



The Wiltshire Natural History Magazine

Volume 72 1977

The Wiltshire Archæological and Natural History Society

£1.00

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 NATURAL HISTORY MAGAZINE

I.S.S.N. 0309 - 3468

VOLUME 72 1977



CONTENTS

	PAGE
E. H. GODDARD'S NATURAL HISTORY NOTES 1873-1887, <i>Edited</i> by Patrick J. Dillon	3
SOME FUNGI OF SOUTH-WEST WILTSHIRE. Part IV <i>by</i> J. B. Hindley - - -	10
AN ORNITHOLOGICAL STUDY OF CHALKLAND SCRUB IN THE DEVERILLS <i>by</i> Elizabeth Stephens	15
THE WEATHER FOR 1976 <i>by</i> T. E. Rogers - - - - -	19
WILTSHIRE PLANT NOTES (37) <i>compiled by</i> JOAN SWANBOROUGH - - - -	22
ENTOMOLOGICAL REPORT FOR 1976 <i>compiled by</i> John d'Arcy - - - -	25
ORTHOPTERA AND ODONATA RECORDS FOR 1976 <i>by</i> Philip Horton - - - -	29
MAMMAL REPORT <i>by</i> Marion Browne - - - - -	30
REPORTS - - - - -	46

E. H. GODDARD'S NATURAL HISTORY NOTES, 1873-1887

Edited by PATRICK J. DILLON

INTRODUCTION

The Library of the Wiltshire Archaeological & Natural History Society at Devizes contains a manuscript notebook bearing the natural history notes of the late Canon E. H. Goddard. An inscription on the flyleaf dated May 18th 1942 and signed 'Ed H. Goddard' reads "I found recently an old Winchester note book which I filled with NATURAL HISTORY NOTES whilst I was at Winchester and Oxford and afterwards, at Hilmarton and Clyffe Pypard between 1873 and 1874, or on holiday tours in Switzerland. It seems to me that there is a certain interest in many of these notes. I have therefore copied them out fairly in this note book, to be placed in the Museum Library." These notes, written in a style and tradition so reminiscent of Gilbert White's famous *Natural History of Selbourne*, are of such wide ranging interest that it has been decided to bring them, through the pages of this Magazine, to the notice of a much wider readership.

BIOGRAPHICAL NOTE (1)

Edward Hungerford Goddard, the descendant of a long line of Wiltshire Goddards, was born at Alderton on January 1st, 1854. He was educated at Winchester and then Brazenose College, Oxford, where he took his M.A. in 1879. He held curacies successively at South Hinksey, St. Mary Magdelene, Oxford and Hilmarton where his father was Vicar. In 1883 he received the living at Clyffe Pypard which he held for 52 years before retiring to Red Gables, Devizes. In 1886 he married Elizabeth Annica Bradford of Adderbury, Oxfordshire. They had a son and two daughters.

Church affairs were prominent in Goddard's life and in 1929 he received the prebend of Preston in Salisbury Cathedral, retiring in 1945 with the title of Canon Emeritus.

His interest in natural history, as reflected in his notebook, grew throughout his school days at Winchester and later as an undergraduate at Oxford. At Hilmarton and later at Clyffe he built up a reputation as a botanist and introduced many plants, foreign and native, to the Vicarage garden. (2) During his trips to Switzerland and the Alps he familiarised himself with the flora of Western Europe.

In 1882 he was elected to the Committee of the Society and in 1890 became General Secretary and Editor. In 1909 he became Librarian as well and continued in these offices until 1942. This work inevitably led him deeper into the field of archaeology and his natural history writing gradually lessened, although he never missed an opportunity of contributing a note to W.A.M. when an item of particular biological interest came to his notice. He supplied much information for G. B. Hony's paper '*Mammals of Wiltshire*' published in 1915 (3).

Goddard is thus chiefly remembered as an antiquarian and, more particularly, as author of '*List of Wiltshire Antiquities*,' W.A.M. Vol. XXXVIII (1913), and *Wiltshire Bibliography* printed by the County Education Committees in 1929 and still much consulted today.

THE NATURAL HISTORY NOTES

The fifty-six pages of closely written notes cover most branches of natural history but there are surprisingly few plant items for a man of such botanical repute. Most of the notes are based on Goddard's own first hand observations; second-hand accounts are related in cases where he has satisfied himself of the reliability of the observer.

Apart from providing a view of the natural history of Wiltshire a century ago, the notes also constitute a social history of the period giving us an insight into some of the customs and traditions of a generation of countrymen now without counterpart. Thus we learn of the gentleman in Zermatt who claimed to have gained immunity to the cold by drinking the blood of the chamois, and of the Manor Coachman at Clyffe, who, anxious to keep up appearances, trapped badgers to skin for a carriage rug. One should not forget the times—'conservation' and 'ecological balance of nature' were unknown terms, most naturalists were collectors, large predatory mammals and birds were ruthlessly persecuted. Even so, Goddard, perhaps ahead of his time, had his own sense of balance in the natural order of things and was quick to condemn unnecessary destruction of wildlife.

Approximately half the notes are reproduced in the extracts below. Most of the material relates to Wiltshire but I have not excluded references to other parts where these are of interest. At the end of the notebook Goddard added a short commentary, written in 1942, on the changing status of some birds in Wiltshire. This is reproduced in full. Words underlined by Goddard in his notebook are printed here in small capitals.

HILMARTON. 1873. RABBITS AND WEASELS. The Keeper (Hilmarton) tells me that he has heard Mr. Bridges say that he once saw a Rabbit attack a weasel which was following it, with the utmost fury, striking it with the forepaws so effectively that the weasel retired to a small hole, on which the Rabbit kept guard outside and on the weasel attempting to come out, immediately drove it in again most fiercely. He tells me that in ferreting the ferrets sometimes come out with their noses quite skinned from the strokes of the Rabbits forepaws (4).

HILMARTON. WHITE RATS. CIRCA 1873. White rats were common all over the parish, several being killed at almost every farm, one in the Vicarage Garden. None, to my knowledge, have been seen either before or since that date (5).

HILMARTON. MARCH 1873. My brother picked up in Mr. Parson's field adjoining the Vicarage the broken wings of a CAMBERWELL BEAUTY. This Butterfly occurred all over England during the previous year (6).

HILMARTON. DEC. 24th, 1873. Whilst shooting with the Keeper at the back of Rodwell Farm I killed a WATER RAIL (2 years afterwards I picked up a dead one in the Vicarage Garden at Clyffe Pypard, which showed no signs of injury). They are very uncommon in this neighbourhood.

HILMARTON. JAN. 2nd, 1874. John Taylor tells me that whilst ferreting in Catcombe Wood yesterday a ferret was lost. On digging for it in the direction in which it was last heard, an old buck rabbit only very slightly wounded about the eyes was found, and a foot or two further on, the ferret was found quite dead, having apparently been kicked to death by the rabbit. Nothing else was found in the hole. The ferret was not a strong one.

HILMARTON. 1874. Last summer out of 26 Chickens (Golden Hamburgs) half were killed by Rats. Two half grown fowls were found at the cowyard at the Vicarage with their insides and a great portion of their flesh eaten, undoubtedly by RATS, whose dung was found plentiful about them.

THE FOOD OF THE KESTREL. F. Grinwood examined the stomach of a male Kestrel (1870) near Highworth and found it full of CATERPILLARS. Were they eaten by the Hawk directly, or from the stomach of another bird? (7)

HILMARTON. APRIL 16th, 1874. This morning on the lawn I saw a WORM about 8 inches long crawl out of his hole with the LARVA OF A BEETLE affixed to its tail. The larva was about an inch long and its jaws were buried in the worms body. In spite of all the worms efforts and wriggies, his persecutor still held on, until after several minutes, the worms tail came off just above the place where the larva had hold of it, and the worm went off rejoicing leaving his enemy still sucking his tail.

KESWICK. AUG. 1874. Nearly every stream has its pair of Dippers, interesting little birds with much of the Kingfishers habit of flying just above the surface of the stream, straight up or down. He hops about on stones in and out of the water and altogether seems a very lively fellow... Mawson tells me that he has known a case where a sheep was buried for 21 days under snow and was taken out alive. It died however afterwards, being my informant said, 'killed by kindness.'

THE LAKES. AUG. 19th, 1874. On the day we walked to Helvellyn the air was full, and the ground was covered with flying ants (black). The whole of the way from Newlands to Helvellyn, the roads were literally strewn with them and those who went on to Derwentwater said that the surface of the water was quite brown with dead or dying ants. The next day, they were not quite so numerous and after that they disappeared altogether. The first day of their appearance was an excessively hot day after a long period of wet and dull weather (8).

HILMARTON. SEPT. 24th 1874. John Taylor, the Catcombe Keeper, tells me that once having set a gin for a STOAT he found it alive in the trap the next morning and lying close behind it a dead KESTREL who probably had pounced on the Stoat whilst in the trap and had been killed by it (9).

HILMARTON. OCT. 1874. JIMMY THE KESTREL. For almost two years now, Jimmy has been in my possession. I bought him off a boy who had brought him up from the nest. He was then a year old and very tame. For some time I kept his wing cut and in the summer he was always allowed to stay out in the garden all day, but I was afraid to leave him out at night. He was very fond of sitting on my shoulder and never attempted to proceed to any more forcible nearness, whilst thus situated, than gently nibbling my ear or the rim of my hat. . . . He would sit also for hours on the edge of the Drawing Room window never moving except when a carriage drove up to the door, when he generally retreated in haste, either into the neighbouring bushes or inside the Drawing Room. He always had a great dread of horses and carriages although he lived so near the stable. He was generally fed upon raw meat but his greatest delicacies were mice, beetles and small birds. He seldom refused food when it was offered to him, but took it, waited until he thought he was observed by nobody, and then carefully hid it away in some corner for future use. I have known him hide three or four birds in this way and he never forgot where they were. He was very cleanly in his habits and took occasionally a cold bath. This year I did not cut his wing, and was afraid to let him out of his house, as he had got rather wild. Whilst I had been up at Oxford one day the door was left open and Jimmy taking fright, fled out, stayed about the house for an hour or two and eventually, on my trying to catch him, fled off and settled in a high poplar tree some distance off. From this he was brought down in the most plucky way by a boy in the village though he continued to bite his fingers the whole time. He had a great objection always to strangers and if anyone passed his house he would set up such a shriek as could be heard all over the premises, so that the servants always knew that someone was coming to the door. The other day the door of his cage was opened again, just as it was before and Jimmy again got out, and though we looked everywhere, we couldn't find him, until next morning, he fled from the back paddock to the Lodge, and as we followed him, I saw him pick up a mouse or something from the ground and go off again. For a week or more he was seen hopping about in a stubble field or flying about in the trees near the Old Farm, but never so that we could catch him. Poor Jimmy. I would not have minded his escaping had I not felt sure that the Keeper's gun would finish his existence (10).

HILMARTON. DEC. 13th, 1874. An albino Pheasant in splendid plumage was killed whilst shooting the Lodge coverts. A cock bird perfectly white except for one or two small feathers with a touch of brown, legs white, eyes light grey. The Keepers say he could beat any of the ordinary cocks—he was given to me and I had him stuffed (11).

WINCHESTER. 1875. COLOURS OF MOTHS AND BUTTERFLIES. The red in any MOTH such as Burnets, Tigers, etc. may be turned yellow by muriatic acid, whilst it has no effect on BUTTERFLIES such as the Red Admiral. The colour produced by the acid is a bright yellow, but is not permanent, the old red colour returning after a while. Freeman and I found this difference between MOTHS & BUTTERFLIES in every case in which we tried the acid at Winchester (12).

PENYGWYD. JULY 16th, 1875. Visited Port Aberglaslyn today, and whilst there saw two Buzzards soaring about the cliffs, one of them having in his claws what appeared to be a LARGE SNAKE with which he flew to a lofty crag, either to feed his young ones, or to enjoy it himself at leisure.

SEATON. SEPT. 10th, 1875. Whilst walking up the public path along the cliffs between Seaton and Beer, I observed a Landrail calmly walking about beside the path, without appearing in the least disconcerted by several persons moving about. As it made no attempt to escape I put my hand down and caught it. It appeared to be in perfect health and not in the least frightened. After a minute or two it flew away a distance of 50 yards or so into the garden of a villa. Was it a tame bird? Or could it have been fatigued after a long flight?

HILMARTON. OCT. 12th, 1875. FOXES. My uncle H. N. Goddard writing from Clyffe says: "Today a farmer told me (whilst out hunting) that one evening as he sat under Great Wood he saw a vixen come out with seven cubs, and at once proceed to catch moths, which were numerous that evening, and to distribute them quickly and fairly amongst her cubs. Another sportsman hearing this story said "I know Foxes will eat Bees as I once saw a Fox at a Beehive catching the Bees as fast as they went in."

HILMARTON. JAN. 13th, 1876. I saw today at Winterbourne a BULLFINCH belonging to Mrs. Harris WHICH HAD BECOME BLACK FROM EATING HEMP SEED, in a single fortnight. I never quite believed it before. The whole of the back, neck and head was a sooty black, the red of the breast being a dark blackish brown barely perceptible. I saw the Bullfinch on Apr. 19th. He was very gradually regaining his colour as he moults.

APRIL 6th, 1877. Walking with Coote from Marlborough to Amesbury..we came upon a moderate sized Barrow which had been denuded of every atom of turf and was perfectly honey-combed by Rabbits. The inhabitants were feeding on the Down all round as we approached, and no other holes were visible except those in the Barrow. I never in my life saw so many Rabbits in so small a space—they absolutely swarmed into the holes like ants. There must have been hundreds of them. We succeeded in cutting off some half dozen Rabbits from their retreat into the Barrow, and they proceeded to make themselves as much like lumps of earth as possible on the Down.

APRIL 8th, 1877. The Landlord of the Stoney Cross Hotel in the New Forest told me that when the acorn season comes round, everyone drives out their Pigs into the woods 5 or 6 miles from home, to a good place for acorns, and the pigs invariably return home every night, and then start off of their own accord again next morning, unless special arrangements are made for their sleeping in the Forest (13).

HILMARTON, JULY 1877. Walking through BOWOOD yesterday with C. W. Dale and stopping for a minute or two to look at a Heron standing in the shallow stream running out of the Lake, our attention was attracted by a Grey & White Bird running about on the mud like a Sand-piper. We got up pretty close to him before he went off down stream, with a flight rather like that of a snipe. He had long sharp wings, grey back and much bright white about breast & sides and under the tail. We made him out to be a Grey Phalarope (14).

OXFORD, DECEMBER 9th, 1877. Page (B. N. C.) tells me of a curious instance of LUMINOUS CENTIPEDES which he observed a short time ago. Walking along a road at night he noticed a small phosphorescent patch of light, in the middle of it, not bright enough for him to make out what caused it. On striking a match however he discovered that it proceeded from two yellow Centipedes together. The light paled and almost went out when the match was struck, and the creatures touched (15).

OXFORD, JUNE 1888. My Brother told me that about a month ago whilst boating on the upper River near Godstow he suddenly saw a Water Rat plunge off the bank and swim straight out towards the boat, until just as it got in front of the bows, it seized on something in the water & turning sharp round made it's way with all speed back to land. The object which it held in it's mouth looked like a short-tailed field mouse. In all probability it was a young Water Rat whom its mother thus rescued from the danger into which it had strayed. (16).

OXFORD, JULY 2nd, 1878. Whilst strolling in the Botanical Gardens where the Birds are delightfully tame, I got quite close to a couple of Thrushes vigorously engaged in smashing each its snail against its own private stone. One however was a more skilful operator than the other and got the snail out beautifully clean after a succession of sharp whacks. Both flew off with their prey as we walked up to them, but shortly afterwards I saw one of them running about on the ground, followed by a fully fledged young one. The said young one opening his mouth portentously wide, whilst his mother shoved the snail into it. However, the delicacy appeared to be somewhat tough, as it continually tumbled out of the young bird's mouth, and he did nothing but gape until his mother picked it up again and replaced it in his mouth. After one or two attempts however, some faint idea of pecking seemed to come into his head and eventually after many gulps he succeeded in swallowing the morsel.

HILMARTON, DEC. 27th, 1878. I met a man at Dauntsey Station today who told me that there were generally a few Golden Plover on his land near Aldbourne in the Spring and that last year he found a young one in the parish of Ogbourne St. George. Does the Golden Plover often breed in Wilts? (My informant was very positive and seemed likely to know). (17).

ZERMATT, JULY 1879. The Alladin Pass... when after cutting our way up to the ice slope in the teeth of a bitter wind, we proposed to lunch in a sheltered spot at the top of the pass. On opening our lunch however we found to our dismay that the lunch only allowed for two or at most 3 people instead of four. Franz Burgener however at once divided out what chicken there was with the porter and said "I will suck the bones, I do not feel the cold as he does I have drunk the Chamois' blood, and I can say that I do not feel the cold now." We enquired what he meant and he told us that anyone who can drink as he had drunk, a cup or more of the warm blood from the throat of a just killed Chamois, was thereby for the rest of his life fortified against the effects of cold and exhaustion. He really believed this and was accordingly fortified by it.

JULY 11th, 1879. We saw on the Lake of Geneva, as we passed in the Railway a number of Gulls, two or three Buzzards and 2 KITES flying over the Lake. There was no doubt about the latter, the forked tails showed them clearly, the only Kites I have ever seen.

HILMARTON, JUNE 30th, 1880. Driving to Heddington today I saw a little Round Black Ball in the water beside the road in Heddington Lane. On stopping to see what it was it turned out to be a fine water shrew with beautiful black coat and white stomach, burrowing about with his head under water, in the sand on the bottom. He was apparently eating something, but what I couldn't make out. On being disturbed he gave a squeak of annoyance and walked off into the hedge. I have seen water shrews at Oxford and Winchester but not in Wiltshire. (18).

HILMARTON. AUGUST 1880. During the last month, whilst sitting with my window open at night, I have caught 11 Bats—5 Common Bats (19) and Six Long Eared. The second are much larger, more enterprising and apparently more intelligent than the others—I have kept several of both sorts for a day or so. The Long Eared Bats feed readily, capturing moths when put into their box and sucking raw meat as if they had been accustomed to it all their lives, without being much disturbed by being looked at. In fact they seem tamer and less alarmed than most animals. They can squeeze themselves through an astonishingly small space. I fancy both sorts are about equally common here.

HILMARTON. FEBRUARY 1881. Amongst birds killed by John Taylor, Keeper at Catcombe during the last year are BARN OWLS, TAWNY OWLS (not common) and a fine pair of LONG EARED OWLS.

HILMARTON. SEPT. 16th. 1881. Whilst in the garden at about 6 o'clock this evening I saw something come over the garden wall from the shrubbery and immediately there was a crash of glass and I saw a bird fall. On going into the greenhouse I found a fine young female SPARROW HAWK had gone right through the glass at the end of the greenhouse and was lying on its back just inside. It died without a struggle then and there, having obviously broken its back. (A precisely similar accident occurred much later at Bampton Rectory, Oxfordshire, where a Sparrow Hawk darted through the side of a bay window).

HILMARTON. APRIL 11th. 1881. This evening as it was getting dark I heard a noise just like the distant sound of a mowing machine, or the winding of a very small clock wheel. It was near the front gate, but I made out with difficulty that it proceeded from the hedge on the other side of the road. Accordingly I crept up near enough to see that it was a little sharp beaked warbler about the size and shape of a Whitethroat, perhaps not so large but I couldn't see distinctly as it was too dark. I have little doubt that it was a GRASSHOPPER WARBLER. I have heard the sound many times here, but I never could find out where it came from before.

CLYFFE. NOVEMBER 27th. 1884. There was a HOODED CROW about here all last winter (as he was the winter before). Sometimes he was with the crows, sometimes with the Rooks, and now and then with the Jackdaws. I saw him continuously till about the end of February when he entirely disappeared and had not been seen since, until I saw him again at the beginning of the month. (20).

CLYFFE. NOVEMBER 27th. 1884. There have been an unusual number of Wagtails about here this summer, I have several times seen as many as 11 Pied Wagtails on the lawn at once, and frequently during the summer there were two Yellow Wagtails (Rays) with them, and about October I noticed some very yellow undertail but grey elsewhere and whitish on the breast. They are, I think, the grey Wagtail (*M. boarula*).

CLYFFE. NOVEMBER 1884. A Badger came down from the Hangings and scratched about in the garden last night. They are not nearly so common as they were a year or two ago, the Manor Coachman having caught (with slips) 12 in the last two years. The skins are being made into a carriage rug.

CLYFFE. DEC. 4th. 1884. As Will Gale (Gardener) was turning over the rubbish heap near the stable today, he came upon a very neat mouse's nest inhabited by a couple of very prosperous mice, and about 18 inches away from the nest and connected by a tunnel, he found the store room well packed for the winter with 51 good Walnuts all of which they had carried some 8 or 10 yards or more. Both dwelling house and store room were in the centre of the rubbish heap. (21).

CLYFFE. NOVEMBER 18th. 1885. The GREY CROW has returned this year with 4 others, either young ones (as the men believe) or companions. I have only seen two of them myself for the first time today, but the five were seen on the hill nearly a month ago. No one ever remembers seeing one of these birds here before the solitary bird spent the last three winters here, coming about October and leaving the beginning of March.

CLYFFE. MARCH 1886. The Grey Crow has been here again all this winter, frequenting the Manor and Pound Piece. He is alone again this year.

CLYFFE. SEPTEMBER 1887. The Butcher tells me that some years ago he dug out three full grown Badgers curled up together in a bank, a very little way under the ground. They were fast asleep, dormant apparently and it was a day or two before they woke up. Do Badgers hibernate as a rule? (22).

A Green Woodpecker has been about here all the autumn under the hill and in the orchard... In after years a GREEN WOODPECKER not uncommonly visited the Vicarage Garden apparently specially attracted by the ants in the bank between the house and the lawn. He would peck away, raising his head now and then so that he could see over the top of the bank. (23).

The GREATER SPOTTED WOODPECKER became comparatively common in later years and was often about the Manor and Vicarage Gardens. One excavated a hole in the stem of an old plum tree in the Vicarage Orchard, but a starling took possession of it and refused to vacate it. A pair nested and brought up their young in a hole in a beech tree at the top of the Cock Walk. The LESSER SPOTTED WOODPECKER was also not uncommon and could be heard in the big elms in the lane—I picked up a dead one in the Vicarage drive.

Whilst I was at Clyffe we picked up a dead BLACKCAP which had taken refuge IN THE HOUSE having arrived MONTHS TOO EARLY (I think in late February) and died of cold and starvation I suppose.

As to BIRDS IN GENERAL in N. Wilts in the last 50 or 60 years some have grown common and some rarer as far as my experience goes. The PEEWIT has certainly increased largely as a consequence of legal protection. The MALLARD too has increased and occupied a large number of Field Ponds as breeding places—a consequence of the practice of a large number of Ducks being raised for shooting purposes in recent years.

GULLS again are seen in the winter in flocks as far from the sea as Upavon, on newly ploughed land where single Gulls were looked upon as rarities to be shot and stuffed 60 years ago.

The BARN OWL has unhappily slowly decreased of recent years until he is becoming scarce, whilst the Little Owl his cousin unknown in my younger days is widely distributed now—here at Devizes a pair has frequented our garden for the last five years. The DIPPER too almost a new comer to Wilts now nests regularly at Compton Chamberlayne at BIDDESTONE and the Kennet above Marlborough has been colonised by the REDSHANK. And I think that the three woodpeckers as I have said, at least in N. Wilts are commoner than they were 50 years ago. On the other hand the Landrail whose voice could be heard wherever there was a cornfield in the county, and whose nests were quite common everywhere, has of late years disappeared ENTIRELY, and nobody knows why. The Redstart and the Butcher Bird which though never very numerous were well distributed everywhere, now seem to have deserted quite a number of their old haunts for some unknown reason. Kestrels certainly are fewer and the Sparrow Hawks seem almost to have disappeared in many places. Are the flocks of Fieldfares and Redwings really less abundant or do they only seem so to an old man who no longer walks about so much?

FOOTNOTES

1. For a more detailed account of the life and work of E. H. Goddard see the Memorial Notice in *W.A.M. Vol. LII* (1947) pp117-20 upon which I have drawn heavily in the compilation of this Biographical Note.
2. There were 1,000 species of wild plants growing in the garden of Clyffe vicarage, all collected by E. H. Goddard. One of the rarest *Astrantia major* is still growing in Clyffe churchyard to which it has spread.
3. *W.A.M. Vol. XXXIX* pp15-21.
4. Similar encounters have been well documented in recent years, see, for example, *The Countryman Wild Life Book* (David & Charles, 1969, p96)—“.....The rabbit jumped on to a larger boulder and paused, bolt upright. The stoat, a few feet ahead, paused too and, poking its head out from the shelter of a rock, faced the rabbit, which leapt forward. The stoat again fled and the chase was resumed, back up the cliff and among the hawthorns. The last I saw of the encounter was the rabbit patrolling on the cliff edge, like a terrier after a rat.”

5. A full account of this occurrence is given in *W.A.M. Vol. XXVII* p102.
6. Baron de Worms (*The Macrolepidoptera of Wiltshire*, 1962, p10) states—"This spectacular migrant is recorded not infrequently in the spring and summer, many probably coming from Scandinavia. In 1872 it occurred in numbers up to the Highlands, over 500 specimens being confirmed. It has never been known to breed in this county." 1976 was also a good year for migrant Camberwell Beauties.
7. It is now known that lepidopterous larvae are not infrequently taken by kestrels, see, for example, Davis, T. A. W. 'Food of the Kestrel in Winter and Early Spring,' *Bird Study Vol. 22* (1975) pp85-91.
8. This note, of course, refers to the spectacular 'nuptial flight' of the ant. A. D. Imms (*Insect Natural History*, Collins, 1947, p284) has this to say about the phenomenon: "The air is sometimes filled with these winged reproductive agents; swallows and other birds soon detect such swarms, chasing and devouring their members in immense numbers. Whatever causes this exodus affects the colonies of the same kind of ant often over a large area at the same time. H. Donisthorpe mentions that on August 8th, 1915, swarms of the Garden Ant (*Acanthomyops niger*) and a closely related kind were noted over the greater part of England from the Isle of Wight to Leicester and even into Northumberland. Some atmospheric influence probably extended over an extensive area simultaneously, moisture and warmth being perhaps two of the factors concerned. The workers become very much agitated near the swarming period and prevent the winged individuals from leaving the nest before the right time."
9. Encounters between kestrels and stoats or weasels are not uncommon (some examples are given in *The Countryman Wild Life Book, op.cit.*). Most accounts give victory to the mammal, but the fact that stoat and weasel remains occasionally turn up in kestrel pellets indicates that this is not always the case.
10. Now, of course, it is illegal to take a bird of prey from the nest without a permit.
11. Im Thurn (*Birds of Marlborough*, 1869, p46) gives details of specimens showing varying degrees of white markings which he attributes to the production of hybrids from breeding in confinement.
12. Muriatic acid is an old name for hydrochloric acid but I have been unable to trace any further reference to this interesting test.
13. Locally bred New Forest pigs were supposed by Aubrey (*Natural History of Wiltshire*, David & Charles Reprint, 1969, p59) to contain the blood of their European wild relatives—"We have no wild boarres in England: yet it may be thought that heretofore we had, and did not think if convenient to preserve this game. But King Charles I sent for some out of France, and putt them in the New Forest, where they much encreased, and became terrible to the travellers. In the civill warres they were destroyed, but they have tainted all the breed of pigges of the neighbouring partes, which are of their colour; a kind of soot colour."
14. Peirson (*Wiltshire Birds*, 1959, p23) describes this bird as "A passage migrant seen occasionally in the last century but now only rarely." Goddard's sighting is mentioned by Smith (*The Birds of Wiltshire*, 1887, p450).
15. This is clearly a reference to a pair of glow-worms, despite the fact that Goddard's informant erroneously described them as being like centipedes. It is obvious from this entry that Goddard himself had never before encountered the species. This in itself is significant for, if glow-worms were never noticed by such a widely travelled and observant a naturalist, we must assume that they were as scarce in and around Wiltshire 100 years ago as they are today.
16. The 'water rat' is, of course, the much misnamed water vole, while the name short-tailed field mouse should be taken to mean field vole.
17. The literature on Wiltshire birds contains some conflicting comments about the golden plover. Writing twelve years earlier than Goddard, Im Thurn (*op.cit.*, p90) claimed that "During severe winter weather, flocks of these birds occasionally pass over us, though they seldom alight in our district; so seldom indeed, that I only know of two instances of their being shot." However, Peirson (*op.cit.*, p20), in 1959, wrote "A hundred years ago they were considered very common and were plentiful in Salisbury market at a penny a head." Nowadays the species seems to be a regular winter visitor and flocks of up to 1,000 are occasionally seen (*The Hobby*, No. 1, p11). Turning to Goddard's question, Ratcliffe ('Observations on the Breeding of the Golden Plover in Great Britain,' *Bird Study Vol. 23*, (1976) pp63-116) points out that as a breeding species the Golden Plover is restricted to certain kinds of moorland and mountain terrain, none of which exists in Wiltshire. On rare occasions however, the species has nested in anomalous lowland habitats in England and so it is possible that the Ogbourne record is authentic.
18. This species was first recorded in Wiltshire by Maton at Alderbury near Salisbury (Bingley, *Memoirs of British Quadrupeds*, 1809, p229).
19. This species is now known as the 'Pipistrelle.'
20. This and subsequent Goddard sightings of this species are mentioned by Smith (*op.cit.*, p236).
21. This store almost certainly belonged to wood mice.
22. Winter activity may be considerably reduced but there is no true hibernation. Badgers can go without food for long periods and may remain below ground for several days at a time utilising fat reserves stored under the skin.
23. This and the remaining notes, the last in the notebook, were apparently added in 1942.

SOME FUNGI OF SOUTH-WEST WILTSHIRE. PART IV

By J. B. HINDLEY

In this article appear fungi belonging to the Basidiomycetes found during the period 1974-6 inclusive, the Ascomycetes and Fungi Imperfecti for this period being held over until 1978.

As in previous lists submitted by the present writer, these fungi are complementary to those listed by the brothers T. F. G. W. Dunston and A. E. A. Dunston and published in this magazine.

The writer once more expresses his gratitude to the Director of the Royal Botanic Gardens, Kew, and particularly to the Staff of the Herbarium, without whose scientific knowledge the list could not have been published.

In particular Dr. D. A. Reid has been of the greatest assistance, visiting the locality again and supplying the writer with much information in addition to identification; during his absence from Kew his place was filled by Dr. D. L. Pegler, and Dr. R. W. G. Dennis identified the very difficult Ascomycetes and others. Fungi found on forays with Dr. and Mrs. Reid are marked with an asterisk.

GASTEROMYCETES

LYCOPERDON FOETIDUM Bon. 16/9/74 Haredene Wood. Commonly listed as *L. perlatum* var. *nigrescens*, this puff-ball is easily recognized since its fruitbodies are covered with small, blackish, hair-like spines which are connivent at their apices. The spores in mass are yellow-brown, and over 4 μ in diameter.

SPHAEROBOLUS STELLATUS Tode ex. Pers. 28/9/76 Wardour High Wood. This tiny fungus occurs in swarms on rotting vegetation. The fruitbodies are about 1-2 mm. diam., at first more or less spherical, closed and whitish but on maturing they split open at the apex into 6-8 orange teeth. The single, globose, red-brown peridiole is then forcibly discharged for a distance of several feet by eversion of the inner layers of the fructification as from a catapult!

AGARICALES

**HYGROPHORUS QUIETUS* Kuhn. 30/10/74 Grovely Wood. This species, which may occur in meadows or woodland, has a greasy orange and chrome yellow cap, and adnate to decurrent gills which are at first pale then deep chrome yellow, and finally flushed with pinkish orange from the base. When crushed it has a strong, oily smell, like *Lactarius quietus*.

HYGROPHOROPSIS AURANTIACUS (Cooke) Var. *PALLIDA*. Kuhn and Romagnesi 30/11/75 Wardour 13 acre wood. Differs from the typical variety in its paler cap and in having almost white stem and gills.

LACCARIA TORTILIS ((Bolt) S. F. Gray) Cooke. 15/9/75 Dunworth Wood. Distinguished from *L. Laccata* by its smaller, pinkish flesh-coloured, striate cap, 0.5 - 1.5 cm. diam., Z-spored basidia, and spherical spores measuring 11-14 μ diam.

LYOPHYLLUM IMMUNDUM (Berk.) Kuhn. 23/10/74 Grovely Wood. An entirely dirty-brown or grey tricholomatoid species which blackens on bruising, and has spherical spores measuring 6 - 7.5 μ diam.

LYOPHYLLUM KONRADIANUM (Maire) Kuhn. and Romagnesi. 14/10/74 Ladydown. At the time Dr. Reid wrote "This fungus is new to Britain, but by a coincidence I received a gathering of it from Somerset in a parcel which arrived by the same post as yours!" Habit as preceding species but cap covered with arachnoid fibrils. Characterized macroscopically by sparse, swollen, fusoid cheilocystidia and small, elliptic spores, 4-4.5 x 2 - 2.2 μ .

COLLYBIA DISTORTA (Fr.) Quelet. 13/10/76 Whitmarsh Wood. A very rare species in the South of England, which is easily confused with *C. butyracea*, from which it may be distinguished by its red-brown or russet coloured, campanulate cap, and the presence of spherical spores 3.5 - 4 μ diam.

COLLYBIA FUSCOPURPUREA (Pers. ex Fr.) Kummer. 10/9/74 Fonthill Terraces. Recognized by its dark brown cap flushed with purple, and often irregularly radially wrinkled, by its dark purplish-brown stem with dense, yellowish or ochry rhizoids, and by its elliptic spores measuring 6-8 x 3-4 μ .

COLLYBIA PUTIDELLA Orton 6/11/75 Whitmarsh Wood. Also collected 12/11/73. This agaric has a campanulate greyish-lustre coloured cap, up to 6 cm. diam., which becomes whitish and silky on drying; greyish gills and pale grey stipe. It has a smell of rancid meal and spores measuring $7-9 \times 3-4.5 \mu$. Like the following species it is often placed in the genus *TEPHROCYBE*.

COLLYBIA CARBONARIA (Vel.) Orton. 3/12/75 Fonthill Lake. A very common fungus of burnt ground, often occurring in large numbers on bonfire sites. It has a dark, grey-brown or blackish cap, up to 2.5 cm. diam., a similarly coloured stipe and spherical spores $4-6.5 \mu$ diam. Now often placed in the genus *TEPHROCYBE*.

MARASMIUS HUDSONII (Pers. ex Fr.) Fries. 5/10/75 Swallowcliffe. This small fungus restricted to holly leaves, is readily recognized since the fawn or pinkish-cream cap is covered with long black hairs which are easily visible under a lens.

CORTINARIUS (PHLEGMACIUM) CROCOLITUS Quelet. 6/10/75 Haredene Wood. A striking species in which the bright yellowish-fawn cap may reach 10 cm. in diam.; the stem up to 15 cm. high bears several bands of yellowish-brown scales; the gills are at first pallid with a slight flush of lilac and the ornamented spores measure $12.14 (16) \times 5.7 \mu$. It occurs chiefly with birch trees.

CORTINARIUS (PHLEGMACIUM) FULMINEUS (Fr.) Fries. 18/9/74 Grovelly Wood. Distinguished by its rusty-tawny cap with dense, agglutinated, rusty scales at the disc; chrome or golden-yellow gills; golden or tawny-yellow to rusty-orange stem with conspicuous, wide, marginate bulb, white flesh and spores measuring $8-10 (12) \times 5-6.5 \mu$.

CORTINARIUS (PHLEGMACIUM) MELLIOLENS Schaeff. ex Orton. 16/9/74 Haredene Wood. Recognized by its bright yellow ochraceous or tawny-yellow-buff cap with white silky hoary veil, whitish or clay colour of the young gills, the stem either clavate with an immarginate bulb or with an indistinct marginate bulb, the faint smell of honey and almost smooth, elliptic amygdaliform spores $8-9 \times 4.5 - 5 \mu$.

CORTINARIUS (PHLEGMACIUM) PARVUS Henry. 18/9/74. Grovelly Wood. The cap, up to 5 cm. diam. is consistently small, pale ochraceous or yellowish, and often with rusty spots especially on the disc. The gills are initially lilac, as is the upper part of the stem, which has a marginate bulb; the flesh is white in the cap but pale lilac in the stem; the spores are rough, amygdaliform, and measure $9-10.5 \times 5-6 \mu$.

FLAMMULASTER CARPOPHILOIDES (Kuhn) Watling. 21/9/76 Haredene Wood. This small agaric has a dirty ochraceous or pale brown cap flushed with pink, the surface is granular-floccose, and under a lens appears somewhat micaceous. Microscopically it is characterized by cheilocystidia with a swollen base surmounted by a long, narrow neck, and very pale brown amygdaliform spores $7.5-9 \times 5-6 \mu$.

TUBARIA MINUTALIS sensu Lange. 18/9/75 Author's garden. A very tiny species with russet or cinnamon coloured cap 2-9 mm. diam., distant gills with broad clavate or ventricose cheilocystidia, and small spores $4.5 - 6.5 (8) \times 3 - 4.5 \mu$.

GALERINA GRAMINEA (Vel.) Kuhn. 1/1/75 Author's garden. Occurs commonly on lawns and is recognized by its ochraceous or ochraceous-fawn cap up to 15 mm in diam., which soon becomes flattened. Similarly coloured stem, and yellowish gills. Microscopically it is characterized by having hyphae devoid of clamp connections, thin-walled amygdaliform brown spores $7-10 \times 4.5 - 5 \mu$, and elongated, narrow cheilocystidia with capitate apex.

GALERINA MNIOPHILA (Lash) Kuhn. 5/10/75 Swallowcliffe. Distinguished by its campanulate, honey coloured, striate, hygrophanous cap, dull brownish gills, long narrow stem up to 7 cm. high and 1.5 mm. wide, which is whitish above and pale yellowish below. Microscopically it is distinguished by having almost cylindrical cheilocystidia with slightly swollen bases, and by its large, very faintly ornamented spores measuring $9-13 \times 6.7 \mu$.

INOCYBE HIRTELLA Bres. 18/9/74 Grovelly Wood. A species with smooth spores, distinctly yellowish-brown cap and whitish stem which may be flushed with pink in the upper part in young specimens and which is entirely pruinose with caulocystidia when examined under a lens. When kept in a closed container overnight this species gives a smell of bitter almonds.

INOCYBE PHAEOLEUCA Kuhn, 14/10/74. Ladydown. This species also has smooth spores but the cap is dark fawn-brown or chestnut with almost blackish centre. The stem in contrast is white and appears distinctly pruinose to the base with caulocystidia when seen under a lens.

CONOCYBE NEOANTIPUS (Atk.) Kuhn. 11/11/75 Dunworth Wood. Distinctive on account of its coprophilous habit. It has a striate, campanulate, honey coloured or dark ochraceous-fawn hygrophanous cap, a pale honey coloured, villose stipe, lecythiform cheilocystidia with heads 3-4 μ wide and ovoid spores, 11.5 - 13 x 7-8 μ .

COPRINUS BISPORUS J. Lange. 4/10/76 Dunworth Wood. A rather small species with the unexpanded cap 0.5 - 1.2 cm. high, at first whitish alutaceous then livid grey, and sulcate almost to the apex; deliquescent. Microscopically it has two-spored basidia with spores 12.5 - 13 x 6.5 - 7 μ , vesiculose cheilocystidia, and hairs on the cap.

COPRINUS FRIESII Quelet. 23/9/76 Sticel Path. This fungus is found on rotting grass. It has tiny caps 1 - 1.5 cm. high, covered with a white veil formed of thick-walled hyaline, coralloid hyphae, 3-4 μ wide, mixed with others which may be broader and with thinner yellowish walls. The spores are brown and translucent and lenticular under the microscope and measure 8 - 10 x 5.5 - 7.5 μ .

COPRINUS LAANII Kits van Waveren. 20/10/74 Wardour High Wood. A small lignicolous species with the unexpanded grey cap 5 - 17 mm. high and covered by the mealy veil formed of sphaerocysts. The spores 9 - 12 x 5.5 - 6.5 μ , are irregularly ornamented with dots and lines and surrounded by a loose perispore sac.

COPRINUS MACROCEPHALUS (Berk.) Berk. 18/7/74 Tisbury Row. Particularly common on old, damp bales of straw, but liable to confusion with *C. lagopus*, from which it is separated by having broader spores measuring 11-14 (17) x 7-9 μ .

COPRINUS PICACEUS (Bull. ex Fr.) S. F. Gray. 17/10/74 Whitmarsh Wood (also Fonthill near Stops Lane). An easily recognisable species, up to 30 cm., in total height, in which the blackish bell-shaped cap bears contrasting white patches of the veil. The Latin epithet *picaceus* reflects this feature, meaning black and white like a magpie.

COPRINUS RADIANS (Desm.) Fr. 30/7/74 Chilmark Nr. M.O.D. Similar to *C. micaceus* but with elliptic to feebly reniform spores measuring (7.5) 8-11.5 (13) x (4.7) 5 - 6.5 (7.2) μ .

COPRINUS URTICICOLA (Berk. and Br.) Buller. 18/7/74 Tisbury Row. Separated from *C. friesii* by having smaller and paler spores measuring 5-8 (8.5) x 4 -5.5 μ .

PANAEOLUS RICKENII Hora. 15/8/74. Dunworth Wood. Recognized by its dark brown to almost black hygrophanous cap with pellucid striate margin. On drying out the marginal zone remains dark for a considerable time, while the rest of the cap becomes buff or pale tan. There are no appendiculate velar remnants on the edge of the pileus.

LEPIOTA GRANGEI (Eyre) J. Lange. 13/10/75 Ladydown. A small species with grey-green or blue-green scales on the cap formed of hairs with blue-green vacuolar pigment. The stem is white tinted with orange toward the base which is also ornamented with small grey or blue-green scales. The spores are missile shaped 9 - 12 x 4-4.5 μ .

LEPIOTA VENTRIOSOSPORA Reid. 7/10/75 Grovely Wood. This fairly robust species resembles *Lepiota clypeolaria* by the cap surface which disrupts into small tile-like brown scales on a brownish-fawn background with pinkish or orange tint. The stipe is densely covered with the woolly yellowish or pinkish brown veil beneath the evanescent cottony annulus, and often bears bands of dark brown scales towards the base. The spores are mummy-shaped 13 - 21 x 4-5 μ .

PLUTEUS GRANULATUS Bres. 17/10/74 Author's garden. This species has a pallid cap densely covered with dark brown more or less fibrillose scales, especially at the centre. The stipe is white becoming discoloured dirty yellow or brownish from the base.

PLUTEUS GRISEOPUS Orton. 8/10/75 Fonthill Lake. A small grey species with cellular cuticle, and striate margin to the cap. The stipe is also silvery-grey and even the flesh of the stipe is grey, being darker in the cortex. There are vesiculose-fusiform or lageniform pleurocystidia present with a very broad apex 12 - 20 μ wide.

LIMACELLA ILLINITA (Fr. ex Fr.) Murray. 23/9/74. Horwood. Recognized by its white, glutinous cap, stipe and veil. This fungus is fairly large, reaching a height of 8 cm., the cap may attain a similar width. The spores are spherical, 4- 5 μ diam. and minutely asperulate.

LACTARIUS HEPATICUS Plowr. 2/11/75 Wardour High Wood. Distinguished by its occurrence in coniferous woods, its dark liver-brown cap and milk which rapidly becomes yellow on a handkerchief.

LACTARIUS RUFUS (Scop. ex Fr.) Fr. 18/10/76 Ridge. Readily recognized by its red-brown, umbilicate cap with a central papillate umbo, and somewhat granular surface, its very acrid white milk and occurrence in coniferous woodland.

APHYLLOPHORALES

SERPULA HIMANTIOIDES (Fr. ex Fr.) Karst. 28/10/76 Compton Wood. Similar to *S. lacrymans* ((Wulf) Fr.) Schroet—the cause of Dry Rot in houses—but distinguished by its occurrence on underside of conifer logs lying in the open.

LEPTOSPOROMYCES GALZINII (Bourd.) Julich. 17/10/76 Wardour 13 acre Wood. A white pellicular corticioid fungus easily separable from the substrate with small elliptical spores $4 \times 2 \mu$. Found chiefly on coniferous debris.

GLOEOCYSTIDIELLUM CITRINUM (Pers.) Donk. 10/11/74 Wardour 13 acre Wood. A waxy, membranaceous, closely adnate, whitish or yellowish corticioid fungus, with conspicuous fusoid or bladder-shaped gloeocystidia and subglobose amyloid spores $4 - 7 \times 4 - 6 \mu$.

FIBULOMYCES FUSOIDEUS Julich. 27/10/76 Crockerton Firs. A delicate, separable white pellicular corticioid fungus with clamp-bearing hyphae and narrow cylindrical spores $7-8 \times 2.3 - 2.6 \mu$.

XENASMA TULASNELLOIDEUM (Hohn. and Litsh) Donk. 11/12/75 Haredene Wood. This corticioid fungus forms a very thin, inconspicuous, adherent, greyish or bluish pruinose film on rotten wood; it has globose, finely asperulate spores, $3.5-4 \times 3 \mu$.

INONOTUS HISPIDUS (Bull. ex Fr.) Karst. 28/3/76 Swallowcliffe Wood. The brackets of this species are commonly seen on ash but also occur on other hosts. They are most familiar in the old, blackened state, but in spring the new fruitbodies are soft, rusty brown with a furry surface.

PHELLINUS FERREUS (Pers.) Boud and Galzin. 10/3/73 Fonthill Lake on *Salix*; 17/10/76 Ridge on *Castanea*. A rusty brown, resupinate polypore with hyaline, cylindrical spores, $6 - 8 \times 2 - 2.5 \mu$, found commonly on oak and hazel.

**CERIPORIA EXCELSA* (Lund) Parm. Syn *C. Rhodella*. 3/11/76 Alec's Shade. An uncommon poria-like fungus distinguished by its purple colour, hyaline subcylindrical spores $4 - 7 \times 2-3 \mu$ and hyphae which lack clamp-connexions.

SPONGIPPELLIS SPUMEUS (Sow. ex Fr.) Pat. 17/11/76 Fonthill Lake. A thick but soft, white polypore, found chiefly on elm. It has a conspicuously furry surface and large oval spores, $5-9 \times 4 - 7 \mu$.

TYROMYCES CINERASCENS (Rom) Bond and Singer. 1/3/75 Wardour 13 acre Wood. A white resupinate, separable, dimitic species with strongly amyloid hyphae, and allantoid spores $6 \times 2 \mu$.

TYROMYCES GLOEOCYSTIDIATUS Kotlab and Pouz. 27/11/74 Wardour 13 acre Wood. This is the old *Polyporus/Leptoporus Fragilis*. The sporophores of this white, fleshy polypore are distinguished by the presence of gloeocystidia in the tubes and by the allantoid spores $4-6 \times 1 - 1.5 \mu$.

CYPHELLA cf. *ALBOCARNEA* Quelet. 6/12/75 Tisbury Row near railway. Similar to the genuine *C. albocarnea* (= *C. erucaeformis*) but restricted to herbaceous stems. The minute white cups are clothed in thick-walled, granular, encrusted dextrinoid hairs, and the hyaline, elliptical spores measure $7-9 \times 3.75 - 4.75 \mu$.

CYPHELLOPSIS CONFUSA (Bres.) Reid. 26/10/76 on alders near Ansty Brook. Recognised by the densely crowded, small brown cups, with pale yellowish discs which are only exposed in damp weather. Differs from the common *C. anomala* in the narrow, allantoid spores $6-10 \times 2 \mu$.

FLAGELLOSCYPHA FAGINEA W. B. Cooke. 6/10/75 Haredene Wood. The tiny, sessile, white cups are found scattered over fallen beech leaves. Microscopically this species is characterized by having surface hairs with naked, whip-like apices, but elsewhere heavily encrusted with acicular crystals and rather narrow elliptical spores $9-13 \times 3 - 4.5 \mu$.

PELLIDISCUS PALLIDUS (Berk. and Br.) Donk. 17/12/74 Author's Garden. Probably not uncommon but easily overlooked. Recognised by the flattened, pale brown discs, up to 1mm. diam., clothed with poorly differentiated "hairs," the absence of clamp connexions, and minutely roughened elliptical brown spores, $6-8 \times 3.5 - 4.5 \mu$.

LACHNELLA VILLOSA (Pers. ex Schw) Gillet. 15/12/75 near Chilmark M.O.D., also 23/9/76 Sticel Path. This species, often mistaken for a *Dasyyscyphus* species, is found on herbaceous stems. The sessile, cup-shaped, white fruitbodies are clothed in blunt, granule encrusted, pseudo-amyloid hairs, the hyaline, almost triangular spores measure $10-15 \times 7-10 \mu$, and there are fusiform cystidioles present in the hymenium.

**EPISPHERIA FRAXINICOLA* (Berk and Br.) Donk. 3/11/76 Alec's Shade. Normally the minute, white, sessile sup-shaped fruitbodies with a yellowish disc are found on the stroma of *effete pyrenomyces* growing on fallen branches of ash. The smooth spores are brown, broadly elliptical, 7-8 x 4.5-5.0 μ . This collection is unique in that the pyrenomyces involved is growing on branches of *Acer campestre*.

CREOLOPHUS CIRRHATUS (Pers. ex Fr.) Karsten. 13/11/76 Crockerton Firs. The thick, fleshy, white brackets, up to 15 cm. across, bear densely crowded teeth up to 1.5 cm. long on their underside.

HYPHODONTIA ALUTARIA (Burt.) Erikss. 10/11/74 Wardour 13 acre Wood. A resupinate, loosely membranaceous, finely warted, clay-coloured to ochraceous fungus, with sub-globose to ovate spores 5-5.5 x 3.5 - 4.5 μ . There are two kinds of cystidia (1) subulate with encrusted tips and (2) cylindrical, slightly thick-walled, and naked.

HYPHODONTIA CRUSTOSA (Pers. ex Fr.) Erikss. 15/12/74 Ansty Down. As above, but waxy-crustaceous, whitish or yellowish, becoming cracked on drying, covered with scattered, short, cylindrical or subulate teeth. The spores are elliptic 5.5 - 7 x 2-3.5 μ , and there are thin-walled, fusiform, often flexuous cystidioles in the hymenium.

**PENIOPHORA LIMITATA* (Chaill. ex Fr.) Cooke=*Peniophora Fraxinea* (Pers.) Lund. 30/10/74 Whitmarsh Wood. Common on fallen branches of ash, forming dark grey-blue or grey-violaceous patches with narrow, sterile blackish margins which may loosen slightly from the substrate on drying.

PENIOPHORA RUFO-MARGINATA (Pers.) Litsch. 17/11/76 Fonthill Lake. Similar to the above but found on Tilia. The margin separates from the substrate on drying and becomes inrolled exposing the blackish underside of the fruitbody.

PENIOPHORA POLYGONIA (Pers. ex Fr.) Bourd and Glaz. 10/11/75 Haredene Wood. Frequent on twigs of *Populus tremula* forming small, circular patches up to 8 mm., across, which are rosy-pink with a lilac tint.

CLAVARIA ACUTA Fr. 23/9/74 Ansty Coombe. Solitary or gregarious. The clubs are simple, white, cylindrical with a fairly distinct stalk, and up to 4 cm., in total height; spores broadly ellipsoid or subglobose 7-10 x 5 - 9 μ .

CLAVARIA TENUIPES (Berk and Br.) 18/9/74 Grovely Wood. Similar to the above but pallid clay or drab with ellipsoid spores 6-12 x 4-4.5 μ .

**CLAVARIA ZOLLINGERI* Lev. 30/10/74 Grovely Wood. A tufted violet or deep amethyst species with the fruitbody either much-branched or sparingly so, or reduced to clusters of almost simple clubs. The spores are broadly ellipsoid 4 - 7 x 3.5 μ .

**CLAVULINOPSIS CINEREOIDES* (Atk.) Corner. 30/10/74 Grovely Wood. Similar to *Clavulina cinerea* but the small, globose spores 4-6 μ diam., 4-spored basidia, more regular dichotomous branching, and more distinct grey colour distinguish it.

**CLAVULINOPSIS LUTEO-ALBA* (Red) Corner. 30/10/74, Grovely Wood. Recognized by the simple yellow, orange or apricot coloured clubs with pale acute tip, ellipsoid spores 5-8 x 2.5 - 4.5 μ , and its occurrence on lawns or in pastures, etc.

CLAVULINOPSIS PULCHRA (Peck) Corner. 18/9/74, Grovely Wood. The club-shaped fruitbodies are yellow, orange or flame coloured, with spores 5-7.5 x 3.5-6 μ .

TYPHULA SCLEROTIOIDES (Pers.) Fr. 21/10/74, Wardour High Wood. The small, slender white clubs, up to 30 mm., high, arise singly from a sclerotium which may be buried in dead herbaceous stems, leaves or small twigs.

PISTILLARIA SETIPES Grev. 4/10/76. Dunworth Wood. Very common on fallen leaves. The tiny white clubs up to 12 mm., high with a filiform, minutely hairy stem, bear hyaline, ellipsoid spores 6-12 (14) x 3-4.5 (5) μ .

PISTILLARIA UNCIALIS (Grev) Cost. and Duf. 13/10/76 Whitmarsh Wood. Especially common on dead umbelliferous stems, the fruitbodies are similar to the above but larger, up to 20 mm. high, and the ovoid-ellipsoid to ellipsoid spores measure 4-7 x 2-3 μ .

UREDINALES

UROMYCES VICIAE-FABAE (Pers.) Schroet. 18/9/75 Allotment, Swallowcliffe. II forming pale brown pustules on the leaves of *Vicia faba*.

PUCCINIA CARICINA DC. 17/6/76. Tisbury, Place Bridge. I on *Urtica dioica* forming small yellowish spots on the leaves. It alternates with species of *Carex* for the remainder of its life cycle.

Puccinia Glechomatis DC. 24/11/75 Fonthill Gifford. III on *Glechoma hederacea* producing conspicuous blackish pustules up to 4 mm. diam., on the underside of leaves.

Puccinia Hierachii Mart. 19/9/76. Author's garden on *Taraxacum*. Syn *P. taxacici* Plow.

Puccinia Primulae Duby. 16/7/75 Ladydown. I the aecidial stage causes very conspicuous yellow blotches on the leaves of *Primula vulgaris* in the spring.

Puccinia Pulverulenta Grev. 11/7/76 Semley. II on *Epilobium hirsutum* forming chestnut-brown spots on the under surface of the leaves.

Puccinia Punctiformis (Str.) Ruhl. 14/7/75 Swallowcliffe. Stage 0. On *Cirsium arvense*. Affected plants are pale green and sickly, the spermatogonia stage produces a sweet smell in spring. Syn *P. suaveolens*.

Puccinia Sessilis Schroet. 13/5/74. Chilmark near M.O.D. I on *Arum maculatum* causing conspicuous yellow spots on the leaves up to 1 cm. in diam. The remainder of the life-cycle occurs on *Phalaris arundinacea*.

Puccinia Violae DC. 19/5/75 Fonthill Terraces. I on *Viola* species causing yellowish swollen spots.

Phragmidium Fragariae (DC) Rabenhorst. May 1975 Swallowcliffe Churchyard. On *Potentilla sterilis*. The aecidial stage occurs on the veins or petioles of the leaves as bright orange pustules in spring. The teleutosori produced later in the year are blackish brown.

Melampsora Epitea Thum. 8/13/75. Near junction of Rivers Nadder and Sem at Wardour. On upper surface of leaves of *Salix* Sp.

Melampsora Populnea (Pers.) Karst. 18/5/75. Fonthill Lake. II on *Populus* sp.

Melampsorella Symphyti Bub. 6/6/76 Tisbury near cemetery. II hypophyllous on *Symphytum officinale* covering the entire surface with minute golden yellow uredosori.

Chrysomyxa Pirolata Wint. 4/6/74 Fonthill Terraces. II hypophyllous on *Pirola minor*, covering the whole surface with the small yellow to orange uredosori, 0.5-1 mm. diam.

Coleosporium Tussilaginis (Pers.) Lev. 4/10/75 Tisbury. On *Petasites hybridus*. Syn *C. petasitis*.

USTILAGINALES

Entyloma Calendulae (Oudem) de Bary. 10/7/75 Author's garden. Forms conspicuous pale spots on the leaves of cultivated marigolds.

Ustilago Longissima (Sou.) Tul. 17/6/76 Tisbury, near Place Bridge. On *Carex acutiformis*, forming elongated brown sori extending for several centimetres between the veins on the leaves of the above.

AN ORNITHOLOGICAL STUDY OF CHALKLAND SCRUB IN THE DEVERILLS

by ELIZABETH STEPHENS

This study first started with the Chalkland Exercise which took place in 1973. The purpose of the exercise was to find some practical methods of reconciling the interests of modern food production and wildlife. The opportunity to study an important ornithological habitat in a high farming area was not to be missed.

The habitat to be studied is scrub on chalk downland. The scrub, apart from a patch of elm trees, *Ulmus procera*, does not exceed 15 ft. in height and runs along the top of a north-west facing slope at about 650 feet above sea level. The slope is permanent pasture and the other side of the scrub flattens out into arable land. The annual rainfall is 38 inches.

The scrub is mainly hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), gorse (*Ulex europaeus*), brambles (*Rubus fruticosus*), raspberry (*Rubus idaeus*), and rose-bay willow herb (*Epilobium angustifolium*) which has given the site the name of Pink-flower gorse. There are two Ash trees and a small Oak (*Fraxinus excelsior* and *Quercus robur*) near the centre of the 37 hectares. Rides cut across and along the scrub. These are managed regularly.

METHOD OF STUDY

The site has been visited at different times of the year and birds recorded as laid down in the guide-lines by the British Trust for Ornithology for their Ornithological Sites Register, this area having been listed in such a register.

The breeding birds were studied in more detail. A Common Bird Census being done in accordance with the guidelines set down by the BTO in 1966, to discover the number of breeding pairs of each species. Eight visits of at least two and a half hours each were made between April and July.

The two tables give the results of the two surveys.

DISCUSSION AND OBSERVATIONS

This area of scrub held a higher number of species of birds in the summer than in the winter. The increase is mainly due to birds which are summer visitors to Britain.

At all times of the year it was a feeding ground for birds of prey. These being the kestrel, buzzard, sparrowhawk and hobby.

Up to 500 redwings were seen to roost during the winter months.

Each year the breeding season was found to start about a fortnight later in Bradford on Avon.

As the scrub was impenetrable in places, most of the birds were recorded by their bird-song. This was found to vary with species and time of day. Consequently the time of the visits was varied as much as possible. One early morning visit was rewarded with a close view of a Hoopoe. Reports by the Wiltshire Natural History Society show that odd ones have been recorded for most of the last 10 years in Wiltshire. They even bred in the county in 1948 and 1950. Late June,—early July visits were found to be important if the breeding of Turtle Doves was to be recorded.

Most species have stayed at a steady breeding number or have increased apart from the Wren, Goldcrest and Garden Warbler. The falling Goldcrest numbers could be due to the levelling off of a previous national increase in numbers. The increase in Whitethroat numbers has also been reported as being a national trend after their recent decline. Other fluctuations may be either local or national. The report issued by the BTO on the populations for these years has yet to be published.

Willow Warblers at an average of 13% of the breeding pairs over 3 years and Yellowhammers at 11% are the two main breeding species, both of which are increasing in number. The habitat also appears to be a favourable one for Blackcap and Dunnock. The needs of different species of birds for slightly different habitats of dense hawthorn and elder scrub or more open gorse scrub can be seen in the mapping out of their territories on the habitat map.

OTHER POINTS OF INTEREST

The scrub provides good cover for large mammals, these being the roe deer, badger, and the fox (*Capreolus capreolus thotti*, *Meles meles meles* and the *Vulpes vulpes*). Rabbits (*Oryctolagus cuniculus*) bred in the adjoining chalk grassland and hares (*Lepus europaeus occidentalis*) were seen on the farmland.

CONCLUSION

The area of scrub provides an important 'island' habitat for a great variety of species of birds in which to feed, breed or roost in a 'sea' of land used for food production.

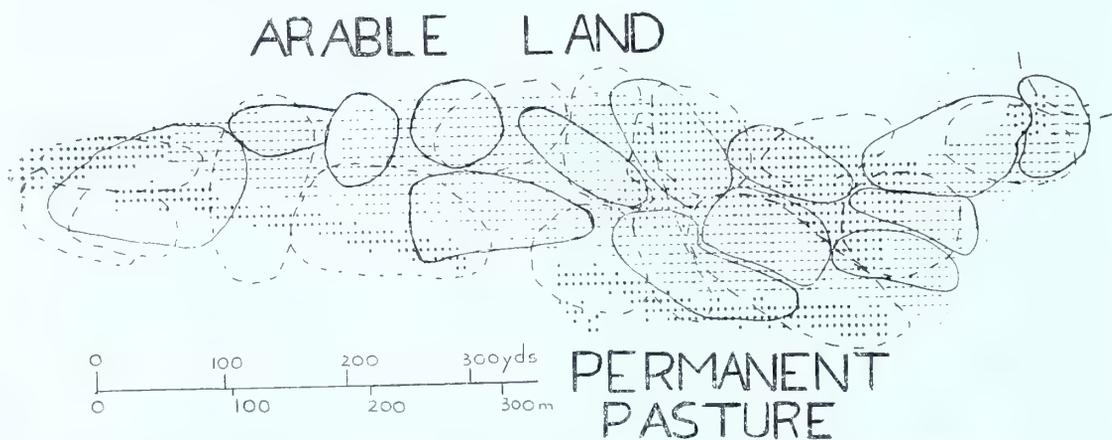
REFERENCES

- Ornithological Sites Register* (BTO News supplement).
Instructions for carrying out the Common Birds Census 1966—BTO.
Guiding principles for the analysis of Common Birds Census returns—BTO
Winstanely, D., Spencer, R., and Williamson, K., 1974. *Where have all the Whitethroats gone?* Bird Study 21.
Sharrock, J. T. R., *The Atlas of Breeding Birds in Britain and Ireland*, p. 384.
Birds. R.S.P.B. Magazine Autumn 1976, p. 46.

BIRDS RECORDED AT PINK-FLOWER GORSE

	Passage	Breeding	Summer	Non-Br' ding	Winter
BUZZARD <i>Buteo buteo</i>					
SPARROWHAWK <i>Accipiter nisus</i>					
HOBBY <i>Falco subbuteo</i>					
KESTREL <i>Falco tinnunculus</i>	/	/			
PARTRIDGE <i>Perdix perdix</i>		/			
PHEASANT <i>Phasianus colchicus</i>		/			
LAPWING <i>Vanellus vanellus</i>		/			
LESSER-BLACK-BACKED GULL <i>Larus fuscus</i>	/	/			
STOCK DOVE <i>Columba oenas</i>	/	/			
WOOD PIGEON <i>Columba palumbus</i>	/	/			/
TURTLE DOVE <i>Streptopelia turtur</i>		/			
CUCKOO <i>Cuculus canorus</i>		/			
SHORT EARED OWL <i>Asio flammeus</i>					/
SWIFT <i>Apus apus</i>			/	/	
HOPOE <i>Upupa epops</i>	/	/			
SKYLARK <i>Alauda arvensis</i>	/	/			/
SWALLOW <i>Hirundo rustica</i>	/	/			
CARRION CROW <i>Corvus corone</i>	/	/			/
ROOK <i>Corvus frugilegus</i>	/	/			/
MAGPIE <i>Pica pica</i>	/	/			/
JAY <i>Garrulus glandarius</i>	/	/			/
GREAT TIT <i>Parus major</i>	/	/			/
BLUE TIT <i>Parus caeruleus</i>	/	/			/
MARSH TIT <i>Parus palustris</i>	/	/			/
WILLOW TIT <i>Parus atricapillus</i>	/	/			/
LONG TAILED TIT <i>Aegithalos caudatus</i>	/	/			/
WREN <i>Troglodytes troglodytes</i>	/	/			/
MISTLE THRUSH <i>Turdus viscivorus</i>	/	/			/
FIELDFARE <i>Turdus pilaris</i>	/	/			/
SONG THRUSH <i>Turdus ericetorum</i>	/	/			/
REDWING <i>Turdus musicus</i>	/	/			/
BLACKBIRD <i>Turdus merula</i>	/	/			/
ROBIN <i>Erithacus rubecula</i>	/	/			/
BLACKCAP <i>Sylvia atricapilla</i>	/	/			/
GARDEN WARBLER <i>Sylvia borin</i>	/	/			/
WHITETHROAT <i>Sylvia communis</i>	/	/			/
LESSER WHITETHROAT <i>Sylvia curruca</i>	/	/			/
WILLOW WARBLER <i>Phylloscopus trochilus</i>	/	/			/
CHIFFCHAFF <i>Phylloscopus collybita</i>	/	/			/
GOLDCREST <i>Regulus regulus</i>	/	/			/
DUNNOCK <i>Prunella modularis</i>	/	/			/
MEADOW PIPIT <i>Anthus pratensis</i>	/	/			/
PIED WAGTAIL <i>Motacilla alba</i>	/	/			/
STARLING <i>Sturnus vulgaris</i>	/	/	/	/	/
GREENFINCH <i>Chloris chloris</i>	/	/	/	/	/
GOLDFINCH <i>Carduelis carduelis</i>	/	/	/	/	/
LINNET <i>Carduelis cannabina</i>	/	/	/	/	/
BULLFINCH <i>Pyrrhula pyrrhula</i>	/	/	/	/	/
CHAFFINCH <i>Fringilla coelebs</i>	/	/	/	/	/
CORN BUNTING <i>Emberiza calandra</i>	/	/	/	/	/
YELLOW HAMMER <i>Emberiza citrinella</i>	/	/	/	/	/
CIRL BUNTING <i>Emberiza cirius</i>	/	/	/	/	/
REED BUNTING <i>Emberiza schoenicus</i>	/	/	/	/	/
TREE SPARROW <i>Passer montanus</i>	/	/	/	/	/
NUMBER OF SPECIES	37	32	6	4	26

BREEDING PAIRS OF BIRDS	1974	1975	1976
KESTREL	—	1	1
PARTRIDGE	—	1	—
LAPWING	—	1	1
WOOD PIGEON	present	but	not counted
TURTLE DOVE	2	—	2
CUCKOO	1	1	1
SKYLARK	4	7	7
CARRION CROW	1	1	2
MAGPIE	1	1	2
JAY	—	—	1
GREAT TIT	—	—	1
BLUE TIT	—	1	—
WILLOW TIT	1	1	1
WREN	19	13	14
MISTLE THRUSH	—	2	1
SONG THRUSH	5	3	4
BLACKBIRD	9	8	8
ROBIN	2	1	1
BLACKCAP	4	3	7
GARDEN WARBLER	6	3	2
WHITETHROAT	8	10	16
LESSER WHITETHROAT	—	1	1
WILLOW WARBLER	20	14	23
GOLDCREST	3	1	1
DUNNOCK	10	8	13
GOLDFINCH	—	1	—
LINNET	12	11	14
BULLFINCH	—	2	2
CHAFFINCH	9	10	9
YELLOWHAMMER	13	14	18
CORN BUNTING	1	2	3



HABITAT AND TERRITORY MAP 1975

G. R. ST843357 O.S. 166

- Hawthorn dense scrub
- More open scrub—mainly gorse
- Willow warbler territory
- - - - Yellowhammer territory

THE WEATHER FOR 1976

by T. E. ROGERS

<i>Month</i>	<i>Temperature</i>	<i>Rainfall</i>	<i>Sunshine</i>
J	++	---	O
F	+	-	
M	-	-	O
A	---	---	O
M	+	-	O
J	+++	-	+-
J	+++	---	+-
A	+	---	+++
S	O	++	O
O	+	+++	
N	O	O	O
D	-	O	
<hr/>			
Totals for 1976	9.38 deg. C (48.9 deg. F)	639.2mm (25.2ins.)	1,681.3 hr.
<hr/>			
Yearly average figures: (Marlborough)	8.78 deg. C (47.8 deg. F)	826.5mm	1,432.0 hr.

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

THE WEATHER FOR 1976

<i>Month</i>	<i>Av. Max.</i>	<i>Av. Min.</i>	<i>Mean</i>	<i>Days</i>			<i>Mean for 112 years</i>
				<i>Air Frost</i>	<i>Max.</i>	<i>Min.</i>	
J	7.8 deg. C	2.2 deg. C	5.0 deg. C	12	12.7 deg. C	- 3.6 deg. C	3.42 deg. C
F	6.6	1.8	4.2	10	12.9	- 3.2	3.61
M	8.2	0.4	4.3	14	12.2	- 7.0	5.01
A	9.3	2.1	5.7	9	18.8	- 4.7	7.46
M	16.6	6.4	11.5	1	26.0	- 2.1	10.46
J	23.1	10.0	16.6	0	32.3	4.0	13.70
J	24.5	10.9	17.7	0	32.6	5.2	15.17
A	23.8	8.3	16.1	0	29.5	2.1	15.12
S	17.2	8.5	12.9	0	22.3	2.5	12.77
O	13.4	7.0	10.2	1	18.1	- 0.4	9.09
N	10.0	2.1	6.1	9	12.5	- 5.1	6.02
D	6.8	- 1.8	2.5	16	10.0	-13.3	3.63
<hr/>							
Whole year: Mean:	9.38 dg. C	72	32.6 deg. C	-13.3 deg. C	8.78 deg. C		

Month	Days of Rain	Rainfall	Mean for 112 years	Sun	Sunless Days	Mean for 93 years
J	11	17.1mm	78.3mm	55.3hrs	12	41.5hrs.
F	14	32.3	60.8	36.5	16	63.4
M	11	30.4	57.9	113.7	6	112.0
A	4	10.8	56.3	174.1	2	149.2
M	11	39.3	58.8	208.7	1	186.6
J	5	35.4	55.8	252.7	3	191.0
J	8	29.8	62.7	264.2	0	185.9
A	3	25.4	71.6	284.0	0	176.9
S	16	114.5	70.8	123.2	4	138.8
O	25	136.5	84.4	57.8	8	94.5
N	17	73.0	83.8	52.8	7	52.7
D	12	94.7	85.3	58.3	14	39.5

Whole Year: 137 days 639.2mm 826.5mm 1681.3hr 73 1432.0hr

Most of us, whether or not we are avid gardeners or farmers, will look back on 1976 as being the year of the great drought and of the 'Save It' campaign which coloured our lives for most of the Summer. This is not surprising for by mid-July much of Wiltshire had begun to look more like the Mediterranean than anything else and long before the end of August we were casting increasingly anxious looks at dwindling reservoirs and seemingly perpetually cloudless skies. However, a glance at the records shows that both 1973 and 1975 were marginally drier than 1976! It was, in fact, a year of remarkable contrasts.

From February until December the River Kennet was virtually dry from its source down to Marlborough an event thought to have occurred only once before (in 1921) in living memory. To understand the reason for this sad state of affairs one has to look back over the records for the previous decade. These show that in no less than seven out of the last eight years the rainfall accumulations have fallen below the average figure of 826.5mm:

Year	Marlborough Rainfall
1969	673.1mm
1970	729.0
1971	760.5
1972	815.0
1973	638.0
1974	964.2
1975	635.6
1976	639.2

Total: 5854.6mm

These figures show that over the 8-year period, 1969-1976, the total rainfall was some 757mm lower than one would expect. This is about a 12% shortfall and may not seem much until one reflects that 757mm comprises about one year of normal rainfall. In contrast, 1921, with only 465mm of rain was much drier than 1976, but, since the seven years 1914-1920 were all better than average for rainfall, the drought of 1921 was shorter lived and of less consequence therefore.

A closer look at the data shows that in fact only 581.4mm of rain was recorded (about 22.9 inches) for the sixteen month spell from May 1975 until August 1976 making this the driest such period since Marlborough College started recording data in 1864. Indeed, the national press claimed that this period was the driest since at least 1727.

The year began with three weeks of mild and windy weather. Both January and February were warmer than usual, the former particularly so with a mean temperature of 5.0 degrees C compared with the average for this month of 3.42 degrees C. The weather then see-sawed and March and April, despite the odd mild interval, were very much cooler than usual, April also being very dry with barely 20% of the normal rainfall. It is interesting to note that in recent years there seems to have been a pronounced tendency towards cooler, later onsets of Spring.

Apart from being much sunnier than the average, May was not particularly remarkable, but once June had started Summer began in earnest. The weather became rapidly warmer and by the end of the third week of June the temperature had reached levels which would not disgrace North Africa. During the spell between June 23rd and July 7th temperatures in excess of 32 degrees C (90 degrees F) were recorded every day at different places in Britain, the absolute maximum in England being the 96 degrees F registered at Southampton. At Marlborough, temperatures greater than 30 degrees C (86 degrees F) were recorded on June 25th, 26th, 27th, 28th and 29th and on July 1st, 2nd, 3rd, 4th and 6th and no on less than four of these occasions the 90 degrees F mark was surpassed. Such a spell is certainly unprecedented in the 112 years of Marlborough records and in the country as a whole there has probably been nothing comparable in the last 250 years.

However, those of us who place confidence in the 'balance of Nature' did not have very much longer to wait to have our faith justified. August was warm and, with 284 hours of sunshine, was the brightest we have measured, but the drought broke on the 29th of the month and about 8 inches of rain fell in the period from mid-September to mid-October. The effect of the rain on the sunbaked ground was to prompt a remarkably rapid and luxuriant growth of both grass and fungi.

The Autumn was characterised by unsettled weather with frequent outbreaks of rain and occasional thunder and hail. It was also rather windier than usual.

December was a very cold month. Winds were predominantly from the North-East and there were two significant falls of snow, 6cms on the 16th/17th and 2cms on the 28th. Particularly noteworthy was the sharp frost of the 29th which brought the coldest December night in Marlborough for over 60 years (-13.3 degrees C) and with it all sorts of plumbing problems!

WILTSHIRE BIRD NOTES FOR 1976

The Committee have decided to publish the 1976 Bird Notes in the 1978 Magazine.

WILTSHIRE PLANT NOTES (37)

Compiled by JOAN SWANBOROUGH

(All records for 1976 unless otherwise stated)

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Mrs. E. Curtis	EC	O. N. Menhinick	ONM
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A. Grenfell	AG	M. Pennistan	MP
Dr. R. M. Harley	RMH	C. Rice	CR
T. Harrison	TH	L. F. Stearn	LFS
J. B. Hindley	JBH	Mrs. J. Swanborough	JS
P. J. Horton	PJH		

- Blechnum spicant* (L.) Roth. Hard Fern. 10. Beacon Hill, Fonthill '75. LFS.
- Phyllitis scolopendrum* (L.) Newm. Harts-tongue Fern. Form with cleft fronds. 9. Hindon LFS.
- Polypodium interjectum* L. Polypody. 1. West Lavington. TH.
- Juniperus ssp. communis* L. Juniper. 4. Rybury Camp, All Cannings. BG.
- Helleborus viridis* L. Green Hellebore. 2. Slaughterford. JS.
- Thalictrum flavum* L. Common Meadow Rue. 7. Amesbury. 8. Wasteland created by by-pass at Wylve. Bathampton Manor Fishponds. BG.
- Nuphar lutea* (L.) Sm. Yellow Water Lily. 7. Amesbury. BG. 9. Fonthill Lake. LFS
- Brassica napus* L. Rape. 9. Waste ground Fonthill Bishop. LFS.
- Diploxys tenuifolia* (L.) DC. Wall Rocket. 2. Wall at Bath Road, Box. JS.
- Hypericum elodes* L. Marsh St. John's Wort. 5. Redlynch. PJH.
- Silene noctiflora* L. Night-scented Catchfly. 2. Notton Park. JS.
- Saponaria officinalis* L. Soapwort. 2. Both double and single forms at Chippenham tip. JS.
- Spergula arvensis* L. Corn Spurrey. 1. Disturbed ground at County Hall, Trowbridge. EC.
- Portulaca oleracea* L. 2. In potato patch Chippenham. JS. det. EJC.
- Amaranthus retroflexus* L. 2. Garden Pew Hill, Chippenham. Hundreds of plants at Chippenham tip. JS. Garden Trowbridge (via Lackham). JS.
- Amaranthus albus* L. 2. Chippenham tip. JS.
- Chenopodium murale* L. Glaucous Goosefoot. 2. Garden Pew Hill, Chippenham. Chippenham tip. JS det EJC.
- Chenopodium hybridum* L. Sowbane or Maple-leaved Goosefoot. 2. Market garden at Bromham. JS det EJC
- Hibiscus trionum* L. 1. Devizes garden. PJH, PN det EJC.
- Geranium pusillum* L. Small-flowered Cranes-bill. 2. Arable field Notton. JS.
- Acer platanoides* L. Norway Maple. 2. Castle Combe, Derriads, Ford. JS.
- Trifolium pratense* L. Red Clover. White form. 1. Bratton Down. JS. 10. Chicken-grove Bottom. PN.
- Onobrychis viciifolia* Scop. Sainfoin. 7. Shrewton Folly (dwarf native form). LFS. 9. Rook Hill. naturalised form. 1968. LFS. Hawking Down, naturalised form, 1974 LFS.
- Lathyrus sylvestris* L. Wild Everlasting Pea. 9. S. Facing railway bank Wilton. BG.
- Duchesna indica* (Andr.) Focke. 2. Crazy paving, Frogwell, Chippenham. CR., JS.
- Sorbus torminalis* (L) Ehrh. Wild Service Tree. 5. Whiteparish. PJH., PN.
- Sedum telephium ssp. purpurescens* (Koch) Syme Orpine Stonecrop. 2. Roadside, Derry Hill. JS.
- Saxifraga granulata* L. Meadow Saxifrage. 8. Hanging Langford Camp, 1975. LFS. 9. Terrace Wood. 1975. LFS.

- Thesium humifusum* DC. Bastard Toadflax. 2. Castle Combe. JS.
Euphorbia lathyris L. Caper Spurge. 2. Bewley Lane, Lacock. JS. 9. Garden casual Hindon. LFS.
Rumex maritimus L. Golden Dock. 3. New reservoir at Coate Water. PN.
Quercus petraea (Mattuschka) Liebl. Durmast Oak. 5. Whiteparish. MP.
Quercus petraea x *Q. robur* = *Q. x rosacea* Beechst. 5. Whiteparish. MP.
Populus tremula L. Aspen. 8. Fisherton de la Mere. BG.
Populus nigra L. Black Poplar. 8. Three trees still standing at Fisherton de la Mere. BG.
Primula veris x *vulgaris* Goupil, non Bast. False Oxlip. 2. Lackham. JS.
Lysimachia vulgaris L. Yellow Loosestrife. 5. Redlynch. PJH.
Cynoglossum officinale L. Hound's-tongue. 8. Brimsdown Hill. BG.
Borago officinalis L. Borage. 2. Roadside Stowell. JS.
Cuscuta campestris (L. Pers.). 2. On carrot at Pew Hill House Garden, Chippenham. JS. det. EJC.
Physalis alkenengi L. Chinese Lantern. 2. Chippenham tip. JS.
Solanum cornutum (S. rostratum). 2. Casual in garden, Box. JS. det. EJC. 7. Bird seed alien Pewsey (via Lackham). JS.
Datura stramonium var *tatula* L. Thornapple. 2. Kale field Hullavington. JS.
Verbascum phlomoides L. 8. Disturbed ground Wylve by-pass. PN., JS. det. EJC.
Verbascum nigrum L. Dark Mullein. 7. Lake. BG.
Verbascum blattaria L. Moth Mullein. 8. Disturbed ground Wylve by-pass. PN. JS det EJC.
Antirrhinum majus L. Snapdragon. 2. Chippenham tip. JS.
Mimulus guttatus DC. Monkey Flower. 8. Brixton Deverill. LFS. 8. Stapleford. BG. PJH.
Mimulus luteus L. Blood-drop Emlets. 2. West Kington, probably garden escape although far from habitation. MB. JS.
Verbena officinalis L. Verbena. 2. Clanville. JS. 7. On rubble Amesbury. BG.
Mentha spicata L. Spear-mint. 2. Bottom of Derry Hill. JS det RMH. 9. Roadside West of Hindon. LFS.
Mentha x piperata L. *wm citrata* (Ehrh), Briq prov var. 1. West Lavington. TH. det RMH.
Mentha x piperata L. Peppermint. 1. West Lavington. TH. det RMH.
Origanum vulgare L. Marjoram (white form). 2. Winsley. SM.
Thymus drucei Ronn. Common Thyme (white form). 10. Homington Down. PN.
Calamintha ascendens Jord. Common Calamint. 10. Vernditch Chase. LFS.
Asperula arvensis L. 2. Casual at Westbury. EC.
Galium tricornutum Dandy. Corn Bedstraw. 2. Field by Tilshead Down. AG.
Viburnum tinus L. Laurustinus. 2. Roadside Pew Hill, Chippenham. JS.
Lonicera xylosteum L. Fly Honeysuckle. 9. Naturalised at Quarry Wood, Fonthill. 1975. LFS.
Senecio viscosus L. Sticky Groundsel. 2. Arable field Notton. JS.
Doronicum pardalianches L. Great Leopard's Bane. 1. Urchfont. PJH.
Solidago vigaurea L. Golden Rod. 5. Langley Wood, Hampworth. BG.
Solidago canadensis L. 9. Roadside Hindon, far from habitation. LFS.
Erigeron annuus (L. Pers.). 2. Sandridge sand pits. JS det EJC from 1970.
Achillea ptarmica L. Sneezewort. 5. Blackmoor Copse. PN JS.
Carduus nutans L. Musk Thistle. White form. 8. Disturbed ground Wylve by-pass. PN.
Carduus acanthoides L. Welled Thistle. 9. Tisbury Row. JBH.
Carduus acanthoides L. Welled Thistle, White form. 3. Ashton Keynes. PN.
Cirsium vulgare (Savi). Ten. Spear Thistle. 6. A handsome fasciated form at Kitchen Barras Hill. BG.
Cirsium arvense (L). Scop. Creeping Thistle. White form. 3. Upper Waterhay. PN. 8. Imber Ranges. JS.
Cirsium arvense var *mite* Wmm & Gtab. Creeping Thistle. 2. Chippenham tip. JS.
Centaurea scabiosa L. Greater Knapweed. White form. 5. Roadside Pepperbox Hill. PN.
Lactuca serriola L. Prickly Lettuce. 2. Alien in garden at Sandy Lane. BG.
Carthamus tinctoria L. 2. Casual Chippenham tip. JS.

- Hieracium umbellatum* L. 10. Vernditch Chase. LFS.
- Zanichellia palustris* L. Horned Pondweed. 1. Canal at Devizes. PJH, PN.
- Convallaria majalis* L. Lily of the Valley. 9. Fonthill Gifford. 1975. LFS.
- Polygonatum multiflorum* (L.) All. Solomon's Seal. 8. Ansty Down and Horwood. JBH.
9. Wood at Bockerley Hill, Chicklade. 1975. LFS.
- Ruscus aculeatus* L. Butcher's Broom. 10. Stonedown Wood, 1975. LFS.
- Ornithogalum pyrenaicum* L. Spiked Star of Bethlehem. 2. Forwood Common, Staverton.
EC.
- Paris quadrifolia* L. Herb Paris. 9. Sutton Ivers. JBH.
- Galanthus nivalis* L. Snowdrop. 9. Road verge Two Mile Down, 1975. LFS. Shephouse
Belt, East Knoyle, 1975. LFS.
- Iris foetidissima* L. Gladdon or Stinking Iris. 7. Fighledean. BG.
- Plantanthera clorantha* (Custer) Reichb. Greater Butterfly Orchid. 7. Blackball Firs. LFS.
9. Bockerley Hill, Chicklade, 1975. LFS.
- Dactylorhiza praetermissa* (Druce) Vermuel. Common Marsh Orchid. 8. Boynton. Cod-
ford St. Peter. BG.
- Eriophorum angustifolium* Honck. Cotton Grass. 7. Jonas Mill, Pewsey. PN., JS.
- Scirpus sylvatica* L. Greater Woodrush. 8. Stockton Wood, 1975. LFS.
- Carex humilis* Leyss. Dwarf Sedge. 5. Roman Road, Winterslow. PN. 8. White Sheet
Hill and Sherrington. PJH. Lousey Bottom, Wylde. BG.
- Carex pulicaris* L. Flea Sedge. 7. Jonas Mill, Pewsey. PN., JS.
- X Festulolium loliaceum* (Huds.) P. Fourn. 7. Woodford. BG.
- Catabrosa aquatica* Beauv. Water Whorl Grass. 8. Heytesbury, Codford St. Peter. BG
- Hordeum murinum* L. Wall Barley. 7. Near sewage farm, Amesbury. BG.
- Hordeum hystrix*. Roth (gussoneanum Parl). Mediterranean Barley. 2. Chippenham tip.
JS.
- Lagurus ovatus* L. Hare's-tail Grass. 2. Chippenham tip. JS.
- Echinochloa crus-galli* (L.) Beauv. Cockspur Grass. 2. Notton Park. ONM.
- Setaria viridis* (L.) Beauv. Green Bristle Grass. 2. Notton Park. ONM.
- Panicum capillare*. 2. Bird-seed alien at Westbury. EC det JM.
- Panicum mileaceum* L. Common Millet. 2. Chippenham tip. JS.

ENTOMOLOGICAL REPORT 1976

by JOHN D'ARCY

The year 1976 was a memorable one for entomologists, as for everyone else, with its record breaking figures for sun and rain. In the most intense period of entomological activity between May and August one saw species of butterflies emerge early and wear themselves out with remarkable speed, and by the end of August there was scarcely a flower to be seen, such was the severity of the drought. Moth traps, too, were alarmingly full of insects on the frequent warm nights.

It was quite a good migration year for some species such as the Red Admiral, Painted Lady, and Humming Bird Hawk Moth, yet again few Clouded Yellow were seen. But the most noteworthy item was the quantity of the common resident butterflies and the appearance in some numbers of certain more elusive species such as the Dark Green Fritillary, the Holly Blue, and the Purple and White Letter Hairstreaks. In the case of the latter it is interesting to note that, despite the Elm disease, which can affect the Wych Elm, and the gradual depletion of its food supply, it was to be seen by nine recorders all over the County.

The Comma was much more numerous, while the White Admiral, although in good numbers, was not as plentiful as in 1975, perhaps because the season was shorter. Certain species as the Small Copper probably had three broods, such was the unrelenting sunshine. The year will also be remembered for the number of remarkable variations of butterflies seen, perhaps because the quantity of type specimens was so exceptional.

The Camberwell Beauty was sighted in many parts of the British Isles in 1976, a year with which it will be long associated. The Gypsy Moth is a remarkable record for Wiltshire with only one sighting in the County before, in 1969, but it may be the result of an escape: the Ruddy Highflyer has only occurred once before in Wiltshire north of Salisbury Plain. I am much indebted for this report to Mr. Weddell, whose experience acquired over nearly 30 years as Recorder has been invaluable.

CONTRIBUTORS

CMRP	Mr. C. M. R. Pitman, Salisbury.	AMC	Mr. A. M. Cobern, Manton, Marlborough
SNHS	Salisbury and District N.H.S.	IJG	Mr. I. J. Gray, Swindon
DB	Mr. David Brotheridge, Wroughton	BW	Mr. B. W. Weddell, Trowbridge
FM	Mr. Frank Mead, Devizes	PC	Mr. P. Cleverly, Devizes
MHC	Mrs. Mark Heath, Chippenham	MB	Mrs. Marion Browne, West Kington
JBH	Mr. J. B. Hindley, Swallowcliffe, Salisbury	RS	Mr. R. Stockley, Warminster
JdA	Mr. John d'Arcy, Edington	BS	Mrs. B. Sheppard, Shaw Hill, Melksham
RT	Mr. R. Turner, Market Lavington	SR	Mrs. S. J. Rawlings, Box
CGL	Maj.-Gen. C. G. Lipscombe, Crockerton	BG	Miss Beatrice Gillam, Devizes
JB	Mr. John Buxton, Malmesbury	AS	Mr. Alan Stonell, Devizes
FGT	Mr. F. G. Tanner, Hanging Langford	CD	Mr. Clive Davies, Devizes
BC	Miss Barbara Cowley, Devizes	KM	Mr. Keith Moore, Trowbridge
BGW	Brig. B. G. Wells, East Knoyle	SW	Mr. Stephen White, Trowbridge
TDH	Mr. T. D. Harrison, West Lavington	LB	Mrs. L. Balfé, Westbury
		PH	Mr. Philip Horton, Urchfont

PHENOLOGICAL REPORT

	<i>Average Date</i>	<i>1976 Emergence</i>	<i>Difference</i>
Large White	25.4	17.4	+8
Marbled White	25.6	16.6	+9
Meadow Brown	15.6	11.6	+4
Cinnabar	19.5	16.4	+33
Garden Carpet	29.4	18.5	-11
Brimstone Moth	11.5	2.5	+9

A Selection of Species seen in 1976

Orange Tip	<i>Anthocharis cardamines</i>	IJG 19.4 to 7.6; MB 16.5; BG 24.4; JB 22.4; AMC 24.4 to 1.6; CMRP 19.4; SNHS numerous; FM 7.5 to 10.6; RT 6.5; BW 18.6
Brimstone	<i>Gonepteryx rhamni</i>	FM Halved Gynandromorph 20.8; MB 7.11
Clouded Yellow	<i>Colias croceus</i>	SNHS July
Grayling	<i>Eumenis semele</i>	SNHS 21.7; JBH 13.7; RT 17.7
Purple Emperor	<i>Apatura iris</i>	SNHS 26.6
White Admiral	<i>Limenitis camilla</i>	CMRP numerous; SNHS good but less than 1975; FM 14.7; JB 6.7; BC 17.7; JG 3.7 numerous
Red Admiral	<i>Vanessa atalanta</i>	CMRP 24.5 to 18.11; SNHS 13.6 to 7.11; FM 15.6 to 16.10; RT 28.5 to 31.10; JB 14.6 to 14.11; AMC 30.6 to 13.10; IJG 7.6 to 7.11; MB 10.10; BG 12.6 to 7.11
Painted Lady	<i>Vanessa cardui</i>	CMRP 26.5; FM 2.8; RT 22.6 to 31.7; JB 24.6 to 26.8; BC 30.8; AMC 27.6 to 25.8; IJG 24.7; MB 25.6, 13.8; SW 7.8; PH August
Comma	<i>Polygonia C-album</i>	CMRP numerous 21.4 to 16.10; FM 25.7 to 26.9; JBH 28.5; RT 17.7; IJG 10.4 to 26.9; JB 6.6 to 5.9; BC 8.7; AMC 29.4 to 27.7; MB 27.9; BG 17.4 to 11.9
Camberwell Beauty	<i>Nymphalis antiopa</i>	RS 25.8, 2.9; 5.9; three of about 200 sightings in the country this year
Pearl Bordered Fritillary	<i>Argynnis euphrosyne</i>	SNHS 1.5 good numbers: JBH 3.7; MB 6.6; AS June
Small Pearl Bordered Fritillary	<i>Argynnis selene</i>	SNHS 1.6
Marsh Fritillary	<i>Euphydryas aurinia</i>	SNHS 6.6; CMRP 5.5; FM 27.5 to 10.6; RT 5.6; AMC 13.6; MB 8.6; BW 6.6; BG larvae 6.8; AS June; PH exceptionally abundant, even in gardens
Dark Green Fritillary	<i>Argynnis aglaia</i>	CMRP 27.6; SNHS abundant; RT 25.6; FM abundant 27.6 to 12.7; JBH 3.7; AMC 9.6; PH exceptionally abundant even in gardens; MB 13.6 to 16.8; BG 26.6
High Brown Fritillary	<i>Argynnis cydippe</i>	SNHS 27.7; JB 22.7; IJG 4.7
Purple Hairstreak	<i>Thecla quercus</i>	SNHS common; FM 14.7 to 8.8; BGW July; IJG 17.7; Jd'A 24.7

White Letter Hairstreak	<i>Strymonidia w-album</i>	SNHS 18.7; Jd'A 5.7; JB 1.7 to 22.7; DB 21.7; FM 28.6 to 28.7; BC 23.6; LB 5.8; IJG 1.7 to 18.7; PH abundant
Brown Argus	<i>Aricia agestis</i>	SNHS 7.6, 7.8; Jd'A 13.6 to 24.7; IJG 13.6; FM 24.5 to 26.8; RT 8.6; JB 23.8; BC 10.8; AMC 8.7 to 7.8; MB 6.6, 16.8
Chalkhill Blue	<i>Lysandra coridon</i>	SNHS good numbers but local: DB 21.7; FM 12.7 to 4.8; JBH 29.7; RT 17.7; AMC 18.7; MB 16.8; BG 6.8
Holly Blue	<i>Celastrina argiolus</i>	CMRP 19.4; SNHS numerous; BG 4.5; FM 3.5 to 8.8; RT 25.7; MB 13.8; LB 17.7
Silver studded Blue	<i>Plebejus argus</i>	SNHS 25.7
Large Blue	<i>Maculinea arion</i>	BS 8.8; unconfirmed sighting difficult to believe yet clearly identified
Duke of Burgundy Fritillary	<i>Hamearis lucina</i>	SNHS 1.6, numbers not as good as 1975; FM 6.6; AMC 21.6; MB 13.6 (Boscombe) PH June
Essex Skipper	<i>Thymelicus lineola</i>	SNHS June
Silver Spotted Skipper	<i>Hesperia comma</i>	MB 22.6; PH 23.7
Humming Bird Hawk Moth	<i>Macroglossum stellatarum</i>	DB numerous reports; AMC 2.9; FGT 27.9; CGL 23.6; JB 10.7; 19.8; RT 7.8; MHC 9.8; SNHS 27.9, 10.10; CMRP 2.7, 28.8; BG 26.6; SW 20.8; PH August
Convolvulus Hawk	<i>Herse convolvuli</i>	CMRP 29.8; PC 21.9; SNHS 18.9
Death's Head Hawk	<i>Acherontia atropos</i>	RT pupae dug up at Bratton. not emerged November; TDH larvae found at East Coulston 30.9; PC larvae 21.9, pupae 28.9, emerging 15.11; CD 21.6
Narrow bordered Bee Hawk	<i>Hemaris tityus</i>	PH June
Broad bordered Bee Hawk	<i>Hemaris fuciformis</i>	CGL 23.6
Emperor	<i>Saturnia pavonia</i>	SNHS assembly witnessed 16.5 with male of New Forest type
Pale Oak Eggar	<i>Trichiura crataegi</i>	CMRP Sept.
Chocolate Tip	<i>Clostera curtula</i>	DB 9.5
Lobster	<i>Stauropus fagi</i>	JB 15.7; BW 26.6; SR 20.6;
Lesser Lutestring	<i>Asphalia diluta</i>	IJG 23.7
Scarlet Tiger	<i>Panaxia dominula</i>	CMRP 2.7 colony at Whaddon
Red Necked Footman	<i>Atolmis rubricollis</i>	MHC 28.6
Scarce Footman	<i>Eilema complana</i>	MHC 26.6
Gypsy Moth	<i>Lymantria dispar</i>	DB 7.7
		SNHS larva/pupa at Allington: of extreme rarity in the county. only the second to be noted. the first a male moth in Bemerton 1969

Pale Shining Brown	<i>Polia nitens</i>	SR 16.7
Sycamore	<i>Apatele aceris</i>	MHC 27.6
White-line Dart	<i>Euxoa tritici</i>	SW 7.7
Gothic	<i>Naenia typica</i>	AS June
Black Rustic	<i>Aporophyla nigra</i>	BW 20.9; DB 30.9; MHC 19.9; Jd'A 2.10
Large Ranunculus	<i>Antitype flavicincta</i>	MHC 24.9; SR 16.7
Alder Dagger	<i>Apatele alni</i>	PH June
Garden Dart	<i>Euxoa nigricans</i>	BW 26.6; Jd'A 19.7; RT 21.8
White Spotted Pinion	<i>Cosmia diffinis</i>	Jd'A 25.7
Marbled Coronet	<i>Hadena conspersa</i>	BW 26.6
Brown Spot Pinion	<i>Anchoscelis litura</i>	BW 17.9
Marbled White Spot	<i>Lithacodia fasciana</i>	MHC 27.6
Scarce Silver Lines	<i>Pseudoips prasinana</i>	MHC 29.6; AS 3.7
Drab Copper Underwing	<i>Amphibyra berbera</i>	MHC 25.7
Frosted Orange	<i>Gortyna flavago</i>	MHC 31.8
Edinburgh Pug	<i>Eupithecia intricata</i>	MHC 12.6
Haworth's Pug	<i>Eupithecia haworthiata</i>	MHC 1.7
False Mocha	<i>Cosymbia porata</i>	DB 23.5
Barred Tooth Striped	<i>Trichopteryx polycommata</i>	CMRP 6.4; DB 9.4 Somerford Common
Small Rivulet	<i>Perizoma alchemillata</i>	BW 17.6
Pine Carpet	<i>Thera firmata</i>	CMRP 22.11 very late
Grey Spruce Carpet	<i>Thera variata</i>	DB 6.5
September Thorn	<i>Deuteronomos erosaria</i>	CMRP Sept.
Lunar Thorn	<i>Selenia lunaria</i>	BW 22.5; DB 25.5
Dusky Thorn	<i>Deuteronomos fuscantaria</i>	CMRP Sept.
Blotched Emerald	<i>Comibaena pustulata</i>	BW 28.6; SR 23.6; KM 25.6
July Belle	<i>Ortholithia plumbaria</i>	BW 26.6
Blue Bordered Carpet	<i>Plemyria rubiginata</i>	MHC 26.7; BW 26.6
Royal Mantle	<i>Euphyia cuculata</i>	SR 5.6
The Gem	<i>Nycterosea obstipata</i>	SR 12.8
Chimney Sweeper	<i>Odezia atrata</i>	AMC 21.6
Pinion Streaked Snout	<i>Schrankia costaestrigalis</i>	DB 20.7
Phoenix	<i>Lygris prunata</i>	BW 26.6
Orange Moth	<i>Angeroma prunaria</i>	JBH 26.10
Ruddy Highflyer	<i>Hydriomena ruberata</i>	DB 7.7 Wroughton, only a few records for S. Wilts pre- viously
Scallop Shell	<i>Rheumaptera undulata</i>	KM 25.6 very scarce in Wilt- shire

ORTHOPTERA AND ODONATA RECORDS

by PHILIP HORTON

I am pleased to be able to report an increase in records submitted for 1976 especially for Odonata. Although the exceptionally fine dry weather during the year favoured the Lepidoptera it undoubtedly caused problems for the Odonata which are dependant on small ponds for breeding. The drying up of so many of these during the drought must have resulted in the deaths of many nymphs. On the other hand where adults were able to emerge it may have resulted in their having to look further afield for suitable breeding areas and hence, in the long term, helped the species to colonise new areas. One such area is the recently completed extension to Coate Water, which is to be managed as a nature reserve by Thamesdown Borough Council. It was extremely encouraging to note the presence of *Orthetrum cancellatum* in abundance on the extension depositing eggs in the shallows.

On the Orthoptera side the most noteworthy record is the first (un-confirmed) N. Wilts record for *Chorthippus albomarginatus* at Axford. This is a species which I had always hoped would turn up in the county. This species was recorded by Mr. I. J. Gray of Swindon who has submitted a full and well laid out list of insect records.

Unfortunately this must be my last stint of producing these records for the Society as I shall be moving to Kent during 1977. I very much hope however that a member of the society will be able to continue them.

1976 ORTHOPTERA RECORDS

CRICKETS (GRYLLIDAE)

<i>Nemobius sylvestris</i> (Bosc) Wood-Cricket	Whiteparish Common	P.J.H.	August 76
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GRASSHOPPERS (ACRIDIDAE)

<i>Stenobothrus lineatus</i> (Panzer)	Westdown Ranges	R.T.	August 76
Stripe-winged Grasshopper	Cotswold Water Park	I.J.G.	August 76
<i>Chorthippus albomarginatus</i> (Degeer)	Axford	I.J.G.	August 76
Lesser Marsh Grasshopper			
<i>Myrmeleotettix maculatus</i> (Thunberg)	Westdown Ranges	R.T.	August 76
Mottled Grasshopper			

ODONATA RECORDS

HAWKER DRAGON-FLIES

<i>Aeshna cyanaea</i> (Muller) Southern Aeshna	Red Lodge	I.J.G.	July 76
<i>Aeshna Mixta</i> (Latreille)	Cotswold Water Park	I.J.G.	Sept. 76
Scarce Aeshna	Conock	T.D.H.	August 76

DARTER DRAGON-FLIES

<i>Orthetrum cancellatum</i> (L) Black-lined Orthetrum	Coate Water Extension	P.J.H.	July 76
<i>Libellula quadrimaculata</i> (L)	Stanton Fitzwarren	I.J.G.	May 76
Four-spotted Libellula			
<i>Libellula depressa</i> (L)	Vickers factory ponds	I.J.G.	July 76
Broad-bodied Libellula			

DAMSEL-FLIES

<i>Enallagma cyathigerum</i> (Charpentier)	Cotswold Water Park	I.J.G.	July-Sept. 76
Common Blue Damselfly	Fonthill Lake	R.T.	August 76

RECORDERS: Mr. I. J. Gray, Mr. P. J. Horton, Mr. T. D. Harrison, Mr. R. Turner.

MAMMAL REPORT 1975/76

Compiled by MARION BROWNE

Including Some Recent Wiltshire Owl Pellet Analyses compiled by Patrick Dillon

The report is based upon records submitted for 1975 and 1976 with the exception of certain 1977 records which have been included where relevant.

A survey of the Amphibia of Wiltshire will be carried out during 1977, organised by J. A. Stevenson. Please help to make the survey a success by sending as many Amphibia records as possible to J. A. Stevenson (the Knook, Crown Lane, Ludgershall, Andover, Hampshire) who has produced a special record form which will be sent on receipt of a stamped addressed envelope size 215mm. by 150mm. Reptilia records for 1975/76 will be held over until the Amphibia survey is completed, when a full report with a Historical Review will be made of the distribution and status of the Reptilia and Amphibia of Wiltshire. Reptilia records may be sent to Mrs. M. Browne, West Kington, Chippenham SN14 7JJ.

The mammals are classified and listed as in Corbet's "*Checklist of mammal species in Great Britain and Ireland*" (Corbet, 1975).

Abbreviations: BRC, Biological Records Centre; KAC, Kennet and Avon Canal; MAFF, Ministry of Agriculture, Fisheries and Food; NHS, Natural History Society; TB, Tuberculosis (Bovine); VC, Vice County; imm., immature; juv., juvenile; g., gramme; km., kilometre; mm., millimetre; neg., negative; ♂ male, ♀ female.

All records will be stored in the County BRC at Devizes Museum. They will also be sent to the National BRC at Monks Wood Experimental Station, where distribution is recorded on the basis of 10km. squares of the National Grid. At county level, records are based on 1km. squares of the National Grid and a set of distribution maps of all wild mammal species known to occur in Wiltshire is currently being prepared for publication.

It is not yet possible to determine the status of most Wiltshire mammal species. With few exceptions, insufficient data are available and, without further systematic recordings, any such attempt would be based largely upon supposition and guesswork. Many more records are needed, past as well as present, before an assessment can be made of the status and distribution of the mammalian fauna of Wiltshire. In general, VC 8 (that part of Wiltshire lying south of KAC) appears to have been less well recorded than VC 7 (that part of Wiltshire lying north of KAC). It should be noted that, for the purposes of mammal recording, the Watsonian Vice Counties remain as originally determined in 1852, unaffected by any subsequent beaurocratic county boundary changes.

MAMMALS AND THE LAW

The Conservation of Wild Creatures and Wild Plants Act 1975 gives legal protection to two species of bat; one of these the greater horseshoe bat, roosts at several sites in west Wiltshire. The dormouse was unfortunately withdrawn from the schedule and the otter, which has declined in numbers to what is now almost certainly a critical level in the county, was also excluded.

The 1975 Act seems effectively to have drawn the teeth of the Badgers Act 1973, by legalising the gassing of badger colonies believed to be infected with TB; legally this may only be carried out by MAFF staff with the object of preventing the spread of disease, but farmers are known to gas badgers illegally and landowners are known to condone the gassing. Section members have co-operated with MAFF by submitting road casualties for testing; 5 TB neg. reports have been returned.

Licences are now necessary for ringing or taking bats. This scheme is administered by the Nature Conservancy Council.

MAMMALS AND THE WEATHER

We have had two years of exceptionally extreme and varied weather; a heatwave in 1975, a prolonged heatwave and drought in 1976 followed by a winter colder and harder than we have known for some years. Such extremes are bound to have marked effects on the fauna.

One of the effects of drought is to drive the soil fauna deep underground where it is inaccessible to surface feeders. Earthworms form a greater part of the diet of many mammals than is generally realised. On the other hand, hot weather provides ideal conditions for many insect species, which proliferate and provide valuable alternative food sources for most mammals—carnivores, rodents and insectivores.

All the British bats are insectivores and flourish when insects flourish. Bats do not emerge to feed until dusk, thus avoiding direct competition with avian insectivores.

Small terrestrial insectivores such as the shrews frequently feed on earthworms, but survive equally well on an increased proportion of insect food.

Earthworms are the staple diet of moles. In the winter, when worms and insects retreat into deeper warmer soil, moles use deeper burrows; in addition to providing winter food and shelter, the deep burrows could be used in drought periods when the soil fauna again retreats. Moles also store surplus earthworms, biting them at the head but not killing them; thus immobilised, the worms may remain in the store for as long as two months while the damaged segments regenerate (Mellanby, 1971). The ability to dig powerfully, to cache surplus food and to take insects when earthworms are scarce, should enable moles to survive through most extremes of weather.

Hedgehogs are surface feeding insectivores which also forage for slugs, worms, woodlice and other small prey. Although a number of these food items disappear in prolonged hot weather, plenty of insect food should have been available during the summer. Nevertheless there have been comments on unusual hedgehog activity during the winter 1976/77; hedgehogs have been seen out on cold nights and some have moved to different hibernacula. Although hibernating mammals do rouse themselves periodically to feed, it is usually during a mild spell. It has been suggested that insufficient food was available during the summer for the animals to build up fat reserves to last through the winter. Garden hedgehogs can be kept going through hard times with raw meat or liver to supplement the traditional saucer of bread and milk. Food preference tests suggest that hedgehogs are ready to try almost anything and they have been known to eat tinned salmon, corned beef, chicken, cooked carrot and potato (but not raw), baked beans, cornflakes, mincemeat, currants and sultanas, sweet tea, coffee, chocolate iced cake, potato chips, blancmange and fried fish; one preferred custard to bread and milk, another ate Jacob's Cream Crackers but refused all other biscuits (Burton, 1973).

Insects are also readily taken by small rodents. Captive harvest mice, for example, will take insects in preference to any other food offered; thus valuable alternative diets are available in summer. Small mammals are subject to population fluctuations from year to year and it remains to be seen whether any apparent population reductions can be attributed to the drought of 1976 or whether the drought happened to coincide with a marked drop in recorded numbers of, for example, harvest mice.

Water voles are believed to have suffered where river systems dried out, and to have migrated in search of water. However, several recorders have noted a decline in numbers during the last two or three years and it appears that other contributory factors are involved. In one case, the presence of mink was suggested as being linked with the disappearance of water voles (BGW, pers. comm.).

Unusual weather seems to have had no noticeable effect on lagomorphs. The report of 250 hares shot near Easton Royal in February 1977 does not suggest that the animals suffered unduly during the previous summer and winter. Rabbits have long been noted to thrive in dry conditions. Aubrey remarked on their fatness where "the grasse... is very short and burnt up in the hot weather." (Aubrey, 1847).

Our two largest carnivores are in fact omnivorous. Fox diet tends to consist of a large number of small food items—rodents, insects, earthworms, fruit, small birds, carrion—variety ensures that foxes seldom go hungry. Badgers normally depend upon earthworms which, when available, form at least 60% of their diet but they adapt readily to other food sources and feed on beetles, small rodents, young rabbits, carrion and vegetable food including bluebell bulbs and cornfield gleanings, also wasp nests and fungi which were plentiful in 1976.

Rodents and small birds are the most usual prey of the smaller carnivores, but domestic ferrets have been observed to eat insects when available and it is possible that the other small mustelids—stoats, weasels and feral ferrets—do the same.

Severe winter weather brings a reduction of activity in order to minimise energy expenditure and consequent heat loss. Heat loss can be further reduced in various ways—by growing a thicker coat, by burrowing, by curling up to reduce the amount of exposed surface area, or by laying down under the skin an insulating fat layer which is gradually metabolised during the winter. Many animals cache surplus food for future consumption and small mammals move into human environments—wood mice, harvest mice and pygmy shrews, as well as house mice and rats, have been recorded in houses and outbuildings where they find food and shelter. Bird tables often provide food for squirrels, foxes, weasels and small rodents. The dormouse, the hedgehog and most British bats hibernate, thus reducing the need for food. Among bats, temperature is an important factor in choice of hibernaculum; the critical temperature varies from one species to another and it also appears to vary from time to time during the winter. Yalden and Morris comment that hibernation is not just extended, deep sleep; the hibernator undergoes complex physiological changes. Bats can adjust metabolic losses in one of two ways—by moving to another hibernaculum or by clustering. By gathering in clusters, bats adjust minor fluctuations in roost temperature and may also reduce individual heat loss by reducing their total exposed surface area (Yalden and Morris, 1975).

Shrews are amongst the smallest of mammals. The smaller the animal, the higher is the ratio of surface area to volume. Small mammals lose relatively more heat than large mammals because they have a relatively larger surface area, in proportion to their size, over which to dissipate heat; they must therefore eat more in order to maintain their body temperature. Shrews are active most of the time and spend a large part of their lives in hunting and feeding (Fairley, 1975). Dr. Harrison Matthews deduced, from trapping results, that common and pygmy shrews survive only one winter, as immatures, and die the following autumn after one breeding season (Harrison Matthews, 1952). Altogether these small animals seem to have a precarious hold on life.

MAMMAL REMAINS IN BIRD CASTINGS

A good guide to the small mammals inhabiting a given area can be obtained from the regurgitated pellets of some species of bird. These pellets, which contain the harder portions of the food which have resisted the solvent action of the digestive juices of the bird, can be collected for analysis. Although most birds eject pellets, investigation should be limited to predacious species with a liking for small mammals. Even within this short list there are some birds which damage the bones of their prey badly, either during the kill or during the process of regurgitation. The pellets of owls undoubtedly give the best information and the two species most regularly encountered are the tawny owl and the barn owl. Southern (1964) suggests that if both species can be studied in any region, they will give a fairly complete picture of the small mammals that live there because, generally speaking, one hunts in woodland, the other in open country.

The pellets of these two owls are easy to distinguish. Both measure about 40-50mm. in length, but those of the barn owl are black in colour and have a firm surface, which makes them appear to have been varnished. Those of the tawny owl are usually medium to pale grey and are more friable than those of the barn owl, often breaking into several fragments if they are cast from high in a tree (Southern, 1964).

It is not however, easy to find large quantities of tawny owl pellets because the bird frequently changes its pellet station. Southern (1954) suggests some ways of overcoming this problem. With barn owls on the other hand, once a territory is found it may be possible to collect a regular supply of pellets since the same bird may use the same site for roosting and regurgitation month after month. Usually one or two pellets are deposited daily.

Pellets can be teased out dry with forceps and the skulls and lower jaws of the prey remains should be kept. Limb bones and pelvic girdles may be kept for supplementary information. Skulls may be intact (apart from the shearing off of the cranium) or they may be in fragments. The jaws can be identified from a standard key (Southern, 1964 p144 or Morris, 1966). Information regarding age and sex may be available from the pelvic girdles (see Clevedon Brown and Twigg, 1968).

Little has so far been published in the way of Wiltshire owl pellet analyses, the few items available up to 1972 having been summarised by Gillam (1973). Table 1 summarises those results that were obtained up to the end of 1976. Although none of the pellet collections (with the exception of Robert Turner's detailed analysis of barn owl pellets from the Westdown artillery range) can be said to be a representative sample for the purpose of assessing the owl's diet (as defined by Glue, 1972), they do provide valuable mammal records for a number of hitherto unrecorded squares.

Species	Locality	Grid. reference	Date of collection	Analyst	Number of pellets	Content										
						Field vole	Bank vole	Common shrew	Pygmy shrew	Water shrew	Mole	Wood mouse	House mouse	Brown rat	Bird	
Barn Owl	Wilton	SU13	1972	PJD	12	14	—	4	1	—	—	8	—	6	1	
"	Farley	SU2229	24-4-75	PJD	9	15	—	7	—	—	—	4	—	—	—	
"	Great Bedwyn	SU2763	1975-76	JAS	9	10	—	6	6	1	—	11	—	4	—	
"	Melksham	ST96	1976	LS	2	10	1	—	—	—	—	—	—	—	—	
"	Yatesbury	SU0671	28-3-76	LS	4	4	1	4	—	—	—	—	—	—	1	
"	Oxenwood	SU2956	6-12-75	RT	1	1	—	—	—	—	1	—	—	—	—	
"	Westdown	SU0452	1975-76	RT	63	162	11	11	20	1	—	26	—	—	—	
"	"	"	1-1-76	RT	7	18	1	3	3	—	—	1	1	—	—	
"	"	"	6-2-76	RT	19	43	1	8	2	—	—	3	—	—	1	
"	"	"	8-2-76	RT	27	76	5	10	16	—	—	—	—	—	1	
"	"	"	7-3-76	RT	21	56	2	7	7	—	—	—	—	—	—	
"	"	"	21-3-76	RT	7	12	—	10	13	—	—	—	—	—	—	
"	"	"	5-6-76	RT	3	1	—	5	6	—	—	1	—	—	1	
Tawny Owl	Lackham	ST96	27-3-76	RT	6	1	2	—	—	—	—	—	—	—	1	
L-eared owl	Pewsey Vale	SU25	1976	PJD	7	2	4	—	—	—	—	2	—	—	1	
Little owl	West Kington	ST8076	1-4-74	PJD	28	2	—	—	—	—	—	1	—	—	—	
"	"	"	29-7-75	PJD	4	—	—	—	—	—	—	4	—	—	—	
"	Farley	SU2229	27-4-75	PJD	12	3	—	2	2	—	—	—	—	—	1	
"	West Kington	ST8375	4-8-75	PJD	4	1	—	—	—	—	—	—	—	—	—	
"	"	ST8177	29-7-75	PJD	8	1	—	3	2	—	—	—	—	—	—	

Table 1
Some recent Wiltshire owl pellet analyses

MAMMAL RECORDS

Order Insectivora—insectivores

Family Erinaceidae

Erinaceus europaeus

Hedgehog

71 records from 21 10 km. squares

Live:

1975. 5 July, West Kington, in garden (MB). 30 August, Bradford-on-Avon, in garden (E & LS). 22 October, Winterbourne Monkton, in compost heap (PJD). 20 December, Chippenham, very lively juv. (MFA).

1976. 16 May, Winterbourne Monkton, pair mating in garden (PJD). 30 June, Winterbourne Monkton, attempt to rear 5 very young orphans which died after 3 days (SW). July, Beckhampton (VW); Bratton, foraging in garden (JM). 17 July, Bradford-on-Avon, in garden (E & LS). Summer, Chippenham, frequent in garden (JH). 15 August, Chippenham, crossing A420 (MB). Summer, Codford, hunting (KGF). 16 October, West Kington, adult and 2 juv. in garden; fed until hibernation late November; 2 December, 1 juv. out on cold night (MB). December, Avebury, in garden (CCM).

1977. 1 January, Kernal, walking along hedge in sun (MN).

Dead:

Braydon; St. Edith's Marsh; Sandy Lane; Everleigh; Sutton Veny; Potterne; Devizes in snow (BG). Codford (KGF). Semington (JS). Bishops Cannings; Swindon; Broad Hinton (JED). Marston Meysey (IJG). Avebury, frozen (CCM). Avebury; Winterbourne Monkton; Avebury Trusloe; Wroughton; Froxfield (PJD). Chippenham; Knoll Down; Ford; Notton; Yarnbrook; Hill Deverill; Biddestone; Gastard; Trowbridge (MB).

TABLE 2. ROAD CASUALTIES

	April	May	June	July	August	September	October	November	December
1975							2	1	1
1976	4	8	4	8	3	1	3	2	1

Family Talpidae

Talpa europaea

Mole

26 records from 14 10 km. squares

Live:

1976. Corsham (NBB). Whadden, trapped in crazy paving; died shortly after rescue although apparently uninjured (SDNHS).

Dead:

1975. Dauntsey Woods (RT). 1976. 24 June, West Kington (MB).

Spoil Heaps:

1975. Roundway (BG). Brown's Folly (EJL, MB).

1976. Winterbourne Monkton (PJD). Southcott (MN). Avebury (CCM). Sherrington (KGF). Kinghay area (BGW). Dunley Wood; North Wraxall; Combe Shrub; Gatcombe Hill; Upper Woodford; West Kington (MB).

The mole is probably well distributed throughout Wiltshire and the spoil heaps must be the most easily recognised of all mammal field signs. Nevertheless, few records are sent in. This may be because the signs are so well known that they are overlooked.

Family Soricidae

Sorex araneus

Common shrew

46 records from 13 10 km. squares

Live:
1975. 5 August, West Kington, running along lane (MB).
1976. 13 January, West Kington, crossing lane (MB). 1 February, Winterbourne Monkton (PJD). 3 June, West Kington, in ditch where it escaped from a cat (MB). 22 July, Lavington. eating a worm (RT). 4 August, Roundway, in garden (BG).

Trapping:

1975. Marlborough, 20 (MCNHS).
1976. 4-5 January, West Kington, live 4♀, dead 2♂, 2♀ (JJ, CJ, IJ, PJD, MB).
17-19 July, Dee Barn, live 2♂, 2♀, dead 7♂, 2♀ (LB, MB, EC, BG, AS, GWS, FT).
28-30 July, West Kington, dead 3♂ (MB).

Jar traps designed by JJ have been used successfully in addition to Longworths. The jars allow a multiple catch and, on 5 January at West Kington, provided evidence of cannibalism among shrews when a common shrew killed and partially consumed a pygmy which was caught in the same trap; in this way the survival of the common shrew was ensured.

Bottles:

A total of 20 corpses have been recovered from bottles discarded at West Kington, West Kington Wick, Gatcombe Hill and Farley. One lemonade bottle contained 12 dead shrews (PJD, MB).

Dead:

1975. 31 August, Edington (E & LS). 29 September, Westdown Ranges (RT).

Killed by cat:

1976. Corsham (NBB). Bratton, frequent (JM).

Sorex minutus

Pygmy shrew

27 records from 11 10 km. squares

Live:
1975. Roundway; Oare (BG). 1975-76. Cole Park (EJMB).
1976. 5 August, Dauntsey Woods, foraging (RT).
Trapping:
1975. 27 February, Oxenwood, live 1 (RT).
1976. 4-5 January, West Kington, dead 2♀; 1 partially eaten by common shrew (PJD, MB).
17-18 July, Dee Barn, live 1♂, 1 unsexed; dead 1♂ (LB, MB, EC, BG, AS, GWS, FT).

Bottles:

1975. 20 December, West Kington, 1 (MB).

Dead:

1975. 29 September, Westdown Ranges (RT).

Killed by cat:

1975. 11 October, West Kington (MB).

The pygmy shrew appears to be scarcer numerically than the common shrew, the proportion being roughly 1 pygmy for every 8 or 9 common. Habitat and diet are similar and, in theory, distribution should be much the same. However, many fewer records are received of pygmy than of common shrews. In part, this may be due to difficulty of identification, the 2 species being much alike in size and colour. The most obvious difference is in proportion of tail to body length; pygmy shrew tail 65-70% of head and body, common shrew tail 50-60% of head and body. Length of hind feet, excluding claws, pygmy shrew 10-11 mm., common shrew 12-13mm. (Corbet, 1975).

Neomys fodiens

Water shrew

5 records from 5 10 km. squares

Live:

1975-76. Cole Park, sometimes coming into the cellar (EJMB).
1976. Bratton, frequent among water plants on stream bank (JM).

Bottles:

1976. 16 April, Gatcombe Hill, in roadside ditch $\frac{1}{2}$ mile from nearest stream (MB).

Water shrews are known to travel some distance from water and the importance of inspecting discarded bottles cannot be over-emphasised. Skeletal remains in bottles may prove to be the most rewarding way of recording the distribution of water shrews (Harris, pers. comm).

Dead:

1975. New Mill, Pewsey, near stream in garden (HEMK).

Killed by cat:

1976. Bratton (JM).

Negative:

1976. Shalbourne, not seen for 7 years in old cressbeds (HE).

Order Chiroptera—bats

Family Rhinolophidae

Rhinolophus ferrumequinum

Greater horseshoe bat

Records from 4 sites in the west of the county

Live:

1975. 26 January, c. 180 in winter roost (RES, MC, MB). 7 September, 1 (MC, MB).

1976. 4 January, c. 180 in winter roost (RR, MC, PJD, MB).

1977. 3 January, 33 (2 clusters and several singles) (MC, MB). 6 January, winter roost unoccupied. 7 bats present nearby. The ambient temperature was found to be about 1.8 deg. C lower than usual at this roost (RES). At another site 50 bats were found, one cluster of 33 so tightly packed that most of the bats were clinging to each other rather than to the ceiling and formed a solid, almost spherical, bundle (RES, RR, PJH, PN, MB).

Rhinolophus hipposideros

Lesser horseshoe bat

Records from 3 10 km. squares

Live:

1975. Box, c. 115 (MC).

1977. January, Monkton Combe, 2 (MC, MB). Winsley, 1 (PJH).

Family Vespertilionidae

Myotis mystacinus

Whiskered bat

Live:

1975. Box (MC). 1975-76. Cole Park (EJMB). 1977. January, Box (RES).

Myotis brandti

Brandt's bat

Live:

1977. January, Box, ♂ (RES).

Myotis nattereri

Natterer's bat

Live:

1975. Box (MC). 1977. January, Box (RES, RR).

Nyctalus noctula

Noctule

Live:

1975-76. Cole Park (EJMB). 1976. Seagry (RGB).

Pipistrellus pipistrellus

Pipistrelle

7 records from 4 10 km. squares

Live:

1975. Marlborough (MCNHS). 1975-76. Cole Park (EJMB).

1976. 30 May, Winterbourne Monkton (PJD). Seagry, frequent (RGB). August, Corsham. a large number flying round street lamp and entering bedroom window in the middle of the night (NBB).

Killed by cat:

1975. 29 September, West Kington, ♂ (MB).

12 records from 11 10 km. squares

Live:

1975. Summer, Bratton, in bedroom (JM). 1975-76. Cole Park (EJMB).

1976. Cornbury Farm (HNH). 20 July, Little Langford (SFR). 1 October, in bedroom (BJWH). December, Whadden, 8 in house roof (SDNHS).

1977. January, Box and Winsley (RES, RR).

Dead:

1975. Marlborough, on lawn (MCNHS).

1976. 17 June, Upton Scudamore, ♂ on road (KYE). September, Lacock (JS).

Order Lagomorpha—lagomorphs

Family Leporidae

Lepus capensis

Brown hare

102 records from 19 10 km. squares

Live sightings have been recorded in all months and are not dated separately.

Live:

1975. Cole Park (EJMB). Chippenham (JHB). Neston; Calstone Wellington; Upton Scudamore; Kingston Deverill; Lower Pertwood (E & LS). Westdown Ranges (RT). Marden Cowbag (TDH). Southcott, frequent (MN). Codford, plentiful (KGF). Gatcombe (MB).

1976. Neston, 3; Bradford Leigh; Atworth, 3; Roundway; Southwick, 3; Tinhead Hill, 3; Upton Scudamore; Kingston Deverill, 5; Lower Pertwood (E & LS). Corsham (NBB). Tan Hill, 11 (BG). East Kennett (JCH). Beckhampton (JF). Yatesbury (VW). Bratton, running along road (JM). Oxenwood, 3; Westdown Ranges, 4—I chased by fox (RT). Codford (BP). Kinghay Area, fairly common (BGW). Acton Turville; Sopworth; Kingston Down, 2; West Kington/Nettleton/Combe Shrub area, 10; Cowdown; Mere; Kingston Deverill (MB). Marlborough area, c. 67; Warminster area, c.82; Great Somerford area, c.3; Highworth area, c.35 (AJR). MN reports a white hare in the 10 km. square SU/15.

Dead:

1976. January, Froxfield (PJD). May, Amesbury; August, Mountain Bower (MB).

1977. February, Easton Clump area, 250 shot (AS).

Oryctolagus cuniculus

Rabbit

110 records from 24 10 km. squares

Live sightings have been recorded in all months and are not dated separately.

Live:

1975. Oaksey; Ashton Keynes; Roundway (BG). Cole Park (EJMB). Neston, 16; Box Bottom, 17; Bradford-on-Avon; Woolley Green; Holt, 4; Silverstreet Wood; Heddington; Calstone Wellington; Tinhead Hill, 4; Bulkington, 7; Kingston Deverill, 41; Lower Pertwood, 50 (E & LS). Marlborough, 12; Denny Sutton Hipend, "hundreds" (MCNHS). West Kennett (PJD). Westdown Ranges; Westdown Clump; Dauntsey Woods (RT). Chippenham (JHB). Hatfield Farm (AC). West Kington, 2 black; Theobald's Green (MB).

1976. Cole Park (EJMB). Castle Mound; Weavern Farm; Sand Pitts Farm; Catridge Farm; Corsham Embankment; Lacock; Notton (NBB). Chippenham (JS). Binknoll (IJG). Limpley Stoke, 2; Neston, 12; Box Bottom; Bradford-on-Avon; Chittoe, 8; Southwick; Heddington; Steeple Ashton; Avoncliff, 7; Westbury; Tenantry Down, 2; Tinhead Hill; Kingston Deverill, 67; Lower Pertwood, 13 (E & LS). East Kennett (JCH). West Kennett (CCM). Edington (JM). Avebury (VW). Conock (TDH). Codford (KGF). Ruddlemore Farm; Kinghay; Sem Hill (BGW). Longleat; Great Ridge (BP). Little Langford, chased by stoat (SFR). Dunley Wood; West Kington; West Yatton Down; Ford; Combe Shrub; Colerne; Nettleton Shrub; Nettleton; Sheepsleight Wood (MB).

Outbreaks of myxomatosis were reported from Chippenham, Binknoll, Chittoe, West Kennett, Longleat, Codford and Etchilhampton.

Field signs:

1975. December, Brown's Folly, droppings (EJL, MB).

1976. March, Yatesbury, droppings (PJD). May, Truckle Hill, skull at fox earth; June, Rack Hill, droppings; 28 December, West Kington, tracks in snow (MB).

Dead:

1976. 17 May, Amesbury; 21 May, Knook; 16 September, A4 Derry Woods and A4 Cherhill (MB). 31 October, Steeple Ashton 2 (E & LS).

Killed by cat:

1976. Chirton (TDH).

Order Rodentia—rodents

Family Sciuridae

Sciurus carolinensis

Grey Squirrel

59 records from 21 10 km. squares

Live:

1975. Cole Park (EJMB). Chippenham, regular for years (JBH). May, Woolley Green: Chittoe (E & LS). 4 May, Pigsty Copse, 2 juv. mobbed by mistle thrush (BG, MB). June, Chittoe: July, Conkwell Wood and Box; August, Inwood, Neston and Heddington; September, Inwood and Box; October, Bradford-on-Avon and Sells Green (E & LS).

1976. January, Conkwell Wood: Neston; Bradford-on-Avon swimming KAC (E & LS). February, West Kington (MB). Spring, Conock (TDH). May, Lower Pertwood (E & LS): Nettleton (MB). June, Patterdown (JS); Inwood (E & LS). July, Codford (KGF); Marlborough (VW). August, Roundway, drinking from bird bath (BG); Steeple Ashton (E & LS): Savernake, climbing tree (CCM). Summer, Hatfield Farm, in pine trees (AC). Autumn, Cheverell Wood and Erlestoke (TDH). November, Avebury (PJD). December, ImberVillage (BG); Bratton (JM); Southcott, in filbert trees (MN); Cannimore Lane (BP); Norton, on out-building roof frequently (CB); Avebury, in tree (JF); Marlborough (BGt).

Dead:

1976. 7 February, Silverstreet Wood. 16 on gibbets (E & LS). 22 May, Mountain Bower, on road (MB).

Dreys:

1975. 3 February, West Kington; 16 March, Harcombe (MB). 19 December, Brown's Folly (EJL, MB).

1976. 13 May, Nettleton (MB).

Family Cricetidae

Clethrionomys glareolus

Bank vole

29 records from 11 10 km. square;

Live:

1975. Roundway (BG). 1975-76. Cole Park (EJMB).

Trapping:

1975. Marlborough, 70 live (MCNHS).

1976. 23 March, All Cannings, on bank between garden and field (AC).

28-31 July, West Kington, live 8♂, 2♀, dead 1♂ (MB).

21-22 August, Winterbourne Monkton, live 1♂, 1♀ (PJD).

17-20 October, West Kington, live 2♂, 3♀ (PJD, MB).

Dead:

1976. 14 June, Lower Woodford, lactating ♀ drowned; 3 July, South Down Farm, ♂ beneath kestrel nest presumably dropped by kestrel when feeding young (BG). 12 July, West Kington (MB).

Bottle trap:

1975. December, West Kington, 3 (MB).

Killed by cat: 1976. Bratton, frequent (JM). 4 June, West Kington, ♂; 17 June (MB).

*Microtus agrestia***Field vole**

32 records from 13 10 km. squares

Live:

1975-76. Cole Park (EJMB).

1976. Coombe Bissett (CA). March, Yatesbury; Winterbourne Monkton in shed (PJD). April, Codford, family of 7 in compost heap (KGF); North Wraxall (MB).

Trapping:

1976. 18 January, Winterbourne Monkton (PJD).

13 June, Chippenham, ♂ (MH).

17-19 July, Dee Barn, live 52♂ (6 juv.), 4♀ (1 lactating, 3 juv.). dead 2♂, 1♀ (LB. MB, EC, BG, AS, GWS, FT).

29-30 July, West Kington, live 2♂ (MB).

25-26 November, Broad Town School Field, 2 (BTSch.).

Bottles:

1975. December, West Kington, 2 (MB).

1976. April, Gatcombe Hill, 1 (MB).

Dead:

1975. 18 September, Bowerhill Lodge Farm (E & LS).

1976. Seagry, caught in garden (RGB). 7 March, Rack Hill, ♂ (PT). 19 July, Avebury, in swimming pool (PJD). 11 September, Dauntsey Woods (RT).

Killed by cat:

1976. 22 June, Winterbourne Monkton (GD).

*Arvicola terristris***Water vole**

19 records from 13 10 km. squares

Live:

1975. Little Horton; Axford (BG). Marlborough (BJWH). Dauntsey Woods (RT). East Kennett, on river bank and swimming (JCH). 22 July, Bulkington, 4 (E & LS).

1975-76. Cole Park (EJMB).

1976. 22 April, Winterbourne Monkton, 2 rescued from swimming pool (PJD). Summer, KAC Honey Street, watched for 30 minutes (TDH). Sherrington, swimming in the Wylde (KGF). July, Coleshill, 3 (IJG). 31 August, Semington, swimming across KAC (E & LS). Bratton, frequent in Stradbrook (JM). Beanacre (NBB). 11 September, Dauntsey Woods, 2 (RT). Autumn, West Kennett, on river bank (CCM). KAC, All Cannings, swimming and feeding regularly (AC).

Tracks:

1975. 16 March, Harcombe (MB).

Family Muridae

*Apodemus sylvaticus***Wood mouse**

27 records from 11 10 km. squares

Live:

1975. 6 October, Winterbourne Monkton, in garage; 6 November, in swimming pool; 16 November, 14 in attic (PJD).

1975-76. Cole Park (EJMB).

1976. Woolley Green (GL). 13 January, West Kington (MB).

Trapping:

1975. Marlborough, 24 (MCNHS).

1976. 4-6 January, West Kington, live 14♂, 22♀ (CJ, IJ, JJ, SW, PJD, MB).

18 January, Winterbourne Monkton, 7 (PJD).

28-31 July, West Kington, live 4♂, 6♀ (1 lactating) 5 juv. (MB).

17-20 October, West Kington, live 18♂, 10♀, 10 juv. (DSch., MCNHS, WNHS).

5-26 November, Broad Town School Field, 4 (1 caught 3 times) (BTSch.).

Dead:

1975. 9 November, Yatesbury, on road (PJD).

1976. 14 March, Avebury Trusloe, poisoned in house (PJD). Seagry, caught in house (RGB).

Bottles:

1975. 20 December, West Kington, 3 (MB).

1976. 29 February, Grittleton, 1; West Kington Wick, 2 (MB).

Killed by cat:

1975. 8 September, West Kington. ♂ (MB).

1976. Bratton, frequent (JM). 26 April, Biddestone (MEC).

Apodemus flavicollis

Yellow-necked mouse

Dead:

1976. November, Shalbourne, 6 caught eating broad beans (HE).

Micromys minutus

Harvest mouse

11 records from 10 10 km. squares

Live:

1975. Roundway Down; Stanton St. Bernard (BG).

1975-76. Winter, Upton Scudamore, in house (DWR).

Nests:

1975. 27 April, Farley Farm (PK, PJD, MB). Hare Warren (BG). 11 November, West Littleton Down, 5; 22 December, Bupton, 5 (PJD, MB).

1976. 29 February, Dunley Corner, waste ground (MB). 12 September, Chilton Foliat, arable fringe (SH).

Dead:

1975. Tidworth, skull (JAS).

Mus musculus

House mouse

21 records from 10 10 km. squares

Live:

1975. October, Winterbourne Monkton (PJD). 1975-76. Cole Park (EJMB).

1976. 25 January, Lacock (JS). Seagry (RGB). Marlborough College "swarms" (BJWH).

9 February, West Kington, running across lane and back (MB). 20 August, Winterbourne Monkton (PJD).

Trapping:

1976. 9 February, Pew Hill, live ♂ (RS). 19 August, Winterbourne Monkton, live 1♂, 1♀; 6 October. 1♂ (PJD).

Dead:

1975. East Kennett, caught in house every year (JCH). July, Shalbourne, 14 caught in house (HE). 6 October, Avebury, 3 drowned in swimming pool (PJD).

1976. 31 January, Chippenham, ♀ (RS). Seagry, caught almost daily (RGB). 29 October, Winterbourne Monkton, ♂ in trap (PJD). August, Conock Lodge, in trap (TDH). Winter.

All Cannings, trapped in attic (AC).

Negative report: Bratton "not see for many years" (JM).

Rattus norvegicus

Common rat (Brown rat)

13 records from 9 10 km. squares

Live:

1975. 24 May, Tinhead Hill; 24 August, Edington (E & LS).

1976. 18 January, Swindon; 6 October, Winterbourne Monkton (PJD). Corsham (NBB).

Dead:

1975. 30 April, West Kington, ♂ (MB). 5 August, Truckle Hill, juv. drowned in water tank (PJD, MB). 9 November, Wroughton and Beckhampton, on road (PJD).

1976. May, Winterbourne Monkton (PJD). 17 May, Amesbury, 3 on road (MB). 11 August, Ansty, on road (RT).

Family Gliridae

Muscardinus avellanarius

Dormouse

6 records from 4 10 km. squares

Live:

1975. 26 January, Farley in nest (PK). Alderbury (DB).

Nests:

1975. 21 March, Chickengrove, in grass tussock (BG). 27 April, Farley, 10 (PK, PJD, MB). 23 November, Biddestone, in hedge (MB).

Negative reports: Whetham Woods; Park Copse, Oare; Little Frith; Angrove Wood (BG).

Vulpes vulpes

Fox

123 records from 22 10 km. squares

Live:

113 sightings. Families watched regularly are only counted once.

1975. Cole Park (EJMB). 22 January, West Kington, 2; 26 January, Box Hill (MB). 22 April, Tinhead Hill (E & LS). May, West Kington, ♀ with 3 cubs seen daily, often suckling (MB). 25 May, Westdown Ranges, 2 adults with 2 cubs; 15 June, Kingston Deverill, 2 cubs outside den; 21 June, Westdown Ranges, ♀ teaching cub to hunt rabbits (RT). June, July, August, West Kington, 9 cubs from 3 litters came regularly after dark to take food (ZC, MB). 23 August, South Wraxall (E & LS). 25 September, West Kington, 2 (MB). Autumn, Conock: Marden Cowbag (TDH). 18 October, Westdown Ranges (RT). 5 November, Burton (CSH, MB). 9 November, Bishops Cannings (PJD). Winter, West Overton, crossing A4 (CCM); East Kennett, regularly hunted (JCH); Codford, at farm swill bins (MC, KGF). 10 November, Harcombe (MB). 22 December, Roundway (PJD).

1976. February, Bushton (IJG). 16 May, Lower Pertwood, carrying rabbit (E & LS). Rack Hill, ♀ with 2 cubs (NBB). South Marston; Toot Hill (IJG). 9 June, Westdown Ranges, small wobbly cub wandering about alone (RT). 27 June, Roundway, 2 cubs (BG). 30 June, Westdown Ranges, cub making futile attempts to catch a hare (RT). 4 July, Kingston Deverill, adult with cub (E & LS). 6 July, Nettleton, adult bounded out of covert after a pheasant and landed a few yards from observer; 17 August, West Kington, adult lying up in garden; 7 October Yatton Keynell; 10 November, Harcombe (MB). December, Norton, on garden wall (CB). Winterbourne Monkton (VW). Landford (NA).

Field signs:

1975. 16 March, Harcombe, digging, tracks, scent; 1 July and 24 September, West Kington, barking (MB). 19 December, Brown's Folly, tracks, scent (EJL, MB).

1976. 29 February, Dunley Wood, scat (MEC, MB). 28 March, Yatesbury, scent (PJD). 16 May, Truckle Hill, scats, food remains; 8 June, West Yatton, scats (MB). August, Collingbourne Woods, scats on remains of roe deer (JAS). 23 September and 13 October, West Kington, barking; 28 December, tracks in snow (MB). 28 December, Westdown and Imber Ranges, tracks in snow (RT); Chippenham, tracks and barking (JHB).

1977. 14 January, Southcott, tracks in snow leading to dustbin (MN).

Dead:

1975. 8 October, A342 near Great Wood (MB).

1976. January, Langley Burrell (RD). February, Okus, on road (IJG). April, Winterbourne Monkton, in snare; tested by MAFF, TB neg. (PJD). 29 May, Potterne on A360, again 15 November in same place (RT). 31 July, Tisbury, on road (JBH).

Family Mustelidae

Mustela erminea

Stoat

41 records from 20 10 km. squares

Live:

1975. Ashton Keynes; Milkhouse Water (BG). Cole Park (EJMB). Marlborough (MCNHS) 5 April, Bradford-on-Avon; 13 April, Lower Pertwood (E & LS). 18 May, Fyfield Down (RT). 29 June, Morgans Hill, adult with 3 juv. playing (MB). 23 November, Westbury (E & LS). Shalbourne, resident (HE).

1976. 17 January, KAC Honey Street, 2; 10 and 24 April, Pain's Bridge, hunting in lane (BG). 2 May, Tinhead Hill; 28 May, Atworth (E & LS). 16 June, Codford/Chitterne road; 9 August, Codford; 4 September, Notton (BG). 7 October, Lanhill (JS). 23 November, Westbury (E & LS). 22 December, Berwick Bassett (PJD). 31 December, Little Langford, attacking rabbit (SFR). Kinghay (BGW). Landford (NA).

Dead:

1975. 11 April, Burbage (HEMK). Spring, Stockton, on A303 (KGF). 11 June, Chippenham (JS). 21 August, Fosse Farm, ♀ (MB). 28 April, Berwick Bassett, ♂ in breeding condition—weight 475 g., body length 301mm., tail length 122mm., hind foot 50mm.; usual maximums are—weight 300g., body length 290mm., tail 120mm., hind foot 50mm. (van den Brink, 1973); the mounted skin is in the possession of the recorder (PJD).

1976. 20 April, Biddestone (MEC). 11 June, Berwick Bassett, very small specimen—body length 206mm., tail 61mm., hind foot 50mm. (EH, PJD); stomach analysis—almost empty, just a few Passerine feathers discernible (PJD); usual minimums are—body length 220mm., tail 80mm., hind foot 25mm., (van den Brink, 1973); it is worth noting that the hind foot was the usual maximum, as was that of the large ♂ recorded on 28th April 1975. 22 June, Winterbourne Monkton (PJD). July, Dilton Marsh, ♂ imm. (LB). 30 July, Erlestoke, on B3098 (RT). 16 December, Cross Keys (MEC).

Mustela nivalis

Weasel

39 records from 17 10 km. squares

Live:

1975. Pains' Bridge (BG). 5 March and 9 April, West Kington, pale blonde (MB). 6 April, Neston (E & LS).

1976. Cole Park (EJMB). Shalbourne, resident (HE). West Kington, frequent (ZC). 8 January, Seagry, 2 drinking at bird bath; 7 February, one on 1st floor window ledge; 17 February, one encountered by builder on house roof (RGB). 12 February, Roundway, carrying prey (BG). 21 February, Pewsey, one crossed the road 3 times (MEC). 27 February, Little Cheverell; 6 April, Westdown Ranges (RT). 2 May, Edington; 8 May, Dee Barn; 18 July, Biddestone (E & LS). 21 July, Winterbourne Monkton (JED). 23 July, Tilshead, ♂, ♀ and 3 juv. walking nose to tail along road (AG via JS). 1 August, Heddington (E & LS). 12 August, Gatcombe (MB). 1 September, Ashton Keynes, carrying prey (RT). 31 October, Steeple Ashton (E & LS). 17 December, Broad Hinton; Winterbourne Monkton (JED). 19 December, Imber Ranges, carrying prey (RT). Codford, at roadside (KGF). Kinghay (BGW). Landford (NA).

Dead:

1975. 9 September, Nettleton, killed by cat (GLI). 9 November, Broad Hinton, on road (PJD).

1976. 21 July, Avebury, on road (PJD). July, Southcott, drowned in swimming pool (MN). 18 November, Berwick Bassett, on road (PJD).

Mustela furo

Ferret Feral

Live:

1974-76. Bratton, living on rough ground and under garden shed (JM).

1976. 20 July, Little Langford, in garden, adult with 2 juv. (1 albino) (SFR).

Dead:

1976. Summer, Shalbourne, on road (HE).

Large numbers of *M. furo* are kept as domestic animals and used for bolting rabbits. Escapes are frequent and care should be taken, when recording, to make sure that the animal is feral and not a recent escape.

Mustela vison

Mink

Live:

1976. 11 July, West Tisbury, carrying prey; Kinghay, 2 (BGW). Autumn, Harnham Old Town Path (SDNHS).

Meles meles

Badger

37 records from 14 10 km. squares

Live:

1975. 14 May, 13 June and 17 June, Westdown Ranges (RT).

1976. 26 May to 24 August, Nettleton, pair with 3 cubs watched frequently (MB). November. Stowell, seen late afternoon when riding (MN). Landford (NA).

Active setts:

1975. Cole Park (EJMB). Ogbourne Maizey; Preshute; West Woods (MCNHS). Brown's Folly (EJL, MB).

1976. Lower Seagry (RGB). Harley Farm (BM). Idmiston (CT). Windmill Hill (PJD). Harcombe; Theobald's Green; Bratton; Combe Shrub; Hisomley (MB).

Abandoned sett:

1976. Shirehill. No evidence of disturbance (MB).

Field signs:

1976. 29 February, Grittleton, tracks (MB). 28 March, Yatesbury, hair on wire fence (PJD). Spring, Bratton, heard at night (JM). 23 April, West Kington, tracks; 16 May, Truckle Hill. latrine on grass verge (MB).

Dead:

1975. 19 July, Shepherd's Shore, on A361 (RT). 13 October, North Wraxall in hedge, completely decomposed (MB).

1976. 26 February, Fyfield, on road; 16 May, Winterbourne Monkton, on road, TB neg. (PJD). 17 July, 06.30 hrs., Three Shire Stones on road, ♂ TB neg.; 18 July, 06.30 hrs., Huntershall on road, ♀ TB neg. (MB). 3 August, Wallmead Farm on road (JBH). 3 November. Broad Town on road, ♀, TB. neg. (PJD). 7 November, Burton Hill on road, TB neg. (MB).

Order Artiodactyla—even-toed ungulates

Family Cervidae

Cervus elaphus

Red deer

Live:

1976. Landford (NA).

Dama dama

Fallow deer

5 records from 4 10 km. squares

Live:

1975. Roundway (JS). West Woods; Savernake (MCNHS).

1976. Little Frith, very dark (BG). Landford (NA).

Capreolus capreolus

Roe deer

61 records from 19 10 km. squares

Live:

1975. Cole Park, occasional (EJMB). 4 January, Westdown Ranges (RT). 6 April, Green Lane Wood, 2 (AS). 17 April, West Kington, ♀ (PJD, MB). 24 April, Redhorn Hill; 27 April, Westdown Ranges (RT). West Woods (MCNHS). Lady Down; Grovely Wood; Swallowcliffe Wood (JBH).

1976. 10 January, Kingston Deverill, 3 (E & LS). 9 February, Roundway, ♀ (BG). March. Ogbourne St. George, 2 (IJG). 7 March, Westdown Ranges, ♂ (RT). 25 April and 8 May. Kingston Deverill, (E & LS). 8 May, Dunworth Corner, 2; Crockerton Firs, 1♂, 3♀; Gurston Down; Fovant Down; Compton Down; 9 May, Lady Down (JBH). 13 May, Nettleton, ♀ (ZC). 16 May, Combe Shrub, ♂ (MB). Redway (BP). 29 May, Biss Wood (AS). Bratton (JM). 20 June, Kingsplay Hill (AM-K). 30 June, 14 July, 9 August, Westdown Ranges, ♂ and ♀ (RT). 1 August, Imber Ranges, ♂; 8 August, ♀ with 2 fawns (BG). 16 October, Westdown Ranges, ♂ (RT). October, Sandridge (AJR). 13 November, Westdown Ranges, 2

(RT). 28 November, Erlestoke (TDH). Kinghay area, common (BGW).

Dead:

1976. August, Collingbourne Woods, remains of carcass. Ground trampled, seats and other fox signs (JAS).

Muntiacus reevesi

Chinese Muntjac

3 records from 3 10 km. squares

Live:

1975. Broad Chalke (SDNHS)

Slots:

1975. 3 May, West Kington; 4 May, Horse Copse (MB).

No records have been received for *Lutra lutra* **Otter**

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REFERENCES

- Aubrey, J., 1847 *The Natural History of Wiltshire*, David & Charles, Newton Abbot (1969 re-print).
- Burton, M., 1973 *The Hedgehog*, Corgi, London.
- Clevedon Brown, J. & Twigg, G. I., 1969 "Studies on the pelvis in British Muridae and Cricetidae (Rodentia)" *J. Zool., Lond.*, 158, 81-132.
- Corbet, G. B., 1975 *Finding and identifying mammals in Britain*. Brit. Museum (Nat. Hist.)
- Fairley, J. S., 1975 *An Irish Beast Book*, Blackstaff Press, Belfast.
- Gillam, B., 1973. "Amphibia. Reptile and Mammal Notes 1970-1972." *W.A.M. (Part A)* 68, 7-10.
- Glue, D. E., 1972. "Bird Prey taken by British Owls," *Bird Study* 19 (2), 91-95.
- Matthews, L. H., 1952 *British Mammals*, Collins, London.
- Mellanby, K., 1971. *The Mole*, Collins, London.
- Morris, P. A., 1966. "Bottled Mammals." *Wildlife and the Countryside*, Dec. 1966, 3-4
- Southern, H. N., 1954. "Tawny Owls and their Prey." *Ibis*, 96, 384-410.
- Southern, H. N., 1964. *The Handbook of British Mammals*, Blackwells, Oxford.
- van den Brink, F. H., 1967. *A Field Guide to the Mammals of Britain and Europe*, Collins, London
- Yalden, B. W. & Morris, P. A., 1975. *The Lives of Bats*, David & Charles, Newton Abbot.

REPORTS

The annual general meeting was held on April 23rd, 1977 at John Bentley School, Calne. There were changes in the Officers for the Section for reasons given in the report of the Chairman, Mr. C. E. Jennings who spoke as follows:

"The past year has been a successful one for the Section in many ways. The programme secretaries have provided a good varied selection of meetings and generally attendance has been very good, particularly at the indoor winter meetings. We were particularly pleased to welcome a large number to the meeting to commemorate Mr. B. Weddell's 30 years as Recorder for Lepidoptera and we enjoyed examining the Museum Lepidoptera collection that he has kindly completed for us from his own collection.

Another highlight was the publication of Mr. Barron's book on the Geology of Wiltshire. Mr. Barron has been a loyal worker for the Society for many years and this book will prove valuable to many naturalists and others studying Wiltshire for many years to come. It certainly compliments books written on other aspects of the Wiltshire scene and I hope you will buy a copy! Whilst mentioning books, two members of our committee namely Mrs. Marion Browne and Mr. Patrick Dillon are co-operating with Mr. Noel King to prepare a book on the Mammals of Wiltshire and we hope that in a year or two we can report on the successful publication.

There have been many requests for reprints of Mr. Grose's Flora of Wiltshire and we are investigating various sources in an attempt to publish a reprint but of course this can not be lightly undertaken due to the high expense involved. We still have a large stock of Flora supplements remaining unsold, paid for through the generous free loans by some members—hence we cannot involve ourselves in further expense in republishing the flora although of course it should result in increasing the sale of the supplements.

When I first took the chair two years ago I expressed a hope that closer links would be made with the Museum and the Archaeological Section. In many ways this is now happening. Mr. Sandell has arranged for a room to be set aside for a Natural History library and he and Mr. Dillon have now sorted out all books, journals and magazines so that they are easy for reference. On your behalf I thank them for their hard work. Mr. Dillon has also worked hard to publish a bulletin twice a year which is being distributed at the same time as the Archaeological bulletin. We hope shortly to issue a joint programme card to all our members.

The Archaeological Section are planning to carry out an improvement programme at the Museum and they are organising some money raising events. I hope members will try to support these as much as possible and encourage your friends to do so as well.

On a sadder note we have to report that Mr. Arnold Smith has finally persuaded the Committee to accept his resignation after 15 years service as Treasurer. On your behalf I offer him our very sincere thanks for all his hard work—however as a retiring officer we are hoping he will continue to offer his support and advice in the coming year to the new treasurer and committee. I must also offer our thanks to Mrs. Heath who retires from the Committee due to new business commitments. We thank her for her support and for her kindness in allowing the committee to meet at her home on occasions. One more farewell must be included. Mr. Philip Horton, Regional Officer for the Nature Conservancy is shortly moving to a similar post in Kent. In the past seven years Mr. Horton has been a good friend and guide to our section and we shall miss his support. I thank him on your behalf and wish him success and good fortune in his new job.

In closing may I thank my fellow Officers and Committee for all their help through the past year and I look forward to their continued efforts on your behalf in the coming year."

PUBLICATIONS BY THE WILTSHIRE NATURAL HISTORY SECTION

- The Flora of Wiltshire*, by Donald Grose. Now out of print.
- Supplement to the Flora of Wiltshire*. Compiled and edited by L. F. Stearn.
- The Macrolepidoptera of Wiltshire*, by Baron de Worms.
- Hand List of Wiltshire Birds and a Supplement*, by L. G. Peirson.
- The Geology of Wiltshire, a Field Guide*, by R. S. Barron.

