

The  
**BEDFORDSHIRE**  
**NATURALIST**

---

BEING THE  
JOURNAL  
OF THE  
BEDFORDSHIRE  
NATURAL HISTORY SOCIETY  
FOR THE YEAR  
1962

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No. 17

*Price Five Shillings*

PUBLISHED BY THE  
BEDFORDSHIRE NATURAL HISTORY SOCIETY

BEDFORD  
STONEBRIDGES PRINTERS LTD.  
1963

# BEDFORDSHIRE NATURAL HISTORY SOCIETY

1963

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## RECORDERS

**BOTANY:**

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*Fungi:*

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A. W. GUPPY, B.Sc., 22 Poplar Avenue, Bedford.

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*Vertebrates:*

*Amphibians, Fishes and Reptiles:*

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

*Birds:* F. Hamilton, 30 Ivel Road, Sandy.

*Mammals:* H. A. S. Key, Priory House, Priory Street, Bedford.

# THE BEDFORDSHIRE NATURALIST

BEING THE

# JOURNAL

OF THE

## BEDFORDSHIRE NATURAL HISTORY SOCIETY

EDITED BY A. W. GUPPY, B.Sc.

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No. 17—1962

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## Report of the Council

Again it is pleasing to be able to report that the Society has maintained its membership numbers over the year; in fact it has made a slight increase. At the end of December, 1962, the register totalled 341, but some of these are so far in arrears of subscription as to be considered non-members.

There is one disturbing feature; the rate of recruitment during 1962 was much lower than in previous years. In 1960 it was 30, in 1961, 42, but in 1962 it was only 14, and there have been 18 resignations to date since the end of the year. We are still of the opinion that our membership is low when one considers the quantity of work put into the fifteen years or so of our existence, what is offered at such small cost in the quality of our programmes and Journals, and the ever-increasing interest in Natural History.

We have to report with regret the death of a member who joined in the early days, and who earned the respect of us all—Mrs Cole of Chigwell, Essex, who retained her membership after she left Bedford.

The extreme weather conditions prevailing up to the end of the year make it difficult to assess the interest taken in our winter programme as on occasions the attendances were very meagre. Some of the summer meetings, too, were not too well attended.

After much deliberation, your Council was forced, due to economic reasons, to increase the rates of subscription. This was done with great reluctance, but was a matter of absolute necessity as subscriptions are practically our only source of income. The increase was kept to a minimum, and it should be remembered that this is the first alteration in subscription rates since our inception. It was also found necessary during the year to make certain alterations to our rules to meet changed conditions and generally bring them into line with present-day requirements.

Our contacts with the Bedfordshire and Huntingdonshire Naturalists' Trust, Colworth House Natural History Society, the Royal Society for the Protection of Birds, and the Bedford School Natural History Society continue on a most cordial basis.

Mention, we feel, should be made of a splendid film shown by Mr Clegg of the R.S.P.B. early in the winter programme at the Civic Theatre, Bedford. This venture made a most satisfactory profit.

In conclusion we again appeal to members to submit articles and observations to the Editor of the Journal, to recruit new members, and to take a more active interest in the affairs of the Society; these would all be of considerable help to your Council.

KENNETH E. WEST, *Hon. General Secretary.*

# THE BEDFORDSHIRE NATURAL HISTORY SOCIETY

## STATEMENT OF ACCOUNTS FOR THE YEAR ENDED 31st DECEMBER, 1962

STATEMENT OF ACCOUNTS

RECEIPTS				PAYMENTS			
	£	s.	d.		£	s.	d.
Cash at Bank 1st January, 1962 ...			152 5 2	Printing, Postages and Stationery ...			38 4 11
<i>Donations and Subscriptions:</i>				Meeting Expenses—Bedford ...			3 10 0
Subscriptions 1962 and arrears ...	135	16	0	Bedfordshire Naturalist Journal (1960) ...			93 0 9
Subscriptions 1963/64 ...	13	15	0	Loss on Coach Trips ...			2 5 0
			149 11 0	Subscriptions and Donations to other Societies ...			16 10 0
Surplus on Bird Bulletins ...			9 3 6	Meeting Expenses, Luton, and payment in advance re Hosking Lecture, 7th February, 1963			25 0 0
Surplus on Film Show ...			27 8 4	Sundry Expenses ...			4 4 8
Collections at Meetings ...			2 3 10	Cash at Bank, 31st December, 1962	142	11	2
Hire of bird records ...			2 0 0	Cash in Hand, 31st December, 1962	17	15	4
Donation ...			10 0				160 6 6
			£343 1 10				£343 1 10

We have examined the above Account with the books and vouchers of the Society and certify it to be correct in accordance therewith.

BEDFORD.  
13th March, 1963.

THORNTON BAKER & CO.,  
Chartered Accountants, Hon. Auditors.

## PROCEEDINGS 1962

### Indoor Meetings

161ST ORDINARY MEETING, 12th January, 1962, Luton. 'Around the Seasons in Colour' with colour slides, by H. A. S. Key. Attendance 31. *Chairman*: S. W. Rodell.

162ND ORDINARY MEETING, 18th January, 1962, Bedford. 'The British Falcon Society' by Major-Genl. A. G. O'Carroll-Scott, C.B., C.B.E. Attendance 51. *Chairman*: F. G. R. Soper.

163RD ORDINARY MEETING, 1st February, 1962, Luton. 'Iceland and its Wild Life' by Eric Meadows. Attendance 80. *Chairman*: S. W. Rodell.

164TH ORDINARY MEETING, 8th February, 1962, Bedford. 'Filming Birds' by W. Champkin. Attendance 53. *Chairman*: F. G. R. Soper.

165TH ORDINARY MEETING, 15th February, 1962, Luton. Two films—'Between the Tides' and 'Journey into Spring' by R. G. O. Stephenson. Attendance 138. *Chairman*: M. W. Wortley.

15TH ANNUAL GENERAL MEETING, 22nd February, 1962, Bedford. Attendance 53. Details as printed in last issue, No. 16, 1961, page 12.

166TH ORDINARY MEETING, 8th March, 1962, Bedford. 'Nature Conservation' by Peter Laws. Attendance 31. *Chairman*: F. G. R. Soper.

167TH ORDINARY MEETING, 15th March, 1962, Luton. 'Nature Magazine' by Roger Charters, Frank Hamilton, Cyril Mortlock and M. D. Wortley. Attendance 32. *Chairman*: R. G. O. Stephenson.

168TH ORDINARY MEETING, 18th October, 1962, Luton. 'Scottish Highland' by Eric Meadows in place of Miss Hager, whose subject was to have been 'Lundy', and who was ill. Attendance 25. *Chairman*: Eric Meadows.

169TH ORDINARY MEETING, 25th October, 1962, Bedford. 'Saving our Countryside' by J. Clegg. Attendance 43. *Chairman*: F. G. R. Soper.

SPECIAL JOINT MEETING with the R.S.P.B., 1st November, 1962, Bedford. Film by J. Clegg 'Life in a Bird Sanctuary'. *Chairman*: F. G. R. Soper.

170TH ORDINARY MEETING, 8th November, 1962, Luton. 'Insects in Persia' by Dr J. C. Banks. Attendance 37. *Chairman*: R. G. O. Stephenson.

171ST ORDINARY MEETING, 15th November, 1962, Bedford. 'Iceland and its Wild Life' by Eric Meadows. Attendance 53. *Chairman*: F. G. R. Soper.

172ND ORDINARY MEETING, 22nd November, 1962, Luton. Meeting cancelled owing to dense fog.

SPECIAL MEETING, 22nd November, 1962, Potton. Arranged in conjunction with the County Federation of Women's Institutes. Films of bird life in the county and in Scotland by W. Champkin. Attendance 47. *Chairman*: Miss K. A. Pain, County Secretary of the W.I.

SPECIAL GENERAL MEETING, 6th December, 1962, Bedford. Alteration of the Society's Rules. Attendance 33. *Chairman*: F. G. R. Soper.

173RD ORDINARY MEETING, 6th December, 1962, Bedford. Projection of miscellaneous colour slides by various members. Attendance 31. *Chairman*: F. G. R. Soper.

174TH ORDINARY MEETING, 13th December, 1962, Luton. 'The Natural History of Disease' by Dr Parkinson. Attendance 9. *Chairman*: R. G. O. Stephenson.

## Field Meetings

SUNDAY, 21ST JANUARY, 1962. BLACKWATER ESTUARY, ESSEX. *Leader*: M. D. Wortley. Fourteen members attended this meeting under a grey sky, in a strong south-west wind which brought heavy rain in the early afternoon. In spite of these adverse conditions the dark-phase Brent Geese, feeding on the high tide mark, were well observed from the look-out tower, made available to us by the Essex Society. The typical waders and ducks were also identified, including Knot, Turnstone, Curlew, Oyster-Catcher, Sanderling, Dunlin, Common Scoter, Red-Breasted Merganser, Shelduck and Cormorant.

SUNDAY, 29TH MARCH, 1962. ODELL WOOD. *Leader*: B. B. West.

SUNDAY, 15TH APRIL, 1962. FLITWICK MOOR. *Leader*: R. G. O. Stephenson. This meeting was intended for the study of spring migration, but the only migrant found was a Chiffchaff, which was rather disappointing in view of the date. Thrushes' and Blackbirds' nests with eggs were found, and a Tawny Owl disturbed from a hole in an upturned tree-root. The Butterbur was just coming into flower, but otherwise there was little sign of spring. As the eighteen members dispersed, excitement was caused by the possible sighting of a Great Grey Shrike, but this identification could not be confirmed.

SUNDAY, 29TH APRIL, 1962. DEADMANSEY WOOD, STUDHAM, and TOTTERNHOE KNOLLS. *Leader*: E. G. Meadows. Attendance twelve. Various kinds of violet were the most interesting finds, still in bloom because of the late spring. Wood-sorrel was also abundant, and, in one spot on the roadside near the wood, so-called 'Town-hall Clock', *Adoxa moschatellina*. The afternoon visit to Totternhoe Knolls was for the purpose of locating orchid leaves to point out their habitat. A swallow was seen.

SUNDAY, 6TH MAY, 1962. FELMERSHAM GRAVEL PITS. There was an attendance of about forty members at this meeting which was intended as the first of a series covering a detailed survey of the Nature Reserve.

SUNDAY, 20TH MAY, 1962. HEATH & REACH AND THE SURROUNDING AREA. *Leaders*: M. D. Wortley and E. G. Meadows. There was an excellent attendance for this meeting, the day being warm and bright, with scattered showers. The morning was spent in the Fox Corner and King's Wood area, where a single male Common Redstart and three pairs of Tree Pipit were noted. A new locality for Wood Warbler was also found in the Fox Corner area, with one pair both seen and heard.

After lunch, some of the party moved on to Charle Wood where a slight change in the breeding status of the Wood Warbler was revealed, with one pair located in a new area in Charle Wood and the established pair having moved across to nearby Lowe's Wood. Two plus pairs of Garden Warbler and Tree Pipit were estimated in this belt of woodland; also one pair plus of Common Redstart in the conifer belt. The day was rounded off by the observation of two Lesser Redpoll feeding high up in a clump of larch trees.

SUNDAY, 3RD JUNE, 1962. THE NEW FOREST. *Leader*: Dr D. M. Jeffreys.

THURSDAY, 7TH JUNE, 1962. FELMERSHAM GRAVEL PITS. Continuation of survey initiated on 6th May.

MONDAY, 11TH JUNE, 1962. WOOD WALTON FEN. *Leader*: L. A. Speed. Seventeen members in cars visited Wood Walton Fen on a fine sunny day. After a preliminary introduction, the party split up into several sections, each to pursue its own particular interests. Only a few wildfowl were seen, but nests of Yellow Hammer and Tree Pipit were found; warblers, a Woodcock and two Cuckoos were observed. Over sixty species of

flowering plants were found, the local *Viola stagnina* growing profusely in clumps over a large area. Orange-tip, Chequered Skipper and Brimstone butterflies were seen.

SUNDAY, 17TH JUNE, 1962. MINSMERE BIRD RESERVE, SUFFOLK. *Leader* : M. D. Wortley. The weather was perfect for the eleven members visiting this Reserve. The three species for which it is primarily maintained are the Marsh Harrier, Bittern and Bearded Tit, and all three were observed during the afternoon. The Red-backed Shrike, which breeds regularly and in fair numbers on the Reserve was seen at close range by all members of the party. A majority of the more common species was identified, such as Shelduck with their young, Gadwall, Little Tern and Sandwich Tern, together with a few of the commoner wading birds.

THURSDAY, 21ST JUNE, 1962. FELMERSHAM GRAVEL PITS.

THURSDAY, 28TH JUNE, 1962. ASPLEY WOOD, WOBURN SANDS. *Leader* : M. D. Wortley. Twelve members attended this evening meeting which was very enjoyable in spite of nothing of note being seen.

SUNDAY, 1ST JULY, 1962. PRINCES RISBOROUGH. *Leader* : E. C. Lamb.

SUNDAY, 8TH JULY, 1962. FLITWICK MOOR. *Leader* : S. W. Rodell. This meeting was attended by seven adults and three children. Nothing unusual for the time of year was seen. In several places, part of the peat was noticed to be smouldering, no doubt due to the long spell of dry weather.

THURSDAY, 12TH JULY, 1962. FELMERSHAM GRAVEL PITS.

SUNDAY, 15TH JULY, 1962. SALCEY FOREST. *Leader* : B. B. West. Meeting cancelled due to very heavy rain.

THURSDAY, 2ND AUGUST, 1962. FELMERSHAM GRAVEL PITS.

SUNDAY, 12TH AUGUST, 1962. SOUTH COTSWOLDS. *Leader* : E. G. Meadows. Attendance thirty. The coach left the party on the side of Wootton Hill on the western escarpment, which is well-wooded, largely with beech. They then walked along the edge to Nibley Hill, finding a good variety of flowers on the way. A visit was then made to the giant Spanish Chestnut at Tortworth, one of the largest trees in Britain. The meeting ended with a walk over the hills to the north-west of Stroud.

THURSDAY, 30TH AUGUST, and THURSDAY, 13TH SEPTEMBER, 1962. These were the final two visits to FELMERSHAM GRAVEL PITS.

SUNDAY, 23RD SEPTEMBER, 1962. SUTTON FEN. *Leader* : E. C. Lamb. The party met at Warren Farm and spent some time examining the cultivated fields in the vicinity. After lunch, they walked to Portobello Farm and returned through the densely wooded part of the Fen.

SUNDAY, 14TH OCTOBER, 1962. FUNGUS FORAY AT COLWORTH. *Leader* : D. A. Reid. For a detailed account see below.

SUNDAY, 9TH DECEMBER, 1962. BARTON HILLS. *Leader* : E. G. Meadows. The weather was sunny and mild with a strong south-west wind. A party of six climbed the western side of Springs Valley and went on to Ravensburgh Castle, returning later to the eastern side.

## The Fungus Foray

This year the fungus foray was held at Colworth House, Sharnbrook, on the 14th October, 1962, and was led as usual by Mr D. A. Reid. About 30 members of the Society were present and as a result of their diligent searching a number of interesting species were found, several of which are new to the county. This together with the fine sunny weather helped to make the meeting a great success.



One of the outstanding features of the grounds of Colworth House—from a purely mycological angle—was an enormous manure heap. This provided a wealth of coprophilous fungi including such species as *Coprinus congregatus*, *C. comatus*, *C. lagopus*, *Anellaria semi-ovata* and *Aleuria vesiculosa*. However, the woodland scrub also contained some exciting fungi such as *Nolanea fulvostrigosa*, *Cortinarius caerulescens*, *Lactarius fulvissimus*, *Tricholoma leucocephalum*, *Hygrophorus leucophaeus*, and *Pterula multifida*, to name but a few. The latter species resembles a finely branched lichen but in fact belongs to the Clavariaceae.

Altogether 114 species were collected, of which 22 were new to the county and a further 2 confirm ancient records.

*Anellaria semi-ovata* (Sow. ex Fr.) Pearson & Dennis; *Armillaria mellea* (Vahl) Fr.; *\*Clitocybe dicolor* (Pers.) Lange; *C. geotropa* (Bull.) Fr.; *\*Collybia atrata* Fr.; *C. carbonaria* (Vel.) Orton [= *C. ambusta* sensu auct.]; *C. radicata* (Rehl) Berk.; *Coprinus boudieri* Qué!.; *C. comatus* (Mull. ex Fr.) S. F. Gray; *\*C. congregatus* (Bull. ex St. Amans) Fr.; *C. lagopus* Fr.; *C. plicatilis* (Curt.) Fr.; *\*Cortinarius caerulescens* (Schaeff.) Fr.; *C. crocolitus* Qué! [= *C. triumphans* sensu auct.] *Crepidotus mollis* (Schaeff.) Fr.; *C. variabilis* (Pers.) Fr.; *Flammula gummosa* (Lasch) Qué!.; *Galera rubiginosa* (Pers.) Fr.; *Hebeloma crustuliniforme* (Bull.) Fr.; *H. sacchariolens* Qué!.; *H. sinapizans* (Paul.) Fr.; *\*Hygrophorus leucophaeus* (Scop. ex Fr.) Karst.; *H. niveus* (Scop.) Fr.; *Hypholoma candolleianum* Fr.; *H. fasciculare* (Huds.) Fr.; *H. velutinum* (Pers.) Fr.; *Inocybe asterospora* Qué!.; *I. geophylla* (Sow.) Fr.; *I. geophylla* var. *lilacina* Fr.; *I. griseo-lilacina* Lange; *Laccaria laccata* (Scop.) Cooke; *\*Lactarius fulvissimus* Romag.; *L. glycosmus* Fr.; *L. piperatus* (Scop.) Fr.; *L. pyrogalus* (Bull.) Fr.; *L. quietus* Fr.; *L. vellereus* Fr.; *Lentinus cochleatus* (Pers.) Fr.; *Marasmius epiphyllus* (Pers.) Fr.; *M. peronatus* (Bolt.) Fr.; *M. ramealis* (Bull.) Fr.; *Mycena epipterygia* (Scop.) Fr.; *M. galericulata* (Scop.) Fr.; *M. galopus* (Pers.) Fr.; *M. inclinata* Fr.; *M. polygramma* (Bull.) Fr.; *\*M. vitilis* sensu Lange; *\*Nolanea fulvostrigosa* (Berk. & Br.) Sacc.; *\*Panaeolus subbalteatus* (Berk. & Br.) Sacc.; *\*Pholiota filaris* (Fr.) Lange; *P. mutabilis* (Schaeff.) Fr.; *P. spectabilis* Fr.; *P. togularis* (Bull.) Fr.; *Pleurotus aceroseus* Fr.; *Pluteus phlebophorus* (Ditmar) Fr.; *P. salicinus* (Pers.) Fr.; *Psathyrella disseminata* (Pers.) Fr.; *P. squamosa* (Karst.) Moser; *P. tephrophylla* Romag.; *Psilocybe foenicicii* (Pers.) Fr.; *P. physaloides* (Bull.) Lasch; *P. spadicea* Fr.; *\*Russula betularum* Hora; *R. fragilis* Fr.; *R. mairei* Sing.; *Stropharia aeruginosa* (Curt.) Fr.; *S. coronilla* (Bull.) Fr.; *Tricholoma fulvum* Fr.; *\*T. leucocephalum* (Fr.) Qué!.; *T. nudum* Fr.; *T. sordidum* Fr.; *Tubaria furfuracea* (Pers.) Gillet;

*Boletus scaber* (Bull.) Krombh.;

*Polyporus caesius* (Schrad.) Fr.; *P. lacteus* Fr.; *P. semipileatus* Peck; *P. varius* Fr.; *Polystictus versicolor* (L. ex Fr.) Fr.; *Poria versipora* (Pers.) Baxter; *Trametes confragosa* (Bolt.) Jörstad;

*Grandinia granulosa* Fr.; *\*Odontia arguta* (Fr.) Qué!.; †*Sistotrema confluens* Pers. ex Fr.;

*Clavaria cinerea* (Bull.) Fr.; *\*C. cristata* var. *subrugosa* Corner; *C. inaequalis* (Müll.) Qué!.; *\*Pterula multifida* Fr.;

*Coniophora puteana* (Schum.) Karst.; *Corticium confluens* Fr.; *\*C. velereum* Ell. & Crag; *\*Gloeocystidium albostramineum* Bres.; *\*G. porosum* (Berk. & Curt.) Wakef.; *Hymenochaete rubiginosa* (Dicks.) Lév.; *Merulius corium* Fr.; *\*M. rufus* Pers.; *Stereum hirsutum* (Willd.) Fr.; *S. rugosum* (Pers.) Fr.; *S. sulphuratum* Berk. & Rav.; *Thelephora anthocephala* (Bull.) Fr.; *Vuilleminia comedens* (Nees ex Fr.) R. Maire;

*Lycoperdon pyriforme* (Schaeff.) Pers.;

*Dacrymyces deliquescens* (Bull.) Duby;

*Sebacina incrustans* (Fr.) Tul.;

† *Aleuria vesiculosa* (Bull. ex Fr.) Boud.; *Dasyscypha virginea* (Batsch ex Fr.) Fuckel; \**Encoelia furfuracea* (Roth ex Pers.) Karst.; *Galactinia sarrazinii* Boud.; *Helvella lacunosa* Afz. ex Fr.;

*Daldinia concentrica* (Bolt. ex Fr.) Ces. & de Not.; \**Helminthosphaeria clavariarum* (Tul.) Fuckel; *Sphaerotheca pannosa* (Wallr.) Lév.; *Xylaria hypoxylon* (L. ex Fr.) Grev.;

\**Peronospora media* Gaum. on *Stellaria media*;

*Arcyria denudata* Wetts.

\* New county record.

† A confirmation of existing records.

DEREK A. REID.

## Ornithological Section

The Section's first field meeting took place in January on the Blackwater estuary in Essex. This proved very worthwhile, in spite of depressing weather later in the day. The only other field meeting of note was at Minsmere Reserve, near Dunwich, on the 17th June. This gave all those present the opportunity of observing such rare marshland species as the Marsh Harrier, Bittern, and Bearded Tit while walking around, and from the various 'hides'.

During the autumn and winter, indoor meetings, of interest mainly to the ornithologist, included a lecture by Major-Gen. A. G. O'Carroll Scott on 'Falconry', and a talk by Mr W. Champkin on 'Filming Birds', illustrated by an excellent 16 mm. cine film. The only other meeting with ornithological interest was the R.S.P.B. film 'Reserved for Birds' at Bedford in November, illustrating the various seasons throughout the year at Minsmere Bird Reserve, the famous Suffolk marsh.

The Section decided in March to go ahead in making the 8 mm. cine film 'Autumn Adventure', which would explain some of the interest and fascination of bird-watching, particularly as experienced by a small boy taking part in a week-end visit with a party of the Society's members to a bird observatory. The film was intended for audiences in schools, and other natural history societies, such as our own. The fact that the film was at all successful is due to the wonderful help so freely given by the film party, Tony Wellbelove, Gordon Wright, and 'Pen' (Mr Pendlebury); all these gave much of their spare time to the venture. Thanks are also due to the Dungeness Bird Observatory Committee for granting us permission to film, and to the Warden, Bob Scott, who assisted in every way he could.

The first in a series of Gull counts at Stewartby Lake was held on the 30th September, and on the last Sunday of each succeeding month. Their purpose is to find the pattern in formation of the roost at dusk, as well as the dispersal movement at dawn. This does not, of course, tell us where the various species of Gull feed during the daytime, nor over what area, and much field-work remains to be done before any of these questions are answered.

Several members have helped in surveys organized by the British Trust for Ornithology, and by the Society. These will be repeated in 1963 and new ones started; assistance from interested members will be most welcome.

On retiring from the office of Ornithological Secretary I would like to stress the fact that all that has been achieved during this, and previous, years is due to the active support of many members, and not to any single person. In view of this, it is, of course, impossible for me to acknowledge everyone concerned, but I would like to extend my thanks particularly to Miss Carol Fairey, who has carried out the not-inconsiderable task of

typing the Ornithological Report for the Journal for the past two years, to Mr R. G. O. Stephenson, for his indispensable help in editing the Bulletin, and for much else, and to Mr S. W. Rodell for handling the mailing of the Bird Bulletin.

At the same time, I also welcome Mr F. D. Hamilton, and wish him every success in taking over the job of Ornithological Secretary.

MICHAEL D. WORTLEY.

## Annual General Meeting 1963

The 16th Annual General Meeting was held in the Guild House, Harpur Street, Bedford, on Thursday, 21st March, 1963. Mr F. G. R. Soper was in the Chair and 71 members were present.

The Minutes of the Special General Meeting held at Bedford on 6th December, 1962, and of the 15th Annual General Meeting were read, discussed and adopted. The report of the Council was then given by Mr K. E. West, Hon. General Secretary. There was a slight increase in membership, but the rate of recruitment was much lower than in recent years. The reasons for alterations in the Rules, and for the increased subscriptions, were explained. Mr West concluded by appealing for material for the Journal, for a higher rate of recruitment, and for a generally more active interest in the Society's affairs. The Report was unanimously adopted.

The Hon. Treasurer, Mr J. M. Dymond, gave a most satisfactory report. He appealed to members to pay by banker's order, and his suggestion to send out reminders in the autumn was approved. The Report was adopted with thanks both to Mr Dymond, and to the Hon. Auditor who had now acted on fifteen occasions.

The Hon. Editor, Mr A. W. Guppy, spoke of his disappointment with the quality of the last Journal, and of the small percentage of the members who contributed to it; he made an appeal for more support. The Report was adopted.

The Ornithological Secretary, Mr M. D. Wortley, gave a lengthy and most interesting account of the work of the Section. He stated that this would be his last Report, and that he would be handing over to Mr Frank Hamilton of the R.S.P.B. The Chairman spoke at length on the excellent work done by Mr Wortley and his colleagues, and the Report was adopted amid general applause.

The Botanical Secretary was not present, and his Report was referred back to the Council for consideration.

Mr L. A. Speed, as Hon. Programme Secretary, gave a draft of the proposed Summer Programme, and appealed to members to make early decisions about coach trips. Mr B. B. West added information about arrangements for National Nature Week.

The Chairman paid a warm tribute to the retiring President, Mr W. E. K. Piercy, and stated that Mr H. A. S. Key had accepted the invitation to succeed him in office. The other officers were then re-elected as follows:

Chairman: Mr F. G. R. Soper.  
 Hon. General Secretary: Mr K. E. West.  
 Hon. Treasurer: Mr J. M. Dymond.  
 Hon. Editor: Mr A. W. Guppy.  
 Hon. Programme Secretary: Mr L. A. Speed.

The Council was then elected as follows:

Miss E. Day, Miss E. Fairey, Miss G. M. Tattam, Mr F. Hamilton, Dr D. M. Jeffreys, Mr E. Meadows, Mr S. W. Rodell, Mr R. G. O. Stephenson, Mr B. B. West and Mr M. D. Wortley.

A proposal by the Chairman that Mr Ray Palmer be elected an Honorary Life Member was unanimously approved. Mr Soper recalled that he was our first Editor, and that he gave our first lecture; he had done much valuable work for the Society in its early years.

A short film of the Dungeness Bird Reservation was then introduced by Mr W. Champkin, who suggested its purchase by the Society. It showed a record of a visit to Dungeness by a party of members of the Society, and Mr R. G. O. Stephenson gave an additional commentary. The process of trapping, recording and ringing was seen in operation, and the whole thirty minutes of its duration was packed with interest.

Finally, Mr W. E. K. Piercy gave his address. This was a delightful and happy sequence of reminiscences of wanderings in many parts of the world in search of the simple beauties of nature, and was illustrated with slides; especially notable were the glorious colours of some of the Australian birds, and of the stark grandeur of the outer Hebrides as seen from a Sunderland flying-boat. His account of the diversity of personalities encountered, and of incidents both grave and gay, was retailed in a scholarly and charming manner, and made a very enjoyable end to the evening. Mr Soper was supported by all present in his thanks both to Mr Piercy, and to Mr Stephenson and his party for their film.

## Reports of Recorders

### BOTANY

The year was noteworthy in the discovery by Miss E. H. Lloyd and Mr P. J. Reay of Bell-heather (*Erica cinerea* L.) by the side of a track in cleared woodland at Rowney Warren. Closer examination revealed three well-developed plants separated by some distance. Bell-heather has not been known in the county for about eighty years but it is possible that it has always been at Rowney Warren, a promising habitat for the species, has hitherto been dwarfed by the trees and is now flowering again with the greater access of light. On the other hand there has, during the past four years, been a considerable planting of young trees and it is equally possible that the plants could have been introduced from a nursery in an area where Bell-heather is native and have found favourable conditions at Rowney Warren. The site is one which has been and is still frequently visited by Bedfordshire naturalists and it would be helpful to know if others had previously noticed the species there and can provide any further information regarding it in the coming years.

A plant record, with no doubt as to its origin, has come from Mr Purser who found an unusual dodder (*Cuscuta campestris* Yuncker) in his garden at Bedford. This introduced plant has been found by the recorder on three occasions on crops in the Maulden and Flitton area. It would be interesting to know of further appearances in gardens.

Mrs Berens has recorded an unusual hybrid *Prunella laciniata* × *P. vulgaris* from the grounds of Great Barford House. Further observations will show whether this will be permanent with us. My attention was also drawn by Mrs Lucas to a blue-flowered Rest-harrow (*Ononis spinosa* L.) growing in her fields at Apsley End. This is also receiving further attention.

I have been grateful for other records from Mrs Berens, Miss Elwell, and Mr Reay. The cold summer badly affected the wool adventives and my own additions to the flora were few.

J. G. DONY.

## METEOROLOGY

Few will remember the weather of 1962 with much enthusiasm ; it was a cool and cloudy year on the whole, but, despite this, the rainfall was well below average, except for the holiday months of August and September.

January started exceptionally cold after the blizzard of New Year's Eve, but this gave way after only two days to milder unsettled weather which lasted until the end of the month, when there was a brief cold spell with some snow. February was dominated by high-pressure systems, and, once again, the month fully maintained its dry reputation. Cold north-easterly winds persisted from the 20th February for over a month, with low night minima, and it was not until the 26th March that milder conditions became established. April was mostly unsettled and stormy, but the last week was dry, with unusually high temperatures on the 25th and 26th.

May was cool, cloudy, and unsettled, with a heavy thunderstorm on the 27th. June, however, was exceptionally dry, with temperatures up to 79 deg. F. on the 9th, this figure not being surpassed for the rest of the summer. July had two periods of heavy thunderstorms, on the 10th and 26th respectively, the rainfall being particularly heavy on the latter evening. August produced the poorest Bank Holiday on record, with heavy rain and gales ; unsettled weather persisted throughout the month and on through September, the 10th and 11th of the latter giving over one-and-a-quarter inches of rain between them.

October belatedly gave the only really persistent spell of relatively fine warm weather during the year, although this was marred by the dense fogs of the 8th, 9th, and 10th ; there was no measurable rain for twenty-three consecutive days. Unsettled conditions were resumed on the 25th and continued into November, with heavy rain on the 2nd. An unusually cold spell began on the 10th and continued until the 22nd, the 17th and 18th, in particular, constituting one of the coldest and stormiest week-ends ever recorded in Britain at this time of the year. The last week saw a reversion to much milder conditions.

December was so generally unpleasant as to deserve a separate paragraph ! The first week was cold, with unusually dense fogs, followed by a spell of stormy wet weather. The temperature dropped abruptly on the 23rd, and thereafter, for the rest of the year, the weather was exceptionally cold, with frequent snow, culminating in the blizzard of the 30th. The year closed, as in 1961, with snow lying and the temperature rising little above freezing-point throughout the twenty-four hours.

RAINFALL was everywhere deficient by from 10 to 15% of the average ; this was accounted for by the unusually dry spring, in which February and June were outstanding. The longest dry period, in October, has already been mentioned ; there were no corresponding wet periods, although September had nineteen wet days and May, twenty. The heaviest day's rain was on th 26th July, with 0.63 inch at Bromham, though the amounts on the 6th August and 11th September were nearly as much. Some stations recorded much heavier falls than these.

SNOW fell on twelve days, the heaviest occurring on the 30th January, nearly equivalent to a quarter of an inch of rain.

THUNDER was heard on eleven days, the heaviest storms being those of the 27th May and 10th July.

TEMPERATURE. The year 1962 was exceptional in having no single day in which the temperature reached or exceeded 80 deg. F. The warmest day has been mentioned ; the coldest were New Year's Day with 30 deg. maximum and the 29th December with the same figure. December had no less than ten days on which the day maximum did not rise above freezing-point.

### RAINFALL FOR 1962

	Ampthill	Bedford	Bromham	Cardington	Eversholt	Kempston	Luton A	Luton B	Silsoe
January ...	2.90	2.11	1.95	2.51	3.16	2.40	3.86	3.80	
February ...	0.36	0.43	0.29	0.37	0.36	0.38	0.67	0.54	
March ...	1.20	1.00	0.80	1.13	1.44	1.10	1.92	1.76	
April ...	1.64	1.52	1.40	1.58	2.00	1.56	2.10	1.81	
May ...	2.32	1.84	1.61	2.09	2.02	1.88	2.76	2.45	
June ...	0.17	0.11	0.22	0.15	0.34	0.14	0.20	0.39	
July ...	2.58	1.90	2.01	2.08	2.53	2.01	3.40	2.65	
August ...	2.89	2.20	1.85	2.37	3.28	2.22	2.31	2.65	
September ...	3.03	2.95	2.72	2.68	3.12	3.08	3.10	3.60	
October ...	1.14	0.94	0.93	0.92	1.32	0.95	1.42	1.42	
November ...	1.73	1.15	1.30	1.32	1.72	1.17	2.67	2.48	
December ...	1.89	1.55	1.28	1.17	1.58	1.59	2.05	1.58	
Totals ...	21.85	17.70	16.36	18.37	22.87	18.48	26.46	25.13	

Ampthill (Mr Horne)

Bedford (Mr Lock)

Bromham (the writer)

Cardington Aerodrome (per Mr Speed)

Eversholt (Col. Battcock)

Kempston (Mr Payne)

Luton A (Crescent Road) (Mr Meadows)

Luton B (Runley Wood) (Mr Meadows)

The lowest night minimum was that of the 2nd January, with 14 deg. but this was closely approached by the 28th December with 15 deg. and by the 16th March and 6th December with 16 deg. The latest night frost occurred on 31st May, the earliest on 26th October.

Averages were as follows:

January	... 39.7	deg. F.	July	... 58.32	deg. F.
February	... 40.50		August	... 60.08	
March	... 36.77		September	... 55.71	
April	... 46.52		October	... 50.50	
May	... 53.52		November	... 41.13	
June	... 57.12		December	... 34.22	

Average for the whole year: 47.84 deg. (50.92 in 1961).

### LEPIDOPTERA

1962 was a late and thoroughly unsatisfactory season. Spring was dominated by east winds and, with high-pressure systems stable for a long time on the continent, the weather was cold and dry, the worst possible conditions for the emergence of spring species. The Orange Tip, *Euchloë cardamines* (Linn.), was not on the wing till late May, and its flight time extended well into June. Other examples of the effect of the cold spring were the delay in reappearance of hibernating species, and partial or incomplete first broods of some double-brooded species.

The summer, with the exception of one or two warm spells, notably in the first week of June, which invariably terminated in thunder, was wet and at times cold, and entomologically a failure.

Having bought an old property at Willington and decided to undertake much of the restoration work myself, with the help of my wife and father, I found the time for field work somewhat reduced, and, in fact, it was not possible to work the M.V. lamp away from Willington, as the week-ends were very much taken up with painting, decorating and gardening. It was gratifying that in spite of this restricted collecting there were a number of species of moths at light which were new to me. The lamp working mainly as a trap has been set up with a considerably extended cable compared with the Cardington Road arrangement, and I can now encompass a far larger area of unrestricted sky than was possible in the town. For a considerable period of time my new neighbours were convinced that this was a form of floodlighting for the newly houseproud, and occasionally one caught a glimpse of startled faces peering from the road. I am glad to say that these activities are now understood and accepted. The local conditions are interesting in that the squared plan of Willington village produces housing only on the road frontages, with open country both within the square, now largely planted with the Bryant & May Poplar nurseries, and outside. The river lies to the north and the Boulder Clay-covered Greensand Ridge to the south, with Sheerhatch Wood as the largest survivor of the former forest cover. To the east and west intensive arable farming predominates, and the brussels fields towards Moggerhanger are, no doubt, big factors in the high proportion of Brassica-feeding species present.

Several visits were made to favourite collecting sites during the season but in none of them was there the number of species present that one has taken for granted in previous years. Probably the most disconcerting discovery was the complete absence of the Chalkhill Blue, *Lysandra corydon* (Pod.), on the National Nature Reserve at Pegsdon. I made two visits in late July and August and did not see a single specimen where formerly they have swarmed. In between my two visits to Pegsdon, I saw hundreds on Therfield Heath, Royston, and I am forced to the conclusion

that some factor like crop-spraying with a possible associated drift must be the explanation of the apparent extinction of the species at Pegsdon. One can only wait for the next season with any evidence it may bring. Lt.-Col. Young of Pavenham sent me his valued report as usual and he fared little better with the year, considering the species total to be considerably down on 1961.

One bright piece of news concerns the future of the famous Totternhoe Knolls area which has been scheduled for some time as a site of Special Scientific Interest under Section 23 of the National Parks Act. The Bedfordshire County Council has recently assumed the powers of the former Totternhoe Conservators and in view of this the Beds. and Hunts. Naturalists Trust made representations to the Council seeking the declaration of Totternhoe as a Local Authority Nature Reserve under Section 21 of the Act already mentioned. As one associated with these negotiations I should like to record my appreciation of the way in which our suggestion has been received. It is now certain that this Reserve will be created with a management committee of Trust and County Council members. The insect life of this site is rich and it is, above all, the headquarters of the Small Blue, *Cupido minimus* (Fuessl.), which is otherwise becoming a rare insect in the country.

The following list contains the new species of interest, and comment where it is considered to be merited on species referred to in previous articles. As before, the numeration is I. R. P. Heslop's.

140. *Trichiura crataegi* (Linn.), Pale Eggar: Willington, September (M.V.), (BBW). This species has not previously been recorded by me, though it is interesting that several years ago I found a small larva near Willington Staunch Pool, on Hawthorn, which I then took to be that of *Macrothylacia rubi* (Linn.), the Fox, which could well have been this species. South, on page 14 of the new edition, states that the larvae can easily be confused in an immature state.

164. *Earias clorana* (Linn.), Cream-bordered Green: Edge of Sheer-hatch Wood, June, (BBW). I have almost certainly missed this species in the past, mistaking it for *Tortrix viridana* (Linn.).

355. *Dypterygia scabriuscula* (Linn.), Bird's Wing: Several late May, Willington (M.V.), previously recorded only at Sandy.

433. *Amphipyra pyramidea* (Linn.), Copper Underwing: Willington, July, (BBW).

438. *Cosmia diffinis* (Linn.), White-Spotted Pinion: Willington, August (M.V.), (BBW). I have not previously taken this extremely beautiful insect. The form here is definitely larger than depicted in South's plates and very colourful.

457. *Omphaloscelis lunosa* (Haw.), Lunar Underwing: Willington, August, (M.V.), (BBW). An ash-grey to brown form occurs here. I have not seen that with the more orange forewings.

487. *Cucullia verbasci* (Linn.), Mullein Shark: Willington, July, (BBW); probably from Mulleins on the Greensand, though horticultural forms are grown in the village

523. *Scoliopteryx libatrix* (Linn.), Herald: Several found hibernating in a barn at Everton in the early spring.

572. *Odezia atrata* (Linn.), Chimney Sweeper: Totternhoe and Pegsdon, July, where the larvae doubtless feed on *Bunium*, the Earth Nut.

851. *Biston strataria* (Hufn.), Oak Brindled Beauty: Willington, March and April, (BBW). The specimen referred to in the previous list was followed by many more, yet the number of oaks in the vicinity is particularly limited.



857. *Cleora lichenaria* (Hufn.), Brussels Lace: Willington, late July, (BBW). On a fence, but I know of no area in the vicinity where one could expect to find the habitat of a lichen feeder, unless one assumes a colony in Sheerhatch Wood.

1102. *Zygaena palustris*, Marsh Five-spot Burnet: I am satisfied that colonies of this species on the edge of water meadows towards Barford Bridge are something quite distinct from *loniceræ* (Esp.), which in itself is only a type. Although there is much controversy over *palustris*, its main localities near Willington and Barford are so different from those of other Burnets as to merit speculation on whether the conditions have produced the form, or whether a specific or sub-specific type, which seems to be well distributed, particularly in the Eastern Counties, is associated with a marshy habitat. Incidentally, I have found larvae in fields which are undoubtedly subject to flooding for at least several days in an average winter.

B. B. WEST.

### BIRDS

The year started with exceptionally cold weather which began in late December and continued into mid-January. As a result of this all stretches of standing water were completely frozen over, with the exception of Stewartby Lake, until the first half of January. This, in turn, had some interesting effects on the status and distribution of birds over the county as a whole.

#### COLD WEATHER MOVEMENTS AND WINTER VISITORS

The few records received in Bedfordshire of cold weather movements during early January fitted in with the general observations made in the Southern Counties. This vast hard weather movement started on 28th December and went on throughout the first week of January. The real peak was on the 1st, with a steady procession to the south-west, involving thousands, and even hundreds of thousands, of birds, chiefly Skylarks, Thrushes, Starlings, Finches, and Meadow Pipits. Apart from a large movement of Starlings at Legrave flying in a SE direction on 1st January no further movement was noted in Bedfordshire.

The hard weather also brought a few of the more unusual winter visitors to the county, such as Whooper and Bewick's Swans and also Barnacle Geese in mid-January.

The months of February and March passed with little worthy of note, the only exception to this being the first county record of an Iceland Gull at Bedford Sewage Farm on 18th March.

#### DEPARTURE OF WINTER VISITORS

For the third year running Common Scoter was recorded during mid-April, with two drakes and one duck at Stewartby Lake. A very noticeable increase in movement of Common Gull occurred during mid-April.

An observation of Lesser Redpoll in display and song at The Lodge, Sandy, during April suggests possible breeding at this locality.

April records for Siskin in the county are rather rare; this year, however, was the exception, with flocks of c. 20 on 12th at Millbrook and c. 30 at Rowney Warren on 14th decreasing to c. 16 on 24th, and last recorded at Sandy on 1st May.

#### SPRING MIGRATION

A majority of the summer visitors to the county arrived considerably later than usual in what was generally a late spring migration over the country as a whole. The first Chiff-Chaff was recorded on 27th March, followed by Sand Martin on 6th April, a full fortnight later than usual, and not becoming widespread until the 15th, coinciding with the Swallow, which did not arrive until the 12th. Swift on the other hand was noted over Dunstable on 15th April.

Numbers of Black Tern were extremely low, with a total of only four birds recorded. Two Arctic Terns were, however, noted at Millbrook Clay Pit on the 29th April.

#### BREEDING STATUS AND DISTRIBUTION

The Little Ringed Plover appears to have had a disastrous breeding season at Wyboston Gravel Pits, mainly as a result of earth-moving work near the nesting sites. The status of this bird remains unchanged at all other known breeding haunts in the county.

A genuine increase seems to have taken place in the number of Lesser Whitethroat reported at various localities.

Two new haunts for Wood Warbler were located during the year at Fox Corner, near Heath & Reach, and at Lowes Wood.

New breeding areas were also found for Red-backed Shrike at Hexton on the Beds/Herts border, and at Someries, near Luton. This is very encouraging in view of the general decline of this species in recent years.

#### AUTUMN PASSAGE OF WADERS

The autumn passage at Bedford Sewage Farm and other localities this year has followed the same pattern as the previous year, with high numbers recorded for Greenshank and Ruff, the only notable exception being Dunlin, which has been well below average. A few records worthy of mention are; single Turnstone in summer plumage at Bedford Sewage Farm from 26th-31st July, and a further bird present on 2nd August.

Two to three Spotted Redshank were recorded at Bedford Sewage Farm in partial summer plumage between 15th August-8th September.

#### AUTUMN MIGRATION

Garganey were present at Bedford Sewage Farm on 7th, 9th August and last seen on the 11th. Few reports of Common/Arctic Tern or Black Tern during the autumn, the last for the latter being a single bird at Dunstable Sewage Farm on 29th September.

Turtle Dove was widely reported up to 17th September, and the last Swift was seen on 21st September at Goldington.

Whinchat was observed regularly between 9th August-23rd September; the last record being two on 29th. Many reports were also received of Yellow Wagtail on passage from early August to mid-September at the usual haunts, the last bird noted at Dunstable Sewage Farm on the 29th.

A majority of the Hirundines had left by mid-October, including Sand Martin, which was last seen in Bedford on 11th October. Swallow and House Martin, on the other hand, were last observed at Biggleswade and Fenlake on 11th November a full month later.

#### ARRIVAL OF WINTER VISITORS

As usual, the first Teal of the autumn was reported from Bedford Sewage Farm at the relatively early date of 3rd August, followed by single Jack Snipe on the 17th and 19th.

Three small flocks of Golden Plover were reported from Stanford Gravel Pit on 18th August, Little Staughton on 20th, and again at Stanford on the 30th September.

On the 23rd September the first Fieldfare arrived at Bedford Sewage Farm, the only other record being two on 27th September, but becoming more widespread by the 11th and 12th October. Redwing were not reported until rather later than normal, with the first nocturnal passage observed at Bedford on 5th October.

## SUMMER AND AUTUMN IRRUPTION OF CROSSBILL

The number of Crossbill increased steadily at The Lodge, Sandy, from July onwards, rising to a peak of twenty-two on the 22nd October. This can be attributed to the invasion that started in late June from Europe and continued into early July, but not becoming pronounced in the South until the 15th-24th October.

## COLD WEATHER MOVEMENT AND OTHER WINTER VISITORS

The predominant weather factor during the last three months of the year was the extremely severe frosts especially from mid-November onwards, when on many days the temperature did not rise above freezing.

This weather began to have an effect on the distribution of birds by the 11th November when c. 7,000 Wood Pigeon passed over Bedford Sewage Farm to the South between 0750 and 0805. A further 14,000 were estimated to pass N-NW over Bedford on 23rd December and on successive days in smaller numbers of up to 4,000.

A general increase of Finches was also noted from 10th December, when Siskin and Redpoll reached peak numbers at Southill between 10th and 16th December.

Observers' names are indicated in the text by the following initials:

HC—H. Cole.	ACM—A. C. Morriss.
GJD—G. J. Dring.	CSP—C. S. Payne.
JND—J. N. Dymond.	PJR—P. J. Reay.
FCG—F. C. Gribble.	JCR—J. C. Richards.
SIH—S. J. Haggie.	SWR—S. W. Rodell.
FDH & KCH—	PS—P. Smith.
F. D. & K. C. Hamilton.	RGOS—R. G. O. Stephenson.
BDH—B. D. Harding.	IRS—I. R. Sisley.
DH—D. Hasdell.	RVAW—R. V. A. Wagstaff.
TAH—T. A. Hasdell.	RW—R. White.
DAH—D. A. Holmes.	EMW & PJW—
ARJ—A. R. Jenkins.	E. M. & P. J. Wilkinson.
HASK—H. A. S. Key.	MDW—M. D. Wortley.
PGK—P. G. Kitchener.	EPY—Lt. Col. E. P. Young.
AJL—A. J. Livett.	

Localities: SF—Sewage Farm, ChP—Chalk Pit, CIP—Clay Pit, GP—Gravel Pit, SP—Sand Pit, L—Lake, NR—Nature Reserve.

Numbers refer to B.O.U. Check List.

The following species were also reported as having been observed in normal numbers and distribution:

84. Mute Swan ; 115. Red-legged Partridge ; 118. Pheasant ; 126. Moorhen ; 133. Lapwing ; 234. Wood Pigeon ; 241. Barn Owl ; 246. Little Owl ; 247. Tawny Owl ; 262. Green Woodpecker ; 263. Great Spotted Woodpecker ; 280. Carrion Crow ; 282. Rook ; 283. Jackdaw ; 284. Magpie ; 286. Jay ; 288. Great Tit ; 289. Blue Tit ; 290. Coal Tit ; 292. Marsh Tit ; 294. Long-tailed Tit ; 298. Tree Creeper ; 299. Wren ; 301. Mistle Thrush ; 308. Blackbird ; 325. Robin ; 364. Goldcrest ; 371. Hedge Sparrow ; 373. Meadow Pipit ; 380. Pied Wagtail ; 392. Greenfinch ; 393. Goldfinch ; 395. Linnet ; 401. Bullfinch ; 407. Chaffinch ; 409. Yellow Hammer ; 410. Corn Bunting ; 421. Reed Bunting ; 424. House Sparrow.

5. GREAT CRESTED GREBE: Reports of nesting have been received from the following localities: Luton Hoo L—one pair and one young; Wyboston GP—one pair and three young, plus a further pair, but no proof of breeding; Sandy GP—one pair with at least two young; Felmersham NR—one pair and four young together with other pairs, but

breeding not proved in the latter. Birds were also present but breeding not proved at Stewartby L, Barkers Lane GP, Southill Park L, and Brogborough CIP.

7. SLAVONIAN GREBE: Single bird identified at Wyboston GP on 7th October, (JND).

28. CORMORANT: Single immature bird noted at Stewartby L on 20th July, standing on remains of island with wings in typical spread eagle position, (PGK).

29. SHAG: It is highly likely that the eight birds observed in flight at Stewartby L on 11th March were of this species as a countrywide movement of this bird was reported at the time. Single immature bird first noted at Barkers Lane GP on 15th March and subsequently seen on the river and the town bridge until the 29th April, (GJD, JND, SJH, PGK, *et al.*). Single bird found dead at Stewartby L on 25th March, (PJW, EMW).

30. HERON: Occupied nests were recorded at Southill Park L, 9-11, and one pair on the Bury Estate at Pavenham, (DH, EPY).

45. MALLARD: Numbers unusually low in early January owing to severe freeze-up, with only c. 30 on 5th January at Stewartby L rising to c. 250 by the 17th. From here on, present in varying numbers, the largest being on 11th February with c. 500-600 recorded, (PJR, JND, RGOS). Numbers fluctuated here during the latter end of the year between c. 200 and c. 600, the second figure being on 2nd December, (PGK, PS, BDH, JND, *et al.*); Southill L, c. 250-260 on 7th January and between c. 200-400 in October-December period with a peak of c. 650-700 on 11th November, (DH, PS, PGK, JND).

46. TEAL: Bedford SF/Barkers Lane GP—maximum number c. 180 on 24th February and c. 120 on 23rd March. Last seen on 13th May, (SJH, PJR, PGK, JND, *et al.*). Numbers very low in the autumn until 28th October c. 54 reported. Thereafter until early December between 20-40, (JND, DH, SJH, PGK, *et al.*). Southill L—75-80 7th January. Stewartby L—gradual build up to c. 60 on 21st and last recorded on 22nd April. Wyboston GP—increased to a peak of 70-80 on 14th January.

47. GARGANEY: Spring passage—1 pair, Stanford GP, 23rd March, (ACM); 1 pair City Field Farm L, 10th April, (ARJ); Autumn passage—2 pairs, Bedford SF, 7th August, 1, on the 9th and a further pair on 11th, (PJW, SJH, PGK).

49. GADWALL: 1 male, Wyboston GP, 18th February, (SJH); single birds at Bedford SF, 22nd and 26th April, (PJR, DH, PGK); 1 female, Bedford SF, 3rd June, (PGK, SJH); 1 pair Southill L, 4th, 11th November, 1 male 2nd December, 1 female 10th, 1 male 16th, (JND, PGK, DH).

50. WIGEON: Numbers increased from 2 on 5th January at Stewartby L, to a peak of 150 on 17th January, decreasing slowly during March and last seen 22nd April, (PJR, SJH, PGK, JND, *et al.*). For the first time in some years not recorded here or in any other locality in Autumn until early December, rising to c. 45, 23rd December, (SJH, JND); Barkers Lane GP/Bedford SF, observed in varying numbers during January with a maximum of 100, 1st January, (PJR, SJH); Southill L, peak of 40+ 7th January. Numbers extremely low during October-December period with a maximum of 7 on 27th December, (PGK, PS, DH, JND, *et al.*).

52. PINTAIL: Stewartby L, 12, 12th-16th January, 4 males, 3 females, 28th January, (PJW, EMW); 1 pair, 4th-11th February, (JND, SJH, PS, DH, *et al.*); 2 males, 1 female, 11th March, (MDW); Barkers Lane GP/Bedford SF, 2 males, 6th January, (PJR, SJH). An extremely late date was recorded here with a single male on 27th May, (PGK); Southill L, 1 male, 16th December, 2 males, 25th December, (JND); East Hyde, 1 male, 26th December, (RW).

53. SHOVELER: Stewartby L, single males, 14th, 16th and 28th January, (PJR, PJW, EMW); 1 pair, 4th February, 1, 18th, 2 males, 1 female, 11th March, 1 male, 24th April, (SJH, JND, PJW, EMW, *et al.*); 1 male, 23rd June, (SJH); 2 pairs, 23rd December, (JND, EMW, PJW); Barkers Lane GP/Bedford SF, 1 pair, 24th March, (PS, DH); 3, 25th March, (PGK); present in varying numbers with a maximum of 2 pairs from 13th May-10th June, (PJR, SJH, PGK); 2, 8th September, (SJH); Southill L, 1 male, 11th February, (PGK, PJW, EMW); 1 male, 4th November, 4-6, 11th, 2 females, 2nd December, 1 male, 16th, (JND, PGK); Battlesden L, 1 pair, 4th February, (AJL); Chimney Corner CIP, 1 male, 27th January, (SJH).  
55. SCAUP: Wyboston GP, 1 male, 1st December, (PS, DH); Stewartby L, 1 male, 23rd December, (PJW, EMW).

56. TUFTED DUCK: Maximum numbers as follows—Stewartby L, 40-60, 5th January-18th March with an isolated peak of 90-100 8th January, (DH, PGK, JND, PJR); numbers declined from 50 on 14th October, and 70 on 21st, to 25 in early December, recovering to 30-50 on 23rd-24th December, (JND, TAH, PS, BDH); Southill L, numbers very low in January owing to freeze-up, a maximum of c. 30 on 18th and 30th March, 15th April, (JND, PS), 20-40 recorded in October-December period with two peaks of 68, 11th November, and 52, 25th December, (JND, PS, PGK, DH); Wyboston GP, a maximum of c. 49, 18th March, (SJH); numbers also low during October-December, maximum of 68, 11th November, (JND, PS, SJH, PGK, *et al.*); breeding records from Wyboston GP, 5 young, 28th June, 2 pairs with young, 22nd July, (PGK, PS); Barkers Lane GP, 3 broods, 12th July, 2 with 5 young, and 1 with 1 young, (EMW, PJW); Stewartby L, 1 pair and nest with seven eggs, 24th June, (PJR, SJH).

57. POCHARD: Stewartby L, below average numbers in January-March with only 30-40 present most of the period, peak of 65, 5th January, (DH, JND, PJR, RGOS); varying numbers recorded in the Autumn tending to increase to a maximum of 84 on 25th December, (PS, SJH, JND, BDH, *et al.*); Southill L, maximum of 35+ during the winter months, which as elsewhere, was well below average, (JND, PS, DH); numbers increased from 11 on 6th October to a peak of c. 200, 11th November, decreasing to 50-60 by 21st December and 8 on 25th December, (PS, SJH, DH, JND). No records of breeding, but birds present during breeding season at Stewartby L, Barkers Lane GP, Wyboston GP.

60. GOLDENEYE: Stewartby L, 1 female, 16th January, 2, 17th, single females, 21st and 28th, (EMW, PJW); 2+ females, 18th February, 1 female, 18th March, (PJW, EMW, SJH, DH, *et al.*); 1 female, 2nd December, (PGK); 1 male, 23rd December, (PJW, EMW, JND); Wyboston GP, single females, 18th March and 25th December, (SJH, JND); River Ouse near Bedford SF, 2, immatures, 2nd January, (PJR).

64. COMMON SCOTER: Stewartby L, 2 males, 1 female, 22nd April, (PJR, SJH).

69. RED-BREASTED MERGANSER: Stewartby L, 1 female, 8th January, (PS, DH).

70. GOOSANDER: Wyboston GP, 1 male, 9th December, (DH, PGK).

71. SMEW: River Ouse, Wyboston, 1 female, 6th January, (DH, PS); Stewartby L, 1 female, 8th January, (DH).

73. SHELDUCK: Stewartby L, 1 male, 29th April, (PJR, SJH); 5, 11th November, (SJH).

GREY GEESE: Biddenham, 14 flying in a westerly direction on 17th January, (PJW).

81. BARNACLE GOOSE: Bedford SF, 4, flying in a SW direction at a height of about 100 ft., (PGK).

85. WHOOPER SWAN: Wyboston GP, 2, immatures, 7th January, (JND); 1 adult, 14th January, (PGK, PS, DH).
86. BEWICK'S SWAN: River Ouse, Bedford, 2, flying east at about 30 ft. over river, 21st January, (JND); Kempston, 7 heard calling and seen flying south, 12th February, (CSP); Dunstable SF, 4 adults and 1 immature, 24th February, (RGOS); Stewartby L, 8 adults, 3 immatures, 18th November, (PJW, PGK); 1 adult, 23rd December, (PGK).
91. BUZZARD: Water Meadows, Sandy, 1, 31st January, (FDH, KCH); Little Staughton, 1, 30th September, (CFT); The Lodge, Sandy, 1, 21st October, (PGK).
93. SPARROW HAWK: Stewartby L, 1, 21st April, (BDH); Bedford SF, 1 female, 20th May, (PGK, SJH); Houghton Regis area, 1 pair successfully reared one young, (BDH).
104. HOBBY: Biddenham Turn, 1, observed in flight, 4th May, (EMW).
105. PEREGRINE: Bedford, 1, 14th September, (PGK); Goldington Green, near Bedford, 1, 19th September, flying N being mobbed by Starlings and Rooks, (JND); Thurleigh, 1 male, 20th September, (JCR).
120. WATER RAIL: Bedford GP, 1, 2nd March, (DH); Bedford SF, 1, 18th March, (FCG); 1-2, 28th March, (JND); Felmersham NR, 1, 23rd September, (PGK).
127. COOT: Maximum numbers as follows—Southill L, numbers increased from c. 195, 6th October, to a peak of c. 317, 25th December, (JND); Wyboston GP, increased from c. 74, 7th October to maximum of c. 203, 25th December, (JND); Stewartby L, c. 100, 5th January, (PJR).
133. LAPWING: No large flocks of this species reported. Appeared to be absent from the county in early January owing to the freeze-up, (PJR).
134. RINGED PLOVER: Noted at the following localities—Stanford GP, 1, 4th April, (ACM, ARJ); Bedford SF/Barkers Lane GP, 1, 24th-25th February, (DH, PS, PGK); 1, 18th March, (PJW, EMW, MJM); 1, 12th-13th July, (SJH, PJW, EMW, PGK); present in varying numbers from 11th August with one noted, reaching peak of 8 on 1st September. 4 birds recorded between 2nd-4th September, (SJH, JND, DAH, BDH, *et al.*); Stewartby L, 1, 1st September, (AJL).
135. LITTLE RINGED PLOVER: First record, Wyboston GP, 25th March, (DH, PS, PGK); present in breeding season at Stanford GP, 1 pair present throughout, with two immatures noted on 29th July, (AJL, ARJ, ACM, MDW, *et al.*); Wyboston GP, 7-8 pairs estimated at this locality by mid-April, but a disastrous breeding season, mainly because of earth-moving work near to the nesting area. Birds also present at Bedford SF, and Barkers Lane GP.
140. GOLDEN PLOVER: Maximum numbers—Shefford, c. 150, 17th March, (HC); heavy movement over Southill on 2nd December, with flocks of 200-300 noted flying NNE with a total of 1,000+ counted in one hour, (DH); Stewartby Turn, c. 250, 24th December, (BDH). Numbers recorded during January-March and October-December were on the whole much lower than the previous year; last spring record, Silsoe Park, 4th April, (AJL); first autumn record, Arlesey, 1, 8th August, (ARJ).
143. TURNSTONE: Bedford SF/Barkers Lane GP, 1, 26th July-2nd August, (TAH, DAH, PGK, SJH); Stewartby L, 1, 27th July, (SJH).
145. SNIPE: Largest concentration—Bedford SF, c. 250, 24th February, (PGK).
147. JACK SNIPE: Very few reports received, single birds at Bedford SF/Barkers Lane GP, 17th and 19th September, (SJH); 25th November, 2nd and 9th December, (SJH, PGK); Wyboston GP, 18th November, (SJH); East Hyde, 3rd November, 24th December, (AJL).

148. WOODCOCK: Only one report of breeding at Colesden Woods, (CFT); also recorded in the breeding season at Charle Wood and Woburn Park, (MDW).

150. CURLEW: Bedford SF/Barkers Lane GP, single birds present, 4th and 6th January, 18th March, (SJH, PJW, EMW); 4 flying NE 23rd April, (GJD, DH); single birds 29th April, 29th June, 1st July, (PJR, SJH, DH); 4, 13th August, (SJH); Fenlake, 9 flying W, 29th August, (JND); Wyboston GP, 1 pair, 21st April, (PS); Luton, 2+ heard in flight late at night, 28th August, (AJL); single birds observed at Pavenham, 24th April, (DH); Luton, flying NW, 2nd July, (HC); Biddenham, 23rd July, (PJW); Stewartby L, noted flying in with Gulls to roost on 5th and 16th November, (PGK); The Lodge, Sandy, 28th December, (PGK).

151. WHIMBREL: Barkers Lane GP, 1, 23rd and 29th April, (SJH, PJR); Stewartby L, 1, 27th July, (SJH); Bedford SF, 3, 17th and 28th August, (SJH); 2, 3rd September, (PS).

154. BLACK-TAILED GODWIT: Bedford SF, 1, present 9th-17th July, (PJW, EMW, PGK, SJH, *et al.*).

156. GREEN SANDPIPER: Bedford SF, seen in every month except May and June, last spring record, 24th April, first autumn record, 7th July, up to 2 in January-April, and December, recorded in varying numbers from July-November, with maximum numbers of c. 12, 23rd July, and c. 14, 29th August, (JND, SJH, DAH, PGK, *et al.*). Also reported from Lidlington, River Ivel, Wyboston GP and Dunstable SF, (BDH, FDH, HC, GJD, *et al.*).

157. WOOD SANDPIPER: Bedford SF, unusual number present from 7th-31st July, with numbers varying throughout, reaching a peak of c. 4 on 31st and the 2nd August. From here on 1-2 reported until 3rd September, (SJH, JND, PS, PGK, DAH, *et al.*).

159. COMMON SANDPIPER: Spring passage—Wyboston GP, 3, 1st May, (PGK); Felmersham NR, 1, 7th May, (PJR); R. Ouse, Milton Ernest, 1, 13th and 15th May, (TAH). Numerous autumn records at these and other localities during July-September. Last recorded at Wyboston GP, 7th October.

161. REDSHANK: Present in varying numbers throughout the breeding season and late autumn, at the following localities—Bedford SF, Stanford GP, Wyboston GP, Dunstable SF and Heath & Reach SP. Breeding not proved at any of the above localities. Last recorded at Wyboston GP, 1st December, (SJH, PS, DAH, TAH, *et al.*).

162. SPOTTED REDSHANK: Bedford SF, 2-3 in partial summer plumage, 15th-31st August, with a maximum of 4 on 2nd September, and 3 4th-8th September, (JND, SJH, DAH, PS, *et al.*).

165. GREENSHANK: Bedford SF, 1, 24th February, 1, 10th July, 1, 8th August, 2-3, 12th-16th, increasing to a peak of 9, 18th-26th, 4-5, 29th August-1st September, decreasing to 3 on 2nd-4th, 2, 14th, and a single bird 15th-23rd September, (SJH, PGK, JND, DAH, *et al.*); Stewartby L, 1, 22nd April, (SJH, PJR); Wyboston GP, 1, 19th July, 4, 1st September, 1, 8th September, (PGK, PS); Ickleford Beds/Herts Border, 1, 8th August, (ARI); Dunstable SF, 2, 12th August, 3, 18th-19th, 2, 21st-26th, (HC, BDH).

169. KNOT: Bedford SF, 1, 1st February, (BJW, KMW, SJH, PS); Wyboston GP, 1, 14th October, (PS).

178. DUNLIN: Spring passage—rather heavy this year, Bedford SF, 1, 18th March, 7, 23rd; Barkers Lane GP, 2, 24th, (PJW, EMW, JND, PGK); Wyboston GP, single birds 25th March and 29th April, (PS, DH, PGK, GJD); Stanford GP, single birds, 24th, 27th and 31st March, and

1st-2nd April, (PJW, EMW, ARJ, ACM, *et al.*); Wyboston GP, 1, 17th May, (SJH). Autumn passage—Bedford SF, 2, 19th August, single birds 21st, 1st-2nd September and 4th, last reported on the 23rd, (JND, SJH); Stewartby L, 1, 1st September, (AJL); single birds at Bedford SF, 12th November and Stewartby L, 19th November, (PGK).

181. SANDERLING: Bedford SF, 2, 20th-21st March, (DH); Wyboston GP, 2, 25th March, (PS, DH, PGK).

184. RUFF: Bedford SF, 1 male, 18th-21st March, already showing traces of summer plumage, (FCG, PGW, DH, SJH); autumn passage—2 females, 9th July, 3, 10th-11th, 1 male, 12th-21st, 3, 23rd, 1-2, 26th-31st, (PJW, EMW, DAH). Unusually large numbers recorded during August and September with a maximum of c. 13 on 22nd, 29th August, 3rd September. The highest since 1953. Last recorded here on the 19th September, (SJH, PGK, DAH, JND, *et al.*).

193/94. (ARCTIC) SKUA: 1, flying up River Ouse towards town bridge, 11th December, (SJH). This bird was almost certainly a dark phase Arctic Skua.

198. GREATER BLACK-BACKED GULL: Barkers Lane GP, c. 10, 12th January, c. 20, 27th March, 1, 29th April, (PJR, PGK); Chiltern Green, c. 27, resting with mixed flock of Gulls; Luton Rubbish Tip, 27th January, (HC).

199. LESSER BLACK-BACKED GULL: Normal distribution throughout the winter months. The southerly movement of this species from breeding colonies in Britain to their main wintering areas in Portugal, Southern Spain and the North West Coast of North Africa was very noticeable in the Luton area; at Luton Junior Technical Playing Fields numbers gradually built from c. 6-10 31st July-3rd August, c. 35-60 4th-6th August, reaching a peak of c. 130, 9th September, gradually decreasing from this date to c. 90, 10th-11th, with numbers falling off considerably after this date. It is interesting to note that the Gull count at Stewartby L, 30th September, recorded a total of 5,077 Gulls, 3,032 of which were L.B.B.G. and Herring Gull, the former being in the majority. This figure also contrasts sharply with the March count.

200. HERRING GULL: Only one count made, Barkers Lane GP, c. 830, 12th January, (PJR).

203. ICELAND GULL: Bedford SF, 1, 2nd winter, 18th March, with all the main characteristics noted. This is the first record for Bedfordshire, (PJW, EMW, SJH).

201. COMMON GULL: This species has shown a very noticeable increase in movement and numbers over recent years, during mid-April. Large flocks noted at Luton Junior Technical Playing Fields, c. 180+, 8th April, (MDW); Stewartby L, and Millbrook CIP, c. 150+, late April, (PJR).

207. LITTLE GULL: Arnolds SP, near Heach & Reach, 2+, 29th September, (IRS). All the main characteristics noted.

208. BLACK-HEADED GULL: Breeding status similar to 1961, breeding attempted at all brick pits except Stewartby, where the remaining island is now washed away. The most successful area was Millbrook CIP, c. 70-80, nest reported, c. 10 nests also at Chimney Corner CIP, (PJR, SJH).

212. BLACK TERN: Barkers Lane GP, 2, 23rd April, (SJH, PJR); Stewartby L, single birds noted on 1st May, 27th July, 1st September, (ACM, SJH, AJL); Dunstable SF, 1, 29th September, (BDH); April records for this species are rather unusual.



- 217/8. COMMON/ARCTIC TERN: Barkers Lane GP, 1, 17th April, 2, 24th April, (SJH); Felmersham NR, 5, flying NE 18th April, (PJR, GJD); Bedford SF, 1, 7th August, (PJW); Stewartby L, 8, 17th August, single birds, 23rd and 30th September, (PJW, JND, BDH); 1, 5th November, (PGK), an exceptionally late departure date.
217. COMMON TERN: Stewartby L, 1, 2nd May, (ACM).
218. ARCTIC TERN: Millbrook CIP, 2, 29th April, (PJR, SJH).
234. WOOD PIGEON: Hard weather movements noted, during the period of severe frost from November-December. Bedford SF, c. 7,000 flying in a southerly direction on 11th November, (PGK); Bedford, 14,000+ flying N-NW between 0805-0910 hrs., further small flocks of up to 4,000 noted on 24th-27th December all flying in the same direction.
235. TURTLE DOVE: First arrival date reported 16th May at Pavenham, (EPY), (only report). Last date, 17th September, at Luton, (BDH).
237. CUCKOO: First report, 11th April, at Pavenham, (EPY). No reports of departure or status.
241. BARN OWL: A dark-breasted form reported at Bedford SF on 8th March, (PGK).
249. SHORT-EARED OWL: A single bird wintered at Stewartby L area, reported up to 16th March, (PJR, SJH, DH, PGK). Two other single birds reported from other brickfields at that period, (JND, PS). One May report from Leighton Buzzard area, (IRS). Two birds at Stewartby L on 26th December, (PGK).
252. NIGHTJAR: Similar to last year—few reports. 2-3 pairs at Rowney Warren, (SJH, AJL); and single birds at Millbrook and Clophill during the breeding period, (BDH).
255. SWIFT: First immigrants (8) reported at Dunstable on 15th April, (BDH). Small numbers until 10th May. A large southward movement was seen at Pavenham on 11th August, (TAH). The last bird was seen on 21st September at Goldington, (JND).
258. KINGFISHER: Reported during July and August on the Ouse near Bedford SF, several times carrying food indicating probable breeding, (JND). Breeding also reported from Rowney Warren where they used an old Sand Martin hole, (PS). Also seen at East Hyde and Luton Hoo, but reported absent from lower reaches of the Ouse, (CFT).
264. LESSER-SPOTTED WOODPECKER: Reported at The Lodge, Sandy, single bird in April and a pair in May, (PGK, FDH, PJW, *et al.*). Also single birds seen at Rowney Warren, (PJW, EMW); and Barkers Lane GP, (DH).
274. SWALLOW: First seen on 12th April at Sandy, (FDH). Small numbers up to about 20th, then more common. A late single bird was reported at Stratton School, Biggleswade, on 20th November, (PS).
276. HOUSE MARTIN: Earliest report on 19th April at Barkers Lane GP, (DH). A late juvenile was seen at Fenlake on 11th November, (DH).
277. SAND MARTIN: First immigrant seen at Wyboston on 6th April, (SJH), a late date. Only breeding report of a colony at Wyboston GP, (PS). Last bird seen at Bedford on 11th October, (DH).
293. WILLOW TIT: Reported from Southill and Flitwick Moor, (JND); Lidlington and Millbrook, (PJW).
302. FIELDFARE: Largest number reported in early part of year was 7, and 3 very late birds were seen on 1st May at Sandy, (FDH). The first autumn visitor was seen on 23rd September at Bedford SF, (JND, PJW, *et al.*). Unusually large roost of 2,000+ estimated in woods south of Great Brickhill on 29th December, (IRS).

304. REDWING: Last spring report a single bird at Leagrave Marsh on 14th April, (RGOS). Only one observer reported autumn sighting, on 5th October, at Bedford, (DH). Large roost of 1,500+ located in woods south of Great Brickhill on 29th December, (IRS).

311. WHEATEAR: Spring arrivals were noted on 7th April at Stewartby, Barkers Lane GP and Goldington, (GJD, DH, PS), and birds were reported widely up until late May, which is a more protracted passage than usual. Four reports on the last 2 days of September and one late bird on 30th October at Stewartby L, (ACM).

317. STONECHAT: In contrast to last year, only 3 observers recorded this species—all at Stewartby, (SJH, PGK, ACM). The first report is 7th November, 1 pair, then 3 on 16th and 1 on 17th. In December, 3 on 20th, 5 on 23rd and 1 on 25th were seen. A remarkable decrease in numbers.

318. WHINCHAT: Earliest report 3rd May, 2 birds at Biddenham, (EMW). Also reported during breeding period at Bedford SF, Stewartby, Dunstable Downs and Warden Hill, Luton where breeding was suspected, (RVAW, *et al.*). Autumn birds were seen at Bedford and Dunstable SFs and Luton, the last being on 29th September, (BDH).

320. REDSTART: First spring record, 1 female at Keepers Warren on 24th April, (PJW, EMW). Birds were seen during the breeding season at the usual sites in the Greensand—Heath & Reach area and Rowney Warren (immature birds at the former). September reports from Luton and Dunstable SF, the last bird being seen at Heath & Reach on 30th, (HC, AJL, DH, TAH, *et al.*).

322. NIGHTINGALE: Earliest report on 20th April at Chicksands Priory, (HASK). Records of singing birds from Maulden Woods, Southill Park, and Felmersham NR, (JND, DH, ACM, PS).

327. GRASSHOPPER WARBLER: First arrival reported on 20th April at Chicksands Priory, (HASK). A bird was heard at Stewartby later in that month, (BDH, PJR); and another bird was heard and seen near Knotting on 8th July, (TAH).

333. REED WARBLER: No arrival dates, but reported during the breeding season at Barkers Lane GP, Felmersham NR, Cardington Mill, and Wyboston GP, (JND, PGK, PJR). Last seen on 23rd September at Bedford SF, (JND).

337. SEDGE WARBLER: First arrival noted at Barkers Lane GP on 20th April, (JND, PJR), and reported widely within the next week, (GJD, DH, FDH, AJL, *et al.*). Last reported on 29th September at Dunstable SF and Heath & Reach, (BDH, IRS).

343. BLACKCAP: An early immigrant reported on 5th April at Luton, (HC). No further reports until 23rd-29th.

346. GARDEN WARBLER: First reported on 15th April at Fox Covert, Heath & Reach, (BDH). No breeding reports and recorded from eight localities only.

347. WHITETHROAT: First arrival 10th April at Sharnbrook, (PJR). Widely reported by 24th. No breeding reports. One seen on 19th September at Dunstable SF, (BDH).

348. LESSER WHITETHROAT: First reported on 24th April at Stewartby, (JND, *et al.*). A definite increase in reports over previous years, with breeding at Biddenham and birds present at fifteen other localities. This probably represents a genuine increase, as well as better coverage and identification of a hitherto much overlooked species.

354. WILLOW WARBLER: Spring arrival noted on 14th April at Putnoe Wood, (DH). Became common from 18th to 29th.

356. CHIFFCHAFF: Only 2 March dates, at Bromham Road, Bedford on 21st and Southill Park on 27th, (PGK, AJL). Many reports from 10th-15th April. Also seen in September, on 17th at Sandy and 23rd at Bedford SF and Felmersham NR, (JND, PGK).

357. WOOD WARBLER: First reported on 23rd April at Keepers Warren, (JND). May records from Charlie Wood, Fox Corner and Lowes Wood, the latter two being new localities, (DH, PS, MDW).

364. GOLDCREST: A colony of 36 max. reported at Rushmere in May and June, (IRS).

366. SPOTTED FLYCATCHER: First report on 4th May at Biddenham, (PJW, EMW). The last of six September reports was at Bedford SF on 23rd, (JND, PGK, SJH, PJW).

368. PIED FLYCATCHER: One female was seen at Cutenhoe Road Allotments, Luton, on 7th September, (HC). This is an uncommon bird in the county, the last report being in 1958.

376. TREE PIPIT: First reports on 20th April at Chicksands Priory and Sandy Lodge, (HASK, PGK, PJW). No definite breeding reports but birds present at usual haunts in the Greensand area. A passage bird seen at Bedford SF on 23rd September, (PGK).

380(b). WHITE WAGTAIL: Single birds reported at Wyboston 3rd April, Sandy 14th, Barkers Lane GP 23rd and 25th, and two at Wyboston on 29th. A further single bird at Rammamere Heath on 6th August, (IRS, DH, FDH, PGK, *et al.*).

381. GREY WAGTAIL: Reported in 8 months of the year as follows: 6th January and 27th March 1 at Bedford SF. From 19th to 24th May 1 female at Old Linslade. 9th June 2 at Millbrook. 28th July 1 female at Bedford SF. 29th September 1 at Dunstable SF. 6th October 2 at Arlesey CIP. 21st October 1 at Sandy and 2 at Blunham. 21st December 1 at Cardington, (JND, DH, TAH, SJH, *et al.*).

382(a). YELLOW WAGTAIL: First reported 11th April at Bedford SF, (SJH). Breeding reported from Bedford SF (a max. of 10 immature birds), and Fenlake GP and suspected near Pavenham. Passage was noticed at Stewartby on 11th August and Bedford SF on 21st. Last report on 29th September, 1 bird at Dunstable SF, (HC, JND, DH, BDH, *et al.*).

388. RED-BACKED SHRIKE: Two new breeding sites in the Chiltern area reported. One on the Beds/Herts border near Hexton where 4 young were brought off, and a second at Someries, near Luton, where 2 young were seen with parent birds. A single male was seen at the breeding area of previous years near Warden Hill, Luton, but no evidence of nesting. However, 3 young were raised by a pair of birds at Blows Downs, another established site, (HC, SWR, RVAW, MDW).

389. STARLING: Few records were received in Bedfordshire of the vast cold weather movements observed in the southern counties during early January, apart from a large movement noted at Leagrave, flying in a SE direction on 1st January from 7.55 to 8.15 a.m., (RGOS). Further flock of c. 25,000 moving NNW over Houghton Regis on December 25th, (BDH).

391. HAWFINCH: Two birds seen in the grounds of The Lodge, Sandy, on 26th April, (P. J. Conder per FDH) and a single bird at Southill on 4th November, (JND).

394. SISKIN: Only 5 reports in the first 3 months with a maximum of 4-5 birds, but in April a maximum of c. 30 was reported at Rowney Warren on 14th, also c. 20 at Millbrook on 12th and 16+ at Rowney Warren on 24th. A very late record of 5 at Sandy on 1st May, (AJL).

PGK, RGOS, PJW, *et al.*). At the end of the year the species was mainly reported from Southill as follows: 4 on 31st October, 15 on 11th November, 40 on 10th December, 60+ on 16th December, 10 on 21st December; also 2 seen at Sandy Lodge on 21st October and 5+ at Luton Hoo Park on 24th December, (JND, DH, *et al.*).

395. LINNET: Beds/Bucks border, Rammamere Heath, c. 4,000, 11th August, feeding with mixed flock of Finch, (IRS). Flocks of 200-300 are not unusual at suitable localities during August, but concentrations of this size are exceptionally large.

397. REDPOLL: Numbers low in the first part of the year. The largest flock was Southill Park, c. 20, 14th January. Small flocks present at Wyboston GP, Barkers Lane GP, Bedford SF, Luton Hoo Park and The Lodge, Sandy, during the period January-March. The following records are of late departure dates and possible breeding birds—Millbrook c. 5, 12th April, Maulden Wood c. 5, 24th April, 1 male, 5 females, 29th April. Birds observed display fighting and singing during April-May period at The Lodge, Sandy, Hanger Wood, c. 9, 2nd May, Charle Wood, c. 2, 20th May. Autumn numbers built up at Southill Park from c. 4+ 6th October, c. 25-30 4th November, c. 100-120, 11th November to a maximum of c. 150+, 16th December. Also noted in smaller numbers at Rammamere Heath and The Lodge, Sandy, (JND, PGK, PJW, EMW, *et al.*).

404. CROSSBILL: A detailed record of the population of this species in the grounds of The Lodge, Sandy, has been received from FDH and is summarised below—

July, 2 records, max. 3.

August, 1 record, max. 2.

September, 6 records, from 1 to 5.

October, 8 records, low figures to 21st then a peak of 22 on 22nd, then dropping to 4 on 31st.

November, 10 records, up to 12-14 until 13th then dropping to 2-3 to the end of month.

December, 4 records, a max. of 10 on 10th.

The above records illustrate the general build-up that occurred of this species during the summer and autumn irruption over the country as a whole. The influx was first noted in late June and early July, with the autumn irruption beginning near the end of September in the north, but not becoming pronounced in the south until the 15th-24th October. The only other report was 6-12 birds seen in Warden Warren on 8th and 9th September, (HC, AJL, MDW).

408. BRAMBLING: Mainly reported during the early months of the year from Bedford SF as follows, (JND) January 4th 1, 5th 2, 13th c. 10, 20th c. 30, 27th c. 40, February 23rd c. 60, March 16th c. 40, 30th c. 40. Other reports are single birds from Sandy on 6th and 14th January and Toddington on 27th. On 1st February 8-10 were seen at Millbrook. At the end of the year 30 were seen at Southill Park on 10th December and at Bedford SF a pair on 28th and 1 on 29th and 31st, (DH, FD, KCH, AJL, PGK, MDW).

425. TREE SPARROW: A considerable increase of the species was reported during the first few days of January (with heavy snow and frost) at The Lodge, Sandy, (FDH). A flock of 150+ was seen at Stewartby on 30th September, (JND).

R. G. O. STEPHENSON.

M. D. WORTLEY.

## MOLLUSCA

The following short list is the result of a few hours' collecting whilst on leave in England during 1962. Some of the records are new to Flitwick Moor, an area which I hope will still be surveyed by the Society. A look-out should be kept for the small snails which live at the roots of sedges and can only be found by crawling on one's hands and knees in the wet vegetation, sitting in one place for a long time until one's eyes become accustomed to seeing the minute molluscs, only some two millimetres long, which live in these situations! The nomenclature used in the list is that used previously in this journal. The most recent changes have not been followed.

*Carychium minimum* Müll. Odell Great Wood, 25.3.62; Flitwick Moor, abundant at roots of sedges in damp fields, 7.5.62.

*C. tridentatum* (Risso). Flitwick Moor, with last.

*Vertigo antivertigo* (Drap.). Flitwick Moor, 15.4.62, a single worn specimen in dry loose earth of small mound in damp field.

*V. substriata* Jeffr. Flitwick Moor, 7.5.62, at sedge roots in wet meadows.

*Columella edentula* (Drap.). Flitwick Moor, 7.5.62, not rare in debris under nettle patches in wooded areas.

*Pupilla muscorum* (Linn.). Flitwick Moor, 15.4.62, a single dead specimen in dry loose earth of *Spiraea* tussock in damp field.

*Lauria cylindracea* (da Costa). Flitwick Moor, 15.4.62, 7.5.62, common at the roots of grasses, sedges, etc., in damp fields. (Note: A seemingly very different habitat from the walls it favours in the north of the county)

*Vallonia costata* (Müll.). Flitwick Moor, 15.4.62.

*Cochlicopa lubrica* (Müll.). Odell Great Wood, 25.3.62; Flitwick Moor, 15.4.62.

*Discus rotundatus* (Müll.). Odell Great Wood, 25.3.62; Flitwick Moor, 15.4.62, 7.5.62.

*Clausilia bidentata* Ström. Flitwick Moor, 15.4.62, 7.5.62, abundant at roots, etc. in damp meadows.

*Trichia hispida* (Linn.) *sensu lato*. Odell Great Wood, 25.3.62; Flitwick Moor, 15.4.62.

*Trichia striolata* (Pfr.). Flitwick Moor, 15.4.62.

*Cepaea hortensis* (Müll.) and var. *fuscolabris* Kreglinger. Flitwick Moor, 7.5.62, damp meadows.

*Retinella radiatula* (Alder.). Flitwick Moor, 7.5.62, rare at roots of sedges.

*Retinella nitidula* (Drap.). Flitwick Moor, 7.5.62, common at roots, etc.

*Oxychilus helveticus* (Blum.). Odell Great Wood, 25.3.62, abundant under moss.

*Oxychilus cellarius* (Müll.). Flitwick Moor, 7.5.62.

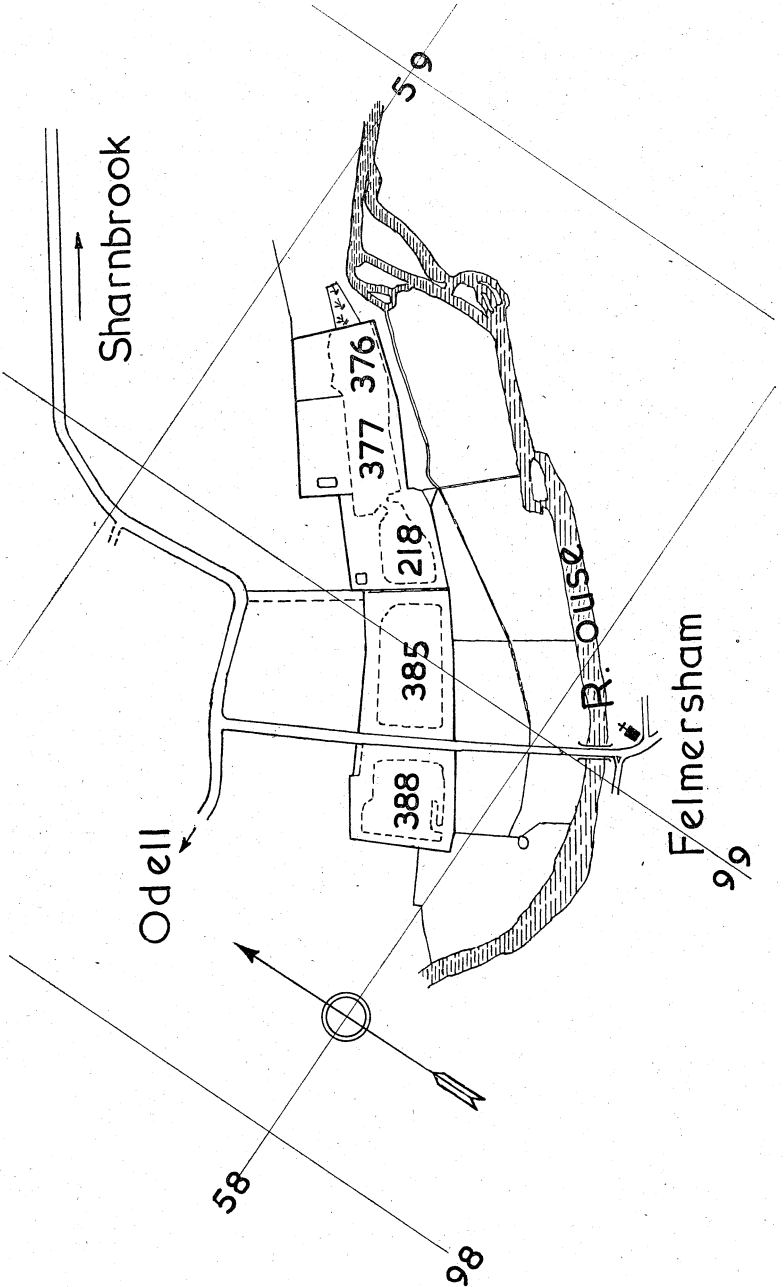
*Vitrea crystallina* (Müll.). Odell Great Wood, 25.3.62; Flitwick Moor, 7.5.62.

*Vitrina pellucida* (Müll.). Odell Great Wood, 25.3.62.

*Pisidium personatum* Malm. Odell Great Wood, 25.3.62, in small drainage ditches along woodland rides; Flitwick Moor, 7.5.62, at roots of sedges in wet areas.

These records bring the list of molluscs, including freshwater species, known from the area of Flitwick Moor up to 33.

BERNARD VERDCOURT.



FELMERSHAM GRAVEL PITS NATURE RESERVE

## Bedfordshire and Huntingdonshire Naturalists' Trust

### FELMERSHAM GRAVEL PITS

Soon after the formation of the Bedfordshire and Huntingdonshire Naturalists' Trust an opportunity occurred to negotiate a long lease on Felmersham Gravel Pits, and this has become the first property to be managed by the Trust.

These pits were formed prior to, and during, the 1939-1945 war by the extraction of large quantities of gravel, then urgently needed in the construction of concrete runways for local aerodromes, from five fields in the parish of Sharnbrook, on the north side of the Ouse opposite Felmersham village. These pits later became water-filled to form shallow lakes, and have been progressively colonized by large numbers of willows and other water-flora, while attracting numerous water-fowl. The whole area has thus acquired considerable natural beauty as well as scientific interest.

The five fields run parallel to the river, from which they are separated by water-meadows, and have a total area of just over fifty-two and a half acres made up as follows:

<i>O.S. No.</i>					<i>Area</i>
218	...	...	...	...	8·840 acres
376	...	...	...	...	6·596
377	...	...	...	...	10·898
385	...	...	...	...	14·842
388	...	...	...	...	11·349
Total					52.525 acres

Of this total, the last item, Field No. 388, lies to the south-west of the Felmersham-Sharnbrook road, the remaining forty-one acres extending north-eastwards towards Sharnbrook. The five fields thus form a continuous strip having an over-all length from north-east to south-west of about 1,250 yards, with widths varying from 160 to 250 yards. A bridle-way and footpath skirts the northern edge of the property and provides easy access, but, along the southern boundary, there is only a narrow strip between lake and hedge, and this is very rough and uneven and becoming rapidly covered with scrub.

During 1962, members of the Bedford Natural History Society and of Bedford School Natural History Society paid frequent visits to gather material for a comprehensive survey of the natural history of the reserve. The following lists are therefore not to be regarded as in any way final or complete but form a preliminary basis for comparison with the work which will be done in future years as the site develops and evolves. Of course, a certain amount of human interference is becoming increasingly essential if the whole area is to be prevented from reverting to impenetrable scrub, but this will be kept to a minimum.

#### BOTANY

The site really contains three separate types of vegetation; that characteristic of the original grass meadows and their hedgerows before gravel extraction began, another forming on the drier heaps of material left by the gravel workings, and a third consisting of water plants brought in from the river and characteristic of shallow stagnant water and the patches of marsh formed round the margins. In addition, there are two old-established ponds in Fields Nos. 218 and 377 respectively, the latter having a particularly interesting flora.

Field No. 388 was the site some dozen years ago, or more, of Dr Dony's Habitat Study 11 (*Flora of Bedfordshire*, p. 66). He listed thirty-nine species which include five grasses, a sedge, a horse-tail and two rushes. Apart from any changes which may have occurred in the distribution of species since 1950 in this particular field, the latter cannot, however, be considered as entirely representative of the whole reserve since it differs in many respects from the four fields across the road. These differences may well form the subject of future work, and will probably require to be investigated from several aspects other than botany alone.

Particular acknowledgement must here be made of the work done by Mrs. P. Rixon of Rushden. Unable to be present on the evenings chosen for the visits listed in the Summer Programme, she made an intensive study of the site at other times and has forwarded a long list of her discoveries, including many species unrecorded by the other observers. Records are distinguished by the following initials:

JD—Dr J. Dony (*Flora of Bedfordshire*).

PR—Mrs P. Rixon.

BS—Bedford School Natural History Society.

MS—Members of the Society present at the field meetings.

The numbers are those of the 6 in. Ordnance Survey (see sketch map).

- Equisetum arvense* L., Common Horsetail. 388. (JD, PR, MS).  
*palustre* L., Marsh Horsetail. (PR, MS).  
*Caltha palustris* L., Marsh Marigold. 377. (PR, BS).  
*Clematis vitalba* L., Traveller's Joy. (PR).  
*Ranunculus acris* L., Meadow Buttercup. (PR, MS).  
*repens* L., Creeping Buttercup. (PR).  
*bulbosus* L., Bulbous Buttercup. (MS).  
*sceleratus* L., Celery-leaved Crowfoot. (PR).  
*aquatilis* L., Water Crowfoot (sub-species not det.). (PR, MS).  
*ficaria* L., Lesser Celandine. (PR, MS).  
*Thalictrum flavum* L., Common Meadow-Rue. 218. (PR, BS).  
*Papaver rhoeas* L., Common Field Poppy. 385. (PR).  
*dubium* L., Long-headed Poppy. 385. (PR, MS).  
*Fumaria officinalis*, Fumitory. (PR).  
*Capsella bursa-pastoris* (L.), Shepherd's Purse. (PR, MS).  
*Cardamine pratensis* L., Cuckoo Flower. 377. (PR, BS, MS).  
*flexuosa* With., Wood Bitter-cress. 377. (PR).  
*Nasturtium officinale* R.Br., Watercress. (PR, MS).  
*Rorippa amphibia* (L.) Besser, Great Yellow Cress. 377. (PR, MS).  
*Alliaria petiolata* (Bieb.), Garlic Mustard. (PR, MS).  
*Viola arvensis* Murr., Field Pansy. (PR).  
*Hypericum tetrapterum* Fr., Square-stemmed St. John's Wort. (PR).  
*perforatum* L., Common St. John's Wort. (PR, BS, MS).  
*Silene cucubalus* Wibel., Bladder Champion. (MS).  
*Lychnis flos-cuculi* L., Ragged Robin. 377. (PR, MS).  
*Cerastium vulgatum* L., Mouse-ear Chickweed. (JD, MS).  
*Stellaria holostea* L., Greater Stitchwort. (PR, BS, MS).  
*media* (L.) Vill., Chickweed. (PR, MS).  
*palustris* Retz., Marsh Stitchwort. (PR).  
*apetala* Ucria., Lesser Chickweed. 377. (PR).  
*Myosoton aquaticum* (L.) Moench., Water Chickweed. (PR).  
*Melandrium album* (Mill.) Garcke, White Campion. (PR, MS).  
*Sagina apetala* L., Common Pearlwort. (PR).  
*Arenaria serpyllifolia* L., Thyme-leaved Sandwort. 385. (PR).  
*Chenopodium album* L., White Goosefoot. (MS).  
*Malva sylvestris* L., Common Mallow. (PR, MS).



- Geranium pratense* L., Meadow Cranesbill. (PR).  
*dissectum* L., Cut-leaved Cranesbill. (PR).  
*robertianum* L., Herb Robert. (PR, MS).  
*columbinum* L., Long-stalked Cranesbill. (MS).  
*Impatiens capensis* Meerburgh, Orange Balsam. 218, 377. (PR, MS).  
*Euonymus europaeus* L., Spindle-tree. 218, 377. (PR).  
*Rhamnus cathartica* L., Buckthorn. 377. (PR).  
*Ononis spinosa* L., Restharrow. 385. (PR, MS).  
*Medicago lupulina* L., Black Medick. (PR, BS, MS).  
*Trifolium pratense* L., Red Clover. (PR, MS).  
*repens* L., White Clover. (PR, MS, JD).  
*fragiferum* L., Strawberry Clover. (PR).  
*campestris* Schreb., Hop Trefoil. (PR, MS).  
*dubium* Sibth., Lesser Yellow Trefoil. (JD, PR, MS).  
<sup>1</sup>*Lotus corniculatus* L., Bird's-foot Trefoil. (JD, PR, BS, MS).  
*uliginosus* Schkuhr., Large Bird's-foot Trefoil. 218. (PR).  
*Vicia tetrasperma* (L.) Schreb., Smooth Tare. 385. (PR, BS, MS).  
*cracca* L., Tufted Vetch. (PR, MS).  
*sativa* L., Common Vetch. (PR).  
*angustifolia* L., Narrow-leaved Vetch. (PR).  
*hirsuta* (L.) Gray, Hairy Tare. (BS).  
*Lathyrus pratensis* L., Meadow Vetchling. 218. (PR, BS, MS).  
*Filipendula ulmaria* (L.) Maxim., Meadowsweet. (PR, BS, MS).  
*Rubus fruticosus* agg., Blackberry. (PR, BS, MS).  
*caesius* L., Dewberry. (PR, MS).  
*Potentilla anserina* L., Silverweed. (PR, BS, MS).  
*repens* L., Creeping Cinqfoil. (PR, BS, MS).  
*Geum urbanum* L., Herb Bennet. (PR, BS).  
*Agrimonia eupatoria* L., Common Agrimony. 218. (PR, BS, MS).  
*Poterium sanguisorba* L., Salad Burnet. (PR).  
*Rosa arvensis* Huds., Field Rose. 377. (PR).  
*canina* L. agg., Dog Rose. (PR, BS, MS).  
*Prunus spinosa* L., Blackthorn. (PR, BS, MS).  
*avium* L., Wild Cherry. 218. (PR, BS).  
*Crataegus monogyna* Jacq., Hawthorn. (PR, BS, MS).  
*Malus sylvestris* (L.) Mill., Crab-apple. (PR, BS, MS).  
*Ribes nigrum* L., Black Currant. 377. (PR).  
*Lythrum salicaria* L., Purple Loosestrife. (PR, BS, MS).  
*Epilobium hirsutum* L., Great Hairy Willow-herb. (JD, PR, BS, MS).  
*parviflorum* Schreb., Small-flowered Willow-herb. (MS).  
*roseum* Schreb., Small-flowered Willow-herb. (PR).  
*obscurum* Schreb. (PR).  
*Chamaenerion angustifolium* (L.) Scop., Rosebay Willow-Herb. (PR, MS).  
*Myriophyllum spicatum* L., Spiked Water-Milfoil. 377. (PR).  
*Callitriche stagnalis* Scop., Starwort. (PR, JD).  
*Cornus sanguinea* L., Dogwood. (PR, BS, MS).  
*Anthriscus sylvestris* (L.) Bernh., Cow Parsley. (PR, MS).  
*Scandix pecten-veneris*, Shepherd's Needle. (PR).  
*Torilis japonica* (Houtt.) D.C., Upright Hedge Parsley. (PR).  
*Apium nodiflorum* (L.) Lag., Fool's Water-cress. 377. (PR).  
*Pimpinella saxifraga* L., Burnet Saxifrage. (MS).  
*Sium latifolium* L., Water Parsnip. (PR).  
*Berula erecta* (Huds.) Coville, Narrow-leaved Water Parsnip. 218. (PR).  
*Oenanthe fistulosa* L., Water Dropwort. 377. (PR).  
*Angelica sylvestris* L., Wild Angelica. 377. (PR).  
*Heracleum sphondylium* L., Cow Parsnip. (BS, MS).  
*Daucus carota* L., Wild Carrot. (PR, MS).

- Bryonia dioica* Jacq., White Bryony. 385. (PR, MS).  
*Euphorbia exigua* L., Dwarf Spurge. (PR).  
     *helioscopia* L., Sun Spurge. (PR, MS).  
*Polygonum aviculare* L., Knotgrass. (MS).  
     *amphibium* L., Amphibious Bistort. (JD, PR, MS).  
     *convolvulus* L., Black Bindweed. (MS).  
*Rumex acetosa* L., Sorrel. (PR).  
     *hydrolapathum* Huds., Great Water Dock. 218. (PR, BS).  
     *crispus* L., Curled Dock. (JD, PR).  
     *sanguineus* L., Red-veined Dock. (PR).  
     *conglomeratus* Murr., Sharp Dock. (JD, PR).  
*Urtica dioica* L., Stinging Nettle. (PR, BS, MS).  
*Ulmus procera* Salisb., English Elm. (PR).  
*Alnus glutinosa* (L.) Gaert., Alder. 377. (PR, BS, MS).  
*Corylus avellana* L., Hazel. (PR, MS).  
*Populus tremula* L., Aspen. 385. (PR, BS). [Requires confirmation.—Ed.]  
*Salix alba* L., White Willow. JD, BS).  
     *fragilis* L., Crack Willow.  
     *triandra* L., Almond Willow.  
     *viminialis* L., Common Osier.  
     *caprea* L., Sallow. (PR, MS).  
     *atrocinerea* Brot., Common Sallow.  
*Primula veris* L., Cowslip. (PR, BS, MS).  
*Lysimachia nummularia* L., Creeping Jenny. (PR).  
     *vulgaris* L., Yellow Loosestrife. (BS, MS).  
*Anagallis arvensis* L., Scarlet Pimpernel. (JD, MS).  
*Fraxinus excelsior* L., Ash. (PR, BS, MS).  
*Ligustrum vulgare* L., Privet. (MS).  
*Centaureum minus* Moench, Common Centaury. (JD).  
*Menyanthes trifoliata* L., Buckbean. 388. A known introduction, but now well established.  
*Myosotis palustris* L., Water Forget-me-not. (PR, MS).  
     *arvensis* (L.) Hill, Common Forget-me-not. (PR, MS).  
     *discolor* Pers., Yellow-and-blue Forget-me-not. 385. (PR).  
*Convolvulus arvensis* L., Bindweed. (PR, MS).  
*Calystegia sepium* (L.) Roem. & Schult., Bellbine. (MS).  
*Solanum dulcamara* L., Bittersweet.  
     *nigrum* L., Black Nightshade. (PR).  
*Scrophularia aquatica* L., Water Betony. (PR, BS, MS).  
     *nodosa* L., Figwort. (MS).  
*Veronica beccabunga* L., Brooklime. (PR, MS).  
     *chamaedrys* L., Germander Speedwell. (PR, MS).  
     *Serpyllifolia* L., Thyme-leaved Speedwell. (JD, PR, MS).  
     *arvensis* L., Wall Speedwell. (PR, MS).  
*Rhinanthus minor* Ehrh., Yellow-rattle. 218. (PR, BS, MS).  
*Odontites verna* (Bell) Dum., Red Bartsia. (PR, BS, MS).  
*Utricularia vulgaris* L., Bladderwort. (JD, PR, BS, MS). A notable feature of the pond in 377.  
*Mentha aquatica* L., Water Mint. (PR, BS, MS).  
*Lycopus europaeus* L., Gipsy-wort. (PR, BS, MS).  
*Prunella vulgaris* L., Self-heal. (JD, PR, MS).  
*Stachys palustris* L., Marsh Woundwort. (JD, PR, MS, BS).  
     *sylvatica* L., Hedge Woundwort. (PR, MS).  
*Lamium album* L., White Dead-nettle. (PR, BS, MS).  
*Glechoma hederacea* L., Ground Ivy. (PR, BS, MS).

- Scutellaria galericulata* L., Skull-cap. 218. (PR, MS).  
*Plantago major* L., Great Plantain. (PR, MS).  
     *lanceolata* L., Ribwort. (JD, PR, MS).  
     *media* L., Hoary Plantain. (MS).  
*Galium palustre* L., Marsh Bedstraw. 377. (PR, MS).  
     *aparine* L., Goosegrass. (PR, MS).  
     *verum* L., Lady's Bedstraw. (MS).  
*Sambucus nigra* L., Elder. (PR, BS, MS).  
*Viburnum opulus* L., Guelder Rose. 218, 377. (PR, BS).  
*Valeriana officinalis* L., Valerian. (PR).  
*Dipsacus fullonum* L., Teasel. (PR, MS).  
*Senecio vulgaris* L., Groundsel. (MS).  
     *jacobaea* L., Ragwort. (PR, MS).  
     *squalidus* L., Oxford Ragwort. (BS). [Requires confirmation.—Ed.]  
*Tussilago farfara* L., Coltsfoot. (JD, PR, BS, MS).  
*Pulicaria dysenterica* (L.) Bernh., Fleabane. (PR, MS).  
*Erigeron acris* L., Blue Fleabane. 385. (PR, MS).  
*Bellis perennis* L., Daisy. (PR, MS).  
*Eupatorium cannabinum* L., Hemp Agrimony. 218. (PR).  
*Anthemis cotula* L., Stinking Mayweed. (JD).  
*Achillea millefolium* L., Yarrow. (PR, MS).  
     *ptarmica* L., Sneezewort. 385. (PR).  
*Matricaria matricarioides* (Less.) Porter, Rayless Mayweed. (MS).  
     *inodora* L., Scentless Mayweed. (MS).  
*Chrysanthemum leucanthemum* L., Marguerite. (PR, MS).  
*Carduus nutans* L., Musk Thistle. (MS).  
     *crispus* L., Welted Thistle.  
*Cirsium vulgare* (Savi) Ten., Spear Thistle. (JD, PR, MS).  
     *palustre* (L.) Scop., Marsh Thistle. (PR).  
     *arvense* (L.) Scop., Creeping Thistle. (JD, PR, MS).  
     *acaule* (L.) Scop., Stemless Thistle. (PR).  
*Centaurea nigra* L., Lesser Knapweed. (MS).  
*Lapsana communis* L., Nipplewort. (MS).  
*Hypochaeris radicata* L., Cat's Ear. (JD).  
*Leontodon autumnalis* L., Autumnal Hawkbit. (PR).  
     *hispidus* L., Rough Hawkbit. (JD, PR).  
*Picris echioides* L., Bristly Ox-tongue. (JD).  
*Tragopogon pratensis* L., Goat's Beard. (PR, MS).  
*Sonchus oleraceus* L., Sow Thistle. (MS).  
     *asper* (L.) Hill, Spiny Sow Thistle. (JD).  
*Crepis capillaris* (L.) Wallr., Smooth Hawk's-beard. (JD).  
*Taraxacum officinale* agg., Dandelion. (MS).  
*Alisma plantago-aquatica* L., Water-plantain. 388. (JD). 218. (PR, BS).  
*Sagittaria sagittifolia* L., Arrow-head. (MS).  
*Elodea canadensis* Michx., Canadian Pondweed. (JD).  
*Potamogeton natans* L., Broad-leaved Pondweed. (JD, PR).  
     *berchtoldii* Fieb., Small Pondweed. (PR).  
*Zannichellia palustris* L., Horned Pondweed. (JD).  
*Endymion non-scriptus* (L.) Garcke, Bluebell. (BS).  
*Juncus bufonius* Lois., Toad Rush. 377. (PR).  
     *inflexus* L., Hard Rush. (PR, JD).  
     *effusus* L., Soft Rush. (PR).  
     *conglomeratus* L. (PR).  
     *articulatus* L., Jointed Rush. (JD, PR).  
*Luzula campestris* (L.) D.C., Woodrush. (PR, MS).  
*Iris pseudacorus* L., Yellow Flag. (PR, MS).  
*Tamus communis* L., Black Bryony. (MS).

- Orchis fuchsii* Druce, Spotted Orchid. 218, 385. (PR).  
*Ophrys apifera* Huds., Bee Orchid. 385. (PR, MS).  
*Arum maculatum* L., Lords-and-Ladies. (PR, MS).  
*Lemna trisulca* L., Ivy Duckweed. 218. (PR).  
     *minor* L., Duckweed. (PR).  
*Sparganium simplex* Huds., Unbranched Bur-reed. (PR).  
*Typha latifolia* L., Great Reed-mace. 218. (PR, MS).  
     *angustifolia* L., Lesser Reed-mace. (MS).  
*Eleocharis palustris* (L.) B.Br., Common Spike-Rush. (PR).  
*Trichophorum caespitosum* (L.) Hartman, Deer Grass. (PR).  
*Carex distans* L., Distant Sedge. (PR).  
     *sylvatica* Huds., Wood Sedge. (PR).  
     *riparia* Curt., Great Pond Sedge. (PR).  
     *acutiformis* Ehrh., Lesser Pond Sedge. (PR, MS).  
     *hirta* L., Hammer Sedge. (JD, PR).  
     *otruba* Podp., False Fox Sedge. (PR).  
     *disticha* Huds., Brown Sedge. (PR).  
     *contigua* Hoppe, Spiked Sedge. (PR).  
     *echinata* Murr., Star Sedge. 377. (PR).  
     *remota* L., Remote Sedge. 377. (PR, MS).  
*Phragmites communis* Trin., Reed. (PR).  
*Glyceria fluitans* (L.) R.Br., Flote-grass. (PR).  
     *maxima* Holmb., Reed-grass. (PR).  
*Lolium perenne* L., Rye-grass. (PR).  
*Poa annua* L., Annual Poa. (PR, MS).  
     *pratensis* L., Meadow-grass. (JD).  
     *compressa* L., Flattened Poa. (PR).  
*Dactylis glomerata* L., Cock's-foot. (JD, PR, MS).  
*Cynosurus cristatus* L., Crested Dog's Tail. (PR).  
*Bromus lepidus* Holmberg. (PR).  
*Brachypodium sylvaticum* Beauv., Slender False-brome. (PR).  
*Holcus lanatus* L., Yorkshire Fog. (JD, PR, MS).  
*Calmagrostis epigejos* (L.) Roth., Bush-grass. (PR).  
*Agrostis tenuis* Sibth., Common Bent-grass. (PR).  
     *stolonifera* L., Fiorin. (PR).  
*Phleum pratense* L., Timothy. (JD, PR).  
*Alopecurus pratensis* L., Meadow Foxtail. (PR).  
     *geniculatus* L., Marsh Foxtail. (PR).  
*Anthoxanthum odoratum* L., Sweet Vernal-grass. (PR).  
*Phalaris arundinacea* L., Reed-grass. (PR).

## BIRDS

The following list is the result of intensive work at the Reserve during 1962 by members of the Bedford School Natural History Society, and which is here gratefully acknowledged. For the sake of completeness a few records from earlier years are included, as well as some which appear in the Bird Report for 1962.

Numbers, as in the main Bird Report, refer to the B.O.U. Check List.

9. Little Grebe; 30. Heron; 45. Mallard; 46. Teal; 56. Tufted Duck; 57. Pochard; 84. Mute Swan; 110. Kestrel; 126. Moorhen; 133. Lapwing; 145. Snipe; 201. Common Gull; 208. Black-headed Gull; 234. Wood Pigeon; 235. Turtle Dove; 255. Swift; 258. Kingfisher; 262. Green Woodpecker; 263. Greater Spotted Woodpecker; 272. Skylark; 274. Swallow; 276. House Martin; 277. Sand Martin; 280. Carrion Crow; 282. Rook; 283. Jackdaw; 284. Magpie; 288. Great Tit; 289. Blue Tit; 294. Long-tailed Tit; 299. Wren; 301. Mistle Thrush; 302. Fieldfare; 303. Song

- Thrush ; 304. Redwing ; 308. Blackbird ; 325. Robin ; 333. Reed Warbler ; 337. Sedge Warbler ; 343. Blackcap ; 346. Garden Warbler ; 356. Chiffchaff ; 347. Whitethroat ; 366. Spotted Flycatcher ; 371. Hedge Sparrow ; 373. Meadow Pipit ; 380. Pied Wagtail ; 389. Starling ; 392. Greenfinch ; 393. Goldfinch ; 401. Bullfinch ; 409. Yellowhammer ; 410. Corn Bunting ; 424. House Sparrow ; 425. Tree Sparrow.
5. GREAT CRESTED GREBE: 1 pair bred in 1962.  
 49. GADWALL: One old record, February, 1959.  
 93. SPARROWHAWK: 1 female, January, 1960.  
 120. WATER RAIL: 1, 23rd September.  
 127. COOT: At least 5 pairs bred.  
 159. COMMON SANDPIPER: 1, 7th May, 1962.  
 1354. WILLOW WABLER: One nest found in 1962.  
 348. LESSER WHITETHROAT: 5 pairs in 1962.  
 395. LINNET: One nest and eggs, 1962.  
 421. REED BUNTING: One nest and eggs found, and young later seen.

## COLEOPTERA

Here again, the following list is due to members of Bedford School Natural History Society.

- Carabus granulatus* (L.), Ground Beetle.  
*Nebria brevicollis* (F.).  
*Elaphrus cupreus* Df.  
*Bembidion quadrimaculatum* (L.).  
*Phosphuga atrata* (L.).  
*Cantharis pallida* (Gz.).  
*Agriotes acuminatus* (S.).  
*Soronia grisea* (L.).  
*Calvia 14-guttata* (L.).  
*Pyrochroa serraticornis* (Sp.), Cardinal Beetle.  
*Melolontha melolontha* (L.), Cockchafer.  
*Dorcus parallelipedus* (L.), Lesser Stag Beetle.  
*Rhynchites caeruleus* (D.G.).  
*Apion aestivum* Gm.  
*Phyllobius oblongus* (L.).  
*Ceuthorhynchus pollinarius* (Fo.).

## BEDFORD SCHOOL NATURAL HISTORY SOCIETY

Work of the Society has continued smoothly throughout the year. As is evident from our third Annual Report, there has been a move away from ornithology towards other forms of natural history. The presence of two botanists and several entomologists has had its effect on the progress of the Society, but, as ever, ornithology still continues as the backbone from which all other studies radiate, especially in the winter months.

The routine weekly field meetings have been punctuated by outings to Slimbridge and Cley, both of which were great successes, and which gave members a chance to see new types of habitat and bird fauna.

Our moth trap is invaluable and has been in continuous use throughout the summer months. It was also run experimentally well into the Christmas term, but, as yet, we have no other records with which to compare our late observations.

One member has been rearing Privet Hawk moths, and his results are very encouraging.

The ecological survey of Felmersham gravel-pits, organized by the County Society, has broken new ground for us. This survey posed new problems which were soon discovered, but gradually we are learning from our mistakes, and we hope to make a more systematic effort in 1963.

Six evening meetings were held during the year, when lecturers gave talks on a variety of subjects ranging from bats to geology.

O. J. MARLOW.

### COLEOPTERA

Through the kindness of Bedford School Natural History Society we were able to publish in a previous Journal (No. 15, 1960, p. 36) a list of over fifty species collected by O. J. Marlow and J. R. L. Turner. A further list, containing sixty-five species, gives the result of further work in 1962 by O. J. Marlow. Of this total forty-seven are additions to the previous lists and are here noted; between them, the two lists thus account for nearly one hundred species.

**CARABIDAE:** *Cicindela campestris* L., Green Tiger Beetle; *Carabus violaceus* L., Violet Ground Beetle; *Carabus nemoralis* Ml.; *Nebria brevicollis* (F.); *Elaphrus cupreus* Df.; *Bembidion quadrimaculatum* (L.); *Bembidion guttula* (F.); *Bembidion ustulatum* L.; *Badister bipustulatus* (F.); *Acupalpus meridianus* L.; *Harpalus aeneus* (F.); *Amara aenea* (D.G.); *Feronia cuprea* (L.); *Abax parallelipedus* Pi.

**SILPHIDAE:** *Necrophorus interruptus* S.; *Thanatophilus sinuatus* F.

**STAPHYLINIDAE:** *Oxytelus rugosus* (F.); *Olophrum piceum* Gy.; *Tachyporus hypnorum* F.; *Philonthus laminatus* (Cz.).

**HISTERIDAE:** *Hister cadaverinus* Hf.

**LAMPYRIDAE:** *Lampyris noctiluca* L., Glow-worm.

**CANTHARIDAE:** *Podabrus alpinus* Pk.; *Rhagonycha lignosa* Mu.

**ELATERIDAE:** *Hypnoidus quadripustulatus* (F.); *Melanotus rufipes* Hb.; *Athous haemorrhoidalis* F., Skipjack; *Agriotes acuminatus* (S.); *Agriotes sordidus* Il.; *Denticollis linearis* L.

**NITIDULIDAE:** *Soronia grisea* (L.).

**COCCINELLIDAE:** *Subcoccinella 24-punctata* (L.); *Adalia bipunctata* L.; *Propylea 14-punctata* L.; *Calvia 14-guttata* L.

SCARABAEIDAE: *Aphodius rufipes* L.

LUCANIDAE: *Dorcus parallelipedus* L., Lesser Stag Beetle; *Sinodendron cylindricum* L., Stag Beetle.

CHRYSOMELIDAE: *Sermylassa halensis* L., *Haltica oleracea* L.

CURCULIONIDAE: *Rhynchites caeruleus* D.G.; *Deporaus betulae* L.; *Apion aestivum* Gm.; *Phyllobius oblongus* L.; *Phyllobius calcaratus* F.; *Phyllobius virideaeris* Lh.; *Ceuthorhynchus pollinarius* Fo.; *Rhynchaenus quercus* L.

## Collecting

Once last year, and again quite recently, it was suggested to me that we, or at least, some of us, are guilty, on occasion, of the sin of over-collecting, of picking too many flowers. I do not accept these statements, nor do I actually absolutely deny them; the persons making them are sufficiently responsible people as to merit serious consideration. However, I feel that they have made an overstatement, and, by so doing, have weakened their case. I am confident that most of our members do not need to be told to act with restraint, but to those who are, perhaps, a little over-enthusiastic I ask "Will you, please, think! Do I really need that flower?" I am also confident that no member would wilfully pick a single rare specimen and, by so doing, hasten its extinction.

Leaders are in a position to keep control of this situation; not that I accept that they do not do so, but there may be occasions when a lead must be given and an absolute ban imposed. As a matter of fact, something along these lines has been debated in Council, and, perhaps, a quotation from the Minutes is worth while:

"Mr — raised the question of collecting on mass meetings, as he felt that Natural History societies by so doing could do more damage in one day than casual collecting by individuals over a longer period; he also maintained that for forty people or so to visit a particular bird's nest at one time, with all the resultant disturbance and trampling of surrounding growth, could almost certainly result in the desertion of that nest. He suggested that this is both thoughtless and undesirable, and is something which we all should deplore and must avoid—conservation, not collecting, should be our aim."

This, I am sure, is an extreme case, again overstated, as, on field meetings, the various interests are very individualistic, the bird people keeping to their birds, the botanists to their flowers, etc. However, I do implore all and sundry to act in such a way that this criticism cannot be made, and, to those that offer such criticism, I suggest that if wild life means so much to them, why not get someone to nominate them for the Council? They could then exercise some control, or, failing that, why not volunteer to lead a few field meetings and instruct us in the way it should be done, with satisfaction to themselves and with benefit to others?

K. E. WEST,  
Hon. General Sec.

## NOTES AND OBSERVATIONS

### THE LESSER WHITETHROAT

The Lesser Whitethroat (*Sylvia curruca*) is a species conspicuous in many reports for the paucity of records, a situation that by no means reflects its true status. The following is an attempt to fill in some gaps, and is based mainly on my own observations; I have also used records from the Bedfordshire Bird Bulletin.

### DISTRIBUTION IN BEDFORDSHIRE

The only regular breeding-sites known recently seem to have been at Biddenham and Bromham, with a few scattered records outside these localities. The Biddenham site contained one pair in 1960, two plus in 1961, and a maximum of five singing birds in 1962. There was a notable general increase in 1962 and the species was recorded at Keeper's Warren, Warden Warren, Sandy, Bromham, Stagsden, Wootton, Stewartby, Oakley, and Felmersham. There were at least three pairs at this last locality. The species has also been recorded at Maulden Wood, Warden Hill, and Luton Hoo. There is a marked bias towards the north of the county, and the real status of the species in the south needs to be investigated.

### HABITAT

The Lesser Whitethroat is a bird of "fringe" habitat, whose requisite seems to be a certain amount of medium-height cover, preferably hawthorn, with some higher trees and open ground. Large hedges and thickets on the edges of woods are suitable, sometimes near water. The Bromham site consists of parkland, the Biddenham site of large gardens bordered by fields. Of four nests at the latter, two were in hawthorn hedges (one in a garden, the other on the edge of some allotments), while the other two were in hawthorn and oak copses. From the behaviour of the adults a nest at Felmersham appeared to be in a hazel and hawthorn hedge.

### ARRIVAL

Birds were first heard at Biddenham on May 11th, May 8th, and May 3rd in 1960, 1961, and 1962 respectively. The only other date for 1960 was also May 11th, but in 1961 one was recorded on April 23rd (a 1959 record was also this date). In 1962 the first birds were recorded on April 24th, in conjunction with a heavy movement on the night of the 23rd/24th, which included Cuckoo, Whitethroat, Redstart, Tree Pipit, and others. The species was well distributed by the 30th.

The main immigration of the species seems to take place in late April; the lateness of the Biddenham dates may be due to their dependence on the song as birds are often silent on their immediate arrival; alternatively, after a random arrival the birds may take a few days to find the required habitat.

### BREEDING

Observations unfortunately yielded little data on breeding as efforts were made not to disturb the birds. Nest-building takes place in mid-May (May 12th, 1960; c. May 16th, 1961). The 1960 nest seemed to have been completed in about two days, both birds taking part. The young hatch about the beginning of June (being fed June 4th onwards, 1961; June 3rd, 1962), and are fed by both adults, mostly on insects and caterpillars. The adults were sometimes seen to remove faecal sacs. The young leave the nest by mid-June (nest left June 13th, 1961). The sizes of the broods were not determined, but I have an undated record of four young being fed by both adults at the Biddenham site some years ago.

### DISPERSAL

Once the young have left the nest, the family party wanders elusively over a fairly wide area round the breeding site before splitting up completely, and birds are often still to be seen there until late July. There are a few records that refer to the return passage of the species, which takes place mainly in August and early September: Wootton, August 30th, 1960; Biddenham, August 11th, 1961; Bedford Sewage Farm, July 30th and September 5th, 1961; Sandy, September 6th, 1962.



**SONG**

The song of the Lesser Whitethroat is very distinctive and one of the readiest clues to the bird's presence. It is a monotonous rattle "chikka-chikka-chikka-chikka" repeated several times, often from some point of vantage or as the bird ranges along a hedge. The sound carries for a considerable distance, and the bird assumes an upright posture quite unlike its usual horizontal stance. The sub-song is a long, subdued warbling, sometimes including three or four high-pitched squeaks (I have also heard these squeaks by themselves when the adults were at the nest), and can be employed before or after the main song, or by itself. The alarm note is a hard, persistent "tacc", often associated with wing or tail flicking, and a harsh churr was heard from a young bird. The most vigorous song-period is late April to mid-May, decreasing once the pair has become settled and disappearing almost entirely when the young are being fed (a half-hearted attempt was heard from an adult feeding young on June 17th, 1961). Vigorous song at this time may come from birds still unmated or with females on late eggs. A revival then takes place and song is not uncommon in July, though with markedly less intensity than earlier in the year. The bird on August 11th, 1961 was still singing.

**CONCLUSION**

The Lesser Whitethroat is a generally elusive and retiring species, though a 1960 pair was unusually bold when nest-building, and it is likely to continue to be overlooked in the future; indeed it is only really likely to be noticed when in song. I hope the above notes may have helped to bring the species into a somewhat closer perspective.

P. J. WILKINSON.

**PIGMY SHREW**

One found dead near Bloody Battle Bridge, 7th October.

J. N. DYMOND.

**HABITS OF THE SLAVONIAN GREBE**

While watching a Slavonian Grebe in winter plumage on 7th October at Wyboston gravel-pits at a range of about five yards I saw several interesting habits. Twice it snapped at a fly, making a perceptible click each time. It yawned once for about three seconds. When a Little Grebe surfaced alongside, the Slavonian looked startled and moved away. Its dives varied from four to twenty-two seconds, averaging ten seconds. It was feeding on minnows about one and a half inches long. Once, the grebe swam about ten yards underwater in fourteen seconds.

J. N. DYMOND.

**COOTS' DISPLAY**

While counting the coot at Wyboston gravel-pits on 25th December, two of them suddenly rose up in the water and touched bills. They showed no sign of aggression before or after and did not repeat the act.

J. N. DYMOND.

**TOXIC CHEMICALS IN A DEAD WATER RAIL**

Mr R. G. O. Stephenson reports that he sent for analysis a dead Water Rail picked up at 6.30 a.m. on 6th November, 1962 at Luton Airport; it had probably collided with a hangar in the dark. Analysis showed that the body contained 0.5 p.p.m. of mercury and 0.01 p.p.m. of heptachlor, obviously derived from chemical herbicides. Once again, it is necessary to give the fullest publicity to an incident with such disturbing implications.

**LONG-EARED BAT HIBERNATING**

Last January, whilst talking to a workmate who lives at Colmworth, I learned that he had found a bat hanging in his cellar, and that it appeared to have one long ear hanging down. He said the beam it was hanging from was all white with frost.

I told him I would like to see it, but in the meantime a slight thaw set in, and when he went to see if it was still there, the beam was all wet and the bat gone. However he assured me it couldn't have escaped as the cellar was all shut up.

He eventually found its new roosting place, between the wall and a beam in a very confined space among some cobwebs.

When I went to see it and shone a torch on it I was disappointed to find that it showed two tiny pointed ears. I managed to get my fingers in and dislodge the cold and clammy little creature, after a few protesting squeaks, and was surprised to find it had indeed got two very large ears laid along its back and partly covered by the wings which were wrapped around its body.

My colleague wanted his father to see it, so we took it into the house and in the warm room its breathing soon quickened, and after a short while it unfolded itself and opened its bright tiny eyes, and showed its remarkably large ears. The small pointed things I had seen at first turned out to be its inner ears.

It now looked like a large moth with its ears raised like antennae. The cellar in which it was found has small openings about a foot above ground level, and these are open during the summer, and I suppose must appeared to resemble a cave to a bat.

I understand that these bats are not uncommon in the county, but it was the first I had seen and I am delighted to have made its acquaintance.

W. J. CHAMPKIN.

#### THE BLACK POPLAR (*Populus nigra*)

I have yet to see in print details of a feature peculiar to the Black Poplar which I first noticed nearly fifty years ago. This is its ability to throw a dominant branch in a definite direction to give static balance to the whole mass.

It would appear that three out of five of these trees growing in exposed or semi-exposed positions show this tendency. The branch, which at times is as large as the rest of the tree, is always in a south-westerly direction within a variation of plus or minus fifteen degrees. The rest of the tree is slightly windswept in a north-easterly direction, probably due to the prevailing south-westerly wind blowing in the early part of the year when newly formed growth is soft and pliant. This mass may lie entirely outside a line drawn vertically through the tree trunk. It is obvious that without the south-westerly branch there would be a pulling force in the trunk on that side and a constant pull on the roots; a quite undesirable feature in a shallow rooted tree. With this projecting branch the force, other than wind pressure, is entirely compression, without any pull on the roots.

The Black Italian Poplar (*Populus serotina*) also shows this characteristic. To see this feature in the course of development I suggest a visit to the Poplar-lined road over the "Warden Tunnel" on the Cardington-Warden road. These are somewhat immature trees so the feature is not fully in evidence. To see a really good example one must find a completely exposed and mature tree.

I have checked many trees with this feature and so far have not found one that does not come within the directional sector mentioned. See plate 140 in *Step, Wayside and Woodland Trees*, pub. Warne.

KENNETH E. WEST.

## NEW MEMBERS

*a* Associate. *c* Corporate Member. *j* Junior Member. *s* Student Member.

- Allen, Mrs R., Turvey Abbey, Bedford.  
 Andrews, K., Old Bedford Road Secondary Boys' School, Luton.  
*j*Baker, Miss C. A., 704 Hitchin Road, Stopsley, Luton.  
*j*Blaxill, Miss J. M., 65 Wigmore Lane, Stopsley, Luton.  
*j*Butt, M. A., 11 Saxon Crescent, Barton.  
 Dart, Miss G. M., 3 New Road, Bromham.  
 Davies, Miss E. M., 62 Gladstone Street, Bedford.  
 Fairrey, Miss C. E., 5a The Avenue, Bedford.  
*s*Gai-Larisch, Miss K., 23 Holliwick Road, Dunstable.  
 Goudie, Mrs M. E., 57 Limbury Road, Luton.  
*s*Haggie, S. J., 64 Alamein Avenue, Bedford.  
 Hardy, W. S., 4 Trinity Close, Felmersham.  
 Holden, Mrs D. E., Cliffe Cottage, Clifton.  
 King, E. J., City Farm, Colmworth.  
*s*Lloyd, Miss E. H., 5 Hurlingham Court, Ranelagh Gardens, S.W.6.  
*s*Nowish, R., 1 Lea Road, Ampthill.  
 Preston, E. E., 14 Hadrian Avenue, Dunstable.  
*a*Preston, Mrs E. L., 14 Hadrian Avenue, Dunstable.  
 Sewell, Mrs J., 712 Hitchin Road, Luton.  
*j*Sewell, Miss D., 712 Hitchin Road, Luton.  
 Sisley, I. R., 67 Golden Riddy, Linslade, Leighton Buzzard.  
*j*Smith, B. J., 254 Ashcroft Road, Luton.  
 Tebbutt, D. J., 14 Thornton Street, Kempston.  
*s*Wallace, M., 47 Waller Street, Luton.  
 West, A., Brook End Farm, Keysoe.  
*j*Wright, D. H., 66 Maulden Road, Flitwick.  
 Wright, G. A., 66 Maulden Road, Flitwick.

## CHANGES OF ADDRESS

- Cocks, S. G., 23 Pegsdon Close, Gooseberry Hill, Luton.  
 Cocks, Mrs C. L., 23 Pegsdon Close, Gooseberry Hill, Luton.  
 Datlen, J., 5 Chequers Cottages, Whipsnade.  
 Gray, C. H., 175 Icknield Way, Streatley.  
 Gribble, F. C., 22 Rickerscote Avenue, Rickerscote, Stafford.  
 Hasdell, T. A., 3 Pine Close, Rushden.  
 Hoadley, B. J., 14 St. Matthew's Close, South Hornchurch, Essex.  
 Hughes, Miss S. M., 46a De Parys Avenue, Bedford.  
 Lamb, E. C., 21 Potton Road, Everton.  
 Lamb, Mrs E. C., 21 Potton Road, Everton.  
 Lee, Mrs E., Stopsley Holes Farm, Kings Walden, Hitchin.  
 Mander, Sir F., 19 Church Square, Toddington.  
 Martin, R. G., 20 Shakespeare Road, Bedford.  
 Meadows, E. G., 28 Felstead Way, Luton.  
 Purkis, Miss E. J., 391 Dallow Road, Luton.  
 Reid, D. A., No. 2 Kew Cottages, Royal Botanic Gardens, Kew.  
 Toms, C. F., 20 Knolls View, Totternhoe.  
 Toms, Mrs A. M., 20 Knolls View, Totternhoe.

# BEDFORDSHIRE NATURAL HISTORY SOCIETY

## RULES

1. The Society shall be called "Bedfordshire Natural History Society".
2. The objects of the Society shall be to encourage the study and investigations of the natural history of Bedfordshire and to record the results of such investigation, publishing such information as may be considered relevant. The Society shall publish a Journal.
3. The Society shall do all within its power to protect and preserve those areas in Bedfordshire which may be deemed advisable and, to that end, shall work in close collaboration with similar bodies.  
It shall discourage the extermination or removal of any rare or characteristic species, at the same time using its influence with land-owners and others to safeguard the plant and animal life of Bedfordshire.
4. The Management of the Society shall be vested in the Officers and a Council of ten. The Officers shall consist of a Chairman, Secretary, Treasurer, Programme Secretary, Editor and Librarian, all of whom shall be nominated by the Council and confirmed by the Annual General Meeting. The Council shall be elected annually at the Annual General Meeting. Any candidate for election as a member of the Council shall be nominated, in writing, by not less than two members of the Society. All such nominations must be in the hands of the Hon. Secretary not less than seven days before the Annual General Meeting. The President (who shall hold office for two years) and the immediate Past President shall be ex-officio members of the Council. The Council shall have power to co-opt members for other Committees and for other purposes and to fill vacant positions on the Council. At a Council Meeting five members shall form a quorum.
5. The Council of the Society shall approve each nomination for membership, but subject to this proviso, membership shall be granted upon payment of the annual subscription which shall become due the first day of January in each year. Until such subscription is paid a person shall not be considered a member of the Society and shall not be entitled to any of its privileges.

Members admitted during the last three months of any year shall be granted membership until December 31st of the ensuing year without further payment. Members whose subscriptions are twelve months in arrear shall not be eligible for any of the privileges of the Society and may be barred from further membership at the discretion of the Council. The Society shall consist of Ordinary Members, Life Members, Honorary Members, Associate, Corporate, Student and Junior Members defined as follows:

- (a) Ordinary membership entitles a person of any age to all the privileges of the Society, including a copy of the Journal for a minimum annual subscription of 15/- or any such sum as the Council may determine.
- (b) Life membership entitles a person to all the privileges of the Society, including a copy of the Journal each year, during the lifetime of such person upon payment of one sum of ten pounds or any such sum as the Council may determine.

- (c) Honorary membership may be granted for long or meritorious service to the Society on the nomination of the Council and subject to confirmation at the Annual General Meeting. An Honorary Member shall enjoy all the privileges of the Society, including a copy of the Journal each year, during his lifetime.
  - (d) Associate membership entitles a person to all the privileges of the Society (excluding a copy of the Journal) on payment of an annual subscription of not less than seven shillings and sixpence or such sum as the Council may determine.
  - (e) Any Institution approved by the Council may be affiliated to the Society and become a Corporate Member on payment of a minimum annual subscription of one pound or such other sum as the Council may determine. Such affiliated Institutions shall have the privileges of one Ordinary member.
  - (f) A Student member is a person engaged in whole-time study who on payment of an annual subscription of seven shillings and sixpence, or such other sum as the Council may determine, has the full privileges of an Ordinary member.
  - (g) A Junior member is a person under the age of 16 years who, upon payment of an annual subscription of two shillings and sixpence, shall receive the privileges of an Associate member. Any member under the age of 16 years may not vote.
6. The Annual General Meeting shall be held in Bedford in the month of March and the Council shall arrange at their discretion Ordinary, Sectional and Field Meetings.
  7. Minutes shall be kept of the Annual General, Special General, Council and Ordinary Meetings of the Society. Minutes of the Annual General Meeting and any Special General Meeting shall be read as the first business of the ensuing Annual General Meeting. Minutes of the Ordinary Meetings need not be read but shall subsequently be scrutinised and signed by the Chairman. A copy of the Minutes of Council Meetings shall be sent to all Officers and members of the Council prior to the next Council Meeting.
  8. All members shall receive at least seven days' notice of General Meetings and due notice of Ordinary and Field Meetings of the Society. Members shall have the privilege of introducing two visitors to Meetings unless otherwise indicated by the Council.
  9. The Accounts of the Society shall be completed to 31st December of each year and shall be audited by such approved auditors as the Council may direct. A Statement of Accounts, together with the Secretary's and other reports showing the progress of the Society shall be submitted to the following Annual General Meeting.
  10. The Funds of the Society shall be controlled by resolution in Council and the Banking Accounts shall be held in the name of the Society.
  11. The Funds of the Society shall only be utilised for the objects stated in the Rules. A member of the Society shall not receive payment direct or indirect for services or anything but legitimate expenses, with the approval of the Council, in the Society's work. The Society reserves the right to make suitable grants in aid of research on the Flora and Fauna of the County.

12. The Council shall encourage members of the Society to undertake special field investigations within the scope of the Society's work and the Society shall co-operate with other local and National Organisations in the carrying out of special surveys or enquiries. The Council shall appoint recorders for the various Branches of Natural History and these recorders shall submit a report to the Council each year after the Annual General Meeting.

13. Rules shall not be altered or any new rules made except by a majority of votes by members present at a Special General Meeting called for that purpose.

The Council may at any time and must upon the requisition signed by not less than twelve voting members, convene a Special General Meeting and a notice stating the purpose of the meeting shall be sent to each member. At this Special General Meeting only the business for which the meeting was convened shall be considered.

14. The Council of the Society may at their discretion remove from the Register of the Society the name of any member whose conduct is considered prejudicial to the interests of the Society.
15. In the event of dissolution: No part of the remaining funds and assets shall be distributed among members of the Society but shall be devoted to objects similar to those of the Society as approved by the Council still in Office at the time of dissolution.
16. A copy of these Rules shall be sent to all persons on being admitted to membership of the Society.

## CONDITIONS OF MEMBERSHIP

The Council of the Society shall approve each application for membership, but, subject to this condition, membership shall be granted on payment of the annual subscription, viz :

15s. 0d. Ordinary members (full membership).

£1 minimum. Affiliated institutions (privileges of *one* Ordinary member).

7s. 6d. Associate members (do not receive the Society's Journal).

7s. 6d. Full-time students (full membership).

2s. 6d. Junior members (under sixteen years of age : do not receive the Society's Journal).

Application forms for membership can be obtained from the *Hon. Treasurer*, 91 Putnoe Lane, Bedford.

## LIFE MEMBERSHIP

Any member may compound for life by a single payment of £10.

## SUBSCRIPTIONS

Members are reminded that their subscriptions are due on the 1st January in each year. These should be sent to :

*The Honorary Treasurer,*  
J. M. DYMOND,  
91 Putnoe Lane, Bedford.

## NOTICE TO CONTRIBUTORS

The Editorial Committee is most anxious to obtain contributions on the natural history of the county from as many members as possible for publication in *The Bedfordshire Naturalist*. Paragraphs from members about their own observations are specially desired, even if quite short. Whenever possible, material should be type-written in double spacing on one side only of the paper; hand-written contributions will be accepted only if entirely legible. Special care should be taken to ensure the accuracy of any scientific names used. Illustrations or diagrams should not be prepared without prior consultation with the Editor.

Contributions for the 1963 Journal should be sent to the *Honorary Editor* as soon as possible, and anything received after 31st March, 1964, may be returned, or held over for a subsequent issue.

## SETS OF THE JOURNAL

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