

The Bedfordshire Naturalist

**JOURNAL OF THE
BEDFORDSHIRE
NATURAL HISTORY
SOCIETY
FOR THE YEAR
1972**

No. 27 ONE POUND

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SOCIETY**

THE BEDFORDSHIRE NATURALIST

THE JOURNAL OF THE

BEDFORDSHIRE NATURAL HISTORY SOCIETY

Edited by R. V. A. Wagstaff

No. 27 1972

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BEDFORDSHIRE NATURAL HISTORY SOCIETY 1973

Chairman:

H. A. S. KEY

Hon. Secretary:

D. GREEN, Red Cow Farm Cottage, Bidwell, Dunstable.

Hon. Treasurer:

J. M. DYMOND, 91 Putnoe Lane, Bedford.

Hon. Programme Secretary:

D. G. RANDS, 51 Wychwood Avenue, Luton.

Hon. Editor:

R. V. A. WAGSTAFF, 29 Grasmere Avenue, Luton.

Hon. Librarian:

R. B. STEPHENSON, 17 Pentland Rise, Putnoe, Bedford.

Committee:

D. Anderson	P. F. Bonham	W. J. Champkin	P. J. Ford
Mrs E. B. Rands	P. Smith	Miss R. Smart	C. Banks
	Dr B. S. Nau	A. W. Guppy	

RECORDERS

BOTANY:

Fungi: Dr D. A. Reid, The Herbarium, Royal Botanical Gardens, Kew
Flowering Plants and Vascular Cryptogams

Dr J. G. Dony, 9 Stanton Road, Luton

Bryophytes: A. R. Outen, 55 Arundel Road, Luton.

METEOROLOGY:

A. W. Guppy, 22 Poplar Avenue, Bedford.

ZOOLOGY:

Mollusca, Leeches and Flatworms:

Mrs E. B. Rands, 51 Wychwood Avenue, Luton.

Spiders: T. J. Thomas, 142 Selbourne Road, Luton.

Bees, Wasps and other Hymenoptera:

Dr V. H. Chambers, 12 Douglas Road, Harpenden, Herts.

Butterflies and Moths:

W. J. Champkin, 59 Rosamond Road, Bedford.

Dragonflies and Damselflies:

Dr N. Dawson, The Old House, Ickwell Green, Nr Biggleswade.

Bugs (Hemiptera-Heteroptera):

Dr B. S. Nau, 15 Park Hill, Toddington.

Fleas: P. W. Moles, 37 Cemmeas Court Road, Hemel Hempstead, Herts.

Fish: F. G. R. Soper, The Briars, Bromham Park, Bedford.

Amphibians and Reptiles:

C. Banks, 72 Spencer Road, Luton.

Birds: P. F. Bonham, 32 Heronscroft, Bedford.

Mammals: D. Anderson, 51 Springfield Crescent, Harpenden, Herts.

RECEIPTS AND PAYMENTS FOR THE YEAR ENDING 31st DECEMBER 1972.

<u>1971</u>	<u>RECEIPTS</u>	<u>£</u>	<u>1971</u>	<u>PAYMENTS</u>	<u>£</u>
254	Cash in hand and in bank		45	Printing Postage & Stationery	112.08
	1st January 1972	172.12	285	Beds. Naturalist Nos. 24 & 25	-
	Subscriptions:		8	Subscriptions to Societies	4.50
240	For 1972 and earlier	218.57	27	Hire of Halls and Rooms	25.05
	New Members	<u>22.26</u>	15	Film Show	10.00
6	Sale of Journals	12.35	57	Printing of programme forms and cards	-
11	Sale of old copies of Ibis	-	13	Sundry Expenses	10.68
223	Yorks Trip	242.50	2	Auditor's Honorarium	2.00
29	New Forest Coach Trip	-	1	Refunds	-
101	Film Show	-	12	Lecturers' Expenses	5.50
2	Donations	5.00	200	Yorks Trip	220.05
-	Donations for Insurance	10.00	29	New Forest Coach Trip	-
-	To Deposit Account Theed Pearse Legacy	409.24	-	To Deposit Account (Theed Pearse & Miss G. Day Legacies)	429.00
43	Social Evening	37.30	19	Advertising	-
-	Publication Fund & Raffles	56.82	19	Social Evening	21.99
2	Putnoe Wood brochures	3.15	-	Insurance	7.50
			7	Recorder Expenses	13.42
			-	Putnoe Wood Notice Board (½ cost with Bedford Corpn.)	23.00
			160	Cash at Bank 31st December 1972	303.09
			12	Cash in Hand 31st December 1972	1.45
<u>£911</u>		<u>£1189.31</u>	<u>£911</u>		<u>£1189.31</u>

I have examined the above receipts and payments accounts which are in agreement with the books and vouchers of the Society.

P. SMITH

Honorary Auditor
Leighton Buzzard

REPORT OF THE COUNCIL

Without doubt, the most significant feature of our activities during the year was the formation of a junior section. Never before in the Society's history has a successful effort been made to cater for our younger members and it is particularly encouraging to record that monthly meetings were increasingly well supported through the year. Thanks go to the few individuals whose energy and enthusiasm have brought about this success. Although much of this work has been confined to the South of the County it is hoped that equal progress will soon be achieved in the North.

Publication of the special issue of the Journal for 1971 to commemorate our 25th anniversary brought a number of favourable comments and special mention must be made of Mr Wagstaff's efforts during his first year of office as our Honorary Editor.

During 1972 a most important decision was taken by the Council to proceed with plans for the eventual publication of a book on the natural history of Bedfordshire. It is envisaged that this will be preceded by the publication of a supporting series of check lists and atlases for as many branches of natural history as possible. A standing committee was formed consisting of Mrs E. B. Rands, Dr V. Chambers, Dr J. G. Dony and Dr B. Nau with the object of launching this project. This is a great challenge to the Society as it will be something to which almost every member can contribute in the form of field recording.

With this in mind it is essential that we have a team of active and dedicated recorders to cover the many different branches. During 1972 two additional recorders were appointed: Dr B. Nau for hemiptera-heteroptera and Mr C. Banks for amphibians and reptiles.

It was the Council's decision to concentrate on field meetings in the County in an effort to stimulate interest in tetrad recording. Most of the meetings were highly successful and as well as proving an ideal way to introduce members to practical field work, they produced a fine crop of records. The programme of indoor meetings was prepared with education rather than entertainment in mind. To this end members were provided with the opportunity of hearing some of the foremost authorities in their particular subjects. Although attendances were higher than for many years, it is a pity that many members rarely attend meetings. We congratulate Mr Rands and his committee for arranging such a first class programme.

Finally the Council wishes to express its appreciation to all those who contributed to the Society in so many ways in 1972.

D. GREEN, Hon. Secretary.

PROCEEDINGS. INDOOR MEETINGS

27th ORDINARY MEETING, 12th January, Luton. "African Adventure" by Mr C. Banks and Mr M. Ferrero. Chairman: Mr D. Green.

28th ORDINARY MEETING, 20th January, Dunstable. "Camargue Evening" by several members. Chairman: Mr P. Smith.

29th ORDINARY MEETING, 27th January, Bedford. "Nature Conservation" by Mr J. M. Schofield. Chairman: Mr J. M. Dymond.

280th ORDINARY MEETING, 2nd February, Luton. "Members Evening".
 Chairman: Mr R. V. A. Wagstaff.

281st ORDINARY MEETING, 17th February, Dunstable. "Mammals in
 Bedfordshire" by Mr M. Clark. Chairman: Mr D. Anderson.

282nd ORDINARY MEETING, 24th February, Bedford. "Bedfordshire Bird
 Song" by Mrs E. Allsopp. Chairman: Mr R. B. Stephenson.

283rd ORDINARY MEETING, 1st March, Luton. "Man - the Threatened
 Species" by Mr S. G. Lawrence. Chairman: Mr D. Green.

284th ORDINARY MEETING, 16th March, Dunstable. "A Practical Approach
 to Natural History Photography" by Mr A. E. Pullen. Chairman: Mr D. Anderson.

ANNUAL GENERAL MEETING, 23rd March, Bedford. Chairman: Mr A. W.
 Guppy.

285th ORDINARY MEETING, 12th October, Dunstable. "Introduction to
 Wild Orchids" by Mr P. J. Ford. Chairman: Mr D. G. Rands.

286th ORDINARY MEETING, 19th October, Bedford. "Geology and its
 Influence on Natural History" by Mr G. Osborn. Chairman: Mrs E. B. Rands.

287th ORDINARY MEETING, 25th October, Dunstable. "Illustrated Natural
 History of the New Forest" by Mr C. Banks and Mr M. Ferrero. Chairman: Mr D.
 Anderson.

SPECIAL SOCIAL EVENING, 27th October, Bedford. Guest Speaker: Mr
 Walter Flesher. M.C.: Mr H. A. S. Key.

288th ORDINARY MEETING, 1st November, Bedford. "Bird Work at
 Dungeness" by Mr R. Scott. Chairman: Mr P. F. Bonham.

PUBLIC FILM SHOW, 14th November, Dunstable. "Highlife of the Rook",
 "Adventure has Wings", "Avocets Return" and "Wilderness is not a Place".
 Jointly with the R. S. P. B.

289th ORDINARY MEETING, 16th November, Luton. "How to Catch Fleas"
 by Mr R. S. George. Chairman: Mr D. Green.

290th ORDINARY MEETING, 23rd November, Dunstable. "Members Evening".
 Chairman: Mr R. V. A. Wagstaff.

291st ORDINARY MEETING, 29th November, Bedford. "British Amphibians
 and Reptiles" by Mr C. Banks and Mr M. Ferrero. Chairman: Mr F. G. R. Soper.

292nd ORDINARY MEETING, 6th December, Dunstable. "Conservation and
 the R. S. P. B." by Mr J. Crudass. Chairman: Dr B. S. Nau.

293rd ORDINARY MEETING, 11th December, Luton. "Life in Freshwater"
 by Dr B. S. Nau. Chairman: Mrs E. B. Rands.

FIELD MEETINGS

16th JANUARY, SNETTISHAM, NORFOLK. Leader: Mr B. R. Squires.

13th FEBRUARY, R. S. P. B. OUSE WASHES RESERVE. Leader: Mr D. Green.

29th APRIL, 40ft. LANE NEAR SOULDROP, Exploration for Tetrad Survey.
 Leaders: Dr J. G. Dony and Mr P. Smith.

7th MAY, CLEY-BLAKENEY AREA OF NORFOLK. Leader: Mr B. R. Squires.

20th MAY, PALACE YARD WOOD NEAR ROXTON. Leader: Mr L. A. Speed.

3rd and 4th JUNE, YORKSHIRE DALES AND THE LAKE DISTRICT, Weekend
 coach trip. Leader: Mr H. A. S. Key.

10th JUNE, MUNDAYS HILL PIT, NEAR HEATH & REACH. Invitation
 meet with the Northamptonshire Natural History Society. Leader: Mr G. Osborn.

11th JUNE, TINGRITH-STEPPINGLEY AREA. Tetrad recording of birds.
 Leader: Mr P. F. Bonham.

- 21st JUNE, LINSLADE. Evening walk along the Grand Union Canal.
Leader: Mrs E. B. Rands.
- 25th JUNE, ICKWELL BURY HOUSE. General natural history of pond area.
Leader: Dr Nancy Dawson.
- 2nd JULY, UPPER SUNDON. Natural history of dis-used chalk pit.
Leader: Mr D. G. Rands.
- 5th JULY, WILLINGTON TO GREAT BARFORD. Riverside walk.
Leader: Mr J. M. Dymond.
- 9th JULY, BUSHMEAD AREA ROADSIDE VERGES. Leader: Mr A. W. Guppy.
- 16th JULY, HOME WOOD, NORTHILL. Leader: Mr P. J. Ford.
- 19th JULY, SEWELL. Botanical evening meet. Leader: Dr J. G. Dony.
- 30th JULY, TOTTERNHOE KNOLLS NATURE RESERVE. Leader: Dr V. H. Chambers.
- 5th AUGUST, FELMERSHAM GRAVEL PITS. Mothing evening. Leader: Mr W. J. Champkin.
- 9th SEPTEMBER, STOCKGROVE PARK. Pond life. Leader: Dr Nancy Dawson.
- 17th SEPTEMBER, OLNEY AREA OF NORTHANTS. Geological meeting.
Leader: Mr G. Osborn.
- 8th OCTOBER, ODELL GREAT WOOD. Fungus foray. Leader: Dr D. A. Reid.
- 29th OCTOBER, ASHRIDGE PARK. Deer rutting. Leaders: Messrs D. Anderson, C. Banks and M. Ferrero.
- 5th NOVEMBER, FELMERSHAM AND HARROLD GRAVEL PITS. Leader: Mr P. F. Bonham.
- 19th NOVEMBER, STAGSDEN. A country walk in late Autumn. Leader: Mr H. A. S. Key.

The Fungus Foray 1972

The annual fungus foray was held at Odell Great Wood, Sharnbrook, on 8th October, with Dr D. A. Reid of the Herbarium, Royal Botanic Gardens, Kew, as Leader. The meeting was well attended, with 33 people present.

The wood consists of mixed deciduous trees with patches of planted conifers, but mycologically it is notable for the large quantity of fallen timber. This abundance of woody substrates is reflected in the unusually long list of Aphyllophorales - polypores, resupinates and jelly fungi, as well as lignicolous members of the Agaricales.

The most interesting agaric was undoubtedly Russula pelargonii, which does not appear in the Check List of British Agarics and Boleti although it has recently been found in several parts of West Sussex by R. Rayner (in litt.). This small purple species is very similar to the common R. fragilis from which it is distinguished by its cream rather than white spore print and in having much less reticulated spores. The other agaric new to the County is Entoloma costatum sensu Lange - a rather short, stocky pink-spored fungus with a dark brown shining cap and subrotund, 5-6-angled spores. Attention is also drawn to Resupinatus applicatus which confirms an old record going back to Abbott. Just why this very common species has escaped detection in the county for so long is a mystery. This admittedly small rather inconspicuous pleurotoid agaric, 0.5-1.0 cm diam., with dark grey cap and gills, occurs on dead wood throughout the year, especially

on the underside of fallen trunks and large branches.

Reference has already been made to the long list of polypores, but none is noteworthy. The occurrence of Henningsomyces candidus is not unexpected. It is quite common on rotten but rather dry wood, and consists of small colonies of tall, narrow discrete but crowded white tubes about 1 mm high. Hymenochaete corrugata f. conglutinans is a peculiar form of the species which is usually found in the sterile condition although possessing the characteristic pointed brown setae of the typical state. Its chief feature is its occurrence on trees where two branches rub together. The fungus infects the host at these points and unites the branches with a growth of rusty brown mycelium. Peniophora limitata [= P. fraxinea] is restricted to fallen wood of Fraxinus and is really quite common but like the above-mentioned species it too is new to the County. It is easily recognised by its dark grey, smooth corticioid fructifications which lift away from the wood at the margin to reveal the blackish underside.

Mention should also be made of Eichleriella deglubens since although this is a member of the Tremellales or jelly fungi, it is quite unlike most other members of this order as the resupinate fructifications are dry, waxy and rather thick, resembling those of some resupinate Stereum, except for the presence of scattered hydroid spines. However, it has tremelloid basidia and large, sausage-shaped spores.

The remaining fungi new to Bedfordshire are recognised largely on their microscopic structure.

Altogether 99 species were collected, of which 11 were new to the County, and one confirms an old existing record.

Readers may like to refer to Volume 8, p. 8, of this journal where they will find a list of species collected on the occasion of the previous foray to Odell Great Wood in 1953. Comparison of the two lists shows remarkably few species in common.

DEREK A. REID

Armillaria mellea (Vahl ex Fr.) Kummer; Clitopilus hobsonii (Berk. & Br.) Orton; Coprinus callinus Lange & Smith; C. comatus (Mull. ex Fr.) S. F. Gray; C. disseminatus (Pers. ex Fr.) S. F. Gray; C. hiascens (Fr.) Quél.; C. micaceus (Bull. ex Fr.) Fr.; C. narcoticus (Batsch ex Fr.) Fr.; C. plicatilis (Curt. ex Fr.) Fr.; Crepidotus mollis (Schaeff. ex Fr.) Kummer; Entoloma costatum sensu Lange; Galerina hypnorum (Schrank ex Fr.) Kuhn.; G. unicolor (Vahl ex Sommerf.) Sing.; Gymnopilus junonius (Fr.) Orton; Hebeloma saccharioloens Quél.; Hypholoma fasciculare (Huds. ex Fr.) Kummer; Inocybe geophylla (Sow. ex Fr.) Kummer; I. geophylla var. lilacina Gillet; Lacrymaria velutina (Pers. ex Fr.) Konrad & Maubl.; Lactarius quietus (Fr.) Fr.; L. torminosus (Schaeff. ex Fr.) S. F. Gray; Lepiota rhacodes (Vitt.) Quél.; Mycena galericulata (Scop. ex Fr.) S. F. Gray; M. galopus (Pers. ex Fr.) Kummer; M. inclinata (Fr.) Quél.; M. speirea (Fr. ex Fr.) Gill.; Odumansiella radicata (Rehl. ex Fr.) Sing.; Paxillus involutus (Batsch ex Fr.) Fr.; Pholiota gummosa (Lasch) Sing.; P. squarrosa (Mull. ex Fr.) Kummer; Pluteus cervinus (Schaeff. ex Fr.) Kummer; P. salicinus (Pers. ex Fr.) Kummer; +Resupinatus applicatus (Batsch ex Fr.) S. F. Gray; Russula mairei Sing.; *R. pelargonii Niolle; Schizophyllum commune Fr.; Tricholoma fulvum (DC. ex Fr.) Sacc.

Bjerkandera adusta (Willd. ex Fr.) Karst; Ceriporia viridans (Berk. & Br.) Donk; Coriolus versicolor (L. ex Fr.) Quél.; Daedalea quercina L. ex Fr.; Daedaleopsis confragosa (Bolt. ex Fr.) Schroet.; Fistulina hepatica [Huds.] Fr.; Ganoderma applanatum (Pers. ex Pers.) Pat.; Hapalopilus nidulans (Fr.) Karst.;

Heteroporus biennis (Bull. ex Fr.) Laz.; Inonotus hispidus (Bull. ex Fr.) Karst.; Leptotrimitus semipileatus (Peck) Pouz.; Oxyporus populinus (Schum. ex Pers.) Donk.; Phellinus ferreus (Pers.) Bourd. & Galz.; P. ferruginosus (Schrad.) Bourd. & Galz.; P. ribis (Schum. ex Fr.) Quéf.; Piptoporus betulinus (Bull. ex Fr.) Karst.; Polyporus squamosus [Huds.] Fr.; Tyromyces caesius (Schrad. ex Fr.) Murr.; Xylodon versiporus (Pers.) Bond.

Coniophora puteana (Schum. ex Fr.) Karst.; Cristella farinacea (Pers. ex Fr.) Donk.; Epithele typhae (Pers. ex Fr.) Pat.; Henningsomyces (Solenia) candidus (Pers.) O. Kuntze; Hymenochaete corrugata (Pers. ex Fr.) Lév.; *H. corrugata f. conglutinans Bourd. & Galz.; H. rubiginosa ([Dicks.] Fr.) Lév.; Hyphodontia crustosa (Pers. ex Fr.) Erikss.; H. pallidula (Bres.) Erikss.; Merulius tremellosus Schrad. ex Fr.; *Mycoacia stenodon (Pers.) Donk.; M. uda (Fr.) Donk.; Peniophora incarnata (Pers. ex Fr.) Karst.; *P. limitata (Chaill. ex Fr.) Cooke; P. quercina (Pers. ex Fr.) Cooke; *Phlebia livida (Pers. ex Fr.) Bres.; P. merismoides Fr.; P. rufa (Pers. ex Fr.) Christ.; Stereum hirsutum (Willd. ex Fr.) S. F. Gray; S. sulphuratum Berk. & Rav.; Thelephora anthocephala [Bull.] Fr.; *Tomentella pseudopannosa Wakef.; Vuilleminia comedens (Nees ex Fr.) Maire

Lycoperdon pyriforme Schaeff. ex Fr.

Auricularia mesenterica (Dicks. ex S. F. Gray) Pers.; Dacrymyces deliquescentis (Bull. ex St. Amans) Duby; *Eichleriella deglubens (Berk. & Br.) Reid [= E. spinulosa sensu auct.]; Tremella mesenterica Retz ex Hook.

Miyagia pseudosphaeria (Mont.) Jorstad on Sonchus arvensis and S. asper;

Puccinia menthae Pers.

Chlorociboria aeruginascens (Nyl.) Kan.; Coryne sarcoides (Jacq. ex Fr.) Tul.; Dasyscyphus virgineus S. F. Gray; Hymenoscyphus fructigenus (Bull. ex Merat) S. F. Gray; Melastiza chateri (W. G. Smith) Boud.; *Orbillia auricolor (Blox. ex Berk.) Sacc.; Polydesmia pruinosa (Berk. & Br.) Boud.

Daldinia concentrica (Bolt. ex Fr.) Ces. & de Not.; Diatrype disciformis (Hoffm. ex Fr.) Fr.; Erysiphe tortilis [Wallr.] Fr.; *Gloniopsis levantica Rehm; Hypoxylon fuscum (Pers. ex Fr.) Fr.; Thaxteria phaeostroma (Dur. & Mont.) Booth; Xylophaera hypoxylon [L.] Dumort.

* New County Record

+ Confirmation of existing Record

Mothing Evening

M.V. Trap Felmersham Gravel Pit 5th August 1972.

This meeting was attended by 16 members on a fine evening with a light breeze. 32 Species were recorded; an unusual visitor to the trap was a female Drinker which when put into a jar for inspection laid a number of eggs. Male Drinker Moths come to light very readily but females very rarely, so it was assumed that this particular female was roosting close to the trap and was attracted as she set off on her night's egg-laying. The following list was recorded and the numbers against the species named refer to The New Label List of British Macrolepidoptera by I. R. P. Heslop 1961.

125. Buff Arches
139. Goldtail
154. Drinker
180. Common Footman
285. Heart and Dart

Habrosyne pyritoides. Hufn.
Euproctis similis. Feussl.
Philudoria potatoria. L.
Eilema lurideola. Zinck.
Agrotis exclamationis. L.

304.	Flame Shoulder	<u>Ochropleura plecta</u> . L.
330.	Least Yellow Underwing	<u>Euschesis interjecta</u> . Hübner.
331.	Common Yellow Underwing	<u>Noctua pronuba</u> . L.
346.	White Dot	<u>Melanchra persicariae</u> . L.
351.	Bright Line Brown Eye	<u>Diataraxia oleracea</u> . L.
393.	Common Wainscot	<u>Leucania pallens</u> . L.
395.	Smoky Wainscot	<u>Leucania impura</u> . Hübner.
407.	Clay Wainscot	<u>Leucania lythargyria</u> . Esp.
430.	Mottled Rustic	<u>Caradrina morpheus</u> . Hufner.
444.	Dark Arches	<u>Apamea monoglypha</u> . Hufner.
456.	Common Rustic	<u>Apamea secalis</u> . L.
462.	Marbled Minor	<u>Procus strigilis</u> . Clerck.
476.	Straw Underwing	<u>Thalpophila matura</u> . Hufner.
653.	Common Snout	<u>Hypena proboscidalis</u> . L.
662.	Small Fanfoot	<u>Zanclognatha memorialis</u> . F.
698.	Lesser Cream Wave	<u>Scopula immutata</u> . L.
725.	Dark Twin Spot Carpet.	<u>Xanthorhoe ferrugata</u> . Clerck.
733.	Spring Green Carpet	<u>Colostygia pectinataria</u> . Knoch.
758.	Yellow Shell	<u>Euphyia bilineata</u> . L.
771.	Barred Straw Chevron	<u>Lygris pyraliata</u> . Schiff.
784.	July Highflyer	<u>Hydriomena furcata</u> . Thunb.
795.	Common Bedstraw Carpet	<u>Epirrhoe alternata</u> . Müll.
818.	Shaded Broad Bar.	<u>Ortholitha chenopodiata</u> . L.
867.	Tawny Speckled Pug.	<u>Eupithecia icterata</u> . Vill.
915.	Early Thorn	<u>Selenia bilunaria</u> . Esp.
923.	Sulphur Thorn	<u>Opisthograptis luteolata</u> . L.
946.	Early Engrailed	<u>Ectropis biundularia</u> . Borkh.

W. J. CHAMPKIN

STUDENT ACTIVITIES

On January 26th 1972, an inaugural meeting was called for all Junior and Student Members living in the South of the County. Five members attended that meeting and it was decided that an attempt would be made to establish a Student Group with Meetings to be held approximately once a month throughout the year. During the Summer months these would be in the form of Field Meetings and in the Winter a variety of subjects would be covered at indoor Meetings.

At every successive Meeting the number of Students attending increased and by the Autumn it was very obvious that Meetings during the Winter would have to be held in a Hall instead of in a private house.

An approach was made to the Luton Borough Authorities and discussions took place at Youth House, St. Mary's Road, Luton. The Society was offered the free use of the large Conference Room at Youth House whenever we needed it and from October 1972 an Indoor Meeting has been arranged there once a month. The Society is very appreciative of this very generous offer and the Meetings held there have been very successful and happy.

By December 1972 the original five Members had swelled to 25 regular attenders and the Student Group looks forward to a successful 1973.

Calender of Events (students) for 1972

- 26 January - Inaugural Meeting
- 22 February - Botany by Dr J. G. Dony
- 21 March - Birds by P. J. Ford & D. Rands
- 18 April - General Natural History
- 18 May - Field Meeting to Ashridge Park
- 22 June - Grand Union Canal at Buckland
- 11 July - Markham Hills
- 5 September - Barton Springs
- 3 October - Youth House General Natural History
- 22 October - Field Meeting to Wilstone Reservoir
- 4 November - Ryemeads Ringing Station with Dr Nau
- 7 November - Youth House - Skulls & Teeth by Dr Nancy Dawson
- 25 November - Ryemeads with Dr Nau
- 4 December - Youth House - Bird Migration by A. Livett
- 16 December - Ryemeads with Dr Nau

E. BERYL RANDS

YORKSHIRE DALES - LAKE DISTRICT EXCURSION

Sat. & Sun. 3rd & 4th June, 1972

Following the success of the 25th anniversary trip to the Yorkshire dales during the previous summer, I was approached by many members with the request for a similar outing in 1972, which would provide an opportunity especially for those who had been unable to participate in the original venture. At first I demurred as I felt that such repetition might possibly suffer from comparison, but eventually I was persuaded and considered the route to be taken. The catering arrangements for such outings involve a great deal of planning and I would record our indebtedness to my wife, Mrs V. Sharman and other helpers, without whose unstinted support the programmes would have fallen short of their eventual success.

On the occasion of the Anniversary Supper in October, 1971, more than half of the projected seats in the coach were booked and I was, therefore, encouraged to complete all the necessary arrangements. While lecturing once again in Sedburgh in March, I made tentative enquiries regarding overnight accommodation and from past experience of Yorkshire hospitality I was not surprised to receive overwhelming offers of help. Subsequently, during a weekend in April, together with my wife and friends, I motored over the proposed route and the arrangements were finalised.

Circulars went out to all members and the seating of the coach was soon fully booked, in fact, regrettably, some applications had to be refused. The response from the south of the County was disappointing and it was, therefore, found to be impractical to pick up in the Luton area. However, the few concerned were enthusiastic enough to travel by car to Bedford, giving lifts to other members where necessary.

The excursion got under way from St. Peter's Green, Bedford, promptly at seven o'clock on the Saturday morning, our Volkswagen going ahead of the coach as pilot. An improved coach this year made a world of difference to the schedules and when we arrived in Grantham for our first stop, we were already half an hour ahead. As we departed from this fascinating town, some of the notable

features were drawn to the attention of members. I would like at this juncture to thank Mr S.S. WARD of Harlington, who, throughout this and the previous trip, made detailed announcements of the itinerary over the coach loudspeaker system.

Rejoining the A.1, we passed over the River Trent near Newark and arrived in good time for a coffee break at a layby south of Doncaster. As the journey progressed the River Don was crossed and a few miles further on the River Went, by a bridge which spanned the beautiful gorge far below. On then past the power station at Ferrybridge on the banks of the River Aire, until a few miles beyond we noted to the left of the road certain flooded meadows caused by mining subsidence. This is the new Fairburn Nature Reserve.

Leaving the Great North Road a few miles north of Wetherby, we veered westwards to Knaresborough, where an extended halt was made to allow the party to see the features of this ancient town, including the Castle ruins and grounds, from which were excellent views of the River Nidd far below, colourful in bright sunshine. A short journey through Ripley and narrow country lanes brought us presently to the first major feature of the excursion, namely Brimham Rocks, where our guest, Mr Walter Flesher, joined the party and renewed former acquaintances. Lunch was taken here and the members were fascinated by the grotesque shapes of the wind-eroded sandstone formations set in moorland scene of heathers, BILBERRY vaccinium myrtilus and SILVER BIRCH. The botanical features of the area were investigated, but unfortunately the cold season had retarded the flowering of some species which included COMMON COW-WHEAT Melampyrum pratense. COTTON GRASS Eriophorum angustifolium was plentiful in certain boggy areas where later in the season BOG ASPHODEL Narthecium ossifragum would have been prominent. Among the more unusual birds seen were RED GROUSE Lagopus scoticus and RING OUZEL Turdus torquatus, a summer visitor.

Reluctantly the party moved on via a hilly switchback route, with some steep gradients, still westward through Pateley Bridge and over high moorland, pock-marked with the remains of old mine workings, chiefly for lead. The entrance to Stump Cross Caverns was noted and after a few further miles we arrived in Grassington, where, as on the former occasion, we were honoured by police escort in a 'panda' car which assisted in the parking of the coach near Grass Woods. Once again we record our indebtedness to the West Riding Constabulary for sympathetic interest in our activities.

The varied vegetation of these celebrated woods is fascinating at all seasons, but unfortunately here also some species were not yet fully in flower. However, among the more noteworthy plants encountered were: COLUMBINE Aquilegia vulgaris; YELLOW PIMPERNEL Lysimachia nemorum; LILY OF THE VALLEY Convallaria majalis; WATER AVENS Geum rivale; ANGULAR SOLOMON'S SEAL Polygonatum odoratum; STAR OF BETHLEHEM Ornithogalum umbellatum; SALAD BURNET Poterium sanguisorba; MELANCHOLY THISTLE Cirsium heterophyllum; BLOODY CRANESBILL Geranium sanguineum, and LADY'S MANTLE Alchemilla vulgaris.

Among the several species of birds seen, typical of such habitat, the most admired was the NUTHATCH Sitta europaea, while COMMON SANDPIPERS Actitis hypoleucos and YELLOW WAGTAILS Motacilla flava were observed along the stony stretches of the nearby River Wharfe.

From the Woods, the coach progressed up Wharfedale, passing by Kilnsey Crag. As we journeyed along, there were magnificent views of the valley and progressing through Kettlewell to Buckden, there then began the ascent of the Kidstone Pass with its limestone outcrops and many waterfalls, seen at their best as a result of recent rains. Then followed the descent into Bishopdale, where a brief halt was

made at a roadside spinney near West Burton to view a striking display of the starchy flowers of RAMSONS Allium ursinum.

We arrived some minutes later at the next major rendezvous and tea was taken at the Dales Information Centre near Aysgarth Falls. The party afterwards walked through the woods to see the beautiful upper falls in spate. One hour later the journey continued through Carperby in a westerly direction, with a brief halt at a roadside meadow, where THRIFT Armeria maritima was just coming into flower and a few miles further on we passed Nappa Hall, the ancestral home of the Metcalfes. Askrigg, a former dales market town, was much admired as we passed through and just beyond, the route deviated to include Bainbridge with its village green and ancient stocks. From here the journey was still westwards up Wensleydale, watered by the Rive Ure, until we reached the cobbled marked town of Hawes. From here the route continued via Hardraw where, on the previous excursion, a visit was made to the spectacular Hardraw Force, but time would not allow a repeat of this experience.

The final stage of the journey was similar to that of last year, and en route for Sedburgh, we passed a number of significant features, namely the isolated Moorcock Inn and the railway viaduct at the head of Garsdale, where the main line to the north crosses the road. The narrow Garsdale Valley with its small River Clough was beautiful with flowers, among the most impressive being GLOBEFLOWER Trollius europaeus - one wet hillside at the head of the vale giving a good display - BISTORT Polygonum bistorta and SWEET CICELY Myrrhis odorata.

We arrived in Sedburgh soon after eight o'clock, the coach was parked for the night and the members of the party distributed to their several billets. On the whole the weather of the first day of the outing had been relatively fine, despite a gloomy forecast, but during the night heavy rain set in which persisted until breakfast time. I was up very early and motored back to photograph the Globeflowers, getting very wet in the process.

After expressing our goodwill to all our hosts, we assembled at the Car Park prepared to leave at nine o'clock on the Sunday morning, when we experienced the only setback in the whole venture. It was found that vandals had interfered with the fuel supply of the coach overnight and an hour was lost before the defects were rectified. The local authorities were deeply concerned by these events. At last getting under way, the first stage of the second day was through the valley of the River Rawthey, with magnificent views of the Howgill Fells as the clouds lifted and the sun broke through. We collected some members from the Cross Keys Inn at Cautley and from here there was an excellent view of the distant waterfall called Cautley Spout.

Entering Westmorland a mile or two further on, the coach continued towards Kirkby Stephen and then veered left through the delightful village of Ravenstonedale until, leaving the main road at Newbiggin, the moors of that name were crossed by a narrow undulating road and at last we halted near Sunbiggin Tarn, where a break was taken for coffee and an opportunity given for the exploration of the surrounding moorland with its particularly interesting bogs. This location proved to be almost the most outstanding feature of the whole excursion. Significant species of the flora encountered were BIRDS EYE PRIMROSE Primula farinosa; RED RATTLE Pedicularis palustris; LOUSEWORT Pedicularis sylvatica; BUTTERWORT Pinguicula vulgaris; BOG BEAN Menyanthes trifoliata; BOG ASPHODEL Narthecium ossifragum - not yet in flower; LESSER VALERIAN Valeriana dioica; MILKWORT Polygala vulgaris and the MARSH ORCHIDS Dactylorhiza ericetorum; D. fuchsii and D. purpurella. The rocky outcrops yielded ALPINE LADIES MANTLE Alchemilla alpina.

While squelching barefoot through the bog, Bernard West found a juvenile CURLEW Numenius arquata and a TWITE Carduelis flavirostris was seen carrying nesting material. Some members visited the tarn to find numerous nests of BLACK-HEADED GULL Larus ridibundus, one nest of CURLEW and there were excellent views of TUFTED DUCK Aythya fuligula. It was with great reluctance that the party departed from this locality but time was now pressing and we were a little behind schedule.

Passing through the stone-built village of Orton, we ascended the moor of that name, strewn with glacial erratics left exposed during construction works of the M.6 motorway which we joined near Shap, then journeyed along northwards, leaving at the Penrith junction to proceed to that town, where the coach was parked in the station forecourt for a short stay, so that members could visit the nearby Castle ruins.

From here our route lay via the Penrith-Keswick main road as far as Troutbeck Station where we turned southwards and motored over the moors, pausing at the summit to view and photograph the panorama of hills; Blencathra very prominent to the north west and the hazy outline of the Helvellyn range to the South West. Then descending, we entered the small but beautiful valley of Matterdale and presently came to the hamlet of Dockray, bisected by the Aira Beck and in a nearby stone quarry, the coach was parked for lunch soon after one o'clock.

On the wet rocks here were several plants of ROUND-LEAVED SUNDEW Drosera rotundifolia and BUTTERWORT. Lunch over, I marshalled the majority of the party and we set out for a walk which took us through Dockray, where we deviated near the bridge to follow a stony track down to Millises Farm, where through the kindness of the owner, Mr Frith, we were allowed to follow the stream with its waterfalls, bordered by scattered woodland of rugged alder trees. As the walk progressed, among the typical birds of this area seen, were DIPPER Cinclus gularis; GREY WAGTAIL Motacilla cinerea; REDSTART Phoenicurus ochruros and PIED FLYCATCHER Muscicapa hypoleuca. Passing into the adjoining National Trust property of Gowbarrow Park, the party was impressed by the next waterfall, called High Force, below which the stream continued through a wooded glen of OAK Quercus; ALDER Alnus glutinosa; ROWAN Sorbus aucuparia and HOLLY Ilex aquafolia. The steeper banks are the summer haunt of the WOOD WARBLER Phylloscopus sibilatrix. Then came the largest of the stream's many falls, called Aira Force, which was viewed from stone bridges both above and below. In the scrubby woodland just above this spectacle, occurred one of the outstanding features of the walk, when a RED SQUIRREL Sciurus vulgaris obliged its audience with an acrobatic display, before tripping across the track close to the party and disappearing in the glen.

Finally we reached the wooded dell in the lower reaches of the property where there were many fine species of conifers, then crossing the open parkland, we joined the coach in the car park by the lakeside road and the party was conveyed back to Matterdale for tea, the coach being parked opposite the sixteenth century church.

The celebration feast was laid out in the nearby former Matterdale School building, now used as the Women's Institute. This had been prepared by the local postmistress, Mrs Dorothy Shaw, and her family and was a veritable gargantuan spread to which we all fell with great relish. The meal concluded, though by no means entirely consumed, suitable expressions of gratitude to both our hosts and to all concerned with the success of the venture, by our President, Mr L. A. Speed and Dr D. M. Jeffreys, brought a spontaneous outburst of applause. I personally would like to put on record the indebtedness of my wife, self and others during

the past to Mr and Mrs John Brunskill of Sedburgh (formerly of Millses Farm, Dockray) and the Bell family of Dacre (formerly of Matteredale), three of whom were with us on this occasion as guests, and of course, Mrs Shaw. The outing had been the logical outcome of past and continuing friendships. A commemorative series of photographs was taken of the group, by myself, before commencing the home journey. As the party left to join the coach, a pair of RAVENS Corax corax flew from crags nearby. It was strange that no BUZZARDS Buteo buteo were seen during the trip.

A gloriously sunny evening enhanced the view of Ullswater Lake as the coach descended Park Brow to the lakeside road, when, turning towards Patterdale, we enjoyed the magnificent view across the water to Place Fell on the far shore. At the head of the valley we saw peaceful Brothers Water with adjacent wooded slopes; mauve with an abundance of BLUEBELLS Scilla non scripta. From here started the tortuous steep ascent of Kirkstone Pass where, along the route, several WHEAT-EARS Oenanthe oenanthe flitted along the bordering stone walls. Eventually the summit was gained and on the downhill journey we saw Windermere Lake in the distance and were particularly awed by the Troutbeck valley which fell away precipitously, in its upper reaches, to our left. Reaching Bowness, we glimpsed further views of Windermere, before travelling southwards through the leafy lanes of the Lyth valley, famous for its damson orchards and resplendent with snowy blossoms in early spring. Eventually we joined the A.1 at Levens Hall with its ornamental topiary gardens and from a vantage point a few miles beyond, we spied in the distance the sands of Morecambe Bay.

The coach was halted a few miles short of the M.6 junction so that our car party, including Mr Flesher, could say our grateful farewells to the coach party, with special thanks to our coach driver, Mr Hall of Turvey, whose willing co-operation on this and many previous occasions had ensured the success of a variety of excursions. The main party had an uneventful journey home arriving soon after midnight, while our car journeyed via Lancaster and through the Trough of Bowland, in deteriorating weather, to return Mr Flesher to his home in Burley-in-Wharfedale. Dawn had broken when we eventually reached Bedford 'with the milk'.

Subsequently, we received so many letters of appreciation from members; which confirmed that in every respect, the weekend adventure had been an outstanding success.

H. A. S. KEY

REPORTS OF RECORDERS

Flowering Plants and Vascular Cryptogams

The year has seen a greater amount of field work done in the county than in any year since the publication of the flora in 1953. The revision of the flora on a tetrad basis of recording has made great progress with about 66% of the final objective having been reached in the short time of two years. This has been made possible only with the valuable assistance among others of Mrs A. Berens (Great Barford), Dr Nancy Dawson (Ickwell Green), Miss G. Elwell (Dunstable), Mrs P. D. Rixon (Rushden), H. B. Souster (Luton) and my wife.

It is significant that with so much work done no new native or colonist species were added although many species were found in new and often unexpected

localities. The maps of many species reveal interesting patterns of distribution. It would appear that the native flora of the county is well known and documented. An extension of the knowledge of the flora may be illustrated by the discovery at Chalgrave by P. M. Benoit of Juncus x diffusus, the hybrid of our two common rushes Juncus effusus and J. inflexus. This rare hybrid has been long expected to be found in the county.

It was a bad year for alien species with only Hyoscyamus albus L., found in 1971 on Bedford R.D.C. rubbish tip, to be added to the already long list of introduced plants.

J. G. DONY

BRYOPHYTES

There are approximately 900 species of mosses and liverworts in Britain, but the county of Bedfordshire is not renowned for its Bryological interest. The number of species is low, due to a number of contributory factors: low rainfall, lack of coastline and mountainous areas, few bogs and a high level of land utilisation for agricultural, domestic and industrial purposes.

The last published account of Bryophytes in Bedfordshire, by P. Taylor (Hepatics) and the late T. Laflin (Mosses), appeared in Dr J. G. Dony's "Flora of Bedfordshire", published in 1953. They recorded a total of 210 mosses and 33 liverworts of which 175 mosses and 26 liverworts had been seen since 1947.

The total number of species recorded for the county now stands at 273 of which 43 species are hepatics and 230 mosses.

In the two years since I first became interested in the Bryophyte Flora of the county I have personally recorded 163 species (141 mosses and 22 liverwort). Many of these are species not recorded in the 1953 Flora whilst some species, though once common are now proving difficult to find.

The best recorded grid squares are 42/92 with 107 species and 52/03 with 106. Squares in the north of the county are generally under-worked and I would be very grateful to receive specimens from members of the Society, especially from the north.

I would like to express my sincere thanks to Mr J. C. Gardiner for supplying many recent records and for much useful advice and encouragement, and also to Mr G. Titmus and Dr H. K. L. Whitehouse who have also contributed records.

ALAN R. OUTEN

April 1973

METEOROLOGY

Very dry, but with a very dull and cool summer, epitomises the weather of 1972. This is an unusual combination, for one associates a low rainfall with prolonged periods of warm and sunny weather, as in 1911, 1921, 1947 and 1959, but on this occasion the hours of sunshine were well below average throughout the spring and summer months, especially in May, June and July, and average temperatures suffered accordingly.

January was mostly wet and unsettled, with cold easterly weather and a little snow at the end of the month extending into the first two days of February.

Thereafter, the latter continued unsettled, with fewer frosts and more rain than usual, while March, after a warm spell at mid-month, with temperatures up to 18 deg. C. on the 16th, ended with its usual reversion to more seasonable conditions. April rainfall was above average and this was the latest month of the year of which this could be said.

May began auspiciously, but it was, in general, a cool cloudy month of unsettled weather and was followed by an unusually dull June, deficient alike in rain or sunshine, with an average maximum temperature nearly 2.5 deg. C. below average.

The best period of summer weather occurred in mid-July from the 9th to the 20th inclusive. These twelve days were rainless and the highest temperature of the year (25 deg. C.) was reached on the 18th. The rest of the month was less settled; a thundery tendency developed, culminating in the heavy storm of the 31st.

The three months of August, September and October were all unusually dry. At some stations there was no measurable rain between the 8th August and 2nd September - 24 days - and between 18th September and 8th October - 19 days. A predominance of north and north-east winds, with accompanying cloud, made September's average temperature much lower than usual, but October had some fine sunny days, such as the 6th, when a maximum of 22.2 deg. C. was attained.

November began with a thick fog and several days of mild cloudy weather, but the usual break to wintery conditions came on the 7th and thereafter the month was cold and unsettled. December began with its customary deep depression and strong winds which produced considerable flooding and damage in parts of southern England, though not in this county. After a fine second week there were several days of thick fog before Christmas and again at the end of the year.

TEMPERATURES

It is unusual to find a year in which the highest temperature never reaches 80 deg. F., equivalent to about 27 deg. C., but in 1972 the warmest day was 18th July, with only 25 deg. C.

There was only one day, 31st January, on which the temperature remained below freezing-point all day, with a maximum of -0.5 deg. C. while the previous night gave the lowest minimum of the year, -7.7 deg. C.

That the average temperature for the whole year was as high as 9.0 deg. C. was accounted for by the absence of severe weather in the first three months of the year and in December; the low averages of the summer months were thus partially offset.

RAINFALL

This was everywhere below average by amounts ranging from 18 to 23 % and one has to go back to 1964 for comparable figures. The principal deficiencies occurred in June, August and October; in the north of the county some stations recorded only about one-quarter of average in August, while at Sandy Lodge only 8.1 mm. was recorded in October.

In the north of the county January was the wettest month of the year, with rain on 25 days, although in the south December was wetter by a small margin. The general pattern was upset in several places by the thunderstorm of 31st July.

The long dry spells in the early autumn have already been mentioned; there were no comparable periods of continuous wet weather. In many places, more especially in the middle of the county the wettest day of the year was 31st July, due to the prolonged thunderstorm on that evening, but the early morning storm of the 21st, ten days earlier, gave higher totals in the Bedford area. The

RAINFALL for 1972 (in mm.)

	Cardington	Dunstable	Husborne Crawley	Kempston	Luton A	Luton B	Sandy	Silsoe
January	49.0	75.8	59	50.8	66.6	70.1	55.6	49.1
February	33.7	59.6	38	39.1	57.5	58.8	41.1	38.3
March	45.5	72.8	43	42.2	64.8	65.8	37.1	54.9
April	47.5	61.0	49	40.1	56.2	56.6	55.4	48.8
May	34.4	41.1	40	36.8	35.5	50.6	31.0	33.0
June	19.9	42.8	27	26.4	31.8	40.3	27.2	29.3
July	44.5	30.1	67	50.0	25.5	28.4	26.2	30.2
August	13.9	35.6	15	16.5	34.5	35.0	26.4	28.6
September	36.0	37.9	36	38.9	32.5	33.2	38.9	32.3
October	17.3	26.1	22	24.9	22.0	27.0	8.1	19.7
November	46.0	62.7	52	47.8	48.8	57.7	43.2	43.8
December	36.2	83.1	46	45.2	64.7	76.7	45.2	51.3
Total	423.9	628.6	494	458.7	540.4	600.2	435.4	459.3
Average	552.9		627	579.4	672.3			559.0

Cardington: R. A. F. Station per L. A. Speed

Dunstable: Periwinkle Lane

Luton: Crescent Road (A) and Runley Wood (B)) Lee Valley Water Co. per E. G. Meadows

Kempston: Stuart Road, Mr C. S. Payne

Husborne Crawley: Woburn Experimental Farm (Rothamsted Experimental Station, Annual Report 1972)

Sandy: R. S. P. B., Sandy Lodge per R. Hawley

8th September was everywhere a day of unusually heavy rain, 16.7 mm. being recorded at Cardington.

SNOW

Snow fell on only seven occasions in Bedford and the amounts were neither heavy nor prolonged. A fall on the evening of 1st February remained unmelted all night but quickly disappeared on the following day.

THUNDER

Thunder was heard on only seven occasions in Bedford and the accompanying rainfall was small. A severe and slow-moving storm on the evening of 31st July hardly affected Bedford but produced torrential rain and flooding in the Ampthill - Flitwick - Toddington areas and significantly affected the monthly totals as far afield as Kempston and Husborne Crawley. The early morning storm of 21st July gave a total of 18.7 mm. at Cardington.

SUNSHINE

Interesting figures have been made available by the Rothamsted Experimental Station of the monthly sunshine records at the Woburn Experimental Farm at Husborne Crawley. These show that sunshine was deficient by no less than 20% in each of the three months, May, June and July, and that the total for the whole year was over 13% below average.

A. W. GUPPY

LEPIDOPTERA

1972 proved to be as disappointing as was 1971 as far as Butterflies were concerned. Once again (30) Red Admiral Vanessa atalanta. L. (31) Painted Lady Vanessa cardui. L. and (38) Comma Polygonia c-album. L. were rarely seen. On the other hand (68) The Holly Blue Celastrina argiolus. L. was to be seen quite commonly in early May and again in August when I saw examples flying in Bedford town centre and on August 20th I watched several females egg laying on the flower buds of Ivy.

The continued scarcity of (58) Small Copper Lycaena phlaeas. L. is disturbing and I would welcome reports of the occurrence of this easily recognisable species from any parts of the county.

The moth situation proved to be more satisfactory, and I received a request from The Bedfordshire and Huntingdonshire Naturalists Trust via Dr Nancy Dawson to run a mercury vapour lamp trap on Warden Tunnel to investigate the moth population with regard to future management of this site. 70 species were recorded from the tunnel top and a very interesting discovery was the existence of a strong colony of (144) Plain Blackneck Lygephila pastinum. Treits. and it is hoped that the management of the site will include the preservation of the larval food plant Tufted Vetch Vicia cracca to ensure the continued existence of this species. I have only recorded this species once previously at Souldrop.

On August 5th a mothing evening was held at Felmersham Gravel Pit. 16 members attended this meeting and 32 species were recorded (Please see separate account.)

Hardwick Spinney, Stagsden, was also investigated from early July until the end of October as part of the Societies' survey work on this site. The trap was

run at weekly intervals and so far 116 species have been recorded. On 15th July two new firsts were recorded by me, these were (116) Maple Prominent Lophopteryx cucullina, Schiff. and (788) Dark Scallop Philereme transversata, Hufn.. It is hoped to run the trap again this year to complete a full season's recording, the results of which it is hoped will be published. I would like to thank Mr H.A.S. Key for providing transport for my equipment.

As a result of running the trap at home in Rosamond Road a single specimen of (666) Beautiful Hook-wing Laspeyria flexula, Schiff. and a single fresh specimen of (334) Bordered Orange Pyrrhia umbra, Hufn. were taken, both being new records for the garden. The former I have never taken before, and the latter only once from Stevington.

The numbers against the species named refer to the New Label List of British Macrolepidoptera by I.R.P. Heslop, 1961.

I would like to thank the following members for kindly sending in records:- A.W. Clarke of Sandy, Sandy Lodge Records via Dr Nancy Dawson, Messrs Ford, Rands and Seaman of Luton. I would appeal to all members to send in any records from any part of the County as these will be invaluable for the Tetrad Records now under way. I will endeavour to name species any Member may wish to have identified.

W. J. CHAMPKIN

MOLLUSCA

Work has progressed steadily during 1972. All species are now being recorded on a Tetrad basis and maps have been prepared for all species known to exist in Bedfordshire. Patterns are already beginning to emerge from these maps, e.g. Pomatias elegans shows quite clearly a distribution confined to the chalk in the South of the County and the limestone in the North. The large river Mussels show the distribution of large bodies of water, such as rivers and lakes. Some species of snails are being found in almost every tetrad investigated.

Limax flavus recorded by Dr Verdcourt in his Luton garden has been found once again in Luton, this time on the pavement in Waller Street on a very damp morning.

Agriolimax caruanae was found for the first time in Bedfordshire in a lay-by near Shefford and constitutes a new Vice County record. Specimens of this slug were also taken on a Field Meeting near Leighton Buzzard, but these were, in fact, in the Vice County of Buckinghamshire.

If an atlas of the Mollusca is to be published in due course a great deal of help will be needed. Please send me specimens, there is no need to worry about identification, I will gladly do this. I am most grateful to those Members who have sent me material during 1972.

LIST OF CONTRIBUTORS

Dr Nancy Dawson, Dr and Mrs J. G. Dony, Dr B. Nau, Dr B. Verdcourt, Miss Smart and family, Messrs C. Banks, C. Burton, W. Champkin, A. Ford, H. Key, A. Livett, T. Thomas and many Student Members have helped. Special thanks must go to Dr M.P. Kerney, Imperial College, London, for continuing to identify Pisidium sp.

E. BERYL RANDS

LEECHES AND FLATWORMS

During the Autumn of 1972 I noticed that while looking for Freshwater Mollusca I was also finding large numbers of Leeches and Flatworms. An attempt is now being made to identify and map these groups. There are approximately 12 species in each group, but not all can be expected to occur in Bedfordshire. I would be glad to receive specimens from Members, especially from those who have ponds in their gardens. Where possible I would also like specimens of the pond snails, as Leeches are parasitic upon some species of Freshwater Snails and it would be interesting to see if any pattern emerges from garden ponds.

LIST OF CONTRIBUTORS

Dr. Nancy Dawson, Dr B. Nau, Mr W. Champkin.

E. BERYL RANDS

BIRDS

INTRODUCTION

The volume of records submitted for 1972 was about the same as for 1971, despite relatively low numbers and variety of waterfowl at the start and end of the year, and poor wader and tern passages. Stewartby Lake and Dunstable sewage farm, two of the most productive localities for records in the past, were rendered largely unsuitable for birds due to intensive recreational uses (mainly water-skiing) and reconstruction work respectively. Studies of breeding distribution, including fieldwork for the British Trust for Ornithology's Atlas of Breeding Birds in Britain and Ireland, continued apace and several species rare as breeding birds in the county were discovered. These included new breeding records of Black Redstart and Firecrest. Monthly wildfowl counts during the winter of 1972/73 were organised more fully than previously, the November count achieving almost complete coverage of sizeable waters. The three rarest vagrants during the year were a Ring-necked Duck and a Wilson's Phalarope from North America, and a Woodchat Shrike from southern Europe: details are given in the systematic list.

In all, 162 species were reliably recorded in Bedfordshire in 1972, including six possibly or probably escaped from captivity, or recently feral (Mandarin, Red-crested Pochard, Greylag Goose, Reeves's and Lady Amherst's Pheasants, and feral pigeon). Additional 1971 records of Kestrel and Tawny Owl, and a correction for Willow Warbler, are given under those species in the main body of the systematic list.

B. T. O. ATLAS SURVEY 1968-72

1972 was the final year of this five-year project to map the distribution of the breeding birds of Britain and Ireland. The national results are eventually to be published in book form. In the 21 10 km. squares of the National Grid comprising the Bedfordshire area (see Bedfordshire Naturalist, 26: 12-15), which include small parts of adjacent counties, about 335 improvements were made during 1972, these being either new species in a square or 'up-gradings' from possible to probable, or from probable to proved breeding (for which the criteria are defined). It is hoped to publish a full report in the next Journal. The provisional total of species found in suitable nesting habitat in the breeding season is 124, of which about seven were recorded only in parts of 10 km. squares outside the Bedfordshire boundary.

Of the 124 species in the whole area, Buzzard, Reeves's and Golden Pheasants were recorded only as first-column entries (present in possible breeding habitat); Black-necked Grebe, Corncrake, Curlew, Common Sandpiper, Stone Curlew, Stonechat, Firecrest and Brambling were recorded only to second-column status (probably breeding), and for 113 species breeding was proved. Sixty-three species were found in all 21 squares, and 37 of these were proved to be breeding in all the squares. The number of species found per square varied from 75 to 110 (average 89) and the number proved from 58 to 96 (average 73).

In the systematic list that follows, the figures against the species' names indicate the number of 10 km. squares in the Bedfordshire area in which that species was recorded in each of the three categories of breeding evidence during the five years 1968-72. For example, the 1-4-15 against Little Grebe means that, respectively, in one square it was recorded as present in breeding habitat, in four more squares it was recorded as probably breeding, and in 15 of the remaining 16 squares breeding was proved. For some of the scarcer species, Atlas data that refer to parts of adjacent counties have been so designated.

The county breeding bird survey by tetrads (2 km. squares) continues, and should be completed in 1974.

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SYSTEMATIC LIST FOR 1972

Species recorded in Bedfordshire during 1972, and not included in the systematic list are: GREY HERON Ardea cinerea (12-0-4), MUTE SWAN Cygnus olor (0-0-17), RED-LEGGED PARTRIDGE Alectoris rufa (0-0-21), PARTRIDGE Perdix perdix (0-0-21), PHEASANT Phasianus colchicus (0-0-21), MOORHEN Gallinula chloropus (0-0-21), GREAT BLACK-BACKED GULL Larus marinus, LESSER BLACK-BACKED GULL Larus fuscus (0-0-1), HERRING GULL Larus argentatus, COMMON GULL Larus canus, STOCK DOVE Columba oenas (0-1-20), FERAL PIGEON Columba livia (2-3-11), WOODPIGEON Columba palumbus (0-0-21), LITTLE OWL Athene noctua (0-1-20), GREEN WOODPECKER Picus viridis (1-6-14), GREAT SPOTTED WOODPECKER Dendrocopos major (4-4-13), SKYLARK Alauda arvensis (0-0-21), CARRION CROW Corvus corone corone (0-0-21), ROOK Corvus frugilegus (0-0-21), JACKDAW Corvus monedula (0-0-21), MAGPIE Pica pica (2-2-17), JAY Garrulus glandarius (1-1-19), GREAT TIT Parus major (0-0-21), BLUE TIT Parus caeruleus (0-0-21), COAL TIT Parus ater (1-1-19), MARSH TIT Parus palustris (0-3-18), WILLOW TIT Parus montanus (0-1-20), LONG-TAILED TIT

Aegithalos caudatus (0-0-21), TREECREEPER Certhia familiaris (0-2-19), WREN Troglodytes troglodytes (0-0-21), MISTLE THRUSH Turdus viscivorus (0-0-21), SONG THRUSH Turdus philomelos (0-0-21), ROBIN Erithacus rubecula (0-0-21), GOLDCREST Regulus regulus (0-1-20), DUNNOCK Prunella modularis (0-0-21), STARLING Sturnus vulgaris (0-0-21), GREENFINCH Carduelis chloris (0-0-21), GOLDFINCH Carduelis carduelis (0-0-21), LINNET Acanthis cannabina (0-0-21), BULLFINCH Pyrrhula pyrrhula (0-0-21), CHAFFINCH Fringilla coelebs (0-0-21), CORN BUNTING Emberiza calandra (0-4-17), YELLOWHAMMER Emberiza citrinella (0-0-21), and TREE SPARROW Passer montanus (0-0-21).

The following abbreviations are used in the text: SF - Sewage Farm, ChP - Chalk Pit, CIP - Clay Pit, GP - Gravel Pit, SP - Sand Pit, L - Lake, NR - Nature Reserve. All records are of single birds unless otherwise stated.

GREAT CRESTED GREBE Podiceps cristatus 0-0-15

A total of at least 13 pairs raised at least 19 young at Brogborough CIP, Felmersham NR, Harrold L, Houghton Regis ChP, Luton Hoo L, Stewartby L, Woburn Park lakes and Wyboston GP. Also recorded during April - July at Dunstable SF and Marstonpark CIP; probably under-recorded during the breeding season. The highest counts were as follows: at Stewartby L. 40 on 26th Feb., 35 on 16th September and 47 on 23rd December; and at Vicarage Farm CIP, 35 on 20th August.

RED-NECKED GREBE Podiceps griseigena
One at Blunham GP on 31st December (RFP).

LITTLE GREBE Tachybaptus ruficollis 1-4-15

Thirty at Blunham GP on 22nd October (AZ) was a very high concentration.

CORMORANT Phalacrocorax carbo

An adult flying north over Luton Hoo L on 16th April (AJL, MRS), an adult at Vicarage Farm CIP on 12th August (PAMG), and single immatures at Stewartby L/Vicarage Farm CIP on 16th September (BS, MRS) and at Wyboston GP from 14th October until the end of the year (PFB, RR).

MALLARD Anas platyrhynchos 0-0-21

The maximum monthly counts at selected localities from January to March and from September to December are tabulated. In this and the following tables ' - ' indicates that no count was received.

	Jan	Feb	Mar	Sept	Oct	Nov	Dec
Brogborough CIP	-	-	-	400	400	30	-
Harrold L & GP	155	44	47	95	150	112	70
Luton Hoo L	195	70	51	200	271	257	161
Southill L	255	150	75	410	400	420	370
Vicarage Farm CIP	420	-	-	300	200	-	-

There were about 100 at Luton Hoo L on 11th June, and other three-figure counts were made in October at Wyboston GP (134), in November at Elstow CIP (165) and Woburn Park lakes (192), and in December at Blunham GP (146). January and November counts of 315 and 286 on R. Ouse through Bedford, and of 200 and 160 at Bedford Park L, included a proportion of resident tame birds. Totals of less than 100 were recorded at many other localities in all months.

The highest monthly county total was about 2000 in November, though Vicarage Farm CIP was not covered.

TEAL Anas crecca

9-1-1

The maximum monthly counts at selected localities from January to March and from September to December are tabulated.

	Jan	Feb	Mar	Sept	Oct	Nov	Dec
Bedford SF area	25	27	6	2	4	68	55
Harrold L & GP	15	2	2	7	8	19	12
Luton Hoo L	35	1	0	10	5	21	33
Southill L	25	110	2	45	80	50	80

Totals of up to 15 were recorded at 18 other localities, but none during May - July. The highest monthly county total was about 230 in December.

GARGANEY Anas querquedula

A pair at Wyboston GP on 18th March, which had gone by 26th (PFB), and drakes at Harrold GP on 26th and 28th March (MAW), on R. Ouse at Biddenham on 30th April (JTRS), and at Blunham GP on 14th - 15th July (RFP). Four (three males, one female) in Woburn Park on 8th August (DL) may have been introduced.

GADWALL Anas strepera

1-0-1

A drake at Harrold L on 23rd January (PFB,PT), two at Eversholt L on 27th February (AJL) and a drake at Chawston GP on 11th November (PFB). The record of proved breeding for the Atlas was from outside the county.

WIGEON Anas penelope

One to 13 at seven localities up to 12th March, and up to seven at five localities from 10th September.

PINTAIL Anas acuta

Two drakes and two ducks at Stewartby L on 9th January (AJL, MRS), two at Harrold GP on 30th January (MAW), three at Southill L on 17th September and one there on 15th October (MRS), and a drake at Luton Hoo L on 12th November, 18th and 28th December, with a female there on the middle date (AJL).

SHOVELER Anas clypeata

4-1-3

One to five at six localities up to 18th April. Ten at Blunham GP on 22nd May (RFP). At Luton Hoo L a pair in suitable breeding habitat until at least 11th June, but nesting not proved (AJL). Up to six at seven localities from 10th September.

MANDARIN Aix galericulata

A pair by the Grand Union Canal at Old Linslade on 21st March and a drake there next day (PAMG). Two drakes and four ducks at Bison Pond, Woburn Park, on 19th November (AJL, MRS) were probably introduced stock.

RED-CRESTED POCHARD Netta rufina

A female at Wyboston GP on 18th and 26th March (PFB) might have escaped from a collection, though its very wary behaviour suggested that it was

more likely to have originated from the Continent during an influx of this species the previous autumn. It is of interest that up to five were seen a few miles to the north at both Paxton GP and Grafham Water, Hunts., repeatedly during the winter of 1971/72.

TUFTED DUCK Aythya fuligula

2-2-13

Young seen at Battlesden L, Felmersham NR, Luton Hoo L and Wyboston GP, but almost certainly under-reported; also recorded during April-July at ten other localities. The maximum monthly counts at selected localities from January to April and from September to December are tabulated.

	Jan	Feb	Mar	Apr	Sept	Oct	Nov	Dec
Blunham GP	36	82	3	-	-	71	140	257
Felmersham NR	48	-	-	-	46	75	60	88
Girtford GP	60	56	110	-	35	9	3	12
Harrold L & GP	62	50	45	23	34	79	47	54
Langford GP	61	-	-	-	-	-	46	121
Stewartby L	-	-	-	13	9	35	114	15
Vicarage Farm CIP	3	-	-	-	60	104	-	-
Wyboston GP	280	130	114	79	21	61	9	207

Totals of less than 75 were recorded at many other localities during these months. The highest monthly county total was about 900 in December.

RING-NECKED DUCK Aythya collaris

A drake at Luton Hoo L from 16th April to 7th May (PFB, AJL, MRS) was the first county record of this vagrant from North America. It has been accepted by the Rarities Committee of British Birds.

POCHARD Aythya ferina

3-0-9

Recorded during May-July only at Battlesden L (one pair) and Luton Hoo L (up to seven birds), but no proof of breeding. The maximum monthly counts at selected localities from January to March and from September to December are tabulated.

	Jan	Feb	Mar	Sept	Oct	Nov	Dec
Blunham GP	8	29	-	-	15	52	104
Brogborough CIP	-	-	-	180	170	110	84
Southill L	55	36	11	25	23	34	69
Stewartby L	53	-	-	6	23	5	8
Wyboston GP	55	4	1	16	36	10	32

Totals of less than 50 were recorded at many other localities during these months. The highest monthly county total was 350 in December.

GOLDENEYE Bucephala clangula

During January-April frequently recorded at Stewartby L, where maximum of nine on 26th March; last, five on 3rd April. Totals of four at three other localities in January and February, and of about nine at four waters from 22nd October.

GOOSANDER Mergus merganser

Single drakes at Stewartby L on 26th February (MRS) and at Wyboston GP next day (PAMG, PS); and single females at Wyboston GP on 14th October (PFB)

and at Leighton Buzzard SP on 25th December (MRS).

SHELDUCK Tadorna tadorna 1-0-2

One at Dunstable SF from 7th to 14th August (MRS), an immature drake at Harrold GP on 1st October (TJG, MAW), and one heading east over Sandy Lodge on 25th December (RGH). One pair raised young at Millbrook CIP (per AJL). The column one Atlas entry refers to apparently introduced birds in Wrest Park (JM), which is in TL03; the other record of proved breeding was outside the county.

GREY GEESE Anser sp

On 20th February a flock of about 55 circled Luton Hoo Park before eventually flying off north-eastwards (AJL). Due to the appalling weather conditions - dense low mist and drizzle - it was impossible to obtain sufficient details for identification.

GREYLAG GOOSE Anser anser 4-0-3

Feral flocks of six and 25 frequented the Blunham-Wyoboston area in the early part of the year; numbers varied subsequently (up to 48) with controlled shooting and re-stocking. Nine feral at Harrold GP from October onwards. Reported also, in varying numbers, from Bedford, Kempston, Wrest Park, Woburn Park and Luton Hoo Park, though some of these may have been pinioned and some were certainly hybrids.

CANADA GOOSE Branta canadensis 4-0-6

Two on R. Lea, East Hyde, on 1st February, four at Felmersham NR on 17th March, two at Dunstable SF from 18th March to 13th April (but three on 31st March) and one there on 30th April, one circling Goldington School playing fields, Bedford, on 16th April, and five south over Luton on the following day.

At Luton Hoo L the family of five remaining from 1971 was seen up to April, but numbers had increased to ten by 26th of that month and to 13 by 14th May. Subsequently they fell to six, and a total of seven young was raised by at least two pairs. The six adults and the seven young remained until late December, but a count on 31st December revealed only twelve birds (AJL, MRS). Breeding also occurred for the first time at Battlesden L, where a pair reared four young (MRS), and at Langford GP (per AJL). The other three Atlas records of proved breeding were outside the county.

Flocks in Woburn Park of c10 in February and c30 in November, and some in Wrest Park, were thought likely to be recently introduced stock.

BEWICK'S SWAN Cygnus bewickii

Three adults which arrived at Dunstable SF in the afternoon of 18th March (DG, PAMG) had gone by the following morning. A herd flew over Sandy Lodge after dark, calling, on 21st March (RGH). One adult was seen at Leighton Buzzard SP on 19th November (AJL, MRS) and three there on 3rd December (MRS). Four stayed for a short time at Dunstable SF on 29th December (RD).

BUZZARD Buteo buteo 1-0-0

One in Luton Hoo Park from 10th September until the end of the year (AJL and Head Keeper), but two reported there on 22nd September (Head Keeper, per AJL). Two drifted north-west over Brogborough CIP on 16th September (BJN, BS, MRS). The Atlas record was outside the county.

A buzzard over the downland ridge at Whipsnade on 18th September (GJB) was reported as this species, but the description supplied was considered inadequate to eliminate others.

SPARROWHAWK Accipiter nisus 8-4-3
Single females at Sandy Lodge on 9th April and 15th October (RGH) and on 8th and 13th December (RGH, ANS).

HEN HARRIER Circus cyaneus
A 'ring-tail' flew north-west at Sandy Lodge on 12th October (RGH, TOJ).

OSPREY Pandion haliaetus
One flew west at Sandy Lodge on 30th August (MJE).

HOBBY Falco subbuteo 6-1-2
Singles at Chalton SF on 29th July (MRS), and at Sandy Lodge on 19th August and 13th September (RGH).

KESTREL Falco tinnunculus 0-2-19
Reported from 60 localities in all months; widespread both in and out of the breeding season. In about 30 square miles to the west, south-west and south of Bedford, seven pairs were located and at least 19 young fledged (PA, RP).
ADDITIONAL 1971 RECORD: In the same area near Bedford, seven pairs were located and a total of 27 young found, of which at least 19 flew (PA, RP).

REEVES'S PHEASANT Syrnaticus reevesi 1-0-0
A male in Baker's Wood, Heath and Reach, on 1st June (PAMG).

LADY AMHERST'S PHEASANT Chrysolophus amherstiae 2-1-3
About twelve pairs of feral birds in Luton Hoo Park in the early part of the year, and five males and seven females on 10th September (Head Keeper, per AJL). A male near Eversholt, just outside Woburn Park, on 6th February (AJL). One pair bred successfully in Maulden Wood (Head Forester, per AJL).

WATER RAIL Rallus aquaticus 4-4-3
No breeding records were received. Singles were recorded in the early part of the year at Bedford SF, Dunstable SF, Woburn Park, Chalton SF, Flitwick Moor and Harrold GP, and in the latter part at the last three localities and at Luton Hoo Park and Odell Mill.

COOT Fulica atra 0-0-21
Counts of 100 or more at Blunham GP, Brogborough CIP, Chimney Corner CIP, Harrold L & GP, Luton Hoo L, Vicarage Farm CIP, Woburn Park and Wyboston GP during January-March and September-December, with smaller numbers in all months at these and many other waters. The highest monthly county total was about 1250 in November.

OYSTERCATCHER Haematopus ostralegus
One flew east over Putnoe, Bedford, at midnight on 13th/14th April, calling frequently (PFB).

LAPWING Vanellus vanellus

0-0-21

The largest flocks reported were of at least 1000 at Chiltern Green, Luton, on 16th January, 500 at Wyboston GP on 27th February and 400 in Luton Hoo Park on 31st December. The biggest movement reported was of c500 heading southwest in flocks of 50-150 in freezing weather at Pegsdon Hills on 30th January.

RINGED PLOVER Charadrius hiaticula

0-0-2

Spring passage: Harrold GP, one on 26th February (very early). Houghton Regis ChP, singles on 9th and 30th April and 6th May, and four on 7th May. Dunstable SF, singles on 2nd, 6th and 19th May.

Breeding: A pair laid four eggs at the same site as in 1971. All hatched about 11th June and the four young were well grown by 24th June. The locality and observers' names are withheld for security reasons; the other Atlas record was outside the county.

Autumn passage: The only records were from Bedford SF: one on 17th and 27th July, two on 5th September, one on 7th and three on 26th.

LITTLE RINGED PLOVER Charadrius dubius

0-2-8

Spring passage: Blunham GP, three on 24th March and up to about six subsequently. Harrold GP, one on 26th and 28th March, two from 29th to 9th April, six on 12th, eight on 16th, ten on 30th etc. (see also 'Breeding'). Dunstable SF, one on 8th April, three on 9th and up to four on many dates until 19th May; two on 4th June. Wyboston GP, a pair defending territory and one single bird on 16th April (see also 'Breeding'). Houghton Regis ChP, two on 30th April, three pairs defending territories on 6th May and up to three birds until at least 27th May.

Breeding: Three nests found at Harrold GP on 7th May, but the outcome is unknown. Four pairs holding territories at Wyboston GP in June, two of which raised four young. One pair nested at Sandy SF, but details not known. Two at both Bromham GP and Clapham GP on 17th June but no further information.

Autumn passage: Dunstable SF, one on 6th July, two adults and two juveniles on 9th and 16th, and three on 17th. Houghton Regis ChP, six adults and two juveniles on 9th July and three birds on 22nd. (Some of the juveniles at these sites might have been reared in that area). Bedford SF, on many dates from 22nd July to 17th September, maximum three on 28th August.

GREY PLOVER Pluvialis squatarola

One at Bedford SF on 16th and 17th September (PFB, RHL, RVAM).

GOLDEN PLOVER Pluvialis apricaria

Recorded in the early part of the year at four localities, the largest flock being c400 near Rowney Warren on 15th January (MRS); last, c300 which came down on Thurleigh airfield on 4th April (Air Traffic Controller, per DAR). First in autumn over north Luton on 22nd August (AJL), then at seven localities, maximum c30 at Someries, near Luton airport, on 12th November (MRS).

TURNSTONE Arenaria interpres

Three at Dunstable SF on 7th May (RD).

SNIPE Gallinago gallinago

5-6-7

The only localised records during May-June involved two breeding pairs (one young found) near Grange Mill, Heath and Reach (HMG) and single birds at Sandy Lodge and Wyboston GP. In the early part of the year by far the largest concentration was c180 at Wyboston GP on 27th February (PAMG, PS). Autumn arrivals at Bedford SF started very early with three on 5th July (RBS) increasing to 25 by 8th August (PT); 10-20 remained from 11th August to 7th September and then numbers rose to 50 on 9th September (PT) and to 87 by 22nd (JTRS), subsequently stabilising at 45-55 during October-December (PFB). Much smaller numbers were recorded at many other localities during January-April and September-December.

JACK SNIPE Lymnocyptes minimus

Very few reports other than at Bedford SF. In the early part of the year one or two were flushed at Harrold GP and Wyboston GP in January and February. The first in the autumn was early - at Dunstable SF on 16th September (KRW) - and was followed at Bedford SF by one on 9th October and up to five until the end of the year. There were also singles at Chalton SF in November and at Sandy Lodge in December.

WOODCOCK Scolopax rusticola

2-6-9

Roding birds noted at Blackhfields Plantation (Millbrook), Chiltern Green (Luton), Luton Hoo, Maulden Woods, Odell Plantation and Sandy Lodge. One shot near Toddington in December had been ringed in Denmark, but the details are not yet to hand (SG).

CURLEW Numenius arquata

0-1-0

Single birds at Harrold GP on 12th April (MAW), over Sandy Lodge on 18th April, 12th August, 11th September and 19th October (RGH), at Stewartby L on 25th June (PFB) and 15th October (BS), over north Luton on 2nd August (AJL), and over Houghton Regis ChP on 15th October (BS, MRS).

WHIMBREL Numenius phaeopus

One west over Sandy Lodge on 13th September (RGH).

BLACK-TAILED GODWIT Limosa limosa

One on floodwater at Felmersham on 13th March (DC).

GREEN SANDPIPER Tringa ochropus

Winter and spring passage: Two at Dunstable SF on 9th January and one there on 22nd March and from 10th to 14th April. One at Blunham GP on 16th February and 22nd March, and one at Bedford SF on 26th March.

Autumn passage and winter: Bedford SF, present from 5th July to at least 17th December: maxima two in July, five in August (on 17th) and four in September (on 9th) and only single bird(s) from 15th September onwards. Dunstable SF, present from 6th July to 1st September, maximum five on 9th and 10th July. Bromham GP, two on 20th July and one on 12th November. Houghton Regis ChP, one on 28th July and two on 27th August. Harrold GP, from 30th July to 6th August, maximum three on 3rd. Sandy Lodge, singles from 5th to 7th and on 16th August.

WOOD SANDPIPER Tringa glareola

An exceptionally poor year. One at Bedford SF on 28th and 31st August (PT) was the only report.

COMMON SANDPIPER Tringa hypoleucos

2-1-0

Spring passage: One, probably a wintering bird, at Blunham GP on 24th March (RFP). Singles at Harrold GP on 16th April and 7th May. One at Dunstable SF on 28th and 30th April, three on 1st May and one on 20th. Single birds at Felmersham NR and on R. Ouse at Biddenham on 30th April, and at Luton Hoo Park on 7th May.

Autumn passage: Harrold GP, from 9th July to 17th September, maximum three on 27th August. Dunstable SF, from 16th July to 15th October, maximum six on 7th and 10th September, and only one remaining after 26th September. Bedford SF, from 17th July to 9th September, maximum six on 22nd July. Up to four at Chalton SF, Houghton Regis ChP, Luton Hoo, Luton SF, Southill L, Stewartby L and Wyboston GP on various dates between 22nd July and 24th September.

REDSHANK Tringa totanus

2-3-10

Winter: One at Harrold GP on 23rd January.

Spring passage and breeding: Blunham GP, one on 18th March. Dunstable SF, up to three from 18th March to 4th June. Wyboston GP, a pair displaying on 18th March and one or two to 21st May, but apparently absent on 11th June. Bedford SF, seven on 26th March and up to five thereafter, but no evidence of breeding. Harrold GP, three on 26th March and one or two to 4th June. Other records of up to three during April-June at Sandy Lodge, Stewartby L, Upper Standon, Houghton Regis ChP and Vicarage Farm CIP, including single pairs displaying or holding territories at the last two localities.

Autumn passage: Very poor, with only single birds at five localities from 9th July to 15th October.

SPOTTED REDSHANK Tringa erythropus

One in almost full summer plumage at Dunstable SF on 30th April (BS, MRS). One at Bedford SF on 14th and 17th August (PT). A juvenile on the partially dried bed of the R. Lea at Luton SF on 1st September (MRS), and one bird at Girtford North GP on 23rd September (CLT, RIT).

GREENSHANK Tringa nebularia

No spring records. Harrold GP, one on 9th July, two on 20th and 27th August and one from at least 7th September to 1st October. Houghton Regis ChP, singles on 22nd July and 10th, 16th and 24th September. Barkers Lane GP, Bedford, one south on 5th August. Bedford SF, one on 8th, 11th and 14th August and two on 17th. Stewartby L, two to four on 12th August and one or two during 9th-17th September. Heath and Reach SP, one on 16th August. Dunstable SF/Houghton Regis ChP, two on 27th August.

KNOT Calidris canutus

One at Harrold GP on 23rd January with a Redshank and a Dunlin, a very unusual trio in midwinter (PFB, PT, DW, MAW).

DUNLIN Calidris alpina

Winter: Singles at Dunstable SF on 21st January and at Harrold GP on 23rd.

Spring passage: Harrold GP, singles on 7th, 9th and 30th April, three on 7th May and two on 4th June. Dunstable SF, two on 30th April, one on 13th May and three on 20th. Houghton Regis ChP, two on 7th May.

Autumn passage: Harrold GP, one on 9th July, three on 21st and singles on four dates from 27th August to 29th October. Bedford SF, two on 22nd July and one or two from 28th August to 22nd September. Houghton Regis ChP, one on 22nd September.

CURLEW SANDPIPER Calidris ferruginea

An adult in partial summer plumage at Harrold GP on 20th July (DC, TJG, PJW). A juvenile at Dunstable SF/Houghton Regis ChP on 27th and 28th August (AJL, BS, MRS).

RUFF Philomachus pugnax

No spring records. Bedford SF, from 25th July to 22nd September, maximum four on 17th August and 22nd September. Harrold GP, one on 30th July. Dunstable SF, one on 9th and 12th August and two on 14th.

WILSON'S PHALAROPE Phalaropus tricolor

One found at Bedford SF by DB on 12th September, and first identified by PT on 14th, who found it independently, was seen by many other observers until the evening of 16th. This record, which has been accepted by the Rarities Committee of British Birds, was the second for the county, the first being at Stanford GP from 10th to 13th May 1958.

GLAUCOUS GULL Larus hyperboreus

An adult at Harrold GP on 19th November (MAW), apparently the first record for the county.

LITTLE GULL Larus minutus

An immature at Luton Hoo L on 31st August (MRS).

BLACK-HEADED GULL Larus ridibundus 0-0-5

At Wyboston GP, nine holding territories on 16th April had decreased to two pairs with nests in June; two pairs and one juvenile were found on 5th August. The only other breeding season record of note was of at least 500 on islands in Brogborough CIP on 25th June.

BLACK TERN Chlidonias niger

One at Brogborough CIP on 20th May (KRW), four in full summer plumage at Marstonpark CIP on 25th June (PFB), ten at Stewartby L on 12th August and one there on 9th September (PAMG, MRS).

COMMON TERN Sterna hirundo 0-0-2

Wyboston GP, five on 21st May, seven on 11th June; three nests found. None on 5th August and nesting probably unsuccessful due to excessive disturbance. Harrold GP, one on 2nd July and then one or two from 20th July to 20th August. Bedford SF, two over on 19th July and one south on 8th August.

COMMON/ARCTIC TERN Sterna hirundo/paradisaea

Two north over Sandy Lodge on 27th April. Twelve at Stewartby L on 12th August and three there from 9th to 17th September.

- TURTLE DOVE Streptopelia turtur 0-1-20
 First at Knocking Hoe NR, Pegsdon, on 30th April (CWB); last at Bidwell on 1st October (MRS).
- COLLARED DOVE Streptopelia decaocto 0-5-15
 Thorough searching in SP93 has failed to reveal any during 1968-72, though there are many suitable localities. In SP94 found only in Stagsden, where very common. This species is clearly still increasing and spreading in Bedfordshire.
- CUCKOO Cuculus canorus 0-2-19
 First at Whipsnade Zoo on 13th April (GJB); last, a juvenile at Sandy GP on 23rd September (PNH). Breeding proved in five new Atlas squares.
- BARN OWL Tyto alba 6-4-10
 Nesting pairs were recorded at Bromham Park and in the Carlton-Turvey area; at the latter site three young hatched, but two died and only one flew. Localised reports of pairs or single birds also came from Bourne End, Houghton Conquest, Luton SF, Ravensden, Sandy Lodge, Stagsden and Streatley. There is evidence that this species is decreasing and all records at all seasons are required.
- TAWNY OWL Strix aluco 0-1-20
 In about 30 square miles to the west, south-west and south of Bedford, 8 pairs were located and a total of 22 young found, of which at least 13 flew (PA, RP). ADDITIONAL 1971 RECORD: In the same area near Bedford, six nesting pairs were located but only nine young found (PA, RP).
- LONG-EARED OWL Asio otus 3-3-3
 The only records came from SP93. One pair reared two young, which hatched in June, and another pair and young (possibly the same family) were frequently heard in July at another site 1½ miles away (PFB, RGH, GOW).
- SHORT-EARED OWL Asio flammeus
 One on the Hertfordshire border south of Upper Stondon on 22nd January (CWB) and one in the Great Coombe, Pegsdon, on 15th October (KRD).
- NIGHTJAR Caprimulgus europaeus 2-8-1
 Single birds were seen or heard singing at four localities (in SP94, TL03, TL12 and TL14) in May or June (AGF, RGH, GOW).
- SWIFT Apus apus 1-0-20
 Nesting proved during 1968-72 in every square except TL06 where there are few, if any, suitable built-up areas. First, one at Dunstable SF on 30th April (MRS) and c 25 heading north over Sandy Lodge on 1st May (RGH), tying in closely with the national picture. Many more than usual in early September; last, one over Luton (AJL) and one at Bedford SF (RHL) on 17th.
- KINGFISHER Alcedo atthis 1-1-16
 Localised records from 18 localities, including R. Ouse in the centre of Bedford where one reported on six dates up to April and from September. Nesting proved at Odell Mill (four young) and near Great Barford, as well as at several regular sites.

LESSER SPOTTED WOODPECKER Dendrocopos minor

5-7-9-

Localised records were received from only 13 localities.

WRYNECK Jynx torquilla

One in a garden in Putnoe, Bedford, on 25th August (VH) coincided with a sizeable passage of this species both on the east coast and inland.

SWALLOW Hirundo rustica

0-0-21

First on 7th April at Colworth (Sharnbrook) (MR) and Heath and Reach (PAMG); last at Sandy Lodge on 27th October (RGH, TOJ).

HOUSE MARTIN Delichon urbica

0-0-21

First at Felmersham NR on 3rd April (TJG) and last in Luton on 3rd November (MRS). A very late brood in Luton, still in the nest, though about to leave, on 7th October (KRW).

SAND MARTIN Riparia riparia

3-0-15

First at Dunstable SF on 5th April (PAMG); last, about three at Sandy Lodge on 21st September (RGH).

HOODED CROW Corvus corone cornix

Singles east over Sandy Lodge on 12th March (RGH) and north over Thorn on 15th October (BS, MRS) showed the characters of this subspecies.

BEARDED TIT Panurus biarmicus

At Dunstable SF, a male on 26th November (GJB), two males and two females from 3rd to 25th December, and two males and one female on 26th (BDH, AJL, BS, MRS).

NUTHATCH Sitta europaea

5-1-11

Recorded north of Bedford in only six tetrads so far (out of 52 with at least 15 species). All records from the north and north-west of the county are required.

FIELDFARE Turdus pilaris

Rather low numbers in the early part of the year; last, c20 at Luton Hoo Park on 23rd April (AJL, MRS) and two at Felmersham NR on 30th (TJG). First in autumn, an early one at Dunstable SF on 3rd September (DG, AJL) and one at Bedford SF on 15th (PFB), then only a few here and there until the second half of October, when a very large passage. Maxima c540 over Sandy Lodge on 21st October (RGH, TOJ) and c500 at Pegsdon Hills on 25th November (AJL).

REDWING Turdus iliacus

Very scarce at the beginning of the year, but a marked increase with return movements in March. Maxima c500 at Luton Hoo Park on 12th March (AJL) and c1500 at Felmersham on 17th (JTRS); last at Sandy Lodge on 29th (RGH). First in autumn also at Sandy Lodge, three on 29th September (RGH). Huge passage in mid-October, including c2125 west over Sandy during 12th-14th (RGH, TOJ) and c4500 over Cleat Hill, Bedford, on 15th (DL).

BLACKBIRD Turdus merula

0-0-21

A nest was found in Mowsbury Park, Bedford, on 15th January, when it contained a single warm egg; on 16th there were three eggs and these were incubated

for about two more days but were then deserted (DL et al.).

RING OUZEL Turdus torquatus

A female at Sandy Lodge on 7th April and a male and a female there on 8th and 9th (RGH). A young female in the Great Coombe, Pegsdon, on 25th September (KRD).

WHEATEAR Oenanthe oenanthe

3-1-1

First in spring at Sandy Lodge on 25th March (RGH) and 13 others at four localities later in that month; last at Dunstable SF on 19th May (PAMG). First in autumn at Clapham on 20th July (PT); last at Biggleswade Common from 22nd to 29th October (CLT, RIT).

STONECHAT Saxicola torquata

0-1-0

A male at Chalton SF on 19th February (MRS), one at Wyboston GP on 12th November (PFB), and a female at Leighton Buzzard SP on 3rd and 10th December, with a male there also on 10th (AJL, MRS).

WHINCHAT Saxicola rubetra

3-2-6

The only spring migrants reported were a male at Dunstable SF on 30th April (BS) and one at Harrod GP on 1 in May (DC). Breeding proved in two new squares (TL04 and TL13). First autumn migrant at Vicarage Farm CIP on 20th August (PA) and last at Chalton SF on 23rd September (MRS).

REDSTART Phoenicurus phoenicurus

1-1-5

First at Sandy Lodge on 10th May and last at the same locality on 17th September (RGH). At least four pairs in Stockgrove Woods (PAMG) and two in the Wavendon Heath area (RGH) in June; about five juveniles also seen in Woburn Park in July (RGH).

BLACK REDSTART Phoenicurus ochruros

2-0-1

A female was found on a nest with five eggs in a crane cab in a Luton factory, but no male was present. The eggs were incubated for a month but did not hatch and appeared to be infertile. This is the first known breeding record for the county (many observers, per PFB, MJE). The only other record was of a male at Chalton SF on 10th September (MRS). The first-column Atlas records were from outside the county.

NIGHTINGALE Luscinia megarhynchos

2-14-5

First, one singing by R. Flit at Clophill on 25th April (MRS). No autumn dates were notified.

GRASSHOPPER WARBLER Locustella naevia

0-11-10

First, one singing at Maulden Woods on 1st May (AGF). No autumn dates were notified.

REED WARBLER Acrocephalus scirpaceus

1-3-15

First, at least three at Luton Hoo L on 14th May (AJL); last, at Southill L on 17th September (MRS).

SEDGE WARBLER Acrocephalus schoenobaenus 0-1-20
First, one singing at Wyboston GP on 16th April (PFB); last at Bedford SF on 22nd September (JTRS).

BLACKCAP Sylvia atricapilla 0-1-20
A winter record of a male in a Bedford garden on 17th February (IJFL) was followed by a rather early passage in April, the first at Sandy Lodge on 2nd (RGH). Last autumn migrants, also at The Lodge, were a male on 11th November (RPO) and a female a week later (RGH).

GARDEN WARBLER Sylvia borin 0-6-15
First, a very early one in a Luton garden on 12th April (KRW), and the next not until 1st May, when two were singing at Sandy Lodge (RGH). Last at Sandy Lodge on 9th September (RGH).

WHITETHROAT Sylvia communis 0-0-21
First at Wyboston GP on 16th April (PFB); last, two at Galley Hill, Streatley, on 8th September (MRS).

LESSER WHITETHROAT Sylvia curruca 0-2-19
First at Felmersham NR (TJG) and near Warden Hill, Streatley (MRS), on 27th April. Last at Flitwick Moor on 23rd September and at Double Arches Quarry, Heath and Reach, on 24th (MRS).

WILLOW WARBLER Phylloscopus trochilus 0-0-21
First at Kempston on 1st April (DL) and last at Sandy Lodge on 27th September (RGH).

1971 CORRECTION: The first date was given as 10th, with the month omitted: this should read 10th April.

CHIFFCHAFF Phylloscopus collybita 0-1-20
First at Brickhill, Bedford, on 16th March (JTRS), and at least five more at four localities during 18th-20th. Last autumn records all from Sandy Lodge: singles on 19th October, 24th and 30th November (RGH, TOJ, ANS).

WOOD WARBLER Phylloscopus sibilatrix 2-3-4
A pair with a nest and four eggs near Heath and Reach in June (PAMG); singles at Charle Wood on 21st May and at Barton Hills on 14th July (KRW). No other localised reports were received.

FIRECREST Regulus ignicapillus 0-1-0
A singing male was seen on the Buckinghamshire border in SP93 on 14th May (per LAB). At another locality in the same square a singing male was found by RGH on 7th June and watched by PFB, DG and PAMG on 10th and by PAMG and RGH again on 14th; on 25th June two pairs and what may have been a fledgling were seen there by PAMG and BDH. By mid-July all had apparently left the area. This is the first county breeding record and fits in with the continued spread of the species in summer in the southern half of England.

SPOTTED FLYCATCHER Muscicapa striata 0-0-21
First at Sandy Lodge on 2nd May (JCD); last, one at that locality (RGH) and five by Luton Hoo L (AJL) on 17th September.

PIED FLYCATCHER Ficedula hypoleuca

At Sandy Lodge, a male on 20th April (per RGH) and up to three from 2nd to 20th September (RGH, TOJ).

MEADOW PIPIT Anthus pratensis

1-3-13

At a roost in heather at Sandy Lodge in December, the highest count was 74 on 13th (RGH).

TREE PIPIT Anthus trivialis

1-5-10

First at Sandy Lodge on 13th April (RGH) and last at Felmersham NR on 21st September (PFB).

ROCK/WATER PIPIT Anthus spinoletta

Single birds showing the characters of the Water Pipit A. s. spinoletta were recorded at Chalton SF from the end of 1971 to 9th January (AJL, MRS), at Luton SF on 14th and 15th March, and again at Chalton SF from 9th to 17th November (MRS).

One of indeterminate subspecies flew north over Wyboston GP on 18th March (PFB), and another was at Sandy SF on 24th-25th March (RFP).

PIED/WHITE WAGTAIL Motacilla alba

0-0-21

A roost of Pied Wagtails M. a. yarrellii in greenhouses at Willington was first noted during 6th-13th August; numbers reached a maximum of c200 on 15th and stabilised at 80-85 (about 50% juveniles) around 22nd, shortly after which they decreased (PFB, FG). The greenhouses held mostly tomato crops and the birds arrived from 20.30 hours BST until it was nearly dark. The roost was also noted by FG in late summer 1971 but much smaller numbers were involved.

Birds showing the characters of the White Wagtail M. a. alba were recorded as follows: Dunstable SF, one on 30th April, three on 1st May, two on 2nd and one on 13th (AJL, BS); Luton SF, a juvenile on 24th August and 1st September, a juvenile with two adults on 4th September and with one adult on 6th (MRS); and Chalton SF, a juvenile on 10th September (MRS).

GREY WAGTAIL Motacilla cinerea

0-4-3

In the early part of the year, singles at Bedford, Flitwick Moor, Harrod GP, Luton SF, Ravensden, Sandy Lodge and Woburn Sands SF, and one to two at Chalton SF and East Hyde; last at Sandy Lodge on 9th March (RGH).

One was watched carrying food under a bridge to a presumed nest site in the east of the county in mid-June (DJA); the other Atlas records are nearly all from outside the county.

First in autumn, one by R. Lea in Luton Hoo Park on 23rd July (AJL, MRS) then singles from 7th September at ten localities, up to three at Dunstable SF and up to four at Chalton SF and Luton SF.

YELLOW WAGTAIL Motacilla flava

3-2-14

First, one at Dunstable SF on 8th April (PAMG) and three there next day (MRS); last at the same locality on 1st October, except for a wintering male with impaired flight at Chalton SF from 7th to 18th December (MRS).

A male showing the characters of the Blue-headed Wagtail M. f. flava at Sandy SF on 30th April (RFP).

GREAT GREY SHRIKE Lanius excubitor

Single birds stayed from late 1971 at Harrold GP until 23rd January (DW, MAW), at Dunstable SF until 18th March (RD, DG, PAMG), and at Sandy Lodge until 8th April (RGH, TOJ et al.). One flew west at Sandy Lodge on 25th October and one was seen there on 23rd and 30th November and 16th December (RGH).

RED-BACKED SHRIKE Lanius collurio

2-1-2

A very poor year for the species. A male in a traditional site in the east of the county on 9th and 10th June (but not subsequently) and a probable migrant at Sandy Lodge on 16th August were the only reports; several other favoured areas were searched without success.

WOODCHAT SHRIKE Lanius senator

One found by PT between Goldington power station and Barkers Lane GP, Bedford, on 17th July was watched by many observers up to 29th August, when last seen by MR. It appeared to be either a first-summer male, or a first-summer or adult female. This record, the first for Bedfordshire, has been accepted by the Rarities Committee of British Birds.

HAWFINCH Coccothraustes coccothraustes

5-1-7

One in Whipsnade Zoo Park on 15th March (GJB), a pair in Luton Hoo Park on 16th April (AJL, MRS), two at Old Warden on 16th June and one there on 12th November (RGH), and singles at Sandy Lodge in April, May, October and November with three there on 1st November (RGH, KR). No other localised reports.

SISKIN Carduelis spinus

1-1-1

In the early part of the year, up to twelve at Flitwick Moor, Sandy Lodge and Southill Park, 50-60 feeding in alders in Woburn Park on 9th January (PAMG), and singles feeding in two Luton gardens on 26th March (KRW) and 14th April (AGF). Last, one at Sandy Lodge until 7th May (RGH, TOJ). A pair in mixed woodland in SP93 on 28th June showed no evidence of breeding (RGH); the record of proved breeding was from outside the county. First in autumn at Sandy Lodge on 29th September (TOJ) and subsequently up to eleven at four localities, with c35 at Flitwick Moor on 10th December (AJL, MRS).

REDPOLL Acanthis flammea

1-5-15

The largest gathering recorded was c120 at Sandy Lodge on 20th February (RGH). Two showed the characters of the Mealy Redpoll A. f. flammea at The Lodge on 25th December (RGH).

CROSSBILL Loxia curvirostra

1-0-2

A large influx into Britain in the summer was reflected in Bedfordshire as follows. Sandy Lodge, first two on 23rd June, then 11-13 on 26th, generally fewer until new peak of 24 on 3rd August and almost daily until the end of the year, maximum 25 on 16th October (RGH et al.). Some song and courtship feeding in November and December. Eight at Maulden Firs, Galley Hill, Streatley on 5th August (MRS); one at Whipsnade Zoo Park on 20th August (GJB); two pairs at Bedford Park on 23rd August (DL); and a male and two females at Old Warden on 12th November (RGH).

BRAMBLING Fringilla montifringilla

0-1-0

In the early part of the year, up to 20 reported at five localities; last, a

male at Sandy Lodge on the late date of 25th April (RGH). First in autumn, five in Putnoe, Bedford, on 1st October (DL), three at Sandy Lodge on 6th October and a peak of 22 there on 15th, with much smaller numbers subsequently (RGH et al.); otherwise only one at Old Warden on 12th November (RGH) and two at Whipsnade Zoo Park on 16th-17th (GJB). The Atlas record was from outside the county.

REED BUNTING Emberiza schoeniclus 0-0-21
A male and a female were noted feeding in a Luton garden on 14th April, and two males were present on 20th (AGF).

SNOW BUNTING Plectrophenax nivalis
One at Harrold GP on 10th December (MAW)

HOUSE SPARROW Passer domesticus 0-0-21
An almost completely white partial albino at Harrold GP from 30th April until at least November (MAW et al.).

P. F. BONHAM

MAMMALS

1972 was only the second year in which we have made an effort to record mammals in Bedfordshire, and I am pleased to report that the results are encouraging. The overall level of recording is about $2\frac{1}{2}$ times that of 1971. However, the results still show levels of recording, rather than actual density and distribution of species. The small mammals and bats, that both need trapping, particularly show this lack of quantitative results.

For 1972 a total of 24 species were recorded, against 25 in 1971. The losses were; Noctule Bat, Chinese Water Deer and Red Deer, all having 1 record each in 1971. The gains were; Pipistrelle Bat - 2 records and Harvest Mouse - 6 records. The Pipistrelle Bat records were to be expected and the fact that this common bat has taken two years to record, only reiterates my earlier remark about the difficulty of obtaining bat records. The Harvest Mice records are very pleasing, and are the result of careful reading of material available on the species by a group of members, leading to the search for this species being concentrated on a certain type of habitat. The total number of tetrad records for all species is 493, against 177 in 1971. New national records numbered 40, against 94 in 1971, but last year I stated that as Bedfordshire was under recorded, we could not expect to maintain the 1971 level. However, we can take pride in the fact that nationally we are blacking in the squares for Bedfordshire.

For 1972 the most recorded species was Rabbit at 105 tetrads, maintaining its position at the top of the table. The 1971 figure was 31. The next well recorded species were; Hedgehog - 68 tetrads, Mole - 63 tetrads, Brown Hare - 49 tetrads and Grey Squirrel - 43 tetrads. The only species that declined in records compared with 1971 was the Stoat with 7 tetrads.

HEDGEHOG - Recorded in 68 tetrads.

SP - 92DVX/93LQW/95N

TL - 01UYZ/02ACEFILMRSUWX/03GHJKMQSTUVWXY
04CEPRTUWZ/05ABCDGKQR/10DEIJ/12AB/13BC
14DHILMNZ/15A

MOLE - Recorded in 63 tetrads.

SP - 91Z/92DJPZ/93GHQRW/95NTU/96QRW

TL - 01EJ/02ACEFIJKNXYZ/03BCGJY/04EQRV
05CD/11EIJ/13PUY/14ACFGHMNQSUSWXY
15AF/24F

COMMON SHREW - Recorded in 11 tetrads.

SP - 91Z/95N

TL - 02FIKNY/04QV/05C/14N

PYGMY SHREW - Recorded in 2 tetrads.

TL - 02C/14M

WATER SHREW - Recorded in 4 tetrads.

SP - 91Z

TL - 02N/14MU

BAT (Sp.) - Recorded in 20 tetrads.

SP - 92CDW/95N

TL - 02FIKLRW/03BFMY/04P/05CKV/11E
14U

LONG-EARED BAT - Recorded in 1 tetrad.

TL - 11D

PIPISTRELLE BAT - Recorded in 2 tetrads.

TL - 02W/06R

RABBIT - Recorded in 105 tetrads.

SP - 91YZ/92DEJPTUWX/93GKLQRSUWX
94TUZ/95NTU/96QRW

TL - 01EHYZ/02BCFIJKLMNPTUYZ/03ABCDEFGHIJQTUWXY
04BHRSTUVWX/05CDIKR/11DEIJP/12ACFJ
13EPUY/14ACDFGHIMNSUYZ/15T/16AF/24E

BROWN HARE - Recorded in 49 tetrads.

SP - 91YZ/92PUV/93G/94U/95NPY/96RW

TL - 01Z/02JKPTXYZ/03X/04DEQRXZ/05CFISV
11DEJ/12AFJ/14CGKMPS/15MT/16F/24EP

BANK VOLE - Recorded in 2 tetrads.

SP - 95N

TL - 02F

SHORT-TAILED VOLE - Recorded in 5 tetrads.

SP - 91Z

TL - 02W/04Q/05C/12A

WATER VOLE - Recorded in 19 tetrads.

SP - 91Z/95NT

TL - 02IN/04Q/05C/11EIJ/12A/13PY/14MQUW/15AF

HARVEST MOUSE - Recorded in 6 tetrads.

TL - 04U/13PU/14NQW

HOUSE MOUSE - Recorded in 5 tetrads.

TL - 02W/04QV/14MU

WOOD MOUSE - Recorded in 3 tetrads

SP - 95N

TL - 02W/05C

BROWN RAT - Recorded in 34 tetrads.

SP - 91Z/94Z

TL - 01Z/02BKMTW/03SVX/04NUVWZ/05CKR
11EIJ/12A/13DIP/14AFHIMSU/16A

GREY SQUIRREL - Recorded in 43 tetrads.

SP - 92D/93GHQRW/94Z/95NU/96Q

TL - 01YZ/02IKVWZ/03JTUX/04PQRVW
05IKQR/11DEIJ/14HILMNUIYZ/16A

FOX - Recorded in 15 tetrads.

SP - 91Z/92DPTU/95U

TL - 01D/02DIKT/03U/13I/15A T

BADGER - Recorded in 3 tetrads.

SP - 91Z/92M

TL - 02F

OTTER - Recorded in 1 tetrad.

Location withheld due to persecution by hunting.

STOAT - Recorded in 7 tetrads.

SP - 92X

TL - 01Z/02T/11EI/14H/16A

WEASEL - Recorded in 16 tetrads.

SP - 91Z

TL - 01YZ/02AKP/03W/04V/11EI/14CDHSU/16A

MUNTJAC DEER - Recorded in 9 tetrads.

SP - 92D

TL - 01EZ/03U/05S/11E/14HIN

The number of contributors of records has also increased, and my thanks go to the 31 members and 8 non-members listed below, non-members in brackets.

D. Anderson, C. Banks, P. Bonham, (P. Bryson), W. Champkin,
C. Chapman, G. Clark, B. Clutten, E. Davies, N. Dawson, M. Dymond,
A. Ford, N. Garrett, D. Green, (N. Hammond), (J. Harris), V. Humphrey,

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(R. Sweet), R. Wagstaff, M. Woodhead.

As I reported in 1971, we are still looking for the following species that should be present in Bedfordshire, but so far have failed to be located. Dormouse, Fat Dormouse, Yellow-necked Mouse, Fallow Deer and all the other bats. These species together with Chinese Water Deer and Red Deer are particularly worth looking for, and I hope that we may add some of them to our list during 1973.

DAVID ANDERSON

Hardwick Spinney - 1972

With the Society's work at Hardwick Spinney, Stagsden, entering its third year, the results obtained during 1972 amply justify all that has been done during the two previous winters; we must express our continued thanks to Messrs Cartwright for permission to use their woodland in this way and for the friendly relationship which has been maintained with them throughout.

Attention has now been given to various branches of natural history additional to birds and flowering plants. An impressive initial list of 116 species of Lepidoptera will be found below, and a promising start has been made with Fungi and Mammals. Although some improvement in bird population has been noted, the results in this direction have been somewhat disappointing; it is clear that several years must elapse before suitable nesting sites for many species will have developed.

AMPHIBIA

Only one species observed - a juvenile Common Toad Bufo bufo.

BIRDS

Some improvement was noted on the previous year and the following species nested:

Pheasant; Stock Dove; Wood Pigeon; Rook (about 10 occupied nests); Jackdaw; Great Tit; Blue Tit; Tree Creeper; Wren; Song Thrush; Blackbird; Robin; Blackcap; Spotted Flycatcher; Dunnock; Starling; Chaffinch - one nest in which the young died at a few days old, crop spraying in the nearby cornfield being the suspected cause; House Sparrow - one pair nested in the base of an occupied rook's nest; Tree Sparrow - a colony of 8 to 10 pairs.

In addition, the following species were seen on occasion during the year in the wood: Cuckoo; Tawny Owl; Great Spotted Woodpecker; Marsh Tit; Willow Warbler; Greenfinch; Goldfinch; Linnet; Bullfinch; Yellowhammer and Reed Bunting.

FLOWERING PLANTS

Not unexpectedly, and as a direct result of the renewed management programme, there was a 'population explosion' of flowering plants in 1972, and the number of species recorded during the year was no less than 92, compared with

only 53 in 1971. This total was made up as follows:

A	Species recorded in 1953, 1971 and 1972	34
B	Species recorded in 1953 and 1972, but not 1971	10
C	Species recorded for the first time in 1971	19
D	Species recorded for the first time in 1972	29
	Total	92

Group A obviously comprises the basic species which have been present continuously throughout the twenty years that have elapsed since the first list was made.

In Group B are some of the species which were feared lost but have re-appeared after a period of dormancy. Of the ten species, nine are perennials, and include such attractive plants as the Wood Anemone, Pale Wood Violet, Greater Stitchwort, Bugle and Spotted Orchid. It was most noticeable, particularly with the latter, how the increasing darkness of the spinney interior, due to neglect, had forced the few remaining plants to the marginal hedges where, alone, the light was sufficient for their needs. We may hope that this tendency has now been reversed.

The new arrivals in Group D comprise 10 annuals, 3 biennials and 16 perennial species. Some of these annuals are common weeds of arable fields with which the spinney is nowadays surrounded, e.g. Fool's Parsley, Charlock, Red Rattle and Groundsel, but by far the most surprising record was that of the Large flowered Hemp-nettle, Galeopsis speciosa, a rarity never previously recorded in this part of the county and for whose occurrence there is, at present, no explanation. The perennials in this group include a St. John's Wort, Enchanter's Nightshade, Field Mint, Wild Basil and Horehound, the last three labiates all occurring in the hedge-rows surrounding the spinney.

There are still ten species recorded in 1953 that await re-discovery; these include the Sanicle, Common Gromwell and Early Purple Orchid. The latter was a rarity, even in 1953, and the chances of finding it now seem rather remote.

Group B - Species found in 1953 and re-discovered in 1972

<u>Anemone nemorosa</u>	Wood anemone
<u>Viola reichenbachiana</u>	Pale Wood Violet
<u>Stellaria holostea</u>	Greater Stitchwort
<u>Vicia sepium</u>	Bush Vetch
<u>Geum urbanum</u>	Wood Avens
<u>Stachys sylvatica</u>	Hedge Woundwort
<u>Ajuga reptans</u>	Bugle
<u>Taraxacum officinale</u>	Dandelion
<u>Dactylorchis fuchsii</u>	Spotted Orchid
<u>Heraclium sphondylium</u>	Hog-weed

Group D - Species newly recorded in 1972

Annuals:

<u>Sinapis arvensis</u>	Charlock
<u>Moehringia trinervis</u>	Three-nerved Sandwort
<u>Torilis japonica</u>	Upright Hedge-Parsley
<u>Aethusa cynapium</u>	Fool's Parsley
<u>Polygonum aviculare</u>	Knot-grass
<u>Odontites verna</u>	Red Rattle
<u>Galeopsis speciosa</u>	Large-flowered Hemp-nettle

Senecio vulgaris
Crepis capillaris
Geranium dissectum

Groundsel
Smooth Hawk's-beard
Cut-leaved Cranesbill

Biennials:

Barbarea vulgaris
Melandrium rubrum
Anthriscus sylvestris

Winter Cress
Red Campion
Cow Parsley

Perennials:

Viola riviniana
Hypericum hirsutum
Silene cucubalus
Malva sylvestris
Epilobium montanum
Chamaenerion angusti-folium
Circaea lutetiana
Mentha arvensis
Clinopodium vulgare
Prunella vulgaris
Ballota nigra
Lamium album
Plantago lanceolata
Artemisia vulgaris
Sonchus arvensis

Dog Violet
Hairy St. John's Wort
Bladder Campion
Common Mallow
Broad-leaved Willow-herb
Rosebay Willow-herb
Enchanter's Nighthshade
Corn Mint
Wild Basil
Self-heal
Black Horehound
White Dead-nettle
Ribwort Plantain
Mugwort
Corn Sow-thistle

FUNGI

Species identified during the year were:

Coprinus sp.
Agaricus langei
Pluteus salicinus
Pholiota squarrosa
Chondrostereum purpureum
Clitocybe nebularis (Cheese Cap)
Pyronema omphalodes
Polyporus squamosus (Dryad's Saddle)
Psalliota arvensis (Horse Mushroom)
Lepiota rhacodes (Shaggy Parasol) - forming very large rings
Tricholoma nudum (Wood Blewit)
Tricholoma gambosum (St. George's Mushroom)

There were also a number of small specimens which were photographed but still await identification. The majority of the species listed were verified by Dr Derek Reid.

LEPIDOPTERA

List of 116 Species recorded from July to October 1972.

80. POPLAR HAWK Laothoe populi. L.
86. PRIVET HAWK Sphinx ligustri. L.
96. LARGE ELEPHANT HAWK Deilephila elpenor. L.
116. MAPLE PROMINENT Lophopteryx cucullina. Schiff.

117. COCKSCOMB PROMINENT	<u>Lophopteryx capucina.</u> L.
125. BUFF ARCHES	<u>Habrosyne pyritoides.</u> Hüfn.
126. PEACH BLOSSOM	<u>Thyatira batis.</u> L.
139. GOLD TAIL	<u>Euproctis similis.</u> Fuessl.
145. COMMON LACKEY	<u>Malacosoma neustria.</u> L.
154. DRINKER	<u>Philudoria potatoria.</u> L.
165. CHINESE CHARACTER	<u>Cilix glaucata.</u> Scop.
180. COMMON FOOTMAN	<u>Eilema lurideola.</u> Zinck.
192. WHITE ERMINE	<u>Spilosoma lubricipeda.</u> L.
266. GHOST SWIFT	<u>Hepialus humuli.</u> L.
267. WOOD SWIFT	<u>Hepialus sylvina.</u> L.
269. COMMON SWIFT	<u>Hepialus lupulina.</u> L.
273. GARDEN DART	<u>Euxoa nigricans.</u> L.
277. TURNIP DART	<u>Agrotis segetum.</u> Schiff.
282. SHUTTLE SHAPED DART	<u>Agrotis puta.</u> Hübn.
285. HEART AND DART	<u>Agrotis exclamatonis.</u> L.
297. DOUBLE DART	<u>Graphiphora augur.</u> F.
299. COMMON INGRAILED CLAY	<u>Diarsia mendica.</u> F.
302. SMALL SQUARE SPOT	<u>Diarsia rubi.</u> View.
304. FLAME SHOULDER	<u>Ochropleura plecta.</u> L.
312. PLAIN CLAY	<u>Amathes depuncta.</u> L.
313. SETACEOUS HEBREW CHARACTER	<u>Amathes c-nigrum.</u> L.
315. DOUBLE SQUARE SPOT	<u>Amathes triangulum.</u> Hüfn.
317. SIX STRIPED RUSTIC	<u>Amathes sexstrigata.</u> Haw.
318. SQUARE SPOT RUSTIC	<u>Amathes xanthographa.</u> Schiff.
319. FLAME RUSTIC	<u>Axylia putris.</u> L.
327. LESSER YELLOW - UNDERWING	<u>Euschesis comes.</u> Hübn.
328. LUNAR YELLOW - UNDERWING	<u>Euschesis orbona.</u> Hüfn.
329. LESSER BORDERED YELLOW - U/WING	<u>Euschesis janthina.</u> Schiff.
331. COMMON YELLOW - UNDERWING	<u>Noctua pronuba.</u> L.
345. CABBAGE DOT	<u>Mamestra brassicae.</u> L.
346. WHITE DOT	<u>Melanchra persicariae.</u> L.
345. PALE SHINING ARCHES	<u>Polia nitens.</u> Haw.
351. BRIGHT LINE BROWN EYE	<u>Diataraxia oleracea.</u> L.
355. SMALL NUTMEG	<u>Scotogramma trifolii.</u> Hüfn.
363. BROAD BARRED WHITE GOTHIC	<u>Hadena bicolorata.</u> Hüfn.
370. CHAMPION CORONET	<u>Hadena rivularis.</u> F.
376. FEATHERED GOTHIC	<u>Tholera popularis.</u> F.
393. COMMON WAINSCOT	<u>Leucania pallens.</u> L.
395. SMOKY WAINSCOT	<u>Leucania impura.</u> Hübn.
407. CLAY WAINSCOT	<u>Leucania lythareyria.</u> Esp.
408. BROWN LINE WAINSCOT	<u>Leucania conigera.</u> Schiff.
430. MOTTLED RUSTIC	<u>Caradrina morpheus.</u> Hüfn.
441. COMMON LIGHT ARCHES	<u>Apamea lithoxylaea.</u> Schiff.
444. DARK ARCHES	<u>Apamea monoglypha.</u> Hüfn.
452. LARGE NUTMEG	<u>Apamea infesta.</u> Ochs.
456. COMMON RUSTIC	<u>Apamea secalis.</u> L.
461. DUSKY SALLOW RUSTIC	<u>Eremobia ochroleuca.</u> Schiff.
462. MARBLED MINOR	<u>Procus strigilis.</u> Clerck.
467. CLOAKED MINOR	<u>Procus furuncula.</u> Schiff.
469. FLOUNCED RUSTIC	<u>Luperina testacea.</u> Schiff.
476. STRAW UNDERWING	<u>Thalpophila matura.</u> Hüfn.

478. SMALL DOTTED BUFF	<u>Petilampa minima.</u> Haw.
496. DUN BAR	<u>Cosmia trapezina.</u> L.
504. BROWN FEATHERED	<u>Rusina tenebrosa.</u> Hüb. n.
514. POPLAR DAGGER	<u>Apatele megacephala.</u> Schiff.
518. GREY DAGGER	<u>Apatele psi.</u> L.
523. DUSKY KNOT-GRASS DAGGER	<u>Apatele rumicis.</u> L.
577. BRICK	<u>Agrochola circellaris.</u> Hufn.
578. BEADED CHESTNUT	<u>Agrochola lychnidis.</u> Schiff.
581. CENTRE BARRED SALLOW	<u>Atethmia xerampelina.</u> Esp.
591. DARK CHESTNUT	<u>Conistra ligula.</u> Esp.
623. COMMON BURNISHED BRASS	<u>Plusia chrysitis.</u> L.
630. PLAIN GOLDEN Y	<u>Plusia jota.</u> L.
635. COMMON SILVER Y	<u>Plusia gamma.</u> L.
639. LIGHT SPECTACLE	<u>Unca tripartita.</u> Hufn.
653. COMMON SNOUT	<u>Hypena proboscidalis.</u> L.
662. SMALL FANFOOT	<u>Zanclognatha nemoralis.</u> F.
665. COMMON FANFOOT	<u>Herminia barbalis.</u> Clerck.
674. COMMON EMERALD	<u>Hemithia aestivaria.</u> Hüb. n.
679. LESSER EMERALD	<u>Hemistola immaculata.</u> Thunb.
680. LITTLE EMERALD	<u>Jodis lactearia.</u> L.
681. LARGE BLOOD VEIN	<u>Calothysanis amata.</u> L.
694. SMALL BLOOD VEINED WAVE	<u>Scopula imitaria.</u> Hüb. n.
698. LESSER CREAM WAVE	<u>Scopula immutata.</u> L.
707. SINGLE DOTTED WAVE	<u>Sterrhia dimidiata.</u> Hufn.
717. RIBBAND WAVE	<u>Sterrhia aversata.</u> L.
723. LARGE TWIN SPOT CARPET	<u>Xanthorhoe quadrifasiata.</u> Clerck.
725. DARK TWIN SPOT CARPET	<u>Xanthorhoe ferrugata.</u> Clerck.
726. RED TWIN SPOT CARPET	<u>Xanthorhoe spadicearia.</u> Schiff.
729. SILVER GROUND CARPET	<u>Xanthorhoe montanata.</u> Schiff.
730. GARDEN CARPET	<u>Xanthorhoe fluctuata.</u> L.
733. SPRING GREEN CARPET	<u>Colostygia pectinataria.</u> Knoch.
747. SMALL RIVULET	<u>Perizoma alchemillata.</u> L.
748. SANDY CARPET	<u>Perizoma flavofasciata.</u> Thunb.
752. SHARP ANGLED CARPET	<u>Euphyia inangulata.</u> Haw.
758. YELLOW SHELL	<u>Euphyia bilineata.</u> L.
759. PRETTY CHALK CARPET	<u>Melanthia procellata.</u> Schiff.
771. BARRED STRAW CHEVRON	<u>Lygris pyraliata.</u> Schiff.
776. COMMON MARBLED CARPET	<u>Dystroma truncata.</u> Hufn.
784. JULY HIGHFLYER	<u>Hydriomena furcata.</u> Thunb.
788. DARK SCALLOP	<u>Philereme transversata.</u> Hufn.
794. WOOD CARPET	<u>Epirrhoe rivata.</u> Hüb. n.
795. COMMON BEDSTRAW CARPET	<u>Epirrhoe alternata.</u> Müll.
818. SHADED BROAD BAR	<u>Ortholitha chenopodiata.</u> L.
855. LIME SPECK PUG	<u>Eupithecia centaureata.</u> Schiff.
859. WHITE SPOTTED PUG	<u>Eupithecia tripunctaria.</u> H-S.
867. TAWNY SPECKLED PUG	<u>Eupithecia icterata.</u> Vill.
886. GREEN PUG	<u>Chloroclystis rectangulata.</u> L.
889. COMMON MAGPIE	<u>Abraxas grossulariata.</u> L.
892. SCORCHED SILVER	<u>Ligdia adustata.</u> Schiff.
895. CLOUDED SILVER	<u>Bapta temerata.</u> Schiff.
915. EARLY THORN	<u>Selenia bilunaria.</u> Esp.
921. SCALLOPED OAK THORN	<u>Crocallis elinguarina.</u> L.

923. SULPHUR THORN	<u>Opisthograptis luteolata.</u> L.
928. SWALLOW TAILED ELDER	<u>Ourapteryx sambucaria.</u> L.
935. PEPPER AND SALT	<u>Biston Betularia.</u> L.
941. MOTTLED BEAUTY	<u>Alcis repandata.</u> L.
946. EARLY ENGRAILED	<u>Ectropis biundularia.</u> Borkh.
964. HEATH LATTICE	<u>Chiasmia clathrata.</u> L.

MAMMALS

Mole Talpa europaea. The numerous runs of this species were very evident throughout the spinney.

Rabbit Oryctolagus cuniculus. As a result of suppressive measures taken against this species the vegetation of the wood was enhanced.

Brown Hare Lepus capensis. Several were seen during the year disturbed from their 'forms' in the undergrowth.

Grey Squirrel Sciurus carolinensis. Only an occasional one was seen but there was evidence of their destructive habits.

Wood Mouse Apodemus sylvaticus. A few visited the new mammal traps.

Red Fox Vulpes vulpes. There was no real evidence that this species had visited the spinney during the year.

Putnoe Wood, 1972

During the first three months of the year working parties took place in the wood at five week-ends. These included a number of our junior members and were chiefly engaged in felling and burning some of the smaller diseased elms and unwanted sycamores in area A at the north-western edge of the wood.

A number of members acted as voluntary wardens during the bluebell season, calling the attention of those using the wood, when necessary, to the by-laws forbidding the picking of flowers.

Two further plant species were added to the existing list. Two specimens of the Hound's-tongue Cynoglossum officinale appeared unexpectedly in the clearing at the middle of the wood, but were picked within a few days of being first noticed. The plant is plentiful enough on nearby Mowsbury Hill although it is generally associated with disturbed open ground rather than with woodland habitats. The other new record was that of Bearded Couch Agropyron caninum which is a common grass of damp woodlands.

The small pond on the north side of the wood has proved a disappointment. It disappeared completely as a result of the dry weather of the summer and autumn and, for the same reason, there was insufficient water in the adjacent stream from which to replenish it by pumping. It is clear that only in normally wet winters, or in abnormally wet summers, will it be possible for this pond to maintain its existence without artificial assistance.

The laying of the north hedge, approved by the Borough Council in 1970, was completed during the autumn, although one cannot be happy with the result; the hedge had grown too tall and there were too many weak places and gaps which would have taxed the skill of even the most expert hedgers.

There was an unfortunate occurrence during the summer when a drift of herbicidal spray was carried into the southern ditch with disastrous results for a number of the plants in it. Willow-herb, Teazels, Figwort and various Docks were affected in varying degrees and the incident illustrated all too clearly how easy it is for these chemicals to get out of control.

During the late autumn, the authorities continued the replanting of the southern hedge, a measure strongly advocated by the Society nearly three years ago, and a split chestnut paling fence will be erected along the whole of the southern boundary of the wood to protect the quickthorn sets until they are fully established.

Action has been taken within the southern edge of the woodland itself to block some of the numerous tracks which have been recently formed by the growing reluctance of some people to restrict themselves to the existing foot-paths. This is being attempted by laying a number of overgrown hawthorns which will eventually form impenetrable living barriers in certain parts of the wood.

The future of Putnoe Lane gives cause for considerable anxiety. The Society has, from the first, pressed for the retention of this old green lane, with its rich grassland and hedge flora, but our satisfaction that its survival has been accepted by the authorities has been more than offset by the treatment which it is now receiving. Hundreds of tons of soil have been dumped on it during the year in an effort to raise and camber its surface prior to re-seeding, and there are plans to clean out the ditches on both sides. This tidying-up will, no doubt, eventually produce a pleasant grassy lane, but one quite different from the rutted and overgrown track we once knew and devoid of much of its natural history interest. It is unlikely that such uncommon species as the attractive little Grass Pea will have survived the current upheaval.

Mowsbury Hill 1971-2

Mowsbury Hill forms the extremity of a long narrow ridge which extends south-south-eastwards from the north Bedfordshire plateau for nearly two miles. Its National Grid Reference is TL 066532 thus bringing it into tetrad 05/R. It lies about three hundred yards south-east of the summit of Cleat Hill on the Bedford-Kimbolton road, B.660, which here crosses the ridge, and is about five hundred yards north of Putnoe Wood. The summit is slightly in excess of 200 feet A.O.D. and hence about 100 feet above the surrounding countryside, but this apparently slight super-elevation is sufficient to make it a superb view-point to the east and south and must have given it considerable strategic value in earlier times.

The present name is a corruption of 'Morinsbury', since it was the site in the early 13th century of a moated manor-house owned by Ralph de Morins. That the site was an important one in the Iron Age has now been demonstrated by the excavations carried out by Mr G. Dring during the summer of 1971 along the southern ramparts. Remains have been found of a ditch and of a double wooden stockade which had been destroyed by a fire of sufficient intensity to turn the clay infilling of the walls into brick-like fragments. The later moats in the interior, which enclosed the medieval manor, are now overgrown with dense scrub, while at the eastern end of the hill there is a derelict orchard.

Although outside the present Borough boundary, the land lying between Putnoe Wood and Mowsbury Hill is the property of the Bedford Corporation, having been bought in the mid-nineteenth century with the proceeds of the sale of the site of the present Midland Road station to the railway company. This land is in process of being laid out as a municipal golf-course, but this will not affect the actual Mowsbury Hill enclosure of about seven acres, which is, of course, scheduled as an ancient monument and will be left untouched.

From a botanical point of view the site has long been known for various unusual plant species which favour the chalky Boulder Clay of which the hill top is

composed; these include the Hairy Violet Viola hirta, Dyer's Rocket Reseda luteola, Wild Licorice Astragalus glycyphyllus, Hound's-tongue Cynoglossum officinale and the Woolly Thistle Cirsium eriophorum. Many other chalk-loving species were formerly to be found on the southern slopes of both Cleat Hill and Mowsbury Hill but housing developments on much of the area have now probably caused their complete disappearance. Earlier in the century one could find the Dropwort Filipendula vulgaris, Milkwort Polygala vulgaris, Yellow-wort Blackstonia perfoliata and Marjoram Origanum vulgare all growing quite plentifully, while the Bee Orchid Ophrys apifera was sometimes abundant.

During the summer of 1971 the Society approached the Corporation for permission to undertake the minimum amount of conservation work necessary to safeguard the perpetuation of the five species first mentioned, and this was willingly given. Accordingly, a length of the ramparts on the south-western side of the summit was completely cleared of encroaching scrub during the following autumn, while during 1972 a more thorough survey of the area was carried out. The preliminary list appended gives two dozen of the more interesting species out of a total of over sixty recorded. The five species with which we are most concerned all flourished and maintained their numbers; the Hound's-tongue, in particular, found the conditions produced by the golf-course contractors very much to its liking and was especially abundant in the disturbed ground surrounding the old butts half-way up the hill.

<u>Clematis vitalba</u>	Traveller's Joy
<u>Reseda luteola</u>	Dyer's Rocket
<u>Viola hirta</u>	Hairy Violet
<u>Hypericum hirsutum</u>	Hairy St. John's Wort
<u>Trifolium medium</u>	Zigzag Clover
<u>Astragalus glycyphyllus</u>	Sweet Milk-vetch
<u>Vicia cracca</u>	Tufted Vetch
<u>Vicia sepium</u>	Bush Vetch
<u>Agrimonia eupatoria</u>	Agrimony
<u>Chamaenerion angustifolium</u>	Rose-Bay Willow-herb
<u>Conium maculatum</u>	Hemlock
<u>Daucus carota</u>	Wild Carrot
<u>Primula veris</u>	Cowslip
<u>Cynoglossum officinale</u>	Hound's-tongue
<u>Scrophularia nodosa</u>	Figwort
<u>Clinopodium vulgare</u>	Wild Basil
<u>Prunella vulgaris</u>	Self-heal
<u>Dipsacus fullonum</u>	Teasel
<u>Cirsium eriophorum</u>	Woolly Thistle
<u>Cirsium acaulon</u>	Stemless Thistle
<u>Leotodon hispidus</u>	Rough Hawkbit
<u>Picris echioides</u>	Bristly Ox-tongue
<u>Crepis taraxacifolia</u>	Beaked Hawk's-beard
<u>Iris foetidissima</u>	Gladdon

A CHECKLIST OF BEDFORDSHIRE HEMIPTERA-HETEROPTERA

This list of 212 species of land and water bugs has been compiled in part from published sources, listed below, and in part from unpublished records of Dr N. Dawson, Dr L. Lloyd-Evans and myself. Further records have been obtained from an updated manuscript copy of the Massee list which was kindly loaned by Mr G. E. Woodroffe.

The nomenclature of this list follows that of the second edition of Kloet and Hincks: A check list of British insects. Pt. 1 (Handbooks for the identification of British insects. Vol. XI Pt. 1, Roy. Ent. Soc. London, 1964).

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Order: HEMIPTERA

Suborder: HETEROPTERA

ARADIDAE

Aradus depressus (Fab.)

ACANTHOSOMATIDAE

Acanthosoma haemorrhoidale (L.)

Elasmostethus interstinctus (L.)

Elasmucha grisea (L.)

CYDNIDAE

Legnotus limbosus (Geoff.)

L. picipes (Fall.)

Sehirus bicolor (L.)

S. luctuosus (M. and R.)

Thyreocoris scarabaeoides (L.)

PENTATOMIDAE

Podops inuncta (Fab.)

Neottiglossa pusilla (Gmelin)

Eysacoris aeneus (Scop.)

E. fabricii (Kirk.)

Palomena prasina (L.)

Piezodorus lituratus (Fab.)

Pentatoma rufipes (L.)

Eurydema oleracea (L.)

Picromerus bidens (L.)

Troilus luridus (Fab.)

Rhacognathus punctatus (L.)

Zicrona caerulea (L.)

COREIDAE

Coreus marginatus (L.)

Coriomeris denticulatus (Scop.)

ALYDIDAE

Alydus calcaratus (L.)

RHOPALIDAE

Rhopalus subrufus (Gmelin)

Myrmus miriformis (Fall.)

LYGAEIDAE

Heterogaster lirticae (Fab.)

Chilacis typhae

Ischnodemus sabuleti (Fall.)

Kleidocerys resedae (Panz.)

Pachybrachius fracticollis (Schill.)

Peritrechus lundii (Gmelin)

Megalonotus chiragra (Fab.)

M. dilatatus (H. - S.)

Trapezonotus dispar Stal

Stygnocoris fuliginosus (Geoff.)

S. pedestris (Fall.)

Drymus brunneus (Sahl.)

D. sylvaticus (Fab.)

Lamprolax picea (Flor.)

Scolopostethus affinis (Schill.)

S. decoratus (Hahn)

S. thomsoni Reuter

Eremocoris podagricus (Fab.)

Taphropeltus contractus (H. - S.)

BERYTINIDAE

Cymus clavicolus (Fall.)

Berytinus clavipes (Fab.)

B. montivagus (Meyer)

B. signoreti (Fieb.)

Metaatropis rufescens (H. - S.)

PIESMATIDAE

Piesma maculatum (Laporte)

TINGIDAE

Campylosteira verna (Fall.)Acalypta parvula (Fall.)Dictyonota strichnocera Fieb.Tingis ampliata (H. - S.)T. cardui (L.)Dictyla convergens (H. - S.)Agramma laeta (Fall.)

REDUVIIDAE

Reduvius personatus (L.)

NABIDAE

Nabis flavomarginatus ScholtzN. ferus (L.)N. ericetorum ScholtzN. rugosus (L.)Himacerus apterus (Fab.)Stalia major (Costa)Dolichonabis limbatus (Dahl.)

CIMICIDAE

Anthocoris confusus ReuterA. nemoralis (Fab.)A. sarothamni D. and S.A. gallarum-ulmi (DeGeer)A. nemorum (L.)Orius majusculus (Reuter)O. minutus (L.)O. laevigatus (Fieb.)O. niger (Wolff)Xylocoris cursitans (Fall.)X. galactinus (Fall.)Oeciacus hiruindinis (Jenyns)Cimex lectularius (L.)

MIRIDAE

Monalocoris filicis (L.)Deraeocoris lutescens (Schill.)D. ruber (L.)Lopus decolor (Fall.)Oncotylus viridiflavus (Goeze)Hoplomachus thunbergi (Fall.)Tinicephalus hortulanus (M. - D.)Megalocoleus molliculus (Fall.)Amblytylus delicatus (Perris)A. nasutus (Kirsch.)Macrotylus solitarius (M. - D.)M. paykulli (Fall.)Orthonotus rufifrons (Fall.)Harpocera thoracica (Fall.)Phylus coryli (L.)Psallus variabilis (Fall.)P. Falleni ReuterP. lepidus (Fieb.)P. roseus (Fab.)P. varians (H. - S.)Phoenicocoris obscurellus (Fall.)Coniortodes salicellus (H. - S.)Atractotomus magnicornis (Fall.)A. mali (M. - D.)Plagiognathus albipennis (Fall.)P. arbustorum (Fab.)P. chrysanthemi (Wolff)Sthenarus rotermundi (Scholtz)Asciodema fieberi (D. and S.)A. obsoletum (Fieber)Hallodapus rufescens (Burm.)Macrolophus nubilus (H. - S.)Dicyphus epilobii ReuterD. errans (Wolff)D. stachydis ReuterD. annulatus (Wolff)D. globulifer (Fallen)D. rhododendri DollingCampyloneura virgula (H. - S.)Strongylocoris leucocephalus (L.)Malacocoris chlorizans (Panz.)Fieberocapsus flaveolus (Reuter)Cyllecoris histrionicus (L.)Dryophilocoris flavoquadrinaculatus (DeGeer)Heterotoma planicornis (Pallas)Blepharidopterus angulatus (Fall.)Orthotylus viridineris (Kirschbaum)O. flavineris (Kirschbaum)O. marginalis ReuterO. nassatus (Fab.)O. ochrotrichus FieberO. prasinus (Fall.)O. ericetorum (Fall.)O. concolor (Kirsch.)O. virescens (D. and S.)O. flavosparsus (Sahl.)Pseudoloxops coccineus (M. - D.)Cyrtorhinus caricis (Fall.)Mecomma ambulans (Fall.)M. dispar (Boh.)Pithanus maerkeli (H. - S.)Lygus rugulipennis PoppiusLiocoris tripustulatus (Fab.)Orthops cervinus (H. - S.)O. rubricatus (Fall.)O. campestris (L.)O. kalmi (L.)Lygocoris pabulinus (L.)L. viridis (Fall.)L. lucorum (M. - D.)

Polymerus nigritus (Fall.)
Charagochilus gyllenhalii (Fall.)
Miris striatus (L.)
Calocoris fulvomaculatus (DeGeer)
C. quadripunctatus (Villers)
C. sexguttatus (Fab.)
C. norvegicus (Gmelin)
C. roseomaculatus (DeGeer)
Adelphocoris lineolatus (Goeze)
Stenotus binotatus (Fab.)
Phytocoris longipennis Flor
P. populi (L.)
P. tiliiae (Fab.)
P. varipes Boh.
Capsus ater (L.)
Pantilius tunicatus (Fab.)
Stenodema calcaratum (Fall.)
S. laevigatum (L.)
Notostira elongata (Geoff.)
Megaloceraea relicticornis (Geoff.)
Trigonotylus ruficornis (Geoff.)
Leptopterna dolabrata (L.)
L. ferrugata (Fall.)

SALDIDAE

Saldula orthochila (Fieb.)
S. pallipes (Fab.)
S. saltatoria (L.)
Chartoscirta cincta (H. - S.)

HEBRIDAE

Hebrus ruficeps (Thoms.)

HYDROMETRIDAE

Hydrometra stagnorum (L.)

VELIIDAE

Velia caprai Tam.

Microvelia reticulata (Burm.)

GERRIDAE

Gerris thoracicus Schu.

G. lacustris (L.)

G. odontogaster (Zett.)

Aquarius najas (DeGeer)

NEPIDAE

Nepa cinerea L.

Ranatra linearis (L.)

NAUCORIDAE

Ilyocoris cimicoides (L.)

NOTONECTIDAE

Notonecta glauca L.

N. marmorea Fab.

N. obliqua Gall.

N. maculata Fab.

PLEIDAE

Plea atomaria (Pallas)

CORIXIDAE

Micronecta scholtzi (Scholtz)

M. poweri (D. and S.)

Cymatia bonsdorffi (Sahl.)

C. coleoprata (Fab.)

Callicorixa praeusta (Fieb.)

Corixa dentipes (Thom.)

C. punctata (Ill.)

C. panzeri (Fieb.)

Hesperocorixa linnei (Fieb.)

H. sahlbergi (Fieb.)

H. moesta (Fieb.)

Sigara dorsalis (Leach)

S. distincta (Fieb.)

S. falleni (Fieb.)

S. fossarum (Leach)

S. scotti (Fieb.)

S. lateralis (Leach)

S. nigrolineata (Fieb.)

S. limitata (Fieb.)

S. venusta (D. and S.)

B. S. NAU

A BREEDING COLONY OF LONG-EARED BATS

The certain identification of Bats is impossible unless the animal is in the hand. Due to the difficulty of catching bats, the Society is very low on records for bat species, although we do have a fair number of general bat (Sp) records. When in the summer of 1971 I was informed that the friend of a member had Long-eared Bats Plecotus auritus in the loft of his house near Luton, I was very pleased, and even more so when invited to go and look at them myself. The last record for this species of bat was in 1962 in the north of the county, so the new record was very welcome.

My visit to the house was at the end of August, but disappointingly no bats could be found. When seen originally the bats had been hanging from the main roof beam, but although there were droppings from many years of use, the bats could not be found in any part of the loft, even though every corner and hole was checked. In conversation it was established that the bats were only heard and seen for two months in the middle of the summer, and this suggested to me that the loft may only be used as a breeding site.

At the end of June 1972, I received a 'phone call that the bats were back. A visit with Clive Banks in early July was immediately successful, with 12 bats being seen, and two individuals being caught and photographed. Judging from size and general characteristics all the bats appeared to be female, although there were no young or lactating females present. However, a visit by Mike Seaman only two weeks later, found 8 bats carrying young, establishing that this is in fact a breeding colony.

This record of a proven breeding site is very pleasing, and efforts will be made in future years to record numbers of females and young. It is important that disturbance is kept as low as possible, for like any animal when breeding, the bats are nervous and too much pressure could well make them desert the site, with fatal results.

It is to be hoped that the bats will continue to use the loft for the birth and rearing of their young for many years to come, and that man will give them the chance to live their lives in full.

DAVID ANDERSON
Mammal Recorder

LIST OF NEW MEMBERS WHO JOINED DURING 1972

c - Corporate a - Associate j - Junior s - Student

- a Baker, Mrs J.E., 34 Lorraine Road, Wootton, Bedford.
- Baker, K.G., 34 Lorraine Road, Wootton, Bedford.
- Banks, C., 72 Spencer Road, Luton.
- c Bedfordshire Beekeepers Association, 7 Park Road, Stevington, Bedford.
- Bellringer, Dr H.E., Gray Lodge, Wootton, Bedford.
- j Bieron, M.K., 69 Falconers Road, Luton.
- Bishop, M.J., University Museum of Zoology, Downing Street, Cambridge.
- Boon, C.R., 7 Duck End Lane, Maulden, Bedford.
- Browne, Mrs N.H., 290 Old Bedford Road, Luton.
- Burns, G., 42 Lockington Crescent, Dunstable.
- Buss, G.J., 1 Easthill Road, Houghton Regis, Dunstable.

- s Chrystal, R. A. , 16a St. Alban Road, Bedford.
Collins, Mrs B. , 49 Aspen Avenue, Bedford.
- s Cox, Mrs M. , 3 Ella Court, High Town Road, Luton.
Crisp, F. D. , 15 Rothsay Place, Bedford.
Crudas, J. , 9 Godso Close, Putnoe, Bedford.
- j Darby, A. , Oddacres, Hookhams Lane, Renhold, Bedford.
Drayton, W. J. , 36 Brewers Hill Road, Dunstable.
Egginton, J. E. , 53 Goldington Road, Bedford.
Ferrero, M. J. , The George Hotel, High Street, Tring.
Gardiner, J. C. , 9 Stanhope Terrace, London, W 22 UB.
- j Gardiner, Miss E. S. , 49 Aspen Avenue, Bedford.
- s Garrett, A. M. , 65 Fairfield Avenue, Luton.
- s Garrett, N. M. , 65 Fairfield Avenue, Luton.
Globe, J. M. , 2 Haylands Way, Bedford.
Gray, D. , 2 Russell Drive, Ampthill.
Gray, Mrs E. , 2 Russell Drive, Ampthill.
Guy, T. J. , 24 Lodge Road, Sharnbrook, Bedford.
Halliday, Mrs L. R. M. , Orin Cottage, Green End Road, Kempston.
- j Harrison, Miss A. , 136 Goldington Road, Bedford.
- j Harrison, P. , 136 Goldington Road, Bedford.
- j Hilliard, R. F. , 14 Monks Close, Dunstable.
Hobbs, Mrs B. C. , 31 Turner Way, Manton Heights, Bedford.
Holdstock, J. , 3 Oakwell Close, Dunstable.
- s Houlton, T. L. , 275 Stockingstone Road, Luton.
Howard, Miss M. D. , 71 Honey Hill Road, Bedford.
- s Humphrey, V. F. , 1 Sandy View, Biggleswade.
Jarvis, Miss J. M. , 8 Linden Road, Bedford.
- s Jennings, T. , 93 Norman Road, Luton.
Kimble, P. , 29 Hazelbury Crescent, Dunstable.
- s King, D. J. , 2 Spring Close, Biggleswade.
- s Kissane, D. , 24 Woodland Avenue, Luton.
- s Kissane, M. C. , 24 Woodland Avenue, Luton.
- j Latham, Miss J. , 7 Howard Place, Dunstable.
Leech, N. H. , 49 Alexandra Avenue, Luton.
McDonagh, M. J. N. , 101 Five Springs, Marsh Farm, Luton.
- s Mercer, N. P. , 140 Barton Road, Luton.
- s Messer, Miss J. M. , 59 Brickhill Drive, Bedford.
Messer, H. J. M. , 59 Brickhill Drive, Bedford.
- j Nash, Miss H. M. , 13 Chester Cottage, Watling Street, Hockliffe, Leighton Buzzard.
- j Ponsford, Miss J. S. , 5 Havelock Rise, Luton.
Pratt, B. A. , 17 Kimbolton Court, Kimbolton Road, Bedford.
- s Rees, M. J. H. , Kensworth Gorse, Kensworth, Dunstable.
- s Steed, Miss P. J. , 153 Old Bedford Road, Luton.
Thomas, T. J. , 142 Selbourne Road, Luton.
Tizzard, P. J. , 68 Birkdale Road, Bedford.
Washbourne, D. J. , 9 Arnold Close, Luton.
- s Webb, Miss B. A. , 4 St. Helena Road, Bedford.
- s Webb, Miss H. M. , 4 St. Helena Road, Bedford.
- s Williamson, T. D. , 55 Rosslyn Crescent, Luton.
- s Woodhead, M. A. , 79 The Moor, Carlton, Bedford.
Woollon, Miss F. B. M. , Dept. of Science, Luton College of Technology, Park Street,
Luton.

Woolnough, Mrs J. A. , 122 High Street North, Dunstable.

Woolnough, R. J. , 122 High Street North, Dunstable.

Wyatt, Mrs E. M. , 70 Brecon Way, Bedford.

It is with deep regret that we record the deaths during 1972 of the following members of the Society:

In February, Lt. Col. E. W. F. Aylwin-Foster, a member since 1952.

In March, Dr J. C. Boyde, a member since 1964.

In July, Mrs Rupert Allen, a member since 1962.

ERRATA

Journal no. 26, 1971

- p. 2, 18th line, 'R. B. Stevenson' should read 'R. B. Stephenson'.
- p. 52, 1st line of 2nd para., 'spoilation' should read 'spoliation'.
- p. 59, 3rd line of 5th para., 'Lesser-Backed' should read 'Lesser Black-backed'.
- p. 59, 1st line of last para., 'net' should read 'next'.
- p. 60, 9th line 'Lesser Black-back Gulls' should read 'Lesser Black-backed Gulls'.
- p. 61, 7th line of 5th para., 'unfortunately' should read 'fortunately'.
- p. 61, 6th line of 6th para., 'not' should read 'most'.
- p. 61, 7th line of 6th para., 'interruptions' should read 'irruptions'.
- p. 64, 4th line of 4th para., insert hyphen 'Ferguson-Lees'.
- p. 66, 5th line of 1st para., 'interruption' should read 'irruption'.
- Caption to photograph of inaugural meeting. Date should read 29th September 1946. (This photograph was taken in the walled garden at the rear of Ray's offices in Cauldwell Street, Bedford, now the site of part of Mander College.)

