham Lake, 22 Apl. (MJA, JCR); another male near Malmesbury, 17 Apl. (EJMB).

376. **Tree Pipit.** Recorded singing at a number of suitable breeding sites but only one nest found. First noted 26 Apl. (NFM).

380. **Pied Wagtail.** *c.* 100 roosting on window sills above a busy street in Devizes (BG).

381. **Grey Wagtail.** Widely reported during winter but breeding records more restricted. A full report appears elsewhere in this issue.

382. **Yellow Wagtail.** Not many sight records this year and breeding only reported in the north of the county. First seen Chippenham, 14 Apl. and last record also there 19 Sept. (TA).

384. **Great Grey Shrike.** One seen at Wilton Water/Great Bedwyn during Jan. and again in Nov. (JGC, AM). Probably the same bird as in 1971. One near Amesbury 14/30 Jan. (DEF, AJH); another bird reported between Malmesbury and Sherston, 18 Mar./2 Apl. (SJT, CR).

388. **Red-backed Shrike.** One sight record of a male, 30 May (DMB).

391. **Hawfinch.** A juvenile in a garden at Aldbourne during Aug. (IG).

394. **Siskin.** A large increase in the number of reports this year. Regularly seen in winter; Roundway up to 20 (BG); Landford Manor up to 20 (DAT); Clarendon up to *c.* 100 (DEF, AJH). Also seen Quidhampton, Bemerton, Franchise Wood (RJJH); Lacock (JCR); Longleat (PT); Axford (SJT); Shearwater (GLB); Steeple Ashton (EGS, MHS); Manton and Clatford Bottom (MCNHS). There were no breeding records.

396. **Twite.** Two seen with other finches near the county boundary with Dorset near Ashmore, 20 Oct. (TGB). Full descriptive notes were supplied, both birds being males. This is the first accepted record of this species for the county.

397. **Redpoll.** Widely reported in small numbers, the only large flocks were *c.* 50 Fyfield Down (MCNHS); *c.* 30 Sevenhampton (GLW); only one record during the breeding season (RJJH).

408. **Brambling.** Fewer records than usual, larger flocks were *c.* 25 Savernake, 17 Jan. (MCNHS); *c.* 20 Bapton House, 21 Jan. (EVF); *c.* 20 Barbury 31 Oct. (GLW).

410. **Corn Bunting.** Noted singing above the 900 ft. contour on Milk Hill, Singing males also noted near Downton, this appears to be a 'new' site. A flock of *c.* 60 Chitterne, 14 Feb. (MHS).

421. **Reed Bunting.** *c.* 50 roosting Corsham Lake, Dec. (MJA, JCR).

425. **Tree Sparrow.** Noted breeding near Tisbury, the species only breeds sporadically in this area (JEM). Larger flocks: *c.* 40 Steeple Ashton, 24 Feb. (EGS); *c.* 70 Barbury, 31 Jan. (GLW); *c.* 100 Winterbourne, 5 Mar. (DEF, AJH).

LIST OF EXTREME ARRIVAL AND DEPARTURE DATES OF MIGRANTS

Hobby
a. 9 Apl. 1952
d. 7 Oct. 1961

Quail
a. 17 Mar. 1961
d. 22 Oct. 1965

Golden Plover
a. 23 Jun. 1963
d. 6 May 1953

Common Sandpiper
a. 12 Mar. 1966
d. 6 Dec. 1969

Stone Curlew
a. 10 Mar. 1961
d. 13 Nov. 1954

Sand Martin
a. 10 Mar. 1961
d. 8 Oct. 1966

Fieldfare
a. 23 May 1970
d. 7 Aug. 1958

Redwing
a. 20 Sep. 1963
d. 8 May 1969

Wheatear
a. 17 Feb. 1965
d. 18 Nov. 1960

Whinchat
a. 5 Apl. 1959
d. 22 Nov. 1969

Garden Warbler
a. 31 Mar. 1956
d. 2 Oct. 1965

Whitethroat
a. 31 Mar. 1958
d. 19 Oct. 1968

Lesser Whitethroat
a. 7 Apl. 1964
d. 26 Sep. 1965

Willow Warbler
a. 5 Mar. 1959
d. 8 Oct. 1957

Chiffchaff
a. 25 Feb. 1952
d. 21 Nov. 1970

Turtle Dove
a. 25 Mar. 1970
d. 21 Oct. 1950

Cuckoo
a. 26 Mar. 1968
d. 26 Sep. 1963

Nightjar
a. 5 Apl. 1968
d. 6 Sep. 1963

Swift
a. 4 Apl. 1956
d. 5 Oct. 1958

Swallow
a. 18 Mar. 1968
d. 2 Dec. 1957

House Martin
a. 5 Mar. 1967
d. 3 Dec. 1959

Redstart
a. 3 Apl. 1965
d. 7 Nov. 1963

Nightingale
a. 10 Mar. 1961
d. 30 Aug. 1970

Grasshopper Warbler
a. 8 Apl. 1966
d. 2 Oct. 1969

Reed Warbler
a. 3 Apl. 1958
d. 9 Oct. 1952

Sedge Warbler
a. 20 Mar. 1957
d. 23 Oct. 1952

Blackcap
a. 14 Mar. 1961
d. 9 Oct. 1951

Wood Warbler
a. 25 Mar. 1948
d. 17 Sep. 1952

Spotted Flycatcher
a. 9 Apl. 1949
d. 27 Oct. 1962

Tree Pipit
a. 1 Apl. 1970
d. 11 Oct. 1953

Yellow Wagtail
a. 20 Mar. 1969
d. 13 Dec. 1970

Brambling
a. 2 Oct. 1966
d. 21 Apl. 1968

RINGING REPORT FOR 1971

by Roderick C. Faulkner

During 1971 the ringing activities in Wiltshire diminished yet again, and the details submitted to me totalled only 1,391 free-flying birds and 368 nestlings ringed. This is not an accurate figure, as details were not available from some ringers in the county.

One of the highlights of the year was the Bearded Tit, trapped and ringed by JCR at Corsham Lake, the second time this species has been observed there in recent years.

The Reed Warbler recovery (HS 10201) is of special interest in the following list. This bird was first ringed at its breeding site at Corsham Lake; was later controlled (trapped and released again) on its migratory route at Chew Valley Reservoir, and finally controlled at its breeding site at Hungerford in Berkshire, in 1971. I wonder if, and where, this bird will be recovered again?

Key to the initials of ringers who have submitted information for this Report, and whose names appear in the text:

E. J. M. Buxton	EJMB	J. Tyler & S. Bellingham	T & B
D. E. Fry & A. J. Horner	F & H	Dr. S. Tyler & P. Smith	T & S
J. J. Latham	JJL	G. L. Webber	GLW
J. C. Rolls	JCR	M. J. Wyatt	MJW
P. Toynton	PT		

List of Selected Recoveries of Birds Ringed in Wiltshire

Pull = nestling; 1Y = first year; FG = full-grown; Ad. = Adult. X = found dead, killed; V = found and released.

SHOVELER	1Y	Cole Park, Malmesbury	1.9.69	EJMB
SS 98704		Caningby (Lancs.)	21.10.71	220km NE
SPARROWHAWK	1Y	Devizes (released)	24.1.71	JJL
DS 72371	X	N. Tidworth (Wilts.)	11.4.71	25km ESE

LAPWING	pull	Highpost, Salisbury	5.6.69	F & H
DS 53281	X	Merignac (Gironde), France	27.12.71	
SWIFT	Ad.	Coate Water	14.5.67	GLW
SE 37262		Daventry (Northants.)	30.6.71	90km NNE
SWALLOW	Ad.m.	Lacock G.P.	26.8.70	JCR
JB 51336	X	Zastron, South Africa	13.12.70	
REDWING	FG	Erlestoke, Devizes	22.2.69	JCR
CS 83016	X	Nr. Masscube, France	8.11.70	
REDWING	FG	Erlestoke, Devizes	8.3.69	JCR
CS 83050	X	Kihnö (Turku & Pori), Finland	9.7.71	
REED WARBLER	Ad.	Corsham Lake	25.7.70	JCR
HS 10201	V	Chew Valley Res. (Somerset)	8.8.70	28km WSW
	V	Hungerford (Berkshire)	22.5.71	70 km E
REED WARBLER	pull	Coate Water	17.7.70	GLW
JB 31413	V	St. Ouen, Jersey	15.8.71	
SEDGE WARBLER		Coate Water	13.6.70	GLW
JC 98733	V	Chichester (Sussex)	12.4.71	105km SE
CHIFFCHAFF	1Y	Christian Malford	24.8.69	JCR
PN 8735	V	Hengistbury Head (Sussex)	12.4.71	120km SE
STARLING	1Y	Chippenham	28.5.66	T & B
CV 63697	V	Newport (Monmouth)	16.4.71	44km WNW
STARLING	1Y	Chippenham	5.10.64	T & B
CB 35690	X	Trowbridge (Wiltshire)	22.9.71	14km SSW
		Recovered in Wiltshire		
PIED WAGTAIL	1Y.m.	Wolvercote (Oxon.)	13.8.70	
JA 99068	V	Calne (Wiltshire)	4.12.71	T & S
		Interesting Local Recoveries		
MOORHEN	Ad.	Cole Park, Malmesbury	13.2.66	EJMB
AJ 97061	V	Cole Park	2.2.71	
REED WARBLER	Ad.	Corsham Lake	10.8.66	JCR
HB 46320	V	Corsham Lake	7.8.71	
REED BUNTING	FG	Lacock G.P.	16.10.66	JCR
HH 17042	X	Melksham (Wiltshire)	23.4.71	

WILTSHIRE PLANT NOTES (32)

compiled by JOAN SWANBOROUGH

(All records for 1971 unless otherwise stated)

Athyrium felix-femina (L.) Roth. Lady-fern. 3 .Webb's Wood. *D. Grose.*

Taxus baccata L. Yew. 9. Regenerating freely on Hindon Terrace. Little Ridge Wood, Fonthill and hedge-row near Dinton, probably bird-sown. *L. F. Stearn.*

Ranunculus arvensis L. Corn Buttercup. 2. Lower Swinley. *D. Grose, Mrs. J. Swanborough.* 3. Wanborough Plain. *D. Grose.*

Ranunculus auricomus L. Goldilocks Buttercup. 9. Stockton Wood and Pondhead Copse, Semley. *L. F. Stearn.*

Ranunculus aquatalis L. Ssp. *sphaerospermus* (Bois & Blanche) Clapham. 9. In stream, Fonthill, *L. F. Stearn* (1969). This is the second record for the County.
Adonis annua L. Pheasant's Eye. 2. Lower Swinley (17 scattered plants). *Mrs. J. Swanborough.*
Aquilegia vulgaris L. Columbine. 10. Vernditch Chase. *P. Horton.*
Thalictrum flavum L. Common Meadow Rue. 7. Extremely abundant at Nine Mile River. *P. Horton.*
Papaver rhoeas L. var. *hoffmanianum.* O. Kuntze. Field Poppy. 9. Hindon. *L. F. Stearn* (1969).
Papaver dubium L. var. *with yellow sap.* Long-headed Poppy. 9. Cornfield near Knoyle Down Farm. *L. F. Stearn* (1969).
Papaver argemone L. Long Prickly-headed Poppy. 3. Wanborough Plain. *D. Grose.*
Papaver somniferum L. Opium Poppy. 9. Casual on trackway south of Hindon. *L. F. Stearn* (1969).
Erucastrum gallicum (Willd.) O. E. Schulz 7. Everley. Sidbury camp. Bulford. Larkhill. Tilshead. *P. Horton.*
Lunaria annua L. Honesty. 9. Roadside, Berwick St. Leonard. *L. F. Stearn.*
Erysimum cheiranthoides L. Treacle Mustard. 2. Lower Swinley. *Mrs. J. Swanborough.*
Reseda luteola L. Dyer's Rocket. Weld, 2. Roundway Hill Covert. *Miss B. Gillam.*
Viola odorata L. var. *imberis* (Leight) Henslow. Sweet Violet. 9. Hedgebank, Hawking Down. *L. F. Stearn.*
Viola odorata L. var. *dumetorum* (Jord) Rouy & Frue. Sweet Violet. 9. By footpath near Compton Park and in hedgebank, Hawking Down. *L. F. Stearn.*
Viola odorata L. var. *praecox* Gregory. Sweet Violet. 9. Roadside, Hawking Down. *L. F. Stearn.*
Silene noctiflorum (L.) Fries. Night-flowering Campion. 2. Lower Swinley. *D. Grose.*
Chenopodium polyspermum L. All-seed. 2. Lower Swinley. *D. Grose.*
Chenopodium rubrum L. Red Goose-foot. 9. Waste ground near East Knoyle. *L. F. Stearn.*
Atriplex patula L. forma *bracteata* (Westerl.). Common Orache. 1. Etchilhampton Hill. *D. Grose.* 2. Lower Swinley. *D. Grose.*
Tilia cordata Mill. Lime. 2. A group of six coppiced trees at Roundway Hill Covert. *Miss Gillam.* 3. Red Lodge Wood. *P. Horton.*
Oxalis corniculata L. Procumbent Yellow Sorrel. 9. Garden weed, Hindon. *L. F. Stearn* (1969).
Impatiens glandulifera Royle. Policeman's Helmet. 3. Well established, roadside, South Marston. *Mrs. I. M. Grose.*
Ulex europaeus L. Furze. Gorse. 2. Roundway Hill Covert. *Miss B. Gillam.*
Ononis repens L. Restharrow. 9. Meadow by Fonthill Lake, *L. F. Stearn* (1969).
Melilotus officinalis (L.) Pall. Common Melilot. 9. Roadside, Dinton. *L. F. Stearn.*
Hippocrepis comosa L. Horse-shoe Vetch. 2. Roundway Hill Covert. *Miss B. Gillam.*
Lathyrus tuberosus L. Earth-nut Pea. 1. Stert. *L. F. Mead.*
Lathyrus montanus Bernh. Bitter Vetch. 2. Langley Burrell. *Mrs. J. Swanborough.*
Rubus idaeus L. Form with yellow fruit. Raspberry. 9. Middle Hills, Groveley Wood. *L. F. Stearn* (1970).
Prunus padus L. Bird-cherry. 1. An old tree by the Lake, High Wood, Westbury. *E. C. Wallace.*
Sorbus aria (L.) Crantz. White Beam. 3. Ridgeway, Fox Hill. *D. Grose.*
Epilobium adenocaulon Hausskn. Willow-herb. 2. Lower Swinley *Mrs. J. Swanborough.* 9. Hindon. *L. F. Stearn* (1970).
Oenothera erythrosepala Borbas. 2. Rodbourne (G). *D. Grose.*
Callitriche hamulata Kutz, ex. Koch. Starwort. 9. Backwater of River Nadder near Compton Wood. *L. F. Stearn.*
Scandix pecten-veneris L. Shepherd's Needle. 2. Lower Swinley, *Mrs. J. Swanborough.*
Bupleurum rotundifolium L. Hare's-ear. Marlborough. *Miss Potter.*
Bupleurum lancifolium Hornem. Hare's-ear. 9. Cultivated ground, Hindon. *L. F. Stearn.*
Silaum silaus (L.) Schinz & Thell. Pepper Saxifrage. 7. Nine Mile River. *P. Horton.*
Polygonum amphibium L. Amphibious Bistort. 9. River Nadder, by Dinton. *L. F. Stearn.*

Polygonum amphibium L. var. *terrestre* (Leers). Amphibious Bistort. 9. Damp ground by Fonthill Lake, and water meadow near Compton Mill. *L. F. Stearn.*
Polygonum nodosum Pers. 9. Damp depression in hayfield, Hindon. *L. F. Stearn* (1969).
Polygonum cuspidatum Sieb. & Zucc. 9. By Fonthill Lake. *L. F. Stearn* (1970).
Carpinus betulus L. Hornbeam. 9. Fonthill Bishop. *L. F. Stearn* (1970).
Calluna vulgaris (L.) Hull. Heather. 9. Rough track, Two Mile Down. *L. F. Stearn.*
Primula vulgaris Huds. forma *caulescens* (Koch) Schinz & Thell. Primrose. 2. Somerford Common. *D. Grose.*
Lysimachia punctata L. Loosestrife. 2. Roadside, North Wraxall. *Mrs. J. Swanborough.*
Anagallis arvensis L. var. *carnea* (Schrank) Druce. Pink Pimpernel. Lower Swinley. *P. Horton, Mrs. J. Swanborough, Dr. S. Tyler.*
Anagallis arvensis L. var. *caerulea* Ludi. Blue Pimpernel. 2. Leigh Delamere and Lower Swinley. *P. Horton, Mrs. J. Swanborough, Dr. S. Tyler.*
Anagallis arvensis L. var. *vinacea*. Marsden-Jones. Purple Pimpernel. 2. Lower Swinley. *P. Horton, Mrs. J. Swanborough, Dr. S. Tyler.*
Anagallis foemina Mill. True Blue Pimpernel. 2. Leigh Delamere and Lower Swinley. *P. Horton, Mrs. J. Swanborough, Dr. S. Tyler.*
Blackstonia perfoliata (L.) Huds. Yellow-wort. 1. Etchilhampton Hill. *D. Grose.*
Gentianella anglica (Pugsl.) E. F. Warb. Early Gentian. 9. Earthworks, Stockton. *L. F. Stearn.*
Myosotis ramosissima Rochel. Early Forget-me-not. 9. Earthworks, Stockton. *L. F. Stearn.*
Lithospermum officinale. L. Gromwell. 3. Warneford Place. *D. Grose.*
Lappula echinata. 2. Lower Swinley. *Mrs. J. Swanborough.* (Det. Brit. Mus.).
Calystegia sylvestris (Willd.) Roem & Schult. Bindweed 1. Waste ground, Etchilhampton Hill. *D. Grose.* 9. Hedgerow, west of Hindon and east of Wilton Park. *L. F. Stearn.*
Cuscuta epithymum (L.) L. Common Dodder. 6. Starveall Down. 8. White Barrow, Tilshead. *P. Horton.*
Lycopersicon esculentum Mill. Tomato. 9. Waste ground near East Knoyle. *L. F. Stearn.*
Kickxia spuria (L.) Dumort. Fluellen. 2. Lower Swinley. *D. Grose.*
Veronica catanata Pennell. Water Speedwell. 9. Streamside, Fonthill Bishop. *L. F. Stearn.*
Veronica polita Fr. Grey Speedwell. 9. Garden weed, Hindon. *L. F. Stearn.*
Veronica filiformis Sm. Slender Speedwell. 9. Bank by Fonthill Lake. *L. F. Stearn* (1969). 9. River bank Dinton and footpath near Compton Park. *L. F. Stearn.*
Odontites verna (Bell) ssp. *serotina* (Dum) E. F. Warb. Red Bartsia 9. Stockton Down. *L. F. Stearn.*
Odontites verna (Bell) ssp. *verna* (Dum). Red Bartsia. 9. Hawking Down. *L. F. Stearn.*
Thymus drucei Ronn. Wild Thyme. 9. Hawking Down. *L. F. Stearn.*
Clinopodium vulgare L. Wild Basil. 2. Roundway Park Covert. *Miss B. Gillam.*
Betonica officinalis L. Betony. 9. Hawking Down. *L. F. Stearn.*
Galeopsis speciosa Mill. Large flowered Hemp-nettle. 8. Trackside near Tilshead. *P. Horton.*
Campanula rapunculoides (L.) Creeping Campanula. 2. Grittleton and Lower Swinley. *P. Horton, Mrs. J. Swanborough, Dr. S. Tyler.*
Campanula glomerata L. Clustered Bellflower. 2. Roundway Hill Covert. *Miss B. Gillam.*
Campanula glomerata L. Clustered Bellflower (White variety). 2. North Wraxall. *Mrs. Pearson.*
Legousia hybrida (L.) Delarb. Venus's Looking-glass. 2. Lower Swinley. *Mrs. J. Swanborough, Dr. S. Tyler.* 4. Wanborough Plain. *D. Grose.* 5. Porton. *P. Horton.* 7. Amesbury. *P. Horton.*
Knautia arvensis (L.) Coult. Form with white flowers. 9. Field near Berwick St. Leonard. *L. F. Stearn* (1969).
Senecio integrifolius (L.) Clairv. Field Fleawort. 9. Earthworks, Stockton. *L. F. Stearn.*
Inula conyza DC. Ploughman's Spikenard. 2. Roundway Hill Covert. *Miss B. Gillam.*
Achillea ptarmica L. Sneezewort. 9. Hedgebank, Dinton. *L. F. Stearn.*
Circium eriophorum (L.) Scop. Woolly Thistle. 2. Roundway Hill Covert. *Miss B. Gillam.*

Circium acaulon x tuberosum = C. *zizianum* Koch. 2. Oliver's Camp. *Mrs. J. Russell.*
Circium acaulon (L.) L. J. Scop. Dwarf Thistle. Form with 4 inch stem and 3 capitulum. 9. In meadow by Fonthill Lake. *L. F. Stearn.*
Circium acaulon (L.) L. J. Scop. Dwarf Thistle. Form with 4 inch stem and 2 capitulum, and 6 inch stem with 3 capitulum. 9. On Trackway and road verge south of Hindon. *L. F. Stearn* (1969).
Centaurea nemoralis Jord. Lesser Knapweed. 9. Hawking Down. *L. F. Stearn.* (1969).
Centaurea nemoralis Jord. Lesser Knapweed. Form with rayed flowers. 9. Two Mile Down. *L. F. Stearn.*
Lactuca serriola L. Prickly Lettuce. 2. One plant at Lower Swinley. *Mrs. J. Swanborough.*
Mycelis muralis (L.) Dumort. Wall Lettuce. 4. Plantation, Wanborough Plain. *D. Grose.*
Hieracium perpropinquum (Zahn) Druce. Hawkweed. 4. Old Railway bank, Ogbourne St. Andrew. *D. Grose.* Det. C. E. Andrews.
Hieracium perpropinquum (Zahn) Pugsl. Hawkweed. 1. Wood, Little Bradley Wood. *L. F. Stearn* (1969). 9. Woodland ride, Dinton, *L. F. Stearn* (1970).
Hieracium salticola (Sudre) Sell & West. 3. Webb's Wood *D. Grose.* Det. C. E. Andrews. First record for V.C.7.
Ruscus aculeatus L. Butcher's Broom. 10. Vernditch Chase. *P. Horton.*
Ornithogalum umbellatum L. Star-of-Bethlehem. 9. Lane near Dinton. *L. F. Stearn.*
Ornithogalum pyrenaicum L. Bath Asparagus. 6. East Court, Stype. *Mrs. I. M. Grose.*
Juncus effusis L. var. *compactus* Hoppe. Soft Rush. 9. Semley Common and plantation near Abbey Wood, Fonthill. *L. F. Stearn* (1969).
Juncus conglomeratus L. Common Rush. 3. Webb's Wood. *D. Grose.* 9. Plantation near Abbey Wood, Fonthill. *L. F. Stearn* (1969).
Allium vineale L. var. *vinale.* Crow Garlic. 2. Roundway. *D. Grose.*
Galanthus nivalis L. Snowdrop. 9. Edge of wood, Newtown and roadbank, Foxholes, Crockerton. *L. F. Stearn* (1970).
Iris foetidissima L. Stinking Iris. 10. Vernditch Chase. *P. Horton.*
Epipactis damasonium (Mill.) Druce. White Helleborine. 10. Clarendon Hill Plantation (abundant). *P. Horton.*
Neottia nidus-avis (L.) Rich. Bird's Nest Orchis. 10. Clarendon Hill Plantation. P. Horton.
Orchis mascula (L.) L. Early Purple Orchis. 1. Little Bradley Wood, near Horningsham. *L. F. Stearn* (1969).
Orchis ericetorum E. F. Linton. Heath Spotted Orchis. 2. Webb's Wood. *Mrs. I. M. Grose.*
Carex acutiformis Ehrh. Lesser Pond Sedge. 9. Eastern fringe of Fonthill Lake and side of River Sem by Billhayes Wood. *L. F. Stearn* (1969).
Carex pendula Huds. Pendulous Sedge. 8. Eastleigh Wood, Bishopstrow. 9. In copse, Fonthill. *L. F. Stearn.*
Carex strigosa Huds. 9. By footpath in Quarry Wood, Fonthill. *L. F. Stearn.*
Carex pallescens L. Pale Sedge. 2. Webb's Wood. *D. Grose.*
Carex caryophyllea Latour. Spring Sedge. 9. Hawking Down and earthworks, Stockton. *L. F. Stearn.*
Carex acuta L. Tufted Sedge. 9. Bank of River Nadder, Dinton. *L. F. Stearn.*
Carex ovalis Good. Oval Sedge. 9. Plantation near Abbey Wood, Fonthill. *L. F. Stearn* (1969).
Phragmites communis Trin. Reed. 9. Streamside, Billhayes Wood, Semley, and west side of Fonthill Lake. *L. F. Stearn.*
Brachypodium pinnatum (L.) Beauv. Heath False-brome. 1. Etchilhampton Hill. *D. Grose.*
Echinochloa crus-galli (L.) Beauv. Cockspur. 2. Langley Burrell. *Mrs. J. Swanborough.*
Panicum milaceum L. Common Millet. 2. Sutton Benger tip. *Mrs. J. Swanborough.*
Setaria italica (L.) Beauv. Bristle-grass. 2. Sutton Benger tip. *Mrs. J. Swanborough.*
Setaria viridis (L.) Beauv. Green Bristle-grass. 2. Sutton Benger tip. *Mrs. J. Swanborough.*

ENTOMOLOGICAL REPORT FOR 1971

by BOWMONT WEDDELL

It has been for me a somewhat mediocre season, in spite of a lot of very enjoyable weather, but the dearth of immigrant insects always tends to make it less exciting. Only a single sighting of the Clouded Yellow was reported, while the usual colourful display of Red Admiral and Painted Lady was sadly lacking on the buddleia and ice plant. Even the Silver Y did not show up till July 16, though it became abundant by the Autumn.

The Holly Blue on the other hand produced a heartening population explosion. They were seen everywhere, often good numbers in our gardens and woodland, both Spring and Summer broods. CMRP saw one female laying her ova on the terminal shoots of buckthorn —a very acute observation. It is not well known that this foodplant is used as well as holly and ivy.

The Adonis Blue alas remains at the other end of the scale. Only one not very strong colony is now known in the county.

The periodic rise and fall of species is a phenomenon that is not fully understood. For instance, why should the Dusky Sallow have become so common the last few years? They can be spotted by the dozen in early August sitting on the knapweed heads on the Downs, and even come to light in the garden, yet until 1963 I had never seen a living specimen.

Similarly the Marsh Fritillary having been quite rare for 20 years now seems to be repopulating its old strongholds.

The Purple Emperor did not seem to do as well as last year, though MH reported having seen a female ovipositing in a wood near Westbury. It may be trying to extend its territory, and is always worth looking out for in suitable woodland.

It is only possible to include in the following list a fraction of the records which correspondents send in from all over the county. The more interesting ones are selected. Thanks are due to the many observers who make it possible to keep tabs on the Lepidoptera of Wilts.

Contributors

DB	Mr. David Brotheridge, Wroughton
JDS	Mr. J. D. Smith, Swindon
RB	Mrs. Barnes, Seagry
EJMB	Mr. John Buxton, Malmesbury
JN	Mr. John Newton, visiting Somerford Common
MC	Marlborough College, N.H.S.
FM	Mr. Frank Mead, Devizes
BG	Miss Beatrice Gillam, Devizes
JNK	Lt. Col. J. N. Kirkaldy, W. Lavington
PC	Mr. Philip Cleverly, Bromham
MET	Mr. M. E. Tyte, Neston
BC	Miss Barbara Cowley, Seend
BW	Mr. B. W. Weddell, Trowbridge
MH	Mr. Michael Hales, Trowbridge
KM	Mr. Keith Moore, Trowbridge
CGL	Major Gen. C. G. Lipscomb, C.B.E., Crockerton
HGP	Mr. H. G. Phelps, Crockerton
CMRP	Mr. C. M. R. Pitman, Salisbury
SNHS	Salisbury & District N.H.S.

	Average Date	*1971 Emergence*	*Difference*
Large White	23·4	20·4	+3
Marbled White	24·6	29·6	−5
Meadow Brown	15·6	1·6	+14
Cinnabar	18·5	15·5	+3
Garden Carpet	28·4	9·5	−11
Brimstone Moth	12·5	21·4	+21

Orange Tip	*Anthocharis cardamines*	EJMB 3·5 plentiful MC 3·5 FM 20·4
Clouded Yellow	*Colias croceus*	RB 16·8 The only sighting
Purple Emperor	*Apatura iris*	MH Aug. SNHS 16·7
White Admiral	*Limenitis camilla*	MC 14·7 SNHS plentiful July
Red Admiral	*Vanessa atalanta*	FM 13·7 27·10 scarce BG 22·10
Painted Lady	*Vanessa cardui*	EJMB 21·9 one only FM 13·7, 11·12! very scarce
Comma	*Polygonia c-album*	EJMB 23·10 JDS 20·9 MH 11·4 CGL 5·10 34 counted feeding on blackberries
High Brown Fritillary	*Argynnis cydippe*	FM 14·7 Biss Wood
Marsh Fritillary	*Euphydryas aurinea*	CMRP L 10·4 MC 4·6 BW 18·5
White Letter Hairstreak	*Stramonidia W-album*	EJMB 10·7 till 9·8 JNK July
Silver-studded Blue	*Plebejus argus*	SNHS 9·7
Chalk-hill Blue	*Lysandra coridon*	GCL 13·7
Adonis Blue	*Lysandra bellargus*	GCL Remains at a low ebb. Only one colony now known in Wilts.
Holly Blue	*Cealastrina argiolus*	BC 19·4 BW 20·4 FM 29·4–7·10 EJMB 28·4 till 21·5 CMRP 11·4 MC 12·5
Poplar Hawk	*Laothoe populi*	DB 11·9 Second brood? BW 4·7
Eyed Hawk	*Smerinthus ocellata*	BW 4·7
Convolvulus Hawk	*Herse convolvuli*	HGP 14·10 Flying over nicotiana flowers
Hummingbird Hawk	*Macroglossum stellatarium*	SNHS 5·8 only record
Puss	*Cerura vinula*	MC 21·5
Lunar Marbled Brown	*Chaonia ruficornis*	DB 30·4
Large Chocolate-tip	*Clostera curtula*	DB 12·5 BW 5·5
Pale Eggar	*Trichiura crataegi*	DB 14·9
Common Lappet	*Gastropacha quercifolia*	DB 10·7
Emperor	*Saturnia pavonia*	CMRP Apl
Pebble Hook-tip	*Drepana falcataria*	MH 27·7
Round-winged Footman	*Comacla senex*	DB 9·7
Four-dotted Footman	*Cybosia mesomella*	JN 15·7
Clouded Buff	*Diacrisia sannio*	CMRP 4·7
Creamspot Tiger	*Arctia villica*	CMRP ex Fovant larvae from 11·6 onwards. Few previous records
Six Spot Burnet	*Zygaena filipendulae*	EJMB 16·7 MC 21·6
Heart & Club	*Agrotis clavis*	DB 6·7
Stout Dart	*Spaelotis ravida*	DB 25·8 Of sporadic occurrence
Grey Arches	*Polia nebulosa*	MC 2·7
Dog's Tooth	*Hadena suasa*	MC 25·6 Coastal insect very rare in Wilts.

Delicate Wainscot	*Leucania vitellina*	MH Sept 69 First record in North Wilts. Only 2 previously in South
Small Wainscot	*Arenostola pygmina*	DB 26·8
Twin-spot Wainscot	*Nonagria geminipuncta*	DB 15·8 CMRP 18·8
Double Lobed	*Apamea ophiogramma*	DB 25·7
Dusky Sallow	*Eremobia ochrolenca*	CMRP 10·7 KM 24·7
Brown Crescent	*Calaena leucostigma*	DB 25·8
Common Ear	*Hydracia oculea*	DB 10·8
Orange Ear	*Gortina flavago*	BW 24·9
Olive Kidney	*Zenobia subtusa*	DB 31·7
New Copper Underwing	*Amphipyra berbera*	MH 1·8·69
Alder	*Apatele alni*	MC 24·6 melanic
Crown	*Craniophora ligustri*	JN 21·7
Orange Sallow	*Tiliacea citrago*	BW 15·9
Green Silver-lines	*Bena prasinana*	JN 21·7 KM 8·7
Scarce Silver-lines	*Pseudoips bicolorana*	DB 15·7 KM 8·7
White-spot Marbled	*Lithacodia fasciana*	JN 15·7
Gold Spot	*Plusia festucae*	DB 24·8
Beautiful Hookwing	*Laspeyria flexula*	JN 15·7
Orange-Underwing	*Archiearis parthenis*	CMRP 15·4
Light Orange-Underwing	*Archiearis notha*	CMRP 16·4
Large Emerald	*Geometra papilionaria*	JN 15·7
Ruddy Carpet	*Euphyia rubidata*	KM 10·7
Brown Scallop	*Philereme vetulata*	DB 15·7 JN 15·7
Brindle-barred Yellow	*Acasis viretata*	DB 30·5 BW 20·5
Lunar Thorn	*Selenia lunaria*	BW 23·6
Purple Thorn	*Selenia tetralunaria*	BW 21·7 Second brood
Lilac Thorn	*Apeira syringaria*	DB 14·9
Brindled Beauty	*Lycia hirtaria*	BW 23·4
Oak Beauty	*Biston strataria*	MC 15·4
Lesser Emerald	*Hemistola immaculata*	KM 14·7

SHORTER NOTES

GARDEN SURVIVALS OF IMBER

During the period 1959–1964, a series of field meetings was arranged by the Natural History Section to study and list those planted species which still existed in the gardens of Imber. These gardens had been deserted and untended since 1938 from which time they had been subject to intense army activities. Later, Lt.-Col. Charles Cowan, then stationed near Devizes, collated and augmented the records and his work was published the following year (*W.A.M.*, 60 (1965) 172–175).

The list included a few species which it had not been possible to identify in a non-flowering condition and several of these doubtful plants were given by Col. Cowan to the writer to grow on for definite naming. Two of these have now flowered.

The Day Lily is *Hemerocallis fulva* L. It has flowered profusely for several years and is increasing its range.

The Dragon Root is *Dracunculus vulgaris* Schott. It has remained as a single plant and eventually bloomed in July 1971. The inflorescence was spectacular. It had a deep purple spadix 22 cm. long in a 33 cm. spathe, purple within and pale green on the outer surface. Unfortunately it wilted and failed after the third day.

I understand that most of the gardens have now been totally destroyed by army bulldozers.

DONALD GROSE

FUNGI APPEARING ON A SWINDON BEDROOM CARPET

An unnoticed slow leak in a central heating radiator dampened about fifteen square inches of a carpet, and provided a suitable habitat for the growth of fungi. Two layers of flaxen canvas in the carpet and one layer in the underfelt were natural hosts to the associated fungi described.

Spores or mycelia, or both, were present in the canvas prior to making of the carpet, and would have remained dormant indefinitely under dry conditions. Fifteen sporacarps of the cup-fungus *Peziza linteicola* were collected, one of which was sent to me. After examination it was used for culturing and subculturing.

During these experiments a micro-fungus became evident, *Uncinula bicornis* (Fries.) Le'vielle, which blackened the media with conidiospores.

A Handbook of The Larger British Fungi John Ramsbottom (1923), was used for the determination of the peziza and is his description of a model in the British Museum (Natural History). The generic name '*Peziza*' is no longer correct for this species, and its present valid name must be searched for under *Aleura*, or other synonyms within the discomycetes.

Peziza linteicola Phill. & Plowr. Disc fulvous, externally farinose, margin crenate, cupulate or cochleate, with the edges involute. Arising from a white mycelium. On damp rotting linen cloth. Rare. $\frac{3}{4}$ inch diameter.

Uncinula bicornis (Fries.) Le'vielle. This associated fungus is a pyrenomycete. The ascocarp is about one sixth of a millimetre, it is spherical and is ornamented with branched, hornlike appendages on top. Each ascocarp contains six asci, each ascus has eight large, oval, sexual ascospores. The ascospores germinate into branching mycelium and conidiophores, both of which produce asexual conidiospores. It is these conidiospores which blacken the carpet and the cultures, and look like soot on affected parts.

All cultures indicate that *Uncinula* is dominant over *Peziza*, and under continuous wet conditions, not only the canvas but the *Peziza* would be consumed. Experiments with roots and stems of home-grown flax, *Linum usitatissimus* L., in culture show them to be quickly contaminated with uncinula.

It is interesting to note that the ascocarps, which form on the flat filter paper in the petri dishes, are in from three to five concentric circles, i.e. 'fairy rings'.

Extract from letter from J. Ramsbottom, 15/10/71: 'Regarding your query about *Peziza linteicola*, I think I should use this name as it stands.'

S. S. BATES

CHARLES MURRAY FLOYD, O.B.E.

An Appreciation

At the time of Colonel Floyd's untimely death in 1971, he had been a member of the Natural History Section committee for ten years, and had represented it on the committee of the parent Society for several of them. He was a founder claiming member from the Society at the Section's inception as a distinct daughter body in 1946, with its own committee, programmes and subscribing membership.

He represented the Section at the formation of the Council for Nature in 1958 and served for some years as Chairman of its Conservation Corps. He was early in the field of nature conservation in which he was a herculean worker and later succeeded in launching the Wiltshire Trust for Nature Conservation in 1962. He had intended to retire from the

Trust chairmanship in 1972 and it was hoped that he would in due course have succeeded to the Section chair.

Wildlife in all its facets was his absorbing and abiding interest. He was a natural ecologist and his general knowledge broad and deep. Moths and bats were a special pursuit and his skill as a painter in water colours and his beautiful colour slides displayed his botanical appreciation. He was insatiably interested in the doings of wildlife in the early hours and seldom failed to attend the Dawn Chorus meeting in the Section's spring programme. As a farmer and member of the Forestry Commission he was doubly interested in the preservation and conservation of hedgerows and verges to provide a harbour for wild life, in relation to modern farming practice.

Colonel Floyd's friendships were many, his acquaintance wide, his energy was seemingly inexhaustible, his patience endless. He was prepared to do all he hoped others would feel inspired to do and more, so was a fascinating companion in the field of wildlife.

C.S.H.

OFFICERS' REPORTS FOR 1971

REPORT OF THE HON. SECRETARY

Since the 1971 Annual General Meeting membership has increased by 26 to 427—11 new adult Section members, 14 juniors and one claim from the main Society.

The death of Lt. Col. Charles M. Floyd was a great loss to the Section. He had served on the Committee for ten years bringing to its deliberations advice gained from his association with many national bodies as well as his local knowledge as farmer, County Councillor and Chairman of the Wiltshire Trust for Nature Conservation.

Mr. and Mrs. Paul Toynton were elected to the office of joint Meetings Secretary and Mrs. Joan Swanborough and Mr. Cyril E. Jennings to the Committee. Mr. E. C. Barnes has continued his valuable service as a co-opted member.

The Chairman, Mr. R. S. Barron, has served on the Society's Council and its Finance and House Committees and has established a closer link with the Society. Space will be made available in the Society's museum for a Natural History Library, the Section's records and other literature. Mrs. Margaret Newell has accepted nomination as the Section's Honorary Librarian. Some of the Hon. Secretary's typing and duplicating has been done by the Society's typist and the Section's programmes have been circulated to interested full members with other Society literature thus relieving the Section of a considerable postage bill. A summary of the Section's forthcoming meetings and items on natural history have been accepted for inclusion in the Society's *Bi-annual Bulletins*.

It has always been the hope of the Section that the Kennet and Avon canal, when restored as an amenity, would also continue to provide a habitat for the varied wildlife now established there and we are glad to report that a closer liaison has been established with the Kennet and Avon Canal Trust so that, as far as possible, both objectives may be gained for public enjoyment.

The Section was represented at a joint meeting convened by the Wiltshire Trust for Nature Conservation for all county Societies interested in wildlife and its conservation. A nucleus of Section members has assisted in a programme of Trust conservation tasks.

REPORT OF THE HON. MEETINGS SECRETARIES

During the year 30 meetings were held, 4 indoor lectures and 2 members' evenings.

Both members' evenings were well attended and many interesting slides were shown and some recordings played.

Mr. N. King of the Nature Conservancy gave a lecture in the Museum on a Saturday

afternoon on the mammals of Wiltshire which was very popular especially among the junior members, and Mr. R. S. Barron gave a talk on the geology of the M4 and also led 2 outdoor meetings during the year on geology. Further indoor meetings were a talk by Mr. D. Tucker of the Bristol Avon River Authority on water conservation and a viewing of the Museum's butterfly collection.

Four meetings were held outside the county, one at Bridgewater Bay National Nature Reserve where Shelduck and Gadwall were seen, one at Chew Lake led by Mr. R. Curber where Shoveler were a highlight as a large flock was seen, and one on the Dorset coast led by Mr. T. W. Pemberton where Fulmars, Kittiwakes and nesting Shags were seen. The fourth one was to Severn Beach in January and attendance was poor owing to extremely bad weather.

The dawn chorus meeting at Corsham Lake was well attended and a wide variety of birds were heard on a fine morning. Briary Copse was visited and Miss Gillam and Mr. Spencer led the meeting in the absence of Mr. Andrews who later led an evening meeting at Chippenham when 35 species of bird were recorded.

A large number of members went to the Cotswold Water Park in September and saw a wide variety of water birds.

Three walks of general interest were held, at Fyfield Down National Nature Reserve, at Cole Park in July where Mr. Buxton led a joint meeting with the North Gloucestershire Society and at North Wraxall in December when Miss A. Cardus led a winter walk.

Mr. P. Horton of the Nature Conservancy led a botany recording meeting at Whiteparish which was extremely interesting and a wide variety of plants and many dragonflies were seen. Unfortunately Mr. Horton was unable to take a meeting at Bilbury Rings, but Mr. Barrett, the owner, led members round with great enthusiasm.

As usual a meeting was held at Hazeland Railway to record the flora and a fungus foray was held. This was almost washed out by torrential rain and few specimens were found in spite of the enthusiasm of the leader, Mr. S. S. Bates.

Meetings were also held at Lavington to study freshwater life with a follow up in Dauntey's laboratory for which we were very grateful; at Bowood to hear about forestry from Mr. M. Penistan; and at Urchfont where Mr. C. Jennings led a meeting on mammals.

Finally Mr. B. W. Weddell held a night moth meeting at Roundway where unfortunately the weather was cold and few species were trapped, but this was offset by the hospitality of Mr. Phillips, and Mr. A. Stonell took members to Biss Wood to see the butterflies there.

JUNIOR SECTION REPORT 1971

1971 has been an active year for the junior members of the Section. Almost all of the meetings arranged for the Section have been attended by junior members. In addition to the main programme, special junior meetings were arranged for the school holiday periods. A general interest walk from Devizes to the Potterne wood area in April was well supported and much enjoyed.

Bird census recording methods on farm land was the theme for a meeting in June when we spent a delightful afternoon at Mr. Smith's Farm, Steeple Ashton. August found us doing some practical work, when we assisted in building a woodland bird hide shelter in the Oakfrith wood, after which Mr. Jennings conducted us around the wood pointing out many interesting things to observe.

The last of our junior specials was a residential week-end at the Oxenwood Field Studies Centre, where 10 of our juniors enjoyed the November countryside in the east of the county. Besides the Natural History aspect, this meeting provided the additional experience of living and working together in the first class surroundings of the Centre. My thanks are particularly due to Mr. and Mrs. Jennings for their hard work and support in making

this week-end a success. The Annual Competition for The George Clarke Memorial Prize was awarded to Peter Livermore, Michael Livermore and Peter Gabb. All three submitted really first class projects and are to be congratulated on the effort they put into them.

We also selected a badge design for the junior section from ideas sent in by the juniors. The final choice was designed by Niall Smith.

In closing I should like to thank all those who have assisted me or provided transport for the junior section.

A. L. STONELL