

The  
Sussex  
Bird Report

1972



Published by  
The Sussex

Ornithological Society

50p

Dr. John A. Newnham  
Walton House  
61 Grand Avenue  
WORTHING  
West Sussex  
Home Tel: (0903) 47596

## THE SUSSEX BIRD REPORT

### NUMBER TWENTY-FIVE, 1972

#### CONTENTS

	PAGE
Hon. Secretary's Report .. .. .	2
Contributors and Acknowledgements .. .. .	5
Classified Records .. .. .	7
Additions and Corrections to the 1971 Report .. .. .	41
Ringling Report.. .. .	41
Estuary Counts of Waders and Wildfowl .. .. .	44
The Canada Goose in Sussex.. .. .	47

*Cover drawing of Siskins by Ian Willis*

Published September, 1973

by

THE SUSSEX ORNITHOLOGICAL SOCIETY

Price: 50p

## THE SUSSEX BIRD REPORT, 1972

### THE SUSSEX ORNITHOLOGICAL SOCIETY COUNCIL

- President:* Guy Mountfort, O.B.E., Plovers Meadow, Possingworth Park, Blackboys, Nr. Uckfield
- Vice-President:* Dr. M. Hollings, St. Cyprien, Ham Manor Close, Angmering, Littlehampton
- Hon. Secretary:* D. G. Chelmick, 6 Gander Hill, Haywards Heath
- Hon. Treasurer:* A. J. Cooke, 11 Grand Crescent, Rottingdean, Brighton
- Hon. Recorder:* C. M. James, 21 River Mead, Horsham
- Hon. Editor:* S. Bayliss Smith, Selwyns Wood, Cross-in-Hand, Heathfield
- Hon. Conservation Officer:* R. J. B. Jackson, Windacres, Charlwood, Surrey
- Hon. Assistant Secretary:* C. F. Helyer, 55 Bramble Rise, Westdene, Brighton, BN1 5GE
- Hon. Assistant Recorder:* W. Merritt, Oakdene, Ansty, Nr. Cuckfield, RH17 5AW
- Hon. Press and Public Relations Officer:* R. F. Pidgeon, 24 Rocks Park Road, Uckfield
- J. F. Cooper, 74 Filching Road, Eastbourne  
B. A. E. Marr, 40 Chepstow Rise, Croydon CR0 5JB  
S. J. R. Rumsey, 41 Cooden Drive, Bexhill-on-Sea  
R. J. Sandison, 32 Maytree Avenue, Worthing  
A. Simpson, Hardanger, Littleworth, Partridge Green  
Dr. A. B. Watson, 83 Buckingham Road, Shoreham-by-Sea, BN4 5DU
- Membership Secretary:* D. J. Taylor, 80 Cleveland Road, Worthing
- Committees:*
- Editorial and Records:* B. A. E. Marr (*Chairman*), C. M. James (*Secretary*), S. Bayliss Smith, D. S. Flumm, Dr. M. Hollings, S. W. M. Hughes, R. J. B. Jackson, W. Merritt, R. F. Porter, M. J. Rogers, M. Shrubbs, Dr. A. B. Watson.
- Programme:* A. Simpson, Mrs. I. Simpson, D. G. Chelmick, S. A. Allwood.

The above list of Council Officers and Members shows all holding office at the 30th June, 1973.

## HON. SECRETARY'S REPORT

Each year this report recalls the Society's progress and looks ahead to the hopes and aims for the future. Every year brings its changes and challenges and this is surely a good indicator of a thriving Society. Where no change takes place, there is a risk of stagnation and decline which we cannot afford.

The Officers and Council of the Society during 1972 were Guy Mountfort, O.B.E. (President), Dr. M. Hollings (Vice-President), Mr. D. G. Chelwick (Hon. Secretary), Mr. C. F. Helyer (Hon. Assistant Secretary), Mr. A. J. Cooke (Hon. Treasurer), Mr. M. Shrubbs (Hon. Recorder), Mr. S. W. M. Hughes (Hon. Assistant Recorder), Mr. S. Bayliss Smith (Hon. Editor), Mr. R. J. B. Jackson (Hon. Conservation Officer), and Messrs. C. M. James, B. A. E. Marr, R. J. Sandison, J. B. Whitby and Dr. A. B. Watson.

Messrs. Shrubbs and Hughes, Hon. Recorder and Hon. Assistant Recorder respectively, are resigning at the Annual General Meeting after many years of service to the Society. The Council extends its grateful thanks for all the work that they have done. Fortunately successors have been found for both of these important tasks. As mentioned in a recent newsletter, Mr. C. M. James has agreed to take on the role of Hon. Recorder. He has served on the Council for a number of years and is well known throughout the county. Members will know Mr. Merritt the new Assistant Recorder as the Junior Section Secretary, and he has agreed to continue with this work until a suitable replacement can be found. The job of Assistant Recorder deals mainly with the organising of surveys and Mr. Merritt has some experience of this already and is at present organising the Society's Register of Sussex Rookeries.

Help from other members of the Society has once again contributed to its smooth running in 1972 and we would like to thank Mr. D. J. Taylor (Membership Secretary), Miss Veronica Newton (Meetings Secretary) and Mr. A. Simpson (Outings Secretary). The Council would also like to thank Mrs. Iris Simpson and Mrs. Norma Petrie-Hay for help in typing and Miss Jean Stacey for much help in the routine handling of records. Finally a special thank you to Mr. T. Palmer on whom falls the task of packing and sending out all the Society's postings for the year.

The Council is pleased to report a surplus of £255 for 1972 compared with £372 in 1971. Members subscriptions at £1,075 (1,106 members) showed an increase of £115, but expenditure rose substantially under several headings, notably printing, stationery, postage and telephone. The surplus has been added to the General Fund which now stands at £1,616.

The General and Rye Harbour Conservation Funds have been amalgamated and after adding the Society's share of profits on the 1971 and 1972 Film Shows and deducting expenditure, show a balance of £437. The expenditure includes a contribution of £250 to the salary of the warden at Rye and £228 for surveys at Chichester Harbour.

The subscription will remain unaltered for 1974 at £1.05 for full members and 53p for family, intermediate and student members, having been unchanged since the inception of the Society in 1962. Ever rising costs may, however, compel the Council to review the position in due course. The attention of members is again directed to Deeds of Covenant for subscriptions which, while increasing, are still relatively few in relation to the membership. Members paying Income Tax can benefit the Society in this way normally at little or no cost to themselves.

The Society's Junior Section continued to thrive in 1972, the membership drive of the previous year in fact attracted both Junior and Senior Members.

As well as the usual varied programme of outings, Mr. Merritt arranged some working parties at the Charleston reedbed along with pupils from Eastbourne College. These conservation parties were a great success and more are planned for the future.

The scientific policy of the Society concentrated on the BTO Atlas enquiry in its final year, however some new work was commenced, namely a survey of Sussex Rookeries. Wader and wildfowl counts continued as in previous years. Now that the Atlas enquiry is finished many more of our own Society surveys have been planned for 1973.

The Society's indoor meetings once again proved extremely varied ranging from such topics as a "Glimpse of Wild Australia" to the work of the warden at Kingley Vale which is on our own doorstep. Attendance at meetings still does not do justice to their quality, this problem has been with us now for a number of years and it is difficult to find an answer. However we are looking into the matter and trying to find ways of attracting more members in future. After five years of organising the meetings, Miss Newton has decided to retire at the A.G.M. We are sorry to lose such an invaluable secretary and thank her for all the work she has put in. However a replacement has been found in Mrs. Iris Simpson who is the wife of our outings secretary and the Council would like to wish Mrs. Simpson every success.

Our annual film show of the R.S.P.B. current films was not the success, at least from an attendance point of view, that it has been in the past. Financially it was better than in previous years but a number of factors contributed to there being fewer people attending and the Society intends to have only one performance in 1973. The four films, as opposed to the usual two, were "The high life of the Rook", "Avocets Return", "Adventure has wings", and "Wilderness is not a place". Once again the Society would like to thank Mr. and Mrs. M. Cahill and their helpers for the smooth running of the event.

The ever popular field meetings were in the hands of Mr. Simpson in 1972 and as well as visiting most of the best areas in Sussex, outings have ventured farther afield into the New Forest. Also planned during the year was a trip for 1973 to the Netherlands, visiting Nature Reserves and other places of ornithological interest. If all this variety were not enough yet another type of outing was introduced, not simply to watch birds but to contribute to their conservation. A working party was successfully arranged for the Glynde Reach Project and similar exercises are planned for the future.

Once again the Council would like to thank all those people who have given their time to lead outings. Without the leaders the outings could not take place and many members of the Society would lose the excellent facility for improving their ornithology and an opportunity to meet others.

Unfortunately only three newsletters appeared during the year. The Council regrets this and hopes that in future the full quota of four will always appear. The articles were as usual varied and interesting and a regular feature on the Society's conservation work was introduced. Once again grateful thanks are due to Mr. I. Willis for illustrating the letter so well. Mr. Marr, Co-Editor of the newsletter, has retired from the post and the Council feels that a special thank you is deserved by Mr. Marr who has been co-editor ever since the very first newsletter eleven years ago. To produce an interesting, readable document regularly for this period of time is an unenviable task. Mr. R. Pidgeon, the Society's Publicity Officer has agreed to take over the co-editorship with Mr. Helyer. Mr. Pidgeon is a journalist and full of new ideas, hence we look forward with eager anticipation to his efforts.

With regard to the subject of publicity generally Mr. Pidgeon has been attending Council Meetings for some time now in an advisory capacity as Publicity Officer. The Council now feels that the whole question is of such importance that at the next A.G.M. it hopes to introduce a new rule to the effect that the "Hon. Press and Public Relations Officer" will be an Officer of the Society with a place on the Council. We feel that this is a positive step in keeping the name of the Society in the public eye whenever possible as well as being able to give greater effect to specific appeals. The Council would like to thank Mr. Pidgeon for agreeing to take on the job.

On the conservation front, we have been fortunate in finding a new Conservation Officer in Mr. R. J. B. Jackson. He is gradually taking over all existing projects from Mr. Chelmick and we trust that his work will create more new ventures in the future.

Perhaps the Society's most notable and expensive new project for the year has been to commission an ecological survey of Chichester Harbour. Already a map indicating the main vegetation types has been produced and the associated report is almost ready. This information provided for us by Mrs. R. M. Tittensor, a professional ecologist, will help to give us the facts we need to try and save the threatened areas of this most important wetland.

The other new project to come to fruition in 1972 was the acquisition for management purposes of an extensive reedbed in the Cuckmere Valley. The owners, Eastbourne College, have given the Society permission to carry out management work on the area to increase and diversify its wildlife potential. Thanks mainly to the efforts of Mr. Merritt, this management has been undertaken in earnest. Ponds have been constructed, some vegetation has been cleared all with the long term aim of improving the quality of the reedbed and providing a greater range of habitats.

Rye Harbour is a project with which the Society has been directly involved for many years and the Society has again contributed a grant towards the warden's salary. Pagham Harbour is now in a similar position to Rye in that a warden is employed for the summer months, a small grant has been given towards this Local Nature Reserve as well. The Society is represented on both management committees and the Council would like to thank Messrs. J. McTear and J. B. Whitby for representing us at Rye and Dr. M. Hollings our member at Pagham.

In conclusion, the Council feels that the Society has reached something of a turning point. The membership now stands at approximately 1100, we are one of the largest Ornithological Societies in the country. Mainly because of our size we are taken seriously, our advice is sought on planning and many other matters, we are not simply a small minority to be disregarded. Secondly, a large membership gives us a financial reserve to spend on such projects as Rye and Pagham Harbours and to instigate surveys such as the one for Chichester Harbour. Unfortunately, however there are adverse side effects of growth. The friendly "small society" atmosphere where all members are known to each other, has largely disappeared. The Council is constantly searching for ways to maintain at least a vestige of this and the policy of different Council members introducing meetings does at least ensure that you know who we are. Another effect of growth is that the burden of work on a given number of helpers inevitably increases. We believe that growth is essential as without it we will become apathetic and this would soon be transmitted to the members. The Society cannot grow without your help. More Officers may have to be appointed and a greater distribution of work considered. If you feel that you would like

to help or would like to identify yourself more with the Society's work please let us know.  
D. G. CHELMICK, Hon. Secretary.

## CONTRIBUTORS AND ACKNOWLEDGEMENTS, 1972

We are grateful to the following observers for records, and we also wish to thank those observers who helped with the Society's breeding surveys—their names are marked with an asterisk.

- |                              |                            |                     |
|------------------------------|----------------------------|---------------------|
| K. G. Adsett                 | B. E. Cooper               | R. K. Haggart       |
| J. R. Alderton               | J. F. Cooper               | *Mrs. E. Harper     |
| J. R. Apps                   | C. Corfield                | P. Harrison         |
| M. S. Arnott                 | G. F. Coxon                | *E. Howard          |
| *E. Arthur                   | A. P. D. Cramb             | M. J. W. Hay        |
| *J. Ashbee                   | *G. D. P. Cummings         | *M. J. Helps        |
| *K. Ashbee                   | *J. C. Cummings            | *C. F. Helver       |
| Mrs. A. S. Ashby             | G. C. Cuttenden            | *R. Henderson       |
| F. W. Aikley                 | P. Daines                  | Mrs. D. J. Herlihy  |
| K. Aikins                    | T. P. Dale                 | P. S. Herlihy       |
| E. M. Baker                  | P. D. Daugherty            | Mrs. E. G. Hicks    |
| D. W. Baldock                | P. W. Davidson             | Dr. P. Y. Hicks     |
| P. C. Bance                  | P. G. Davis                | H. W. Hiscock       |
| *C. J. R. Barfield           | A. Dawnay                  | A. J. Holcombe      |
| *R. Batchelor                | P. A. Deacon               | Dr. M. Hollings     |
| S. Bayliss Smith             | G. des Forges              | C. E. Hope          |
| *Beachy Head Ringing Station | Miss W. E. Dickson         | J. W. Horsfall      |
| D. F. Billett                | *F. W. Dougherty           | Miss R. C. Howard   |
| Mrs. M. Billings             | Mrs. M. P. Dougherty       | Mrs. M. A. Hughes   |
| E. S. Binns                  | Dungeness Bird Observatory | *S. W. M. Hughes    |
| Miss R. Bird                 | M. J. Eales                | Miss E. Hurlley     |
| *A. Bodle                    | Mrs. J. H. M. Edom         | Mrs. E. Hyde        |
| J. Bodle                     | R. D. M. Edgar             | W. D. Hyde          |
| Miss P. M. Bond              | A. J. Endean               | A. Iles             |
| Mrs. M. R. Bonham            | Miss J. Entwistle          | I. Iles             |
| *P. F. Bonham                | G. C. Evans                | A. Isted            |
| Miss M. Bowser               | R. J. Fairbank             | R. J. B. Jackson    |
| *R. Box                      | *M. Fallick                | Mrs. B. James       |
| Mrs. M. Briggs               | J. D. M. Farwell           | C. M. James         |
| C. M. Britchfield            | Brig. J. Faviell           | P. James            |
| *Mrs. M. Brown               | B. W. Finch                | C. R. Jannan        |
| *P. Brown                    | I. H. Findlay              | Miss M. M. Jennings |
| Mrs. B. M. Buckler           | D. S. Flumm                | H. C. Jones         |
| Miss L. C. Buontempo         | D. Folkingham              | *L. R. Keen         |
| M. E. Buontempo              | *B. F. Forbes              | *Mrs. D. J. Kelley  |
| Sir Walter Burrell           | *F. J. Forbes              | R. S. Kelly         |
| T. N. Buttle                 | J. P. Foster               | Miss E. C. Kingdon  |
| Mrs. E. A. Cameron           | N. T. Foyer                | A. R. Kitson        |
| F. Castle                    | Mrs. D. V. Gardner-Lewis   | E. J. Knott         |
| K. Cawte                     | S. J. M. Gantlett          | J. P. Knowles       |
| J. Chandler                  | Mrs. D. V. Gardner-Lewis   | Mrs. D. M. Kusel    |
| Mrs. M. E. Charlwood         | D. Geogham                 | R. J. Lanaway       |
| R. H. Charlwood              | D. Gibbon                  | D. C. Lang          |
| Chichester Ringing Group     | *B. A. Goodchild           | Dr. R. M. Leaney    |
| H. A. C. T. Clark            | *L. Gover                  | *D. B. Lee          |
| Miss J. L. Clark             | P. J. Grant                | M. P. LeGrys        |
| *P. B. Clarke                | *T. Gravett                | A. D. Lelliott      |
| G. H. Clay                   | *N. S. Gray                | P. G. Leonard       |
| P. Clement                   | P. J. Greenhalf            | *D. E. Lester       |
| *Miss M. Clough              | *R. R. Greenhalf           | N. Lewis            |
| J. A. Cocks                  | S. T. Greenwood            | N. A. G. Lord       |
| Dr. L. A. Collins            | *J. A. Gregory             | S. Love             |
| Mrs. M. H. Collins           | D. A. Grundy               | G. A. Luck          |
| *A. J. Cooke                 | R. Guilder                 | *Miss V. E. Lyon    |
|                              |                            | M. H. McAlpine      |

I. Mackellar  
 J. N. McKelvie  
 \*J. P. McTear  
 \*W. W. McVittie  
 M. Mallalieu  
 Mrs. F. D. Mancer  
 J. H. Marchant  
 Miss J. M. Marcuse  
 H. D. Marouse  
 \*B. A. E. Marr  
 M. Marr  
 Mrs. M. E. Mason  
 M. J. Mason  
 \*W. Merritt  
 \*C. E. Messer  
 \*B. Metcalfe  
 G. Moll  
 D. E. Munson  
 Mrs. M. K. Munson  
 \*K. Neale  
 A. E. Nealon  
 Capt. I. Newnham, R.N.  
 B. Newport  
 \*Miss V. Newton  
 \*P. Nightingale  
 A. L. Norman  
 K. C. Osborne  
 \*R. Page  
 D. Parmenter  
 T. Parmenter  
 F. Penfold  
 \*G. J. Pennells  
 \*A. J. Percy  
 Mrs. N. Petrie-Hay  
 G. Philcox  
 \*Maj. W. W. A. Phillips  
 B. Planterose  
 D. Plunkett  
 R. F. Powell

Miss B. Spencer  
 Miss J. Spurgin  
 Miss J. V. Stacey  
 \*Dr. J. Stafford  
 F. M. D. Stanton  
 Mrs. M. E. Stanton  
 G. A. Sutton  
 W. C. Tame  
 J. B. Tatam  
 \*C. F. Tebbutt  
 Miss C. Thompson  
 M. W. Thompson  
 J. G. Threadgold  
 A. E. Trowell  
 \*J. Trowell  
 \*Miss E. D. Tittley  
 G. E. Tomalin  
 \*P. C. Turner  
 Sir Alec Valentine  
 K. Verrall  
 C. M. Veysey  
 Mrs. B. Vine  
 D. Washington  
 \*Dr. A. B. Watson  
 H. C. Wells  
 B. Whitby  
 J. C. S. White  
 Miss W. P. White  
 J. P. Widgery  
 \*A. J. Wilkins  
 \*I. R. Willis  
 J. Witlsher  
 \*P. S. Witthurst  
 \*Mrs. V. A. Wilson  
 Miss V. E. Wood  
 A. G. Wootton  
 B. D. Wrenn  
 M. C. Wyatt

A. Quinn  
 \*P. N. Ray  
 \*Mrs. M. E. Reader  
 J. Keany  
 \*Mrs. B. R. Reeve  
 B. W. Renyard  
 S. Richardson  
 K. Ridgewell  
 D. J. Riley  
 Dr. E. T. Roberts  
 J. E. Robson  
 \*A. B. Roe  
 M. J. Rogers  
 T. H. Rose  
 Mrs. A. O. Ross  
 J. B. O. Rossetti  
 H. W. Rudd  
 S. J. R. Rumsey  
 Lt. Col. C. St. Awyn  
 \*R. J. Sandison  
 \*Mrs. M. J. Sargent  
 R. A. Saunders  
 Mrs. K. E. Schweder  
 E. M. P. Scott  
 R. Scott  
 M. J. Scott-Ham  
 D. Senior  
 F. Severs  
 \*A. Shaw  
 \*M. Shrubbs  
 Mrs. A. F. Simmonds  
 F. C. Simmonds  
 \*A. J. Simpson  
 Mrs. I. M. Simpson  
 Miss R. M. Simson  
 F. Skinner  
 D. Smith  
 R. Smith  
 \*D. Sore

**MIGRATION**

Regular observations of migration were made at Beachy Head by a number of observers, and J. F. Cooper has provided a detailed summary of the records. K. Cawte has provided a similar summary of the birds at the Rye Harbour L.N.R. Both these summaries have been used extensively in preparing the Report and have proved most helpful. We are very grateful for this assistance. We would also like to draw attention to an account of 10 years observations at Beachy Head compiled by A. Quinn and P. Clement and published last year. This is an invaluable record of the work done there and presents an impressive and most interesting volume of data.

**BREEDING SURVEYS**

Two Society breeding surveys were started in 1972. The Girl Bunting survey was organised by P. J. Wilson, and the census of rookeries by W. Merritt.

**B.T.O. NATIONAL CENSUS OF HERONRIES**

All the Sussex Heronries were visited in 1972 for this census, as they have been annually since it began. We are grateful to the following observers for their assistance:—  
 J. Ashbee (Leasham), D. R. Coda (Eridge), C. F. Helyer (Henfield), J. A. Hicks (Glynleigh, Priesthaws, Westham), A. Isted (Purham), D. C. Lang (Glynde, Firlie), J. Pelling (Fishbourne), Maj. W. W. A. Phillips (Pagham), F. C. Simmonds (Wartling).

**ESTUARY COUNTS**

These counts were continued in Chichester, Pagham, and Rye Harbours, and two counts in December and January, were made along the whole county coastline. Counts were organised by M. Shrubbs, and at Rye Harbour by J. P. McTear. All the records have been sent to the B.T.O. and a full account starts on page 44. Here we must thank all the counters for their efforts. Counters were:—

R. Batchelor, D. G. Chelmsick, E. B. Cottam, P. A. Deacon, R. D. M. Edgar, Mrs. J. H. M. Edom, B. F. Forbes, M. J. Helps, Dr. M. Hollings, C. E. Hope, S. W. M. Hughes, R. J. B. Jackson, C. M. James, J. P. Knowles, Dr. R. M. Leaney, B. A. E. Marr, C. E. Messer, J. P. McTear, Mrs. N. Petrie-Hay, S. Richardson, S. Rumsey, R. J. Sandison, M. Shrubbs, A. Simpson, D. J. Stevenon, I. R. Willis, R. Williamson.

Finally we once again wish to thank Mrs. Edom for making additional counts in her boat, and for taking out observers to make other observations. This is an invaluable service.

**WILDFOWL COUNTS**

R. Batchelor again organised the National Wildfowl counts. We are grateful to him for making the records available to the Society. Counters were:—  
 D. R. Coda (Glynde Levels), A. J. Cooke (Cuckmere Valley), J. Fowler (Chichester G.P.), C. M. James (Warnham Mill Pond, Knepp Lake), D. C. Lang (Barcombe Res.), J. P. McTear (Rye Harbour, Pett Level), Miss V. Maxse (Burton Pond), C. E. Messer (Amberley/Pulborough Brooks), H. Milderhall (Arlington Res.), D. R. Park (Swanbourne Lake, Patching Pond), J. Reaney (Darwell Res.), C. F. Tebbutt (Weir Wood Res.), Dr. A. B. Watson (Bramber).

**CLASSIFIED RECORDS FOR 1972**

Recoveries of birds ringed have not been cross-referenced to the ringing report. The wild-fowl tabulation and the report on the estuary counts should be read in conjunction with the notes under individual species of waterfowl and waders for a complete picture.

**Abbreviations:** "G.P."—gravel pits. "S.F."—sewage farm. "E." "W." etc.—cardinal points of the compass are intended only to give a general direction unless the context indicates otherwise. In particular this applies to birds going up or down Channel and which are referred to as flying E. or W. "s/p." "w/p."—summer or winter plumage. "c/"—clutch size in nest found. "Brit. B."—British Birds (Rarities Committee). "LNR"—Local Nature Reserve. "SxBR"—Sussex Bird Report.

**Definition:** "Days watching"—the number of days in which watching was done in an area; the number of hours' observation of visible migration may also be shown in brackets.

**Initials:** Observers' initials are given only with more unusual occurrences, except in the case of rare breeding species.

1. **BLACK-THROATED DIVER (*Gavia arctica*)**—In Chichester Harbour there was one on Jan. 15th (BAEM, RJS, IRW), one on Feb. 12th and 13th (DFB) and 3 together on Feb. 20th (BAEM, IRW). One was seen off Langney Point on Jan. 13th and in the latter part of the year, there was one in Pagham Harbour on Oct. 28th. A dead bird was found at Newhaven on Mar. 6th. See also spring diver passage under diver species below.

2. **GREAT NORTHERN DIVER** (*G. immer*).—One was seen in Chichester Harbour on Jan. 9th (BAEM, IRW) and one between Feb. 2nd and 8th (JDMF). On Feb. 20th two were seen together with 3 Black-throated Divers (BAEM, IRW). A single bird was at Arlington Res. from Feb. 5th to May 11th when it was found dead (MJR, PJW, VAW).

4. **RED-THROATED DIVER** (*G. stellata*).—In the first 3 months of the year about 30 were reported including 10 off Beachy Head on Jan. 30th. On Apr. 4th there was one in the Cuckmere Valley and one at Arlington Res. One was seen off Selsey Bill on May 13th.

One was recorded off Beachy Head on Aug. 16th and one at Rye Harbour on Aug. 22nd. Numbers for the rest of the year were small. See also under divers species below.

**DIVER SPECIES** (*Gavia sp.*).—All records of diver passage for the first part of the year are shown under this heading. Some birds were specifically identified.

	Selsey Bill		Jan. & Feb.		Beachy Head	
	Mar. 1st - May 31st	Mar. 1st - May 31st	E	W	E	W
<i>G. arctica</i>					35	
<i>G. immer</i>	10				3	
<i>G. stellata</i>					20	
<i>Gavia species</i>	17	1	17		301	

Between Apr. 2nd and May 29th there was sea watching at Beachy Head for a total of 209 hours. The watching at Selsey Bill in the spring was not on such an extensive scale. At Beachy Head the peak movement was recorded on Mar. 25th when 89 divers flew E. The majority of these were thought to be *stellata*.

5. **GREAT CRESTED GREBE** (*Podiceps cristatus*).—In January 60 were seen off Brighton on the 6th, 80 in Rye Bay on the 15th and 82 off Roedean on the 29th. At the end of the year 15 off Pagham Harbour on Nov. 13th was the largest group.

Inland wintering was observed in 11 localities with 58 at Chichester G.P. on Jan. 25th as the maximum. These birds had all left the area by the 31st due to ice on the various waters. There were 11 at Weir Wood Res. on Jan. 15th and 14 there on Dec. 3rd.

It appears that the breeding population may be increasing for pairs were recorded as follows:—

BREEDING PAIRS, 1972

Locality	No. of pairs	Locality	No. of pairs	Locality	No. of pairs
Barcombe Mills Res.	1	Hild Mill Pond	1	Pond Leigh	2
Barnhouse Pond	1	Knepp Lake	1	Rowant	2
Birchen Bridge	1	Lindfield Farm, Chailey	1	Rye Harbour G.P.	2
Burton Park	1	Lurgashall Pond	1	Shillingtree Park	2
Chichester G.P.	21	Maresfield	1	Stoughton Furnace Pond	1
Furnace Wood	1	Milland	1	Stoughton Manor	1
Hammer Pond	1	Newells, Lower Beeding	1	Wadhurst Park	1
Hawkins Pond	1	Petworth Park	2	Warnham Mill Pond	1
Horsted Keynes	2			Weir Wood Res.	3

The 54 pairs shown in the table raised at least 52 young. This compares with 42 pairs and 47 young in 1971.

6. **RED-NECKED GREBE** (*P. griseigena*).—One at Pagham Lagoon on Feb. 2nd (SIMG). This bird was subsequently found dead.

7. **SLAVONIAN GREBE** (*P. auritus*).—In January and February up to 11 were recorded in Chichester Harbour but no more than 5 were seen off Church Norton. A further 6 birds were reported from other localities including singles at Arlington Res. and Chichester G.P.

In March there was one off Seaford on the 14th and 2 off Beachy Head on the 25th. In April there were 8 off Church Norton on the 1st and 4 there on the 15th. Seven were seen in Chichester Harbour on Apr. 9th. On May 7th and 8th one was observed off Beachy Head.

In October there was one off Beachy Head on the 8th and up to 4 off Church Norton from the 25th onwards. In November up to 22 were seen off Church Norton and up to 9 in Chichester Harbour. In December there were 8 off Church Norton and 4 were seen in other localities including one at Arlington Res. on the 23rd.

8. **BLACK-NECKED GREBE** (*P. nigricollis*).—In February there were single birds at Pagham Harbour and Rye Harbour. On Feb. 7th there were 2 in Chichester Harbour. In April there were 2 off Church Norton on the 8th and one at Pagham on the 11th.

Single birds were seen at Chichester G.P. on Sept. 18th and Nov. 11th.

9. **LITTLE GREBE** (*P. ruficollis*).—The main winter concentrations were:—Chichester Harbour, 56 on Feb. 7th; Bosham, 21 on Dec. 30th; Cuckmere Valley, 38 in January and 31 on Nov. 18th; Pagham Lagoon, 22 on Sept. 9th and Oct. 11th; Pagham Harbour, 14 on Nov. 25th; Rye Harbour, 20 in October; Weir Wood Res., 10 on Oct. 15th.

Records for the breeding season were far from complete but no more than 16 pairs were located of which 6, at least, raised young. In most localities single pairs were seen but there were 3 at Chichester G.P. and 6 at Rye Harbour.

16. **MANX SHEARWATER** (*Puffinus puffinus*).—On Feb. 10th one showing the characters of the race *puffinus* flew E. off Beachy Head (DEL). This is the first record for February for the county. In May, exceptional numbers were recorded off Beachy Head with one E. on the 6th, 81 E. and 3 W. on the 28th in the early part of the day (ARK, NAGL, MJR) and 4 W. on the 29th (RB, DSF, ARK). On May 28th during the afternoon there were 8 W. off Langney Point (MJR).

A single bird flew W. off Seaford on May 25th (RB).

26. **FULMAR** (*Fulmarus glacialis*).—First recorded on Feb. 12th when one flew E. off Beachy Head. More than 70 were recorded at Beachy Head on May 5th and in the summer birds were seen regularly between Ovingdean and Newhaven. Two summered on the cliffs at Fairlight. Last recorded on Sept. 9th when one was seen off Bishopstone.

27. **GANNET** (*Sula bassana*).—Not recorded until Mar. 14th when one was seen off Seaford. Between Mar. 25th and June 1st there were 159 E. and 46 W. off Beachy Head.

On Sept. 17th there were at least 40 off Birling Gap. On Oct. 11th after a sea mist in the early morning at least 22 flew E. off Worthing, some being close in shore.

PEAK WINTER POPULATIONS OF DUCK AT SELECTED LOCALITIES  
1972/73

Locality	Mallard	Teal	Wigeon	Pintail	Shoveler	Tufted	Pochard
Chichester Harbour	250	700	1180	60		40	115
Chichester G.P.	350	80	6	10	160	400	415
Pagham Harbour	270	400	170	60	5	15	
Amberley/Puiborough	80	550	500	2	6		
Knepp	200	4	250	4	6	25	410
Weir Wood Res.	180	311	90			206	150
Barcombe Res.	235	11	820	2	3	60	35
Glynde Levels	160	400	1350		40		
Cuckmere	105	65	15			3	
Arlington Res.	450	11	500	10	30	17	109
Darwell Res.	130	30	60			55	140
Pevensy Levels	400	400	300	9	3	70	105
Rye Harbour	500	60	40	2	12	150	450
ANNUAL INDEX	3310	3022	4281	159	265	1041	1929

28. **CORMORANT** (*Phalacrocorax carbo*).—Records came from the whole of the coast and from 9 inland localities. In the first three months of the year and again in November and December up to 50 visited Chichester G.P. and rested there.

On Nov. 6th 12 were seen on a pylon at Southwick and on Dec. 3rd 29 on three pylons on the Adur Levels. On Dec. 16th there were 16 on pylons in the Lewes Levels. It is not known whether these resting places are used during the night.

29. **SHAG** (*P. aristotelis*).—One at Church Norton on Feb. 5th was the only record for the first part of the year. On Nov. 12th there was one at Exceat Bridge and on Dec. 3rd one at Newhaven.

30. **HERON** (*Ardea cinerea*).—All known heronries were visited. The number of occupied nests was:—Old Park Wood, Fishbourne, 27 plus 3 probably occupied; Pagham, 2 plus 2 probably occupied; Parham, 31 plus 8 probably occupied; Henfield, 4 plus 2 probably occupied; Firle, 12 and probably 25 more which could not be checked; Priesthaves, 8; Westham, 3; Wartling, 4 plus 2 probably occupied; Leasam; 42, Eridge, 13. There were no nests at Glynde or Glyndleigh and as mentioned in the previous report, these heronries appear to be extinct.

On Apr. 3rd a juvenile was seen in the Cuckmere Valley (MJR).

31. **PURPLE HERON** (*A. purpurea*).—An adult was seen at Church Norton on Apr. 12th (JD). This record has been accepted by Brit.B.

40. **WHITE STORK** (*Ciconia ciconia*).—Five at Polegate on Apr. 25th (RKH, RS, KV).—This record has been accepted by Brit. B.

42. **SPOONBILL** (*Platalea leucorodia*).—There were single birds in the Rye Harbour LNR on May 17th and June 26th (K.C.). On June 5th there were 3 E. over the downs at Beachy Head (KA).

**Ducks.**—The table below sets out the peak winter counts of the regular and common species at 13 principal wintering areas in the county for the winter 1972/73; figures for the winter 1971/72 will be found in SxBR 1971. Burton Pond has now been dropped from this table as no figures were available and, as hoped, regular counts at Arlington have enabled figures for this locality to be given. Also included is Pevensy Levels, where a considerable population has been recorded. Unfortunately we still have no regular counts for the Adur Levels, now the only major gap in our information. Once more we stress that the totals are intended only to facilitate comparisons and to show trends, not to give a total population figure.

All the records available to the Society have been used in compiling the table and the following species accounts in the systematic list are confined to records outside its scope and to records for 1972 unless otherwise stated.

45. **MALLARD** (*Anas platyrhynchos*).—See table for winter populations. In the breeding season there were approximately 85 pairs on Pevensy Levels. Counts were received from Pevensy of 20 broods totalling 129 young.

46. **TEAL** (*A. crecca*).—See table for winter populations. In the breeding season birds were reported in 8 localities but successful breeding by single pairs was proved only at Pagham Harbour and Warnham Mill Pond.

47. **GARGANEY** (*A. querquedula*).—First recorded on Mar. 12th in the Cuckmere Valley and on Mar. 13th at Chichester G.P. Last seen on Oct. 4th in the Rye Harbour LNR when a single bird was present. At Beachy Head there were 2 E. on Mar. 21st, 4 E. on May 8th and one E. on May 20th.

Four were seen together in the Rye Harbour LNR on July 22nd; elsewhere the numbers were small. The monthly totals were:—

Mar.	8	Apr.	15	May	11	June	1	July	4	Aug.	6	Sept.	4	Oct.	1
------	---	------	----	-----	----	------	---	------	---	------	---	-------	---	------	---

49. **GADWALL** (*A. strepera*).—Records from 10 localities were spread over every month except July. The approximate monthly totals were:—

Jan.	39	Feb.	46	Mar.	20	Apr.	12	May	4	June	2	July	0	Aug.	4	Sept.	2	Oct.	9	Nov.	13	Dec.	20
------	----	------	----	------	----	------	----	-----	---	------	---	------	---	------	---	-------	---	------	---	------	----	------	----

In the Rye Harbour LNR up to 26 were recorded in January, 21 in February and 16 in March. At Barcombe Res. 22 were present on Feb. 13th but no more than 6 were seen at Chichester G.P. in the early months.

Two pairs were seen at the Rye Harbour LNR on May 8th and one pair was recorded there sporadically until June 21st.

From August to the end of the year numbers were low in the 6 localities where birds were present.

50. **WIGEON** (*A. penelope*).—See table for winter populations.

52. **PINTAIL** (*A. acuta*).—See table for winter populations.

53. **SHOVELER** (*A. clypeata*).—See table for winter populations. Passage birds were seen off Beachy Head between Mar. 19th and May 20th with a total of 27 E.

On Apr. 25th a female with 3 juveniles were seen in one locality and a pair probably bred in another part of the county. Birds were seen in a further 3 localities in the breeding season.

54. **RED-CRESTED POCHARD** (*Netta rufina*).—A female was seen at Horsted Keynes on July 1st. It is not known whether this bird was an escape.

55. **SCAUP** (*Aythya marila*).—In January there were 26 at Rye Harbour and 9 at Winchelsea. In February there were 7 at Rye Harbour, 3 at Barcombe Res. and 25 E. off Beachy Head on the 25th. In April there was one at Chichester G.P. on the 8th and one at Rye Harbour until the 18th.

At Rye Harbour an apparently summering male was recorded on June 28th and a male was there on Sept. 20th. This bird was joined by a female on Sept. 23rd. The male was present to the end of the month.

There was one at Sidlesham Ferry on Oct. 22nd. In November, there were 3 in Chichester Harbour on the 18th, up to 7 at Arlington Res. between the 6th and 22nd, 2 at Rye Harbour on the 18th and one off Selsey Bill on the 19th. In December there were 6 at Rye Harbour on the 6th and the maximum at Arlington Res. was 6 on the 6th.

56. **TUFTED DUCK** (*A. fuligula*).—See table for winter populations. In the breeding season birds were recorded in 26 localities but breeding was proved in only five of these. At Burton Park there were 2 pairs with 11 young, at Chichester G.P. 23 broods totalling 123 young, at Furness Wood Lake one pair with 5 young, at Petworth Park 2 pairs and 7 young and at Rye Harbour 12 pairs with 75 young. The totals of approximately 40 pairs and 221 young compares not unfavourably with the 48 pairs and 203 young in 1971.

57. **POCHARD** (*A. ferina*).—See table for winter populations. In addition, there were 40 at a pit on the Crumbles, Eastbourne on Jan. 30th. On Mar. 26th there were 20 E. at Birling Gap.

In the breeding season single pairs were recorded in 4-5 localities but proof of breeding was not obtained.

60. **GOLDENEYE** (*Bucephala clangula*).—In the winter of 1972/73 the peak count in Chichester Harbour was 78 on Feb. 3rd; numbers there were lower than for several years. See pages 46-7 for detailed counts. Few were recorded elsewhere along the coast and the numbers on inland waters were small.

61. **LONG-TAILED DUCK** (*Clangula hyemalis*).—In the early part of the year 2 were seen off Selsey Bill on Jan. 16th, one at West Wittering on Feb. 25th and one at Chichester G.P. on Feb. 26th. In May, there was one at Rye Harbour on the 1st.

In November, 2 were seen off Selsey Bill on the 19th and 4 at West Wittering on the 26th. December records were as follows:— Church Norton, one on Dec. 9th; off Selsey Bill, 2 on Dec. 10th; Rye Harbour, 3 on Dec. 3rd; Pett Level, one on Dec. 16th.

62. **VELVET SCOTER** (*Melanitta fusca*).—Except for birds on passage the largest party recorded was one of 4 which was in Chichester Harbour in the winter 1972/73.

Between May 8th and 18th there were 5 E. off Selsey Bill and between Apr. 22nd and May 19th 39 E. off Beachy Head.

A female was seen in Rye Bay on the unusual dates of Aug. 12th and 13th. A female was recorded at Darwell Res. on Nov. 12th (JB TD JR).

64. **COMMON SCOTER** (*M. nigra*).—There were 300 in Rye Bay on Jan. 15th, the highest count there for the winter of 1971/72. In December up to 200 were seen but elsewhere the numbers wintering were small.

Passage was recorded off Beachy Head on 44 days between Jan. 30th and June 3rd with a total of 6,450 E. The maxima were 1,300 on Mar. 25th, 1,109 on Apr. 28th and 1,011 on May 7th. Watching at Selsey Bill was on a smaller scale and on 13 days between Apr. 26th and May 20th 396 flew E. There were at least 136 E. on May 7th. Elsewhere there were 1,700 E. off Lancing on Mar. 17th and 240 E. off Camber in one hour on May 7th.

A male and a female were recorded at Chingford Pond on Apr. 3rd (KGA) and on June 25th there were no less than 10 males and 15 females at Weir Wood Res. (DW). On July 19th 3 were seen in Chichester Harbour.

In the winter of 1972/73 there were maxima of 600 in Rye Bay on Jan. 29th and 120 off Pevensey Levels in December and 130 in February.

67. **EIDER** (*Somateria mollissima*).—As in 1971, was recorded in every month except June and July. The approximate monthly totals were:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
43	40	96	51	21	0	0	7	3	40	32	2

On May 7th, 10 flew E. off Camber and an easterly movement was noted at Beachy Head on 10 dates between Mar. 21st and May 7th; 71 birds were involved and the maximum was 17 E. on May 7th. The Beachy Head birds are not included in the monthly figures.

69. **RED-BREASTED MERGANSER** (*Mergus serrator*).—There were 52 in Chichester Harbour on Feb. 7th and 20 there on Apr. 9th. Elsewhere there were unusual numbers off Worthing with maxima of 65 on Jan. 20th, 20 on Feb. 21st and 12 on Apr. 11th (CMV). Up to 35 were recorded off West Wittering on Dec. 21st.

Spring passage was recorded at Selsey Bill and Beachy Head between Mar. 19th and May 19th but large numbers were not seen.

On Sept. 29th there was one at Sidlesham Ferry but there were no further records until November. On Nov. 19th there were 15 W. off Langney Point and 200 W. off Selsey Bill.



70. **GOOSANDER** (*M. merganser*).—In January and February there were up to 3 at Arlington Res., up to 5 at Barcombe Res., at least 2 in Chichester Harbour and one in Pagham Harbour.

On Mar. 7th there was one on Pagham Lagoon. In April there was one at Church Norton on the 16th and one in the Rye Harbour LNR from the 10th to the 26th. A bird with an injured wing was seen at Lurgashall Pond on July 22nd.

One off Pagham on Nov. 14th and one at Arlington Res. on Nov. 18th and 22nd were the only records for the rest of the year.

71. **SMEW** (*M. albellus*).—At Chichester G.P. there were 2 in January and up to 4 in February. At Barcombe Res. there was one female on Feb. 13th.

73. **SHELDUCK** (*Tadorna tadorna*).—In the early months there were a few records from inland localities. In the breeding season a pair at Aldsworth Pond produced 5 young and pairs were seen at Arlington Res., at Burpham, in Parham Park and at Watersfield.

A total of 140 young were counted in June and July in Chichester Harbour but these figures are far from complete, for some localities, where young were seen in previous years, were not visited. In Pagham Harbour about 200 young were seen and at Chichester G.P. 2 pairs produced 10 young. Four pairs were present in the Cuckmere Valley on June 4th together with 11 juveniles. In the Rye Harbour LNR 5 pairs produced 19 young.

In the winter of 1972/73 the maximum count in Chichester Harbour was 2,925 on Feb. 18th and in Pagham Harbour 720 on Feb. 3rd. This was the first winter for at least 6 years in which the Chichester Harbour population failed to reach 3,000 birds. See pages 46-7 for detailed estuary counts.

75. **GREY LAG GOOSE** (*Anser anser*).—On Feb. 21st 7 were recorded at Rodmell (GFC) and 12 at Sidlesham (PAD). Eight were seen at Arlington Res. on Feb. 23rd (AJC) and 4 near Steyning on Mar. 19th (TG).

With the exception of one at Pett Level on Oct. 28th, which may have been an escape, there were no further records.

76. **WHITE-FRONTED GOOSE** (*A. albifrons*).—On Jan. 23rd there was one at Pett Level and a flock of unknown size was heard over Lancing during the evening of Feb. 29th.

In November 13 were seen over West Chiltington on the 24th and flocks of 10 and 35 were recorded in Chichester Harbour on the 25th. In December, an injured juvenile was present at Arlington from the 17th to the end of the year. On Dec. 30th a flock of 30 passed over West Chiltington.

78. **PINK-FOOTED GOOSE** (*A. brachyrhynchus*).—There were 18 at Rye Harbour on Feb. 13th (JPMCT).

**GREY GOOSE SPECIES**.—In January 50 flew S. at Chelwood Gate on the 18th and there were 16 W. off Brighton on the 31st. In February, 30 were seen at Amberley Wild Brooks on the 18th and on the 27th there were 145 E. at Stoughton. There were 60 S. at Weir Wood Res. on the same day.

In March, 33 flew S. over Eastbourne on the 9th, 2 were over Bexhill on the 12th, 4 over Bexhill on the 13th and 22 flew E. near Steyning on the 14th. There were 80 E. off Worthing on the 23rd.

On Nov. 24th there were 24 over Guesling and 30 over Sidlesham. On Nov. 25th 30 were seen over Sidlesham again. In December, there were 6 W. off Beachy Head on the 10th.

80. **BRENT GOOSE** (*Branta bernicla*).—All records refer to the dark-bellied race *B.b. bernicla* unless otherwise stated. Between Feb. 28th and Apr. 30th the usual easterly movement was noted with peaks of 200 off Roedean on Mar. 8th and 180 off Beachy Head on Mar. 25th.

Once again, there were interesting reports of E. or NE. movement over West Chiltington with records for Feb. 29th and Mar. 17th. On Dec. 10th at 2000 hours a small party came from the direction of Pulborough and then turned back towards Storrington. On Dec. 8th a party of 8 was seen over Weir Wood Res. (MJH).

In September there were 14 W. off Beachy Head on the 24th, 6 at Rye Harbour on the 25th and 6 at South Ferring on the 30th. Offshore westerly movement was recorded in October and in November on a more extensive scale.

Record numbers were noted in the winter of 1972/73 with maximum counts in Chichester Harbour of 4,360 on Feb. 3rd and 4,555 on the 18th, 1,000 more than the previous record of 3,300 in 1970/71. Although a small flock was noted on Oct. 21st, none was then present until mid November but 2,200 had arrived by the 25th. There were still over 3,000 in the first half of March but all had left by the end of the month. Record numbers were also noted in Langstone Harbour, where there were 5,600 in February, making a grand total of c.10,000 for the two Harbours. In Pagham Harbour there were 175 in February. See pages 46-7 for detailed estuary counts.

On Dec. 20th three birds with the characters of the pale-bellied race *B.b. hrota* were seen in Pagham Harbour (BFF, FJF).

81. **BARNACLE GOOSE** (*B. leucopsis*).—On Dec. 22nd there was one at Sidlesham Ferry. This may have been one of a party of 5 which was first recorded in the Cuckmere Valley and subsequently at Rye Harbour. These were known to be escapes.

82. **CANADA GOOSE** (*B. canadensis*).—An account of the introduction, recent history and current status of this species appears on pages 51 to 66.

Successful breeding was recorded in 1972 as follows:—Two pairs at St. Julians, Coolham and a similar number at Plashett Park, Hurstmonceux Castle and Rye Harbour. There were single pairs at Ivy Lake, Chichester G.P., Pond Leigh, Shillinglee, Wiston Pond, Leonardlee and Battle Abbey. A total of 44 young were reared at these sites and in addition 52 were reared in Petworth Park. Two pairs nested without success in Warnham Park.

85. **WHOOPER SWAN** (*Cygnus cygnus*).—There were two adults on Glynde Levels on Jan. 22nd and 23rd (JR, BIS) and 2 at Thorney Island on Jan. 30th (JS).

Between Feb. 9th and Feb. 13th 2 adults together with 3 juveniles were seen in the Amberley/Greatham area (BFF, FJF, CEM). On Feb. 20th 2 adults were observed at Greatham (MMJ) and on Feb. 26th a party of 10 was seen at Amberley (MH).

86. **BEWICK'S SWAN** (*C. bewickii*).—The Amberley flock visited various localities between there and Pulborough and remained in the Arun valley until Apr. 6th when 30 were counted by one observer (FJF). Parties totalling 30-40, including 7 juveniles were recorded regularly and the maximum number was 48 on Feb. 11th. On one occasion, at least, some visited Knepp for 45 were there on Jan. 31st. Elsewhere in the early months there were 11 at Rye Harbour on Jan. 31st and 2 adults with 2 juveniles at Arlington Res. on the same day. On Jan. 20th a party of 8 flew W. off Worthing and on Feb. 13th 5 flew E. off Rottingdean. One was seen on Glynde Levels on Mar. 20th.

In the Amberley area 4 were recorded on Oct. 28th, 20 by Nov. 19th and 25-30 by the end of the year. A party of 24 visited Knepp on Dec. 30th. On Nov. 25th there were 2 at Thorney Island and one flew E. at Rye Harbour on Nov. 26th. On Dec. 31st 20 were seen at Portfield G.P.

91. **BUZZARD** (*Buteo buteo*).—Single birds or pairs were resident in 6 localities throughout the year but as in 1971 breeding was not proved. Thirteen birds were seen on or near the coast in the autumn. Some of these were probably migrants for one at Beachy Head on Sept. 11th flew out to sea.

93. **SPARROWHAWK** (*Accipiter nisus*).—Breeding was proved by no more than 2 pairs but pairs were seen in 16 localities in the breeding season. In addition, there were casual breeding season records from another 20 sites.

95. **RED KITE** (*Mitrus milvus*).—One in Whitbred Hollow, Beachy Head on Jan. 19th (RHC, & per BW). On Mar. 18th one at West Wittering in the morning and at Itchenor later in the day (DMK). One at Petworth on Mar. 19th (KGA).

98. **HONEY BUZZARD** (*Pernis apivorus*).—One flew W. at Beachy Head on May 19th (NAGL), one was seen over Westdean on Sept. 9th (JR) and at Beachy Head one flew S. out to sea on Sept. 14th (NAGL).

99. **MARSH HARRIER** (*Circus aeruginosus*).—One at Bracklesham on July 27th (HDM), one at Sidlesham on Aug. 15th (MS) and one at Amberley Wild Brooks on Aug. 28th (RJS).

100. **HEN HARRIER** (*C. cyaneus*).—The records are summarised under localities. Woolavington, a ring-tail on Mar. 31st; Downs between Arun and Adur, a ring-tail on Jan. 25th and Mar. 23rd also a male from Mar. 20th to Apr. 2nd. In the same area a male and a ring-tail on Sept. 23rd and up to 3 ring-tails between Oct. 28th and Nov. 4th. Woodingdean, a male on Oct. 13th; Ashdown Forest, a male on Jan. 19th; Iford Hill, a male on Oct. 25th; Glynde Levels, one on Dec. 11th; Downs from Cuckmere to Eastbourne and Cuckmere Valley, a male on Jan. 6th and a male together with a ring-tail on Jan. 16th also a male on Apr. 24th. In the same area a ring-tail on Nov. 11th and a male on Dec. 11th and 16th. Rye Harbour, a ring-tail on Oct. 23rd.

102. **MONTAGU'S HARRIER** (*C. pygargus*).—A ring-tail at Poling on May 16th (MH) and a ring-tail at Westdean on June 6th (VAW). A male over Halland on July 12th (KV). A ring-tail in the Rye Harbour LNR on Aug. 21st and another on the Downs near Steyning on Oct. 21st and 22nd.

**HARRIER SPECIES**.—A single unidentified harrier was seen at Rodmell on Feb. 3rd and 23rd. On Mar. 26th there were two at Amberley. On May 22nd one was seen on the downs near Cissbury Ring and there were reports of single birds between the rivers Arun and Adur on four occasions in August. On Oct. 13th one was recorded at Woodingdean and single birds were seen on the downs on Oct. 18th, Nov. 4th and Nov. 26th. One was observed in the Cuckmere Valley on Nov. 10th.

103. **OSPREY** (*Pandion haliaetus*).—One was seen over Pagham Harbour on May 3rd (DS) and there was one at Birling Gap on May 13th (NAGL, BAEM, MJR). This bird, or another was observed in the Cuckmere Valley on the same day (RPS).

In the autumn one was seen off West Wittering on Sept. 19th (EAC). No other records were received.

104. **HOBBY** (*Falco subbuteo*).—One was seen inland on Apr. 30th and there were two records of arrival on the coast between May 13th and May 19th.

In the breeding season single pairs were seen in 6 localities. Four pairs are known to have raised at least 10 young. In addition, there were casual breeding season records of single birds in 10 localities.

Between Aug. 29th and Oct. 10th there were reports of single birds on the coast in three localities.

105. **PEREGRINE** (*F. peregrinus*).—One was seen in the Cuckmere Valley on Mar. 22nd (DEL) and one was over Lewes on Mar. 30th (DCL). One was recorded at Arlington Res. on May 2nd (RKH).

Single birds were seen at Crowlink on Aug. 8th (AJC), at Lidlington on Aug. 11th (AJC) and at Firle on Oct. 2nd (KR). There was one at Glynde on Nov. 26th (JR) and one in the Cuckmere Valley on Dec. 15th (AJC).

106. **GYRFALCON** (*F. rusticolus*).—One showing the characters of the Greenland form was seen on the downs near Steyning between Mar. 11th and Mar. 24th (BFF, CEM et al). This record is the third for the county and the first for March. It was accepted by *Brit.B.*

107. **MERLIN** (*F. columbarius*).—In the early months one was seen at Lullington Heath on Jan. 22nd and there was one at Findon on Apr. 2nd.

One was seen at Beachy Head on Aug. 20th and a single bird was recorded there on three occasions in October. On Oct. 8th one flew out to sea at Selsey Bill and on Oct. 25th one was seen near Devils Dyke. Single birds were recorded in November at Beachy Head, in the Cuckmere Valley, at Thorney Island and at Sidlesham.

110. **KESTREL** (*F. tinnunculus*).—Another successful breeding season for 32 pairs were known to have raised at least 91 young. Another 12 pairs raised young but for these the brood size was not determined. In addition to the above, there were widespread reports of pairs or single birds in the breeding season.

117. **QUAIL** (*Coturnix coturnix*).—Between May 4th and Aug. 29th at least 17 were heard on the downs between Chantry Hill, Storrington and Beachy Head. Most of the records were from downland west of the river Adur. One was seen near Devils Dyke on June 22nd (BJS).

120. **WATER RAIL** (*Rallus aquaticus*).—In the early months 24 were recorded in 16 localities with the majority on or near the coast.

In the breeding season single birds were seen or heard at:—

Darwell Res.  
Litlington  
Pagham  
Rye Harbour LNR  
Weir Wood Res.  
Welches Common  
West Wittering

Breeding by single pairs was proved at:—

Bayham  
Berwick  
Pond Leigh  
Shortbridge Mill  
Whelpley Level, Horse Eye

Post breeding season records were of about 42 birds in 24 localities. Up to 12 birds were present in the Wildfowl Trust area at Arundel during cold weather in November.

121. **SPOTTED CRAKE** (*Porzana porzana*).—There were single birds at Eastbourne Golf Course on Aug. 22nd (JFC) and Beachy Head on Oct. 28th (JFC, DF, KV).

125. **CORNCRAKE** (*Crex crex*).—One was calling continuously at Woodmans Green, Linchmere on June 17th. It had been heard for about a week before this date (DWB).

There were three records for October; single birds were seen at Litlington on the 7th (PJW), at Plumpton Green on the 11th and at Sidlesham on the 25th (FWA).

126. **MOORHEN** (*Gallinula chloropus*).—A brood was observed at Sidlesham on Mar. 25th an unusually early date.

127. **COOT** (*Fulica atra*).—The monthly maxima are tabulated as in previous years but once again the figures are far from complete.

	Jan.	Feb.	Mar.	Oct.	Nov.	Dec.
Arlington Res.	11	29	25	75	75	75
Burton Ponds	150					
Chichester G.P.	500					
Chichester Harbour	600					1100
Darwell Res.	96	35	20	2	240	
Knepp Lake	50				182	164
Pagham Lagoon	200	125	100	50	30	26
Pett Level	56	100		60	100	100
Piddigrove Pond	58	140				
Rye Harbour	548	1017	521	326	528	631
Swanbourne Lake		63	44	15		
Weir Wood Res.	140					
Winchelsea	940					

131. **OYSTERCATCHER** (*Haematopus ostralegus*).—Totals of 1,315 on Dec 9th 1972 and 1,530 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

In Chichester Harbour 3 pairs bred, one of which was known to have raised young. At Rye Harbour 9 pairs bred, of which 7 were successful. Once again, no reports of breeding were received for Pagham Harbour.

133. **LAPWING** (*Vanellus vanellus*).—Abundant in January, February and the first part of March with flocks of between 100 and 2,000 reported from 13 localities.

On Jan. 30th an extensive movement was noted at Rye where 5,000 flew SW. out to sea, at Langney Point with 885 SW., at Beachy Head with 600 W. and at Glynde where the numbers were described as very large. The movement continued on the following day with 7,200 W. at Eastbourne, 1,000 per hour SW. at Arlington and 1,500 per hour SW. at Alfriston.

In the breeding season 86 pairs were located in Pevensey Levels and at Rye Harbour there were 19 pairs.

Post breeding flocks built up from mid June and there were 200 in the Cuckmere Valley on the 23rd and 250 on Glynde Levels on the 28th. From July to the end of the year flocks of up to c.800 were reported from localities throughout the county and on Dec. 16th there was one of 3,000 birds at Rye.

The wader count along the whole coast on Jan. 20th 1973 which excluded such favoured areas as Amberley and Glynde, recorded 16,500 present, including 15,000 on Pevensey Levels; there were still 6,000 at the latter locality in February and 2,000 in March.

134. **RINGED PLOVER** (*Charadrius hiaticula*).—In the early months wintering parties of between 30 and 50 were seen at Ferring, Newhaven and Rye Harbour. On Feb. 3rd no less than 400 were recorded at Shoreham Airport (BFF, FJF).

In the breeding season, a complete count was not made but there were at least 8 pairs in Pagham Harbour, 14 pairs at Rye Harbour and 4 pairs at Portslade. Breeding was probably attempted in four other localities on the coast and there were single pairs inland at two localities. In May, June and July there were records of from one to three birds in three localities on the Downs.

After the breeding season 169 were recorded on Aug. 17th at Rye Harbour and there were 100 there on Sept. 2nd.

Totals of 440 on Dec. 9th 1972 and 470 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

135. **LITTLE RINGED PLOVER** (*C. dubius*).—First recorded on Apr. 6th in one area, where a pair may have bred.

On July 20th one was at Bishopstone and up to five more were seen on autumn passage, the last being recorded on Sept. 23rd.

139. **GREY PLOVER** (*Pluvialis squatarola*).—Totals of 440 on Dec. 9th 1972 and 470 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

140. **GOLDEN PLOVER** (*P. apricaria*).—In the wader count along the whole coastline on Jan. 20th 1973 2,130 were recorded. The highest single count for the winter was 1,500 on Pevensey Levels during February. The monthly maxima there were:—Nov. 180; Dec. 500; Jan. 800; Feb. 1,500; Mar. 400.

143. **TURNSTONE** (*Arenaria interpres*).—Single birds were seen at Arlington Res. on Apr. 29th and Aug. 20th.

Totals of 290 on Dec. 9th 1972 and 175 on Jan. 20th 1973 were recorded by counts along the whole county coastline; 80% were noted on the shore between Pevensey Bay and Rye Harbour. See pages 48 to 51 for detailed estuary counts for 1972/73.

145. **SNIPE** (*Gallinago gallinago*).—On Jan. 31st 48 flew W. over Eastbourne. In the breeding season the maximum numbers recorded were on Glynde Levels on Apr. 26th where 50 were seen and on Pevensey Levels where 29 pairs were located.

The wader count along the whole coast on Jan. 20th 1973, which excluded many favoured areas such as Amberley and Glynde, recorded 1,670 present, including c.1,000 at Pevensey Levels. Numbers at the latter locality were high throughout the winter of 1972/73, with monthly maxima of Oct. 400; Nov. 550; Dec. 700; Jan. 1,000; Feb. 2,000; Mar. 200.

147. **JACK SNIPE** (*Lymnocyptes minima*).—A decrease in the number of records. Single birds in the Cuckmere Valley and at Maresfield in January. In February there were 2 at Shoreham-by-Sea.

On Sept. 12th a single bird was recorded at Rye Harbour. In November singles were seen at Newhaven, Pagham Harbour and at Piddinghoe. In December one was noted at Littleington.

The wader count along the whole county coastline on Jan. 20th 1973 recorded a total of 12 present.

148. **WOODCOCK** (*Scalopax rusticola*).—More than 10 were feeding on Bignor Hill on Feb. 29th; otherwise very few reports for the winter months at either end of the year.

There were widespread reports of roding, involving 57 birds in 31 localities. A detailed distribution map of this species is currently in preparation and all records of roding birds will be most welcome.

150. **CURLEW** (*Numenius arquata*).—Recorded in the breeding season in Ashdown Forest and in one other area.

Totals of 1,115 on Dec. 9th 1972 and 1,055 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

151. **WHIMBREL** (*N. phaeopus*).—First recorded at Rye Harbour on Apr. 8th with 6 in the area. At Beachy Head an easterly passage of 216 was noted between Apr. 9th and May 21st with a maximum of 72 on May 7th. A record of 35 at Rye Harbour on June 28th was unusual.

On July 9th one was observed off Worthing and later in this month others were seen in Chichester Harbour, at Rye Harbour and at Shoreham. On Aug. 5th 45 were recorded at Pagham Harbour but for the rest of the month and in September, numbers were small.

On Oct. 3rd there were 15 at West Wittering and there was one on Nov. 5th at Pagham Harbour (JRB, CFH).

154. **BLACK-TAILED GODWIT** (*Limosa limosa*).—Inland records were of single birds at Chichester G.P. on Jan. 1st and at Glynde on Mar. 29th. There were 4 at Weir Wood Res. on Aug. 5th and at Chichester G.P. 2 in August and one in September.

There was a total of 950 in Chichester and Pagham Harbours on Apr. 15th. On Dec. 9th there was a record count of 1,400 in Chichester Harbour and there were 630 on Jan. 20th 1973; none was recorded elsewhere during these counts. See pages 48 to 51 for detailed estuary counts for 1972/73.

155. **BAR-TAILED GODWIT** (*L. lapponica*).—On Apr. 26th there were 250 E. at Selsey Bill in two hours and 300 E. at Newhaven in one hour.

Totals of 880 on Dec. 9th 1972 and 1,415 on Jan. 20th 1973 were recorded by counts along the whole county coastline, nearly all in Chichester Harbour. See pages 48 to 51 for detailed estuary counts for 1972/73.

156. **GREEN SANDPIPER** (*Tringa ochropus*).—Recorded in every month. Wintering birds were seen in 7 localities in January and February and in 6 localities in November and December. As in 1971, the start of spring passage was not determined but autumn passage may have commenced in mid June for singles were recorded at Chichester G.P. on the 13th and at Southsea on the 14th. There were peaks of 21 at Chichester G.P. on Aug. 19th and 10 in the Rye Harbour LNR on Aug. 29th. The monthly totals were:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	7	6	5	1	4	41	53	26	8	4	13

157. **WOOD SANDPIPER** (*T. glareola*).—There were no spring records. Between July 9th and Sept. 10th at least 45 were recorded. The majority were on the coast but one was seen at Scaynes Hill on July 16th and up to 2 were recorded at Chichester G.P. in July and August.

The numbers in the Rye Harbour LNR were described as unprecedented with maxima of 9 on July 30th and Aug. 11th.

159. **COMMON SANDPIPER** (*T. hypoleucos*).—There were no winter records in the early months. One was seen at Portfield on Dec. 2nd and one at Littlehampton on Dec. 19th.

Spring passage was noted from Apr. 10th when one was recorded in the Cuckmere Valley to May 23rd when 3 were seen in 2 localities. There were 15 at Arlington Res. on Apr. 30th.

A single bird was seen in the Rye Harbour LNR on June 23rd. In July there were records for most days during the month with a peak of 26 on the 27th in the Rye Harbour LNR. Passage continued until Oct. 1st when 2 were present in the Cuckmere Valley. The monthly totals were:—

Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	15	1	97	98	74	5	0	2

For an additional record for 1971 see page 41.

161. **REDSHANK** (*T. totanus*).—Breeding season counts in 1972 were as follows:—

Locality	No. of pairs	Locality	No. of pairs
Adur Levels (South)	5	Glynde Levels	5
Bracklesham	7	Ouse Valley	2
Chichester G.P.	2	Pevensey Levels	19
Chichester Harbour	23	Pulborough/Greattham	2
Church Norton	5	Rye Harbour	8
Near Coates	3	Warnham Mill Pond	1
Cuckmere Valley	3		

Totals of 1,400 on Dec. 9th 1972 and 1,220 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

162. **SPOTTED REDSHANK** (*T. erythropus*).—Recorded in every month. In the first three months of the year there were reports of single birds at Church Norton, Manhood End, Sidlesham and Winchelsea. In November one was seen at Pagham and of the two at Thorney Island, one wintered.

There was again a lack of May records with one at Sidlesham Ferry on the 15th as the only one seen. On the return passage there were 45 at Thorney Island on July 30th and 42 there on August 11th. The monthly totals were:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2	1	6	1	34	47	52	23	23	4	1

165. **GRENSHANK** (*T. nebularia*).—On Mar. 25th 4 were present in Pagham Harbour. Birds on spring passage were seen from Apr. 8th to June 6th but no more than 7 were reported.

Autumn passage may have commenced as early as July and continued until Dec. 22nd when 2 were recorded in Pagham Harbour. In addition to the records from coastal areas there were a number from 7 inland localities with a maximum of 5 at Darwell Res. on Aug. 27th. A single bird was present in Pagham Harbour from Nov. 30th to the end of the year. The monthly totals were:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	4	1	5	1	41	74	129	71	5	3

169. **KNOT** (*Calidris canutus*).—There were 1,350 in Chichester Harbour on Nov. 25th, a record number. Totals of 745 on Dec. 9th 1972 and 545 on Jan. 20th 1973 were recorded by counts along the whole county coastline. See pages 48 to 51 for detailed estuary counts for 1972/73.

170. **PURPLE SANDPIPER** (*C. maritima*).—There were records for the first five months of the year. At least 60 were recorded in 8 localities with peaks of 29 at Newhaven and 19 at Climping. Seven were seen at Newhaven on May 7th. Totals of 39 on Dec. 9th 1972 and 51 on Jan. 20th 1973 were recorded by counts along the whole county coastline. Most were at Newhaven and between Pevensy Bay and Rye Harbour.

171. **LITTLE STINT** (*C. minuta*).—One in Chichester Harbour on Feb. 12th was the only record for the first part of the year.

One was seen at Sidlesham Ferry on July 30th. In August, 10 were recorded in 6 localities, in September, 24 in 5 localities and in October 10 in 4 localities. Included in these figures were a number at Arlington Res. between August and October with a maximum of 7 on Sept. 12th. There was one at Sidlesham Ferry on Nov. 25th.

176. **PECTORAL SANDPIPER** (*C. melanotos*).—One at Arlington Res. from Sept. 3rd to 7th (PIW, VAW et al), and one at Selsey on Sept. 14th (PB).

178. **DUNLIN** (*C. alpina*).—Totals of 27,780 on Dec. 9th 1972 and 26,380 on Jan. 20th 1973 were recorded by counts along the whole county coastline. On Feb. 3rd 1973 there was a total of 32,500 in Chichester and Pagham Harbours which suggests that the population wintering in the county during this winter reached c.35,000 in all. See pages 48 to 51 for detailed estuary counts for 1972/73.

179. **CURLEW SANDPIPER** (*C. ferruginea*).—One in Pagham Harbour on May 2nd was the only spring record.

On the return passage at least 43 were recorded between July 20th and Nov. 1st. The maxima were 30 at Sidlesham Ferry and 8 at Rye Harbour. With the exception of 2 at Arlington Res. on Sept. 20th and 22nd all the records were for coastal localities.

181. **SANDERLING** (*C. alba*).—Totals of 885 on Dec. 9th 1972 and 825 on Jan. 20th 1973 were recorded by counts along the whole county coastline; the bulk of this population was concentrated along the beaches between the mouth of the Arun and Ferring, where there was a total of at least 680 during the winter. See pages 48 to 51 for detailed estuary counts for 1972/73.

**STILT SANDPIPER** (*Micropalama himantopus*).—One in almost complete summer plumage at Sidlesham Ferry on July 14th (RDME, BM, MS). This record which is the third for the county has been accepted by *Brit. B.*

184. **RUFF** (*Philomachus pugnax*).—Recorded in every month with the exception of June. The monthly totals were:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
69	62	37	19	2	0	8	19	10	25	17	25

The largest flocks were 68 at Sidlesham Ferry on Jan. 4th, 45 at Thorney Island on Feb. 20th and 23 at Earnley on Mar. 11th. There were 12 at Thorney Island on Aug. 14th and 12 at Amberley on Dec. 23rd.

185. **AVOCET** (*Recurvirostra avosetta*).—Between Jan. 16th and Mar. 31st up to 4 were recorded in Pagham Harbour. One was seen there on May 20th.

On May 2nd and May 20th single birds flew E. at Beachy Head. On June 3rd one was seen at Porfield G.P. and on June 5th one was recorded in the Rye Harbour LNR. No less than 7 were seen there on June 29th.

On Oct. 15th one was present at Church Norton and another was reported from Pagham Harbour between Nov. 19th and Dec. 17th.

187. **GREY PHALAROPE** (*Phalaropus fulicarius*).—An unusual number of records. At Selsey Bill there was one on Oct. 28th (SJMGM et al), 3 from Nov. 20th to Nov. 22nd (NPH, JVS, MS et al) and one there until Nov. 30th (PAD).

At Cuckmere Haven there was one on Nov. 13th (RB). At Langney Point, no less than 9 were seen on Nov. 19th (JFC) and there was one at Climping on the same day (JPK). One was recorded at Rye Harbour on Nov. 20th (MJE).

189. **STONE CURLEW** (*Barthinus oedicnemus*).—Between April and September was recorded in 8 downland localities but breeding was not proved. Between Oct. 6th and 11th one was seen at Beachy Head.

193. **ARCTIC SKUA** (*Stercorarius parasiticus*).—First recorded off Selsey Bill on April 8th when a single bird was seen. Regular sea watching was again confined to Beachy Head and on 19 days between Apr. 29th and June 1st a total of 238 flew E. The maxima were 55 on May 1st and 54 on May 7th. Elsewhere there were 26 E. off Selsey Bill and 20 E. off other parts of the coast; 3 off Climping on June 4th being the last records. There was one over the Rye Harbour LNR on June 30th.

On the return passage birds were seen off Beachy Head on 8 days between Aug. 12th and Oct. 7th with a maximum of 5 on Sept. 17th. Elsewhere 10 were recorded off the coast between Aug. 4th and Oct. 22nd. There were 5 over Rye Harbour LNR on Aug. 19th.

194. **GREAT SKUA** (*S. skua*).—At Beachy Head there were 9 E. between Apr. 8th and May 29th. On June 27th one was seen from a ship 2 miles off Newhaven. On Aug. 28th one was recorded off Church Norton and there was one off Beachy Head on Sept. 19th. On Dec. 9th one flew W. off Selsey Bill (DSF, BAEM, IRW).

195. **POMARINE SKUA** (*S. pomarinus*).—On May 1st there was one E. and on May 8th a party of 3 E. off Selsey Bill (MS). On May 1st there were 10 E., on May 2nd 6 E., on May 7th 4 E. and on May 8th 18 E. off Beachy Head (DSF, ARK, MJR, et al).

198. **GREAT BLACK-BACKED GULL** (*Larus marinus*).—Monthly maxima in the Rye Harbour area were:—Jan. 700, Mar. 80, Apr. 45, May 150 (mostly immatures), June 200, July 160, Aug. 500 and Sept. 360.

Some other counts involving large numbers were c275 at Bulverhythe on Jan. 21st, 250 at Shoreham-by-Sea on Jan. 22nd, 250 at Salidean on Jan. 31st, 150 at Shoreham-by-Sea on Feb. 7th, 125 at Cuckmere Haven on Feb. 12th and c150 at Eastbourne on Aug. 28th. There were 150 at Piddinghoe from October to December and 250 at Shoreham-by-Sea in November and December.

199. **LESSER BLACK-BACKED GULL** (*L. fuscus*).—In January and February there were records from 2 coastal and 5 inland localities, involving 93 birds. The highest count was at Weir Wood Res. on Feb. 1st when 69 were seen.

In the Rye Harbour LNR there were 130 in early May, 104 on June 25th, 126 on July 19th and up to 80 in August. Elsewhere one large flock was reported; one of 300 at Langney Point on Sept. 3rd.

200. **HERRING GULL** (*L. argentatus*).—Monthly maxima in the Rye Harbour LNR were:—Mar. 777, Apr. 300, May 1,500, June 1,000, July 350, Aug. 250. Five pairs attempted to breed in the Reserve.

Elsewhere nesting was suspected at several sites on roofs in Eastbourne and a nestling was seen at one, three-quarters of a mile from the sea.

Single birds with yellow legs were recorded at Sidlesham on Aug. 14th and at Newhaven on Nov. 7th. Yellow legs are characteristic of the Mediterranean and Scandinavian races.

201. **COMMON GULL** (*L. canus*).—In January 200 were seen at Chingford Pond on the 9th and 1,750 in the Roedean/Salidean area on the 31st. There were 250 in the Cuckmere Valley on Feb. 12th and 250 between Hove and Southwick on Apr. 30th.

In the Rye Harbour LNR the maximum in July was 200 on the 29th and the peak number for August was 800 on the 23rd. The maximum in September was 200 on the 13th.

202. **GLAUCOUS GULL** (*L. hyperboreus*).—An unusual number of records which are given under localities. Hove, an adult from Jan. 1st to Mar. 31st and almost certainly the same bird from Oct. 17th to the end of the year (many obs); an immature on May 11th (GAS). Beachy Head, an immature on Mar. 12th and 19th (many obs), a third year bird from Apr. 22nd to Apr. 24th (ARK, VK, et al), an immature on Apr. 22nd and 23rd (PGL), an immature on May 8th and 13th (PC, DEL et al) and an adult on Sept. 23rd (PJW). Hastings, an immature on Mar. 27th (PJG). Shoreham-by-Sea, an immature on Apr. 7th and May 4th (IRW). Sidlesham Ferry, an immature on Apr. 11th (MS). Near Westidean and in the Cuckmere Valley, a bird which appears to have been an adult from Apr. 23rd to May 14th (many obs). Newhaven, an immature on May 15th (NAGL). Southwick, an immature from July 20th to July 28th (PGL). Worthing, an adult on Nov. 13th (CMV).

203. **ICELAND GULL** (*L. glaucoides*).—An immature at Hove on Mar. 4th, 5th and 9th (GAS). An immature at Selsey Bill on Nov. 25th (B1, CMJ) and Dec. 12th (DAG).

205. **MEDITERRANEAN GULL** (*L. melanocephalus*).—Records are given under localities. Hove, one from Jan. 1st to Jan. 30th and one on Dec. 1st. Beachy Head, one on Mar. 31st. Rye Harbour LNR, two on Apr. 3rd and on Apr. 9th. Newhaven, one on May 15th. Sidlesham Ferry, one on Jan. 2nd and Jan. 9th and one on Nov. 21st. Selsey Bill, one on Nov. 5th, 12th and 19th. Pagham Harbour, one on Nov. 12th and 25th. Worthing, one on Nov. 18th. The bird at Hove in January and those at Beachy Head on Mar. 31st and Newhaven on May 15th were sub-adults. The rest were recorded as adults.

207. **LITTLE GULL** (*L. minutus*).—Exceptional numbers were seen in spring and autumn and birds were recorded in every month of the year except January. In April and May about 70 were recorded on the coast and approximately 34 inland at gravel pits and reservoirs. There were at least 19 at Arlington Res. on Apr. 29th and between that date and June 1st, 28 flew E. off Beachy Head.

After June 1st the numbers were small until September when a spectacular influx occurred. Off Beachy Head, 40 were feeding on Sept. 17th and the maxima of the easterly movement seen there were 70, 35 and 45 on Sept. 19th, Sept. 30th and Oct. 1st respectively. Numbers in October were small except for those at Beachy Head on the 1st but in November a further influx may have occurred for there were 6 W. off Selsey Bill on the 5th and 11 W. at Langney Point on 19th.

The approximate monthly totals are as shown below but owing to incomplete records it is not possible to assess with accuracy, the percentage of immatures seen in spring and autumn.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	3	6	50	68	4	3	2	180	51	22	2

208. **BLACK-HEADED GULL** (*L. ridibundus*).—In the early months the highest count at Weir Wood Res. was on Feb. 22nd when 4,600 were recorded. On Feb. 27th 1,000 were seen at West Chillington.

On Jan. 31st more than 12,000 were seen on the coast near Roedean. There were 1,300 in the Rye Harbour LNR on Apr. 6th.

In the breeding season there were 3/4 pairs in Chichester Harbour and 69 occupied nests in one locality in the Rye Harbour LNR; at another locality in the Reserve 15 pairs bred.

On July 29th 1,000 were recorded on the roofs of buildings at Newhaven Harbour. On Aug. 13th there were 3,500 in the Rye Harbour LNR and in September up to 1,000 were there.

211. **KITTIWAKE** (*Rissa tridactyla*).—Reported in every month of the year except April. On the coast the largest numbers were at Beachy Head with 310 E. on May 7th and at Rye Harbour with 300 on Aug. 4th, 110 on Aug. 5th and 108 on Aug. 13th. At Selsey Bill there were up to 40 E. on Jan. 31st and 15 E. on May 7th.

At Arlington Res. about 100 adults were observed on Nov. 13th after a severe SW. gale; all had gone by the afternoon of the same day.

212. **BLACK TERN** (*Chlidonias niger*).—In spring passage was recorded between Apr. 29th and May 20th involving a total of c.128 birds. The highest counts were as follows:—Arlington Res., 9 on May 1st and a similar number on May 9th; Beachy Head, 19 E. on May 8th; Chichester G.P., 12 on May 8th; Selsey, 7 E. on May 8th; Worthing, 11 E. on May 13th.

About 47 were recorded on autumn passage with the first at Rye Harbour on July 18th and the last at Newhaven on Sept. 17th.

213. **WHITE-WINGED BLACK TERN** (*C. leucopterus*).—One in the Rye Harbour LNR on May 28th (KC) and one at Chichester G.P. on June 6th and 7th (JVS et al). These records have been accepted by Brit. B.

217. **COMMON TERN** (*Sterna hirundo*).—About 70 pairs bred at Northpoint Beach, Rye rearing about 75 young. In the Chichester Harbour colony 36 pairs were present together with 32 young birds on July 14th. Two pairs may have bred at Chichester G.P.

Up to 200 were seen at Arlington Res. on Apr. 29th.

**COMMON/ARCTIC TERN** (*S. hirundo/paradisaea*).—First recorded on Mar. 25th off Beachy Head and off Roedean where 3 were seen. There were 3 off Seaford on Mar. 31st.

At Selsey Bill 781 flew E. on 13 days between Apr. 26th and May 20th when there was systematic recording, with a peak of 360 E. on May 8th. At Beachy Head 6,380 were recorded on 30 days between Mar. 25th and May 8th, when 1008 flew E.

On May 14th 14 flew NE. over Slimfold in bad weather conditions. The maximum number on autumn passage at Beachy Head was 200 W. on Aug. 20th. Elsewhere the numbers seen were small and the last record was for Sept. 23rd.

219. **ROSEATE TERN** (*S. dougallii*).—One flew E. off Camber on May 7th (PCB) and one E. off Selsey on May 8th (MS). There were singles at Rye Harbour on June 24th, July 24th and 31st and on Aug. 7th (JA, KA). One was seen at Newhaven on July 30th (PJW, VAW).

222. **LITTLE TERN** (*S. albigrons*).—First recorded on Apr. 10th at Pagham Harbour. At Beachy Head 202 flew E. between Apr. 23rd and May 21st. At Camber there were 29 E. on May 7th and on May 8th 40 E. off Brighton.

The following information relating to the breeding season, was received:—Approximately 40 pairs were recorded in Chichester Harbour and a similar number in Pagham Harbour. The total number of young reared is not known but on July 14th 19 young and 20 eggs were seen in 28 nests in the Chichester Harbour colony. In addition, 15 well grown young were seen. In the Rye Harbour LNR 2 pairs bred unsuccessfully and 5 non breeding pairs were present during the season.

No large autumn movement was seen and the last bird recorded was on Sept. 17th.

223. **SANDWICH TERN** (*S. sandwichensis*).—First seen on Mar. 25th off Selsey Bill, Roedean and Beachy Head.

At Beachy Head there were 3380 E. between Mar. 25th and June 3rd with maxima of 600 E. on Apr. 30th and 508 E. on May 7th. At Selsey Bill there were 765 E. on 13 days between Apr. 26th and May 20th with a maximum of 211 E. on May 7th. There was one at Arlington Res. on Apr. 29th.

One or two pairs summered in Chichester Harbour and in Pagham Harbour. The numbers recorded on autumn passage were small but at Beachy Head 150 were seen on Sept. 3rd and on the same day there were 160 E. at Langney Point. A single bird was seen in Pagham Harbour on Nov. 7th and another on the unusually late date of Dec. 20th at Southwick (IRW).

226. **LITTLE AUK** (*Alle alle*).—One off Langney Point on Nov. 19th and the same bird or another there on Nov. 26th (JFC, MEC, RHC, DEL).

232. **STOCK DOVE** (*Columba oenas*).—A decrease in the number of records with breeding season reports from no more than 16 localities. In May, flocks of up to 50 birds were seen near Cissbury Ring, at Storrington, Rye Harbour and Winding Bottom. In June, 25 were seen at Warling.

In February a flock of 150 was recorded at Welches Piece and in September 120 were seen at North Stoke.

234. **WOOD PIGEON** (*C. palumbus*).—In the first two weeks of November large numbers moved mainly in a westerly direction at Beachy Head. The maximum number there was c4,500 on Nov. 11th.

235. **TURTLE DOVE** (*Streptopelia turtur*).—First recorded at Beachy Head on Apr. 13th and at Rye Harbour on Apr. 18th. Last recorded at Beachy Head on Oct. 22nd.

236. **COLLARED DOVE** (*S. decacota*).—This species continues to spread for records were received for at least 15 new localities.

Between Apr. 15th and Apr. 23rd a total of 6 birds were seen arriving from the sea at Beachy Head. These were presumably migrants from the Continent. Flocks of 50 or more were seen at Lindfield on Feb. 26th, at Rye in June and July and at Bishopstone on Aug. 5th.

237. **CUCKOO** (*Cuculus canorus*).—First recorded on Apr. 8th at Barns Green and on Apr. 9th at Ashurstwood, Burton Park and near Midhurst. Last recorded on Oct. 11th when an immature was seen at Pagham.

241. **BARN OWL** (*Tyto alba*).—Records were received for a total of some 72 localities throughout the County. Of these 22 related to breeding or suspected breeding and it appears that this species is maintaining or increasing its numbers. The continuance of mild winters is a contributory factor. Some records may indicate a post breeding dispersal.

246. **LITTLE OWL** (*Athene noctua*).—Reports were received for a total of 67 localities with a wide distribution. Fifty-eight of the records related to the breeding season but in some cases the results were not known. In one instance a pair nested in an oak tree which had been used by this species for at least 13 years.

247. **TAWNY OWL** (*Strix aluco*).—Was widely reported from a total of 62 localities. Approx. 40 records related to the breeding season and some observers reported the presence of birds throughout the year. This species appears to be maintaining its numbers and breeds in at least some of the larger towns.

248. **LONG-EARED OWL** (*Asio otus*).—The pair which nested successfully in 1971, bred again this year using the same nest.

One was recorded on the Downs between July 17th and Dec. 10th. Single birds were seen in the Rye Harbour LNR on three occasions in Sept., at Beachy Head on Sept. 11th and at High Hurstwood on Oct. 20th.

249. **SHORT-EARED OWL** (*A. flammeus*).—Between Jan. 8th and Apr. 26th about 12 were seen in 7 localities. From Sept. 9th, when one was observed at Church Norton about 21 were recorded in 11 localities. Birds were seen on the Downs, on or adjacent to the coast and in the river valleys. A single bird was recorded in Ashdown Forest on Mar. 18th. Monthly totals were:—

Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
10	3	3	2	5	7	9	14

252. **NIGHTJAR** (*Caprimulgus europaeus*).—Recorded from Apr. 28th in Ashdown Forest to Oct. 7th at Littleington. Very few breeding season records were received, 24 pairs or singing males being reported from 14 localities. A detailed distribution map for this species is in preparation and all breeding season records will be most welcome.

255. **SWIFT** (*Apus apus*).—The first record was of two at Chichester G.P. on Apr. 26th. On Apr. 30th there were 20 there, 4 at Arlington and singles at Itchenor and Sompington. By May 2nd the species was widespread along the coast but dispersal inland was very slow with the birds being confined to feeding over the large waters. There were 200 at Knepp on May 9th and at Arlington Res. 100 and 750 on May 18th and 28th respectively. Arrival at breeding sites was delayed until late May and many local birds did not arrive until the first week of June.

Breeding season numbers were reported to be reduced in both Lewes and Portslade. Screaming parties in June and early July were as follows:—Cuckfield 22, Horsted Keynes 6 and Slinfold 10. Eight pairs bred at Camelsdale.

Large numbers departed at the end of July and in early August but some breeding birds stayed until mid September. Unprecedented numbers were recorded at Beachy Head and full details are shown below.

July 28th	840 E.	Aug. 5th	400 E.
Aug. 1st	800	Aug. 6th	5,000 W.
Aug. 3rd	300 E.	Aug. 7th	500
Aug. 4th	300 E.	Aug. 10th	400

There were 500 at Mile Oak, Portslade on Aug. 13th and the last seen was at Beachy Head on Sept. 22nd.

256. **ALPINE SWIFT** (*A. melba*).—One at Church Norton on Oct. 30th (WF, DJH, PSHO). This record has been accepted by *Brit. B.*  
For a record for 1971 see page 41.

258. **KINGFISHER** (*Alcedo atthis*).—In the breeding season pairs or single birds were seen in 35 localities but successful breeding was proved in only one instance.

Outside the breeding season there were records for 27 inland localities and for 16 localities on or near the coast.

261. **HOOPOE** (*Upupa epops*).—One at Copsale, Horsham on Apr. 15th and one near Northchapel on Apr. 30th. One at Beachy Head on May 15th. One at Rye on Aug. 13th.

262. **GREEN WOODPECKER** (*Picus viridis*).—Was again widely reported for records were received for approximately 100 localities some of which were near the Chichester Harbour and Pagham Harbour areas where the species has been uncommon since the 1962/3 winter.

In the breeding season only one pair was located in 300 acres at West Chilington compared with 2-3 pairs in 1971. At Marley was recorded regularly for the first time since 1962/63.

263. **GREAT SPOTTED WOODPECKER** (*Dendrocopos major*).—Reported from about 75 well distributed localities.

264. **LESSER SPOTTED WOODPECKER** (*D. minor*).—Reports were received for 50 localities which indicates that the increase mentioned in the previous Report is being maintained. The majority of the records related to the breeding season when this elusive species is more easily observed.

From Aug. 26th to Aug. 28th an immature bird was present at Beachy Head and on Sept. 21st one was trapped there. Another was recorded on Sept. 24th.

265. **WRYNECK** (*Jynx torquilla*).—In the spring there was one at Warminghurst on Apr. 15th and one at Rusper on Apr. 20th. In the autumn about 16 were recorded between Aug. 19th and Sept. 24th. Of these 11 were seen at Beachy Head and the rest in the west of the County.

269. **SHORT-TOED LARK** (*Calandrella cinerea*).—Four at Beachy Head on Oct. 2nd (MEC, RHC). This record has been accepted by *Brit. B.*

271. **WOODLARK** (*Lullula arborea*).—In the spring one E. at Beachy Head on Mar. 21st was the only record. Although a number of potential breeding areas were visited, no records were received for this species during the breeding season. In August there were 4 at Thorney Island on the 14th and one at No Mans Land on the 18th. One flew E. over Selsey Bill on Oct. 29th.

273. **SHORELARK** (*Eremophila alpestris*).—An unusual number of records with one at Beachy Head on Oct. 8th (JCC). Five were seen there on Oct. 14th and 11 on Oct. 15th (JFC, DEL et al). Four were recorded in the same locality on Oct. 17th and one on Oct. 19th (PC).

Elsewhere there was one at Pagham on Oct. 24th (JVS), 2 at Sidlesham Ferry on Nov. 22nd and 4 there on Nov. 23rd (many obs.). One bird, at least stayed until 1973. One was present at Cuckmere Haven on Nov. 5th (MJH, PC) and 6 were seen there on Dec. 10th (RB).

274. **SWALLOW** (*Hirundo rustica*).—First recorded on Mar. 5th with one at Rottingdean but not again until Mar. 22nd when one was seen at Henfield. The largest spring movement was at Beachy Head on May 2nd when 1000 were recorded.

Twelve nests at Plumpton produced 51 young and 6 pairs in the Horsham area 33 young from 10 broods.

The peak counts for selected localities in the autumn were as follows:—

Beachy Head	Sept. 15th	10,000 E.
West Chilington	Sept. 16th	2,000
Littleington	Sept. 29th	5,000

There were a number of records for November and one bird was seen at Beachy Head on the 25th.



276. **HOUSE MARTIN** (*Delichon urbica*).—The first records were of singles at Church Norton on Mar. 31st, at Pulborough on Apr. 3rd and at Slaugham on Apr. 4th. Thereafter arrival was generally late with only a few records in the first half of April and no substantial numbers until the second half of May.

Counts of occupied nests were as follows:—

Pagham (King's Beach) .....	40	Lindfield .....	33
Mile Oak, Portslade .....	24	Glynde Village .....	8
Slinfold .....	11	Chailey Heritage .....	67
Horsham (W. of Railway) .....	48	Hampden Park (E. of Railway) .....	36
Udimore .....	12	Firle .....	30
Winchelsea .....	67	Rye .....	93
Rye Harbour .....	9		

In the autumn the peak count at Beachy Head was on Sept. 27th when 5,000 flew E. in the morning and large numbers in the afternoon. Elsewhere 15,000 departed from Selsey Bill on Sept. 22nd and there were peaks of 600 at Rye on Sept. 21st and 24th. The last records were of singles at Langney Point on Dec. 2nd and Camber on Dec. 16th.

277. **SAND MARTIN** (*Riparia riparia*).—First recorded on Mar. 26th at Chichester G.P. There were no large spring counts and the only counts of breeding colonies were in the Rye Harbour area with 136 occupied burrows in all, in four localities. A small colony was located in a gravel pit at Portfield.

In the Rye Harbour LNR there were peaks of 900 on July 30th and 31st, 15,500 on Aug. 18th and 750 on Sept. 3rd. At Beachy Head the maximum was 800 E. on Sept. 15th and there were 5,000 at Selsey Bill on Sept. 22nd. Two at Chichester G.P. on Oct. 18th were the last recorded.

281. **HOODED CROW** (*Corvus corone cornix*).—In the early part of the year two were seen at Cuckmere Haven between Jan. 1st and Jan. 14th. One was recorded there and at Seaford Head until Mar. 17th. One was seen at Amberley on Mar. 8th.

On Oct. 22nd there were two at Woodingdean and there was one in the Cuckmere Valley on Dec. 24th.

282. **ROOK** (*C. frugilegus*).—The first year of the Society's Survey resulted in 299 rookeries being reported in the county, with the highest densities in the Selsey peninsula and at the eastern end of the South Downs. Counts were received for 147 rookeries with a total of 4,031 nests. These preliminary figures will provide a useful population index for purposes of comparison in future years. This is the first really comprehensive survey of the species to be undertaken in the county, and the response from members has already provided valuable basic information. So often the cause of conservation suffers from lack of this sort of data. Next year it is proposed that members carry the enquiry a stage further, by supplying not only the location and numbers of nests but also the species of tree or trees being used, the surrounding habitat, and the history of the rookery, if known. To assist members already engaged in the survey, and to encourage others to participate next year, a summary of the rookeries reported for the various 10 Km. National Grid squares in the county is given below. There must surely be quite a number of rookeries unreported from the sixteen 10 Km. squares that are as yet without any records.

No. of rookeries per 10 Km. National Grid square

SU80	43	TQ02	8	SU82	2	TQ52	1	TO54	—
SZ89	23	TQ10	8	SU92	—	TQ62	—	TQ63	0
TQ50	20	TQ60	7	TQ01	2	TQ71	—	TQ61	0
SU90	19	TQ00	6	TQ23	2	TQ82	—	TQ73	0
TQ40	18	TQ21	6	TQ53	—	TQ91	—	TQ70	0
TQ30	16	TQ51	6	TQ72	2	SU72	0	TQ81	0
TQ32	15	TQ22	5	SU70	—	SU71	—	TQ80	0
TQ11	12	TQ42	—	SZ79	—	SU83	—	TR82	—
TQ31	12	TV69	5	SU81	—	SU93	—	TR01	—
TQ41	11	TQ13	4	SU91	—	TQ03	—		
TQ92	11	TQ20	3	SZ99	—	TQ33	—		
TQ12	10	TV59	3	TQ43	—	TQ44	—		

288. **GREAT TIT** (*Parus major*).—From the limited number of records received it appears that this species had a poor nesting season. At Selwyns Wood, Cross-in-Hand the average brood size in 8 nest boxes was 3.2. At Plumpton only 2 nests were noted from one of which 5 young were produced.

289. **BLUE TIT** (*P. caeruleus*).—At Selwyns Wood, Cross-in-Hand the average brood size in 18 nest-boxes was 2.7.

293. **WILLOW TIT** (*P. montanus*).—Recorded in the breeding season from 26 localities. From the information available it appears that this species is still not fully recorded.

294. **LONG-TAILED TIT** (*Aegithalos caedatus*).—As in 1971 was very widely reported and many post breeding and winter parties were seen. Several records were received of birds visiting bird tables.

295. **BEARDED TIT** (*Panurus biarmicus*).—In one locality a single juvenile was seen on May 20th while being fed by a male. This is the first confirmed breeding record for Sussex for over 100 years.

In the early months there were records of approx. 16 birds in 5 localities. In October and November approx. 93 birds were seen in 9 localities. On Dec. 9th 10 were recorded in one locality but there were no other December records. At Beachy Head one bird was seen on Oct. 7th and 8th and on Oct. 15th a party of 15 were there for a short time before departing in a NW. direction.

299. **WREN** (*Troglodytes troglodytes*).—At Plumpton, 5 nests produced 17 young, an average brood size of 3.4; 3 nests were successful.

An exceptionally good breeding season was reported at West Chiltington and at Litlington no less than 90 were ringed between July and October.

301. **MISTLE THRUSH** (*Turdus viscivorus*).—At Plumpton, 4 nests produced 6 young, an average brood size of 1.5; 2 nests were successful.

A flock of 24 was seen in Petworth Park on July 29th and another of 32 at Rackham on Aug. 15th.

302. **FIELDFARE** (*T. pilaris*).—In the early months parties of between 65 and 200 were seen in 6 localities. There were 600 at West Chiltington on Feb. 18th and 700 at Cadborough on Mar. 16th. On Jan. 31st 100 per hour flew SW. over Arlington Res. On Apr. 1st 76 were seen at West Chiltington and the last record for the spring was one of 4 at Barns Green on May 10th.

There was one at Littlehampton on Aug. 27th (JPW) and one at Southwick on Aug. 28th (RJ, IRW). These are the earliest dates for autumn arrival in the county. There were no further records until Sept. 23rd when some birds were on Pevensey Levels and one was seen at Church Norton.

Between Oct. 8th and 22nd flocks were noted in or over 14 localities with a maximum of 330 W. at Beachy Head on the 21st. Between Oct. 22nd and the end of the year the numbers were small except for 250 on Nov. 5th and 200 on Dec. 6th at West Chiltington.

303. **SONG THRUSH** (*T. philomelos*).—At Plumpton 33 nests produced 28 young, an average brood size of 0.85; 10 nests were successful (R.J.L.).

304. **REDWING** (*T. iliacus*).—In January there were 500 W. at Beachy Head on the 30th and 7,000 W. at Eastbourne on the 31st. On the same day 200 per hour passed over Arlington flying SW. On Feb. 29th there were 200 at West Chiltington and on Mar. 7th 2,000 at Offham. Numbers for the rest of March and in April were small with 2 on Apr. 3rd and one on Apr. 24th in the Rye Harbour LNR.

In the autumn one was seen in the Rye Harbour LNR on Sept. 26th. On Oct. 12th 10,000 were recorded at Beachy Head, 300 flew W. at Brighton and 2,000 arrived at Selsey Bill from S. On the same day 500 were observed between Pagham and Sidesham. On Oct. 21st there were 1,000 W. at Beachy Head. From that date to the end of the year numbers were relatively small except for 250 at West Chiltington on Dec. 6th.

307. **RING OUZEL** (*T. torquatus*).—Recorded at Beachy Head on eight days between Apr. 3rd and May 11th but not elsewhere.

On autumn passage more than 75 were seen, the majority being at Beachy Head. Fifty were recorded there on Oct. 7th, 13th and 15th.

308. **BLACKBIRD** (*T. merula*).—At Plumpton 66 nests produced 64 young, an average brood size of one; 19 nests were successful (R.J.L.). There were 160 at Beachy Head on Oct. 23rd.

311. **WHEATEAR** (*Oenanthe oenanthe*).—First recorded on Mar. 18th with singles at Rye Harbour LNR and at Steyning. On Apr. 3rd there were 20 at Beachy Head, 30 in the lower Cuckmere Valley and 18 at Normans Bay. On Apr. 14th 40 were seen at Pagham Harbour and 25 at Selsey Bill. On May 2nd there were 30 at Church Norton and 15 at Selsey Bill.

The following breeding season records were received:—

Cissbury/Chanctonbury Area	3 pairs
Chaunty/Harrow Hill	2 pairs
Edurton Hill	3 pairs
Crumbles, Eastbourne	3 pairs
Normans Bay	3 pairs
Rye Harbour LNR	10 pairs

Of the 10 pairs in the Rye Harbour LNR 8 pairs raised young. Autumn passage commenced in mid August and continued until Oct. 31st when one bird was seen in the Cuckmere Valley. A peak movement of 50 birds was seen at Rye Harbour on Aug. 29th but elsewhere the numbers recorded were unusually small.

317. **STONECHAT** (*Saxicola torquata*).—In January and February c.46 wintering birds were recorded from 21 localities.

Breeding pairs or singing males were recorded as follows: Iping Common 3, Ambersham Common 1, Chailey Common 1, Ditchling Common 1, Ashdown Forest 18, Lullington Heath 1, West Firl 1, Telscombe 1, Friar's Bay 1, Newhaven Tidemills 1, Scaford Head 1, Cuckmere Valley 1, Seven Sisters 3, Crowlink 1, Beachy Head 3 (incomplete count), Berwick 1, Cooden Golf Course 1. The autumn max. at Beachy Head was 45 on Oct. 23rd. In December c.37 wintering birds were found at 20 localities.

318. **WHINCHAT** (*S. rubetra*).—Spring passage was noted from Apr. 18th to June 7th when a single bird was seen in the Rye Harbour LNR. A total of 38 were recorded in the Selsey/Sidlesham area on May 2nd and the maximum for Beachy Head was on the same day with 8 birds present.

On July 28th a female was seen carrying food in a locality on the downs. Autumn passage was recorded from Aug. 6th to Oct. 14th with a maximum of 50 on the downs near Steyning on Sept. 21st.

320. **REDSTART** (*Phoenicurus phoenicurus*).—Recorded at Church Norton on Mar. 18th (AGW) and at Rye on Mar. 21st (JA, KA). These are very early dates and the former is the earliest for the county. Was not recorded thereafter until Apr. 3rd.

Breeding pairs or singing males were recorded as follows:—Marley Common, one; Linchmere, 2; Sutton, one; Crowborough area, 2; St. Leonards Forest, one; Ashdown Forest, 4; Bayham, 4; Sutton, 1.

A poor autumn passage with a maximum of 25 at Beachy Head on Sept. 10th. Was last seen on Oct. 8th at Beachy Head.

321. **BLACK REDSTART** (*P. ochiruros*).—In the early months wintering birds were noted at Roedean and at Shoreham Harbour. Spring passage was recorded between Mar. 18th and May 13th; at least 32 being seen with 5 at inland localities. The maximum was 18 at Beachy Head on Mar. 25th.

Two pairs bred in Brighton one of which produced two broods. A singing male was heard in Hastings on June 25th.

Single birds were seen at Beachy Head from August to November and at Worthing in August. There were no further records for September but from Oct. 8th, when one was trapped at Marley, to the end of the year, about 12 were recorded. One at Southsea on Dec. 16th and one at Southwick on Dec. 22nd were probably wintering.

322. **NIGHTINGALE** (*Luscinia megarhynchos*).—First recorded on Apr. 11th at Berwick. Selected counts of singing males during the breeding season are as follows:—Marlipost Woods, Southwater, at least 15; West Chiltington, 6 in a one mile radius of Cattlestone Farm; Ashurst Rough, 4; Shaves Wood, 6; Pond Leigh, 3; Lullington Heath, 7; Friston Forest, 4. In addition, 33 other singing males were recorded in 24 localities.

Two at Beachy Head on Oct. 1st were the last seen.

324. **BLUETHROAT** (*Luscinia svecica*).—Single birds at Beachy Head on Sept. 16th (MEB), Sept. 18th (CJRB), and Oct. 7th (DEL). A female at Arlington Res. on Sept. 20th (PJW).

325. **ROBIN** (*Erithacus rubecula*).—Seven nests at Plumpton produced 15 fully fledged young, an average brood size of 2.1; 5 nests were successful (R.J.L.).

327. **GRASSHOPPER WARBLER** (*Locustella naevia*).—One at Devils Dyke on Apr. 4th was the first recorded. During the breeding season 49 singing males were noted in 29 localities. The last record was of one bird at Beachy Head on Oct. 11th.

329. **SAVY'S WARBLER** (*L. luscinoides*).—One singing at Beachy Head from May 7th to May 10th (BEC, JFC, AQ et al). This record has been accepted by *Brit. B.*

333. **REED WARBLER** (*Acrocephalus scirpaceus*).—One at Fishbourne on Apr. 18th was the first recorded and one at Littleton on Oct. 8th was the last. During the breeding season more than 164 pairs were noted in 17 localities. The main concentrations were along the Chichester Canal, at Fishbourne and on Pevensey Levels.

334. **MARSH WARBLER** (*A. palustris*).—One located on July 1st was present in the same area until July 16th. Evidence of breeding was not obtained but for security reasons the locality and the name of the observer are not being published. During the period mentioned the bird was heard to mimic the calls of no less than 20 other species.

337. **SEDGE WARBLER** (*A. schoenobaenus*).—First recorded on Apr. 14th at Pagham Harbour when two were present and last recorded at Littleton on Oct. 7th.

During the breeding season more than 180 pairs were noted in 18 localities. The main concentrations, as with the Reed Warbler, were near Chichester and on Pevensey Levels.

340. **ICTERINE WARBLER** (*Hippolais icterina*).—One was trapped at Beachy Head on Aug. 19th (RS, KL).

343. **BLACKCAP** (*Sylvia atricapilla*).—Winter records were of one at Alfriston on Nov. 18th and there was one there on Dec. 17th. A male and a female were present at Church Norton on Dec. 9th and one was seen at Barns Green on Dec. 31st. Otherwise recorded from Mar. 16th at Brighton to Nov. 31st at Beachy Head. At Beachy Head 200 were seen on Sept. 13th.

344. **BARRED WARBLER** (*S. nisoria*).—One was trapped at Beachy Head on Sept. 13th (JFC, DEL, BW).

346. **GARDEN WARBLER** (*S. borin*).—First recorded on Apr. 17th near Arundel and last seen on Oct. 15th at Beachy Head. Few breeding season records were received and it appears that this species may be under-recorded.

347. **WHITETHROAT** (*S. communis*).—First recorded on Apr. 14th at Pagham and last seen at Beachy Head on Oct. 15th. There was a spring peak of 97 on May 7th and autumn peaks of 90 and 80 on Aug. 22nd and Sept. 10th respectively at Beachy Head. Some birds may have arrived late for in one locality at Sidlesham no singing males could be found in May but 9 had appeared by the end of June.

Successful breeding was reported from Cissbury Ring where many young were present in July and this bird was very numerous in downland scrub around Lewes. Ten singing males were present on Chailey Common and 9 were located on Southwick Hill. At Littleton Heath 21 pairs were recorded.

348. **LESSER WHITETHROAT** (*S. curruca*).—First recorded on Apr. 19th at Itchenor and last recorded at Beachy Head and Littleton on Oct. 7th. In spring there was a peak of 21 on May 11th at Beachy Head. In autumn there were peaks of 100 on Aug. 19th and 90 on Aug. 22nd in the same locality. At Rye Harbour there was a peak of 24 on Aug. 23rd.

Fifteen records relating to the breeding season were received but this species is probably not fully recorded. All breeding season records are now required.

352. **DARTFORD WARBLER** (*S. undata*).—Reports were received for 4 areas with a total breeding population of approximately 23 pairs. One was seen in a Lewes garden between Nov. 15th 1971 and Feb. 22nd (DCL). One was observed at Church Norton on Dec. 10th (CRJ, CEM).

354. **WILLOW WARBLER** (*Phylloscopus trochilus*).—First recorded on Mar. 23rd at Chichester G.P. In the breeding season 46 nestlings were ringed in the Marley area compared with 76 in 1971. See also under Willow Warbler/Chiffchaff.

356. **CHIFFCHAFF** (*P. collybita*).—As in 1971, wintering birds were noted at Chichester G.P. at both ends of the year. In January singles were seen at Bishopstone and Lewes. One was present in February at Walberton. On Dec. 16th single birds were located at Rickney and near Steyning.

On spring passage this species was first recorded at Seaford on Mar. 13th, when 2 were present. See also under Willow Warbler/Chiffchaff.

**WILLOW WARBLER/CHIFFCHAFF**.—General migration data for both species are shown under this head. At Beachy Head there were peaks count of 70 on Apr. 3rd, 105 on Apr. 13th and 150 on May 2nd. On Apr. 14th arrival on a large scale was noted in the Selsey area with counts showing approximately 300 birds. These were in a 300 yards length of bushes. Arrivals were noted in the Cuckmere Valley on the same day.

At Beachy Head there were peaks of 80 on July 28th, 250 on Aug. 10th, 185 on Aug. 16th, 160 on Aug. 23rd, 120 on Sept. 8th, 190 on Sept. 11th, 210 on Sept. 12th, 120 on Oct. 7th and 60 on Oct. 9th.

357. **WOOD WARBLER** (*P. sibilatrix*).—First recorded at Beachy Head on Apr. 14th when one was seen. In the breeding season about 18 singing males were heard in 16 well scattered localities.

On Aug. 12th one was trapped at Littleton in a reed bed and one was seen at Beachy Head on Aug. 20th.

358. **BONELLI'S WARBLER** (*P. bonelli*).—One at Beachy Head on Apr. 9th (RKH, RS, KV). This record has been accepted by *Brit. B.*

360. **YELLOW-BROWED WARBLER** (*P. inornatus*).—One at Beachy Head from Oct. 18th to Oct. 21st (JFC, PC, DEL, KV).

364. **GOLDCREST** (*Regulus regulus*).—As in 1971, this species was widespread in the breeding season.

Between Mar. 18th and Mar. 22nd migrants were seen in 7 localities on or near the coast. At Beachy Head the peak was on Apr. 9th when 15 were recorded. In October there were 95 at Beachy Head on the 7th and 80 on the 8th.

365. **FIRECREST** (*R. ignicapillus*).—One was seen in Friston Forest on Jan. 30th. Spring passage was noted from Mar. 18th to May 5th with a total of 18 birds. On autumn passage approximately 32 birds were recorded between Sept. 14th and Nov. 12th; 24 of these were at Beachy Head.

366. **SPOTTED FLYCATCHER** (*Muscicapa striata*).—First recorded on May 2nd at Beachy Head, Lullington and Runciton where 6 were seen. In the breeding season was reported from about 20 localities.

On autumn passage birds were seen between Aug. 3rd and Oct. 8th. There were peaks of 10 in the Rye Harbour LNR on Aug. 20th and 23rd.

368. **PIED FLYCATCHER** (*Ficedula hypoleuca*).—In spring a total of 5 recorded between Apr. 14th and May 8th.

About 40 birds were seen on autumn passage with a peak of 10 on Aug. 20th at Beachy Head.

371. **DUNNOCK** (*Prunella modularis*).—Thirteen nests at Plumpton produced 14 young, an average brood size of 1.1; 4 nests were successful. (R.JL).

373. **MEADOW PIPIT** (*Anthus pratensis*).—Very few records received. In the breeding season was recorded by the river between Newhaven and Southsea, at Lullington Heath and in the Rye Harbour LNR.

At Beachy Head 850 E. on Sept. 14th was the maximum number recorded.

374. **RICHARD'S PIPIT** (*A. novaezeelandiae*).—One at Beachy Head on Sept. 24th (BN).

375. **TAWNY PIPIT** (*A. campestris*).—Single birds were recorded at Beachy Head on Aug. 29th (RHC), Sept. 10th to Sept. 12th (MEC, RHC), Sept. 26th and Oct. 13th (RHC). These records have been accepted by *Brit. B.* For an additional record for 1971 see page 41.

376. **TREE PIPIT** (*A. trivialis*).—First recorded on Apr. 2nd in Ashdown Forest.

Several records of breeding pairs or singing males were received for tetrads not visited during the 1967-1970 breeding survey (See *Sx. BR.* 1971, p. 75-76). The details were as follows:—Cripps Corner 2-3; Footland Wood, 2; Brede High Wood, 1; Flatropers Wood, 1; Brightling, 1; Southwick Hill, 1. There were records for 3 areas visited with negative results during the survey. The details were:—Harting Coombe, 5; Plashett Wood, 2; Warminglid, 1.

Records for other areas in 1972 were:—Liphook Golf Course, 3; Linchmere Common, 5-6; Sullington Warren, 4; Newells Rough, 3; Worth Priory, 5; Paddockhurst Warren, 1; Ashurstwood, 1; Rivers Wood, 2; Shaves Wood, 3; Chailey Common, 4; Lindfield, 1; Limekiln Wood, 1; Big Mill House Wood, 3; Wilmington Wood, 2; Ashdown Forest, numerous. In addition, a singing male was located in hedgerow country at Milland.

379. **ROCK PIPIT** (*A. spinoletta*).—Small numbers were seen, in the early months, in various localities on the coast. Breeding pairs were located in a number of places, on the chalk cliffs, in the summer months. From the end of the breeding season to the end of the year, there were records of birds in coastal areas and in some inland localities. There was one at Arlington Res. on Sept. 27th and Oct. 11th. Eight were seen there on Oct. 21st and there was one at Southsea on Dec. 23rd.

Single birds showing the characters of the race *spinoletta* were observed in the Cuckmere Valley on Jan. 4th and Apr. 3rd (MJR). There was one at Beachy Head on Sept. 30th (JFC, RS, KV). A single bird with the characters of the race *litroralis* was seen on Mar. 5th at Selsey Bill (KCO). On Mar. 31st and Apr. 1st there were two in the Cuckmere Valley (MJR).

380. **PIED WAGTAIL** (*Motacilla alba*).—In the winter 300 roosted at Arundel in the Wildfowl Trust area.

Nesting records are infrequently received although it is obviously widespread in the breeding season.

On autumn passage the maximum number observed at Beachy Head was on Sept. 24th when 105 flew E.

Four birds showing the characters of the race *alba* were noted between Apr. 7th and 22nd. There was one at Arlington Res. on Aug. 27th and one in the Cuckmere Valley on Oct. 4th.

381. **GREY WAGTAIL** (*M. cinerea*).—The breeding season records for 1972 are tabulated below:

River system	Number of occupied territories in which	
	Breeding proved	Breeding probable
West Rother	2	1
Arun	2	5
Adur	0	2
Mole	0	0
Ouse	1	2
Medway	0	1
East Rother	0	1
Wey	2	0
Total	7	12

There were no records for the Chichester, Eden, Hastings or Cuckmere river systems. Birds were only reported at one site not recorded in 1967-69 survey, namely Stonemill, Rotherfield. This was within 3km. of a known winter breeding site.

Wintering records (period Nov.-Mar. inclusive) were received for 26 sites involving 28 birds including a male ringed at Sicklemill, Haslemere on Oct. 17th 1970 and controlled there on Nov. 18th 1972. Only two of the wintering sites were not recorded in 1969-70 survey; neither was within 3km. of a known breeding site.

Passage was heavier than in 1971 at Beachy Head but smaller at Rye Harbour. The records were as follows:—Beachy Head, 101, mainly E. between July 25th and Oct. 28th with a maximum of 23 E. on Oct. 7th. Rye Harbour, a total of 19 flew W. between Sept. 3rd and 28th.

382. **YELLOW WAGTAIL** (*M. flava*).—In the spring was first recorded at Barcombe Res. on Apr. 1st and at Beachy Head on Apr. 3rd.

In the breeding season was widespread over the whole of the Pevensey Levels and no less than 127 pairs were located (JPMcT). Breeding was reported from other localities but except at Rye Harbour LNR where 11 pairs were present and at Thorney Island with 6 pairs, the numbers were small.

The largest peaks on autumn passage were at Rye Harbour with 155 on Aug. 23rd and Beachy Head with 300 E. on Aug. 31st. Was last recorded on Oct. 13th at Beachy Head.

Birds showing the characters of the race *flava* were seen as follows:—Two at Rye Harbour on Apr. 19th; one at Sidlesham on Apr. 28th and one near Winchelsea on May 21st.

383. **WAXWING** (*Bombusilla garrulus*).—There were 4 at Rickney, Pevensey Levels on Jan. 18th (AFS) and one at West Chiltonington on Mar. 31st (MPD).

384. **GREAT GREY SHRIKE** (*Lanius excubitor*).—The records are given under localities. Glynde, one from Jan. 8th to Mar. 20th (PJW, VAW et al). Amberley, one, Feb. 9th (BFF, FJF). Beachy Head, one from beginning of year to Apr. 9th and another on Mar. 9th (many obs.). One was found dead there on Oct. 9th and another was seen from Oct. 15th to the end of the year (many obs.). Tarring Neville, one, Oct. 19th (MJH). Cuckmere Valley, one from Oct. 24th to Nov. 25th (many obs.). Iping Common, one, Oct. 24th (IN). Woodingdean, one, Oct. 27th (NAGL). Lewes, one, Dec. 10th (BP). Filsham, one, Dec. 16th (JW). Furners Green, one, Dec. 22nd (HACTC). Horsted Keynes, one, Dec. 24th (CStA). Weir Wood Res., one, Dec. 26th (WD).

386. **WOODCHAT SHRIKE** (*L. senator*).—One at Crowlink on June 16th (AJC). This record has been accepted by Brit. B.

388. **RED-BACKED SHRIKE** (*L. collurio*).—One in Friston Forest on May 30th (AJC). One at Sidlesham Ferry from Sept. 17th to Sept. 30th and one at West Wittering on Oct. 3rd (EAC).

391. **HAWFINCH** (*Coccothraustes coccothraustes*).—In the breeding season recorded at Four Oaks, Horsham, Twineham and West Chiltonington. Single birds were seen at Birdham and Haywards Heath in March and at Wych Cross in December. A party of 30 was recorded at Flimwell on Dec. 26th (JW).

392. **GREENFINCH** (*Carduelis chloris*).—Once again a large winter flock was seen at Rye Harbour where 400 were present on Oct. 10th and 800 on Nov. 20th. At Plumpton 20 nests produced 38 young (RJL).

393. **GOLDFINCH** (*C. carduelis*).—No significant records were received for the early months but in April 45 were recorded in the Rye Harbour LNR on the 30th. Seventy were seen there on May 1st.

At Rye Harbour up to 105 were seen on several occasions in August. In October parties of 100 were recorded at Rottingdean, Rye and Watersfield. There were 100 at Rye on Nov. 11th.

A total of 520 flew E. at Hove in 25 minutes in the early morning on Oct. 18th.

394. **SISKIN** (*C. spinus*).—Rather more records for January and February than in 1971. Most parties reported were of less than 25 but there were flocks of 262 at Cophthorne on Jan. 1st, 73 there on Jan. 29th, 60 at Ansty on Feb. 3rd, 50 at Lindfield on Feb. 5th and 60 at Burton Park on Feb. 12th.

Several observers reported small numbers feeding in gardens during the first three months of the year and a few into April. All records of this species feeding in gardens on provided food and particularly peanuts, will be most welcome.

In April, there were parties of 50 at Furnace Wood on the 1st and Duncton Common on the 5th. One male was seen in Friston Forest as late as May 1st.

Autumn passage was first noted at Beachy Head on Sept. 15th and large numbers were at Lidlington on Sept. 30th. Records were received for 11 localities at the end of the year; the average flock size was 35 but one flock of 200 was seen on the banks of the river Wey in the north-west of the county on Nov. 25th.

395. **LINNET** (*Acanthis cannabina*).—Very few records were received and flocks of 300 in the Rye Harbour LNR on Apr. 17th and at Bishopstone on Oct. 8th were the largest recorded.

At Beachy Head there were 300 W. on Apr. 8th, 300 W. on Apr. 22nd and 100 E. on May 2nd. In the autumn the chief movements were between Oct. 11th and 15th with a total of 5,800 E.

At Plumpton 13 nests produced 29 young, an average brood size of 2.2 (RJL). At the end of July a nest was found at Etchingham which contained no less than 10 eggs (AV).

396. **TWITE** (*A. flavirostris*).—Monthly totals were:—

Jan.	Feb.	Mar.	Oct.	Nov.	Dec.
31	109	30	193	81	55

A flock of 60 at Paghham Harbour on Feb. 5th and one of 107 at Rye Harbour on Nov. 18th were the largest recorded. Six birds were seen at Arlington Res. on Oct. 15th and 10 near Lancing College on Nov. 22nd.

397. **REDPOLL** (*A. flammea*).—Rather fewer records at the beginning of the year, being recorded from only 8 localities. The largest parties were 100 at Cophthorne on Feb. 13th and a similar number at Plashett Park on Feb. 19th.

During the breeding season pairs or singing males were reported as follows: Ashdown Forest, 6; Brede High Wood, 10; Brightling, 3; Bayham, 4. Two young birds were seen at Brightling on July 27th and a pair was seen feeding 2 young at Pitdown on Aug. 5th. A male was singing in Queen's Park, Brighton on July 14th.

Autumn passage was first noted on Sept. 20th at the Rye Harbour LNR. Numbers reported from the interior of the county at the end of the year were again fewer than usual; the largest party being one of 60 at Marley on Nov. 3rd.

A bird having the characters of the race *flammea* was trapped at Marley on Dec. 29th (PGD).

400. **SERIN** (*Serinus serinus*).—An unusual number of records as follows:—Beachy Head, male, Apr. 15th (JFC, RH); female, Apr. 22nd (BEC, ARK, MJR); one, May 2nd (DSF, ARK, MJR); one, May 3rd (DSF, ARK, MJR); female, June 29th (MEC, RHC); female, July 18th (MEC, RHC); one, July 29th, Aug. 13th, Oct. 8th, Oct. 11th (MEC, RHC); male, Oct. 21st (DWM); one, Nov. 11th (KV). Eastdean, male, May to July (JFC, DEL, MJR). Selsey Bill, female, Apr. 26th (MS). All these records have been accepted by Brit. B.

401. **BULLFINCH** (*Pyrrhula pyrrhula*).—At Plumpton 6 nests were found; two were successful and 6 young fledged.

404. **CROSSBILL** (*Loxia curvirostra*).—Ten in Winden Wood on Mar. 25th was the only record for the first part of the year.

In June, July and possibly August an influx of considerable size was noted in widely separated areas in Britain. In Sussex, a party of 10 flying S. over Lewes on June 12th was the first record relating to the irruption and from then until the end of the year birds were recorded in every month. Some were still present in March 1973 when breeding was suspected.

The approximate monthly totals were as shown below with Friston Forest as the most favoured locality.

June	July	Aug.	Sept.	Oct.	Nov.	Dec.
12	123	73	25	68	43	27

407. **CHAFFINCH** (*Fringilla coelebs*).—On Feb. 13th a flock of 200 was seen at Truleigh Hill and on Dec. 3rd there was one of 300 on the Downs near Steyning. At Beachy Head up to 80 flew E. each day between Oct. 8th and Oct. 15th. Of 5 nests found at Plumpton, 5 were successful and 10 young were produced.

408. **BRAMBLING** (*F. montifringilla*).—In March 100 were present on the Downs near Steyning but elsewhere the number of wintering birds at both ends of the year was small with a maximum of 20 at Beachy Head in the early months.

At Beachy Head there were 80 E. on Mar. 21st but this was the only movement recorded. Single birds were seen near Chantonbury Ring on Apr. 9th and at Burton Down on Apr. 10th. In the autumn was first recorded at Beachy Head on Sept. 24th.

409. **YELLOWHAMMER** (*Emberiza citrinella*).—Observations on post breeding season flocks around Southwick Hill and the composition of late autumn finch flocks in the Pagham area indicated that this species had a poor breeding season.

410. **CORN BUNTING** (*E. calandra*).—There were breeding season records from about 18 localities on or adjacent to the Downs. There were also a smaller number of records for the coastal areas in the east and west of the county with 30 in the Rye Harbour LNR on May 7th. One was seen at Plumpton on June 12th, 3 at Chailey Common on June 21st and there were 30 throughout June at Cadborough.

Outside the breeding season 60 were recorded at Arlington Res. on Jan. 16th, 20 at Fishbourne on Feb. 20th and 150 in the Cuckmere Valley on Mar. 25th. In November 100 roosted in a reed bed at Arundel.

415. **GIRL BUNTING** (*E. cirillus*).—In the breeding season there were no more than 5-6 pairs in the Cuckmere Valley and 5 pairs at Beachy Head. Elsewhere, there were records of smaller numbers from Lancing, the Downs near Harrow Hill and from Harting, where a single bird was seen on Apr. 10th.

This species is still the subject of a Society breeding survey and all records are required.

421. **REED BUNTING** (*E. schoeniclus*).—Breeding in atypical habitat was noted at Plummers Plain, Chailey Common and Ashdown Forest. In addition, records were received for four downland areas as follows:—Hollingdean, Steep Down, Winding Bottom and Windover Hill. In conventional habitat 15 pairs were recorded in the Ripe area but only one singing male was found along more than 2 miles of the Chichester Canal.

422. **LAPLAND BUNTING** (*Calcaritis lapponicus*).—There were 5 at Beachy Head on Oct. 14th (PC).

423. **SNOW BUNTING** (*Plectrophenax nivalis*).—In the Camber/Rye Harbour area the maxima were 25 in January, 11 in February, 10 in March and one on Apr. 6th. Two were seen in the same area in November and December. One was at Pett Level in November.

One was seen at Beachy Head on Oct. 21st and Nov. 18th. At West Wittering 3 were present in January, one in February and 2 in November. There were 2 on Plisea Island on Jan. 9th.

425. **TREE SPARROW** (*Passer montanus*).—Large flocks of up to 500 were seen regularly on the Downs between Steyning and Brighton in January and February. During February flocks of between 50 and 100 were also reported from East Wittering and North Mundham and there were 150 at Arlington on the 25th. On Mar. 18th there were still 150 on Steyning Round Hill.

In the breeding season about 90 pairs were reported from 29 widely scattered localities, including a colony of 15 pairs nesting in a chalk quarry at Asham Cement Works.

Maximum passage at Beachy Head was 400 on Oct. 15th. At the end of the year, the only large flock reported was one of 200 at No Mans Land on Dec. 3rd.

## ADDITIONS AND CORRECTIONS TO THE 1971 REPORT

28. **CORMORANT**.—The words "resting place" should be substituted for the word "roost" in the record of birds seen on a pylon in the Adur Levels.

159. **COMMON SANDPIPER**.—One was seen on Dec. 20th at Batcombe Res. (MJH).

256. **ALPINE SWIFT**.—One on Aug. 22nd at Beachy Head (RHC). This record has been accepted by *Brit. B.*

375. **TAWNY PIPIT**.—One at Beachy Head on Sept. 10th and 16th (RHC). This record has been accepted by *Brit. B.*

## SUMMARY OF BIRD RINGING IN SUSSEX, 1972

Compiled by P. J. WILSON

A total of 13,334 birds of 97 species were ringed in 1972. Although the number of ringers operating in Sussex has increased by about 30% in the last four years the annual total of birds ringed in the county stays remarkably stable at 13-15,000.

Interesting birds ringed included a Bluethroat, an Aquatic Warbler and a Little Gull by Chichester Ringing Group; a Buzzard by Fisham Ringing Group and a Marsh Warbler by P. J. Wilson.

The following recoveries include a fine series of Warbler movements from Beachy Head Ringing Group.

SELECTED LIST OF RECOVERIES REPORTED IN 1972

Key to symbols and terms  
(Ring numbers are omitted)

**Age**  
pull.—nestling or chick, not yet flying  
juv.—young, able to fly freely  
1st W.—bird in its first winter  
fg.—full grown (age uncertain)  
ad.—adult, at least one year old  
1Y.—first year bird in the plumage assumed at its first (post-juvenile) moult  
PJ.—post-juvenile; free flying bird definitely not juvenile but not certainly in an older age group

**Sex**  
♂—male  
♀—female

**Manner of Recovery**  
v.—caught or trapped and released with ring  
+—shot or killed by man  
x—found dead or dying  
( )—caught or trapped alive and not released or released but with ring removed  
/?—method of recovery unknown

**Distance**  
The distance is given in kilometres and directions are approximate

BIRDS RINGED IN SUSSEX

Species	Sex	Date	Location	Notes
Mute Swan	1y	25.06.69	Shoreham-by-Sea (ABW)	
	x	27.10.72	Kew Bridge, 70km. N.	There were also two controls from the coast of swans twelve years old
Swallow	juv.	02.09.72	Chichester (CRG)	
	v	18.09.72	St. Pryve-St. Mesmin (Loire), France	
Bearded Tit	4 ♂	25.10.72	Litlington (PIW)	
	v	03.11.72	Dungeness (Kent), 57km. ENE.	
	3 ♂	25.10.72	Litlington (PIW)	
	v	03.11.72	Dungeness (Kent), 57km. ENE.	Autumn movements of Bearded Tits are usually in the opposite direction
Wren	fg.	07.10.70	Beachy Head (BHRG)	
	x	16.06.71	Aldeburgh (Suffolk), 218km. NE.	
	x	(Not reported until 1972)		
Song Thrush	fg.	23.10.71	Litlington (PIW)	
	x	22.12.72	Zarracatin, Utrere, (Sevilla), Spain	
	PJ	20.10.68	Beachy Head (BHRG)	
	+	21.03.72	Torre de Moncorva (Tras os Montes), Portugal	
	PJ	11.10.69	Beachy Head (BHRG)	
	x	12.03.72	Arijuzanx (Landes), France	
	juv.	20.07.71	Beachy Head (BHRG)	
	x	29.03.72	Kempsford, Fairford (Glouces), 165km. NW.	
Redwing	2Y	17.01.71	Plumpton (RJJ)	
	x	17.11.71	Leognan (Gironde), France (not reported until 1972)	
Ring Ouzel	1Y ♂	16.10.72	Beachy Head (BHRG)	
	+	11.11.72	Pierrefiche-du-Larzac par Millau, (Aveyron), France	
Blackbird	1Y ♂	26.10.69	Litlington (PIW)	
	x	24.10.72	Cavaudien, Monflanquien, (Lot et Garonne), France	
	1Y ♂	01.10.67	Beachy Head (BHRG)	
	x	04.06.72	Landement, Plettenberg (Arnsberg), Germany	
	1Y ♂	25.10.70	Beachy Head (BHRG)	
	x	13.06.72	Rajamaki, (Numijävi), Finland	
Robin	1Y	12.09.71	Seaford Head (RJJ)	The birds in Germany and Finland were presumably in their breeding quarters when recovered.
	x	31.05.72	Burghclere, Newbury (Hants), 115km. NW.	

Species	Sex	Date	Location	Notes
Reed Warbler	PJ	12.06.67	Chichester (CRG)	
	v	21.05.72	Brading, Isle of Wight, 30km. SW.	Birds ringed at Chichester in 1970, 1971 and 1972 were controlled in the autumn at Oxford, Tring and Weymouth respectively. There were also the usual controls within Sussex and also from Hants and Kent.
Sedge Warbler	1Y	30.07.70	Chichester (CRG)	
	v	30.08.72	Thurlestone (Devon), 225km. WSW.	
	1Y	12.09.71	Chichester (CRG)	
	v	03.06.72	Branston, Burton-on-Trent (Staffs), 220km. NNW.	
	1Y	18.08.72	Chichester (CRG)	
	v	20.08.72	Chew Valley Lake, (Somerset), 140km. WNW.	
Blackcap	fg.	18.09.72	Beachy Head (BHRG)	
	v	01.10.72	Capbreton, (Landes), France	
	1Y ♂	17.09.71	Beachy Head (BHRG)	
	v	11.05.72	Heemskerk, (Noord Holland), Netherlands	
	fg ♀	18.09.71	Beachy Head (BHRG)	
	x	10.07.72	Great Ayton, Middlesbrough (Yorks), 440km. NNW.	
	fg ♀	19.09.71	Beachy Head (BHRG)	
	v	05.06.72	Sway, Lynton (Hants.), 130km. W.	
	1Y ♀	06.10.71	Beachy Head (BHRG)	
	v	07.05.72	Worth Maltravers, Purbeck (Dorset), 155km. W.	
Garden Warbler	fg	23.08.70	Beachy Head (BHRG)	
	x	16.05.72	Rabat, Morocco	
	fg	07.09.72	Beachy Head (BHRG)	
	+	21.10.72	Monrill, (Granada), Spain	
Whitethroat	ad.	30.08.71	Beachy Head (BHRG)	
	x	07.05.72	Louth (Lines)	
Willow Warbler	1Y	23.08.71	Beachy Head (BHRG)	
	v	16.04.72	Lundy (Devon), 350km. W.	
	fg	02.10.71	Litlington (PIW)	
	v	26.04.72	East Chinnock, Yeovil (Somerset), 195km. W.	
Goldcrest	3Y	21.09.71	Plumpton (RJJ)	
	x(cat)	09.01.72	Catherington, Portsmouth, (Hants), 115km. NW.	
Starling	ad ♂	14.03.69	Plumpton (RJJ)	
	v	10.11.71	Vitverke (West Flanders), Belgium (not reported until 1972)	
	PJ	06.01.70	Shoreham-by-Sea (JN)	
	x	13.03.72	Den Hoorn (Delft), Netherlands	
Greenfinch	ad ♀	06.04.69	Ashurst Wood, East Grinstead (DW)	
	x	22.04.71	Coldhanger, (Essex), 82km. NNE. (not reported until 1972)	

BIRDS RINGED ELSEWHERE AND RECOVERED IN SUSSEX

Species	Sex	Date	Location	Notes
Tufted Duck	2Y	01.06.72	Abberton, Colchester (Essex)	
	+(shot)	20.11.72	Battle, 100km. SSW. (per RJJ)	
Swallow	1Y	18.09.71	Ingatestone, (Essex)	
	v	29.08.72	Plumpton, 85km. SSW. (RJJ)	
Reed Warbler	1Y	08.09.71	Wicken Fen, (Cambs.)	
	v	18.09.71	Beachy Head, 170km. (BHRG) (not reported until 1972)	
Willow Warbler	pull.	03.06.71	Wheatthampstead, (Herts)	
		28.07.71	Beachy Head, 120km. SSE. (BHRG) (not reported until 1972)	

# ESTUARY COUNTS OF WADERS AND WILDFOWL IN SUSSEX AND EAST HAMPSHIRE

FROM AUGUST, 1972, TO MARCH, 1973

by M. SHRUBB

## The Western Harbours

Wader and wildfowl counts were continued in Chichester and Pagham Harbours during 1972/73, although the counts in Pagham Harbour were comparatively unsuccessful, largely owing to disturbance. Counts of wildfowl there were particularly disappointing and I have tabulated only those counts which were reasonably complete, to save space. All the figures recorded are retained on file. The counting period now runs from August to May, summer counts having been abandoned. This report deals with the whole period, thus covering a complete winter, but the April and May counts are not tabulated, again to save space. The more significant points from these counts will be covered in the systematic list for 1973. Once again the tables include figures from Langstone Harbour and this year also from Portsmouth Harbour, by courtesy of the Hampshire Field Club and the organisers of their counts, D. F. Billett, B. W. Renyard and D. J. Steventon. It is clear that these three Harbours form an ecological and geographical entity. Details of the methods and coverage are set out in previous SxBR for 1965, 53; for 1968, 70; and for 1971, 50-51.

The results of the counts are set out in Tables 1 and 2. Numbers generally were markedly higher than in previous years and the highest count in Chichester Harbour was made on Feb. 3rd when a total of 48,295 birds was recorded, 10,755 wildfowl and 37,540 waders. Some notable peaks occurred in this Harbour during the winter. Brent Geese exceeded their previous highest levels, reached in 1970/71, by some 30% and these very high numbers brought about some marked changes in behaviour. Thus whereas in previous winters the flocks were largely confined to the southern half of the Hayling shore, the Thorney shore from Marker Point to Pilesey Island and the shore from East Head to Ichenor, this winter every part of the Harbour was exploited except the Chichester Channel above Ichenor. The peak count was c.4,350 in February and I believe the figure should be c.4,500; one count area was imperfectly covered, almost certainly missing some birds. During the same period c.5,600 were present in Langstone Harbour, again record numbers and nearly a 40% increase over the previous highest counts, recorded in 1970/71. Counts from Langstone indicated another good breeding season, with c.40% young noted but, unfortunately, no counts of young were made in Chichester Harbour. The February total of c.10,000 birds in this Harbour system represents between a third and a quarter of the world population of this race.

Other wildfowl records of interest were the higher numbers of Teal, a species which is possibly increasing in both Chichester and Pagham Harbours, and the much lower numbers of Goldeneye and Mergansers. Only one count of the latter in Chichester Harbour exceeded 20 birds and Goldeneye numbers failed to reach 100 birds there for the first time for 4 or 5 years. Shelduck numbers were also lower than for 6 or 7 years.

The wader populations recorded reached higher levels than in any previous year. Dunlin, in particular, reached an all time peak of over 29,000 in Chichester Harbour in February and the tables show a total Dunlin population of over 75,000 in the Chichester/Langstone/Portsmouth complex in this month; both the counts in Chichester Harbour on Jan. 20th and Feb. 18th were underestimates. The figures also suggest that the total Dunlin population wintering in the Solent, from Pagham Harbour to Hurst, during 1972/73 approached 100,000 birds, roughly 10% of the European wintering population.

Other counts of note were the exceptional figure of 1,400 Black-tailed Godwits in Chichester Harbour in December, the highest yet recorded, and the record count of 1,350 Knot there in November; this species has shown a notable increase in the past few years, although the population is still comparatively insignificant. There was also a very high Grey Plover count of 1,225 in February, when a total of nearly 2,000 were present in Pagham and Chichester/Langstone/Portsmouth Harbours, possibly a third of the British wintering population and about 5% of that of Europe. The national Estuaries Survey in fact suggests that these Sussex and Hampshire estuaries may be of particular importance for 3 wader species, Grey Plover, Black-tailed Godwit and Dunlin. In addition the Chichester Harbour Bar-tailed Godwit population appears the largest concentration in the southern half of Britain.

As reported last year a study of Chichester Harbour's vegetation was undertaken in 1972 by Mrs. R. M. Tittensor. A detailed map and report has now been received and further work on the green algae in the Harbour, and their importance to the Brent Geese, is planned for 1973. It is intended to use the mass of data being accumulated for a report on the conservation of wildlife in Chichester Harbour, which is being co-ordinated by the Nature Conservancy. This will set out the major points of scientific interest and importance, set them against their international ornithological background and make practical recommendations for conservation against the background of other land uses. It is planned to produce this in a year.

## Rye Harbour

Regular wader counts were continued at this locality throughout 1972 and into 1973 and wildfowl counts were made during the winter. As noted last year the numbers of waders are not very high, although a good variety of species is found. However the flocks of Oystercatchers, Ringed Plovers, Turnstone, Curlew, Whimbrel and Bar-tailed Godwit compare well with those of Pagham Harbour and the real lack is a sizeable Dunlin flock. Of wildfowl the Pochard flock is of importance as one of the largest in the county, as is the Scoter flock offshore. The results of the counts are given in Table 3.

## Coastline counts

Once again 2 counts along the whole county coastline were made in 1972/73, on Dec. 9th and Jan. 20th. The weather, for a change, was kind on both dates and totals of 46,960 and 54,815 waders were recorded respectively, the most numerous species being Lapwing and Dunlin. The figures are presented in Tables 4 and 5. Most waders were found in the western harbours, as usual, but the Pevensy area held very large flocks of Lapwing and Snipe and the coast from Climping to Worthing nearly 700 Sanderling. The published figures from the National Estuaries Survey suggest that this is a very large wintering flock by British standards but Sanderling are likely to be under-recorded by this survey, being primarily birds of the open shore-line.



TABLE 1. WILDFOWL COUNTS IN WEST SUSSEX AND

EAST HAMPSHIRE FOR THE WINTER 1972/73

Species	21 Oct.		18 Nov.		25 Nov.		9 Dec.		23 Dec.	
	Lang.	Chir.	Lang.	Chir.	Lang.	Chir.	Lang.	Chir.	Lang.	Chir.
Great Crested Grebe	45		60	13	?	10				
Slavonian Grebe				4		7				
Black-necked Grebe			25		?					
Little Grebe		14		60		14				
Cormorant	45	2	50	12	50	9				
Mallard	85	185	60	250	70	175	270			
Teal	500	175	575	240	500	310	250			
Wigeon	900	105	1,050	95	1,450	65	170			
Pintail	8		7	19	18	18	60			
Shoveler	3		8		16		5			
Scaup				4		3				
Tufted Duck		12		17		25				
Pochard		1		1		18				
Goldeneye	5	11	47	25	?	35				
Long-tailed Duck			3		4					
Velvet Scoter			4	2	2	2				
Eider		1					1			
Merganser	1	2	25	50	30	20	1			
Goosander										
Shelduck	120	190	110	1,100	185	735	650			
White-fronted Goose				45						
Brent Goose	395	35	1,985	2,200	3,250	1,985	60			
Mute Swan		5		90		85				
Bewicks Swan				4						
Coot		80		1,080		800				

Species	20/21 Jan.		3 Feb.		17/18 Feb.		3 Mar.		17 Mar.	
	Port.	Lang.	Chir.	Pag.	Port.	Lang.	Chir.	Pag.	Port.	Lang.
Great Crested Grebe	1	25	8		12		10		17	
Slavonian Grebe		2	2							
Black-necked Grebe		18				40				
Little Grebe			40		40		13		13	
Cormorant	11	45	11		17		55		35	
Mallard	70	170		?	200	?	20	55	130	?
Teal	500	700	14		700	?	820	385	200	?
Wigeon	1,470	1,180		?	1,140	?	1,165	600	450	50
Pintail	135	40		?	40	40	90	60	60	1
Shoveler	70						70			75
Scaup		8			4					
Tufted Duck		40			40					
Pochard		60			115			?	85	
Goldeneye	28	110	65		80		20	115	70	25
Long-tailed Duck		6	1							9
Velvet Scoter										
Eider										
Merganser		25	18		?	?	20	4	1	1
Goosander					2				1	
Shelduck	40	1,190	2,860	350+	2,445	720	130	1,300	2,925	2,600
White-fronted Goose										
Brent Goose		3						3		
Mute Swan		5,610	3,850	120	4,360	175	170	5,600+	4,355+	3,200
Bewicks Swan			65		70				60	
Coot			1,120		1,470				805	

NOTE: Lang.—Langstone Harbour; Chir.—Chichester Harbour; Pag.—Pagham Harbour; Port.—Portsmouth Harbour. A ? means the species was present but not counted; a blank space means that none was reported. \*On Dec. 16th there were 60 Great Crested Grebes and 13 Black-necked Grebes in Langstone Harbour and there were 95 Goldeneye there on Dec. 23rd.

TABLE 2. WADER COUNT TOTALS IN WEST SUSSEX AND EAST HAMPSHIRE FROM SEPTEMBER, 1972 TO MARCH, 1973

Species	23/24 Sept.			21 Oct.			18 Nov.			26 Nov.			9 Dec.		
	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.
Oystercatcher	315	605	75	350	970	515	235	565	515	235	400	630	300	480	16
Laughing	210	20	20	110	250	185	40	95	265	200	140	50	230	130	135
Ringed Plover	225	200	20	200	480	180	40	280	570	65	285	810	16	230	135
Grey Plover	640	20	20	60	1,140	260	40	280	570	65	285	810	16	230	135
Golden Plover	260	20	20	40	60	260	40	280	570	65	285	810	16	230	135
Turnstone	995	12	65	100	70	35	40	30	35	60	45	13	55	180	35
Jack Snipe	530	1,890	7	500	845	1,100	95	595	770	260	300	825	5	180	35
Curlew	2	7	50	500	845	1,100	95	595	770	260	300	825	5	180	35
Whimbrel	995	12	65	100	70	35	40	30	35	60	45	13	55	180	35
Bl-ld Godwit	420	550	15	500	135	980	1	180	180	8	225	1,400	880	1,400	880
Green S'piper	8	505	10	20	820	1	175	680	680	8	45	880	880	1,400	880
Green S'piper	750	3,545	300	1,150	350	2,655	150	420	1,405	165	560	1,020	200	1,400	880
Redshank	8	90	3	35	5	20	80	25	1,350	60	295	730	3	1,400	880
Spot Redshank	16	16	35	5	20	20	20	2	1,350	3	1	730	3	1,400	880
Greenshank	8	90	3	35	5	20	80	25	1,350	60	295	730	3	1,400	880
Knott	16	16	35	5	20	20	20	2	1,350	3	1	730	3	1,400	880
Purple S'piper	8	90	3	35	5	20	80	25	1,350	60	295	730	3	1,400	880
Little Stint	320	2,430	400	5,000	8,200	20,895	7,000	11,200	15,445	9,000	23,200	23,750	2,550	2,550	2,550
Sanderling	240	10	1	5,000	8,200	20,895	7,000	11,200	15,445	9,000	23,200	23,750	2,550	2,550	2,550
Ruff	240	10	1	5,000	8,200	20,895	7,000	11,200	15,445	9,000	23,200	23,750	2,550	2,550	2,550
Avocet	240	10	1	5,000	8,200	20,895	7,000	11,200	15,445	9,000	23,200	23,750	2,550	2,550	2,550
Grey Phalarope	320	2,430	400	5,000	8,200	20,895	7,000	11,200	15,445	9,000	23,200	23,750	2,550	2,550	2,550

TABLE 2. Continued

Species	20/21 Jan.			3 Feb.			17/18 Feb.			3 Mar.			17 Mar.		
	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.	Port.	Chir.	Pag.
Oystercatcher	230	840	1,010	750	140	315	1,030	400	360	140	250	765	45	180	45
Laughing	60	800	345	75	1,330	215	400	285	600	250	765	45	180	45	180
Ringed Plover	140	130	70	105	135	90	65	50	60	60	25	45	45	180	45
Grey Plover	90	450	1,270	675	300	60	485	1,225	980	230	765	45	180	45	180
Golden Plover	90	450	1,270	675	300	60	485	1,225	980	230	765	45	180	45	180
Turnstone	70	180	200	25	55	30	30	35	11	45	220	35	40	180	45
Jack Snipe	70	180	200	25	55	30	30	35	11	45	220	35	40	180	45
Curlew	450	625	860	35	850	75	400	390	450	700	110	330	35	40	180
Whimbrel	450	625	860	35	850	75	400	390	450	700	110	330	35	40	180
Bl-ld Godwit	14	290	630	16	380	18	500	360	400	200	115	500	45	180	45
Green S'piper	7	280	1,400	16	640	150	300	310	1,120	1,200	275	500	45	180	45
Green S'piper	14	290	630	16	380	18	500	360	400	200	115	500	45	180	45
Redshank	200	175	640	285	2,015	150	300	310	1,120	1,200	275	500	45	180	45
Spot Redshank	1	1,000	545	4	500	100	585	360	1,120	1,200	275	500	45	180	45
Knott	1	1,000	545	4	500	100	585	360	1,120	1,200	275	500	45	180	45
Purple S'piper	100	1,000	545	4	500	100	585	360	1,120	1,200	275	500	45	180	45
Little Stint	13,650	29,900	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300
Dunlin	13,650	29,900	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300
Sanderling	21,130	21,130	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300
Ruff	21,130	21,130	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300
Avocet	21,130	21,130	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300
Grey Phalarope	21,130	21,130	21,130	3,200	29,250	3,250	17,160	29,800	17,460	17,000	900	4,000	5,300	5,300	5,300

NOTE: Lang.—Langstone Harbour; Chir.—Chichester Harbour; Pag.—Pagham Harbour; Port.—Portsmouth Harbour. A ? means the species was present but not counted; a blank space means that none was reported.

TABLE 3. MONTHLY WADER AND WILDFOWL COUNT TOTALS AT RYE HARBOUR FROM APRIL 1972 TO MARCH 1973

Species	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Mallard	130	210	220	140	200	80	90					
Teal	8	14	60	35	55	40						
Gadwall												
Wigeon	2	10	40	18	10	25	20					
Pintail												
Shoveler												
Scaup	65	50	105	80	120	150	75					
Tufted Duck	75	200	300	400	450	160	80					
Pochard												
Goldeneye		130	100	160	400	80	30					
Scoter												
Eider		4	2	2	4	6	10	6				
Shelduck		18	10	12	16	20	18					
Mute Swan		290	210	320	350	180	150					
Oystercatcher	145	115	80	110	320	290	210	320	350	180	150	
Lapwing	160	100	70	335	150	220	180	350	380	110	60	
Ringed Plover	25	40	50	80	170	15	16	20	40	10	11	14
Little Ringed Plover												
Grey Plover	15	1	2	1	2	2	20	9	30	60	20	
Golden Plover	85	55	2	35	35	35	30	20	70	20	15	8
Turnstone							17	9			9	6
Snipe							1	11				
Jack Snipe							45	105	150	70	30	11
Curlew	8	3	12	140	140	365	1					
Whimbrel												
Black-tailed Godwit	1	40	1	6	10	1	1	2			10	
Bar-tailed Godwit	70	40	1	6	10	1	1	2				
Green Sandpiper												
Wood Sandpiper												
Common Sandpiper	4	1	26	26	6	6	4					
Redshank	30	30	40	90	100	25	18	25	30	20	18	30
Spotted Redshank												
Greenshank	1	1	1	5	2	2	2					
Little Stint	2	2	6	11	12	9	11				6	1
Knot												
Dunlin	16	5	2	45	230	27	35	180	220	40	30	
Curlew Sandpiper	30	5	30	20	60	35	25	6	50	90	18	60
Sanderling												
Ruff												
Avocet												

TABLE 4. SUSSEX COASTLINE WADER COUNT, DECEMBER 9th, 1972

Species	Chichester Harbour	Pagham Harbour	Climping	Goring/Ferring	Shoreham	Newhaven/Cuckmere	Pevensey Bay	Pett Level	Rye Harbour	Approx. Total
Oystercatcher	630	300	165	22		660	4,000	5	350	1,315
Lapwing	1,565	480	1	160	130	11	2	600	380	7,850
Ringed Plover	230	16		25			5		40	590
Grey Plover	250	135					500		30	440
Golden Plover	810		2				135	20	70	1,310
Turnstone	13	55					6	60	20	290
Snipe	180	5					700		80	890
Jack Snipe							12	70	150	1,115
Curlew	825	35					20		150	1,400
Black-tailed Godwit	1,400									880
Bar-tailed Godwit										2
Green Sandpiper	1,020	200	2	15	60	20	2		50	1,400
Spotted Redshank										2
Redshank	1									2
Greenshank	3									6
Knot	730								15	745
Dunlin	23,750	2,550	1	750	450	25	35		220	27,780
Purple Sandpiper			8	7		22	1		1	885
Sanderling	130	330	380				5		50	825
Ruff	20									25

NOTE: Pevensey Bay includes the shore from Langney Point to Bexhill.

TABLE 5. SUSSEX COASTLINE WADER COUNT, JANUARY 20th, 1973

Species	Chichester Harbour	Pagham Harbour	Climping	Goring/Ferring	Shoreham	Newhaven/Cuckmere	Pevensey Bay	Pett Level	Rye Harbour	Approx. Total
Oystercatcher	1,010	?	160	15		700	15,300	4	180	1,530
Lapwing	345	75			100	10	7		10	300
Ringed Plover	70	20								465
Grey Plover	340	105		25					60	2,130
Golden Plover	1,270					1	800		20	175
Turnstone	25	6	5			3	1,400	40	20	1,670
Snipe	200					2	10	80	70	1,055
Jack Snipe	1									12
Curlew	860	35								630
Black-tailed Godwit	630									630
Bar-tailed Godwit	1,400	16								1,416
Green Sandpiper										4
Redshank	640	285	1	30	200	13	30		20	1,220
Spotted Redshank	2									2
Knot	545									545
Dunlin	21,130	3,200		800	1,200	20	30		26,380	
Purple Sandpiper			4	5		22	20			51
Sanderling	?	5	300	300					90	825

NOTE: Pevensey Bay includes the shore from Langney Point to Bexhill

THE CANADA GOOSE IN SUSSEX

An account of its introduction, recent history and current status  
By S. W. M. HUGHES

The Canada Goose (*Brantha canadensis*) was first introduced into England from North America in the second half of the seventeenth century (Ray 1678). Further introductions followed in the eighteenth and nineteenth centuries, the geese being released on private waters, either as ornamental waterfowl, or for sporting purposes. By the 1930s they were living in a semi-feral state in several parts of the country and the species was admitted to the British List (The Handbook 1938).

The status of the species during the war years is unknown but a census in July 1953 revealed a total population of 2,600-3,600 birds, the majority of which were still confined to the lakes in private parks where they were originally introduced (Blurton-Jones 1956). Some of these flocks were beginning to conflict with farming interests and during the 1950s many hundreds of geese were redistributed throughout England and Scotland by the Wildfowl Trust and the Wildfowlers Association of Great Britain and Ireland (W.A.G.B.I.). This led to a further increase in numbers and by 1967-1969 Ogilvie (1969) estimated the national population to be approximately 10,000.

Very little is known about the introduction of the species into Sussex and our knowledge of its status in more recent times leaves much to be desired. This paper places on record some previously unpublished historical information and describes the establishment and growth of the various flocks that now exist in several parts of the county.

## INTRODUCTION INTO SUSSEX

Although first introduced into England in the second half of the seventeenth century the literature contains no mention of the species in Sussex prior to the second half of the nineteenth century. The Victoria History of Sussex (1905) describes the species as being present on many lakes in the county but detailed enquiries suggest that it was largely confined to West Sussex. The species is said to have bred freely but the young wandered widely and were quickly shot, e.g. one is recorded as having been taken at Pagham Harbour in 1895. Neither Knox (1849) nor Borner (1889 and 1891) refers to the species in his ornithological writings.

Canada Geese were present at Knepp Lake at the turn of the century (Sir Walter Burrell, per. comm.) and at Warnham Mill Pond during the 1908-1910 period (the late F. J. Parkhurst per. comm.). A pair was also present at Warnham in the late 1920s (J. Parkhurst per. comm.) and it is possible that this was a regular breeding locality at the time. It has not been possible to determine the exact date of introduction at Petworth Park but it is known to have been between 1918 and 1930 and Petworth was almost certainly the origin of the 11 geese which are recorded as having visited Lurgashall Mill Pond in April 1930 (Miss P. Bond per. comm.).

It is known that the species was present and bred at Hampden Park, Eastbourne in the 1920s, but this is the only record available for East Sussex.

No other information has been forthcoming for the pre-war period but it would be surprising if some other small flocks did not exist on private waters.

## POST WAR STATUS (1948-1952)

It has proved exceptionally difficult to obtain information for the immediate post-war period. The lack of records suggests that the species probably disappeared during the war years except from Petworth Park where a small breeding flock of 10-15 geese was maintained. There was none at Warnham or Knepp Lake immediately after the war, but an attempt, apparently unsuccessful, was made in the years 1948-1950 to reintroduce the species at a farm near Shipley, two miles west of Knepp.

One or two pairs were recorded at Shillinglee Pond in the spring of 1948 and again in 1950 and 1951. Also in the spring of 1951, 5 were seen on Amberley Wild Brooks. It seems highly likely that all these records relate to local movements from Petworth Park where the flock was slowly being re-established.

It will be noted that none of the records for the immediate post war period relates to East Sussex. A species distribution map prepared by W. B. Alexander (Fisher, 1954), confirms the apparent absence of the Canada Goose from the east of the county prior to 1950, however it should be recognised that this absence of information might just be a reflection of lack of interest in the species by the local ornithologists of the day.

## ESTABLISHMENT AND GROWTH OF SUSSEX FLOCKS (1953-1972)

Neither W.A.G.B.I. nor the Wildfowl Trust has any records of Canada Geese being introduced to Sussex waters during the national redistribution in the 1950s. The Sussex Ornithological Society files for this period contain very few records but the information that is available suggests a gradual increase in numbers and distribution towards the end of the fifties. More records are available for the 1960s but it is unfortunate that the majority relate only to West Sussex. It has therefore been necessary to pursue private enquiries throughout the county in order to obtain what, it is hoped, is a comprehensive account of the establishment and growth of the various flocks over the last 20 years.

Figure 1 maps the waters where introductions are known to have been made; the waters which are now used regularly throughout the year; those which are used less regularly and waters at which successful breeding has been recorded. Important winter grazing areas away from these waters are also indicated. By circumscribing the areas within which movements of geese are regularly reported, it can be seen that Sussex supports two subpopulations. In addition there are waters in both the north east and extreme east which are apparently being colonised by subpopulations based in Kent. The exact circumstances surrounding the geese in the extreme south west of the county are confused and require clarification.

Fully to understand the development of the two Sussex subpopulations, and prior to considering the status of the species in the other areas, it will be helpful to consider the various stages that have been described in the development of a typical geographically isolated subpopulation of Canada Geese. According to Burton-Jones (1956) this species has little inclination to wander from a water to which it has been introduced, providing the water meets the species' basic requirements. Furthermore fighting is confined to a specific area around this water.

As the size of the flock increases the territory size of the breeding pairs is reduced and successful breeding becomes more difficult. At this stage new pairs are forced to move out in spring to subsidiary waters; these colonisations are normally confined to the area in which the flock already moves. Successful breeding pairs return with the young, after the moult in July, to the original water in preparation for the autumnal gathering and the whole flock remains at the water throughout the winter.

With a further increase in flock size the winter flocking pattern may also change. The whole flock, or just part of it, may visit subsidiary waters and eventually some geese may spend much of the winter on these waters, whilst others remain at the original site. The next development is that pairs breeding on subsidiary waters may flock on these waters in autumn and eventually some may remain there during the winter if there is sufficient food available.

The development of the two Sussex subpopulations is described below. The subpopulation in the north west of the county has been established much longer than that in the south east, however it will be seen that both have developed according to the typical pattern summarised above.

### North West Sussex Subpopulation

This subpopulation has developed from the flock at Petworth Park. The Petworth flock has been highly successful and during the last 20 years has colonised Knepp Lake, Warnham Mill Pond and waters in south west Surrey. It also seems highly likely that the flock at Petersfield (Hants) originated from Petworth.

**Petworth Park.** The introduction between the wars has been mentioned previously. In early 1953 the flock numbered 14 and in that year 4 pairs reared 9 young. Few other counts are available for Petworth Park and the most reliable indication we have of the growth of the flock during the late 1950s and early 1960s are the winter counts that have been made in the Arun Valley (Table 1)

In September 1968 the autumn flock at Petworth numbered 212. Such numbers presented problems, and breeding was controlled in 1969 with the result that only 10 goslings were reared. In 1970 when breeding controls were relaxed c.30 young were raised and the highest figure available for the autumn was 147 in October. The numbers of young reared in 1971 and 1972 were c.40 and 52 respectively. The highest count in 1972 was 170 in November.

Pairs disperse in spring to several waters in the area but breeding has only been reported from Lurgashall, Shillinglee, Burton and Chingford Ponds.

**Knepp Lake.** It is known that geese were not introduced to this water (Sir Water Burrell, per. comm.). Small parties made occasional visits in the early 1950s and the water was colonised at that time. No other records are available until 1957 when there was one pair present in the spring. Two pairs bred in 1958 and 2 or 3 pairs nested annually during the 1959-1963 period (Atkinson-Willey 1963). Breeding success has been variable due to controls. A small party of immatures summered for the first time in 1960 and the regular use of this water during the winter months commenced in 1962/63. Breeding pairs and immatures still return to Petworth for the autumn flocking.

Pairs disperse in spring to several waters along the Adur Valley. Breeding has been reported from St. Julian's, Coolham; Pond Leigh, Twineham and Little Hickstead. Wiston Pond was used in the late 1950s but not again until 1972 when one pair raised one young. This pair may however have originated from a nearby poultry farm where a small number of these geese are known to be kept in captivity.

**Warnham Mill Pond.** The earliest records available for recent times are of 4 geese present in January 1957 and 23 in September 1958. There are no other records until the winter of 1961/62 when the species is said to have been an occasional visitor. It has been confirmed that no introduction was made at this water (C. J. Lucas per. comm.) but it is thought that a wounded bird was present in spring of 1962 and attracted a mate. Breeding was first confirmed in 1963 and thereafter one or two pairs have bred regularly either on the Mill Pond itself or in Warnham Park. In some years the figure has been as high as 5 or 6 pairs. It is not known whether colonisation of this water occurred before or after the colonisation of the waters in south west Surrey which are used regularly by the Warnham flock. Regular winter flocking at Warnham commenced during the 1962/63 winter.

A small flock of immatures summered for the first time in 1969 and autumn flocking at Warnham also occurred for the first time that year. Autumn flocking occurred again in 1970 and 1971, despite drainage of the pond in July of the latter year to allow the reconstruction of the flood gates. In 1972 two pairs attempted to breed in Warnham Park, without success; there were no immatures present throughout the summer nor did autumn flocking take place. Furthermore there were only occasional visits by small parties during the winter months.

In spring pairs disperse to several waters in the St. Leonards Forest area and in south west Surrey. Breeding has been reported in Sussex from Rudgwick, Barnhouse Pond, Leonardslee, Nuthurst and Newells Pond.

**The Arun Valley.** Parties of geese have been reported grazing in the Arun Valley in every month of the year, but most records relate to the October-March period. Amberley Wild Brooks and the Wiggonholt area appear to have been particularly favoured during the 1960s although almost all of the levels between Fittleworth and Amberley have been used occasionally.

Counts made in the Valley in the months of September-November have often correlated well with the counts available for the autumn flocks in Petworth Park, e.g. 212 at Petworth in September 1968 and c.200 at Amberley Wild Brooks in November; 147 at Petworth in October 1970 and c.150 at Amberley in November. Thus these counts have provided an invaluable means of monitoring

the growth of the subpopulation. However the commencement, in recent years, of autumn and winter flocking away from Petworth Park has meant that it is no longer valid to assume that counts in the Arun Valley represent the total subpopulation.

At dusk, the geese on leaving the Valley can often be seen to split into two flocks, one flying away to the west, i.e. to Petworth, and the other north east towards Knepp. Observations at West Chiltington show that the latter flock usually flies direct to Knepp although it sometimes visits St. Julian's, Coolham (F. W. Dougharty, per. comm.). There are no records suggesting direct movements between Warnham and the Arun Valley but there are increased local movements when Warnham Mill Pond and Vachery Pond (Surrey) are frozen over and there is circumstantial evidence of movements from Warnham to Knepp and Petworth particularly in prolonged periods of bad weather.

In January 1968 an unprecedented number of 240 geese was present in a single flock on floods at Pulborough. This number appears to have been in excess of the sum of the figures available for the separate flocks at the waters mentioned above, although it is possible that the autumn figures in excess of 200 at Petworth did not include all the geese from Warnham and south west Surrey. Alternatively it is possible that the number at Pulborough was due to the subpopulation being joined by geese from the Petersfield (Hants) flock about which relatively little is known.

**Petersfield Lake (Hants).** The species was first reported on this water in 1935 and was resident from 1936 suggesting a colonisation by the Petworth flock, some 14 miles distance, which was becoming well-established at that time. The war-time and post war status cannot be determined but Blurton-Jones (1956) has reported that the species was not breeding there in 1953 but the water was being used regularly by a flock of up to 28 geese during the winter months.

In recent years breeding has been reported on the Sussex side of the border in 1962 and subsequently 2-3 pairs have bred annually at West Harting Pond and Decoy Pond or along the streams between these two waters. In August 1968 the post breeding flock at Petersfield was 50+ but in June 1971 there were only 24 adults and 7 young. Although the information available is scant it appears that this water supports a small breeding population and is also used in summer by a small flock of immatures. It is not clear whether autumn flocking occurs, but small numbers of geese are resident throughout the winter except in the severest weather.

TABLE 1. Annual Winter (October-March) Maxima of Canada Geese at these localities in north west Sussex

Locality	Year 1962/63	63/64	64/65	65/66	66/67	67/68	68/69	69/70	70/71	71/72
Arun Valley	116	103	90	89	170	240	250	95	150	160
Knepp Lake	11	17	55	77	30	50	90	50	40	30
Warnham Mill Pond	11	9	41	24	10	39	30	30	46	60

#### South East Sussex Subpopulation

Two major introductions have been made in this area. The first was at Herstmonceux in 1961 and the second at the Bentley Wildfowl Collection in 1967. Until recently the movements of both of these flocks remained fairly discrete but during the winter of 1971/72 the flocks merged and subsequent observations have shown that it is now more appropriate to regard these flocks as a single subpopulation.

**Herstmonceux Castle.** Two pairs were introduced from St. James Park, London, in July 1961 (J. Clark, per. comm.); one bird was accidentally killed and a replacement, plus another pair, were delivered from the same source in December. Successful breeding is believed to have occurred for the first time in 1963 and one or two pairs now breed annually with varying success. By 1967 the flock had increased to 20 and several pairs were given to the Eastbourne Parks Department. However when released these birds returned almost immediately to Herstmonceux. A few pairs were also donated to the local authority at Bexhill but the outcome of this introduction is not known.

In early 1972 the numbers recorded regularly at Herstmonceux varied between 25-45 and 60 were present on one occasion. This latter figure was attributed to the presence of geese from Plashett Park (see below). In the late spring the resident flock numbered c.35 and two pairs raised a total of 9 young. During the moult in July, 22 geese were rounded up and transported to Brokerswood Lake, Westbury, Wiltshire.

Spring dispersal has been noted annually since 1966 to other waters in the area, notably Darwell Reservoir, Ashburnham Place and Battle Abbey but breeding has only been reported from the last two localities.

**Pevensy Levels.** There are relatively few reports for this area when one considers its proximity to Herstmonceux. The first report available of the species using the Levels is for spring 1966. There were 16 present in September 1967 but otherwise the numbers recorded in the 1967-1969 period have always been small. Flocks of 10-12 were present during the 1969/70 and 1970/71 winters. The water in Hampden Park has been used occasionally but the numbers have been small, e.g. 3 in January 1971.

**Ashburnham Place.** One pair arrived in spring 1969 but did not settle. Breeding occurred for the first time in 1970 and a party of 18 paid regular visits during the second half of the year. The family party spent most of the winter at Ashburnham and since then this water has been used regularly in the winters of 1970/71 and 1971/72 by flocks of up to 38 geese (Miss P. Y. Gregory, per. comm.). Indeed it would appear now that Ashburnham Place is more important than Pevensy Levels as a wintering area for the Herstmonceux flock. In 1971 there were 3 pairs present during the breeding season and one pair reared 6 goslings. In 1972 neither of the two pairs present was successful.

**Plashett Park.** In August 1967 26 full winged geese, which had been obtained from a private flock at Liphook, Hants., were released in the Bentley Wildfowl Collection at Halland (Mrs. M. Askew, per. comm.). However this site appears to have been unacceptable to the geese which quickly took up residence on the water at Plashett Park.

A pair flew into a private wildfowl collection at Knowlands Farm, Barcombe, in spring 1968 and bred successfully. However the female and young were subsequently killed by a fox. Successful breeding at Plashett Park first took place in 1969 and one or two pairs have bred there annually since. At the end of 1971 and 1972 the regular wintering flock numbered c.45 and c.75 respectively. Successful breeding has not yet occurred at the Bentley Collection.

**Ouse Valley.** There are records of 3 geese flying in from the sea at Newhaven in January 1963 and of 3 at Piddinghoe in April 1967. One can only speculate that these geese originated from the Herstmonceux flock as the species had not at that time been introduced at Halland. There are relatively few records for the Ouse Valley south of Lewes and most refer to spring dispersal of pairs to Newhaven Tide Mills, Piddinghoe and Barcombe Mills. The Plashett

Park flock, when 24 in number, was recorded once at Barcombe in August 1968. There are winter records for the flood waters in the region of Hamsey Church, and the river south of Lewes is also used sometimes. In 1972 a small flock of 8 geese spent much of January and February at Tide Mills.

**Cuckmere Valley.** There was no record of the species for the Valley prior to the introduction at Halland. During the period October 1967-February 1968 a party of 16 frequented the lower valley but in subsequent years it has been unusual to record more than 6 at any time of year. In July-August 1972 however a party of 11 was seen again below Exceat Bridge. Although 1-2 pairs disperse in the valley each spring there has never been any evidence of attempted breeding.

**Glynde Levels.** The adoption of these levels for winter grazing seems to correlate with the move away from the Cuckmere. The first records available are for 1970. The maxima recorded in recent winters have been 30 in 1970/71, 41 in 71/72 and 70 in November 1972. The rapid increase in numbers in 1972 lends further support to the theory that these levels are now used by the combined Plashett Park and Herstmonceux flocks.

**Arlington Reservoir.** The first record of the species at this recently constructed reservoir is for April 1971 and possibly relates to spring dispersal from Plashett Park. Small parties of up to 18 geese visited the water throughout the first 5 months of 1972. None summered there but the water was used regularly during the autumn flocking period with maxima of c.100 and c.120 on October 14th and 17th respectively. Smaller flocks of 60-80 continued to use Arlington reservoir throughout the 1972/73 winter.

#### Flocks in other areas of Sussex

**Weir Wood Reservoir and north east Sussex.** The species was first reported at Weir Wood in 1958 when a pair arrived in the spring and remained throughout the breeding season. Four were present in the following February and one in March. Thereafter there were no records until 1963 when up to four were present in the spring, 5 in August and 14 in December. In 1964 and 1965, one and two pairs respectively were again present in early spring.

Thus by 1965, Weir Wood was being visited regularly during the spring by prospective breeding pairs and used occasionally in the winter by small parties. The regular use of the water for winter flocking started in 1966/67 and has continued annually ever since. Small parties of non breeders have spent the spring and early summer on the reservoir since 1968, and in 1970 stayed for the moult, and thus geese were present in every month of the year for the first time.

The geese visiting Weir Wood are thought to be part of the large west Kent subpopulation which gathers on the gravel pits in the Sevenoaks district in the autumn prior to dispersing again for the winter months. In 1969 this subpopulation reached a peak of c.350 but the figure for 1970 was somewhat lower (J. Harrison, per. comm.). Maxima at Weir Wood for the winters of 1969/70 and 1970/71 were 40 and 26 respectively thus possibly reflecting the trend in the overall subpopulation.

Despite the regular presence of one or two pairs each spring, and mating being seen in 1971, breeding has never been attempted at Weir Wood itself. There are however records of nesting on nearby waters in the Turners Hill area, e.g. Furnace Wood Lake and Fen Place Mill Lake in 1970, and success at the latter site in 1971. Pairs have also been reported in the spring from Tilgate Lake and Ifield Mill Pond.

One or two pairs of geese are occasionally present in spring on waters in the Withyham area in the extreme north east of the county. These have almost certainly dispersed from a flock, c.70 strong in 1970/71, which winters on the waters in the Tunbridge Wells area and which is also part of the west Kent population.

**Rye and Pett Level.** The first records for these areas were of two tinged geese present at Rye in May 1958; one flying west in March 1959; two in the harbour in May 1959 and two in the harbour and on Pett Level from August to September 1960. The origins of these birds are not known but it seems highly probable that they had dispersed from a small flock which had been introduced onto the Royal Military Canal at Hythe in 1956 and subsequently colonised the Dungeness peninsula.

Two geese were seen again at Rye in November 1962 and in April and September 1963. In 1964 three remained for much of the year and in the following year there were 16 at Rye in June, and in August parties of up to 12 on Winchelsea Marsh. Breeding first took place at Rye in 1966 when the post breeding flock numbered 16. Similar numbers were present in 1967, again after successful breeding, and thus Rye became established as a subsidiary colony of the rapidly growing Dungeness subpopulation. In subsequent years one or two pairs have nested annually but breeding success has been very variable. In 1970 6 pairs nested; 4 pairs rearing a total of 10 young. The post-breeding flock numbered 23 but up to 36 geese were recorded occasionally, thus illustrating the regular movements that occur between Rye and Dungeness particularly in the spring and autumn (Flumm, 1971). In 1971 only one pair bred successfully and the summer flock numbered 16 (Flumm, 1972). All the geese leave Rye for the autumn flocking, presumably at Dungeness.

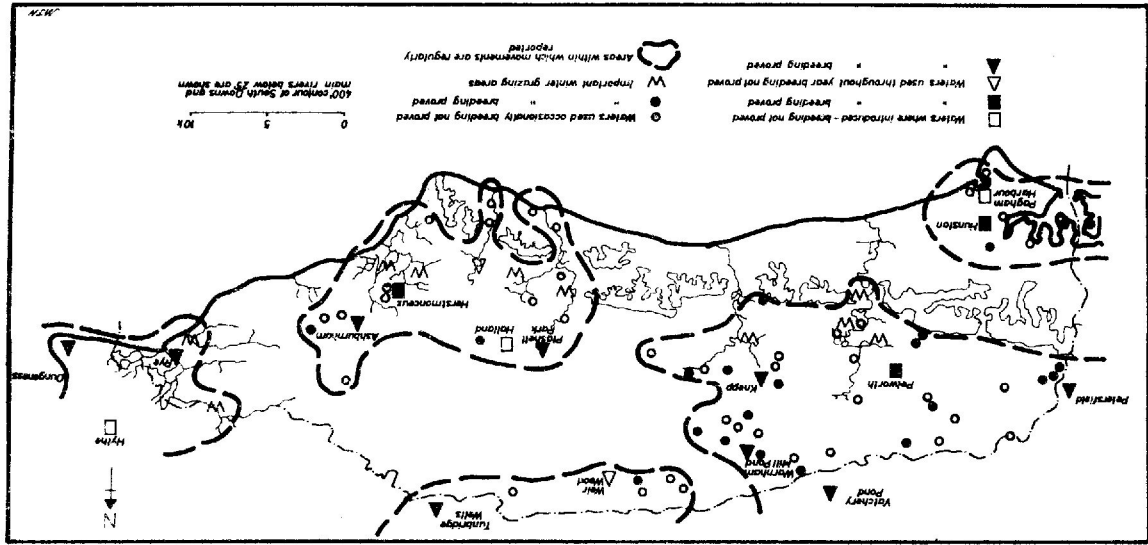
Regular wintering at Rye commenced in 1968/69 and since then Pett Level has been used regularly for winter grazing. Small parties of geese, which are thought to be from the Rye/Dungeness subpopulation, have been reported from Wet Level near Beckley. A pair was present in April 1966 and 4 wintered in the area in 1967/68.

**Chichester Harbour and Pagham Harbour L.N.R.** Although figure 1 suggests a subpopulation on the Selsey peninsula the true position is difficult to evaluate. There were several isolated records of geese of unknown origin in the Selsey-Pagham area during the 1957-59 period. The few details available suggest that most of these had escaped from private wildfowl collections.

The first of several introductions in the area occurred in 1960 when 5 adults were introduced into Pagham Harbour in August (Phillips 1966). All were ringed with W.A.G.B.I. rings but none has been recovered. There have been only two subsequent records which might relate to these geese; 2 in Pagham Harbour in October 1961 and one there a year later.

In 1963 a party of 16 frequented Manhood End and also visited Pagham Harbour regularly during the early months of 1964. The sudden appearance of a party of this size suggests a further introduction. The Chichester Wildfowling Association is known to have introduced a total of 10-12 pairs into Chichester Harbour over the years but the exact dates are not available. It is also possible that there have been some private introductions. The numbers in the area declined slowly until 1967 when parties of up to 24 were reported. Similar numbers are still recorded from the area; the majority of sightings now being received from Pilsey, Bosham, Itchenor and Manhood End and with occasional records from Pagham and Chichester Gravel Pits.

FIGURE 1. The current distribution of the Canada Goose in Sussex



Breeding may have been attempted at Longmere Point in 1966 and certainly took place there in 1970. Breeding also occurred on Hayling Island (Hants.) during this period and again in 1972.

**Chichester Gravel Pits.** The first records are of parties of 6 and 10 seen in September 1964 and 1966 respectively. These records probably relate to movements of the flock in the Chichester Harbour area at that time and similar autumnal movements still occur. Most records from the gravel pits in recent years can however be attributed to a small number of geese introduced on a farm at Mundham. Single pairs have bred successfully at the pits in 1967 and also in more recent years. Some of these geese have also inter-bred with local farmyard stock and hybrids are frequently seen in the area (J. Stacey, per. comm.).

In conclusion the status of the species on the Selsey peninsula is difficult to assess and it seems possible that the many records of small parties in the area are derived from several introductions, none of which has been very successful.

**Miscellaneous Records.** One goose of unknown origin spent much of the second half of 1955 in Littlehampton Harbour. A party flew N-S over the Lancing-East Worthing area in May 1966 and 3 were seen resting on the sea in the same area in April 1968. Both of these latter records probably represent spring dispersal but their origin is uncertain, with the Chichester area or the Arun Valley as possible sources. There are four records of geese flying past Beachy Head during the 1960-1970 period. The largest party of 5 in April 1966; other records were for May, June and September (Quinn and Clement 1972). All these records may relate to either spring or autumn movements by the Herstmonceux flock.

## DISCUSSION

### Population Estimates

The published literature contains two estimates for Sussex. In July 1953 there were 23 geese at Petworth and the total county population was estimated at between 23-50 (Blurton-Jones 1956). More recently Ogilvie (1969) has estimated the population of Sussex and south west Surrey during the period 1967-1969 at 290. This number was based largely on counts of 295 and 279 in January 1967 and 1968 respectively. It is unfortunate that both papers being reports of national surveys give few supporting details for the numbers quoted, but Ogilvie does make reference to the single flock of 240 geese on Pulborough floods in January 1968.

It is surprisingly difficult to make assessments of the numbers of this species. Theoretically it should be possible to obtain accurate figures during the flightless period in July, when the risk of duplication is at a minimum. At this time immatures and non breeding adults can be located on the larger waters and are easily counted. Breeding pairs and the young of the year are however still scattered widely at breeding sites, which in Sussex are often very small inaccessible waters. The numbers in these family parties usually represent a sizeable proportion of the total population and thus their omission from a survey invalidates the results.

Despite these difficulties a serious attempt was made to assess the summer population in July 1971 and this resulted in a figure of 326 which included 98 young of the year. This was almost certainly an under-estimate due to the difficulty of locating all the breeding pairs.

In autumn and winter, flocks can be located and counted with comparative ease, but their mobility makes duplication of numbers a real problem. This is particularly so in the autumn. Furthermore the numbers on some waters e.g. Weir Wood are increased substantially by visiting geese from neighbouring counties. Although winter counts have their limitations they are nevertheless a practical way of monitoring population levels and trends, when the results of detailed breeding surveys are not available.

The histogram (figure 2) of January maxima for the years 1963-1972 shows clearly the overall population trends during the last 10 years. In arriving at these figures care has been taken to avoid duplication in the north west of the county by including only the maxima for the Arun Valley. It is therefore probable that the figures used for some years do not reflect accurately the total subpopulation in north west Sussex. This will be particularly true for the mild winters during which the total population failed to gather as a single flock in the Arun Valley. Similarly care has been taken to avoid duplication of numbers in the Herstmonceux/Pevensey Levels and Plashett Park/Glynde Levels/Cuckmere Valley areas.

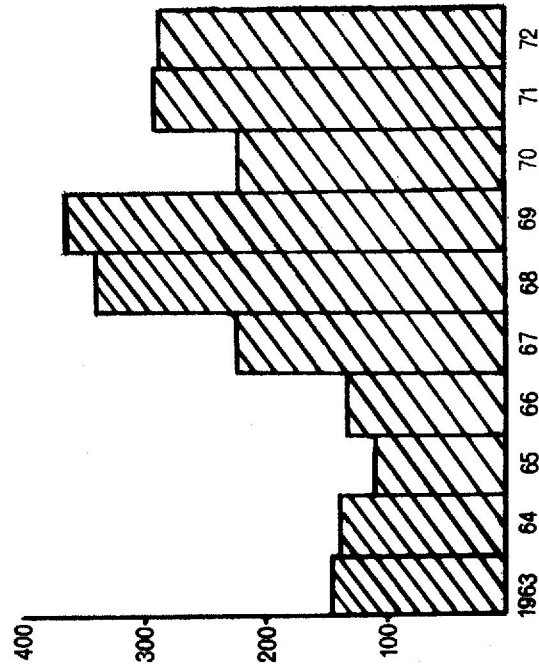


FIG. 2. Estimated numbers of Canada Geese in Sussex based on January maxima, 1963-1972



TABLE 2. Sites at which Canada Geese are known to have bred successfully since 1947

BREEDING LOCALITY	FIRST BRED	REMARKS
West Harting and Decoy ponds and associated streams	1962	1-3 pairs annually in the area. No information since 1968
Longmere Pond, Chichester Harbour	1966	One pair, also in 1970
Chichester Gravel Pits	1967	One pair in 1969, 1970 and 1972. Hybridised at Mundham in 1968
Petworth Park	**	Up to 10 pairs have attempted to breed. Breeding sometimes controlled
Shillinglee Estate	1972	One pair
Lurgashall Mill Pond	1964	One pair also in 1969
Burton and Chingford Ponds	1970	One pair also in 1971
Warnham Mill Pond and Park	1963	2-6 pairs have attempted to breed annually. In 1972 2 pairs successful annually except in 1972
Bury St. Austens Farm, Rudgwick	1971	A very small pond
Cooks Farm, Nuthurst	1971	May have bred here in 1970. One pair also in 1972
Barnhouse Pond, St. Leonards Forest	1970	One pair also in 1971
Knepp Lake, West Grinstead	1953	One or two pairs have nested annually but breeding controlled
St. Julians Lake, Coolham	1969	One pair also in 1970 and two pairs in 1971 and 1972
Pond Leigh	1969	One pair annually since 1970
Twineham	1971	One pair on very small pond
Fen Place Mill, Turners Hill	1971	Had failed here in 1970
Plashett Park	1969	One pair in 1969 and 1970. Two pairs successful in 1971 and 1972
Knowlands Farm, Barcombe	1968	One pair bred in semi captivity
Herstmonceux Castle	1963	1-2 pairs annually
Ashburnham Place	1970	One pair in 1970 and 1971
Rye Harbour area	1966	1-2 pairs annually but 4 pairs successful in 1970
Battle Abbey	1972	One pair

\*\* Breeding continuity unbroken since first introduced.

The population estimates given in figure 2 for January 1967 and 1968 are at variance with those of Ogilvie (1969). Several explanations could be offered for this, the most likely being the omission of the newly introduced flock at Plashett Park and also the numbers at Rye and Weir Wood which might, in view of their origins, have been justifiably included in figures for Kent. The average of the totals in figure 2 for the years 1967-1969 is 301 and this compares well with the 290 quoted by Ogilvie. The exact totals are in themselves of little importance as the figures from both sources demonstrate clearly a 6-7 fold increase in the Sussex population over the last 20 years.

#### Factors currently affecting the size of the Sussex Population

A breeding population of Canada Geese can more than replace its numbers annually and as each pair has a breeding life of 5-10 years the potential for increase in numbers is enormous. The 6-7 fold increase in the subpopulation during the last 20 years is not therefore so dramatic as it may at first seem and the population increase would certainly have been greater had the species not been subjected to human control.

In the north west of the county the size of the subpopulation has been determined largely by the activities of the land owners at the established breeding sites. Control has usually been on an *ad hoc* basis by egg collecting or pricking, and more recently by some winter shooting. Attempts to regulate the population entirely by breeding controls are now being increasingly frustrated by the colonisation of subsidiary waters where the geese are often encouraged and vigorously protected. There is as yet no evidence of human predation of nests for control purposes in other parts of the county, but there have been one or two instances of egg stealing by youths.

The Canada Goose has very few natural predators. There are no species which can attack and kill adults under normal circumstances. They roost on water or islands so that foxes cannot take them by surprise at night. Foxes do occasionally take goslings on land during the day but the latter are mainly predated by pike which can cause heavy losses and which may account for the poor breeding success at some apparently suitable waters, e.g. Burton and Chingford Ponds.

Table 2 gives details of the sites in Sussex where successful breeding is known to have occurred. Whilst there can be no doubt that there are some sites which are unknown to us, the number still seems very small for such a large population. For reasons unknown, only a relatively small proportion of the geese in each flock attempt to breed. Spring dispersal occurs to many waters but breeding success is very poor. Most pairs do not even attempt to nest and thus it must be concluded that there is a shortage of suitable breeding habitat.

According to Blurton-Jones (1956) a suitable nesting habitat has to be near water, free from disturbance, and reasonably well hidden; has to have a safe area of water as a refuge from disturbance, and a food supply (accessible from the water) for both the adults and their goslings. The majority of nests are made on islands, mostly within 5 yards of the water, some in reed beds and a few on the main banks of waters.

No detailed analysis has been made of the sites used in Sussex but there is an obvious preponderance of island nests. The size of the water involved seems to be relatively unimportant as long as there is sufficient to protect the nest from predators. Some waters used have been less than a quarter of an acre in area. Nesting has occurred to a lesser extent in reed beds, e.g. at Knepp Castle and Warnham Mill Pond and there have been instances of nesting on main

banks of waters, but this has usually been in semi-protected environments, e.g. walled and well kept estates. Finally it should be noted that breeding has occurred occasionally at the coast but success appears to be relatively limited in salt or brackish waters.

Farmers' opinions vary as to the numbers of geese that are compatible with their interests but all are agreed that the main damage caused is to winter wheat and that there is very little damage to standing wheat. In this connection it should be noted that detailed experiments in Scotland have shown that apparent serious damage to growing cereals in early spring is not necessarily reflected in lessened yields at harvest (Kear 1965) though this may not be true of later heavy grazing. Occasional complaints are also made concerning fouling by large flocks, but this is restricted to pastures near waters used during the annual moult. Such areas may also be over grazed occasionally. There can be no doubt that the conflict with agricultural interests in north west Sussex is resulting in substantial culling by farmers in the vicinity of the major waters and grazing areas.

Estate owners in the interior of the county all agree that the species has little or no sporting value as the geese become too tame and rarely fly above tree top height. It has however been established that a few are taken annually by wildfowling in the Arun Valley particularly during January and February when the flocks can become quite wild and provide a sporting shot. The situation at the coast is slightly different. Here there have been various introductions in both Pagham and Chichester harbours by wildfowling organisations and the records of the Chichester Harbour Wildfowling Association indicate that 2 or 3 geese are taken annually in their area. Although this number is small, the population in the harbour has never been above 24 and it seems likely that the species' lack of success in the area may have been partly due to shooting pressures. There is some evidence of wildfowling in the Rye/Pevensy Levels area and wildfowling has been suggested as a possible reason for a recent move away from the Cuckmere Valley.

#### Possible Future Developments

The size of the present day flocks in the north west of the county is low compared with that of former years and it seems doubtful whether these flocks will be allowed to increase substantially. There is however the possibility that this subpopulation might make more use of the Adur Valley and surrounding areas where they are still welcome on account of their limited numbers. In the autumn of 1971 a party of 26 geese gathered on a private lake at Burgess Hill (Mrs. J. Edom, per. comm.) and it seems that this might now become a new wintering area for the flock which is becoming established in the area due to the regular breeding success at Pond Leigh. Small parties of geese were also reported grazing on the Adur Levels in the 1971/72 winter and these too may have originated from this flock.

The subpopulation in south east Sussex will probably show most change in the immediate future. Observations at the two original waters in the area and also at Ashburnham Place during the 1971/72 winter suggest that the two flocks have merged and are now behaving as one subpopulation. Subsequently 1972 has seen the regular use of the new reservoir at Arlington by small numbers in the spring; the whole subpopulation for the autumn flocking and lastly by a substantial flock at the end of the year. The discovery and use of this sizeable new water must have drastically changed the future prospects of the species in this area since the original waters were becoming overcrowded and plans had

already been made to round up a second batch of geese at Herstmonceux in July 1973. The calculated size of the subpopulation based on the flock sizes at Herstmonceux and Plashett Park at the end of 1972 is however at variance with the maximum number recorded at Arlington in October 1972 and thus it is necessary to speculate that the flock at Burgess Hill might also have found this water. This point will require further clarification in future years.

A similar overlapping of subpopulations may well occur during autumnal movements in other areas in the near future. For example in September 1970, 200 geese were present at Vachery Pond in south west Surrey and 100+ at Rudgwick, Sussex in late August 1971. The former number was certainly in excess of the total number in the north west Sussex subpopulation in that year and it seems probable that this record is of visiting geese from the north west Surrey or north east Hampshire subpopulations. Although it is difficult to be sure, the pairs of geese which disperse in spring to ponds in the Crawley area are thought to originate from Weir Wood, rather than Warnham Mill Pond (as shown in figure 1). This hypothesis is based on careful counts made of the Warnham flock prior to dispersal and then accounting for the flock on nearby waters in the spring. Nevertheless the proximity of the Crawley waters to those in St. Leonards Forest, used by some of the Warnham geese, is such that an area of overlap might occur here in the not too distant future.

Elsewhere developments can still be envisaged in terms of existing flocks. That in the Rye/Dungeness area might make more use of the eastern River Rother and the Brede Valley. The future of the species in the harbours in the extreme south west seems less assured unless one water can be found which can provide both safe breeding and roosting conditions. It is possible that a flock might be established at Chichester Gravel pits and this could provide the foothold required to establish the species in the area. In September 1971 approximately 60 geese flew into Chichester gravel pits from the north west and later departed SE. (Miss J. Stacey, per. comm.). The origin of this flock, which is the largest ever seen at the gravel pits, is open to speculation, e.g. Petworth or somewhere in Hampshire. Irrespective of origin, this record appears to be a further example of wide ranging autumnal movements which are occurring with increasing frequency and which conflict with the usual concept of the Canada Goose in the British Isles as being a sedentary species. In this connection it should be noted that the species has already surprised British Ornithologists once when it was discovered in 1963 (Dennis, 1964) that geese which had been appearing for the previous 15 years on the Beaulieu Firth for the annual moult had in fact been migrating from central Yorkshire. This movement over a distance of some 350 miles is, of course, small compared with the long distance north-south migrations that occur in North America. Nevertheless, it illustrates this species' potential for adaptation and similar long range movements might develop elsewhere.

Thus in conclusion the comparatively simple picture that we still have in Sussex will almost certainly become very much more complex in the very near future. It will then be much more difficult, if not impossible, to continue to account for the spread of the species in the county in terms of colonisations by breeding pairs from the original flocks.

#### References

- Atkinson-Willes, G. L. 1963. *Wildfowl in Great Britain*, London.  
Blurton-Jones, N. G. 1956. Census of Breeding Canada Geese 1953, *Bird Study* 3: 153-170.

- Borret, W. 1891, *Sussex Birds*.  
 Borret, W. in Hurst, D. E. 1889, *The History and Antiquities of Horsham*.  
 Dennis, R. 1964, *Wildfowl Trust Assn. Rep.* 15, 71-74.  
 Fisher, J. 1951, *Bird Recognition*, Vol. 2, London.  
 Flumm, D. S. 1971, *Rye Harbour Local Nature Reserve Annual Report 1970*.  
 Flumm, D. S. 1972, *Rye Harbour Local Nature Reserve Annual Report 1971*.  
 Kear, J. 1965, *Trans. 6th Int. Union Game Biol.* 333-339.  
 Knox, A. E. 1849, *Ornithological Rambles in Sussex*, London.  
 Ogilvie, M. A. 1969, *The Status of the Canada Goose in Britain 1967-1969, Wildfowl 20*, p. 79-85.  
 Quinn, A., and Clement, P. 1972, *The Beachy Head Bird Report 1960-1970*.  
 Phillips, W. W. A. 1966, *The Birds and Mammals of Popham Harbour*.  
 Ray, I. 1678, *The Ornithology of Francis Willughby*, London.

*The Handbook*

- Witherby, H. F., Jourdain, F. C. R., Ticehurst, N. F., and Tucker, B. W. 1939, *The Handbook of British Birds Vol. 3*, London.

**Acknowledgements**

My thanks are due to M. Ogilvie of the Wildfowl Trust at whose suggestion this study was initiated and to Dr. M. Hollings and M. Shrubbs for their criticisms of the first draft. J. W. Clark made available figures from the Wildfowl Counts in Sussex since 1960 and L. G. Weller provided similar information for south west Surrey. Valuable assistance was also obtained from P. Bond, Conservation Secretary of W.A.G.B.I., and also J. S. Luard, Agent and J. Aplin, Head Keeper of the Leconfield Estate Company, Petworth.

Much of the information on the recent history and status of the species has been compiled from private records provided by the observers listed below to whom I am deeply indebted.

- J. Ashbee, P. C. Bance, R. V. Barstow, E. S. Binns, A. J. Cooke, F. W. Dougherty, R. K. Haggart, W. E. Haines, C. F. Helyer, C. E. Hope, J. W. Houghton, C. M. James, P. James, R. J. B. Jackson, H. C. Jones, D. C. Lang, J. McTear, C. E. Messer, T. Palmer, T. W. Parmenter, S. Richardson, R. Smith, C. F. Tebbutt, Dr. A. B. Watson, R. V. White and K. Verrall.

Finally I would like to thank M. J. Helps for his patience and skill in preparing the map and Mrs. I. Simpson and Mrs. M. Tooms for unstinting secretarial assistance.