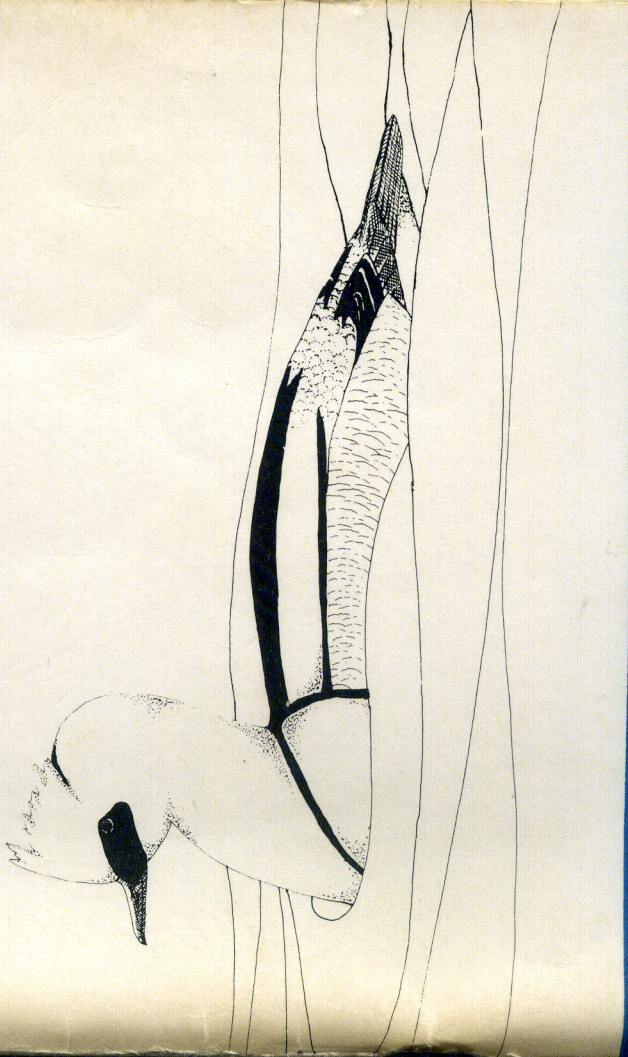


**The
Sussex
Bird Report**

1979



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NUMBER THIRTY-TWO, 1979

CONTENTS

	Page
Report of the Council	3
Contributions and Acknowledgements	6
Classified Records	8
Escapes and Ferals	62
Additions and Corrections to the 1975, 1977 and 1978 Reports	63
Coastal Counts of Waders and Wildfowl in Sussex and East Hampshire 1979/80	64
Ringling Report	69
Feral Mandarins in Sussex	72
Further Nightjar Monitoring	76
Winter Blackcaps in Sussex—a review of recent records	77

Cover drawing of Smew by Michael Pollard

Published September, 1980

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THE SUSSEX ORNITHOLOGICAL SOCIETY

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THE SUSSEX BIRD REPORT, 1979

HON. OFFICERS OF THE SUSSEX ORNITHOLOGICAL SOCIETY AS AT 30th JUNE, 1980

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- Records:* M. J. Rogers, C. M. James, B. A. E. Marr, P. J. Wilson, J. F. Cooper, A. Kitson.
- Programme:* Miss D. du Boisson, R. Page, B. F. Forbes, A. Simpson, M. J. Mason.
- Junior Section Secretary:* Miss M. Dixon, 113 Cuckmere Way, Brighton, Sussex.

REPORT OF THE COUNCIL FOR 1979

Officers and Council

The Society is fortunate in having Mr. G. des Forges as its new President. Other new officers elected were Mr. J. W. Houghton, Treasurer and Mr. S. W. M. Hughes, Assistant Recorder. One new Council member, Mr. O. Mitchell of Arundel, was also elected.

Under the five year term of office for Council members, the Press & Public Relations Officer, Mr. Howard Wheeler will not be eligible for re-election. The Society's excellent contacts with the local press in particular and the media in general have been entirely due to the unassuming but efficient way that these matters have been dealt with over the last five years by Howard Wheeler and we are especially grateful to him for this and for his part in the organisation of the Dome Film Show since 1975.

Two members of Council, Messrs. C. Messer and T. W. Parmenter, will also be retiring, and we would thank them most sincerely for all the work they have done during their term of office; Colin Messer particularly for work on the Society's display and Tim Parmenter for work on the Scientific Committee, of which he has been chairman.

Review of Society Activities Membership

The small but steady upward movement in the Society's membership shown in previous years continued and 1979 closed with membership at an all time high, our having recruited 146 new members and topped the 1300 mark. Unfortunately we lost the usual quota of members as a result of their moving away from the county, but the most significant loss was the further 5% who allowed their subscriptions to lapse for other reasons. It is worth recording that had we not lost members in this way during the last three years, our total would now be approaching 1500.

New members often join the Society as a result of the literature we place in various information centres throughout the county, and from contact with Society members at the Dome Film Show, but once again it is pleasing to record that many join as a result of personal recommendation by existing members. Perhaps in these ways we can top the 2000 mark in the 1980's.

Finance

It would have been a surprise if, after increasing our subscriptions rates by 50% in 1979, the Society had not returned to surplus on the year's activities and the accounts record that we finished £689 in the black. Our General Fund now stands at £2247, but the Conservation Fund, when allowance is made for committed expenditure, shows a meagre balance of £89 and almost certainly a transfer from the General Fund will be needed during 1980.

Assuming inflation of 20% during 1980, we will be able to hold our current subscription rates for a further 12 months but unless the Society finds other methods of raising finance, future increases in subscriptions will be unavoidable especially if we are to continue our important and increasing role in the field of conservation. Expenditure under this heading cannot be anticipated and it is essential that we have adequate reserves so we are able to act quickly when either threats occur or opportunities arise.

The Treasurer is extremely grateful to members who added a donation to their annual subscriptions and to the many members who have felt able to execute Deeds of Covenant in favour of the Society; a painless way of increasing the Society's income. 244 members, 22% of our full membership, have executed Deeds and the effect will be apparent in our 1980 Accounts.

Sussex Bird Report

The 1978 Sussex Bird Report was published in October and was again printed by Charles Clarke (Haywards Heath) Limited. The special papers in the report included the result of the Society's Nightingale survey and of the Gull roost counts and of the private studies of the breeding seasons status of the Redpoll and Kestrel.

Newsletter

It is with regret that we report that Mr. Pat Bonham has indicated his wish to resign as Newsletter Editor and will be relinquishing his position at the Annual General Meeting. He has compiled 16 Newsletters for the Society, all of which have borne his own very special approach. The Society is indebted to Pat Bonham for all his hard work over the past four years.

Scientific Committee

The Committee held five meetings during the year. As usual, much time and effort was spent planning the Society's field work and considering the production of the Sussex Bird Report.

Field work continued for the third year on the Corn Bunting and Grasshopper Warbler breeding surveys, this being the last year of study for the former and the penultimate year for the latter. A count of the Sussex Kittiwake colonies was organised as part of the B.T.O. census of this species and the regular monthly winter wader and wildfowl counts were continued, as was the annual census of Sussex heronries.

During the year a number of members of the Society were involved in the collecting and interpreting of records of some of the commoner species breeding in the county, both for immediate publication and for future use in population surveys. This matter is of special interest to the Committee in its attempt to establish the status of some of these species and the Committee was pleased to note that members have already begun to supply information in response to pleas embodied in the Sussex Bird Reports for 1977 and 1978.

Records Committee

A special Newsletter supplement on identification, notetaking and reporting was published during the year and was well received by Society members, and other bodies have also expressed interest; the supplement is shortly to be reviewed in 'British Birds'.

It is felt that rationalisation of the recording side of the Society's activities is proceeding satisfactorily and the cooperation and assistance of existing and new officials at Rye Harbour, Fore Wood, Bewl Bridge, Seven Sisters, Arundel Wildfowl Refuge, Weirwood Reservoir and Pagham Harbour is of particular value and much welcomed.

The assistance of members of the Scientific Committee in the preparation of the systematic list for the 1978 Bird Report was much appreciated.

The application of the five year rule to the committee membership is now being effected, although owing to the specialised nature of their work it is being phased over a longer period than strictly it should. Michael Shrubbs will be the first to retire, a great loss as an ex-Recorder with his unique knowledge of the birds of the county.

Conservation

Success is encouraging for a work force and in 1979 we had a good year. A total of 90 pairs of Little Tern nested in the county, of which 8 pairs nested on North Stakes Island, which was rebuilt in the spring by members. At Pagham, 35 pairs nested and this resulted in 25 young being fledged. At Rye, 40 pairs of Common Terns nested on the island built by Society stalwarts during the Easter weekend, and on our 8 feet square raft at the Chichester gravel pit site, nine pairs of Common Terns nested. We hope these results will spur others along to help swell the band of workers.

During the year we visited the regular sites. Rye Harbour Nature Reserve takes pride of place with six visits totalling over 100 days work, out of an overall figure for the year of 362 days. Other sites visited were Iping Common, Heyshott Downs, Woods Mill, Pagham Harbour, Ashdown Forest, Stakes Island and a dew pond on the Downs at Lavant.

The site at Lavant is an interesting new project where, in conjunction with the local farmer, we are attempting to restore a dew pond which according to the records has been in existence for over 200 years. Once all the silt has been removed, the pond will be monitored for its ornithological and other natural history interests.

The most vital issue in which we became involved during the year was to oppose commercial developments at Rye Harbour. A yachting marina and a leisure complex within the site of special scientific interest, were the subject of planning applications, and our two representatives on the Nature Reserve Management Committee were committed throughout the year, in conjunction with other conservation bodies, to putting forward the Society's views. Both applications were ultimately approved by the East Sussex County Council and we are now relying on the hope that planning controls and a management agreement on the leisure complex application will at least partly safeguard the wildlife.

The Society was consulted, and/or gave advice during the year, on matters affecting such areas as Arlington Reservoir, Pagham Harbour, Thorney Island and Iping Common.

Publicity

Our main concern during the year was to express the strongest opposition to the proposed commercial developments at Rye Harbour. Three statements were issued to the Press, to regional TV and to local radio, and the Press Officer was interviewed by BBC Radio Brighton on the subject. We found ourselves representing other conservation bodies as well as our own on this important issue.

Another press release was on the Society's conference at Haywards Heath in October—a release which gave an opportunity to show something of our work both in conservation and recording.

Our display was mounted for a month in a window of a bank in Hove and attracted a lot of interest. The display was also manned at the RSPB Country and Wildlife Day at Brighton and at RSPB film shows at Chichester and Haywards Heath. We were pleased at the number of members recruited and at the sale of Sussex Bird Reports.

The Press Officer was again involved in planning the film show at the Dome, Brighton, in November, and was responsible for the publicity. Both attendances and takings were up on 1978 and as a result will provide £172 for the conservation fund.

The Newsletter was sent regularly to the Sussex papers who found items to quote from time to time, especially the article in the summer issue about King-necked Parakeets taking to the wild in flocks. This even found its way into page three of The Sun, with a credit to the Society.

Field Outings

A total of 18 field outings, including two coach trips, were held during the year, with the aim, as always, to provide diversity in location and habitat; we visited seashore, downland, heathland, reservoirs and marshes. Unfortunately the coach trip to the New Forest was a disaster weatherwise, but the journey to the new venue at Hanningfield Reservoir, Essex, was well rewarded with the travellers enjoying fine views of a wide variety of duck. Highlights of the field outings were the total of 74 species seen during the September trip to Pett Level and Rye Harbour, and the Hobby seen at Weir Wood.

The usual two special beginners days were organised, the meetings being divided between woodland and coastal watching. This type of meeting provides a good base on which to go forward to other Society activities including the surveys.

Bearing in mind the high cost of travelling, the average attendance of 30 persons per outing continues to be very encouraging.

Indoor Meetings

As always the Annual General Meeting was well attended, and members enjoyed a talk given by Dr. Michael Hollings about his trip to South Africa. His slides of some of the birds and animals seen in the remote reserves were superb.

The Society's second one-day conference was held in October at Haywards Heath. In the first session the 200 members who attended heard about the conservation work of the Society, and as there were also speakers from all the main conservation bodies in Sussex, it was possible to see how we all work together. The second session was on the art of bird watching and record keeping, a light hearted session which caught the imagination of the meeting. This was followed by an open forum, and to end a most enjoyable and successful day our Vice-President, Mr. Tony Marr gave a fascinating illustrated account of his visit to the Bharatpur Reserve entitled 'Indian Winter'. The meeting was closed by our President, Mr. Crahame des Forges.

Junior Section

The Junior Section membership stood at 66 at the end of December and is flourishing under the leadership of its secretary, Miss Mary Dixon. Attendance at the outings continued at a satisfactory level and we hope that in spite of travelling difficulties, this will continue, as it provides an excellent opportunity for beginners to learn and for the more experienced to help. In this connection we are delighted to know that some of the intermediate members are now taking a very active part in helping with the outings and also contributing articles for the junior newsletter.

Outings were held in all parts of the county from Fairlight in the east to Pagham in the west and inland on the Downs. Emphasis is placed on all present getting really good views of the comparatively common birds, and we are indebted to the leaders who take so much trouble to give our young members such a good grounding to their birdwatching interests.

Summary

It would be fair to say that during 1979 the Society's business has been conducted in accordance with the proposals put forward in the policy report prepared in 1978, and that the Society enjoyed a successful year.

However, if we wish to continue to be an active ornithological society, we must not be complacent. We started the 70's with 1000 members—it should be our aim to finish the 80's with 2000. A new decade brings many challenges, and we are confident that with the help and support we receive from our members, we shall be in a position to meet them.

B. A. E. MARR,
Chairman of the Council

CONTRIBUTORS AND ACKNOWLEDGEMENTS, 1979

We are grateful to the following observers for records, and we also wish to thank those observers who helped with the breeding surveys.

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M. Ashmore	Beachy Head Ringing Group	P. F. Bonham
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N. E. Wall
M. K. Walker

ESTUARY COUNTS

These counts, organised by R. F. Porter, were carried out at Chichester and Pagham Harbours, Rye Harbour and Pett Level in August, September, November, December 1979 and January and February 1980. All records have been sent to the B.T.O. and details appear on page 64. We thank all the counters for their dedication to this, the Society's longest running survey. They were:

At Chichester and Pagham Harbours—P. Baines, K. F. Burr, M. J. Burton, P. Clement, R. D. M. Edgar, Mrs. J. H. M. Edom, D. S. Flumm, M. J. W. Hay, S. P. Hitchens, C. R. Jannan, S. C. Johnstone, M. Jones, A. R. Kitson, I. D. Kraunsoo, O. Laugharne, Mrs. P. Laugharne, R. M. Lord, B. A. E. Marr, Mrs. G. D. Marriott, P. Martin, C. Mayhead, L. Mayhead, Mrs. M. Millner, K. Noble, D. A. Parmenter, T. W. Parmenter, Mrs. N. Petrie-Hay, R. F. Porter, A. J. Prater, P. D. Round, R. J. Senior, M. Welfare, R. Williamson.
At Rye Harbour, Pett Level and Sussex Coastline—R. Batchelor, K. Blackman, P. F. Bonham, N. Crouch, B. F. Forbes, F. J. Forbes, P. Greenhalf, R. Greenhalf, B. Hadden, N. Hemsley, D. Kindersley, R. C. Knight, C. E. Messer, J. P. McTear, D. Okines, P. Rouse, R. J. Sandison, C. Spooner, P. J. Wilson.

WILDFOWL COUNTS

D. Codd organised the National Wildfowl counts and we are grateful to him for making the figures available to the Society. We would like to thank the following counters for their assistance:

R. N. Argent, P. C. Bance, K. Blackman, P. J. Clay, D. R. Coda, A. Dawney, R. Harris, K. L. D. Hickman, R. C. Hollman, C. E. Hope, R. J. B. Jackson, R. C. Knight, D. C. Lang, P. J. Luffingham, G. Marriott, J. McKelvie, S. P. Morphew, D. R. Park, M. Paton, R. F. Porter, J. Reaney, P. W. Rouse, A. and I. M. Simpson, D. Sneller, C. A. Taylor, G. E. Tomalin, M. R. Welfare, J. Willsher.

CLASSIFIED RECORDS FOR 1979

The Hon. Recorder would like to thank those members whose initials appear in [] at the end of a species for preparing the summary for that species.

Recoveries of birds ringed have not been cross-referenced to the Ringing Report. The Report on Wader and Wildfowl Counts and the Sea-Watch tables for Beachy Head and Selsey Bill should be read in conjunction with the summaries for individual species.

1. **RED-THROATED DIVER** (*Gavia stellata*).—During the early part of the year a large gathering accumulated off Pett Level, possibly associated with the cold weather, increasing from 17 on Feb. 3rd to 53 by 18th. An estimated 150-200 there on Mar. 4th probably included resting migrants as large numbers were passing E off

Dungeness during that period. Elsewhere along the coast the species was more in evidence than usual during Jan.-Feb. Inland, one at Arlington Res. on Jan. 27th subsequently died and another was at Bewl Bridge Res. on at least Feb. 17-24th. During that period there were 9 reports of oiled birds, mostly in the Pagham Harbour area.

At Selsey Bill a total of 15 E and 1 W were identified as of this species between Mar. 25th and May 18th, including 8 E in one party on Apr. 8th.

The only records at the end of the year were 2 W at Selsey Bill on Nov. 15th, one W there on Dec. 8th and one at Bewl Bridge Res. on 28th-31st.

2. **BLACK-THROATED DIVER** (*G. arctica*).—The cold spell at the start of the year brought more records than usual with singles (unless otherwise stated) at Pett Pools on Jan. 21st (CHD), Pagham Lagoon on 24th (CRJ, OM), Pett Pools on Feb. 17th (JFC, CHD), Langney Point (JFC), the Cuckmere (DJB) and off Pett Level (2) (DAP, PWR) on 18th, Brighton Marina on 19th (NAGL), Tern Pool, Rye Harbour LNR, on 24th and offshore there on 28th (per RCK), off Pett Level (5) on Mar. 4th (PWR), off Lancing on 5th (RFP), in the Cuckmere, badly oiled, on 11th (REM), Chichester Harbour on 17th (RDME, SPH), dead, oiled, on Pett Level beach on 22nd (CHD) and at Widewater, Lancing, on 23rd (CFH).

Passage off Selsey Bill was noted between Mar. 14th and May 10th, involving 6 E and 4 W. On Mar. 18th, two flew W off Hastings (DT) and two E off Beachy Head (JFC) and on Apr. 12th, one E off Hove (RJJF). See also "Diver species" below.

An unusual record came from Bewl Bridge Res. on May 15th when a full s/p individual was seen on the same day as one at Bough Beech Res. in nearby Kent (PCB).

No records were received for the end of the year.

3. **GREAT NORTHERN DIVER** (*G. immer*).—The only satisfactorily authenticated records were of one E off Worthing on May 10th (JAN) and one at Rye Harbour LNR on 18th (CH, RCK).

DIVER SPECIES (*Gavia sp.*).—During the cold spell in Jan.-Feb. divers were widespread along the Sussex coast although the main concentration, considered to be largely red-throated (q. v.) was in Rye Bay. At Selsey Bill 40 E and 20 W were noted during the period. During spring passage there, divers not specifically identified totalled 209 E and 18 W between Mar. 3rd and May 19th with a max. of 56 E on Apr. 8th. At Shoreham 91 E were noted during a similar period. At Beachy Head all divers were treated as not specifically identified and amounted to 641 E between Mar. 4th and June 1st with a max. of 169 on Apr. 8th, but periods of heavy passage were known to have been missed in early Mar. (see tables on pages 33-34).
A diver was seen off Selsey Bill on June 9th, an unusual date.

6. **LITTLE GREBE** (*Tachybaptus ruficollis*).—In Jan. numbers were high with a total of 168 reported from 14 localities, including 40 in the Cuckmere on Jan. 7th and 30 on Pagham Lagoon on 6th. Of the total, all but 17 were seen on the major rivers, coastal and inshore waters. In Feb. only 44 were reported from 8 localities.

During the breeding season pairs were reported from the 14 localities listed below, plus one additional site in West Sussex.

Chichester G.P.	6*	Knepp Lake	1*
Pagham Harbour	3*	Weir Wood Res.	1*
Chidmore Pond	1*	Bewl Bridge Res.	1
Swanbourne Lake	1	Barcombe Mills	1
Chingford Pond	1	Darwell Res.	1
Mannings Heath	1*	Rye Harbour	7-10*
Barnhouse Pond	1	Crumbles G.P.	1

Of the pairs marked* 19 were known to have reared 44 young. At Rye, where 17 young were reared, low water temperatures were again thought to have adversely affected early broods.

Post-breeding season counts reported were 13 at Bewl Bridge Res. on Sept. 22nd, 20 at Chichester G.P. on Oct. 27th and 48 at Rye in Oct. The first had returned

to the Cuckmere by Aug. 13th increasing to 32 by Nov. 2nd peaking at 42 on Dec. 12th. In Nov. the county total was 55, rising to 98 in Dec. of which all but 19 and 11 respectively were on the main rivers, coastal and inshore waters. [SWMH]

7. **GREAT CRESTED GREBE (*Podiceps cristatus*)**.—A welcome increase in records at both ends of the year. In Jan. there were 5 in Chichester Channel and 6 others scattered along the coast; in Feb. up to 15 were seen off Thorney Island, up to 5 in the Brighton Marina and one paid a brief visit to Hove Lagoon. Elsewhere in Jan. and Feb. there were 79 and 49 at 11 and 12 localities respectively. Substantial numbers included 30 at Weir Wood Res. on Jan. 1st, 17 at Bewl Bridge Res. on 24th and 10 at Ardingley Res. on 14th.

At Selsey Bill 11 E and 5 W were noted between Mar. 3rd and Apr. 18th and at Shoreham 10 E up to Apr. 24th. On May 31st 9 were off Church Norton and 2 in Pagham Harbour and, on June 2nd, 2 (the same?) were off West Chidham.

During the breeding season pairs were reported as follows:

Chichester G.P.	12*	Balcombe Pond	1*
Burton Pond	1*	Ardingley Res.	1
Petworth Park	3*	Weir Wood Res.	4*
Lurgashall	2*	Eridge Park	1*
Warnham	1	Darwell Res.	1*
Shillinglee	3	Crumbles G.P.	1*
Slaugham Pond	1*	Pett Pools	3*
Slaugham M.P.	1	Rye Harbour	4*
Horsted Keynes	2*		

It was perhaps the worst breeding season in recent years. Of the pairs marked* 34 were known to have reared only 19 young. At Chichester G. P., of 12 pairs only one bred successfully and raised 2 young; at Petworth Park 3 pairs raised but 2 young from 4 broods; at Pett Pools 3 pairs hatched only 3 young and raised one; and at Rye Harbour LNR 4 pairs bred but raised only one full-grown.

On Aug. 6th, 5 were at sea off Church Norton and 30 were in Pagham Harbour by Sept. 23rd. Later in the year Church Norton counts were of 18 in Oct., 15 in Nov. and 12 in Dec. Inland waters held 51 in Nov. and 36 in Dec. at 7 localities, including 13 at Darwell Res. on Nov. 18th and 24 at Weir Wood Res. on 10th. [SWMH]

8. **RED-NECKED GREBE (*P. grisegena*)**.—The cold weather at the start of the year brought extraordinary numbers to Britain and Sussex was no exception. Many observers were involved.

Apart from one at Weir Wood Res. from Feb. 18th to Mar. 4th and two at Bewl Bridge Res. from Feb. 17th to Mar. 17th, all records were from the coast, as follows: Rye (Rother), one Feb. 25th; Rye Harbour LNR, 3 from Jan. 28th; 2-3 through Feb., 4 on 3rd, one to Apr. 29th; Pett Level (Pools), one Jan. 31st to Mar. 31st, two, Feb. 8-24th and Mar. 17-19th; Normans Bay (freshwater), one Feb. 18th to Mar. 4th; Langney Point (fresh water), one Jan. 6-7th; Cuckmere (fresh water), one Jan. 27th; Newhaven Harbour, two, Feb. 18th, one to Mar. 2nd; Rottingdean (offshore), one, Jan. 23rd; Brighton Marina, one Feb. 21st; Shoreham Harbour, singles, Jan. 3rd and 15th; Lancing (offshore), 3-4 on Mar. 5th, 3 on 18th; Worthing (Brooklands Boating Lake), one, Jan. 25th to Feb. 9th; Ferring (offshore), one, Feb. 25th; Pagham Lagoon, singles, Jan. 2-21st and Feb. 16th; Pagham Harbour, one Jan. 27th; Church Norton (Severals), one, Mar. 28th; Selsey Bill, present Feb. 7th to Mar. 31st—at least 4 involved.

Allowing for the possibility of some duplication, at least 23 individuals appear to have been involved. (Note: discrepancies between the above and a national summary shortly to be published elsewhere is due to the late submission of many records to the Society.)

A full s/p individual present in Pagham Harbour from Aug. 26th to at least Sept. 10th (CBC, MAC, CRJ *et al*) had doubtless been displaced during the winter and the unusual number of subsequent records may have reflected the same influence—two off Church Norton on Oct. 14th (ACM, DAM), and singles at Rye Harbour LNR (RCK) and Pett Pools (CHD, PWR) on Nov. 14th, off Selsey Bill on

Oct. 28th (BAEM) and Nov. 4th (CRJ) and at Church Norton on Dec. 22nd (FJF, OM) and 31st (DCH). Again, individuals may have been involved in more than one record.

9. **SLAVONIAN GREBE (*P. auritus*)**.—As with the previous species an exceptional influx took place during the cold weather at the start of the year. A way from the coast the only records were of one at Barcombe Mills Res. on Jan. 6th, 2 at Bewl Bridge Res. on 26th, 2 at Ardingley Res. on Feb. 11th and one at Weir Wood Res. from Feb. 11-25th. Coastal reports were as follows: Rye Harbour LNR, one Jan. 9-30th, 3 on 31st; 3-5 throughout Feb. and 1-2 throughout Mar. with 2 on Apr. 1st and one, 15th; Pett Level (Pools), one, Feb. 3rd to Mar. 28th, at least one other Mar. 3rd to 25th but possibly from Rye; Mouniney Level (Pevensey), one Feb. 24th; Langney Point (fresh water), present Jan. 28th to Mar. 31st, two Feb. 18th, 3, Feb. 22nd; Cuckmere, 3, Jan. 26th; Southsea (R. Ouse), one Feb. 23rd; Newhaven, singles Jan. 20th, Feb. 4th and 27th, Mar. 5th; Saltdean (offshore), one Jan. 6th; Brighton Marina, one Feb. 16-24th; Lancing (Widewater), 3, Mar. 18th; Worthing (offshore), one Mar. 14th; Pagham Harbour, 1-3, Jan. 4th to Mar. 31st, 4 on Apr. 4th; Selsey Bill, two Jan. 28th, one Feb. 24th, 4, Mar. 10-11th, one 17th; Chichester Harbour, scattered records of 1-3 at various localities, Jan. 6th to Mar. 1st, max. 9 off East Head, Jan. 21st.

As there was evidently much movement from place to place it is impossible to state the number of individuals involved. The traditional populations in the western harbours remained at near normal levels and the majority of occurrences appear to have arisen from a westward extension of large numbers in Kent during the period. Spring passage at Beachy Head was average with one on Apr. 1st, 2 on 8th and one on May 6th.

At the end of the year, 8 had arrived offshore at Church Norton by Oct. 28th, rising to 16 by Nov. 24th, 14 still on Dec. 8th and further occasional records to 31st. In Chichester Harbour, singles were seen at West Chidham on Nov. 19-21st and Dec. 8-13th and 3 were off West Wittering on Dec. 16th. Elsewhere there was one off Worthing on Dec. 22nd.

10. **BLACK-NECKED GREBE (*P. nigricollis*)**.—The cold weather at the start of the year also affected this species; the number of records was in normal proportion to those of Slavonian Grebe. The only inland records were of singles at Weir Wood Res. on Jan. 1st and Mar. 2nd and at Ambertley Wild Brooks from Jan. 15-17th. Records from the coast were as follows: Rye (North Point G.P.), one Jan. 4th; Pett Level (Pools), one Jan. 13-21st; Shoreham Harbour, one Jan. 6-15th; Worthing (offshore), one Mar. 14th and 21st, two 25th; Pagham Harbour, singles Jan. 4-8th and 27th and Mar. 20-31st. Chichester Harbour, singles, possibly same as Pagham individual, Jan. 17th, Feb. 3rd and 17th and also one, found freshly dead, on Jan. 1st.

A late spring migrant for Sussex was seen at Scotney Court G. P. near Camber, on May 10th.

The species was far more in evidence than usual during the later part of the year. In Aug. singles appeared at Rye Harbour LNR on 15th, Pagham Lagoon on 19th and Weir Wood Res. on 27th (during the period when max. numbers began to arrive at Staines Reservoirs, west of London). None was then seen until 2 at Chichester G.P. from Sept. 22nd to Oct. 15th and another there on Oct. 15-28th. In the meanwhile 2 others appeared on the sea at Church Norton on Oct. 14th, one remaining to 28th and one also off Worthing on 23rd. Finally, one visited Rye Harbour LNR on Nov. 7th.

12. **FULMAR (*Fulmarus glacialis*)**.—The first records for the year came from Beachy Head on Jan. 7th and Newhaven on 9th and, after an early record at Selsey Bill on Feb. 7th, the species was regularly reported from the now traditional sites along the coast. At Selsey Bill, the usual movements of unknown provenance took place during the spring, 279 W and 35 E being noted between Mar. 9th and May 28th,

with a max. of 43 W and 8 E on May 26th. Shoreham observations produced 104 W and 64 E between Mar. 19th and May 31st.

Throughout the breeding season 26 individuals were present between Rock-a-Nore and Fairlight Glen; a pair was seen mating on May 6th and were observed with one young in Aug. Again no counts were received for the Beachy Head coastline but at Seaford Head 24 were present on May 12th. At Newhaven, where 15 sites were seen to be occupied by Mar. 31st and 10 on July 13th, one young was seen in a nesting cavity on Aug. 27th. With a further 6 birds present along the Rottingdean/Saltdean cliffs, known Sussex population levels were about the same as 1978 and it was pleasing to receive proof of breeding from more than one site.

In Dec. 10 had returned to Newhaven by 12th and at Beachy Head, 6 on 16th increased to 60 by 25th. The first occasion on which a Dec. return was recorded was in 1975 and this marks a tendency towards the typical seasonal movements of major population areas.

15. **CORY'S SHEARWATER** (*Calonectris diomedea*).—One flew W off Hove on Apr. 12th (RJF). This was the fourth record for the county, the first since 1950, and has been accepted by "British Birds".

17. **SOOTY SHEARWATER** (*Puffinus griseus*).—One flew W off Selsey Bill on Nov. 3rd (BFF, FJF, OM), a late date.

18. **MANX SHEARWATER** (*P. puffinus*).—Far more records than usual, but probably due to increased sea-watching activity in the west of the county. For the third successive year the species was recorded in Mar. when one flew W off Selsey Bill on the earliest recorded date yet of 14th (CRJ, OM). Subsequent records were of one W off Hove (RJF) and 2 W off Selsey Bill (BFF, FJF, CRJ) on Apr. 12th; 2 W off Selsey on 13th (CRJ, OM, PFM *et al*); parties of 6 and 3 W off Worthing on May 17th (JAN, BJS); 2 W off Selsey Bill on 18th (OM); one W off Shoreham on 25th (MRW); one W off Selsey Bill on 26th (CRJ), 2 W (JAN) and 6 W (RJS) off Worthing on June 14th; and, on June 24th, 2 W off Brighton (RFP), 12 E (CRJ, DSF) and 4 E (CRJ) off Selsey Bill. All records came during periods of fresh onshore winds and were distributed throughout daylight hours.

25. **GANNET** (*Sula bassana*).—Recorded in every month of the year and generally in small numbers, the only counts of significance being 117 off Beachy Head on Apr. 7th, 156 on 12th and 109 off Pett Level on July 22nd.

26. **CORMORANT** (*Phalacrocorax carbo*).—Recorded throughout the year. In the early months coastal parties were reported as follows: 19 off the Hove/Southwick area on Jan. 20th; 12 off the Seven Sisters on Feb. 21st; and a max. of 22 off Rottingdean during Jan.-Mar. On Jan. 29th 41 flew W at Black Rock in 30 minutes. A roost on Ecclestone cliffs numbered 32 on Feb. 25th but declined to 8 in Mar. Numbers at the Long Pit at Rye Harbour LNR increased to 15-47 during Mar. but dropped back to 9-19 during Apr. In the west, 15 passage birds were feeding off Stakes Island on May 3rd.

At the end of the year numbers built up again in Oct. when there were 98 in Chichester Harbour on 21st. On Nov. 10th, 15 were on Thorney Deeps and on 11th, 20 on the sewage outlet at East Worthing. Movements noted included 120 W off Pett Level on Nov. 19th and 57 W in 30 minutes on Nov. 30th. Numbers in the lower Cuckmere reached a peak of 21 on Dec. 13th and there were 15 on a tern raft at Chichester G.P. on Dec. 20th. Between Dec. 22-25th GCE noted up to 87 gathering at Bognor Pier prior to travelling to the South Stoke/Arundel roost in deep dusk and has commented that the 80 reported as roosting at the pier on Feb. 24th, 1978 (Sx. B. R. 31: 10) may have subsequently moved on in the same manner.

There was a welcome increase in the number of inland reports. Numbers at Bewl Bridge Res. reached a max. of 17 in early Apr. and, latterly, a max. of 23 in Dec. On Dec. 6th there were 14 at Barcombe Mills Res. All inland sightings are required; information on tree-roosts, pylon-roosts and food taken will be particularly welcome. [SWMH]

27. **SHAG** (*P. aristotelis*).—A total of about 30 as follows:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
4	2	9	7	4	—	1	—	2	1	—	—

As in 1978 the reported ratio of adults to immatures was about 3:1. Unusually, two were found on the fresh water of the Royal Military Canal at Pett on Sept. 30th.

30. **BITTERN** (*Botaurus stellaris*).—The individual first seen at Arundel Wildfowl Refuge on Dec. 11th, 1978 (Sx. B. R. 31:10) remained until Mar. 16th (RMB). One at Ivy lake, Chichester G.P., on Feb. 20th (CRJ) and 24th (OM) may well have been the returning individual of Dec. 1977 and Feb. 1978 (Sx. B. R. 30:9 and 31:10). However there was ample and in some cases tragic evidence of the effect of the cold spell at the start of the year. After the early Jan. blizzards one found exhausted on Pevensey Levels was taken to Sheffield Park for treatment (Press report), one was later found dead at Old Park (per ETR) and one at Rye Harbour LNR on the 6th was described as exhausted and ragged. On 9th, one appeared at Parham Park and remained until Feb. 1st (PDD *et al*), followed by one near Eastbourne on 13th (JFC, RSK, CDL *et al*) and one in Chichester Harbour on 20th (BAEM). On Feb. 5th one was found dead near Crawley (Lord Lytton) and on Mar. 7th the Parham Park individual reappeared for the day. The remaining records may have been related to each other and the Ivy Lake individual—one on the Chichester Canal towpath on Mar. 23rd and Apr. 1st (B. Price per MS) and one on New Lake on Apr. 4th (JVS) was reliably reported to have been present, occasionally with another, for some weeks. The minimum total for the period was 11 individuals.

At the end of the year the Arundel Wildfowl Refuge regular re-appeared on Nov. 23rd (RMB).

37. **LITTLE EGRET** (*Egretta garzetta*).—On May 27th one flew W past Cobnor Point, Chichester Harbour (JHME) and was seen at Northney on 28th (per JHME). This record has been accepted by "British Birds" in association with a number of other reports of what was probably the same individual in the Solent during late May. It constituted the 14th record for Sussex.

39. **HERON** (*Ardea cineria*).—All known heronries were counted and nests certainly and probably occupied totalled as follows: Fishbourne 26; Pagham 2; Parham 44; Henfield 17; Firl 42; Knepp 14; Eridge 9; Priesthaws 2; Westham 2; Wartling 10; Pevensey 1; Leasham 39. Newly reported were a single nest at Nuthurst for the third successive year and at least 4 nests at Bewl Bridge (6 in 1978). The county total of 213 is slightly higher than in some recent years despite the hard weather at the end of the winter. Largest numbers seen together outside the breeding season were 18 on the Arun in Feb. and 30 at Rye in Jan. [ABW]

40. **PURPLE HERON** (*A. purpurea*).—One at Winchelsea, seen flying from a reedy dyke on June 9th (JSD, NRD) was the 20th record for the county and has been accepted by "British Birds".

42. **WHITE STORK** (*Ciconia ciconia*).—One at Povey Bridge and its vicinity on the border with Surrey north of Gatwick Airport from at least July 9th (Mrs. P. Copper *et al*) certainly remained until 17th and probably left on the morning of 28th. What was probably the same was seen arriving from the north on the Adur Levels near Lancing later that day (NEW) and over Chichester G.P. on Aug. 7th (JCSW *et al*). These records have been accepted by "British Birds". Also relevant was an unconfirmed report of one on a farm north of Brighton on Aug. 8th.

In all records of this species the possibility of escape from captivity can never be wholly excluded as proved to be the case with the individual eventually found dead near Newhaven on Jan. 17th (see Sx. B. R. 31: 53).

44. **SPOONBILL** (*Platalea leucorodia*).—Of 5 in the Cuckmere from May 3rd to 6th, one remained to 7th. One was identified as having been colour-ringed as a nestling in the Netherlands on May 9th, 1974. In autumn 4 were at Pagham Harbour on Sept. 25-26th.

47. **BEWICK'S SWAN** (*Cygnus columbianus*).—The population at Amberley Wild Brooks rose from 56 on Dec. 29th, 1978 (Sx. B. R. 31: 11) to 102 by Jan. 6th but it is not known when the new birds arrived. During the cold spell at the start of the year there were many records which probably did not relate to elements of the traditional Amberley winterers. With the blizzard on Jan. 1st, 20 visited Rye Harbour LNR (plus one other which stayed until 6th) whilst 2 were seen at Priddinghoe Lake, 3 at Barcombe Mills Res., 7 in Pagham Harbour and 12, probably of this species, flying W off Southwick. On 4th 2 were on the Adur at Ashurst, and on 5th 3 arrived at Arundel Wildfowl Refuge, one remaining to 7th before moving to Swanbourne Lake. A lone bird visited Pagham Harbour on 6th when 7 appeared on the Adur at Henfield. On 7th 3 were found at Shoreham, 6 in the Cuckmere and 5 on the Ouse Levels near Lewes, remaining there until Mar. 4th. The Jan. 9th count at Amberley stood at 103 but rose to 113-5 by 13th and 116-7 on 14th when 21 were found on Glynde Levels. Of these, a juvenile died and 18 remained until at least Feb. 11th, visiting Barcombe Mills Res. on Jan. 20th and Arlington Res. on Feb. 3rd. In the meanwhile 3 were seen at Bracklesham Bay on Jan. 28th and presumably the same at Sidlesham Ferry from 29th to Feb. 7th. On 4th, when 2 visited Darwell Res., the Amberley count stood at 144, but dropped back to 119 on Feb. 10th and 103 on 11th. On 24th a party of 24 was found in an obscure corner of Hooe Level near Cooden (and 27 there on 25-27th), and 7 in the Brede Valley on 25th. Between then and Mar. 3rd some late evening movement was heard over West Chiltington and 20S were seen on 26th. Subsequent counts in the west were inconclusive but 54 at Hardham and 59 on Pulborough Brooks on Mar. 4th probably accounted for the full population at the time.

First in autumn were 2 in Chichester Harbour on Oct. 28th followed by the first 6 at Amberley on Nov. 9th increasing to 25 by Dec. 1st and 55, including 7 juveniles, by 24th. In the meanwhile, 2 visited Rye Harbour LNR on Nov. 24th, four were in the Cuckmere on Dec. 12th and 2 on the Adur Levels at Steyning on 16th.

48. **WHOOPER SWAN** (*C. cygnus*).—More records than usual came with the cold spell at the start of the year but some duplication may have been involved. The party of 11 in the Cuckmere on Dec. 31st, 1978 (Sx. B. R. 31: 11) had been joined by 2 more by Jan. 1st and all left to N later that day (REM, PJW). On the same day 7 adults were seen at Bewl Bridge Res. (BT) and an immature flying NW over Rye (per RCK) which was possibly the same as one which arrived at Pagham Harbour on 2nd (OM). An adult and a juvenile were present at Arundel Wildfowl Refuge on 5-7th and possibly another adult arrived on 8th (RWB). 7 Adults at Rye Harbour LNR on 27th (per RCK) may have been in the county since 1st. On Feb. 15th an adult flew E from Pett Level (CHD) and 3 adults appeared at Rye on 18th (per RCK). Finally a party of 6 were seen over Henfield Brooks on Mar. 4th (BJ, CMJ).

49. **BEAN GOOSE** (*Anser fabilis*).—All records came during the cold weather in Feb.-Mar. 12 W over Heighton Hill on Feb. 2nd; 11 on Hooe Level on 3rd (5 considered as showing the characters of the race *a.f. fabilis* and 6 of *a.f. rossicus*); 3 on Amberley Wild Brooks and 3 at North Berstead on 8th; 3 (considered as *a.f. rossicus*) in the Cuckmere on 18th; one at Langney Point and 5 on Mountney Level on 22nd; 7 on, and 18 NE over, Pevensey Levels on 24th; 22 there on 25th and 20 on Mar. 4th. The extent to which any of the above records were inter-related is problematical and should be set against the background of 28 at Dungeness, Kent, by Jan 3rd (dropping to 17 by 15th) and 80 in east Kent by Feb. 3rd.

50. **PINK-FOOTED GOOSE** (*A. brachyrhynchus*).—The numerical and distribution pattern during a cold spell at the start of the year was similar to that of the White-fronted Goose but gave a clearer indication of an arrival moving west followed by a fragmented return eastwards.

After 4 E off Brighton and one at Barcombe Mills Res. on Jan. 1st, 6 leaving Arlington Res. to NW on 13th and a lone bird taking up residence on Pett Level from Feb. 1st until early Mar., 53 were identified with the White-fronted Geese at North

Berstead (east of Chichester) on Feb. 2nd. A further 15 had joined them for a visit to Sidlesham on 3rd and at least 32 more back at North Berstead on 4th. Some were again seen commuting at Sidlesham on 6th and one flew NE at Selsey Bill on 8th.

None was then identified in the county until 2 at Amberley Wild Brooks, 13 on Pevensey Levels and a max. of 15 on Pett Level on Feb. 24th. Pevensey Levels flocks on 25th were of 10, 9, 15, 17 and 4 (total 55), possibly involving conflicting counts, but there were certainly 72 in the area on Mar. 3rd. In the meantime only 3 were left at Pett Level on Feb. 25-26th and one remained in the Cuckmere from Mar. 1-8th. The last seen were 12 on Horse Eye Level on Mar. 12th. In the autumn one was seen in Chichester Harbour on Oct. 18th and 28th.

51. **WHITE-FRONTED GOOSE** (*A. albigrons*).—The continuing blizzard on Jan. 1st (see Sx. B. R. 31: 11) brought a number of small parties into the county from the east, 2, 8 and 21 at Rye Harbour LNR; possibly the same 21 at Brighton and Hove; 39 at West Worthing; and 60, probably of this species, at Ferring; the same birds may have been involved in all these records. Then, on 3rd, 100 + flew W off Southwick, possibly splitting up as 8 at Shoreham on 5-7th, 12 wandering at Lancing on 5th, 62 at Amberley Wild Brooks by 6th and 27 arriving at Pagham Harbour from the east also on 6th. On the same day 22 were found on the Ouse Levels near Southsea. On 8th 3 flew W over Henfield and on 9th, 24 S over Langney Point. On 13th, 11 visited Rye Harbour LNR and 16 Arlington Res.; at Amberley Wild Brooks the count rose to at least 75. By 24th, 46 were feeding on the Ouse Levels and the Amberley count had dropped to 40; 18, possibly of this species, visited the Cuckmere the following day.

Sunday, Jan. 28th produced much movement of birdwatchers and geese, the principal group of the latter being 70 W off Beachy Head together with 14 on Glynde Levels, 14 S over Devils Dyke and parties of 8, 28, 21, 9 and 3 feeding or in flight elsewhere along the coast. By 31st, the Glynde Levels group numbered 48 and 12 had taken up residence in the Cuckmere.

On Feb. 1st 100 + were found feeding at North Berstead to the east of Pagham Harbour and 40 flew W off Goring; not surprisingly there were 140 at North Berstead for the next two days. In the meanwhile 25 had settled in at Pett Level and, by 3rd, 39 on Pevensey Levels. A further 13 appeared at Pett on 4th and 80 at Amberley remained until 17th. By Feb. 11th, 6 of the Pett flock had moved on and the Pevensey group had moved to the Ouse Levels. On the night of the 13th, 3 joined the 12 in the Cuckmere, then the 12 departed the following night, possibly to Amberley where a similar party was seen on 17th.

Feb. 18th, another Sunday, marked the start of a major influx such as is rarely seen in Sussex, characterised by a confusion of movements mainly in the east and thus an extension of very large numbers in Kent at the time. Efforts to relate Sussex records to those in Kent have proved fruitless. Even the directional shift of the population provided contradictions for, although 60 flew W to the north of Worthing on 18th, 66 passed E over Ringmer and 240 E off Shoreham on the same day, 30 to S over Burgess Hill on 22nd and 120 E off West Worthing on 23rd. The immediate origin of these eastward flights remains a mystery particularly as they appeared to be settling into the E of the county and few had been recorded west of Sussex during this period. Departures from Amberley Wild Brooks started at about this time as the count dropped from 98 on 18th to 80 on 24th and 21 on 25th and none thereafter. After a party of 100, probably of this species, had visited the Cuckmere on 22nd, 125 were found on Pevensey Levels and the Pett Level flock increased to 39. By 23rd a further 40 arrived in the Cuckmere and 194 were on Pevensey Levels. The latter count may have been incomplete as observer coverage on Saturday 24th produced over 800 and Sunday 858 or more whilst the respective counts at Pett were 307 and 330. Evidently additional to these were 20 at Shoreham for two days, 100 E off St. Leonards on 24th and 155 on Glynde Levels on 25th.

As boggle-eyed observers returned to work on 26th, counts dropped back somewhat but 150 were seen leaving Pevensey Levels to NW and 100 or more were

found on the Ouse Levels where they stayed put until Mar. 6th. The only count on 27th was of 740 on Pevensey Levels. A further 44 had arrived in the Ouse Valley by 28th only to move on that night.

The picture during the next few days was clearly of flocks leaving or passing through the county. At Pett Level there were still some 300 on Mar. 3rd but a thorough sweep of Pevensey Levels produced only 473. On 4th another 20 had arrived at Pett, 57 on Pevensey Levels and 13 in the Cuckmere whilst parties of 12 and 120 visited Arlington Res. In addition another 110 or so had appeared in the Ouse Valley but some 82 moved on that night—possibly only as far as Pett where found on Glynde Levels and the final count near the Ouse was 120. No reports were received thereafter even though, only just outside the county at Lydd, Kent, there were still 1,000 on Mar. 10th.

Towards the end of the year a party of 55 considered to have been of this species seen flying SW off East Brighton on Nov. 7th had been seen shortly before by another observer near Falmer. On 23rd, 5 were found feeding at Pett Level and another 8 passed E. On Dec. 16th 4 were feeding at Greatham Brooks and on 20th one flew SW over the Brooks and another 4 passed over Sidlesham Ferry in the same direction. A cold snap at the time brought a minor influx on 22nd with parties of 8, 15, 29 passing over Rye Harbour LNR and another feeding there whilst at Pagham Harbour 9 came in flying NW and at Selsey Bill a different party of 10 followed. On 29th, 5 were feeding at Sidlesham Ferry to be joined by one more on 31st to bring to an end an extraordinary year.

53. GREYLAG GOOSE (*A. anser*).—The first possible immigrants were 3 NW over Pett Level on Jan. 28th. On Feb. 11th, 34 were at Amberley Wild Brooks, including the feral pair. The main flock may well have been composed of 13 seen at Pevensey Levels that day, possibly another party of 14 seen moving W over the Cuckmere also on that day, one other tame bird which was in the west of the county for several weeks and a group of 4 which had left Amberley by Feb. 12th and were seen at Sidlesham on 21st. Subsequently, the party of 13 apparently moved back eastwards, 11 arriving at Pett Level by 18th after visiting Pevensey Levels on 11th. The other 2 strayed on Hoee Level until Mar. 4th and moved to Pett later that day. The other section of the Amberley flock moved on by 18th but a party of 12 on Mar. 19th may well have been the same making their return eastwards. Elsewhere during this period one on Hoee Lagoon from Jan. 18th to Feb. 6th was probably the same individual later at Amberley and one at Arlington Res. on Feb. 9th and later in the Cuckmere on 16th might also be regarded as of doubtful origin. See also "Escapes".

GREY GOOSE SPECIES.—Reports of unidentified grey geese at the start of the year have been included in the text relating to White-fronted Goose. 6 reports between Sept. 23rd and Dec. 31st included a flock of 60-70 passing NW to SW out to sea from the Cuckmere on Dec. 21st.

55. CANADA GOOSE (*Branta canadensis*).—In recent years there has been increasing circumstantial evidence, in the form of unaccountably high late summer and autumn numbers, of an overlap of the NW Sussex sub-populations with those of neighbouring counties (see Sx. B. R. 25:47-63). Confirmation of this was obtained in July when 14 ringed geese were controlled in Petworth Park. Of these, 3 had been ringed in Hampshire but more surprisingly, one in Worcestershire and 7 on the Beaulieu Firth, one of the latter having been ringed originally at Chichester G.P. (See also Ringing Report on p. 69). At least 6 of the ringed birds had been in the non-breeding flock at Petworth since early spring. It is hoped that more information on the movements of this species will be obtained from a further 242 ringed at Petworth and 42 at Chichester G.P. during the year. In Aug. numbers at Arlington rose to 450-500, suggesting similar intermingling of sub-populations in East Sussex.

Following the autumnal movements winter flocks are formed and these normally remain closely associated with a specific water and feeding area. However, in both the 1978-79 and 1979-80 winters some unusual movements and very high

numbers were recorded presumably as a result of the adverse weather conditions. At the beginning of the year a flock of approx. 50 was seen over Goring on Feb. 1st and then spent most of Feb. on Patching Pond, an unfamiliar site for this species. At the end of the year the numbers on Waltham Brooks increased from approx. 300 in early Dec. to 445 on 14th and 550 on 16th, remaining thus to 31st. During the same period 78 were on the Adur Levels on Dec. 16th increasing to 200 or more by 31st.

In the light of new developments given above, the following table now gives max. counts at the main localities but some degree of duplication must be involved.

	Jan./Feb. 82	Aug./Sept./Oct. 125	Nov./Dec. 115
Chichester/Pagham Harbour
Arun Valley
(Pulborough to Arundel)	268	170	550
Petworth Park	314	176	70
Bewl Bridge Res.	122	246	278
Weir Wood & Ardingly Res.	90	66	66
Warnham	50	187	52
Arlington Res./Herstmonceux	180	450	105
Darwell Res.	30	59	30
Rye	34	51	44

During the breeding season a minimum of 50 pairs were found at 22 localities. Of these 45 were known to have bred, hatching a minimum of 255 young (mean brood size of 5.6). Twenty brood sizes were reported; mean size 4.9 and mode 6.

Observers are asked to effect counts at the principal gathering places in late afternoon when max. numbers may be expected. Precise brood sizes are welcome and also any information on culling and transportation. [SWMH]

56. BARNACLE GOOSE (*B. leucopsis*).—After many years during which the occasional records of this species could only be regarded as possibly relating to escapes, Sussex observers were finally treated, during the cold spell at the start of the year, to the sight of wild birds which doubtless came from the traditional wintering grounds in the Low Countries of the Novaya Zemlya breeding population.

The already reported bird which had arrived at Sidlesham Ferry on Dec. 31st, 1978 (Sx. B. R. 31:12) was joined by another on Jan. 1st and what may have been the same 2 were at North Berstead on Feb. 2-8th. During Jan. single birds also appeared on the Ouse Levels on 7th, Glynde Levels on 10th and at Weir Wood Res. on 27th. These however must be regarded as of doubtful origin as must 3 at Arlington Res. on 13th at a time when Snow and Bar-headed Geese also began to appear in the county.

The first real influx came with a vanguard of 7 on Pevensey Levels on Feb. 4th (subsequent to 12 at Dungeness, Kent, on Jan. 28th), remaining to at least 26th. Of 46 at Dungeness on 23rd, only 8 were found on 24th but 26 had arrived at Pett Level and an additional party of 12 on Pevensey Levels. By 25th, 2 had left Pett whilst on Pevensey Levels counts suggested the presence of flocks of 23, 21 and 8 in addition to the "resident" 7—total 59. Parties of 35, 16 and 8 on 27th (total 59) confirmed this, and by this time 114 were present at Dungeness to add perspective to the picture.

By Mar. 1st the flock on Pett Level had increased by 7 to 31 but 6 left by 4th. On Pevensey Levels the situation was fluid, only 17 being found on 3rd but 39 on 4th. Perhaps related to the latter, 20 flew E over Herstmonceux also on 4th, but 6 in the Cuckmere were probably additional. Many of the 70-90 in Sussex on that day may merely have retreated to Dungeness where, after only 18 on Mar. 1st, there were again 100 by 10th.

There were no records for the end of the year but see "Escapes".

57. BRENT GOOSE (*B. bernicla*).—The wildfowl counts in Pagham and Chichester Harbours produced totals of 9,643 on Jan. 27th and 6,064 on Feb. 10th. The Jan. and Feb. counts for the combined Sussex and Hampshire harbours amounted to 15,172 and 11,934 respectively, compared with 12,304 and 10,821 in 1978.

The cold spell at the start of the year brought many reports from the whole coast but, away from the west, only small numbers were involved and bore no relation to

the influx of grey geese. Westerly movements into the county during early Jan., together with the appearance of a number of individuals of the Pale-bellied race (see below) suggested a small augmentation of the traditional population (albeit a still growing one) by birds of unknown origin. Whilst these may have accounted for some of the small feeding parties found along the coast their appearance was coincidental with the start of return movements to the east in late Jan. as exemplified by 18 at Selsey Bill on 27th, a total of 86 in 3 hours off Worthing and 200 off Pett Level on 28th; 80 off Pett and 40 off Rottingdean on Feb. 4th and 18 off Pett Cuckmere on 10th. Many such parties may have broken their journey en route due to the inclement weather. The paradox of the situation was clearly demonstrated by the start of departures of this species from Chichester Harbour on Feb. 28th in bitter weather and at the time when grey geese were flooding into Sussex from the east. However, departures continued apace—over 1,000 passed east off Pett and Rye on the morning of Mar. 4th and by 5th 70% of the Bosham/Chidham population were considered to have left. On Mar. 17th the count in Pagham and Chichester Harbours stood at 2,555, dropping to 72 by Apr. 14th and during that period reports were received of many substantial parties moving east along the coast. The last for the spring was a party of 10 E off Selsey Bill and seen later at Beachy Head on May 10th.

An injured individual remained in Chichester Harbour until June 9th and may have been the same as a very early report from Pagham Harbour on Sept. 4th. At the latter 2 were present on 28th and 4 on 30th when 3 were also seen flying E at both Clymping and Pett Level. However, the main arrivals came later, 150 arriving in Chichester Harbour on the night of Oct. 19th and 900 there by 28th. By Dec. 22nd 10,994 were in Pagham and Chichester Harbours with a further 6,350 in Langstone Harbour.

As mentioned above, individuals of the race *b. b. hrota*, known as the Pale-breasted Brent Goose were commoner than usual at the start of the year, as follows: one in Pagham Harbour from Jan. 6th to Feb. 10th; 3 in the Cuckmere from Jan. 7th to at least Feb. 5th; 2 at Bracklesham Bay on Feb. 19th.

61. SHELDUCK (*Tadorna tadorna*).—The coasting movement of Dec. 31st, 1978 (Sx. B. R. 31: 13) continued as the cold spell at the start of the year consolidated. On Jan. 1st, 118 passed W off Shoreham in 2¼ hours and two-hour watches at Southwick on 2nd and 3rd produced 35 W and 54 W respectively. Many more must have been involved as indicated by an estimate of 1,000 in Pagham Harbour by 8th. Of these, many had moved on into Chichester Harbour by 27th when the coastline count stood at 2,456 but more then arrived to bring the Feb. 10th count to 3,858—more than twice the normal. The species was commoner than usual all along the coast and there were also a number of inland records—2 at Barcombe Mills Res. on Jan. 7th, 2 at Bewl Bridge Res. on 23rd, 3 at Weir Wood Res. on 27th and two at Arlington Res. on Feb. 26th.

At Selsey Bill, movements during spring passage totalled 78 E and 21 W between Mar. 12th and May 19th, with maxima of 25 E on Apr. 14th and 12 E on 15th. Over a similar period 50 W and 34 E were noted at Shoreham. At Beachy Head, 84 E were logged between Mar. 25th and May 5th with a max. of 21 on Apr. 8th. On May 31st a party of 7 flew high NE over the Downs at Cissbury.

Max. counts of young at known breeding localities during June/July were as follows (average brood sizes, not hatching numbers, where known, in parenthesis):

Chichester Harbour	216 (8.6)	Pett Level	8 (8.0)
Chichester G.P.	10	Rye Hbr. LNR	24 (8.0)
Pagham Harbour	200	Rye area	52 (8.7)
Cuckmere Valley	18 (6.0)		

In addition, one pair, apparently breeding, was seen at Jury's Gap, Camber and another, not breeding, in the Brede Valley. The Pagham Harbour breeding season was considered the best for several years but at Rye Harbour LNR only 3 out of 8 pairs were successful.

64. WIGEON (*Anas penelope*).—The effect of the cold spell at the start of the year was to bring large numbers into the county in search of unfrozen grazing but with such a shifting population the wildfowl counts in Jan. and Feb. totalled 4,872 and 5,101 respectively, were probably unrepresentative. Independent counts at 9 major localities (not including Pevensey Levels or the two western harbours) on Jan. 6-7th totalled 6,377 and on Feb. 4-5th there were 2,500 at Arlington Res. (from Glynde Levels) and 1,700 at Amberley Wild Brooks alone. The flocks on Pevensey Levels increased from 1,360 in Jan. to 1,410 in Feb. and 1,690 in Mar., suggesting a slow return movement eastwards with the thaw. The last for the spring was one at Arlington Res. on Apr. 12th and 2 at Rye Harbour LNR on 15th.

First in autumn were 2 at Pett Level on Aug. 19th and one at Rye on 23rd. A small arrival took place in late Sept. The mid-Dec. count for the county, not including Pevensey Levels, totalled a normal 1,369.

67. GADWALL (*A. strepera*).—It was, perhaps, the preference for smaller and more easily frozen waters by this somewhat enigmatic species which brought more than usual into the county during Jan. At least 108 were present at 6 localities by mid-month and 124 at 5 localities (including 72 at Chichester G.P.) by mid-Feb. There were still 79 in mid-Mar. but dispersal was complete by the end of the month. Unusual though annual at sea, 2 flew E at Beachy Head on Apr. 7th and 6 on 8th when one also passed E at Selsey Bill.

As usual a number were in the county during the breeding season with as many as 19 at Amberley Wild Brooks on June 4th but there was no evidence of nesting. The scatter of autumn records matched the timing of increases at Chichester G.P., from 5 on Sept. 15th to 14 on Nov. 5th, 27 on Dec. 5th and 38 by 22nd. The wildfowl count for the county on Dec. 16-22nd totalled 99.

69. TEAL (*A. crecca*).—The wildfowl counts in Jan. and Feb. totalled 3,272 and 2,747 respectively, the former well above normal during the cold spell.

A pair was present on the Pevensey Levels during the breeding season.

The mid-Dec. count for the county, excluding Pevensey Levels, totalled 4,311, well above average due to unusually high counts of 1,363 and 1,990 respectively in Pagham and Chichester Harbours on Dec. 22nd. This too was during a period of cold weather.

70. MALLARD (*A. platyrhynchos*).—The wildfowl counts in Jan. and Feb. produced totals of 5,516 and 3,222 respectively, the former, as with Teal, well above average. The Feb. count possibly indicated further movement away from the continuing arctic conditions.

At Rye Harbour LNR, where at least 15 pairs nested, breeding success was considered poor but the cause unknown. At Bewl Bridge Res. at least 20 broods were seen.

The mid-Dec. count for the county, not including Pevensey Levels, totalled rather below average 2,643.

72. PINTAIL (*A. acuta*).—The wildfowl counts in Jan. and Feb. totalled 207 (at 7 localities) and 348 (at 4 localities). The vast majority were in the 2 western harbours and the counts were well within the normal range to be expected in cold weather. Although widely seen in small parties throughout the county there was no evidence of unusual numbers of immigrants elsewhere.

Somewhat unusually up to 8 were at Rye Harbour LNR during July, 1-2 remaining until autumn; a pair was seen in Chichester Harbour on July 8th.

The mid-Dec. wildfowl count, not including Pevensey Levels, totalled 227.

73. GARGANEY (*A. querquedula*).—The first in spring were 2 at Strivens Reed Bed on Mar. 10th and a pair in the Cuckmere on 21st. Subsequently 5 E were seen off Brighton Marina on Apr. 9th, 2 E off Rottingdean on 11th, singles E off Selsey Bill and Beachy Head on 14th, two pairs at Amberley Wild Brooks on 16th, a pair and a male there on 29th, 4 near Beeding on Apr. 20th and a pair in the Cuckmere on May 12th.

In autumn records were of single birds in Chichester Harbour and at Rye Harbour LNR on July 23rd, the latter to at least 28th; also there 1-2 from Aug. 5-18th with 5 from 8-14th and one on Sept. 1st; and at nearby Pett Pools, present from Aug. 12th to Oct. 3rd with 3 on Aug. 30th. Elsewhere one was at Sidlesham Ferry on Aug. 6th and another in the Cuckmere on 21st.

75. SHOVELER (*A. clypeata*).—The wildfowl counts in Jan. and Feb. produced totals of 408 and 329 respectively, including a customarily high concentration of approx. 220 at Chichester G.P. During the cold spell however, there was evidently a large "floating" population which may have eluded the organised counts as exemplified by the numbers at Amberley Wild Brooks—150 on Feb. 4th and 120 on 12th.

A pair hatched at least 2 young in the Siddlesham Ferry area and the species was present at Rye Harbour LNR and Pett Pools with no evidence of breeding.

The mid-Dec. count totalled approx. 173 but included only a handful at Chichester G.P.

76. RED-CRESTED POCHARD (*Netta rufina*).—Reports received were of a male at Bewl Bridge Res. on Jan. 28th and Feb. 14th and possibly the same at Pett Pools on Apr. 14th; and a female at Darwell Res. on May 13th and from Aug. 6th to the end of the year.

77. POCHARD (*Aythya ferina*).—Despite the cold weather at the start of the year numbers of this species remained remarkably stable, possibly because traditional wintering waters outside Sussex were not persistently frozen. The counts in Jan. and Feb. totalled 1,056 and 1,009 respectively and were well within the normal range.

At Chichester G.P. first young were seen on June 14th and a count on July 28th revealed 10 young of 2-3 broods. At Rye Harbour LNR 1-2 pairs were present throughout the summer without evidence of breeding.

The wildfowl count of Dec. 16-22nd was rather low at 768.

79. FERRUGINOUS DUCK (*A. nyroca*).—Possibly relating to individuals of wild origin were records of a male at Arundel Wildfowl Refuge from Jan. 14th to Mar. 4th and again from Sept. 15th to at least Feb., 1980; and a female at Langney Point on Dec. 2nd.

80. TUFTED DUCK (*A. fuligula*).—As with Pochard, numbers remained normal and stable during the cold spell, the counts in Jan. and Feb. producing totals of 985 and 956 respectively and comparing well with 957 at the end of the year.

During the breeding season pairs were recorded as follows (numbers of young in parenthesis):

Petworth Park.....	1 + (1)	Chichester G.P.....	25 + (168)
Arundel Park.....	5	Amberley W.B.....	1 (3)
Burton Water.....	1	Mannings Heath.....	2 (7)
Midhurst Sand Pit.....	1	Golden Cross.....	1
Slaugham Common.....	1	Barcombe Mills Res.....	1 (8)
Barnhouse Pond.....	1	Brede Valley.....	1 (7)
Lurgashall Pond.....	2	Darwell Res.....	1 (6)
Chingford Pond.....	1	Pett Pools.....	1 (5)
Trotton Bridge.....	1	Rye Harbour.....	15 + (65 +)
near S. Harting.....	1 (8)		

At Rye Harbour LNR the first young were seen on July 4th and the average brood size was 7, the largest 12. At Chichester G.P. no fewer than 21 young of even age were noted by JVS to be in the charge of just one female, suggesting the possibility of 2 clutches in one nest although unintended fostering cannot be excluded. At another locality a feral mink, later trapped, was considered guilty of taking at least one clutch.

81. SCAUP (*A. marila*).—The onset of arctic conditions on Dec. 31st (Sx. B.R. 31: 15) continued to have its effect as 19 W were counted in 2¼ hours at Shoreham on Jan. 1st and a party of 9 W off Rye on 4th. By 6-7th, 18 were at 5 coastal localities and 42 at 6 localities by 13-14th. Numbers apparently dropped off in late Jan.—early Feb., possibly as birds moved still further west but an indication of return passage came

from Pagham Harbour as counts rose from 3 on Feb. 10th to 10 on 17th, 12 on 21st and 16 on 25th. On Mar. 4th, 14 were still present but only 4 by 17th. In late Feb. only 2 singles were seen elsewhere along the coast but one appeared at Weir Wood Res. on 25th. Other inland records were of a drake at Bewl Bridge Res. on Jan. 23rd and a female in Arundel Park on Feb. 3rd. Another female was at Arundel Wildfowl Refuge on Mar. 1-8th.

During spring passage a party of 12 E was seen at Beachy Head on Apr. 8th, one was at Church Norton on 5th and one lingered at Langney Point from Apr. 21st to May 13th. On May 23rd a female arrived at Arundel Wildfowl Refuge to stay until at least July 24th.

At the end of the year one was at Chichester G.P. on Nov. 1st and up to 3 in Pagham and/or Chichester Harbours from 23rd onwards.

82. EIDER (*Somateria mollissima*).—Approx. monthly totals were as follows (for May—see text):

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
62	51	130	176	★	12	28	21	30	32	20	20

Maxima at Rye Bay were 30 on Jan. 7th and 40 on 28th and elements thereof may have moved further west during Jan.—Feb. The Mar. and Apr. totals include 100 and 160 respectively feeding off Selsey Bill. The true spring figures, particularly in May were confused by the probably mixture of non-migrants and resting migrants. At Selsey Bill, figures of 475 E and 22 W between Mar. 8th and May 27th were thus possibly inflated. During Mar.—Apr. 96 E were noted off Shoreham and at Beachy Head, 110 E between Apr. 7th and May 8th with a further 15 E on May 25th (see tables on pages 33, 34).

86. LONG-TAILED DUCK (*Clangula hyemalis*).—At the start of the year 3 females or immatures were seen off Church Norton on Feb. 18th and 2, probably of the same, off Selsey Bill on Mar. 3rd and 31st and Apr. 7th and 8th. After one passing E at Beachy Head on Apr. 12th there came one W at Shoreham on May 7th and one E at Selsey Bill and Beachy Head on 10th—the last 3 being possibly the same individual.

In Nov. one or more females or immatures were in the Pagham Harbour area from 6th to at least 18th and a male was off Church Norton on 23rd. From 25th to Dec. 2nd a female or immature was at Langney Point and on 8th, when a further female or immature had appeared at Church Norton, two others, together with a male were at West Chidham in Chichester Harbour.

87. COMMON SCOTER (*Melanitta nigra*).—Some 200 were present in Rye Bay until early Mar. but, as usual, few were seen elsewhere. On Feb. 16th, 100 W were noted at Selsey Bill.

During Spring passage at Beachy Head, 19,319 were logged passing E between Mar. 3rd and June 1st with an unprecedented peak of 13,293 on Apr. 8th (see table on p. 34). Elements of this movement were noticed the full length of the coast but it is considered that fewer were in sight of land towards the western end of the county. At Pett Level 6-8,000 were estimated in 2 hours, at Seaford Head (0950-1230 hrs)—8,106; at Ferring (0745-1200)—4,500; at Shoreham (times not known)—4,005; and at Selsey Bill, only 2,063 in 7½ hours. The spring total at Selsey Bill was 5,212 E and 260 W between Mar. 7th and May 28th. (see table on p. 33).

During the summer months approx. 40 were in Rye Bay but had apparently dispersed by the end of July. Little was seen of the species for the remainder of the year.

89. VELVET SCOTER (*M. fusca*).—The cold weather at the start of the year brought a good scattering of records amounting to some 20 individuals, including up to 6 in Rye Bay during Jan.—Mar. and 6 E off Brighton on Mar. 4th.

Spring passage was more evident than usual with a total of 151 E at Beachy Head between Mar. 4th and May 6th (max. 39 on Apr. 8th and 60 on 10th); 52 E and 4

W at Selsey Bill between Mar. 16th and May 6th (max. 32 E on Apr. 8th); and 33 E off Shoreham over a similar period (max. 13 on Apr. 8th).

Only two records were received for the second half of the year, 4 E off Worthing on Oct. 24th and one W off Selsey Bill on Dec. 15th.

91. GOLDENEYE (*Bucephala clangula*).—Counts during the cold spell at the start of the year, centred on Jan. 14th and Feb. 18th, totalled 81 and 93 respectively. As usual most were in Chichester Harbour where the counts were stable at 50 and 56. The effect of the weather was in strange contrast to the effect on Smew and Goosander, merely bringing a handful moving west during Jan. 1-7th and a scattering into some unfamiliar localities (mostly tidal rivers) over the length of the county. Only Bewl Bridge Res. registered unusual numbers with a max. of 17 from mid-Jan. to early Mar. compared with a previous max. of only 7. After a party of 7 migrants at Rye Harbour LNR on Apr. 1st and scattered singles elsewhere, the last were 3 E at Seaford and Beachy Heads on 8th.

Fist in autumn were 3 at Rye on Oct. 26th and one at Weir Wood Res. on 30th. Further arrivals took place in mid-Nov. and the wildfowl count of Dec. 16-22nd totalled a normal 63 of which 51 were in Chichester Harbour (c.f. Jan.-Feb.).

93. SMEW (*Mergus albellus*).—Together with Goosander (see below) the cold weather at the start of the year brought an extraordinary influx of this species. Their arrival was typified by, in some cases, abnormal proportions of males and also by confusing movements of small parties apparently seeking amenable waters. Their source, and the reasons for their coming when other diving duck were apparently unaffected, pose questions which may remain unanswered. Records were as follows:

Rye Harbour LNR—one redhead Jan. 1st, three 3-5th, two 6th, one, 7th, 9th and 28th; male, 6th. Also a redhead on Union Canal, E. Guildford on Feb. 11th.

Pett Level—redheads-3, Jan. 1st, one 14-15th, four 16th, singles 21st, 28th, Feb. 17-18th; male on Mar. 3rd.

Langney Point—redhead Jan. 7th, 4 on 13th; male and 2 redheads, 28th.

Cuckmere—all redheads—at least 6 on Jan. 6th, 2 to Feb. 16th.

Glynde—one redhead on river, Jan. 14th, two 28th, one 30-31st.

Ouse Valley—single redheads near Southsea Jan. 6-7th and 24th.

Shoreham—4 redheads passing through, Jan. 6th.

Amerley Wild Brooks—5 males Jan. 6th, one 7th.

Arundel Wildfowl Refuge—redhead, Jan. 12th.

Pagham Harbour—usually 2 redheads Jan. 6th to Feb. 3rd, 3 on Feb. 2nd, one to Mar. 8th but 2 on 3rd; 2 males, Jan. 16th to Feb. 21st.

Chichester G.P.—3 redheads Jan. 19th, one to 29th.

94. RED-BREASTED MERGANSER (*M. serrator*).—Although a small movement to the west along the coast came with the onset of the cold weather during Jan. 1-7th there were probably no more than 40 in the county by mid-month. As the weather persisted more arrived, totalling approx. 85 by mid-Feb. Inland, 2 appeared at Bewl Bridge Res. on Jan. 14th. Slow return passage probably started in mid-Mar. when 25 were off Worthing on 11th and 40 off Selsey Bill on 17th. At the Bill 51 E and 196 W were logged between Mar. 3rd and May 12th; at Worthing 118 E in 3 hours on Apr. 8th (coupled with similar observations at Ferring); and at Beachy Head, 378 E between Mar. 25th and May 12th with a max. of 199 on Apr. 8th (see tables on pages 33, 34 for details). Off Shoreham, 280 E were noted between Mar. 25th and mid-May with a max. of 135 E on Apr. 8th.

Most unusually, a male was present in the Selsey Bill area from at least July 29th to Aug. 12th.

First in autumn were singles off Shoreham and Worthing on Oct. 22-23rd and one in the Cuckmere on 23rd. On 24th, 22 W were logged at Worthing. On Nov. 3rd, 39 W were noted at Selsey Bill. The wildfowl count of Dec. 16-22nd produced an average figure of 77.

95. GOOSANDER (*M. merganser*).—At the start of the year, as already commented upon (see Smew) an extraordinary influx took place. Too many to be given in detail, records from all parts of the county totalled approx. 41 between Jan.

5-8th (including 15 W at Church Norton on 6th) and 45 between 11-14th (many of which were possibly additional and included 6 passing through at Weir Wood Res. and 11 likewise at Powdermill Res.). From then to mid-Feb. 1-3 were seen at many localities where suitable feeding could be found but the fish stocks at Darwell Res. attracted 9 on Feb. 4th and 12 on 11th. As with a number of other species there was evidence of a slow retreat to E and NE with the thaw, a max. of 15 appearing at Bewl Bridge Res. on Mar. 3rd and, for Sussex, an astonishing 34 at Darwell Res. on 4th. The last at the former were 4 on 11th and at the latter, 2 on 18th. Otherwise there was one at Weir Wood Res. on Mar. 4th and one lingered in the Cuckmere until 21st. It is relevant to note that numbers on the Surrey-Middlesex reservoirs remained high during this period.

At the end of the year, two drakes were at Bewl Bridge Res. on Nov. 23rd and a redhead from 30th to the end of Dec. On Nov. 25th two redheads appeared at Rye Harbour LNR and one at Pagham Harbour; the latter stayed to the end of Dec. and was visited by a drake on 9th. A drake and 2 redheads were seen over Bulverhythe on Dec. 2nd, and single redheads at Arundel Wildfowl Refuge on 15th and near Lewes on 22nd.

96. RUDDY DUCK (*Oxyura jamaicensis*).—The cold spell at the start of the year perhaps gave impetus to the colonisation of the county and the first breeding record was established. In the Rye Harbour LNR and Pett Pools area a female was present from Jan. 28th onwards and a male from Jan. 30th. A further male appeared on Apr. 28th for a few days. After an apparently abortive breeding attempt in June, the pair eventually hatched 3 young at Pett Pools.

At Chichester G.P. a male and female, perhaps unmated, were present throughout the year with a female visitor on Jan. 7th and 3 on 13th.

Elsewhere records were of a female at Langney Point on Jan. 6-20th with another on 13th; a male at Barcombe Mills Res. on Feb. 3-18th with a female on 18th; 2 females at Bewl Bridge Res. from Jan. 23rd to Feb. 28th; and one at Arlington Res. on Feb. 18th.

97. HONEY BUZZARD (*Pernis ptilorivus*).—The only authenticated records were of one arriving from SE at Beachy Head on May 10th (NAGL, MJR) and one over Maynards Green on Nov. 1st (NAD).

99. RED KITE (*Milvus milvus*).—The individual first reported in the Chilgrove area on Dec. 16th, 1978 (Sx. B.R. 31: 17) remained into Jan. One flew E over Pett Level on Apr. 15th (PWR) and one drifted N over Cissbury Ring on Oct. 20th (SRA, BFF *et al.*).

During the early part of the year two were found dead. The first, still warm, was a non-adult female at Shipley, near Horsham on Mar. 30th and subsequent enquiry into the circumstances strongly suggested that it had consumed poisoned bait. The second, of the same age and sex, was found at Folkington, near Polegate, on May 5th. This unhappy creature was proved to have died rapidly of mevinphos poisoning after taking bait. These two incidents highlight a situation which is clearly intolerable.

103. MARSH HARRIER (*Circus aeruginosus*).—A good showing, with reports of at least 11 individuals as follows: a possible male at Beachy Head on Apr. 19th (DSF, NAGL); an immature male to NW at Pett Level on 29th (PWR); a female at Rye Harbour LNR on May 7th (per RCK); females or immatures at Selsey Bill on 19th CRJ, BAEM, OM *et al.* and Rye on 30th (per RCK); an immature on the Downs at Cissbury on June 14th (RJS); a female or immature at Rye on 19th (per RCK); an adult male and female in the Siddlesham area throughout Aug. (MS); possibly one of the same in Chichester Harbour on Aug. 26th (BJ, CMJ); an adult female at Beachy Head on Sept. 4th (AJP, DAP); a female or immature at Pett Level on 9th (DFC, CT); and a male at Parham Park on 11th (PDD).

104. HEN HARRIER (*C. cyaneus*).—Between Jan. 1st and Apr. 30th many of hundreds of reports from some 66 localities throughout the county involved more

than one bird. A strict day-by-day analysis has suggested that, whilst some individuals remained in a favoured area, others ranged widely over Downs and adjacent lowland. The most stringent estimate, based on dates and possible hunting zones was that a minimum of 16 adult or sub-adult males and 41-43 females or immatures (referred to below as "ring-tails") was seen during the period, including those which lingered into or passed through in early May. As the summary below cannot take into account the likelihood of individuals moving into, out of or through the county, the true total may well have been double the estimate:

Ashdown Forest—a male on 5 dates, Jan. 24th to Feb. 14th; possibly another, Mar. 18th; ring-tails on Jan. 9th, Mar. 29th and Apr. 14th.

Rye area and Pett Level—a male on many dates, Jan. 2nd to Mar. 17th; another Apr. 6-7th; another 21st; ring-tails on many dates, Jan. 13th to May 6th; at least 2 from early Jan. to early Apr.; some passage individuals also involved.

Crownhurst—a ring-tail from Jan. 12th into Mar.; a pale ring-tail near St. Leonards on May 6th probably same as imm. male at Camber same day (see above).

South Challey—a ring-tail on Feb. 18th.

Pevensey Levels to the Ouse Valley and Balsdean (including Glynde Levels and Beachy Head)—an adult and a sub-adult male in 7 reports Jan. 1st to Feb. 25th in east and an adult in west, Jan. 1st to Feb. 8th; another, Beachy Head, Apr. 15-24th; at least 6, probably 9 ring-tails, Jan. 1st to Apr. 3rd (42 dates); others, probably additional, Beachy Head, Apr. 15-16th, Apr. 28th; Glynde Levels, 30th; and Balsdean, May 15th.

Central Downs—a male and 2 ring-tails, Feb. 25th.

Cissbury-Chanctonbury downland and Adur Valley—males on Jan. 31st, Feb. 22nd and Apr. 3rd may have wandered from other areas but one Apr. 29th was probably additional; at least 4 ring-tails on 10 dates Jan. 4th to Apr. 18th.

Arundel Vally and adjacent Downs to west—a male on 16 dates Jan. 5th to Mar. 31st; ring-tails on 23 dates Jan. 3rd to Mar. 20th involving one usually in the Arundel Wildfowl Trust area and at least one other in the Amberley and surrounding areas; one at Arundel W. T. on Apr. 15-16th was probably additional.

Pagham and Chichester Harbours—degree of interchange difficult to assess but a strong indication of two roosts, one at Sidlesham and one in the north of Chichester Harbour. The former, in a reed-bed from Jan. 1st to at least Mar. 29th, contained a max. of 11 individuals on Jan. 13th and 10 on 28th. Numbers tended to vary from 7 to 11 in Jan. and there was probably a secondary roost in Feb.; total involved considered to have been one adult male, 3-4 juvenile males and 5-6 ring-tails; last in the area was a ring-tail on Apr. 20th; in the north of Chichester Harbour, an adult male on 9 dates, Jan. 6th to Feb. 23th; another Feb. 17th; a sub-adult, Feb. 11-17th; at least one ring-tail, Jan. 6th to Apr. 26th; two or more from Feb. 3rd; 5 on Mar. 17th.

North-west Sussex—a male in the Lodsworth area, Jan. 8-21st; possible the same; Ambersham Common, Feb. 11-25th; 2 ring-tails, Ambersham Common, Jan. 9th and Feb. 11th; singles Woolbeding Common, Jan. 8th and Fernhurst, Feb. 25th possibly additional.

First in autumn were a male at Rye Harbour LNR and a ring-tail at Woolbeding Common on Oct. 14th. The species was reported from 6 localities in Oct. and 7 each in Nov. and Dec., involving a minimum of 3 males and 10 ring-tails and including 1-2 at Rye Harbour LNR throughout Dec.

HARRIER SPECIES (*C. cyaneus* or *pygargus*)—Single indeterminate "ring-tails" were seen at Cissbury on the Downs on May 4th and Church Norton on 19th.

108. SPARROWHAWK (*Accipiter nisus*)—Successful breeding was reported from only 6 areas but suspected in several of a further 38 where the species was known to have been present. Outside the breeding season it was widely reported over the entire county. Interesting records included several instances of preying on tits and other species at bird tables and two fatal collisions with plate glass windows.

On Jan. 2nd one apparently departing the coast at Southwick returned to land after mobbing by gulls; one flew out to sea at Climping on Apr. 13th. At Beachy Head 1-2 were seen almost daily from Sept. 4th; one of 3 there on 15th flew S out to sea. All records of this species at all seasons are still required for a detailed assessment of current status. [SWMH]

109. BUZZARD (*Buteo buteo*)—At the start of the year reported from Chilgrove, Bow Hill, Ardingly Res., Glynde Levels, Ashdown Forest, Rottingdean and Rye Harbour LNR between Jan. and Mar. 4th, 10 probable immigrants occurred at mainly coastal localities between Apr. 1st and June 19th. There was no suspicion of breeding and the first autumn migrant was at Beachy Head on Aug. 26th. 7 more were seen at widely scattered localities up to the end of Sept., 2 in Oct., 2 in Nov. and one arriving from the S at Ferring on Dec. 20th.

110. ROUGH-LEGGED BUZZARD (*B. rufinus*)—The only records were from Rye Harbour LNR on Jan. 6-7th (PWR *et al*) and Lullington Heath on Feb. 5th (MJR).

113. OSPREY (*Pandion haliaetus*)—A good year for the species with 13 records in all: to NNW over Lewes on Apr. 4th (MJH); to E over St. Leonards on 15th (BG); in to NE at Beachy Head on May 5th (JFC); another to NE on 9th (NAGL); at Bewl Bridge Res. on 26th (WB); at Hawkins Pond, St. Leonards Forest on June 10th (per SWMH); to W over Cissbury Ring on Aug. 5th (FJF); to W at Darwell Res. on Sept. 2nd (RGH); to N at West Chidham on 6th (JHME); over Arundel Wildfowl Refuge on 14th (SCR *et al*); in Chichester Harbour on 19th (RDME); at Bewl Bridge Res. on Oct. 8th (WB); and at Darwell Res. on 14th (RGH).

115. KESTREL (*F. tinnunculus*)—In the breeding season 111 occupied territories, based on a minimum of three observations in the period April to August, were located and there were reports from 32 other areas. Breeding densities recorded were 3 pairs per 2,500 acres (10 sq. Km.) on the coastal plain at Sidlesham, 2.6 on the Downs north of Worthing and 1.45 in the Horsham district. All the densities represent sharp increases compared with 1964-67, of 40% on the coastal plain, 44% on the Downs and 32% at Horsham where a small decline of c.9% was noted compared to the survey in 1978. Thirty-three pairs were proved to breed, of which 25 pairs raised 44 young. This average brood size of 1.75 is low but only 3 pairs (12%) failed completely. Seventy per cent of the sites recorded were also occupied at least once in 1964-67, demonstrating the traditional nature of territories.

The only sizeable autumn parties recorded were of 9 at Newhaven Hill on Aug. 20th and 8 at Castle Hill on Sept. 23rd. This possibly reflects the indifferent breeding success.

In winter at least one bird was recorded from 33% of the breeding season sites but on a 3,000 acre study area at Sidlesham all the breeding pairs maintained their territories throughout the winter.

Migrants were very scarce, with none at Beachy Head, a most unusual situation. One flew S at Selsey Bill on Jan. 28th, and two arrived and one departed there in April. One coasting W at Worthing on Oct. 31st seems to be the only autumn record.

Several observers noted regular feeding on birds, at Eastbourne, Rottingdean, Alfriston, Rye Harbour LNR and Sidlesham. At Rye a male regularly preyed on Ringed Plover and Little Tern chicks and at Sidlesham 75% of the breeding season diet was found to be small birds, mainly sparrows and starlings. [MS]

117. RED-FOOTED FALCON (*F. vesperinus*)—An immature female remained near Cissbury Ring from May 25th to June 1st (RJS *et al*) and on Aug. 11th an adult male was seen at Church Norton (MJWH). *Eco* records have been accepted by "British Birds".

118. MERLIN (*F. columbarius*)—Despite the profusion of passerine prey-species on Downs and coast a paucity of records at the start of the year may have reflected some effect of the cold weather. One was seen regularly at Rye Harbour LNR during Jan. and possibly others on Feb. 24th and Mar. 29th but elsewhere the only sightings were of single birds at Pagham Harbour on Jan. 4th, Glynde Levels on Jan. 24th and Feb. 25th, Plumpton on Jan. 31st and Chichester Harbour on Feb. 4th. In Apr. a female hunted the Beachy Head area from 1-22nd, another was seen arriving there from S on 20th, and one was at Bosham on 18-19th.

The first in autumn was in the Rogate area on Sept. 3rd followed by others at Littlehampton on 16th, Pevensey Levels on 24th and Beachy Head from 30th to Oct. 14th. After reports from the Downs at Cissbury on Oct. 6th and Rye Harbour LNR on 7th, the species was seen at 8, all coastal, localities between Oct. 10th and Nov. 18th, including singles at Pagham Harbour on Oct. 10-13th and Nov. 10-18th. In Dec. the only records were from Balsdean on 4th, Bewl Bridge Res. and Strivens Reed Bed on 10th and Rye on 29th.

119. **HOBBY** (*F. subbuteo*).—First recorded in spring at Woods Mill on Apr. 24th, Worthing on 28th, No Mans Land on 29th and Hove on 30th. During May 22 records involved some 16 migrants at coastal localities and 3 near potential breeding sites whilst 9 records in June, from widely scattered localities, apparently related to non-breeding individuals.

Breeding was proved at two now traditional localities, two young being reared to flying stage at each. The species may have nested at three other localities and was present at one other.

Most Sept. records related to birds loitering near breeding and other suitable areas for protracted periods and elements of one family party stayed until Oct. 14th. The remaining Oct. records were of singles on the Downs at Cissbury on 4th and at Beachy Head on 7th.

123. **PEREGRINE** (*F. peregrinus*).—Substantiated records received were from Bewl Bridge Res. on Mar. 17th (PCB); Horse Eye Level on June 4th (LGC) and in the Pagham Harbour area from Sept. 8th to Nov. 18th (many observers). One over Arundel Wildfowl Refuge on Oct. 12th (RMB) was possibly the same.

131. **QUAIL** (*Coturnix coturnix*).—During the summer 3 were heard calling in one area of the Downs, 2 at another and singles at 3 others; at none was breeding proved although calling was heard from May 28th to Aug. 30th at one locality and until at least Aug. 1st at another.

Three were flushed from stubble at Sidlesham on Aug. 20th (VAS)—within 2 days of a similar occurrence in 1978 (Sx. B.R. 31: 19).

136. **WATER RAIL** (*Rallus aquaticus*).—Reported from 22 coastal and inland localities in Jan.-Mar., the max. being 6 at Christ's Hospital S.F. at Horsham. Present during the breeding season at Arundel Wildfowl Refuge, near Southsea and in Eridge Park and believed to have bred in the Brede Valley.

141. **CORNCRAKE** (*Crex crex*).—One at Beachy Head on Oct. 14th (TWP).

142. **MOORHEN** (*Gallinula chloropus*).—A count of 70 was received from one locality in Chichester Harbour on Mar. 17th. Two inside Brighton Marina on Feb. 16-19th suggested coastal movement during the cold spell. During the breeding season 66 pairs were found on 935 hectares of the Brede Valley.

145. **COOT** (*Fulica atra*).—The cold spell at the start of the year brought unusual numbers to notice. Max. counts reported during Jan.-Mar. were as follows:

Bewl Bridge Res.	501	Shoreham Pad	120
Darwell Res.	100	Greattham Brooks	140
Rye Harbour LNR	900	Chichester G.P.	
Aldingly Res.	85	(Shopwyke)	410
Arlington Res.	120	Arundel Wildfowl Ref.	337
Cuckmere	100	Sidlesham Ferry	74
Barcombe Mills Res.	170		

Also unusual were reports away from fresh water—one off Selsey Bill on Jan. 6th and up to 5 inside Brighton Marina from Jan. 11th to Feb. 28th.

Reports from Rye Harbour LNR indicated exceptional numbers later in the year with some 800 in Sept.-Oct. and up to 1,250 in Nov.-Dec. At Bewl Bridge Res. the count rose from 15 on Sept. 10th to 440 on Oct. 28th and 619 by Dec. 16th.

146. **CRANE** (*Grus grus*).—Two adult birds at Selmonston on Apr. 14th (DAP). One immature Brede Valley Dec. 24th to at least Apr. 10th, 1980 (LA, MPE, DJP). These records have been accepted by 'British Birds'.

151. **OYSTERCATCHER** (*Haematopus ostralegus*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 1,539 and 1,775 respectively, compared with 1,780 and 1,943 respectively on Jan. 14th and Feb. 11th, 1978. The average Jan. count for 1977-79 now stands at 1,734, much above that of 1,170 for the period 1972-76, but nonetheless slowly falling back from 1,884 in 1977. Inland, one was seen at Weir Wood Res. on Jan. 14th.

During spring passage at Beachy Head 67 E were logged on 9 dates between Mar. 25th and May 12th with maxima of 21 on the former and May 11th. Evidence of overland passage rested with one on Amberley Wild Brooks on Apr. 10th, over Lewes at night on 14th, at Bewl Bridge Res. on 23rd and Brightling on May 26th.

At Rye Harbour LNR fox predation resulted in poor breeding success and only one pair out of 11 raised 2 young. At nearby Pett Level a male established a territory in May but remained unmated. Another pair was apparently breeding at Jury's Gap, Camber. At Pagham Harbour 18 pairs hatched 30 young and at a site in Chichester Harbour one pair was unsuccessful whilst 2 others raised 5 young.

Counts of non-breeding birds included 132-180 at Rye in June-July and 260 at one roost in Chichester Harbour on July 23rd. The Aug. 11th total in the two western harbours was 1,096 and by Nov. stood at 1,426 compared with 587 and 1,568 respectively in 1978. At Rye 530 were at roost on Oct. 10th.

153. **AVOCET** (*Recurvirostra avosetta*).—Of the 6 wintering at Pagham Harbour (Sx. B.R. 31: 20), 3-4 remained until at least early Mar. but 10 were there on Mar. 17th and 7 on 20th, followed by sightings of a lone bird on 28th and Apr. 9th. Also in Mar. singles were seen at Shoreham on 14th and 25th, the Cuckmere (the same?) on 26th and at Rye Harbour LNR on 13th and Apr. 8th. On May 10th one flying E at Selsey Bill was also seen off Worthing. Two were at Sidlesham Ferry on 14-15th and 7 paused briefly at North Point GP on 13th. The last of the spring were 11 at Pett Pools on June 13th bringing the passage to a modest total of about 35.

In early autumn 1-3 were seen on a number of dates in the Pagham/Chichester Harbour area whilst at Arlington Res. 2 flew S on Aug. 3rd. The only other records were of singles at Pett Pools on Nov. 7th and Sidlesham Ferry again from Dec. 17th to the end of the year.

154. **STONE CURLEW** (*Burhinus oedicnemus*).—Again only one pair was present during the breeding season and nesting may have been terminated by agricultural activity. On Aug. 27th one was heard over Alfriston.

158. **LITTLE RINGED PLOVER** (*Charadrius dubius*).—First recorded in spring were two at Sidlesham Ferry on Apr. 13th followed by single birds at Selsey Bill on 14th, Rye Harbour LNR on 16th and later, one in the Cuckmere on May 9th.

During the breeding season one was seen regularly at a traditional site but breeding was not proved. At another, recently used site, one pair bred successfully. During June a wanderer visited Rye on 17th.

Return passage began with a juv. at Sidlesham Ferry on July 7-8th and at least a further 18 individuals passed through between then and Aug. 18th, with maxima of 7 on July 9th and Aug. 3rd. Two were seen in Chichester Harbour on July 14th and one on 24th. At Pett Pools at least 11 passed through between Aug. 6th-18th with a max. of 6 on 8th and further singles on 26-31st and Sept. 4-16th. At nearby Rye Harbour LNR singles appeared on Aug. 5th, 8th, 19th and 27th. Elsewhere, two were at Arlington Res. on July 21st, one on Aug. 4th and 2 on 11th; in the Cuckmere, 5 on July 30th, one on Aug. 1st and 2 on 8th; at Langney Point, one on Aug. 12th; and at Arundel Wildfowl Refuge, two on Sept. 4th. The total passage was a minimum of 54 and the proportion of juveniles was very high.

159. **RINGED PLOVER** (*C. hiaticula*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 446 and 454 respectively, compared with 840 and 475 respectively on Jan. 14th and Feb. 11th, 1978. Whilst the population in the two western harbours remained steady, independent counts on the Middleton to Shoreham coast showed a drop from 343 to 193 during Jan. leading to the Feb. 10th total of 207. The max. counts during the period were 183 at Ferring on Jan. 9th and 155 in Chichester Harbour on 27th.

During the breeding season 70 pairs were recorded, compared with 73 in 1978. At Pagham Harbour, where Carrion Crows were the main problem, the count was of 44 nests and 99 hatchlings including many second broods. At Rye Harbour LNR 17 pairs nested and success was considered fairly high. Elsewhere two pairs bred at

North Point G.P., one at Shoreham and, unusually in recent years, one at Selsey Bill despite much human disturbance. Up to 4 pairs were at Langney Point but for no obvious reason, did not stay, but breeding was suspected on the Seven Sisters downs, at Normans Bay and Brighton. The species now seems to have held its own in the county since 1965.

No significant counts came for July but that of Aug. 11th produced a mere 379 in Pagham and Chichester Harbours, low for recent years but in keeping with the mean of 400 quoted by Shrubbs (1979). On the Adur at Shoreham 25 on Aug. 1st increased to 132 by 26th and peaked at 244 on Sept. 1st, falling back to 138 on 3rd. The Goring count on 2nd stood at 130. There was evidence of further passage in mid-month and in early Oct. with a max. at Shoreham of 130 on 13th. The Nov. 3rd count in the harbours could muster no more than 177.

In spring a semi-leucistic individual with a white head was present at Rye and was found again in Nov. at Shoreham.

161. KENTISH PLOVER (*C. alexandrinus*).—Two records only, both from the Cuckmere, a female on May 4th (JFC, RHC, DAP *et al*) and a male on 14-16th (REM, PJW).

162. GREATER SAND PLOVER (*C. leschenaultii*).—The individual first seen at Pagham Harbour on Dec. 9th, 1978 (Sx. B. R. 31: 21), remained until Jan. 1st.

163. DOTTEREL (*C. morinellus*).—All records were in autumn and at Beachy Head—singles on Sept. 2nd (DAP, TWP), 23-24th (DSF, MK) and 30th (RHC). The first two were adults.

165. GOLDEN PLOVER (*Pluvialis apricaria*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 954 and 595 respectively. The cold weather evidently kept numbers very low during this period, most reports being of 100 or less, although 500 were at Bracklesham Bay on Feb. 19th. Evidence of a return with milder weather came from Pevensey Levels where the count rose from 280 on Feb. 10th to 435 on Mar. 3rd and 765 on 17th. The sole Apr. report was of approx. 300 still on Horse Eye Level on 7th.

The count in Pagham and Chichester Harbours on Aug. 11th produced a total of 76 but the first elsewhere were 2 at Rye Harbour LNR on 19th. In general numbers remained low until mid-Nov. but 358 were on Horse Eye Level by 17th and 560 by Dec. 6th whilst at Rye approx. 200 were noted on 25th. Dec. counts were inconclusive but, on 23rd, 8-900 were present on Pett Level and 500 on East Guldeford Level on 30th.

166. GREY PLOVER (*P. squatarola*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 958 and 1,133 respectively, compared with 707 and 886 respectively on Jan. 14th and Feb. 11th, 1978 and were slightly below the average in recent years. Main departures took place in mid-Mar. Though widely reported along the coast very few were seen on spring passage.

In June the max. at W. Chidham was 10. There was also one at Newhaven on 4th and 4 in the Cuckmere on 3-5th. By Aug. 11th the count in Chichester and Pagham Harbours stood at 782 compared with 1,291 on Aug. 19th, 1978 but rose to a record 2,595 on Nov. 3rd (the highest previous total being 2,480 on Sept. 25th, 1976). Otherwise the autumn/winter counts were inconclusive.

169. LAPWING (*Vanelius vanellus*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 2,927 and 4,258 respectively compared with 14,076 and 8,585 respectively on Jan. 14th and Feb. 11th, 1978. The effect of the cold weather was confusing in that, initially, large numbers came into the county (e.g. 3,000 at Rye and 2,000 at Shoreham on Jan. 1st but only 30 and 300 respectively by 27th) but as the weather persisted both the immigrants and the normal wintering population moved out. Towards the end of Feb., however, counts included 1,500 in the Cuckmere on 16th (after only 260 on 10th), 2,000 at Rye on 17th (after 300 on 10th), 3-4,000 near Balcombe Mills Res. on 19th, dropping to 2,000 on 21st and 500 by 23rd, and 2,000 on Glynde Levels on 11th. The apparent increase in numbers may

merely have reflected an increase in observer activity at a time when geese were abundant in such localities but may equally have indicated a further arrival from the Continent. Most flocks had apparently dispersed by mid-Mar.

During the breeding season 45 pairs were located on 935 hectares of the Brede Valley and at Sidlesham, where breeding success was good, 20 pairs on 190 hectares compared with 19 in 1978. (Note: the Sidlesham hectareage quoted in 1978, Sx. B. R. 31:22, should have read 82, not 243, and the 'rather large area' was 190 hectares as given above). At Rye Harbour LNR, on the 725 hectares of the SSSI, 20-30 pairs attempted to nest but success was apparently low whilst on nearby Pett Level only 2-3 pairs were located. At Bewl Bridge Res., 9 pairs attempted breeding—considered an improvement on recent years. Away from such critical areas, the count along the 5 miles (8 km) of the Bluebell Railway was of 7 pairs.

Whilst a flock of 45 at Horse Eye Level as early as May 31st may have indicated high breeding failure or early success, the first build-up of post-breeding numbers came in mid-June with 200-250 at Sidlesham and in the Cuckmere and 200-600 inland near Thakeham by early July. In Chichester Harbour the count was 732 on Aug. 1st compared with 1,846 on Aug. 19th, 1978 and was still rather low in Nov. Casual Dec. counts from 14 coastal and inland localities (but not including Amberley Wild Brooks) totalled approx. 13,950.

170. KNOT (*Calidris canutus*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 760 and 32 respectively, compared with 416 and 1,160 respectively on Jan. 14th and Feb. 11th, 1978. However, an independent Chichester Harbour count on Feb. 17th totalled 1,400. Other reports during this period were of 10 at Rye Harbour LNR on Jan. 1-8th, 14 there on 9th, 13 on Feb. 18th and one on Mar. 18th, two at Newhaven Tide Mills on Mar. 2nd and, unusually, two inland at Bewl Bridge Res. on Jan. 16th.

Little was seen of the species during spring passage except at Rye where 16 appeared on Apr. 14th, rising to 27 by 17th followed by gradual departures up to May 10th. Some remained in that area throughout the summer with a max. of 28 on June 3rd and 1-3 on several dates to the end of Aug. Several were present at other coastal localities. Counts for the end of the year were inconclusive but 300 were at East Head, Chichester Harbour on Dec. 31st.

171. SANDERLING (*C. alba*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 184 and 275 respectively, compared with 463 and 141 (the latter an accidentally low count—see Sx. B. R. 31: 23) on Jan. 14th and Feb. 11th, 1978. Discussion of continuing low counts is perhaps premature.

During spring passage at Selsey Bill, 130 E and 18 W were noted between Mar. 21st and May 28th but at Beachy Head the total was only 31 E between Apr. 8th and May 19th. At Rye Harbour LNR, where the winter population of 75-80 had largely dispersed by early Apr., similar numbers of passage migrants were present in late Apr.-early May.

The species was not recorded in June. During late July single birds began to appear along the coast and a Chichester harbour roost stood at 92 on 23rd. The Aug. 11th count produced 170 in Chichester and 4 in Pagham harbours and 160 passage birds were at Rye by 31st. The latter mostly departed by late Sept. (to be replaced by 75 winterers by mid-Dec.) Nov. counts received were of 388 in Chichester Harbour on 3rd, 60 at Ferring on 19th, 11 at Worthing on 11th, 60 at Littlehampton on 24th but, at that stage, none at Rye.

175. LITTLE STINT (*C. minuta*).—Approx. monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
1	—	2	—	1	3	5	11	13	36	3	—

The wintering individual at Sidlesham Ferry was last seen on Jan. 16th; one there on May 19-20th was a presumed migrant. Two in Mar. were at Northney in Chichester Harbour. The June records were of singles at Langney Point on 2nd and Rye Harbour LNR on 10th and 23rd. The species was continually present in the

Cuckmere from Aug. 23rd to at least Oct. 12th on which date there was a max. of 10. An influx on Oct. 5th brought autumn maxima of 13 at Rye, 7 at Pett Pools and 10 at Sidlesham Ferry. Four were still at Pett on 31st and 2 were at Rye on Nov. 18th. The last elsewhere was one in Chichester Harbour on Nov. 17th.

176. **TEMINCK'S STINT** (*C. temminckii*).—Three records—in the Cuckmere on May 15th (PJW), at Sidlesham Ferry on May 19th (CRJ, BAEM, BJS *et al.*), and in Chichester Harbour on Aug. 26-27th (DSF, MJWH).

178. **WHITE-RUMPED SANDPIPER** (*C. fuscolis*).—One at Pett Level on Sept. 28th-Oct. 3rd was the sixth record for the county and has been accepted by "British Birds" (CHD *et al.*).

180. **PECTORAL SANDPIPER** (*C. melanotos*).—One record—a very secretive juvenile at Pett Pools from Sept. 21st to at least Oct. 10th (PJG, PWR *et al.*). Its arrival was coincidental with others in the Dungeness area.

182. **CURLEW SANDPIPER** (*C. ferruginea*).—The only records in spring were of singles at Church Norton on Apr. 14th and Rye Harbour LNR on 19th. Return passage started fitfully with 2 at Sidlesham Ferry on July 2nd and 3 on 29th, 3 at Pett Pools on Aug. 4th and one at Rye on 5th. The main passage was between Aug. 26th and Sept. 19th. Approx. totals for the autumn were 29 each at Sidlesham Ferry and Pett Pools and 23 elsewhere including maxima of 5 at Shoreham on Sept. 1st and in the Cuckmere on Aug. 31st-Sept. 4th. At Pett Pools 2 lingered until Oct. 15th and the last was one at Shoreham on 26th.

183. **PURPLE SANDPIPER** (*C. maritima*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 27 and 24 respectively (24 being at Newhaven on both occasions), compared with 37 and 32 respectively on Jan. 14th and Feb. 11th, 1978. Independent counts, however, produced an approx. total of 46 along the coast in Jan. (including 10 between Climping and Littlehampton on 16th and 7 at St. Leonards on 20th) and 44 in Feb. (excluding the western beaches and St. Leonards but including 11 at Fairlight). Numbers were therefore close to the levels maintained during 1973-76. Of the Newhaven party, 20 were still present on May 6th and one of two which had been at Selsey Bill was last seen on May 9th. At Fairlight at least 26, possibly 41 were found on Mar. 18th. The practical problems of effecting a complete coastline count of this species are probably obscuring its true winter population levels and it may also be that there is a gradual eastward withdrawal in spring.

First seen in autumn was one at Seaford Head on Sept. 26th and the first at Newhaven were 5 on Oct. 24th increasing to 14 by Nov. 27th and 20 on Dec. 8th. Other reports were again of two at Selsey Bill from Nov. 3rd, 4 at St. Leonards on 9th, one visiting Pett Level on 25th, 8 at Littlehampton Harbour pier on 24th and 7 at Bexhill on Dec. 16th.

184. **DUNLIN** (*C. alpina*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 16,838 and 12,586 respectively, compared with 19,565 and 12,409 respectively on Jan. 14th and Feb. 11th, 1978. No special significance attaches to the lower counts and numbers elsewhere along the coast during the cold weather were about normal. There was scant evidence of spring passage. The Cuckmere attracted more feeding birds than usual during late summer with a max. of 40 there by July 24th. The Aug. 11th count in the two western harbours stood at 750, much as normal, and rose to 19,497 by Nov. 3rd and 20,567 on Dec. 22nd. Late Dec. maxima at 5 other principal localities totalled 1,115.

188. **RUFF** (*Philomachus pugnax*).—The coastline wader counts of Jan. 27th and Feb. 10th produced no comparable data but MS reported that the Jan. max. at Sidlesham Ferry was only 150, on 29th. Possibly the sudden drop from the wholly extraordinary numbers in Dec. 1978 (Sx. B.R. 31: 25) was due to the unusually cold weather affecting feeding conditions for this largely damp-meadowland species. Elsewhere during Jan.-Apr. there were scattered ones and twos in Chichester Harbour, the Cuckmere and at Pett Level—and the normal party of 20 at Amberley Wild Brooks on Mar. 4th. At Sidlesham 85 were still roosting on Mar. 14th.

Approx. monthly totals through the year, with the number of localities in parenthesis, were:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
151	17	106	1	2	1	13	45	28	42	80	227
(2)	(3)	(3)	(1)	(1)	(1)	(4)	(8)	(3)	(4)	(1)	(1)

Both May individuals were at Rye Harbour LNR and the June record was of a full-plumaged male at Sidlesham Ferry on 30th. At Pett Level the species was present from Aug. 5th to Sept. 16th with a peak of 18 by Aug. 19th and another 14 on Sept. 16th. Ten arrived at Rye on Oct. 7th and the Sidlesham roost built up from 16 on 5th to 25 by Nov. 1st, 46 on 10th and 80 by 23rd. A count at Bracklesham Bay on Dec. 31st stood at 227, still well above average and a forerunner of large numbers in early 1980.

189. **JACK SNIBE** (*Lymnocyptes minimus*).—Records were received from 10 coastal and 4 inland localities and the minimum monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
7	6	5	1	1	1	1	5	4			

The cold weather clearly affected the totals at the start of the year and only one was seen in Chichester Harbour during that period. A migrant was flushed at Beachy Head on Mar. 28th. The first in autumn was at Rye Harbour LNR on Oct. 10th.

190. **SNIPE** (*Gallinago gallinago*).—The effect of the cold spell at the start of the year was to freeze the species out of the county. The max. count on Pevensey Levels during Jan.-Feb. was a mere 28 and the coastline wader counts of Jan. 27th and Feb. 10th could muster no more than 218 and 281 respectively, a mere fraction of the normal. At Amberley Wild Brooks, which lies outside such counts, 200-400 were present but represented only about 25% of normal. Elsewhere the max. count was of 500 on still wet meadows above Steyning on Jan. 27th. Though comprehensive figures were not obtained, there was some evidence of a return as soon as the thaw set in.

During the breeding season reports of "drumming" birds were received from Barcombe (1), near Horsted Keynes (3), Crowborough Bog (at least one); Crowhurst Marsh (2) and Rotherbridge to Ladymead on the E. Rother (3). In the Brede Valley area (including Doleham which should have been included in the Brede Levels figure for 1978—Sx. B.R. 31: 25), 2 pairs bred and 3 other drumming birds were located, but at Pett Level none was found. The species was present on Glynde Levels in July. It is now evident that its survival as a breeding species in Sussex is now very much in the balance.

Late autumn counts suggested the return of a substantial wintering population by mid-Nov. and still more were attracted by widespread flooding in late Dec.

194. **WOODCOCK** (*Scolopax rusticola*).—The severe weather at the start of the year produced records of 46 birds from 29 localities all but 3 of which were on the Downs, the coastal plain or in the major river valleys. One was watched probing through snow in a West Hove garden for 30 minutes on Jan. 2nd. Parties seen included 5 in the Cuckmere on Jan. 5th, 6 in Angmering Park on 6th and 4 on the Knepp Estate on 27th. In Feb. only 13 individuals were reported from 9 localities. In late Mar. and early Apr. records of 7 possible immigrants came from the coast including one flying low over Southwick on Apr. 5th.

In the Balcombe district roding was reported to have started late and to have been very much reduced; no nests were found before Apr. 30th. In the period Mar.-July, 85 roding birds were reported from 42 widely scattered localities as follows:

Grid ref.			
SU 71	Harting Downs	1	
SU 82	Fernhurst	1	
SU 82	Milland	1	
SU 82	Rogate	1	
SU 83	Marley Common	1	
SU 83	Linchmere	1	
SU 91	Ambersham Common	1	
SU 91	Graftham Common	2	
SU 92	Lords Wood	4	
TQ 00	Arundel Park	3	
TQ 01	Wiggonholt	1	
TQ 01	Rackham	1	
TQ 01	Parham	1	
TQ 12	Nuthurst	1	
TQ 22	Warren Wood	1	
TQ 23	Holmbush Forest	1	
TQ 23	Trigate Forest	2	
TQ 23	St. Leonards Forest	3	
TQ 32	Balcombe	1	
TQ 32	Rivers Wood	1	
TQ 32	Bluebell Railway	6	
TQ 32	Chailay Common	1	
TQ 32	Giffards Wood	3	
TQ 33	Balcombe district	1	
TQ 41	Spithurst	1	
TQ 42	Sheffield Forest	1	
TQ 42	Chelwood Gate	1	
TQ 42	Cockle Street	2	
TQ 42	Fairwarp	2	
TQ 42	Ashdown Forest	2	
TQ 43	Ashdown Forest	10	
TQ 43	Newbridge	1	
TQ 43	East Grimstead	1	
TQ 43	Wyck Cross	5	
TQ 43	Wood Eaves	5	
TQ 43	Hindleap Warren	4	
TQ 53	Park Wood	2	
TQ 53	Broadwater Forest	2	
TQ 53	Beechen Wood	2	
TQ 56	Abbots Wood	2	
TQ 62	Coombe Wood	3	
TQ 72	Darwell Wood	1	

In autumn 4 were seen on Oct. 27th at 4 widely scattered coastal localities, including Park Crescent, Brighton, suggesting recent immigration. On the Balcombe Estate only 3 were shot and 3 others seen on 13 shoots in Nov.-Dec. but on the nearby Borde Hill Estate 5 were shot and more flushed from only 8 acres on Dec. 5th and a further 4 shot and 5 flushed from 1½ acres on Dec. 15th, both suggesting a recent fall of winter visitors. Elsewhere in the county only 5 and 12 individuals respectively were found in Nov. and Dec. [SWMH]

195. BLACK-TAILED GODWIT (*Limosa limosa*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 232 and 120 respectively, compared with 232 and 439 respectively on Jan. 14th and Feb. 11th, 1978. Singles were recorded away from the western harbours at Newhaven Tide Mills on Jan. 20th, north of Bramber on Mar. 1st, at Pett Level on 18th and at Amberley Wild Brooks on 19th.

Latterly, 3 were at Rye Harbour LNR on June 19th followed by singles on July 15th and 25th. A count at Sidlesham Ferry stood at 88 on July 8th. By July 27th approx. 100 were at roost in Chichester Harbour. The counts for both harbours rose from 301 on Aug. 11th to 692 on Sept. 8th and 972 on Nov. 3rd, dropping back to 356 by Dec. 22nd. Elsewhere, two visited Pett Pools on Aug. 30th and one Rye Harbour LNR on Oct. 7th.

196. BAR-TAILED GODWIT (*L. lapponica*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 845 and 1,212 respectively, compared with 733 and 954 respectively on Jan. 14th and Feb. 11th, 1978. Unusual numbers were commented upon at Rye Harbour LNR during the cold spell with a max. of 59 on Jan. 7th.

Spring passage at Beachy Head totalled 2,584 E between Apr. 8th and June 1st, with a max. of 1,111 on May 7th. Elsewhere the species was widely reported along the coast but weather systems kept main passage out of sight of Selsey Bill where only 302 E were logged between Mar. 19th and May 26th (see tables on pp. 33, 34). Inland, the only report was of one at Bewl Bridge Res. on Apr. 28th.

In Chichester Harbour 65 were present in June, dwindling to 4 by the end of July whilst 1-2 visited Rye Harbour LNR during the summer. By Aug. 11th the Chichester Harbour count stood at 454, rising to 700 on Sept. 8th and 820 on Dec. 22nd but, as usual, few were seen elsewhere.

SELECTED SEA-WATCH DETAILS, SELSEY BILL, SPRING 1979

DATE	MARCH	APRIL	MAY		WIND	HOURS	FROM:	TO:	
	25	7	8	10		0815	0740	0710	1410
		8	10			0625	0705	1120	1445
		10				0610	0700	1400	1400
		12				0625	0700	1930	1700
		13				0610	0625	1700	1530
		14				0700	0700	1900	
		15				0650	0650	1315	
		21				0925	0720	1450	
		23				0925	0720	1345	
		26				0645	0645	1500	
		28				0700	0605	1430	
		4				0700	0700	1800	
		5				0630	0630	1700	
		6				0530	0530	1700	
		7				0630	0630	1700	
		8				0700	0700	1500	
		10				0600	0600	1700	
		12				0720	0720	2100	
		18				0600	0600	1945	
		19				0805	0805	1700	
		26				0930	0930	1530	
Divers (all)	53	6	64	1	15	12	4		
Common Scoter	494	210	2063	244	59	40	108	18	24
Velvet Scoter	—	2	32	6	—	—	1	—	—
R. B. Merganser	13	8	73	15	15	24	69	24	12
Grey Plover	—	—	—	—	—	—	—	—	—
Bar-tailed Godwit	—	—	—	—	—	—	—	—	—
Wimbrel	—	—	—	—	—	—	—	—	—
Pomarine Skua	—	—	—	—	—	—	—	—	—
Arctic Skua	—	—	—	—	—	—	—	—	—
Great Skua	—	—	—	—	—	—	—	—	—
Little Gull	394	50	74	1	1	—	—	—	—
Kittiwake	—	—	—	—	—	—	—	—	—
Sandwich Tern	15	6	185	92	78	145	252	26	38
Common/Arctic Tern	—	—	—	—	—	—	—	—	—
Little Tern	—	—	—	—	—	—	—	—	—
Black Tern	—	—	—	—	—	—	—	—	—
Brent Goose	36	—	—	—	—	—	—	—	—

(Eastward movement only shown)

SELECTED SEA-WATCH DETAILS, BEACHY HEAD, SPRING 1979

DATE	FROM	HOURS	WIND	Divers sp.	Slavonian Grebe	Eider	Common Scoter	Velvet Scoter	R. B. Merganser	Grey Plover	Bar-tailed Godwit	Whimbrel	Pomarine Skua	Arctic Skua	Great Skua	Little Gull	Kitwake	Sandwich Tern	Common/Arctic Tern	Little Tern	Black Tern	Auk sp.
MARCH 25	0815	0750	SE	78	—	6	907	5	18	—	—	—	—	—	—	—	349	4	85	—	—	—
MARCH 27	0815	0750	SE	63	2	14	1286	2	199	—	—	—	—	—	—	—	30	479	—	—	—	—
MARCH 28	0815	0750	SE	169	—	27	13293	39	199	—	—	—	—	—	—	—	129	209	—	—	—	—
MARCH 29	0815	0750	SE	6	—	—	339	60	17	—	—	—	—	—	—	—	24	194	—	—	—	—
MARCH 30	0815	0750	SE	63	—	—	191	9	15	—	—	—	—	—	—	—	188	132	—	—	—	—
MARCH 31	0815	0750	SE	16	—	—	9	14	38	—	—	—	—	—	—	—	30	196	—	—	—	—
APRIL 1	0815	0750	SE	1	—	—	13	8	—	—	—	—	—	—	—	—	2	103	—	—	—	—
APRIL 2	0815	0750	SE	8	—	—	32	166	—	—	—	—	—	—	—	—	4	153	—	—	—	—
APRIL 3	0815	0750	SE	2	—	—	166	3	8	—	—	—	—	—	—	—	4	184	—	—	—	—
APRIL 4	0815	0750	SE	2	—	—	109	—	—	—	—	—	—	—	—	—	110	180	—	—	—	—
APRIL 5	0815	0750	SE	30	—	—	109	—	—	—	—	—	—	—	—	—	32	180	—	—	—	—
APRIL 6	0815	0750	SE	13	—	—	195	2	—	—	—	—	—	—	—	—	92	190	—	—	—	—
APRIL 7	0815	0750	SE	44	—	—	183	40	—	—	—	—	—	—	—	—	87	190	—	—	—	—
APRIL 8	0815	0750	SE	8	—	—	40	—	—	—	—	—	—	—	—	—	44	190	—	—	—	—
APRIL 9	0815	0750	SE	2	—	—	27	—	—	—	—	—	—	—	—	—	—	92	190	—	—	—
APRIL 10	0815	0750	SE	67	—	—	11	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 11	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 12	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 13	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 14	0815	0750	SE	16	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 15	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 16	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 17	0815	0750	SE	1	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 18	0815	0750	SE	4	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—
APRIL 19	0815	0750	SE	5	—	—	—	—	—	—	—	—	—	—	—	—	—	126	190	—	—	—

(All birds moving E up Channel, except as shown)

198. **WHIMBREL** (*Numenius phaeopus*).—First records in spring were at Rye Harbour LNR on Apr. 11th, Selsey Bill on 12th and Church Norton and Beachy Head on 13th. Passage at the regular coastal watching points was poor with only 47 E and 6 W at Selsey Bill up to May 18th, 41 E and 1 W at Beachy Head up to May 28th and 85 E at Shoreham over a similar period (see tables on pp. 33, 34). Predominantly northerly winds into which this species and Bar-tailed Godwit apparently prefer to turn, may have guided passage overland as at least 107 were noted leaving Chidham in Chichester Harbour between May 11-13th to E or NE. Records elsewhere, mainly of small off-passage feeding parties, fell mainly between Apr. 26th and May 14th but one passed over Bewl Bridge Res. on 18th.

After one in Chichester Harbour throughout June, return passage started as usual in early July with 3 at Rye on 4th, one in the Cuckmere on 8th and 6 at West Chidham by 9th. Feeding parties of up to 13 in the Cuckmere between July 18th and Aug. 22nd, maxima of 14 at Rye on Aug. 8th and 16th and counts of 87 and 27 respectively in Chichester and Pagham Harbours on Aug. 11th were the main features during a well-distributed passage. On Sept. 8th there were still 25 in Chichester Harbour but the last at Rye was on 12th and the last for the year were 4 at Parham Park on 17th.

199. **CURLEW** (*N. arquata*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 1,235 and 1,068 respectively, compared with 1,063 and 1,924 respectively on Jan. 14th and Feb. 11th 1978. It was thus evident that the cold weather had no effect on the numbers of this species which usually uses tidal marshes. At Pett Level the count rose from 300 on Feb. 4th to 800 by 25th.

During spring passage a total of 28 flew E and 96 W at Selsey Bill with a max. of 15 E and 92 W on Apr. 13th. At Beachy Head, where most passage was probably missed in Mar., only 36 E were noted between Mar. 4th and May 18th. Breeding season records came from Ashdown Forest and the far NW of the county where a pair, often seen in the Milland/Rake area, may have bred just inside Hampshire amongst the heathers of Weavers Down. Several observers commented upon occurrences on chalk downland habitats, including 5 near Falmer on Mar. 20th, one above Amberley on Sept. 22nd, 6 on stubble near Cissbury Ring on Oct. 6th and 10 with cattle at Bignor Hill on Oct. 13th. It is perhaps too early to assume some long-term change in feeding behaviour but full details of any similar sightings would be of interest.

Autumn counts at Pett Level, which reflected records throughout the county, rose from 64 on July 1st to 150 by 22nd, remaining steady to late Nov. and increasing to 500 by the end of Dec.

200. **UPLAND SANDPIPER** (*Bartramia longicauda*).—An immature at Bracklesham Dec. 21st-23rd was the first for the county and has been accepted by "British Birds" (*MS et al*).

201. **SPOTTED REDSHANK** (*Tringa erythropus*).—The approx. monthly totals for the year were as follows:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
6	5	3	3	3	15	9	22	50	3	14	15

One was in Pagham Harbour from Jan. until Apr. 1st and another in Dec. Wintering birds in Chichester Harbour numbered only 3-4 in Jan.-Feb.; the high June total included 10 there on 30th but there were still 6 on July 9th and again 10 on Aug. 11th. In the same area there were 32 in Sept. and 14 in Dec. The autumn max. at Pett Level was only 6—on Sept. 10-11th; a party of 6 visited the Cuckmere on Sept. 28th.

202. **REDSHANK** (*T. totanus*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 1,617 and 1,177 respectively, compared with 1,054 and 1,662 respectively on Jan. 14th and Feb. 11th, 1978. Evidently the cold weather during this period did not adversely affect the wintering numbers of this species which, in some parts of Britain, suffered severely during the hard winter of 1962-63.

Breeding season data were incomplete but included reports of 8-10 pairs at Rye Harbour LNR, up to 3 in the Brede Valley, at least 2 in the Cuckmere, 2 at Arundel Wildfowl Refuge and 2 on Stakes Island. This species is the subject of a breeding survey in 1980-83.

In the two western harbours the count of 3,111 on Aug. 11th was above average but only 950 were found on Dec. 22nd.

204. GREENSHANK (*T. nebularia*).—Although none was found in Dec., 1978, two were wintering in Chichester Harbour in Jan., one in Feb. and 3 in Mar. One was on Mountney Level (Pevensey) on Feb. 28th. Approx. monthly totals for the year were as follows:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
2	2	3	4	2	2	22	135	132	59	17	7

Although spring migrants apparently avoided the county, numbers for the remainder of the year were up to average Chichester Harbour accounting for 15 in July, 96 in Aug., 82 in Sept., 40 in Oct. and all 7 winterers in Dec.

208. GREEN SANDPIPER (*T. ochropus*).—Recorded throughout the county and in every month but May. The approx. monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
9	10	12	4	—	4	30	63	29	10	14	8

Interestingly the cold spell at the start of the year had no significant effect on the numbers and, as usual, the vast majority of records came from fresh water localities where this species always seems to be able to find some unfrozen corner (c.f. Snipe). The July-Aug. total of 93 continued, at a slightly reduced level, the trend of the past two years and further highlights the low numbers of 1973-76 (Sx. B. R. 30: 22).

209. WOOD SANDPIPER (*T. glareola*).—A very quiet year: singles at Selsey Bill, flying N, on May 2nd; Sidlesham Ferry on 13-15th and July 7-9th; Weir Wood Res. on July 29th; and Rye Harbour LNR on Aug. 6th. Two at Pett Pools from Aug. 15th to Sept. 9th and another on 30-31st possibly involved the same individuals as one at Rye on Aug. 18th and two on Sept. 1st.

211. COMMON SANDPIPER (*Actitis hypoleucos*).—Of the two overwintering individuals (Sx. B. R. 31: 29) that in the Cuckmere was seen on Jan. 12th but the Darwell Res. individual was not seen again. One, just possibly the same, was near the Fish Quay at Rye from Jan. 28th to Feb. 19th. Elsewhere, singles appeared at Arundel Wildfowl Refuge on Jan. 4th and on the Ouse at Southsea on 14th.

Spring arrivals were a little late; the first singles were at Upper Beeding on Apr. 20th and Chichester G.P. on 21st, with 3 at the latter by 24th and singles at Church Norton, Sidlesham and Worthing on 23rd. The main influx took place between May 3-11th and was widely recorded, including 6 at Weir Wood Res. on 3rd, 7 in the Cuckmere on 4-5th, 8 at Darwell Res. on 7th, 10 at Ardingly Res. on 11th and 7 at Bewl Bridge Res. on 15th.

In June, apart from one at Rye Harbour L.N.R. on 3-4th, the behaviour of a pair, this year in E. Sussex, strongly indicated breeding through eventually no young were found.

Return passage started in early July but a total of only 55 for the month was modest compared with 1978, the largest gathering being of 12 in Chichester Harbour. Aug. passage consisted of some 132 individuals with max. counts of at least 15 at Chichester G.P. on 2nd and 18 on the Rother at Rye on 19th. Many Aug. birds stayed into Sept. but departure was almost complete by 19th after which there was but one at Shoreham on 27th. Late autumn records, all of singles, came from Arundel Wildfowl Refuge on Oct. 14th and the Cuckmere on Nov. 7-15th. This may have moved to the Ouse near Lewes by Dec. 1st when there was also one at Rye. Finally, one was in Chichester Harbour on Dec. 31st.

213. TURNSTONE (*Arenaria interpres*).—The coastline wader counts of Jan. 27th and Feb. 10th produced totals of 604 and 673 respectively, compared with 485 and 413 respectively on Jan. 14th and Feb. 11th, 1978, but were nonetheless about

average. The Pett Level roost remained at 200 until Mar. 25th and in Apr. migrants had swelled the numbers at Langney Point to 101 by 15th. At Glyne Gap, St. Leonards the count on Apr. 30th was at least 60. Visible migration in early May was negligible but counts of feeding/roosting flocks were of 50 at Stakes Island in Chichester Harbour, 180 at Rye Harbour LNR and, in Pagham Harbour, 100 on 12th and at Langney Point, 75 on 13th.

At Rye only 4 remained by mid-June and none was seen until July 12th but up to 25 remained in Chichester Harbour in June and 38 in July. Also in July, 3 were in Pagham Harbour on 26th and 4 were in the Cuckmere on 30th. The Aug. 11th count in the two western harbours totalled 382 compared with 193 on Aug. 19th, 1978 and a max. of 140 at Pett Level on 19th was also above average. The Glyne Gap roost stood at 65 on Aug. 15th. The trend persisted into early winter. On Nov. 3rd the western harbours held 403 compared with 237 on Nov. 18th, 1978 and by Dec. 30th there were 250 at Pett Level.

214. WILSON'S PHALAROPE (*Phalaropus tricolor*).—One at Sidlesham Ferry on Aug. 27th (MGH, THT) was part of an exceptional arrival in eastern Britain during late Aug. It constituted the third record for the county and has been accepted by 'British Birds'.

215. RED-NECKED PHALAROPE (*P. lobatus*).—Two records—an adult female at Sidlesham Ferry on July 7-8th (BAEM, OM *et al*) and an adult at Pett Pools on Sept. 18-19th (CHD, PWR *et al*).

216. GREY PHALAROPE (*P. fulicarius*).—Two records, both in Dec.—at Rye Harbour LNR on 3rd (EJC, RCK) and at Selsey Bill on 31st, remaining to Jan. 1st, 1980 (DSF *et al*). The possibility that the same individual was involved cannot be excluded.

217. POMARINE SKUA (*Stercorarius pomarinus*).—Prevailing weather systems kept the species away from the Sussex coast during the spring and very few were seen. At Beachy Head the only records were of 4 on May 7th, a party of 9 on 11th and one on 18th (many observers) whilst at Selsey Bill 2 passed E on May 5th (BFF), one on 6th (BAEM, OM) and 6 on 18th (CRJ).

218. ARCTIC SKUA (*S. parasiticus*).—The first for the year was one off Selsey Bill on Apr. 7th, followed by others there and at Ferring, Seaford Head and Beachy Head on Apr. 8th. At Beachy Head, 163 E were logged between then and May 25th with maxima of 25 on Apr. 12th, 18 on May 1st, 21 on 7th and 19 on 10th. At Selsey Bill, 68 E and 2 W were noted (see tables on pp. 33, 34). At Shoreham there were 26 E, with a max. of 10 on May 1st, during a similar period. Fifteen further records involving some 20 individuals were received from other coastal localities.

Early returning/summering individuals were seen over Rye Harbour LNR on July 24th and in Bracklesham Bay on 27th but only a trickle of records ensued, totalling but 21 for the whole autumn. Of these, 3 were in late Oct. and the last was an adult passing E at Worthing on Nov. 15th.

Individuals not fully identified but probably of this species were seen off Pett Level on Mar. 3rd and Selsey Bill on June 13th.

220. GREAT SKUA (*S. skua*).—On Mar. 28th a freshly dead and slightly oiled individual was found inland at Pett Level. On Apr. 12th singles were reported moving E at Selsey Bill and Hove and 11 flew E at Beachy Head where a further 17 were logged up to May 1st. During a similar period a further 4 E and one W were noted at Selsey Bill (see tables on pp. 33, 34). Singles were seen off Rottingdean on Apr. 24th and May 8th and Shoreham on Apr. 14th. Singles at Seaford Head on Apr. 29th and May 7th may have been the same as at Beachy Head.

A total of 6 was recorded in autumn—off Pett Level on Aug. 29th and Sept. 16th, Seaford Head on Oct. 13th, Selsey Bill on Nov. 3rd and Worthing on Nov. 8th and 12th.

222. **MEDITERRANEAN GULL** (*Larus melanocephalus*).—All records were of single birds as follows: Shoreham, adult, Jan. 7th (DSF, RFP); probably same, Southwick, 11th (MRW); Worthing, first-winter, 21st (DAP, TWP); Pett Level, adult, Feb. 11th (PWR); Bewl Bridge Res., second-winter, Mar. 17th (PCB); Selsey Bill, first-winter, 24th (many observers); probably same, Shoreham, same date (RDME, SPH); Rye, adult, Apr. 11-18th (RCK); Selsey Bill, first-winter to E, second-winter to W, Apr. 13th (CMJ, P.J.); Beachy Head, adult to E, May 5th (MJR); Jury's Gap, adult, 10th (PCB); Selsey Bill, first-year, June 24th (DSF, CRJ); Pett Level, adult, July 11-19th, presumed same Aug. 12-20th and Sept. 9th to Oct. 7th (CHD, PWR *et al.*); Langney Point, first-summer, July 21st (MJR); Shoreham, adult, 22nd (PC); Chichester G.P., adult, Sept. 14th (BJ, CMJ); Shoreham/Lancing, second-winter, Oct. 23rd to Dec. 22nd (MRW *et al.*); Lancing, adult, Oct. 27th (MRW); Selsey Bill, sub-adult, 28th (BAEM); Lancing, first-winter, Nov. 1st (AJP).

Twenty records, involving 7 adults and 13 immatures, equals the 1976 total. Only 3 adults on spring passage were involved and the proportion of immatures now successfully identified has reached the level which might be expected.

225. **LITTLE GULL** (*L. minutus*).—After singles at St. Leonards on Jan. 4th, Shoreham on 14th, Rye on 16th and Worthing on 28th to Feb. 1st, none was seen until the start of spring passage at the end of Mar. when singles flew E at Pett on 25th, Selsey Bill on 26th and 4, also at Selsey, on 28th.

After the first 5 at Beachy Head on Apr. 8th only another 32 were seen up to May 10th. At Selsey Bill similarly few were seen—singles on Apr. 8th, 13th and May 10th and two on May 6th, (see tables on pp. 33, 34 for details). At Shoreham only 10 E were logged in Apr.-May with a max. of 3 on Apr. 8th. At Rye Harbour LNR, singles were seen on Apr. 12th, 13-14th and May 7-20th. In general the passage lacked feature and only 14 others were recorded along the coast between Apr. 8th and May 13th. Inland, 4 were at Arlington Res. on Apr. 28th and 2 on May 13th.

Chichester G.P. attracted the species in early summer when an imm. from May 24th was joined by 2 more by 27th and a further 2 and one adult by June 15th. At Rye an imm. paid occasional visits between June 1-29th. Return passage began with single imms. again at Rye on Aug. 7th, 18th and 31st and Seaford Head on 14th. Four, including one adult, visited Pett Pools on 28-30th and further imms. on Sept. 6th and 30th whilst at Paghham Harbour an adult and an imm. were seen on Aug. 25th and an adult on Sept. 1st. The only other record in this period was an adult off Selsey Bill on Sept. 3rd and no more were seen until an isolated sighting of an imm. at Shoreham on Oct. 23rd. In Dec. only adults were seen—singles at Worthing on 8th, Rye on 15th and 3 E at Selsey Bill on 28th.

226. **SABINE'S GULL** (*L. sabini*).—At West Worthing a juv. flew W on Jan. 3rd (JAN); the second Sussex record for this month.

228. **BLACK-HEADED GULL** (*L. ridibundus*).—The roosting gull count for the whole county on Jan. 20th produced a total of 54,377, representing 81% of all identified gulls. An estimated 20,000 were at roost near Shoreham Power Station on Mar. 19th.

At the Stakes Island colony on June 12th, 983 nests contained 2,410 eggs and 35 young together with a further 120 free-running young. Rearing success was considered excellent and the colony size was now considered to have reached its ceiling. At Rye Harbour LNR 7 pairs bred, rearing 2 young to flying stage, and a further small colony of 10 pairs was found at Scotney Court G.P. near Camber.

The following autumn roost counts were received: 8,000 at Worthing beach on Aug. 11th; 50,000, mostly of this species at Worthing-Ferring beaches on Sept. 5th and 30,000 there on 27th; and 15,000 on the R. Adur at Shoreham on Nov. 7th.

233. **COMMON GULL** (*L. canus*).—During the roosting gull count for the whole county on Jan. 20th, 9,699 represented 15% of the total gulls identified. During spring passage an estimated max. of 7,000 were at roost at Shoreham on Mar. 19th.

In autumn the large full roost on Worthing/Ferring beach was considered to include up to 10,000 of this species.

234. **LESSER BLACK-BACKED GULL** (*L. fuscus*).—During the roosting gull count for the whole county on Jan. 20th only 10 of this species were identified but at the end of the year about 40 were again present in the Faygate/Itchingfield area. Records from Dec. 2nd onwards strongly supported the suggestion that this small feeding population roosts on the Surrey/Middlesex reservoirs.

235. **HERRING GULL** (*L. argentatus*).—During the roosting gull count for the whole county on Jan. 20th, 2,095 constituted 3% of the total gulls identified.

At Rye Harbour LNR about 40 pairs reared some 20 young to flying stage. Roof-top nesting was noted one mile from the sea at Eastbourne (2 pairs) and 1½ miles inland at St. Leonards (one pair). A pair again bred successfully at the traditional South Street chalkpit site at Lewes. Despite the proximity of (perhaps overcrowded?) cliff sites, a pair nested, albeit unsuccessfully, on a man-made shingle island at Cuckmere Haven.

Individuals showing the characters of the yellow-legged Scandinavian race *l. a. omisus* were identified at Shoreham on Jan. 4th (1), between Eastbourne and Langney Point on Jan. 9th (at least 15) and Newhaven on Nov. 9th (1). Problematical yellow-legged individuals included a dark-mantled 3rd-year imm. at Rye Harbour LNR on May 20th, an adult with an atypical amount of black on the underside of the primaries at Sidesham Ferry on Sept. 14th and another adult 'of enormous proportions' (JAN) at Shoreham on Oct. 13th.

237. **GLAUCOUS GULL** (*L. hyperboreus*).—All records involved immatures: Langney Point, Jan. 7th (JFC); Cuckmere, Feb. 14th (BJL, REM); and, on Apr. 13th, flying E at Selsey Bill (CRJ, OM) and later, Shoreham (MRW).

238. **GREAT BLACK-BACKED GULL** (*L. marinus*).—Whilst a total of 680 was identified during the roosting gull count for the whole county on Jan. 20th, 100 or more were at Rottingdean on Jan. 2nd, 800 at Shoreham Airport on 31st and up to 410 at Rye during the winter months. In Sept. 170 were noted at St. Leonards whilst at Shoreham, after gales, the counts were of 900 on Nov. 7th and 750 on Dec. 5th.

240. **KITTIWAKE** (*Rissa tridactyla*).—As usual, recorded throughout the year from coastal localities—but none inland. At Selsey Bill unusual numbers were recorded during the spring with totals of 1,107 E and 198 W between Mar. 3rd and May 28th and maxima of 122 E in 3¼ hours on Mar. 3rd, 105 E in 2½ hours on 11th, 394 E and 2 W in 5 hours on 25th and 171 E on Apr. 12th. At Beachy Head, where 1,312 E were logged between Mar. 25th and May 25th, the max. was 349 E in 6 hours also on Mar. 25th (see tables on pp. 33, 34).

The now 3-year old breeding colony still prospered. On Mar. 31st, 95 adults were present and on June 27th, 60 nests counted but no details of fledging success are known.

245. **SANDWICH TERN** (*Sterna sandvicensis*).—First records in spring were of singles at Selsey Bill, Paghham Harbour, Shoreham and Beachy Head on Mar. 24th followed by 6 E at Selsey Bill on 25th. At Beachy Head, 3,342 E were logged between then and May 28th with maxima of 479 on Apr. 8th and 369 on May 10th. Selsey Bill records totalled 2,633 E and 343 W over the same period, with maxima of 185 E on Apr. 8th, 118 E on 10th (no watch at Beachy Head) 145 E on 13th (132 at Beachy Head), 252 E on 14th (196 at Beachy Head) and 228 E on May 10th (see tables on pp. 33, 34). At Shoreham, 2,050 were noted between Apr. 8th and May 5th at an overall average of 15+ per observation hour, much the same as at Beachy Head (15.5).

Good news came this year from the Chichester Harbour colony where 66 nests on June 12th contained 52 eggs and 50 young and rearing success was considered excellent. At Rye Harbour LNR up to 9 frequented the shore and reserve throughout June.

A most unusual record was of one flying S with Black-headed Gulls over East Grinstead on July 27th. Another inland occurrence was of 2 at Weir Wood Res. on Sept. 9th but autumn passage in general was negligible. The last were 3 W off Worthing on Oct. 7th, 5 SE at Selsey Bill on 19th and one W off Worthing on Nov. 14th.

246. ROSEATE TERN (*S. dougallii*).—Of two at North Point G.P., Rye on May 13th (PCB) one was also seen at Rye Harbour LNR (KB, RCK). Subsequent singles at Rye on June 10th, July 22-29th and Aug. 8-11th may have involved the same individual(s) and have been associated with the presence of the species at Dungeness NR.

247. COMMON TERN (*S. hirundo*).—At Chichester G.P. 8-9 pairs bred on the raft installed by this Society, but with unknown success. A count of the Chichester Harbour colony on June 12th revealed 88 nests containing 221 eggs and 5 chicks; rearing success was considered excellent. One pair nested at a new site in the area. At Rye Harbour LNR 40 pairs nested at Tern Pool, rearing at least 45 young to flying stage.

Also at Rye an individual showing the characters of the juvenile type colloquially known as *s. h. portlandica* was seen during late June with 1-4 there throughout July and one on Aug. 1st.

247/248. COMMON/ARCTIC TERN (*S. hirundo/paradisaea*).—First recorded in spring at Selsey Bill (49 E), Ferring (21 E), Shoreham (60 E) and Beachy Head (73 E) on Apr. 8th. At Beachy Head 7,369 were logged between then and May 28th. Of these, 7,013 were between May 5-10th. At Selsey Bill 1,610 E and 105 W were noted during the same period most passing on May 5-11th and a max. of 729 E on 10th (1,285 at Beachy Head) (see tables on pp. 33, 34). At Shoreham periods of heavy passage eluded observers and only 700 approx. were seen in a peak period of May 6-9th.

Features of autumn coastal passage were 105 W in 2½ hours at Selsey Bill on Aug. 12th and 74 there on Sept. 8th. The only reports inland were of 13 W at Bewl Bridge Res. on Aug. 23rd, one there on Sept. 22nd and 7 on Oct. 4th. There were no late autumn records.

248. ARCTIC TERN (*S. paradisaea*).—The only reports were of singles at Jury's Gap, Camber, on May 13th and Pett Pools on July 22nd. Individuals of the *portlandica* type were seen at Selsey Bill on June 24th and Rye Harbour LNR on July 10-12th.

251. LITTLE TERN (*S. albigrons*).—The first for the year were 9 E and 2 W at Selsey Bill on Apr. 10th and 6 E off Brighton Marina on 11th. On 13th the species was recorded at 5 further localities. Although local feeding birds presented analysis problems, passage at Selsey Bill was calculated at 304 E between Apr. 11th and May 30th whilst at Shoreham 266 E were noted, mostly in May. At Beachy Head only 69 E were seen between Apr. 13th and June 1st and of these, 45 passed between May 7-10th. Inland, one visited Arlington Res. on May 13th.

The Chichester Harbour colony fared rather better than in recent years. At a largely artificial site newly created by this Society, 7 out of 8 pairs quickly learned that nesting at a low level meant a wash-out by high tides in June. The other pair, at the new high level, fledged 2 young a second lay by all 8 pairs successfully produced 13 or more young. None nested on the old traditional site nearby. However, at a natural site used as a post-flooding alternative in 1978, 34 eggs laid in 18 nests were considered to have again culminated in good fledging success.

At Pagham Harbour too, the picture was much improved; 35 pairs nested and 20-25 young were reared to flying stage.

At Rye Harbour LNR 29 pairs bred, rearing 13 young to flying stage but fledging success was considered to have been reduced by the failure of an experimental electric fence to exclude foxes—and by the attentions of a male Kestrel.

Elsewhere an individual lingered around another artificial site from May 15th to June 6th and 3 pairs in the east of the county were seen in mid-May acting as though breeding.

Post-breeding-season, 70 were noted roosting at Rye on July 23rd and dispersal took place towards the end of the month leaving only 6-10 by Aug. 19th. A flock of 11 juveniles was offshore on Aug. 27th and 50 adults on 31st. In Chichester Harbour 100 or more were counted on Aug. 11th. The last for the year were singles at Rye on Sept. 14th, Newhaven and Worthing on Sept. 18th and again at the latter on 25th.

252. WHISKERED TERN (*Chlidonias hybridus*).—Rarely seen other than singly in British waters, the presence of two, probably a pair, at Rye Harbour LNR from May 31st to June 4th (Miss P. Haddon, RRG, BAEM *et al*) was wholly exceptional. This constituted the fourth record for the county and has been accepted by "British Birds".

253. BLACK TERN (*C. niger*).—First recorded in spring were one E at West Worthing on Apr. 11th, two NW at Beachy Head on 13th and singles E at Selsey Bill on 21st and 23rd. After one at Chichester G.P. on May 1st, 24 were there on 3rd but only 2 on 4th when 2 flew E off Worthing. On 8th, 4 appeared inland at Weir Wood Res. and there were again 5 at Chichester to be joined by 2 more on 9th. On 10th, 6 E at Selsey Bill were matched by 6 visiting Rye Harbour LNR and 4 at nearby Scoiney Court G.P. Between 7-10th, 22 flew E at Beachy Head. Fog in the Channel on 13th shrouded what may have been a larger movement than observed with a total of 58 at 5 coastal localities and, inland, 3 on Knepp Lake, up to 13 at Arlington, 6 at Darwell and 2 at Bewl Bridge Reservoirs. At the latter, 14 were logged on 14th, whilst 13 were still at Arlington (and 11 on 15th), 7 were at Rye and 20 flew E off Brighton Marina. Then, after singles at Chichester and Rye Harbours on 15th, the sole sightings were at Chichester G.P. on 21st and the harbour on 26th.

After summer wanderers at Worthing on June 13th and Rye on July 3rd, return passage started with singles at Rye and Pagham Harbour on 15th. Aug. records were spread throughout the month, totalling some 50 individuals along the coast and 10 inland. Sept. passage lasted to 25th with 18 on the coast and 9 inland. The last for the year were singles at Pagham Harbour on Oct. 14th and 20th.

255. GUILLEMOT (*Uria aalge*).—Reported from various coastal localities in Jan. (1)—oiled and found dead in Mar.; Feb. (2); Mar. (3—2 oiled); Apr. (3—1 dead, oiled); May (4); June (1—dead, oiled); and Dec. (3—2 dead, oiled).

257. RAZORBILL (*Alca torda*).—Reported from various coastal localities in Jan. (1); Feb. (1); May (2—1 dead); Nov. (1); and Dec. (1—dead, oiled). In addition, 7 were identified passing W at Selsey Bill during the spring and 5 others offshore between Mar. 7th and May 19th. The species was occasionally identified at Beachy Head during the same period.

260. LITTLE AUK (*Alle alle*).—More records than usual, associated with large numbers in British waters in autumn and winter; all were single birds: Selsey Bill, Oct. 27th (MJWH, OM, RJSE); Chichester Harbour, Nov. 3rd (RFP); another there, Dec. 22nd (DAP, TWP); and by Hastings Pier, Dec. 30th (CAT). In addition one was found dead under power lines at Hunston on Nov. 29th (V. Carver per MS) and, at the start of the year, one had been found at least one month dead at Climping on Apr. 4th (ASC).

261. PUFFIN (*Fratercula arctica*).—One was found freshly dead on Worthing Beach on Jan. 21st (DAP, TWP).

AUK SPECIES.—During spring passage at Selsey Bill 40 unidentified auks flew W and 11 E between Mar. 17th and May 28th whilst at Beachy Head 78 moved E between Mar. 23th and May 28th (see tables on pp. 33, 34). A total of 29, mostly flying W were seen at Shoreham during strong winds on May 17-18th and 25th. During the summer months 2 were seen off Selsey Bill on June 9th, 2 on 24th and one on July 1st.

264. **STOCK DOVE** (*Columba oenas*).—Winter flocks reported included 40 at Shoreham Sanctuary in Jan. 56 at Iford Hill and 150 at Glyndebourne in Feb., 90 at Cissbury in Mar. and 150 at Rye Harbour LNR in Nov.-Dec.

Breeding season reports were of 6 pairs which successfully reared broods in nestboxes at Horstead Keynes but none elsewhere along the 5 miles (8 km) of the Bluebell Railway whilst at West Chiltington, 5 pairs bred on 30 hectares of farmland. Breeding season details, which remain only scantily reported, are still required and should state the extent of areas searched.

266. **COLLARED DOVE** (*Streptopelia decaocto*).—Large gatherings were noted at Shoreham Sanctuary in Jan.-Mar. (300), Lancing College in Sept. (210) and the Harbour Farm grain store at Rye Harbour LNR in Nov.-Dec. (200). The impact of such flocks on available food supplies, often unintentionally provided by man, must be considerable. It would therefore be of interest to receive all records of 50 or more for the period Sept.-Feb. 1980/81 and 1981/82, stating the apparent nature of the food source.

267. **TURTLE DOVE** (*S. turtur*).—First recorded in spring at Church Norton on Apr. 15th and Cissbury on 19th with a more general arrival on 23-26th and again between May 9-15th.

Breeding season reports varied. Along or near to the 5 miles (8 km) of the Bluebell Railway only 4 singing males were found (9 in 1978) and none at Fore Wood NR. In the Lewes-Ringmer area it was considered less common than usual whilst the opposite was the case in the Nuthurst-Mannings Heath district with some 15 pairs on 1,200 hectares. At West Chiltington, 6 pairs were located on 30 hectares of farmland.

Autumn flocks attracted attention on the Selsey peninsula where a rape stubblefield contained 200-300 on Aug. 26th whilst, on 27th, 180 were estimated on a 400 m stretch of river bank at Selsey Beach, only one remaining on 29th. Elsewhere, 50 were seen at Roffey on 25th and 47 at Ringmer Park Estate on Sept. 2nd. The last for the year were at Rye Harbour LNR and Lychpole Farm on Oct. 13th and Beachy Head and the West Beach at Littlehampton on 18th.

271. **CUCKOO** (*Cuculus canorus*).—First recorded in spring at Beachy Head on Apr. 13th, Northiam on 14th and Tilgate Park and Petworth on 16th. A more general arrival took place after 22nd and again on May 9-18th.

During the breeding season two observers commented upon late song. An individual in the Slimfold area continued to July 1st and the same had been noticed in 1978. At South Malling, Lewes, another was still in song on July 4th. Late spring arrival and delayed mating is perhaps too easy an explanation in respect of this enigmatic species.

The first juvenile on the wing was reported from Sidlesham on July 14th and the species was widely reported, mainly along the coast, up to Sept. 19th. The last was at Eastbourne, feeding on garden caterpillars, on Oct. 12th.

An individual of the brown "hepatic" phase was seen at Pett Level on Aug. 19th (c.f. same locality, July 31st, 1977, Sx. B.R. 30: 31).

274. **BARN OWL** (*Tyto alba*).—Observer coverage of the entire county was good. Although breeding season records of 4 known and 2 probable pairs suggested a decline compared with 9 known pairs in 1978, reports of single birds nearly doubled to 26 and it is significant that a further 13 were noted in isolated winter haunts. This is a notoriously difficult breeding bird to locate and many "singles" were probably paired. One pair was known to have raised 2 young; 3 individuals were found dead on roads; and dark-breasted individuals possibly relating to the Continental race *t. a. guttata*, were reported from 2 localities. [RJS]

279. **LITTLE OWL** (*Athene noctua*).—Records were again evenly divided between East and West Sussex, coverage being excellent. In the breeding season 30 known and 14 probable pairs were reported, an increase of 12 in the latter category.

Singles also increased from 17 to 31 but casual winter records fell to 6. An encouraging 17 young were raised from 7 nests and only two observers reported a local decline in numbers. [RJS]

280. **TAWNY OWL** (*Strix aluco*).—A welcome increase in records with 89 pairs or calling birds reported from 54 localities during the breeding season and another 10 from 9 areas at other times of the year. No details were received of brood sizes but there was a general feeling that breeding success was probably poor, several pairs being thought to have failed completely. Records of this species are always welcome and especially breeding season counts and records from urban and suburban areas [SWMH]

281. **LONG-EARED OWL** (*Asio otus*).—Winter/spring records were of one, occasionally two in the Sidlesham area until Mar. 21st and singles along the Chichester Canal on Jan. 29th, at Pett Level on Mar. 30th, Beachy Head on Apr. 16th and on Pevensey Levels on 27th. In addition a Press report ("Evening Argus", Jan. 3rd) stated that one found exhausted in the cold weather had been taken to Sheffield Park for recuperation.

The species was present at one locality throughout the year but apparently no nesting took place. At another, where 3 had been present during Jan., a pair was later found at nest but had deserted by mid-May. A third pair, present at a regular nesting site only during the breeding season, successfully reared 3 young to flying stage.

282. **SHORT-EARED OWL** (*A. flammeus*).—Approx. monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
26	30	23	25	6	1	1	1	1	3	20	4

The Jan.-Apr. totals represent a minimum arrived at by stringent day-by-day analysis taking into account the possibility of far-reaching daily expeditions from regular roosting sites. The effect of the cold spell seemed not to bring more than usual into the county but those that were here stayed late and there was some evidence of passage in Apr. and early May. One May individual stayed until mid-July. The Aug. record was an early arrival at Beachy Head on 30th (c.f. Pett Level, Aug. 30th, 1978). The Oct. total evidently involved mainly passage migrants.

284. **NIGHTJAR** (*Caprimulgus europaeus*).—First records for the year came from Stanstead and Ashdown Forests on May 31st. This species was the subject of a limited survey during 1979 details of which appear in a report on p. 76.

The only records after the middle of Aug. were of single birds at Blackdown and Slimfold in Sept., both probably relating to passage birds. [JWH]

289. **SWIFT** (*Apus apus*).—First recorded in spring at Rye Harbour LNR on Apr. 30th and Worthing on May 1st, the species was soon widespread in small numbers despite cold winds and by 7th 120 were at Rye, 40 at Bewl Bridge Res., 50 at Weir Wood Res., 30 at Arlington Res. and 200 at Chichester G.P. Inclement weather enfolding further arrivals brought concentrations of 1,000 over Chichester G.P. on 17th and 500 at Bewl Bridge Res. on 18th.

During Aug. substantial migratory flocks were noted at Rye on 7th, Golden Cross on 9-10th, Shoreham and Rye on 19th and Pett Level on 22nd and 50 were noted at Beachy Head on Sept. 1st. Stragglers continued to be seen to the end of the month and the last was one over Firle on Oct. 10th.

293. **KINGFISHER** (*Alcedo atthis*).—In Jan. and Feb. a total of 27 were reported from 18 coastal and inland localities, including 8 at Bewl Bridge Res. of which 2 were dead. During the breeding season reported from only 19 known or potential nesting sites. There was evidence of widespread dispersal in the Aug.-Oct. period but at the end of the year only 28 birds were reported in Nov. and Dec. from 21 localities, including 6 at Bewl Bridge Res. Several observers have commented upon the current scarcity of the species and all records are required. [SWMH]

297. **HOOPOE** (*Upupa epops*).—After one in Eastbourne on Apr. 10th (EMT), one at Beachy Head on 13th (DGC, RM) was followed by singles on 18-20th and 23rd and two in the area on 27-29th DSF, DCL, TWP *et al*). Elsewhere the sole record was of one at Washington on May 6-9th (RM).

298. **WRYNECK** (*Jynx torquilla*).—The only record in spring was of one at Beachy Head on Apr. 16th and there were few in autumn—at Beachy Head on Aug. 30th, Woodcote on 31st, Hadlow Down on Sept. 1st, Beachy Head (trapped) on 2nd, Angmering on 20th (flew into a windowpane and died) and in the Cuckmere on 24th.

300. **GREEN WOODPECKER** (*Picus viridis*).—During the breeding season 92 pairs or single birds were reported from 77 localities. Counts of pairs received were as follows: Harting beech hanger—3; Steyning tetrad (400 hectares)—3; Maynards Green tetrad—1; Bluebell Railway (8 km)—5; Selwyns Wood—3; and West Chiltington (80 hectares of farmland)—1.

Information is required from all seasons for a tetrad distribution map. Records from downland and the coastal plain will be particularly welcome. [SWMH]

302. **GREAT SPOTTED WOODPECKER** (*Dendrocopos major*).—A welcome increase in records. During the breeding season 118 pairs or single birds were reported from 90 localities. Counts of pairs were received as follows: 2 along the 5 miles (8 km) of the Bluebell Railway; 3 per tetrad (400 hectares) at Maynards Green; 4 per tetrad at Steyning; 4 on the 55 hectares of Fore Wood NR; 4 in Tilgate Forest; 4 in Selwyns Wood; and 2 on 80 hectares of farmland at West Chiltington.

Singles were seen at Beachy Head on Aug. 25th, Oct. 3rd and 27th and one flew in from the sea at Fairlight on Sept. 3rd. One or two were recorded regularly at the coast at Littlehampton West Beach and Church Norton and numbers at these localities totalled 4 and 5 respectively on Sept. 9th and Oct. 13th all giving rise to suspicion of autumn passage.

Information is required for all seasons for a tetrad distribution map. Records from downland and the coastal plain will be particularly welcome as will any information on the penetration of the species into urban and suburban areas and the use of garden feeding stations. [SWMH]

303. **LESSER SPOTTED WOODPECKER** (*D. minor*).—During the breeding season reported from 36 widely scattered localities; at other times of the year reported from a further 24 localities many of which probably applied also to the breeding season. On Mar. 18th one flew W along the beach at Selsey Bill and on Apr. 15th one flew inland there from the south. All records of this species are required at any season. [SWMH]

310. **WOODLARK** (*Lullula arborea*).—A pair seen at a traditional locality on May 30th did not remain.

311. **SKYLARK** (*Alauda arvensis*).—One of the biggest cold-weather movements in recent times, which had started on Dec. 31st (Sx. B.R. 31: 38) continued into Jan. On 1st, a ½-hour count on a 100 m front at Chichester produced 1,200 W, whilst at Shoreham beach, 2,500 were noted moving W in 2¼ hours and at Shoreham Airport, 1000 W in one hour. Movements of similar magnitude were noticed elsewhere along the W. Sussex coast. Apparently most of these birds passed straight through the county. Another influx from the E started on or about 24th (e.g. 2,000 W in 2 hours on an 800 m front on the Downs near Lewes) but this time the population stayed only to be frozen out within a day or two. On 27th, counts of 1,000 and 2,000 in two limited areas of Chichester Harbour and 2,200 between Sidlesham Ferry and the West Beach at Bracklesham were followed on 28th by reports of flocks of up to 500 at a number of localities inland and 6,000 in fields behind the Severals at Church Norton where only 600 had been found on 14th. On 29th, 10,000 were estimated to be in the Sidlesham area alone but most soon left. Subsequent reports

were more scattered but, on Feb. 18th, 'uncountable thousands' were still present in the Ouse valley and at least 1,000 at Newhaven Tide Mills.

Albeit on a less dramatic note, only 18 singing males were located along or near to the 5 miles (8 km) of the Bluebell Railway during the breeding season, compared with 23 in 1978. On Iping Common 8 were noted and, at West Chiltington, 6 on 32 hectares of farmland.

An albino was seen at Chichester Harbour in Jan.

312. **SHORELARK** (*Eremophila alpestris*).—The individual first seen at Paghram Harbour on Nov. 18th, 1978 (Sx. B.R. 31: 38) remained until Mar. 20th.

313. **SAND MARTIN** (*Riparia riparia*).—First records in spring were 4 at Chichester G.P. on Mar. 28th and 6 there on 29th but no further arrivals until 13 each at Rye Harbour L.N.R. and Bewl Bridge Res. and one at Arundel Wildfowl Refuge on Apr. 11th. Thereafter the species was widely seen in small numbers.

Counts of occupied nest sites at breeding colonies were: Washington and Storrington sandpits, 40 only; Coates sandpit, about 20; West Heath sandpit, 60; near Eastbourne (new site), 20; and Rye Harbour L.N.R., 15-20.

Post-breeding season gatherings began to appear at the end of July and 400-500 were at Rye Harbour by early Aug. On 12th, 300 or more passed W at Sidlesham at 1500 hrs and at Selsey Bill, over 2000 between 1635-1850. Further though lesser movements were noted at Selsey Bill on Aug. 27th and Fairlight on Sept. 2nd and autumn maxima of 100 were noted at Beachy Head on 8th and 13th. After 50 at Bewl Bridge Res. on 22nd, some 100 were at Littlehampton on Oct. 1st and 250 at Rye Harbour on 4th dropping to 60 by 10th. The last for the year were singles at Sidlesham on 7th, Beachy Head on 11th, Rye on 13th and a late individual at Arundel Wildfowl Refuge on Nov. 5th.

314. **SWALLOW** (*Hirundo rustica*).—After one at Rye Harbour L.N.R. on Mar. 24th, the first main arrival began with singles at Selsey Bill, Chichester G.P. and Arundel Wildfowl Refuge on Apr. 10th following which the species quickly became widespread though only in small numbers until the change to warmer weather on May 10th. Peak passage at Rye was noted on May 20th and 24th.

Post-breeding season gatherings were noted from the end of Aug. and on Sept. 2nd 1000 moved W in 5 hours at Fairlight. By 11th 10,000 were estimated at Beachy Head, then 5,000 on 13th and 10,000 again on 14th. During 12-16th heavy movement to S was observed at Cissbury. On 22nd 4000 passed W in 2 hours at High Salvington and large numbers were at Seaford Head on 23rd. Some 2,000 were feeding at West Chiltington on 24th and 3,000 on 27th and at Rye on 30th many 1000s were moving towards Dungeness. The main exodus appeared to be complete by the end of the month but a steady trickle continued throughout Oct., including 100 per hour to S at Harting on 16th, over 60 gathered at Amberley on 23rd and at least 30 to SW at Rye on 28th. Subsequently 21 were seen up to Nov. 25th at various points along the coast and the last were singles at Rottingdean on Dec. 3rd, Ferring on 4th and feeding by Worthing Pier on 19th.

An albino juvenile was seen at Pett Level on Sept. 30th.

316. **HOUSE MARTIN** (*Delichon urbica*).—First recorded in spring at Chichester G.P. and at a colony site in Crawley on Apr. 10th the species was widely scattered in small numbers by 14th. On 17th 'large flocks' were noted at Arundel Wildfowl Refuge and 30 were at Barcombe Mills Res. on 18th. Continued cold weather inhibited arrivals but brought several feeding gatherings to notice including 150 at Barcombe on May 5th. It was not until mid-May that the full population arrived.

Of 25 successful nests at Maynards Green, 9 had successful second broods. At the University of Sussex colony, 38 nest were constructed, 10 were occupied by House Sparrows and 8 apparently remained vacant; twenty pairs bred and at least 3 were double-brooded with greater success than the past 3 years. At a site in the Cuckmere, 19 nests were constructed, 9 were ceded to House Sparrows and the

remainder successfully occupied. Of 25 pairs nesting in the Sheffield Park railway station area, one successfully reared 4 young in a Clent nestbox. A good number of other, though only basic, counts were received.

Post-breeding gatherings commenced at the end of Aug. On Sept. 5th 500 were estimated over the Cissbury area followed by 5,000 at Beachy Head on 13th and 3,000 on 15th when 400 passed S at Selsey Bill. Mass departure was noted on 22-23rd including some 5,000 at Littlehampton on 22nd, 3,000 at Beachy Head on 23rd. There were also large numbers at Seaford Head and, at one stage on 23rd, an estimated 1,500 an hour passing W at Church Norton. On 28th, 1,500 moved W over Shoreham in a ½ hour at dawn and on Oct. 2nd a further gathering of 5,000 was at Beachy Head. After 200 over Cissbury on 13th numbers dwindled rapidly everywhere but ones and twos were seen throughout Nov. The last for the year were 2 at Pett Level on Dec. 1st, singles at Bognor on 3rd and Horsham on 6th, 2 in Eastbourne on 11th and, finally one in Brighton on 12th.

317. RICHARD'S PIPIT (*Anthus novaeseelandiae*).—One record, at Beachy Head on Nov. 2nd (MEC, MJC, RHC). This record has been accepted by 'British Birds'. See also Additions on pp. 63, 64.

318. TAWNY PIPIT (*A. campestris*).—Three records, all at Beachy Head, were of singles on Sept. 7th (RHC), 28th (MEC) and Oct. 5th (MEC, RHC, AQ). All have been accepted by 'British Birds'.

320. TREE PIPIT (*A. trivialis*).—The first for the year was one in song at Monks Gate on Apr. 13th after which singles were reported from Selsey Bill on 14th and Cissbury and Ashdown Forest on 15th. Thereafter came a steady influx throughout the county with evidence of immigration continuing until May 19th when 3 were at Fairlight.

During the breeding season reports received totalled 89 pairs or singing males from 25 widely scattered localities as follows:

Grid. ref.					
SU 82	Iping Common	10	TQ 23	Tilgate Forest	9
SU 82	Woolbeding Common	5	TQ 23	Tilgate Park	2
SU 82	Sreadham Common	2	TQ 23	St. Leonards Forest	3
SU 82	Rogate	1	TQ 31	Ditchling Common	1
SU 91	Lavington Common	2	TQ 32	Bluebell Railway	1
SU 91	Ambersham Common	8	TQ 33	Wakehurst Place	1
SU 91	Littleton Down	2	TQ 33	Worth Lodge	2
SU 92	Bexleyhill	2	TQ 43	Ashdown Forest	16 +
TQ 01	Hesworth Common	2	TQ 53	Erldge Park	6
TQ 01	Sullington Warren	2	TQ 63	Bewl Bridge Res.	1
TQ 21	Shaves Wood	1	TQ 71	Beaumont Park	4
TQ 22	Monks Gate	3	TQ 72	Darwell Res.	1
TQ 22	Warren Wood	2			

At Beachy Head autumn passage started on Aug. 11th and peaked at 300 or more moving W on 25-27th. At Selsey Bill the max. was 30, also on 27th. The last for the year were 7 at Beachy Head on Oct. 7th. [SWMH]

322. MEADOW PIPIT (*A. pratensis*).—Several observers commented upon the presence of feeding parties, mainly along the coast, during the cold weather in Jan.-Feb. although the largest were 30 at Arlington Res., 40 at Shoreham Harbour and, at Chichester G.P., 60 on Feb. 4th rising to 100 by Mar. 3rd. In spring, 300 arrived at Selsey Bill in 5½ hours on Mar. 19th and thereafter small flocks appeared in many parts of the county.

During the breeding season 10 pairs were located on 935 hectares of the Brede Valley and 7 pairs on 260 hectares of Pett Level.

Autumn passage at Beachy Head was noted between Sept. 22nd and Oct. 7th with a peak of 1000 or more on 7th when max. numbers were also reported on the Downs at Cissbury.

324. ROCK PIPIT (*A. spinoletta*).—Although not complete, winter counts along the coast produced a total of 47-53 as follows: Rye (Rother), 15-20; Pett Level, 1-2; Beachy Head (E), 6; Cuckmere, 5; Rottingdean 1-4; Hove to Southwick, 3;

Shoreham, 1; Pagham Harbour (W), 1; and Church Norton to Selsey Bill, 11. At Rye Harbour L.N.R. the last wintering bird was seen on Mar. 18th.

In autumn, early arrival at coastal lowland sites was commented upon at Pett Level (Aug. 16th) and Rye (Aug. 31st).

Shrub (1979) stated that 'as far as is known our breeding birds are resident. In addition winter visitors are found along the whole coast including estuaries, from October to March'. At present it would seem that most of the cliff breeders merely move to perhaps more amenable habitats for the winter and are not greatly augmented from outside the county. All counts for winter or breeding season are therefore to be welcomed.

Individuals showing characters of the typical race *a. s. spinoletta*, colloquially known as the Water Pipit, were fully identified at Sidlesham Ferry on Mar. 31st-Apr. 3rd and in the Cuckmere on Nov. 25th whilst one at Rye Harbour L.N.R. on Apr. 17th was considered to belong to the Scandinavian race *a. littoralis*. Inland, a Rock Pipit of indeterminate race was seen at Bewl Bridge Res. on Apr. 13th.

325. YELLOW WAGTAIL (*Motacilla flava*).—First records in spring were 3 at Hankham (Pevensey Levels) on Mar. 31st, one at Selsey Bill on Apr. 3rd and others at Barcombe Mills Res. on 7th and Rye Harbour L.N.R. on 8th. By 11th, 9 were at Rye and, on 13-14th a general arrival was noted along the whole coast and the count at Rye rose to 40 on 16th. At Selsey Bill arrivals were reported until May 16th.

Breeding season counts included 17 pairs at Rye Harbour L.N.R. (c.f. 10 in 1977-78); 24 on 935 hectares of the Brede Valley (where an increase was estimated since 1976); and 2-3 pairs on 260 hectares of Pett Level with 1-2 more close by. Along approx. 3 km of the East Sussex Rother near Newenden some 9 pairs were found.

Autumn passage at Beachy Head started on Aug. 12th with maxima of 53 on 26th, 125 on 27th, 55 on Sept. 2nd, 30 or more on 8-9th and a further minor surge on 30th. No exceptional passage was noted at Rye where 30-40 were present in Aug. and 50-60 in early Sept. but few after mid-month. Selsey Bill reports largely matched those at Beachy Head with 65 on Aug. 26th, 200 on 27th and 30 on Sept. 8th whilst on the West Beach at Littlehampton, 55 on Aug. 27th increased to 110 or more on 31st but only 40 by Sept. 4th and 6 on 12th. In early Oct. two at Worthing on 3rd, the last two at Rye on 5th and 3 at Fittle on 10th were the only records away from Beachy Head where, after 6 on 1st, a few loitered to 8th and the last was seen on 13th.

Individuals showing the characters of the typical race *m. f. flava*, colloquially known as the Blue-headed Wagtail, were even commoner in spring than in 1978, and were reported as follows: Cuckmere, Apr. 13th; Horse-Eye Level, 14th; Beachy Head, 15th; Rye Harbour L.N.R. on 16th and 27-29th with two on 28th; another May 2nd; Langney Point, Apr. 28th and May 5th; Beachy Head, May 15th (seen arriving from sea); and Sidlesham Ferry, May 19th and (possibly same) 30th.

327. GREY WAGTAIL (*M. cinerea*).—A welcome increase in information on wintering birds with 39 being reported from 34 coastal and inland sites. Very few were reported on spring passage but two singles were seen at Pett Level and one at Langney Point on Apr. 1st.

During the breeding season reported from 35 traditional sites but absent from one usual site at Barcombe Mills Res. All breeding season records are required for a register of sites currently in preparation.

In Aug. numbers at Bewl Bridge Res. built up to a max. of 12 on 15th. At Littlehampton West Beach a total of 20 was noted on 5 dates between Aug. 31st and Sept. 22nd with a max. of 6 on Aug. 31st. Passage at Beachy Head comprised 39 W between Sept. 3rd and Oct. 14th with maxima of 6 and 10 respectively on Sept. 9th and 29th. On Sept. 29th, 3 were seen at Park Crescent in the centre of Brighton, and another on Oct. 5th. At the end of the year a total of 32 were reported from 22 coastal and inland sites including a group of 6 at Balcombe Lake on Nov. 14th. [SWMH]

328. PIED WAGTAIL (*M. alba*).—The Rotherfield sewage plant population commented upon in 1978 (Sx. B. R. 31:40) numbered 150-200 on Jan. 13th, up to 100 on Feb. 18th and 120, mainly young birds, on June 30th. In Eastbourne the

traditional tree roost in front of the railway station contained at least 150 birds on Jan. 13th and Nov. 24th.

In autumn, westerly passage at Beachy Head was noted from Sept. 14th to Oct. 20th with a peak of 50 on Oct. 5th and 30 on 7th.

Individuals showing the characters of the typical race *m. a. alba*, colloquially known as the White Wagtail, were identified as follows: Selsey Bill, Apr. 1st and May 4th; Home Farm Arundel, June 4th; Cuckmere, May 3rd; Alfriston area, May 5th and 8th; Ecclesbourne, Apr. 7th; and Rye Harbour L.N.R., Apr. 12th, 23-29th (two) and another 26th.

329. WAXWING (*Bombycilla garrulus*).—One record—a single bird in a Lewes garden on Feb. 18th (DPD).

331. WREN (*Troglodytes troglodytes*).—Varied reports were received on the effect of the cold spell at the start of the year. RL considered the species to have been badly affected on the Downs near Lewes; PCB noted a distinct reduction in numbers throughout the Bewl Bridge Res. and neighbouring areas; MFW reported from the Fore Wood N.R. that the population had slumped from 43 pairs in 1978 to only 21; and ERGA could find only 33 along or close to the 5 miles (8 km) of the Bluebell Railway compared with 55-56 in 1978. Other, perhaps more localised reports suggested that the species had held its own. Doubtless the vigorous population dynamics of this large-brooded species will quickly restore the balance where necessary.

333. DUNNOCK (*Prunella modularis*).—A possible indication of spring movement was noted at Darwell Res. where there was a sharp increase in numbers on Mar. 18th. During the breeding season 19 singing males were present along or near to the 5 miles (8 km) of the Bluebell Railway compared with 14 in 1978. Seven pairs bred on the 55 hectares of Fore Wood NR.

336. ROBIN (*Erithacus rubecula*).—As with the Wren, reports varied on the possible effects of the hard weather in Jan.-Feb. At Sullington Warren near Storrington, JNMCK found numbers were up on 1978 and DJWS found 21 occupied territories on 5.5 hectares of suburban East Grinstead compared with 14 in 1978 and 18 in 1977. On the 55 hectares of Fore Wood NR, however, MFW could report only 32 breeding pairs, a drop of 27% on 1978, and along the 5 miles (8 km) of the Bluebell Railway numbers were down from 48 to 41. Further information on breeding densities in 1978 also comes from DJWS in the East Grinstead area where 16 singing males were found on 18 hectares of mixed farm/woodland and the same number on 20 hectares of woodland.

338. NIGHTINGALE (*Luscinia megarhynchos*).—In the spring first recorded on Apr. 11th when two were heard at both Doleham and Lullington; recorded from a further 4 sites by the end of the month. Breeding season records were received from 25 East Sussex tetrad and 20 West Sussex tetrad and the complete survey during 1980 should reveal more accurately the current breeding status.

During the autumn one or two were recorded at Beachy Head on 12 dates between Aug. 5th and Sept. 8th and singles were reported at Rye Harbour LNR on Aug. 11th, Cissbury on 30th and Littlehampton on Sept. 12th. [JAN]

342. BLACK REDSTART (*Phoenicurus ochruros*).—Of the wintering individuals already reported (Sx. B.R. 31: 41) those at Selsey Bill, Southwick (2), Black Rock, Newhaven and the Cuckmere were again seen on various dates in Jan.-Feb. with the addition of singles at Hastings on Jan. 24th and Worthing from Jan. 28th to Feb. 16th. A second bird was in the Cuckmere on Feb. 18th and the Black Rock individual, which stayed until Apr. 10th was visited by another on Feb. 19th.

The first migrant at Beachy Head was on Mar. 4th and at Selsey Bill singles were present on most days from 7-20th with 2 on 20th. Between 23rd and 25th about 10 arrived along the coast several totering into Apr. At Rye Harbour LNR 1-3 were seen each day until Apr. 15th but in the meanwhile another arrival of some 9

individuals occurred on 6-7th. Lingered birds and further migrants accounted for a further 12 sightings up to May 5th. Inland records were of singles at Bewl Bridge Res. On Apr. 1st and Horsham on 7th.

Breeding at one traditional site near Brighton was not proved this year but at least one young was reared at another nearby. Elsewhere a pair bred at a new cliff site in East Sussex probably rearing 2 young. The only other report was of an apparently unmated male between Seaford and Eastbourne in mid-June.

After a wanderer on the Downs at Cissbury on Aug. 29th and the first migrant at Beachy Head on Oct. 8th, autumn passage was well-marked with 10 at 5 localities from 12-17th, a further 8 by 26th and, on 27th, 7 at Beachy Head, 6 at Church Norton 5 at Selsey Bill and one inland at Horsham. Subsequently, apart from further inland occurrences, at Balcombe on Nov. 17th and Barcombe Mills Res. on 18th, only 6 were seen along the coast up to Dec. 3rd and the sole winterers found were at Selsey Bill, Shoreham, Rusington and Lancing.

343. REDSTART (*P. phoenicurus*).—First records in spring were at Runcion on Apr. 10th and Beachy Head and Cissbury on 13th after which, despite persistent bitter weather, clear nights permitted the arrival of a further 16 before the end of the month. Another 29 were recorded by May 9th, mostly on 5-6th, with the advent of warmer weather.

During the breeding season the species was found at 10 mostly traditional localities, including 5 singing males at one, 3 at another, 2 at another and 7 singles elsewhere. At one site laying was complete by May 22nd and 6 young were reared and a second clutch of 5 laid by June 30th.

Return passage was rather above average, starting with one at Arlington Res. on Aug. 23rd, 41 at 6 localities between 25-29th and autumn maxima of 48 on the Cissbury downs on 30th and, at Beachy Head, 50 in Whitbread Hollow alone on 31st. The max. at Fairlight was 8 on Sept. 2nd. Some 35 were reported from coast and Downs between 4-9th and a further 45 during the remainder of the month. In Oct., apart from singles at Beachy Head on 7 dates until 15th, only 7 others were found up to 14th and the last for the year was at Beachy Head on 27th.

344. WHINCHAT (*Saxicola rubetra*).—The first spring record was of a very early individual at Langney Point on Mar. 31st. Two at Church Norton on Apr. 24th and one at Rye Harbour LNR on 26th were more typical. The main arrival occurred between May 5-9th with no fewer than 12 in the Cuckmere on 8th. Apart from one in the same area on 29th, all had moved on through the county by mid-month. The sole summer occurrence was of one on Haring Down on June 30th.

Autumn passage started with two on the Downs at Cissbury on Aug. 11th and one at Rye on 12th followed by the first at Beachy Head on 18th and two at Selsey Bill on 19th. On 26th no fewer than 115 were found at Beachy Head and 17 more along the coast in general. On 27th there were still only 5 on the Cissbury downs but 23 came on 28th and a max. of 38 on 29th. Down on the West Beach at Littlehampton, 15 on 27th steadily increased to 24 by Sept. 9th. The figures suggest a slow population movement westwards. By 31st the Cissbury count had dropped to two but 25 new birds arrived at Beachy Head whilst at Pagham Harbour 6 along the west shore increased to 11 by Sept. 1st. Subsequently the species was widely reported along the coast with at least 70 up to 17th some 20 of which lingered to the end of the month or even into Oct. Four were at Beachy Head on 1-5th and one inland at Bewl Bridge Res. on 7th. After 7 more in mid-month, the last report was of one at Roedean on 23rd.

Observers of late birds apparently of this species should bear in mind that any rather pale and greyish individual may on more careful examination prove to be a Stonechat of one of the eastern races *s. t. maura/stejnegeri* which can also have pale supercilia and can look remarkably like Whinchats.

345. STONECHAT (*S. torquata*).—In Jan. and Feb. 28 and 11 birds were reported from 16 and 7 coastal localities respectively.

In the breeding season coverage of Ashdown Forest and Beachy Head was incomplete and no reports were received from some other areas where the species has bred in recent years. Several observers considered numbers still to be low and the species was definitely absent from one site which held 2 pairs in 1968. Pairs or singing males were reported as follows:

Selsey Bill	1	Ashdown Forest	16
Haring Down	1	Birling Gap and Belle Tout	5
Ining Common	1	Beachy Head	3
Ambersham Common	1	Fairlight	2
Tilgate Forest	1		
Whitebush Hill	1		

A male seen at Chichester Harbour on July 4th and a female near Cissbury on the same day may have been early migrants. Further evidence of a poor breeding year lay in the lack of detectable passage on the Downs at Cissbury, at Shoreham and at Littlehampton and Goring. At Rye Harbour LNR return passage was first noted on Aug. 29th. Autumn numbers at Beachy Head were low with maxima of 10 on Aug. 31st and Oct. 14th and 12 on 15th. In Nov. and Dec. 36 and 37 birds were reported from 9 and 11 coastal localities respectively. [SWMH]

346. WHEATEAR (*Oenanthe oenanthe*).—First records in spring were at Selsey Bill on Mar. 17th, Beachy Head on 18th and Rye Harbour LNR and Paghham Harbour on 20th. A further 18 arrived by 31st including 7 at Langney Point. Some 52 were noted between Apr. 1-7th but very few were seen during the rest of the month. A marked wave then passed through the county on May 5-8th with 15 at Selsey Bill on 5th, 8-10 at Beachy Head on 6-7th, one at Darwell Res., 6 at Bewl Bridge Res., 35 on Pevensey Levels and 14 on the Downs at Cissbury on 7th and 5 near Lewes and 6 at Goring Gap on 8th.

At Rye Harbour LNR, 7-8 pairs nested within the SSSI most having 2 broods and at least 10-15 young were reared to flying stage. One pair apparently bred at Newhaven.

Autumn passage commenced early in Aug. with 3 at Selsey Bill and Annington Hill on 4th, 5 on the Cissbury Downs by 10th and one at Beachy Head on 11th. On 27th a max. of 100 was reported from Beachy Head and 35 had appeared on the West Beach at Worthing, increasing to 55 by Sept. 4th when a further 52 were at Beachy Head. On the Downs at Cissbury the max. was 45-48 on 29-31st. These figures were reflected throughout the county. Subsequently the passage was generally without feature and lasted well into late Oct., as many as 10 being seen on 27-29th. The last for the year were at Pett Level on Nov. 4th, Sidlesham on 10th and Worthing on 11th.

359. RING OUZEL (*Turdus torquatus*).—First recorded in spring at Rye Harbour LNR on Apr. 7th followed by singles near Lewes on 13th, at Beachy Head on 16th, Cissbury on 19th and 2 at Beachy Head on 21st.

Autumn passage was good though not spectacular. At Beachy Head the first appeared on Aug. 25th and daily counts steadily rose to 8 by Oct. 3rd and peaked at 40 on 7th after which numbers slowly dwindled until regular watches ceased on 28th. On the Downs at Cissbury records fell between Oct. 4-28th with a max. of 7 on 24th whilst further east in the Newmarket Hill-Lewes area 3 on 1st were followed by up to 15 until 27th. Elsewhere 3 were at Fairlight from 3-10th and 9 on 7th, 5 or more were in the Cuckmere on 20th and 5 individuals at 4 other localities during the same general period. The only Nov. reports were of singles at Amberley Mount on 3rd, Balsdean on 10th and, finally, Beachy Head on 11th.

360. BLACKBIRD (*T. merula*).—The year started with a suggestion of immigrants from the Continent during the cold spell and, on Jan. 2-7th, 50-65 were found feeding on orchard windfalls near Bewl Bridge Res.

During the breeding season linear counts were of 18 singing males in one mile (1.6 km) at Steyning Pound Hill and 49 along or close to the 5 miles (8 km) of the Bluebell Railway. Elsewhere, 26 pairs bred at Fore Wood NR (55 hectares), 7% fewer than in 1978.

Reports of autumn passage were inconclusive; apparent arrivals took place at Beachy Head on Sept. 4th (40), at Littlehampton on Oct. 14th (45) and Church Norton on Nov. 16th (60), whilst on the Downs at Cissbury the maxima were 40 on Oct. 7th, 65 on 24th and 50 on 28th. For the second winter running a large gathering of 70-80 was found feeding on orchard windfalls at Great Dixter at the end of Dec.

Two gory reports were of behavioural interest. On Jan. 20th, DJC found two apparent females fighting in a Brighton car park and, as one finished up with both eyes extinguished and the skull severely fractured he put it out of its misery but only in the face of continued aggression from the other. Less horrific but nonetheless unusual was a report of an adult male seen by RDME persistently feeding on a road fatality House Sparrow at Barcombe Mills on July 7th, despite the repeated interruption of passing cars.

364. FIELDFARE (*T. pilaris*).—During the cold spell at the start of the year the species was common and widespread throughout the county, many flocks of up to 600 being reported. Extensive but confused weather movements took place between Jan. 24-28th. In localities where food was plentiful good numbers remained to late Mar. and in some cases to mid-Apr. In May, two were at Mill Hill, Shoreham, and one at Beachy Head on 6th, 8 near Fisher Street on 8th and singles at Brighton and Horse Eye Level on 11th.

The first in autumn was an early individual at Beachy Head on Sept. 10th followed by further singles there on Oct. 7th and 14th, East Grinstead on 13th and Shoreham Sanctuary on 14th. On 23rd a party of 80 was at High Salvington and on 27th 300 near Loughton. On Nov. 8th a flock of 450 at Harrow Hill appeared newly arrived and numbers at Ashcombe Farm near Lewes built up from 50 on 10th to 200 by 16th. On 25th, 400 were on Horse Eye Level. Equally good numbers were reported in Dec.

365. SONGTHRUSH (*T. philomelos*).—Breeding season counts received were of 22 singing males along or close to the 5 miles (8 km) of the Bluebell Railway, 8 on 935 hectares of the Brede Valley and the same number on the 55 hectares of Fore Wood NR. Near East Grinstead a 1978 survey of 18 hectares of farm and woodland revealed only 2 pairs and on 20 hectares of woodland 3 pairs whereas 5.5 hectares of more urban nature as many as 8, though only 5 in 1979. Such population densities are probably typical and as Shrubbs (1979) confined his summary to woodland and farmland the status of this species near human habitation is perhaps worthy of more study.

In autumn the max. counts at Beachy Head were 50 on Sept. 14th and Oct. 7th whilst minor falls were noted on the Downs at Cissbury on 7th, 13th and 24th and at Shoreham Sanctuary on 6th. Night migrants were heard at Shoreham on 23-24th.

An unusual report came from Eastbourne—of a nest with 4 eggs on Jan. 26th, although deserted by 30th.

366. REDWING (*T. iliacus*).—The cold weather movement of Dec. 31st, 1978 (Sx. B.R. 31: 44) continued for the first two days of Jan. and the subsequent trend of reports suggested that, although widespread, numbers remaining in the county were not large. As with Fieldfare, a further movement took place on Jan. 23-24th. Reports from various localities suggested a build-up of numbers towards late Mar. and into early Apr. possibly indicating a return movement with rising temperatures. The last recorded were 10 at a Maynards Green roost on Apr. 6th.

First in autumn were 15 or so at East Grinstead on Sept. 25th and night migrants over Lewes on 30th. Numbers remained generally low until the end of the year.

369. CETT'S WARBLER (*Cettia cetti*).—At Arundel Wildfowl Refuge an overwintering individual already reported (Sx. B.R. 31: 44) remained until Feb. 20th and what may have been the same returned on Nov. 1st until the end of the year. Two were present on Nov. 28th (RMB). Elsewhere there were only two records—one at Pett Level on Jan. 27th (CHD) and a juvenile trapped at Beachy Head on Oct. 11th (RDME, SPH).

373. **GRASSHOPPER WARBLER** (*Locustella naevia*).—First recorded in spring at Friston Forest and Arundel Wildfowl Refuge on Apr. 15th with a further 18 reported from various localities until mid-May. Breeding numbers appeared to be down again from the previous year. One was found exhausted at Cissbury on the late date of Oct. 20th. This species remains the subject of a special breeding survey and records are again required for singing birds from mid-May to mid-July with 6-figure grid references.

375. **SAVI'S WARBLER** (*L. luscinoides*).—One record, at Beachy Head on Sept. 1st (MEC, RHC), has been accepted by "British Birds".

376. **MOUSTACHED WARBLER** (*Acrocephalus melanopogon*).—One record, at Angmering on Aug. 18th (MH, OMH) has been accepted by "British Birds" and is the first for the county.

378. **SEDGE WARBLER** (*A. schoenobaenus*).—First recorded in spring at Arundel Wildfowl Refuge and Rye Harbour L.N.R. on Apr. 11th, Pagham Harbour on 12th, Cuckmere on 13th and Weir Wood Res. on 14th. By 15th the species was widespread along the coast.

Breeding season counts received included 12-15 singing males within the 725 hectares of the SSSI at Rye Harbour L.N.R., 20 on 935 hectares of the Brede Valley and 7 on 260 hectares of Pett Level.

Autumn passage at Beachy Head was negligible with 3 or less on most dates and a max. of 15 on Aug. 31st. At Shoreham Sanctuary there was a max. of 3 on any day between July 25th and Sept. 29th and only 9 were trapped—far fewer than normal. Most had left the county by late Sept. and the last was one at Beachy Head on Oct. 4-5th.

381. **MARSH WARBLER** (*A. palustris*).—The sole record was of a male in song at a breeding site last used in 1973. It was heard only in June and, so far as is known, was unmated.

382. **REED WARBLER** (*A. scirpaceus*).—Amongst the earliest on record for the county, one in song at Sidlesham Ferry on Apr. 13th preceded the main arrival by 3 weeks, the next being 2 at Church Norton on May 5th and Chichester G.P. on 6th, singles on Pevensey Levels and at St. Leonards on 7th and, on the same day, an astonishing 20-30 at Arundel Wildfowl Refuge.

For the breeding season few counts were received for this non-census year. A full survey of the Brede Valley produced 59 singing males on 935 hectares whilst a thorough search of Pett Level (260 hectares) produced about 40 of which 14 were in the *phragmites* round the Pools. On the 725 hectares of the SSSI at Rye Harbour L.N.R. about 30 pairs bred as in 1978. Good sample surveys such as the above are required in any year in order that population levels may be monitored.

At Beachy Head autumn passage started on Aug. 5th, with generally fewer than 5 a day but peaks of 20 on Aug. 28th, 30 on 31st, 20 on Sept. 1st, 40 on 2nd and 30 on 8th. After mid-Sept. only one, occasionally 2 were seen until the last 2 on Oct. 14th. At Shoreham Sanctuary a trapping total of 38 was about normal, the max. being 11 on Aug. 4th and the last on Oct. 17th.

383. **GREAT REED WARBLER** (*A. arundinaceus*).—A male in song at Chichester G.P. on June 2-3rd (JVS *et al*) constituted the 9th record for the county and has been accepted by "British Birds".

389. **DARTFORD WARBLER** (*Sylvia undata*).—A pair bred, with unknown result, and there was an additional singing male at the same site as in 1978. None was found elsewhere apart from the now almost regular autumn visitor to Pagham Harbour, this time on Nov. 24-25th (PDD, CRJ *et al*).

396. **BARRED WARBLER** (*S nisoria*).—The sole record was of a juvenile at Rye Harbour L.N.R. on Aug. 24th (PCH, RCK).

397. **LESSER WHITETHROAT** (*S. curruca*).—First for the year were 2 at Beachy Head on Apr. 21st and one at Church Norton on 22nd after which there was a general arrival by 28-30th and max. counts of 6 at Church Norton on May 5th and 10 at Beachy Head on 11-13th.

During the breeding season linear counts revealed 5 singing males in 7 miles (11 km) between Hellingly and Heathfield but still none along the 8 km of the Bluebell Railway. Other counts were of 3 on 30 hectares of farmland at West Chillington, 1-2 on the 725 hectares of the SSSI at Rye Harbour L.N.R., 3 on 260 hectares of Pett Level—and 4 in the Fairlight area.

Autumn passage at Beachy Head was well up to average with a max. of 100 on Aug. 18th, 60 on 19th, 25th and 26th, 70 on Sept. 13th and 50 on 30th after which numbers decreased rapidly. At Shoreham Sanctuary, however, an autumn trapping total of only 14 was less than half the average. At Rye the peak was on Aug. 31st and on the Downs at Cissbury on 27th. Departures ended with a few stragglers during early Oct. leading to one at Church Norton and 8 at Beachy Head on 13th, 2 at the latter on 14th and a late individual there on 27th.

398. **WHITETHROAT** (*S. communis*).—First recorded in spring at Pagham Harbour on Apr. 13th, Three Bridges on 14th and several other coastal localities from 15th. Inland, the species appeared at Monks Gate on 19th and at Sharpethorne by 22nd. At Beachy Head the spring max. was 50 on May 12th.

Breeding season reports were less pessimistic than in 1978. Linear counts were of 6 pairs or singing males along or adjacent to the 5 miles (8 km) of the Bluebell Railway compared with 7 in 1977-78, and 10 in 7 miles (11 km) between Hellingly and Heathfield (11 in 1977). On the 725 hectares of the SSSI at Rye Harbour L.N.R. 10 pairs or males were located, 4 on 30 hectares of farmland at West Chillington, 18-20 in the Fairlight area and 10-15 on 1,200 hectares (of mainly young conifer plantations) at Monks Gate.

Autumn passage at Beachy Head was more obvious than usual with maxima of 150 on Aug. 11th, 300 on 18th, 100 on 31st, 50 or more on 6 other dates up to Sept. 7th and 40 on 14th after which numbers dropped away rapidly. Max. counts on the Downs at Cissbury fell on Aug. 10th and 27th, at Selsey Bill on 19th and 27th, at Shoreham Sanctuary on 26th and in the Lynchpole-Cissbury area on Sept. 16th. The last reported were singles at Rye Harbour L.N.R. on Oct. 3rd and 5th, Cissbury Ring on 7th and, at Beachy Head, 2 on 7th and singles on 10-14th.

399. **GARDEN WARBLER** (*S. borin*).—First recorded in spring at Shillinglee on Apr. 15th with the main arrival taking place during the first half of May.

Breeding season reports of 1-5 pairs came from 25 widely scattered localities throughout the county, covering all the main habitats but with only a sparse distribution on the coastal plain. An exceptionally large count of 10 singing males was reported from Abbots Wood on June 9th. Other counts of pairs or singing males included 5 on Lullington Heath; 3 on 60 hectares of farmland at West Chillington; 3 on 50 hectares of young forestry plantations at Monks Gate; 3-4 along the 5 miles (8 km) of the Bluebell Railway; 5 in 7 miles (11 km) between Hellingly and Heathfield; 5 on 935 hectares of the Brede Valley; and 5 in the Weir Wood Res. area.

Return passage was noted from mid-Aug. at Rye, Cissbury and Littlehampton and from late Aug. to late Sept. at Church Norton. Shoreham Sanctuary reported a very poor autumn passage. Beachy Head records from mid-Aug. to mid-Oct. included peak numbers of 50 on Sept. 8th and 35 on 13th, the last for the year being one there on Oct. 18th. [GET]

400. **BLACKCAP** (*S. atricapilla*).—Overwintering birds are dealt with in a separate article in this report. Possible immigrants were reported from several coastal localities in mid-Mar. and the species was widespread by late Apr.

In the breeding season, widely reported from inland localities throughout the county. Counts of pairs or singing males for defined areas included: 18 on 1,200 hectares at Nuthurst; 11 along the 5 miles (8 km) of the Bluebell Railway; 7 in 7 miles

(11 km) between Hellingly and Heathfield; 10 in Abbots Wood; 6 on 60 hectares of farmland at West Chillington; 4 on 20 hectares of mixed woodland at Duncton Down; and 2 on the 55 hectares of Fore Wood NR (compared with 3 in 1978 and 5 in 1977).

Autumn passage at Beachy Head between mid-Aug. and late Oct. included maxima of 200 on Sept. 28th and 30th, 150 on Sept. 15th and 20 on Oct. 27th. Peak numbers at Cissbury were 50 on Sept. 12th. Small numbers were noted at Church Norton, Rye Harbour LNR, the Cuckmere, Littlehampton and Arundel Wildfowl Refuge over a similar period. Shoreham Sanctuary reported average counts with the last record on Oct. 24th. At the end of the year only two records were received of possibly overwintering individuals—a female consorting with Redpolls, tits and Chaffinches at Rotherfield on Nov. 10th and one at Climping on 24th. However, many more records were to come in early 1980. [GET]

403. PALLAS'S WARBLER (*Phylloscopus proregulus*).—One at Church Norton on Nov. 15th (BFF, FJF, GTJM *et al*) was the 10th for the county, the first since 1975, the first away from Beachy Head, and one of an unusual number in Britain during the autumn. It has been accepted by "British Birds".

404. YELLOW-BROWED WARBLER (*P. inornatus*).—One at Beachy Head on Oct. 27-28th (DSF *et al*) was the first in the county since 1976.

407. BONELLI'S WARBLER (*P. bonelli*).—One at Beachy Head on May 5th (JFC) and one at Rye Harbour L.N.R. on Aug. 28th to Sept. 1st (RCK, BAEM, RFP *et al*) constituted the 5th and 6th records for the county and have been accepted by "British Birds".

408. WOOD WARBLER (*P. sibilatrix*).—First recorded in spring at Rye Harbour LNR on Apr. 28th and at 5 further localities between May 5-11th. During the breeding season 18 singing males were reported from 10 widely scattered localities. In autumn the species was little in evidence the sole records being of one at Foxhill Village, Crawley, on Aug. 3-10th and, at Beachy Head, 3 on 11th and one on 18-19th.

409. CHIFFCHAFF (*P. collybita*).—If it be true that cold weather in Britain brings wintering birds down to the Sussex coast then the number of records in Jan.-Feb. provided ample evidence with single birds at Cuckfield, Lewes, Brighton, Shoreham, Worthing, North Lancing and Sompting (possibly involving one individual) whilst, on a stretch of the Chichester Canal, 3 were found on Jan. 30th, but only one by Feb. 26th.

Spring migration began with reports from Amberley on Mar. 19th, Chichester G.P. on 21st and 10 further localities by 24-25th. A substantial arrival apparently took place on the nights of Apr. 11th and 12th.

Counts for the breeding season were of 3-4 singing males along the 5 miles (8 km) of the Bluebell Railway and 7 in 7 miles (11 km) between Hellingly and Heathfield (4 in 1977). Elsewhere, 6 were located on 61 hectares of farmland at West Chillington, 8 in the Fairlight Country Park area but only two on Tilgate Forest.

Principal autumn passage at Rye Harbour LNR lasted from Aug. 27th to Oct. 13th with a peak there and at Shoreham Sanctuary on Sept. 23rd. At Beachy Head the figures were average, starting with 40 on Aug. 31st and peaking at 75-90 on Sept. 13-15th, 100 on Oct. 10th and 40 on 14th after which few were seen. Passage trickled on into Nov. and the last probable migrants were at Church Norton on 23rd and Rye on 26th. 5 winter wanderers were seen after mid-Dec. at Runcton, Arundel Wildfowl Refuge, Piddinghoe, Goring and Sompting.

410. WILLOW WARBLER (*P. trochilus*).—First records in spring were of two at Rye Harbour LNR on Mar. 31st and Apr. 9th and singles at East Grinstead and Chichester G.P. on 7th. After 10 at Arundel Wildfowl Refuge on 10th the species was widely reported on 11-14th and peaks of 35 at Cissbury and 70 at Beachy Head followed on 19-20th. Further arrivals were evident on the nights of 24th and 27th and May 4th.

Counts during the breeding season were of 9 pairs or singing males along or near to the 5 miles (8 km) of the Bluebell Railway (marking a further drop since 1976) and 14 in 7 miles (11 km) between Hellingly and Heathfield, compared with 22 in 1977. Other counts were of 9 on 61 hectares of farmland at West Chillington, 5 on the Fairlight Country Park area and 12 on Tilgate Forest. The species was reported not to breed on or around Pett Level and only 1-2 pairs within the 725 hectares of the SSSI at Rye Harbour LNR.

Autumn passage at Beachy Head was average and featured 200 on Aug. 11th, 300-200 on 18-19th and 300 on 25th. After 80 on 31st smaller falls occurred during Sept. but only two were found by 23rd. Elsewhere, good numbers were noted on the Downs at Cissbury with maxima of 110 on Aug. 10th, 80 on 25-27th and 62 on 30th whilst down on Littlehampton West Beach similar peaks came on 27th and 31st. At Shoreham Sanctuary, where the trapping total of 100 was normal, the last seen was on Sept. 15th. The sole Oct. record was of an individual showing the characters of one of the northern races at Beachy Head on 28th—a late date and coincident with the presence of a Yellow-browed Warbler.

411. GOLDCREST (*Regulus regulus*).—Observations at Shoreham Sanctuary indicated the arrival of migrants from Mar. 25th onwards with a peak on Apr. 4th, both being typical dates.

Perhaps happily, breeding season reports on the effect of the cold winter were no worse than conflicting and most sample counts were too small to be conclusive. Indeed, at Fore Wood N.R. (55 hectares), 9 pairs were reported to have bred compared with only 3 in 1978.

At Beachy Head, where up to 300 have been recorded in a day, the autumn maximum of a mere 6 was of uncertain significance as migrants at this site are of equally uncertain origin.

412. FIRECREST (*R. ignicapillus*).—One at Litlington on Jan. 18th may well have been one of the individuals in the area in Dec. 1978 (Sx. B.R. 31: 47). The first migrants came on Mar. 22nd with singles in the Cuckmere and at Pagham Harbour where there were at least 5 by 24th. Also on 24th there were two at Rye Harbour L.N.R. followed by 3 on 25th, 5 on 26th and 1-2 daily until Apr. 9th. The first at Beachy Head were also on Mar. 24th and 1-2 were usually present until Apr. 18th, some 13 individuals being involved. At Pagham Harbour 1-2 were reported on most days up to Apr. 15th. In the meanwhile reports came from Herstmonceux Castle on Apr. 6th, Fairlight on 7th, the Cuckmere on 8th (2) and Balsdean on 10th. On 13th, 5 or more were seen on Friston Forest and on 14th, one trapped on the Downs near Lewes was later heard in song. Stragglers included singles at Church Norton on Apr. 25th and Beachy Head on May 1st.

During the breeding season males were in song at two localities one a past breeding site. The species is now known to have colonised Kent; it must surely be breeding somewhere in Sussex.

First for the autumn were 2 at Rye Harbour L.N.R. on Sept. 1-5th. An arrival took place on the night of 15th bringing 7 to Beachy Head and singles to Pett Level and Littlehampton—and the Cuckmere on 17th. After two at Beachy Head on 23rd another arrival took place on the night of the 29th with 14 at Beachy Head, two at Rye, one trapped at Church Norton and one in Brighton until Oct. 1st. At Beachy Head up to 6 were considered present on most dates to 20th and 2 were found at Leonardslee on 21st. On 27th the weather brought one to Sidlesham and 2 each to Beachy Head and Balsdean where possibly another was seen on 30th. Late records included singles at Church Norton on Nov. 25th, Rye on Dec. 2nd and an imm. female trapped near Lewes on 3rd. Finally of 2 at Church Norton on 8-9th, one remained into 1980. This was another excellent year for the species but the totals are impossible to even estimate.

413. SPOTTED FLYCATCHER (*Muscicapa striata*).—Frost at night and bitter winds made spring arrival very late. The species eventually started to trickle into the county on May 6th at Beachy Head, 8th at Runcion, 9th at Parham Park and 11th at Selsey Bill. After further scattered reports, the presence of 10-15 at Arundel Wildfowl Refuge on 19th suggested a more general arrival.

Breeding season reports were many and widespread though largely non-comparative and included counts of 3 pairs on the Fairlight Country Park, 5 along or adjacent to the 5 miles (8 km) of the Bluebell Railway (as 1978), 4 on the Bewl Bridge Res. N.R. where the species was hitherto regarded as scarce, 3 on the 55 hectares of Fore Wood N.R., 20 pairs on 1,200 hectares at Nuthurst but only one on 30 hectares of farmland at West Chillington. Elsewhere the species was considered scarce on western coastal and downland areas and also on Ashdown Forest. Incidental reports included those of 2 young raised in Brighton town centre and of successful breeding on a mop-head against a wall in Selmeiston. The sense of urgency and need for punctuality in summer visitors was evidenced by a 1978 pair which returned to a nest-box at Pound Hill on May 19th, started the nest on 22nd, laid the first egg on 27th, hatched all 5 on June 12th and departed the site with all fully-fledged on 29th.

Reports of up to 30 at several coastal and downland localities during the last week of Aug. suggested that autumn passage was imminent and on the Downs at Cissbury the count rose to 50 on 29th, 102 on 30th and fell back to 59 on 31st. At Littlehampton West Beach 20 were present on 27th and 17 on 31st. The autumn max. at Beachy Head rose from 25 on 29th to 50 on 31st, dropping to 26 by Sept. 2nd whilst at Church Norton the max. was 40 on 1st. Numbers generally dwindled through Sept. until the last at Rye Harbour L.N.R. on Oct. 5th, one at Roedean on 6th and 2 at Beachy Head on 7th. One identified at Maynards Green on Nov. 18th was by far the latest on record for the county.

416. PIED FLYCATCHER (*Ficedula hypoleuca*).—The only spring records were of singles at Beachy Head on Apr. 24th and 29th, in the Cuckmere on 25th, at Church Norton on May 5th and at Baisdean on 6th.

Again, none was seen during the summer months. After one at Runcion on Aug. 14th autumn passage made a good start on 19th with 2 at Rye Harbour L.N.R., 3 at Pett Level and no fewer than 42 at Beachy Head. However, remaining passage at the latter was without feature, 1-2 being the most seen up to Sept. 30th. Elsewhere along the coast records of generally 1-2, occasionally 3, were grouped into the periods of Aug. 24-26th (5), Aug. 29th to Sept. 9th (11) and Sept. 22-23rd (6); one in central Brighton on 27th was unusual. The last for the year was at Ketley (Bewl Bridge Res.) on Oct. 22nd.

417. BEARDED TIT (*Panurus biarmicus*).—At Pett Level the winter gathering reported in 1978 (Sx. B.R. 31: 48) still numbered at least 30 on Jan. 27th, reduced to 16 by Feb. 10th and 8 by Mar. 3rd when there were also 2-3 at Pett Pools but none was seen thereafter. Elsewhere, 2-3 were in Chichester Harbour during Jan., and 5 at Church Norton in mid-Jan. dropping to one by Feb. 24th. Probable migrants were seen at Rye Harbour LNR on Apr. 7th and May 7th and Church Norton on Apr. 24th.

In autumn the first passage migrants were heard at Pett Pools on Oct. 3rd and then counts of 6 on Oct. 5th and 28th and 15 on 13th but no more records until 2 winter residents arrived on Nov. 21st. 5 were present by Dec. 29th. These dates were matched by reports of singles in the Cuckmere on Oct. 16-17th and near Glyne on Nov. 24th and 2 at Strivens Reed Bed from Nov. 25th to Dec. 23rd.

418. LONG-TAILED TIT (*Aegithalos caudatus*).—No reports were received to suggest that this flourishing species was badly affected by the cold weather at the start of the year and breeding figures in the Cissbury downland area were considered to be well up, as in 1978. 3 pairs bred on the 55 hectares of Fore Wood NR. 1978 surveys of 18 hectares of farmland and woods and 20 hectares of woodland, both near East Grinstead, produced one pair and 3 pairs respectively.

419. MARSH TIT (*Parus palustris*).—A welcome increase in records, being reported from 28 areas during the breeding season and another 9 at other times of the year. Breeding season records included 5 pairs along the 5 miles (8 km) of the Bluebell Railway, 2 pairs per tetrad (400 hectares) at Steyning, 8 pairs per tetrad at Maynards Green, 5 pairs on the 55 hectares of Fore Wood NR (compared with 10 in 1978) and at least 7 territories bordering the lakes at Horsted Keynes. Reports were also received from the Downs at Harting, Chanctonbury, Steyning, Barlavington and Ashcombe Bottom.

This species is still very much under-reported. Any information on its distribution and counts in defined areas will be most welcome. [SWMH]

420. WILLOW TIT (*P. montanus*).—Despite the request for information in the 1978 report (Sx. B.R. 31: 48), this species was reported from only 15 localities during the breeding season—namely Ambersham Common, Slindon, West Chillington (3 pairs on 60 hectares), Roffey, East Grinstead, Weir Wood, Cuckfield, Horsted Keynes, Bluebell Railway (2 pairs in 5 miles (8 km)), Ashcombe Bottom, Eridge Park, Brede, Coghurst Wood, Crowhurst and Darwell. It was also reported from Horsham and Henley at the end of the year. Observers commented upon its absence in Slinfold, on Pett Level and at Fore Wood NR where formerly it had been recorded throughout the year. It may be that both this and the preceding species suffered during the hard weather at the start of the year; all records, at any season, are therefore particularly required. [SWMH]

422. COAL TIT (*P. ater*).—Individuals considered as showing the characters of the Continental race *p. a. ater* were noted at Crowborough on Mar. 4th and Bewl Bridge Res. on Apr. 13th.

During the breeding season 6 singing males were located along or near to the 5 miles (8 km) of the Bluebell Railway. At Fore Wood NR (55 hectares) 13 pairs bred, a decrease of 41% on 1978.

423. BLUE TIT (*P. caeruleus*).—During the breeding season, 49 singing males or nest sites were found along the 5 miles (8 km) of the Bluebell Railway. Of 30 in nestboxes, 23 monitored pairs laid 220 eggs and reared 167 young to fledging stage. At Fore Wood NR (55 hectares), 84 pairs bred compared with 81 in 1978.

424. GREAT TIT (*P. major*).—In the breeding season 42 pairs or singing males, including 30 nest-box sites, were located along the 5 miles (8 km) of the Bluebell Railway; of the 30, one pair deserted before laying, 4 deserted eggs and one brood was found dead. The remaining 24 pairs laid 253 eggs and 183 young were reared to fledging stage. At Nap Wood NR, 6 pairs had hatched second broods, and another had laid, by June 30th. On the 55 hectares of Fore Wood NR, 52 pairs bred, a 37% increase on 1978, and fledging success was stable.

425. NUTHATCH (*Sitta europaea*).—A welcome increase in information. Breeding season counts of pairs were received as follows: 5 along the 5 miles (8 km) of the Bluebell Railway and 2 others nearby; 3 in 5.5 hectares of suburbia at East Grinstead; 7 in one tetrad (400 hectares) at Maynards Green; 5 in Selwyns Wood (10 hectares); 4 at Fore Wood NR (55 hectares), (one in 1978); and 3 on 80 hectares of farmland at West Chillington. The species has not been recorded at Ashcombe Farm, Lewes, since ringing started there in 1974 nor has it been seen at Housedean Farm, Lewes, since ringing started in 1978. Information on the distribution of this species on the Downs and coastal plain will be most welcome as will counts for defined areas in any part of the county. [SWMH]

427. TRECREEPER (*Certhia familiaris*).—During the breeding season only one singing male was found along or close to the 5 miles (8 km) of the Bluebell Railway; but ERGA felt the true status remained uncertain. At Fore Wood NR (55 hectares) 9 breeding pairs was the same as 1978. In reporting singing males on downland areas at Bunkershill Plantation near Falmer and on Stanmer Down, ACBH considered the species to be commoner on at least the eastern Downs than implied by Shrubbs (1979). Any similar observations would be most welcome.

GOLDEN ORIOLE (*Oriolus oriolus*).—The only record was of one in song at Fore Wood N.R. on June 19th (MFW).

432. RED-BACKED SHRIKE (*Lanius collurio*).—Autumn records of females or juveniles involved singles at Beachy Head on Aug. 26-30th, Cissbury Ring on Sept. 4th, Church Norton on 14-19th, West Wittering on 23rd and another at Church Norton on Oct. 5th. An average showing.

434. GREAT GREY SHRIKE (*L. excubitor*).—Of the two wintering individuals already reported (Sx. B.R. 31: 49), that on Lullington Heath was still in song on Feb. 5th and was last seen on Mar. 8th whilst the other, at Horse-Eye Level stayed to at least 20th. In the meanwhile singles were seen between Lewes and Southeast from Jan. 13th to Mar. 3rd, on Ashdown Forest on at least Mar. 18-24th and near Pett village on Feb. 18th.

In autumn one, probably the same, had returned to Horse-Eye by Nov. 4th and one was on Ashdown Forest on 30th.

436. JAY (*Garrulus glandarius*).—Little information was received for the breeding season but 10 pairs were reported from Tilgate Forest and 4 pairs on the 55 hectares of Fore Wood NR. In autumn a minor influx occurred in Oct. as follows: 2 N over Worthing on 5th; 10 over Pett Level and 56 N over Church Norton on 13th; a max. of 8 at Beachy Head, 15 or more between Arundel and Amberley and an increase in the Horsham area on 14th; 16 in the Cissbury downland area on 13-17th; a party of 16 at Arundel Wildfowl Refuge on 16th; and 16 NW over Drayton Station, near Chichester, on 18th.

441. ROOK (*C. frugilegus*).—In the Crawley area 177 nests found in 8 rookeries compared well with 145 in 8 rookeries in 1975. Similar comparative data are expected from the 1980 repeat census in ten 10 km sq. sample areas. Observers submitting records of rookery counts are asked to supply a 6-figure map reference and not just a place name. [SWMH]

442b. HOODED CROW (*C. corone corvix*).—The sole records were of one arriving at Beachy Head from S on Apr. 18th and one flying E over Pett/Rye on Oct. 28th. An individual at Newhaven Tide Mills on Jan. 20th showed characters of this and the typical race *C. corone*.

448. TREE SPARROW (*Passer montanus*).—Despite the cold spell, counts for Jan.-Mar. totalled some 929 at 16 localities, including 100 at Maynards Green in Jan. (70 by Mar. 11th and 40 by 18th), 200 at East Chiltington in Jan. and 200 at Barcombe and 100 at Pett Level in Feb.

Reports for the breeding season included 15 pairs at Higham, 3 pairs on the 935 hectares of Brede Valley, six on 30 hectares of farmland at West Chiltington (four in nest-boxes) and 3, all in nest-boxes and at one site, along the five miles (8 km) of the Bluebell Railway. Nest-box breeding was also reported from Hartfield (one pair) and Maynards Green (3).

Autumn passage at Beachy Head was recorded from Oct. 5th to 18th with a max. of only 25 on 18th.

451. CHAFFINCH (*Fringilla coelebs*).—The cold spell at the start of the year brought no noteworthy reports; the largest flock recorded was of 200 at Goring Gap on Feb. 19th. A small arrival was noted at Beachy Head on Apr. 1st.

During the breeding season counts were received of 41 pairs or singing males along or adjacent to the 5 miles (8 km) of the Bluebell Railway (35-42 in 1978) and of 9 pairs on the 55 hectares of Fore Wood N.R. compared with 13 in 1978. In 1978, DJWS noted 10 singing males on 18 hectares of mixed farmland/woods and 12 on 20 hectares of woodland at East Grinstead. Any such breeding season counts would be most welcome.

452. BRAMBLING (*F. montifringilla*).—Some 260 were reported from 17 widely scattered localities in Jan., including 50 near Lewes, 100 near West Hoathly and 40 at Shoreham Sanctuary. The effect of the cold weather possibly caused birds to move

on as less than 100 were found in Feb. and 75 of these were at 3 localities. The species had virtually left the county by the beginning of Mar. though 2 arrived from the sea at Pett Level on 17th and one was at Saltdean on 20th. April immigrants came as usual with singles at Beachy Head on 4th, 15th and 20th and 4 on 16th and one was on the Downs near Lewes on 13th.

Autumn passage was noted at Beachy Head from Sept. 3rd to Oct. 28th with a max. of 11 on Oct. 27th. Parallel reports came from other coastal localities. The mild weather at the end of the year resulted in only 4 being seen in the county during Nov. and 6 in Dec.

453. SERIN (*Serinus serinus*).—4 records on normal dates for migrants and all at Beachy Head—on Apr. 16th (DSF), May 5th, a male (SMS), Oct. 8th (RHC) and 12th (RHC). All have been accepted by "British Birds". See also Additions to earlier reports on page 63.

455. GREENFINCH (*Carduelis chloris*).—Coastal wintering flocks at each end of the year were on much the same scale as usual: in Jan.-Mar. 100 at Shoreham Sanctuary, 60 at Goring Gap, 15 at Saltdean, 22 at Camber and 200 decreasing to 100 at Rye Harbour L.N.R.; in Nov.-Dec. 200 again at Rye and 110 at Church Norton. Inland, however, the only flocks reported were of 50 near West Hoathly and 19 in Rogate in Jan., 10 at Darwell Res. in Feb. and Nov., 100 on the Downs near Goring on Dec. 31st and 75-100 on cider apple waste at Horam in Nov.-Dec. The winter status and distribution of this species remains to be fully clarified.

456. GOLDFINCH (*C. carduelis*).—As a result of comment in 1978 (Sx. B.R. 31: 51), and despite the hard weather at the start of the year, a good selection of records for Jan.-Mar. was received, providing useful data in support of the winter distribution account given by Shrubbs (1979). On the coast DSF reported 'virtually none' on the Selsey peninsula during the period and NAGL found only 4 in the east Brighton-Roedean area. Still on the coast, however, a party of 50 at Langney Point in Jan. still numbered 20 in Mar. and 5 were recorded at Shoreham Sanctuary. In the downland valleys and allied areas records consisted merely of two on Amberley Wild Brooks, 6 at Kingley Vale, 2-4 by Steep Down and parties of 27, 11, 20 and 30, probably involving the same individuals, near Lewes. North of the Downs, however, flocks were generally larger and apparently more widely distributed: Lodsbridge (40); Fernhurst (30); Lickfold (25); Maynards Green (30); Mannings Heath area (25 and 35); Abbot's Wood (12); Langton (10-15); Rotherfield (40) and Fore Wood N.R. (35). In Dec. PCT recorded 133 or more in 8 flocks (5, 6, 10, 11, 14, 22, 30, 35 approx.) found feeding in streamside alders in 10 tetrads of TQ 51 (40 sq km) but none at 6 further suitable sites in the same zone (Horam, Hellingly, Maynards Green area). By contrast extensive winter surveys of the NW of the county by MJR produced only parties of 13 and 2 despite the profusion of alders in the area.

Spring passage was much as usual, being recorded at Selsey Bill from Apr. 14th to May 9th. A flock of 140, unusually large for spring, was found on Tilgate Forest on Apr. 28th. In autumn, peak passage at Beachy Head fell on Oct. 19th and 27th and at Shoreham on 23rd.

457. SISKIN (*C. spinus*).—In Jan. about 90 were reported from 11 mainly Wealden localities, 57 in Feb., 25 in Mar. and 22 in Apr. There was no indication of spring passage. A pair at an inland locality at the end of Apr. were observed courtship feeding.

Autumn passage at Beachy Head was recorded from Oct. 2nd to 27th, involving 1-3 on 9 dates but 30 on 5th and 10 on 7th whilst at Arundel Wildfowl Refuge 1-3 were seen on 4 dates between Oct. 3rd-26th. Other migrants noted were one and 3 respectively at Bewl Bridge Res. on Oct. 12th and 28th and 12 at Church Norton on 20th whilst inland, parties of up to 10 were found feeding at Higham, Parham Park and Maynards Green. Only 3 reports came in Nov., though a flock of 40 at Horsham was of significance. These remained into Dec. and reports from elsewhere suggested rather more than usual—a total of 93 feeding at 12 localities and 15 arriving from S at Selsey Bill on 31st.

During winter months, 5 instances were reported of feeding in gardens from bags of nuts.

458. LINNET (*C. cannabina*).—Whilst little evidence as to the winter status of this species has been available for publication in these pages in recent years, the inference which may be drawn from Shrubbs (1979) is that the Sussex breeding population is almost entirely replaced by immigrants during Oct.-Mar. Additionally, strictly localised winter feeding habits as suggested by Shrubbs (kale, mustard and maize fields) may well not attract the attention of bird-watchers. However, his statement that 'large flocks are most usually found on the Downs or near the coast' was borne out by reports of 400 increasing to 1,500 at Shoreham Sanctuary in Jan., 2,500 at a favoured spot on Devil's Dyke and 500 on No Mans Land on Feb. 25th and gatherings of 70-300 at 7 other, all downland, localities during Jan.-Feb. To what extent observer diligence or merely the cold weather influenced the picture remains obscure and it may be that the normal winter population is not so large.

After spring arrivals at Selsey Bill from Mar. 18th to May 12th (peak, Apr. 14th), breeding season counts were of about 3 pairs along the 5 miles (8 km) of the Bluebell Railway (as in 1978) and 10 along the 7 miles (11 km) between Hellingly and Heathfield.

Autumn passage was generally without event.

459. TWITE (*C. flavirostris*).—At the start of the year the species was commoner than usual as birds probably moved S and W during the cold spell. At its conclusion, all suddenly departed. It was evident that small parties moved along the coast a great deal and some duplication must have been involved in the following records: Rye Harbour area, 9 on Jan. 1st, 16 by 14th, max. of 30 on Feb. 18th; none in Mar.; Langney Point, max. of 9 on Feb. 22nd; Cuckmere, 5 on Jan. 7th, 20 by Feb. 4th; max. of 30 on 17th, last, 14 on 26th; Newhaven Tide Mills, 40 on Jan. 26th; Rottingdean, 3 on Jan. 23rd; Shoreham, generally 12-18, max. 30 on Jan. 6th and 23rd, last, 14 on Feb. 26th; Church Norton, 7 on Feb. 16th.

At the end of the year records were erratic. After 3 early migrants at Rye on Sept. 30th, the sole record for that area was of 60 on the Rother saltings on Nov. 25th. One flew over Arundel Wildfowl Refuge on Oct. 14th and at Shoreham, 11 on Nov. 11th had dwindled to a mere 4 by Dec. 25th.

460. REDPOLL (*C. flammea*).—Although widely reported during the early months, numbers were smaller than hitherto. The only large winter flocks were 140 at Rotherfield on Jan. 13th and approx. 50 and up to 100 in the Horsham area on Feb. 11th and 18th respectively. In late April it was more plentiful and parties of over 100 were reported from Crowborough and Ashdown Forest but no records were received of spring movements on the coast.

Breeding season reports came predominantly from the north, north-east and south-east of the county and were of not more than 66 pairs or displaying males. Although not subject of a formal breeding survey it was evident that numbers were down on previous years. The species was reported as absent from Iping and Steadham Commons, St. Leonards Forest and even parts of Ashdown Forest where previously it had nested colonially. A decline in numbers was also reported from the Crawley district.

Autumn movement was first recorded on Oct. 2nd; more than 500 were noted at Beachy Head in Oct. with a peak of 200 on 14th, but very few were seen in the west of the county. At the end of the year, reported from 22 widely scattered areas but involving no large winter flocks. [JWH]

463. CROSSBILL (*Loxia curvirostra*).—An isolated record of a pair and 4 juveniles at Charleston Reed Bed on the fringe of Friston Forest on July 1st gives rise to suspicion of local breeding. During Oct.-Nov. a widespread influx took place in Britain and evidence of this came with 10 flying W at Beachy Head on Oct. 14th and 4 W on 24th; 7 E at Pett Level on Nov. 11th; 20 at Brantridge on 16th (4 until Dec. 3rd);

13 at Chelwood Gate on Nov. 24-25th; at least 74 near Henley on Dec. 26th (20 or more on 29th); and at least 5 at Wakehurst Place and 8 at River, also on 29th.

469. BULLFINCH (*Pyrrhula pyrrhula*).—Of interest but of uncertain significance were coincidental max. counts of 10 at Darwell Res. and 40 at Bewl Bridge Res. N.R. on Dec. 16th.

470. HAWFINCH (*Coccothraustes coccothraustes*).—This enigmatic species preserved its reputation as one in a solitary hawthorn on Amberley Wild Brooks on Jan. 13th coincided with the first appearance for the year in a Lodsworth garden where up to 2 males and 3 females paid visits until May 11th. The species was regularly seen near Handcross throughout the breeding season whilst at Fore Wood N.R. it was recorded from Jan. to June and 3-4 pairs bred. After an isolated sighting in Abbot's Wood on Mar. 18th at least two were seen in Kingley Vale and one over Darwell Res. on Apr. 22nd and one near Seddescombe on 29th. One of the Lodsworth individuals was on the adjacent common on June 1st. In July 2 possible juveniles flew over Slinfold where an adult was seen on 22nd. 3 were on Harting Down on 14th and one over Weir Wood Res. on 20th. Still determined to intrigue us, one appeared at Arundel Wildfowl Refuge on Oct. 2nd, the first since Oct. 5th, 1978 (Sx. B.R. 31: 52). Finally, 2 seen in Crowhurst in Nov. may have been related to the Fore Wood population.

493. LAPLAND BUNTING (*Calcaeus lapponicus*).—Doubtless associated with the cold weather (c.f. Jan. 1966—see Sx. B.R. 19: 51), a rare winter party of 7 on Pett Level on Jan. 12th (CHD) may well have been the 7 at Mountney Level, near Pevensey from Feb. 17th, two remaining to 26th (JFC *et al.*).

A typical autumn migrant was recorded at Selsey Bill on Oct. 27th (MJWH, OM, RJSE).

494. SNOW BUNTING (*Plectrophenax nivalis*).—Of the 15 at Rye Harbour in Dec. 1977 only 9 remained until the end of Feb. and 4-5 until Mar. 19th. Records elsewhere were of one at Pett Level on Jan. 7th, one in a Goring garden on Feb. 17th and a rather late male at Langney Point on Mar. 31st.

At the end of the year one was seen at Pagham Harbour on Nov. 3rd and 2 from 17-24th, one at Wildwater, Lancing on Dec. 5-10th and 2 at Rye Harbour from Dec. 23rd.

496. YELLOWHAMMER (*Emberiza citrinella*).—Of 15 reports of feeding flocks during the winter months only 4 were away from Downland areas. Apart from a party of 50 near Horsham, the average flock size was 19 and nine were of 10-20 birds. All such counts are still required.

Breeding season counts received were of 17 singing males along or adjacent to the 5 miles (8 km) of the Bluebell Railway (consistent with 1975-78), 7-8 on Iping Common, 5 in Petworth Park, 14 on Ambersham Common, 6 on Steadham Common, 9-12 on Woolbeding Common, 4 on 20 hectares of scrub at Holland Wood, Ebernoe and 5 on 30 hectares of farmland at West Chiltington.

497. CIRC BUNTING (*E. cirtus*).—Sad to relate the sole known breeding birds left in Sussex were the precious pair at Beachy Head and the only other breeding season records were of apparently unmated birds at two other localities. Otherwise a rather mysterious record was of a pair moving W from Beachy Head on Oct. 14th.

499. ORTOLAN BUNTING (*E. hortulana*).—The only record was of one at Beachy Head on Sept. 30th (RHC).

506. REED BUNTING (*E. schoeniclus*).—At the start of the year the species was more evident than usual but whether this was due to the cold weather remains obscure. Small parties of up to 11, usually 3-4, were seen at 9 localities in all areas, 3 of them in gardens. Up to 30 frequented a field near Horsham in Jan.-Feb. 6 remaining to Apr. 8th. Two unusually large flocks were found—100 or more on Ashdown Forest in Jan. to the end of Feb. (c.f. 120 near Fairwarp, Nov. 20th, 1971

(Sx. B.R. 24: 46) and, during the same period 100-200 were concentrated on a vegetable patch on Pett Level.

In spring, despite the fact that a male was already in territory at Lurgashall M.P. by Feb. 25th, 40 evident immigrants appeared at Langney Point on Mar. 31st.

Breeding season records of pairs or singing males were as follows: Newell's Pond (2); Slaugham Manor (2); Balcombe M.P. (1); Balcombe Lake (1); Burton Pond (1); St. Julien's Pond, Coolham (1); Lurgashall M.P. (2); Shillinglee Lake (2); Weir Wood Res. (10); Darwell Res. (7); Holme Farm Pond, Manning's Heath (2); Mill Lane, Leonardslee (1). Other reports from typical habitats were of 20-25 pairs on the 935 hectares of Brede Levels and of normal population levels at Bewl Bridge Res. The following records of singing males related to atypical habitats: Iping Common (1); Petworth Park (2); Ambersham Common (2); Coghurst Wood (1); Warren Wood—TQ 239291 (2); Bushy Copse, Monks Gate (1); Seaford Head (1); and Wrens Warren, Ashdown Forest (3).

Autumn passage at Beachy Head was largely confined to Oct. with 6 on 7th, 20 on 14th, 10 on 27th and 5 on 28th. On Nov. 12th 50 were recorded at one locality near St. Leonards.

510. CORN BUNTING (*Miliaria calandra*).—This was the third year of the breeding survey the results of which will be published in due course.

Winter roosts/feeding flocks were reported as follows: Bopeep (15); Blackcap Hill, Fittle (30); Devil's Dyke (40); Cissbury (30); Newhaven Tide Mills (15); Cuckmere (30—on Apr. 5th); Normans Bay (40); Striven's Reed Bed (300); Rye Harbour L.N.R. (125) and Pett Level (22).

ESCAPES AND FERALS

WHITE STORK (*Ciconia ciconia*).—One found dead at South Heighton on Jan. 17th (see Sx. B.R. 31: 53).

ROSY FLAMINGO (*Phoenicopterus ruber*) and **CHILEAN FLAMINGO** (*P. chilensis*).—One or other of the individuals present in 1978 (Sx. B.R. 31: 53) were again seen on various dates at either Pett Pools or Pagharn Harbour.

BLACK SWAN (*Cygnus atratus*).—Singles in the Cuckmere on Jan. 1st, Bewl Bridge Res. on Dec. 7th and 26th and Powdermill Res., Hastings on several dates in Dec. may have involved the same individual.

GREYLAG GOOSE (*Anser anser*).—A pair reared 3 young at Petworth Park and another reared 9 young at Waltham Brooks. Another pair, apparently not breeding was at Lurgashall M.P. on May 5th. By late summer, 11 were at Petworth Park and small parties were seen at various localities in the west to the end of the year. At Rye Harbour LNR a party of 8 was present in early June, occasionally in July and throughout Aug. prior to which up to 12 were at Bewl Bridge Res. from Apr. 11th to May 15th. Three at Weir Wood Res. on Apr. 29th and 2 at Arlington Res. on Aug. 10th may have come from either population.

SNOW GOOSE (*A. caerulescens*).—The cold spell at the start of the year brought reports of several wary and full-winged individuals of either white or blue phase at a number of localities. By Mar. 18th 4 blue phase birds were in Chichester Harbour. The movements of these individuals coincided with the major influx of wild geese and it may be that they were from feral stock abroad.

BARNACLE GOOSE (*Branta leucopsis*).—Two at Arlington Res. in Jan., 2 at Amberley Wild Brooks in Feb. and 4 at Darwell Res. in Feb.; one with the Arlington Canada Geese for much of the year; one in the west in Dec.; one at Lurgashall M.P. in July; two at Bewl Bridge Res. Sept.-Dec.

BAR-HEADED GOOSE (*Anser indicus*).—One at Arlington Res. in Jan., another at Darwell Res. in Feb. and 4 in Chichester Harbour, Mar. 17th and 31st.

EGYPTIAN GOOSE (*Atlopochen Aegyptiaca*).—One at Amberley Wild Brooks Feb. 3rd and 17th.

NEW ZEALAND SHELDUCK (*Tadorna variegata*).—One at Arlington Res. on Jan. 13th presumed same as that in 1978 (Sx. B.R. 31: 54) including that shown in error as Paradise Shelduck.

RUDDY SHELDUCK (*T. ferruginea*).—An adult female at Sidlesham Ferry on July 14-15th. Although this record occurred at a time when genuine immigrants are thought to occur, the question as to whether even such immigrants relate to wild or feral stock remains the subject of review under the aegis of "British Birds".

YELLOW-BILLED TEAL (*Anas undulata*).—A pair in the Rye/Pett area from mid-Aug. to late Nov.

RINGED TEAL (*A. leucophrys*).—A male at Sidlesham Ferry, Nov. 13-17th.

CAROLINA DUCK (*Aix sponsa*).—A female in Tilgate Park, Apr.-May. A pair on Swanbourne Lake on Oct. 9th may have been from Arundel Wildfowl Refuge.

MANDARIN (*Aix galericulata*).—See article on page 72.

COCKATIEL (*Nymphicus hollandicus*).—One at Arundel Wildfowl Refuge on Nov. 5th.

ROSE-RINGED PARAKEET (*Psittacula krameri*).—One at Worthing on Apr. 13th.

RING-NECKED PARAKEET.—Singles at Dell Quay on Jan. 20th and Sidlesham Ferry on June 16th; 5, possibly of this species over Brighton on Sept. 3rd; singles at Hastings, Lewes and Maynards Green in Nov.

BLACK-HEADED SISKIN (*Carduelis notata*).—An individual considered to be of this central American species at Church Norton, Sept. 1-8th.

RED-HEADED BUNTING (*Emberiza bruniceps*).—A male at Church Norton, Oct. 5-7th. Although included in Cat. "D" by the B.O.U., so many are the escapes from captivity that records of this species are not currently monitored by "British Birds".

ADDITION TO 1975 REPORT

400. SERIN.—One at Beachy Head on May 10th (MJR *et al.*). This record has been accepted by "British Birds".

ADDITIONS TO 1977 REPORT

374. RICHARD'S PIPIT.—One at the Crumbles, Eastbourne, on Oct. 5th (MEC, RHC). This record has been accepted by "British Birds".

375. TAWNY PIPIT.—One at Beachy Head on Sept. 18th (RHC). This record has been accepted by "British Birds".

400. SERIN.—Four records, all from Beachy Head: one on Apr. 26th (DSF); a male on May 13th; another on June 10th (MEC, RHC); one on June 2nd (MJR). All have been accepted by "British Birds".

393. GOLDFINCH.—A winter flock of approx. 40 at Warminglid on Feb. 6th were finding food at the top of beech trees.

391. HAWFINCH.—At Fore Wood N.R., where 2 pairs probably bred, present in all months except Feb., Oct. and Dec.

ADDITIONS AND CORRECTIONS TO 1978 REPORT

6. LITTLE GREBE.—Further breeding season reports were of a pair and 2 young at Iden Park Lake; a pair nesting and another suspected of breeding at separate sites on East Guldeford Level; the pair at Iden Park should thus have been marked *, the totals should now read: 22 pairs and 47 young.

7. GREAT CRESTED GREBE.—Weir Wood Res. counts for Oct., Nov. and Dec. were 20, 15 and 17 respectively and should now be added to the totals for inland waters already reported; apologies are due to the observer, CEH, for the published statement (Sx. B.R. 31: 9).

76. RED-CRESTED POCHARD.—The male found on the Rother Levels on June 12th (Sx. B.R. 31: 15) should now be referred to as 'a male'.

80. **TUFTED DUCK.**—Breeding season pairs were also reported from the following localities, but there was no proof of breeding:

Tillingham Valley	1	Money Penny Pit	1
Bredc Place Lake	1	Rother Levels	1
E. Guldeford Level	1	River Breede	3
(2 sites)	2	Broomhill Level	1

317. **RICHARD'S PIPIT.**—One at Beachy Head on Nov. 7-8th (MEC, RHC). This record has been accepted by "British Birds".

342. **BLACK REDSTART.**—One trapped at East Grinstead on Oct. 8th.

378. **SEDGE WARBLER.**—During the breeding season at least 9 pairs or singing males on the Rother and East Guldeford Levels.

382. **REED WARBLER.**—The breeding season figure for the Iden Lock area should read 8+ and not 2 as stated (Sx. B.R. 31: 45).

453. **SERIN.**—One at Beachy Head on Oct. 16th (MEC, RHC). This record has been accepted by "British Birds".

COASTAL COUNTS OF WADERS AND WILDFOWL IN SUSSEX AND EAST HAMPSHIRE 1979/80

By R. F. PORTER

Only six counts were made between August 1979 and February 1980 during this 17th year of the Sussex Ornithological Society's Survey. The details for Chichester and Pagham Harbour are presented in Tables 1 and 2; Rye Harbour and Pett Level in Table 3; and the annual Sussex coastline counts of January and February in Tables 4 and 5.

As is now the custom, most counts were made simultaneously with those in Langstone and Portsmouth Harbours and these observations are included in Tables 1 and 2.

The period under review was interesting in a number of respects but in particular for the highest ever number of Brent Geese, the continued increase in wintering dabbling ducks, the high counts of Grey Plover in autumn and Knot in winter, and the low numbers of Snipe and Jack Snipe.

Teal reached the highest figure ever recorded for Chichester and Pagham in December with 1990 and 1363 recorded respectively. The numbers of this species have been building up steadily in the last decade in the Sussex harbours, possibly a reflection of increased drainage inland forcing birds to vacate their former wintering sites. Wigeon too were high, the January count of 1201 in Chichester being well above the average peak. The combined total of Pintail in Pagham and Chichester of 355 in January was a record. The numbers of northern diving ducks (Goldeneye, Eider, Red-breasted Merganser) were unexceptional.

Shelduck numbers were down on the previous winter and more in line with those of the mid-1970s. It seems likely that the wintering pattern of this species is linked with the severity of the winter. However, the Brent Goose population in the Sussex harbours seems to reflect the fortunes of the previous breeding season. Counts in Chichester and Pagham were the highest ever recorded and for the first time on record Sussex counts exceeded 10,000 (on the December, January and February counts). The peak count in all four West Sussex/East Hampshire harbours was 20,621 on 19 January, this being over 5,000 higher than the previous peak count made in January, 1979. The habitat distribution at high tide is presented in Table 6 and shows yet again that on several dates a significant proportion were feeding on terrestrial foods, grass in particular. Counts at high tide, however, may not reflect the true situation, complete data for feeding patterns throughout the day being more meaningful. This was achieved this year when P. D. Round, working under grant from the Ministry of Agriculture, Fisheries and Food, R.S.P.B. and S.O.S., studied the feeding patterns of the geese and their habitat usage in an attempt to determine a

strategy for establishing sanctuary areas. The tremendous increase in Brent Goose numbers and their turning to grass and cereal crops has, not surprisingly, caused concern amongst farmers whose land neighbours the harbour. The findings are being analysed and will be submitted to *Biological Conservation*.

In general wader numbers showed no notable deviation from the normal pattern. There were a few exceptions, however, such as the September and November counts of Grey Plover in Chichester Harbour, the highest recorded there. Knot showed a tremendous influx in January when 2,000 were in Chichester (the highest ever there) and over 3,000 in total in the Hampshire/Sussex harbours.

The virtual absence of Jack Snipe and low Snipe counts, not only in Pagham and Chichester but also on the Sussex coastline count, could well reflect a poor breeding season stemming perhaps from high mortality in last year's cold winter? Climatic factors alone seem unlikely to be the reason as the relatively mild winter of the period under review saw good numbers of other freshwater marsh species, notably Lapwing. The Pevensey figure of 26,000 was the highest recorded there.

Acknowledgements

I would like to thank all those who took part in the Society's wader and wildfowl counts (see page 8), particularly this year—my last as organiser; Tony Prater will be taking over from me.

Thanks once again are due to D. F. Billett and D. J. Steventon for supplying the Langstone and Portsmouth counts, and to the latter for allowing us to publish data for these East Hampshire estuaries.

TABLE 1. WILDFOWL COUNTS IN PAGHAM, CHICHESTER, LANGSTONE AND PORTSMOUTH HARBOURS 1979/80

	1979			1980		
	Aug. 11th	Sept. 8th	Nov.* 3rd	Dec. 22nd	Jan. 19th	Feb. 16th
Great Crested Grebe						
Pagham	5	3	3	6	6	4
Chichester	0	0	2	16	24	18
Langstone	0	0	24	24	0	0
Portsmouth	0	0	0	1	0	0
 Slavonian Grebe						
Pagham	0	0	0	0	0	0
Chichester	0	0	0	0	0	1
Langstone	0	0	2	0	0	9
Portsmouth	0	0	0	0	0	0
 Black-necked Grebe						
Pagham	1	0	0	0	0	0
Chichester	0	0	0	0	0	0
Langstone	0	0	24	26	0	0
Portsmouth	0	0	0	0	0	0
 Little Grebe						
Pagham	3	1	24	17	24	8
Chichester	0	9	39	52	35	33
Langstone	0	0	0	0	0	0
Portsmouth	0	0	0	0	0	0
 Mallard						
Pagham	34	132	235	136	198	193
Chichester	75	120	549	228	489	226
Langstone	24	24	34	46	90	48
Portsmouth	37	141	220	171	167	70
 Teal						
Pagham	2	0	98	1363	135	32
Chichester	12	183	816	1990	1513	902
Langstone	30	150	700	500	300	200
Portsmouth	0	22	7	106	81	31
 Wigeon						
Pagham	0	0	0	118	236	9
Chichester	0	0	197	641	1201	358
Langstone	0	47	1066	620	750	176
Portsmouth	0	0	0	0	0	0
 Pintail						
Pagham	0	0	5	106	200	81
Chichester	1	0	76	115	155	77
Langstone	1	4	20	56	49	33
Portsmouth	0	0	0	2	0	2

	1979			1980		
	Aug. 11th	Sept. 8th	Nov. 3rd	Dec. 22nd	Jan. 19th	Feb. 16th
Shoveler						
Pagham	1	1	0	7	11	2
Chichester	5	0	13	18	16	20
Langstone	13	35	79	110	110	70
Portsmouth	0	0	0	9	0	7
Goldeneye						
Pagham	0	0	0	2	2	1
Chichester	0	0	14	51	46	53
Langstone	0	0	12	46	78	78
Portsmouth	0	0	1	40	46	21
Eider						
Pagham	14	5	3	0	0	0
Chichester	0	0	0	2	0	0
Langstone	0	0	0	0	0	0
Portsmouth	0	0	0	0	0	0
Red-breasted Merganser						
Pagham	1	0	0	18	4	3
Chichester	0	0	3	56	24	49
Langstone	0	0	30	120	95	53
Portsmouth	0	0	0	0	15	0
Shelduck						
Pagham	62	3	144	298	700	518
Chichester	183	105	610	1073	1832	2007
Langstone	8	9	283	560	1622	1033
Portsmouth	0	11	9	7	2	10
Brent Goose						
Pagham	0	0	78	2500	2700	1700
Chichester	0	0	3152	8494	9502	8373
Langstone	4	0	5200	6350	6419	5286
Portsmouth	0	0	400	1000+	2000+	1624+

*Langstone Wildfowl counted on 17th November
†Counted on 2nd February

TABLE 2. WADER COUNTS IN PAGHAM, CHICHESTER, LANGSTONE AND PORTSMOUTH HARBOURS 1979/80

	1979			1980		
	Aug. 11th	Sept. 8th	Nov. 3rd	Dec. 22nd	Jan. 19th	Feb. 16th
Oystercatcher						
Pagham	167	46	70	103	303	120
Chichester	929	39	1356	945	1426	731
Langstone	590	1400	620	1550	1180	943
Portsmouth	166	270	266	3	410	160
Lapwing						
Pagham	136	154	36	185	95	750
Chichester	732	1816	1082	714	664	1925
Langstone	350	300	380	250	330	560
Portsmouth	77	368	75	0	60	97
Ringed Plover						
Pagham	174	218	27	20	79	25
Chichester	205	76	150	240	339	132
Langstone	214	200	156	140	215	123
Portsmouth	183	381	7	48	40	4
Grey Plover						
Pagham	119	200	311	48	452	116
Chichester	663	1905	2284	878	1416	800
Langstone	186	940	552	160	413	764
Portsmouth	0	0	173	400	190	84

	1979			1980		
	Aug. 11th	Sept. 8th	Nov. 3rd	Dec. 22nd	Jan. 19th	Feb. 16th
Golden Plover						
Pagham	22	45	220	0	0	275
Chichester	54	120	28	101	102	50
Langstone	0	0	0	0	10	0
Portsmouth	0	0	0	0	0	0
Turnstone						
Pagham	66	42	234	21	94	4
Chichester	316	86	169	60	161	182
Langstone	47	29	65	39	182	104
Portsmouth	1	0	22	23	88	56
Scaup						
Pagham	0	6	13	39	8	10
Chichester	0	14	120	98	31	159
Langstone	6	25	51	70	0	0
Portsmouth	0	0	0	9	0	2
Jack Snipe						
Pagham	0	0	0	0	0	0
Chichester	0	0	4	1	0	2
Langstone	0	0	2	4	1	1
Portsmouth	0	0	0	1	0	0
Curlew						
Pagham	0	50	101	66	117	375
Chichester	1239	1380	1262	454	734	960
Langstone	769	1176	959	795	599	650
Portsmouth	535	530	450	231	250	260
Whimbrel						
Pagham	27	0	0	0	0	0
Chichester	87	25	0	0	0	0
Langstone	63	1	0	0	0	0
Portsmouth	4	0	0	0	0	0
Black-tailed Godwit						
Pagham	54	155	6	46	141	101
Chichester	247	537	966	310	480	434
Langstone	239	340	695	295	406	434
Portsmouth	63	217	137	0	52	0
Bar-tailed Godwit						
Pagham	0	0	9	0	22	0
Chichester	454	700	413	820	1158	69
Langstone	244	278	555	295	471	836
Portsmouth	0	0	3	0	30	1
Redshank						
Pagham	45	31	371	177	177	250
Chichester	3056	2584	1445	773	1569	1776
Langstone	1131	1080	922	197	206	315
Portsmouth	1013	1242	397	50	47	300
Spotted Redshank						
Pagham	0	1	0	0	1	0
Chichester	10	32	11	14	11	2
Langstone	4	0	1	1	1	0
Portsmouth	0	0	1	1	0	0
Greenshank						
Pagham	8	7	0	0	0	0
Chichester	96	82	16	7	4	3
Langstone	90	80	2	0	0	0
Portsmouth	4	8	0	1	1	0
Knot						
Pagham	5	5	1	0	0	0
Chichester	1	0	0	41	2000	40
Langstone	2	27	7	199	475	887
Portsmouth	0	0	3	420	606	200
Dunlin						
Pagham	137	901	1366	390	2878	558
Chichester	613	202	1831	20177	24554	20340
Langstone	1200	1700	12566	11760	14780	13800
Portsmouth	220	194	10500	6800	9000	6780
Sanderling						
Pagham	4	0	0	0	0	0
Chichester	170	0	338	4	86	284
Langstone	0	0	4	0	0	0
Portsmouth	0	0	0	0	0	0

*No count for Pilesey, Chichester Harbour which seriously affects counts of Oystercatcher, Ringed Plover, Turnstone, Dunlin and Sanderling.
†Langstone Harbour count on 1st December.
‡No count for Tern Island, Pagham Harbour seriously affecting counts of Oystercatcher, Ringed Plover, Grey Plover, Turnstone and Dunlin.

TABLE 3. COUNTS OF SELECTED SPECIES OF WILDFOWL AND WADERS AT RYE HARBOUR AND PETT LEVEL, AUGUST 1979-FEBRUARY 1980 (Co-ordinated by R. C. Knight & P. W. Rouse)

Species	Aug. 12-19th	Sept. 8-9th	Nov. 4-5th	Dec. 22-23rd	Jan. 20th	Feb. 17th
Gt. Crested Grebe	5	3	3	0	0	3
Little Grebe	27	27	36	26	17	11
Mallard	208	193	230	230	526	94
Teal	37	30	73	132	64	22
Shoveler	15	18	47	45	60	58
Tufted Duck	72	136	178	151	159	132
Pochard	0	23	76	84	64	24
Goldeneye	0	0	3	6	4	0
Common Scoter	20	0	12	20	100	0
Shelduck	35	3	11	57	41	35
Coot	786	856	1429	1269	1304	686
Oystercatcher	400	523	592	504	512	584
Lapwing	548	820	2179	2200	785	2100
Ringed Plover	102	10	29	3	4	28
Grey Plover	0	0	49	42	63	82
Golden Plover	2	0	100	1000	410	30
Turnstone	186	95	140	206	176	250
Snipe	2	8	218	170	64	103
Jack Snipe	0	0	0	1	0	0
Black-tailed Godwit	0	0	0	0	0	0
Curlew	85	159	107	267	233	579
Common Sandpiper	21	1	1	0	0	0
Green Sandpiper	9	0	1	1	1	0
Redshank	190	80	68	62	28	139
Spotted Redshank	1	3	0	0	0	0
Greenshank	9	2	0	0	0	0
Knot	1	24	0	0	0	0
Dunlin	83	23	85	233	454	385
Sanderling	140	150	0	75	95	195

TABLE 5. SUSSEX COASTLINE COUNT—16th FEBRUARY, 1980

Species	1979										1980		Totals
	Chichester	Pagham	Climping	Middleton	Goring	Shorham	Newhaven	Tide Mills	Cuckmere	Pevensey	(17th) Pett Level	(17th) Rye Harbour	
Oystercatcher	731	120	96	0	0	1	0	0	1	0	54	530	1533
Lapwing	1925	750	400	0	2000	400	700	12000	2000	100	2000	100	20275
Ringed Plover	132	25	58	83	30	22	5	0	28	413	0	0	1186
Grey Plover	800	116	106	78	0	0	4	0	82	0	0	0	1135
Golden Plover	30	275	0	0	0	0	0	0	800	30	0	0	531
Turnstone	182	4	2	0	0	0	15	16	260	100	3	593	2
Snipe	159	10	30	0	0	0	0	0	0	0	0	0	1918
Jack Snipe	2	0	0	0	0	0	4	0	0	0	0	0	535
Curlew	960	375	0	0	0	0	0	0	0	0	0	0	69
Black-tailed Godwit	434	101	0	0	0	0	0	0	0	0	0	0	2303
Bar-tailed Godwit	69	0	0	0	0	0	0	0	0	0	0	0	40
Redshank	1776	250	6	15	80	10	20	7	17	122	0	0	22981
Knot	40	0	0	0	0	0	0	0	0	0	0	0	788
Dunlin	20340	558	50	250	1200	60	54	84	150	235	0	0	29
Sanderling	284	0	228	70	0	0	0	0	11	0	0	0	38
Purple Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	1
Ruff	4	10	0	0	0	0	0	0	23	0	0	0	0

TABLE 6. HABITAT DISTRIBUTION OF BRENT GEESE AT HIGH TIDE ON ESTUARY COUNTS, 1979/80

Pagham	1979			1980		
	Nov. 3rd	Dec. 22nd	Jan. 19th	Feb. 16th		
Total	78(100%)	2500(100%)	2700(100%)	1700(100%)		
On cereals	0	0	0	0		
On grass	0	0	2658(98%)	0		
On estuary	78(100%)	0	42(2%)	0		

Chichester	1979			1980		
	Nov. 3rd	Dec. 22nd	Jan. 19th	Feb. 16th		
Total	3152(100%)	8494(100%)	9502(100%)	8373(100%)		
On cereals	0	4090(48%)	0	0		
On grass	0	1977(23%)	4557(48%)	2220(27%)		
On estuary	3152(100%)	2427(29%)	4349(45%)	5851(70%)		
Unknown	0	0	596(7%)	300(3%)		

SUMMARY OF BIRD RINGING IN SUSSEX IN 1979

Compiled by R. Leverton

Details were received of 14,151 birds ringed in Sussex in 1979, a moderate total reflecting reduced activities by several groups including Beachy Head. It was an average year for most passerines, but low numbers of Wrens, Stonechats, and Goldcrests seemed a consequence of the previous hard winter. The 95 species ringed included no real rarities, though a Barn Owl of the dark-breasted continental race at Hodcombe was unusual.

The investment of time and money (thousands of hours and over £500 in rings alone) naturally produced results—some adding to our knowledge, others confirming it. Perhaps the best returns came from planned, systematic ringing of

TABLE 4. SUSSEX COASTLINE COUNT—19th JANUARY, 1980

Species	1980										Totals		
	Chichester	Pagham	Climping	Middleton	Goring	Shorham	Newhaven	Tide Mills	Cuckmere	Pevensey		(20th) Pett Level	(20th) Rye Harbour
Oystercatcher	1426	303	201	0	0	0	0	0	6	0	62	450	2448
Lapwing	664	95	2	0	0	30	200	500	2600	600	600	185	28276
Ringed Plover	339	79	44	158	83	0	9	33	6	0	0	4	712
Grey Plover	1416	452	96	83	0	0	0	0	0	0	63	0	2113
Golden Plover	102	0	0	0	0	0	0	0	0	1200	240	170	1712
Turnstone	161	94	31	4	0	0	0	4	82	176	0	0	552
Snipe	31	8	0	0	0	0	6	80	420	60	4	0	609
Jack Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0
Curlew	734	117	1	0	0	0	3	0	0	0	232	1	1089
Black-tailed Godwit	490	141	0	0	0	0	0	0	0	0	0	0	631
Bar-tailed Godwit	1158	22	0	0	0	0	0	0	0	0	0	0	1180
Redshank	1569	177	3	14	50	17	43	3	15	13	13	13	1904
Knot	2000	0	0	0	0	0	0	1	0	0	0	0	2001
Dunlin	24554	2878	25	350	350	54	126	29	100	354	28820	0	28820
Sanderling	86	0	287	140	0	0	0	6	0	0	0	95	614
Purple Sandpiper	0	0	0	0	0	0	23	0	0	0	0	0	23
Ruff	0	0	0	0	0	0	0	0	0	0	0	0	0

species whose behaviour and increasing population have made them potential economic pests and health hazards in certain circumstances. Several spectacular Canada Geese movements show that the habit of long-distance migration (of non-breeders only?) to "traditional", moulting grounds is not necessarily the product of aeons of evolution, but may develop within the life span of an individual bird. While on the Sussex beaches, greatly increased cannon-netting of wintering gulls, sponsored by MAFF, continues to reveal both the huge numbers of birds involved (fully supporting the recent 125,000 + roost counts) and also the vast area of northern Europe from which they are coming. About one in fifty birds netted already bears a foreign ring.

The eight foreign recoveries among the thrush genus chiefly reflect movement and mortality during the severe 1978/79 winter. Redwings, highly susceptible to cold weather, characteristically may winter in widely separate areas in different years. Both Sussex recoveries show this, but the Falmer-ringed bird found over 2,000 miles away in the Caucasus took this strategy to extremes! Four winter Song Thrush recoveries clearly reveal the destination of the large October passage of this species through Sussex, yet the origins of these migrants remain a mystery because of the lack of breeding season recoveries—one instance where ringing of a very familiar species has raised queries which it has yet to answer. In contrast, regular spring recoveries of Blackbirds, and also Starlings, suggest that immigrants wintering in Sussex are mainly from the Low Countries and Germany.

Among the small migrants, the Lesser Whitethroat in Egypt and the Sussex-bred Redstart in Morocco were outstanding. Otherwise, over 30 warbler and hirundine movements within Britain to and from Sussex emphasised the national importance of our favoured south coast resting and feeding sites, especially perhaps for young birds on their first major journey. Only a small selection can be listed in full.

Finally, Sussex seems to get few foreign Chaffinches (which may be related to the scarcity of Bramblings in the county); but there were several good long distance finch movements. Again many of these appear to have been in response to the hard weather early in the year.

SELECTED LIST OF RECOVERIES REPORTED IN 1979 Key to symbols and terms (Ring numbers are omitted)

Age		Manner of Recovery		Sex	
1. Pullus (nestling or chick not yet flying)	2. Full grown, but year of hatching quite unknown	v Caught or trapped and released with ring	+ Shot or killed by man	♂ Male	♀ Female
3. Definitely hatched during current calendar year.	4. Hatched before current calendar year but exact year unknown	() Caught or trapped alive and not released, or released but with ring removed	/?/ Method of recovery quite unknown		
5. Definitely hatched last calendar year	6. Hatched before last calendar year but exact year unknown.				
J. This suffix indicates a bird still in juvenile plumage					
Note: Even numbers indicate birds of unknown age, odd numbers indicate known age					
Spoonbill	One of a party of 6 in the lower Cuckmere valley 3-7th May 1979 had been ringed as a nestling in May 1974 in the IJsselmeer polders, Holland (PJW)				
Canada Goose	3 10.07.76 Chichester G.P. (ABW)				
	v 02.07.78 Beaulieu Firth, Inverness 775km NNW				
	v 21.06.79 Petworth Park, Sussex 760km SSE				
	In the above moulting flock at Petworth Park were no less than 6 birds which had been ringed at the Beaulieu Firth on 02.07.78, plus a bird ringed as a pullus 04.07.78 at Kingsbury, Warwick, the first sign of interchange with the large Midland population.				
Kestrel	1 17.06.79 Potteric Carr, Doncaster, Yorks.				
	v (=) 29.09.79 Shoreham-by-Sea (JAN) 300km SSE				
Dunlin	4 18.12.78 Shoreham-by-Sea (JAN)				
	v 25.08.79 Dagebull, Schleswig-Holstein, F.R. Germany				

Black-headed Gull	1	27.05.77	Nr. Rezekne, Latvian SSR
	x	06.03.78	Shoreham-by-Sea (LM)
	The numerous controls and recoveries from the cannon-netting programme involved Finland, Norway, Sweden, Denmark, Estonia, Holland and Belgium, and will merit a separate report once all the data is analysed		
Common Gull	1	17.06.75	Schoorl (Noord Holland)
	v	11.02.79	Worthing (GSS)
Great Spotted Woodpecker	2	02.03.71	Lancing College (ABW)
	x	06.05.79	North Lancing
	A local resident, at least 9 years old.		
	Three Sussex birds were controlled in Surrey, Somerset and Oxon		
Sand Martin	1	02.07.79	Clarborough, Retford, Notts
Swallow	v	19.09.79	Ashcombe, Lewes (RL) 280km SSE
	3	23.09.77	Beachy Head (BHRG)
Robin	v	09.04.79	Duinbergen, Knokke, Belgium
Redstart	1	27.06.78	Manley (PGD)
	/?/	April 79	Azemmour, Morocco
Blackbird	4♀	09.10.78	Beachy Head (BHRG)
	x	21.03.79	Middelburg, Zeeland, Netherlands
	3♂	11.11.78	Ashcombe, Lewes (RL)
	x	21.05.79	Neerpelt, Limburg, Belgium
Song Thrush	4	08.10.75	Beachy Head (BHRG)
	+	Jan. 79	Rouans, Nantes, France
	3	28.10.78	Ashcombe, Lewes (RL)
	x	mid-Jan. 79	Guernsey, Channel Islands
	3	06.11.78	Ashcombe, Lewes (RL)
	x	31.01.79	Paimpol, Cotes du Nord, France
	2	06.10.79	Beachy Head (BHRG)
	+	11.12.79	Badajoz, Spain
Redwing	5	16.02.76	Falmer, Brighton (RDME)
	/?/	24.12.78	Tsalendzhikha, Georgia, USSR
	5	13.02.78	Ashcombe, Lewes (RL)
	x	16.01.79	St. Jean de Luz (Pyrenees Atlantiques) France
Reed Warbler	4	15.05.77	Strivens Reed Bed (SRG)
	v	11.06.78	Fleet, Hants. 53km NW
	v	24.06.79	Bramley, Surrey 20km SE
	Twelve other movements involved Yorks. (2), Berks., Herts. (2), Hants. (5), Surrey and Essex		
Lesser Whitethroat	3	28.08.78	Charlton Reed Bed, Littleington (LRG)
	+	11.12.78	Maadi, Cairo, Egypt
Garden Warbler	2	14.09.76	Beachy Head (BHRG)
	3J	04.06.79	Gnatsch, Halle, German D.R.
Blackcap	3♀	08.10.77	Hodcombe (RHC)
	x	12.06.79	Ramsel, Antwerpen, Belgium
	4♀	01.01.79	Crowborough
	v	21.02.79	Crowborough (ABW)
	(proof of wintering)		
	Birds ringed at Beachy Head were controlled in Hants., Kent and Yorks.		
Chiffchaff	2	15.09.78	Ashcombe, Lewes (RL)
	v	12.05.79	Knarborough, Yorks., 360km NNW
Willow Warbler	3J	08.07.79	Hunthorpe, Cleveland
	v	18.08.79	Beachy Head 431km SSE
	2	14.08.77	Pett Level, Winchelsea (FRG)
	x	16.05.79	Whitby, N. Yorks. 400km N
	2	30.08.79	Steyning (SRG)
	v	30.08.79	South Shields, Tyne & Wear 457km N
	Warbler recoveries connecting Sussex with NE England are disproportionately frequent—perhaps the distance represents one good night's flight for a small migrant.		
	3	31.07.79	Llangorse Lake, Powys, Wales
	v	11.08.79	Shoreham (JAN) 239km SE
	2	20.08.72	Beachy Head (BHRG)
	x	12.05.79	Barrington, Cambridge 152km N
	The oldest BTO bird ever recorded—14 crossings of the Sahara!		
Goldcrest	2♀	06.10.78	Beachy Head (BHRG)
	v	14.04.79	Edinburgh 610km NNW
Starling	5♂	08.01.76	Plumpton (RIL)
	()	15.10.78	Overijssel, Netherlands
	5♂	20.01.79	Plumpton (RIL)
	v	04.03.79	Plumpton
	x	31.10.79	Netherlands
	2	21.10.76	Beerse (Antwerpen) Belgium
	v	17.02.79	West Worthing (JAN)

Chaffinch
Greenfinch

Linnet

Redpoll

09.10.74 Frisian Islands, Netherlands
23.01.79 East Grinstead (RFS)
28.07.77 Hodcombe (RHC)
27.01.79 Ottery St. Mary, Devon 245km W
Three birds ringed in Herts., Somerset and Essex were controlled at East Grinstead in March 1979. (RFS)
4♀
21.07.77 Pett Level, Winchelsea (FRG)
v 08.04.79 San Sebastian (Guipuzcoa) Spain
25.02.79 Fernhurst (PGD)
06.06.79 Riseley, Beds. 133km N
3♀ 02.11.75 Shoreham-by-Sea (JAN)
24.04.79 Freiston Shore, Boston, Lincs. 240km NNE
x

ADDITION TO THE 1978 REPORT

Among the birds trapped from the flock of 40 or more feeding on Fat Hen at Pett Level towards the end of 1978 were twelve which had already been ringed elsewhere. At most, only three of these controls gave any clues as to natal origins:

3♂ + 3♀ 27.08.78 Bradwell on Sea, Essex
08.11.78 Pett Level, Winchelsea 95km S (RK)
2♂ 20.09.78 Fordwich, Canterbury, Kent
08.11.78 Pett Level 54km SSW (RK)

Of the others, eight birds ringed in Kent (all but one at Dungeness) in the fourth week of October and controlled at Pett in November merely revealed the timing of a strong westerly irruption movement during that autumn, without specifying its source. Three of the birds had consecutive ring numbers and were apparently traveling as a party. The final bird, with a long distance movement to Pett from quite a different direction, provided an intriguing contrast:

2♂ 15.10.78 Cosham Lake, Wilts.
30.11.78 Pett Level 205km ESE (RK)

FERAL MANDARINS IN SUSSEX

By S. W. M. Hughes and D. W. Codd

The Mandarin *Aix galericulata* was imported into Britain from East Asia as early as 1747 and was first bred in captivity in Britain in 1834 (Savage 1952) but it is only in relatively recent times that feral populations have been established. The species gained official admission to the British list in 1971.

Details of successive introductions and the subsequent spread of the Mandarin in Britain, up to 1976, have been described by Lever (1977). Fieldwork carried out during the years 1968-1972 for the B.T.O. Atlas (Sharrock 1976) has shown that the species occurs predominantly in southern England with additional isolated populations in Cheshire and Perth. In most areas local populations are associated with, or largely dependent on waterfowl collections or bird farms. Nevertheless a few populations are truly feral and by far the most important of these is the population centred on the Surrey/East Berkshire border.

By 1932 Mandarins were established in small numbers in Windsor Great Park and nearby Virginia Water. Since then their breeding range has expanded and they now occur west to Swallowfield (Berkshire), east to Esher and Leatherhead (Surrey), north to Maidenhead and Wrayisbury (Buckinghamshire) and south to Ockley on the Surrey/Sussex border (Tomlinson, 1976).

Despite the proximity of this large and long established population it is only in the last decade that the Mandarin has been recorded with any regularity in Sussex. This note describes the establishment in the north of the county of the first truly feral population in Sussex, and records developments elsewhere which may influence the future of the species in the county.

The earliest record that we have of a Mandarin which cannot be traced back as a known escapee from a private wildfowl collection is of a drake at Knepp Castle seen during a routine winter wildfowl count in January, 1965. The origin of this bird can only be a matter of speculation. It is tempting to assume that it had flown in with the flock of c350 Mallard with which it was consorting, perhaps as a result of the more severe weather conditions to the north e.g. in Surrey, but escapees have been shown to be capable of movements of hundreds of miles (Witherby, 1934). The distribution and circumstances of Mandarin records started to change at the end of the 1960s. These are summarised below.

St. Leonard's Forest and District In April 1969 a pair was discovered, near ideal nesting habitat, on a small water in St. Leonard's Forest and on the same day two drakes were found on the lakes at Leonardslee. It should be noted that these records occurred in the same year that the species bred for the first time at Ockley, Surrey, some 12-15 kilometres to the north west of the first Sussex sites. Unfortunately neither of the waters were revisited in 1970, although others in the area were checked, with negative results.

In June 1971 feral breeding was proved for the first time by W. Merritt, at the original water in St. Leonard's Forest. The following year the species was reported from two other waters in the area and breeding was again proven at one of these. Although specific records are not available a few pairs are said to have been established at Leonardslee at about this time i.e., 1972-1973 (Lever, 1977). Regrettably systematic watching in the area was not continued in 1974 and 1975, but casual records suggest that the species was absent from the larger ponds in St. Leonard's Forest but remained at Leonardslee. At the latter site there were 2-3 pairs present in 1976 (one reared 8 young) and 2 pairs in 1977. Also in 1977 breeding was suspected for the first time at Barnhouse Pond where a family party of 5 were seen on the wing in June. An incomplete search in 1978 revealed pairs present on two waters in St. Leonard's Forest but no information is available for Leonardslee. However in 1979 a complete search produced a minimum of 4 pairs in St. Leonard's Forest (one reared 5 young) and 2 pairs at Leonardslee (one reared 4 young).

Outside the breeding season the species does not seem to wander very far. It has been seen occasionally on waters at Slaugham, Buchan Park and once only at Warnham Mill Pond, but for the most part the species flocks on the larger hammer ponds in St. Leonard's Forest, where the numbers reached approximately 25 during the winter of 1979/80.

Central East Sussex Breeding by birds of unknown origin occurred at both Down House farm and Heathfield Park prior to 1972. In that year the species was introduced at Possingworth Park but two pairs were killed by foxes, whilst roosting on the lake shore. A second introduction, comprising 3 pairs was made in 1974 and successful breeding, from nest boxes, was recorded in 1975 (one pair reared 2 young), 1976 and 1977 (2 pairs reared 3 young). Breeding was also reported from Maresfield in 1975 (one pair reared 9 young) and suspected at Newick Place in 1976. Since then there has been further evidence of expansion in the area with successful breeding at Horam in 1978 (one pair reared 2 young) and at Vines Cross in 1979.

Although the Bentley Wildfowl Collection at Halland is nearby it is thought unlikely that free winged birds have been allowed to escape but no information is available for the large private wildfowl collection at Vines Cross, which may assist the survival of the species indirectly with the provision of food. Miscellaneous records outside the breeding season have included single drakes in Sheffield Forest and on Glynde Levels in January 1978, and at Barcombe reservoir throughout the period October-December 1978 and in November 1979.

As yet it is difficult to know whether a fully independent population exists in this area and detailed information will be required over the next few years to establish the exact status.

Miscellaneous Records from other areas A single drake was seen at Weir Wood reservoir in the 1969/70 winter and others have paid brief visits to this water in all but 3 years since, mainly during the winter months, although a female was seen there in

May 1974. The origin of these single birds is unknown but this water is only 7 kilometres from Cophthorne from where the species is being reported with increasing regularity. In October 1973 no less than 7 drakes and 6 ducks were seen at Cophthorne and 2 pairs were reported there again in 1977. Whilst these records suggest an introduction, it is known that these birds were not released from the private wildfowl collection in the area and there remains a distinct possibility that they represent a further expansion by the south east Surrey population on the River Mole, some 5 kilometres to the north west.

Other records include a party of 4 very wild drakes visiting the ponds at Horsted Keynes in December 1974 and 4 birds at Ardingly reservoir in March 1978, a pair of which stayed until May but did not breed. It seems only a matter of time before the species gains a breeding foothold in this part of the county, after which a link up with the population to the west in St. Leonard's Forest and to the south east in central East Sussex seems a real possibility.

Further east a pair, plus 3 additional drakes, were first reported from Eridge Park in April 1975 and there were 4 birds there in February 1976. However these birds do not appear to have survived in the area and in 1977 the group was reduced to a solitary female, which was still there in August 1978. Other records for the east of the county include 2 drakes at Darwell reservoir in November 1978 and one bird at Rye in May 1976. Any information on the possible origin of these birds would be welcome.

In the west there have been occasional records, since 1976, of single birds on several of the waters to the north and west of Petworth. It is highly likely that these birds were introduced to the area, possibly at Lurgashall, although the Surrey population is only 8 kilometres to the north at Haslemere. Elsewhere in West Sussex the pair present on Swanbourne Lake in 1979 is known to have crossed the road from the Wildfowl Trust's enclosures, however the Trust's own records show that a few full winged birds have occasionally visited the Collection. In 1976 a pair was introduced at Storrington but one bird disappeared within a few months and the second after a year. Rather surprisingly we have only one record of the species at Chichester GPs, a single bird present in October 1979.

Discussion A feature of the Mandarin's history in Britain has been the time it has taken to become firmly established as a truly feral species and even now its distribution is extremely limited. This has been due to its rather special habitat requirements and to its generally sedentary behaviour.

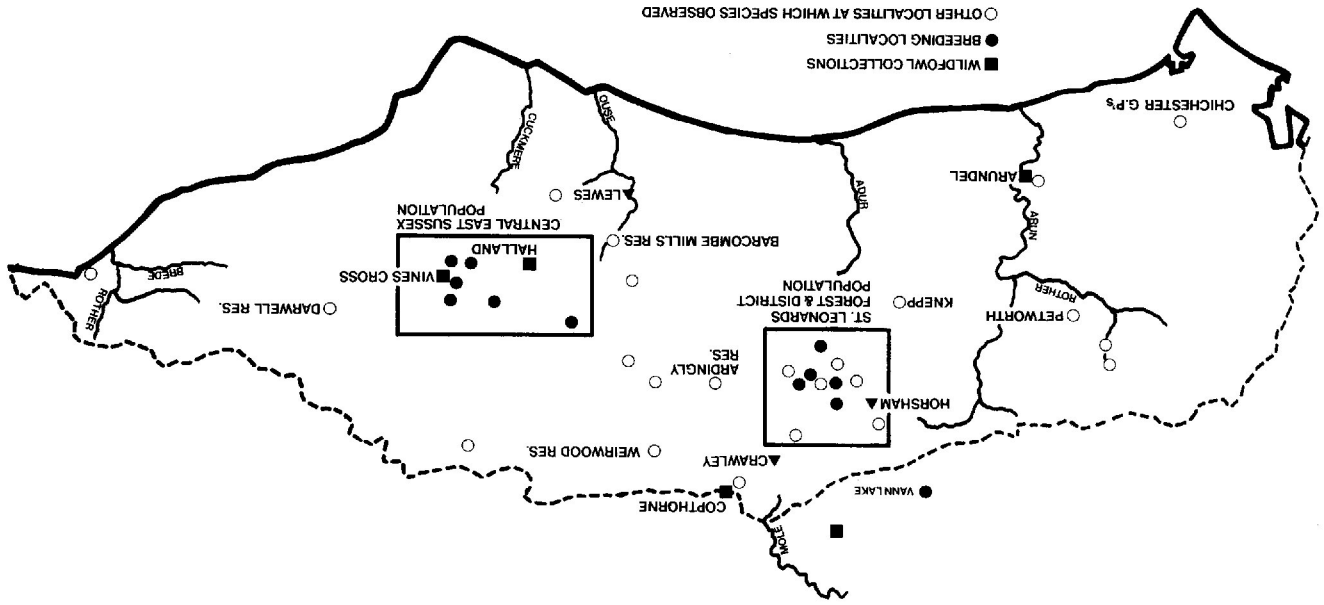
The species differs from our native breeding ducks by being more arboreal often perching on branches or on shrubs and invariably nesting in holes in trees. Its preferred habitat is mature open deciduous woodland containing secluded slow flowing streams or larger waters, particularly if these are fringed by dense overhanging shrubs providing cover down to water level. Oak, Beech and Sweet Chestnut trees are required to provide acorns, mast and nuts which are its staple winter foods. In summer insects and amphibians are taken and it is particularly fond of the water plant *Polygonum amphibium*.

Suitable habitat exists in several areas in the Sussex Weald, particularly in those wooded areas with small waters formerly associated with the Sussex Iron industry. The population in the St. Leonard's Forest district can be considered to be truly feral whilst the second population, in central East Sussex, may not yet have reached that status. There is a possibility of a third population developing in the East Grinstead area which might eventually link the other two populations. Elsewhere in the county habitat is less suitable and the spread of the species will almost entirely depend on introductions backed up by the provision of artificial nest sites and food.

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DISTRIBUTION OF THE MANDARIN IN SUSSEX



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Summary

The establishment of a feral population of Mandarins *Aix galericulata* in the St. Leonard's Forest district of West Sussex is described. The annual breeding season population has varied from 3 to 6 pairs and successful breeding by 1-2 pairs has been recorded in 6 of the 10 years since the species was first recorded there in 1969. A second population, in central East Sussex, is also described. This may not be self supporting and its current status requires clarification. The possibility of a third population becoming established in the Cophorne area and then merging with the other populations is foreseen. Elsewhere the lack of suitable habitat may become a constraint and the continued expansion of the range of the species in Sussex is likely to depend on new introductions and continuing support in the form of the provision of artificial nest sites and food.

FURTHER NIGHTJAR MONITORING

By J. W. Houghton

The breeding survey in 1977 (Hughes, Houghton and Blake Sx. B.R. 30:68) confirmed the national importance of Sussex for the Nightjar and concluded that, despite annual fluctuations, the species was continuing to decline. Apart from some local changes in habitat no specific reasons could be suggested for the long term decrease. It was decided, therefore, that in following years, subject to the availability of observers, important sites should be monitored annually in an attempt to pinpoint fluctuations as they occur, as this might yield clues to help explain the continuing decline.

From May to August, 1979, 40 sites or major areas (30 in West Sussex and 10 in East Sussex) were revisited and the results and comparisons with the same sites in 1977 are in the Table below:

Table: Nightjar Breeding Habitats in East and West Sussex and Numbers of Occupied Territories 1979 (1977 in brackets).

Habitat	Commons and Heathland	Chestnut Coppice	Conifers	Recently Felled Area	Open Woodland	Misc.	Total
EAST SUSSEX	20 (10)	1 (1)	8 (8)	- (1)	1 (0)	1 (0)	31* (20*)
WEST SUSSEX	26 (39)	7 (6)	23 (42)	3 (2)	8 (7)	4 (8)	71 (104)
Totals	46 (49)	8 (7)	31 (50)	3 (3)	9 (7)	5 (8)	102 (124)

*includes one pair not included in the 1977 census; subsequently reported.

A further 13 (10 East Sussex, 3 West Sussex) potential or pre-1977 breeding areas were visited but no birds were present. While only one Nightjar was found in a new area in West Sussex, and this in September, which more than likely related to a bird in passage, four singles were found during part of the season in districts in East Sussex where they were absent during the 1977 census.

The 1977 census was undertaken during a poor summer and conditions in 1979 were even less favourable.

Figures for 1979 suggest a further general decline particularly in West Sussex in heathland/common and conifer plantation habitats. Some common heathland districts suffered a fall of more than 50% and, apart from three successive cold summers, there is no obvious explanation to account for the decline such as there is with conifer habitats where many are now becoming too advanced for Nightjars.

Superficially, the East Sussex figures suggest an increase, but the 1979 Ashdown Forest numbers distort the picture. The figures for the Ashdown district for 1977/78 and 79 are 13, 16 and 22 churring males or pairs respectively, and although there is only one complete count for this area prior to 1977 it is apparent even from the Society's incomplete records that Nightjar numbers on Ashdown Forest during 1979 were higher than for many years previously. An explanation for this recent increase is probably that the 1977 figures were unduly low due to the destruction of several sites by the extensive fires in the hot, dry summers of 1975/76. Many of these sites have since recovered and the Ashdown district with its predominantly heathland habitat is now the most important area for Nightjars in the whole county.

Elsewhere in East Sussex the four "gains" have to be measured against the loss of two pairs in TQ62 and one in TQ53, but three of the "gains" relate to birds that were present for part of the season at least in the north-east of the county, on the Forest Ridge towards the Kent boundary, where they were conspicuously absent during the 1977 survey. In the 1960's this general area, which comprises open woodland, replanted conifers and scrubland contained at least 14 pairs.

There was only one record from suitable sites in the extreme south east squares TQ61, TQ71 and TQ81 in 1979, and this related to two churring males. Breeding was subsequently proved but as the area was not fully covered these records have been omitted from the Table.

The selected survey will continue during 1980 and a national census is to be undertaken in the following year. Members who are willing to take part during 1981 are asked to contact me.

I am obliged to the following members who assisted with the monitoring during 1979 and thank them sincerely for devoting further time to the study.

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WINTER BLACKCAPS IN SUSSEX—A REVIEW OF RECENT RECORDS

By S. W. M. Hughes

Winter sightings of Blackcaps *Sylvia atricapilla* are now regular in many parts of Britain and appear to be increasing (Sharrock, 1976). This paper, which reviews the winter status of the species in Sussex, is based on casual sightings reported to the Sussex Ornithological Society since the winter of 1947-48, and includes the results of the enquiry sponsored by the British Trust for Ornithology during the winter of 1978-79.

A few early migrant Blackcaps arrive in Sussex at the end of March but in some years immigration is not detected until mid-April (des Forges, 1963). However, as the species is now known to overwinter (Stafford, 1956), it is not possible to differentiate between early migrants and birds that have overwintered. Similar considerations also apply at the end of the year. British breeders generally leave our shores in late August and September (Williamson and Whitehead, 1963; Davis, 1967) and Beachy Head has been shown to be an important departure point for this population (Quinn and Clement, 1972). There is a marked autumn passage of other European populations at east coast bird observatories, from mid-September to mid-

November, and at south and west coast observatories from early October (Davis, 1967). In recent years the numbers of migrants have risen sharply (Langslow, 1978) and it is probable that many of the birds overwintering in Britain are from continental Europe (Langslow, 1979). For the purpose of this study an arbitrary decision has been made to review all Sussex records for the period 1st November-31st March.

Annual Winter Totals

Reports involving 248 birds have been received during the 32 winters under review. Of these, 71 were during the 1978-79 winter. The number for each winter is shown in figure 1, from which it can be seen that the species has been reported in all but four winters. The number for 1978-79 has been illustrated in a different manner to the remainder, to emphasise that it has been obtained as part of a widely publicised national enquiry and is not comparable with the data given for the previous winters, which result from spontaneous reporting by a few interested observers.

Despite the considerable variations, the overall trend is of increasing numbers, but deductions concerning the rate and timing of the increase are less reliable as the figures may, to some extent, reflect the increasing number of observers in Sussex during the 1970's. The full impact of active observer participation is clear from a comparison of the figures for the consecutive winters of 1977-78 and 1978-79.

Gladwin (1970) suggested that the winter of 1969-70 was particularly good for Blackcaps. This cannot be detected in the Sussex records, whereas the numbers reported in Sussex in the winters of 1959-60 and 1974-75 were outstanding and suggest that these might have been exceptional. Analyses have failed to show a correlation between the numbers seen inland, or the total numbers, and the severity of the winters.

Distribution of Records

The geographical distribution of winter records is shown in figures 2a and 2b. From these and the data given in table 1 it is clear that the majority (c. 78%) of the birds seen in Sussex have been either at the coast or less than 6 miles inland. An intriguing aspect of the data for 1978-79 is that a higher percentage of the records came from the interior than might have been expected from casual observations made in previous winters. It is tempting to assume that wintering Blackcaps would tend to be found mainly at the coast, taking advantage of the more temperate climate. There is, however, a possibility that the distribution map merely reflects the distribution of the observers and that in earlier years the species has been under-recorded inland.

Weekly Numbers

It is difficult to establish whether birds seen in a specific locality are wintering there or merely passing through locally in response to weather conditions. In an attempt to obtain more information on this aspect all available records have been analysed to determine the number of birds present, per 7 day period, throughout the winter months; a 7 day period was chosen to overcome possible bias due to weekend observations.

The results (figure 3) suggest little variation in the total number of birds reported at the beginning and end of winter. In November the majority are reported from coastal localities, many having been seen in the area between Brighton and Eastbourne, in what might be regarded as typical migrant circumstances. In December, the overall numbers appear to be slightly lower and this may be due to further emigration or some dispersal of immigrants into the surrounding countryside. In January and February numbers peak and almost all the reports are from gardens. If it is assumed that observers' garden watching habits remain unchanged during the winter it can be concluded that at this time of year the species becomes increasingly dependent on the garden habitat, presumably as food supplies in open country areas become depleted. From mid-March the situation is reversed and an increasing number of records are again away from gardens, although garden

feeding continues to a lesser extent throughout the month and often well into April.

Of the 248 birds reported 49 remained in the locality concerned for more than one day. Of these, 25 were resident for periods of up to 10 days; 12 for 11-20 days and 5 for periods between 21 and 30 days. In addition there were 7 records of more than 40 days, viz. 43 days at Sompting in January-February 1979; 56 at Findon in January-March 1979; 59 at Itchenor in January-February 1969; 61 at Pebsham in November-December 1979 and in Westdeine in January-March 1975 and more than 90 in Bognor and Crowborough between December 1978 and March 1979.

Sex ratios and Parties

The sex has been given for 223 of the 248 birds reported as follows: 142 ♂ (63%) 81 ♀ (37%). Similar percentages were reported nationally by Stafford (1956)—65% ♂ and 35% ♀ —and Gladwin (1970) has also reported a preponderance of males. Stafford and Gladwin both made detailed analyses on a regional basis. Stafford found a definite preponderance of females in Scotland and Northern England with the ratios becoming more even as one moved south, until on the south coast there was a preponderance of males. Gladwin showed the reverse in northern counties i.e. a 6:1 preponderance of males but in southern and south western England the ratio dropped to 1.2:1. Clearly it is impossible to draw any definite conclusions from these figures, particularly as in the first national study numbers were very low and there must always be a strong possibility of observer bias towards the more conspicuous males.

Stafford received 6 records of pairs being seen together, and Gladwin had 47 in 1969-70. The cumulative records for Sussex contain 18 pairs being seen for periods of 1 to 15 days. Of these 8 were reported in 1978-79. Although this point seems to have been emphasised in literature, it should be considered in relation to other sightings of more than one bird. The Sussex records include a party of 5 (sex not stated) in close proximity at Ditchling in 1959, 3 at Shoreham in 1975, 2 ♂ and 1 ♀ at Beachy Head in 1971, and 8 records of 2 ♂ and two of 2 ♀ together. Similarly the national literature includes records of 3 ♂ and 1 ♀ in Lancashire in 1959-60 (Carah, 1961), a group of 3 birds at Llandudno and up to 7 at Tring (Hardy, 1978).

Garden observations on food and behaviour

The first Sussex report of a Blackcap feeding on a bird table came from Alfriston in January 1967, however it is possible that this kind of detail was missing from earlier records and subsequent ones. During the 1978-79 enquiry special emphasis was placed on the collection of feeding information and figure 4 shows the totals seen in gardens and the numbers using bird tables each week during the 1978-79 winter. It will be seen that, although dependent on gardens in the late winter, the species is still a relatively rare visitor to bird tables. However, garden observations have shown that it is very quick to supplement its winter diet of fruits and berries with a large variety of artificial foodstuffs normally provided for other species. Details of natural and artificial foods taken have been published elsewhere (Gladwin 1969, Hardy 1978, Hughes [in press] and Stafford 1956).

Several observers have commented that the species was often skulking and very timid but became much more approachable and almost tame in severe weather. Individual birds were seen to watch other species feeding on artificial foods and using bird tables, often over long periods, before participating themselves. At Findon one fed regularly from a table, less than three feet from a window, for 9 weeks. Blackcaps often arrived in gardens with other species e.g. Blue tit and Chaffinch. In general, they were not considered to be aggressive to other species unless attacked themselves. Species reported attacking Blackcaps have included Blackbird, Mistle Thrush, Starling and Robin; the attacks of the latter were frequently withstood. Blackcaps were seen to be aggressive to Blue tit, Greenfinch, Chaffinch, Dunnock and House Sparrow. One aggressive bird, which was overawed by Blackbirds, Starlings and Collared Doves eventually learned to feed with these species during periods of severe weather. Again during bad weather, a female Blackcap was seen to be very aggressive to a male of the same species.

Discussion

During the 1950's Blackcaps were reported wintering in Sussex almost annually but the reports involved less than 5 birds each year. The winter of 1959-60 produced an unprecedented number of reports (9) and thereafter the annual number of reports was consistently higher in the 1960's. As in many other counties there was a further dramatic increase in reports during the 1970's. It has been suggested that the size of the winter population in Britain is related to the size of the autumn movements seen on the east coast, and ringing results have also shown wintering birds to be of continental origin. Furthermore in Jersey and Ireland it has shown that birds, which have overwintered successfully, may return in succeeding winters to the same areas. Although no ringing returns are available for Sussex, these findings are supported by circumstantial evidence of birds being reported from the same location (figure 2b), in successive years.

Winter survival has been attributed to the mild winters of the mid-60's and early 70's, but it should be noted that the species does not seem to have suffered a setback as a result of the more severe conditions of the 1977/78 and 1978/79 winters. Langslow (1979) has suggested that the most critical factor for survival is likely to be food, rather than extremes of weather, and in this respect the species has already shown itself to be highly adaptable.

It will be instructive to continue monitoring this new development and all sightings of winter Blackcaps should still be reported. The dependence on artificial foods in severe weather has added a new dimension to garden bird watching and details of foods taken will be particularly welcome.

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Summary

An analysis of winter records of Blackcaps *Sylvia atricapilla* in Sussex has shown that birds were first reported overwintering in the county in 1947-48 and this continued in the 1950's. There was a modest increase in winter records during the 1960's followed by a dramatic increase in the 1970's. Most birds are recorded at the coast or within 6 miles of it, although reports from the interior are now becoming more frequent.

Weekly figures suggest that total numbers in the county remain fairly constant throughout the winter. There is some local movement to sheltered areas as the winter progresses. In severe weather the species appears to be very dependent on gardens where it feeds on fruits and berries, as well as taking advantage of a large variety of artificial foods provided by man.

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Table 1. Winter Blackcaps—distance of sightings from Sussex coast

Years	MILES FROM NEAREST COAST					
	0-5	6-10	11-15	16-20	21-25	
1947-48 to 1977-78	144	18	9	5	1	
1978-1979	49	7	4	11	2	
Total	193	25	13	16	3	

Fig. 2a. Distribution of Winter Blackcaps in Sussex (showing number of records from each locality)

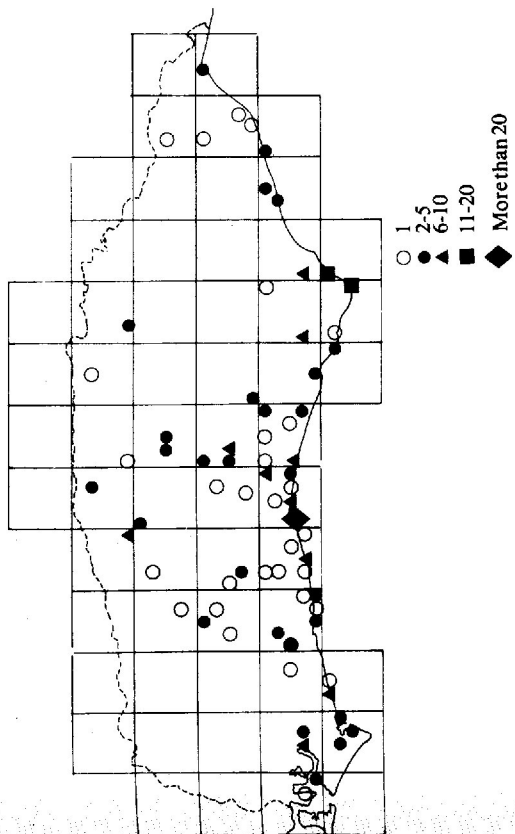


Fig. 2b. Distribution of Blackcaps in Sussex (showing number of winters in which the species has been recorded from each locality)

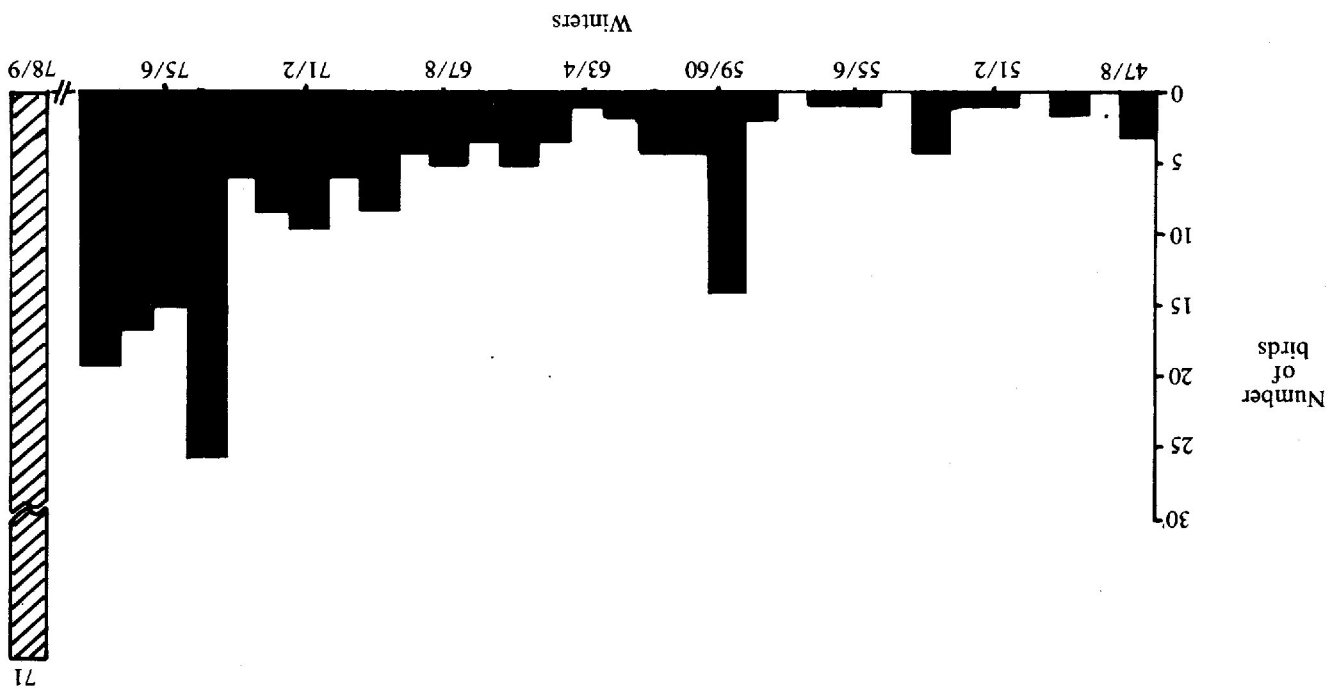
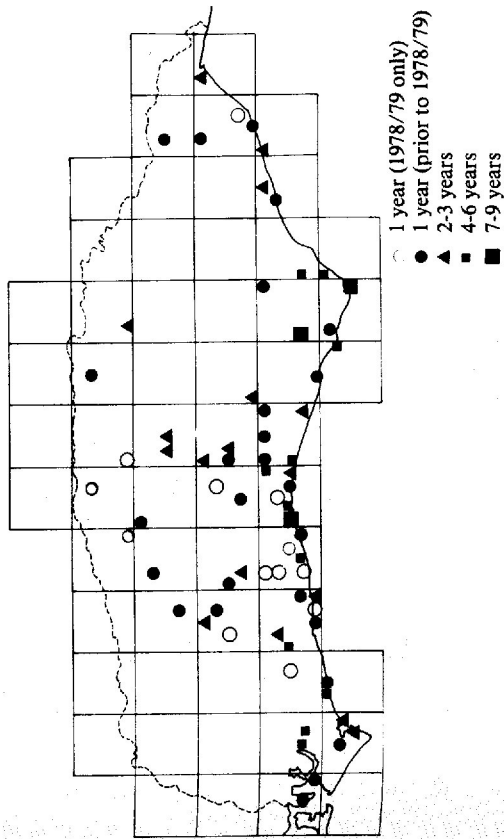


Fig. 1. Winter Blackcaps in Sussex—Annual Totals

UNUSUAL RECORDS

All records of unusual species are considered by the Records Committee and it may be assumed that those published have been fully authenticated. Such reports should be submitted on separate sheets or on special forms available from the Recorder. Reports on rarities as defined by "British Birds" should be submitted on, or in the same format as, the forms obtainable from the Secretary to the "Rarities Committee". The following list embodies those unusual species in Sussex for which descriptions are normally required. The Recorder may seek supportive evidence in the case of other species occurring under unusual circumstances. This list is not exclusive and any observer in doubt or needing advice on any species should send details accordingly:

- | | |
|--|--|
| Divers (except Red- and Black-throated on the coast) | Dotterel |
| Grebes (other than Great Crested and Little) | Temminck's Stint |
| Shearwaters | Pectoral Sandpiper |
| Storm and Leach's Petrels | Phalaropes |
| Shag | Pomarine Skua |
| Bittern | Mediterranean and Sabine's Gulls |
| Spoonbill | Iceland and Glaucous Gulls |
| Bewick Swan (other than at Amberley Wild Brooks) | Roseate Tern |
| Whooper Swan | Black Guillemot |
| Bean and Pink-footed Geese | Little Auk |
| Red-crested Pochard | Puffin |
| Long-tailed Duck | Woodlark and Shore Lark |
| Honey Buzzard | Waxwing |
| Red Kite | Dipper |
| Marsh and Montague's Harriers | Bluethroat |
| Goshawk | Warblers: Cetti's, Marsh, Icterine, Melodious, Barred, Yellow-browed |
| Rough-legged Buzzard | Red-breasted Flycatcher |
| Osprey | Golden Oriole |
| Ferret | Red-backed Shrike (non-adult) |
| Quail | Raven |
| Spotted Crane | Crossbill |
| Corncrake | Lapland and Ortolan Bunting |
| Stone-curlew | |
| Kentish Plover | |

In addition: all unusual races of Yellow Wagtail and Rock Pipit

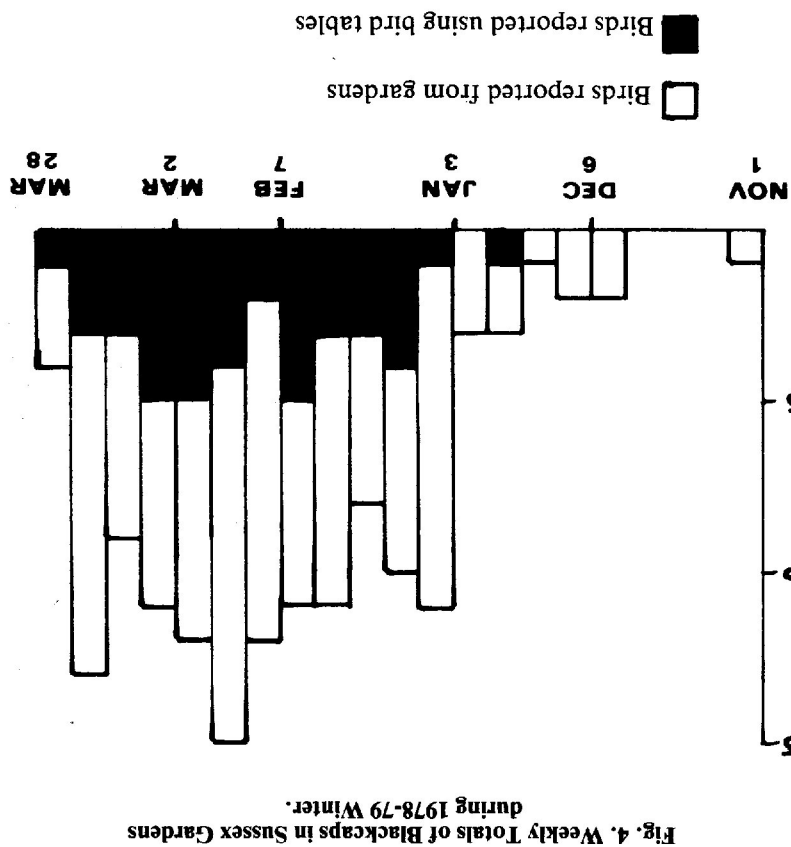


Fig. 4. Weekly Totals of Blackcaps in Sussex Gardens during 1978-79 Winter.

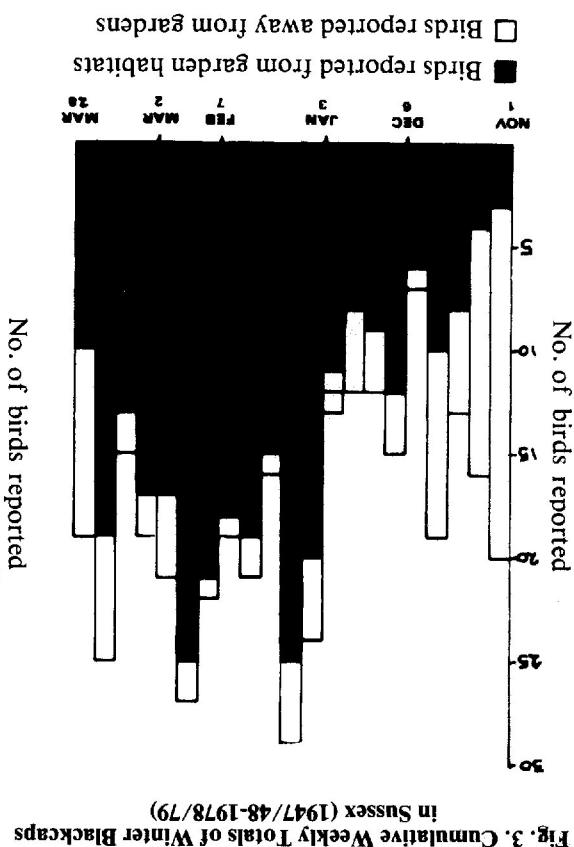


Fig. 3. Cumulative Weekly Totals of Winter Blackcaps in Sussex (1947/48-1978/79)