SCOTTISH BIRDS



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Editor D. J. Bates

Business Editor Major A. D. Peirse-Duncombe



SCOTTISH NEWS

OIL POLLUTION

Oil spill problems remain very much to the fore with the Ekofisk blowout dominating the picture this Spring. Kevin Standring, our Conservation Planning Officer, was able to get out in a boat to the scene of this disaster soon after it occurred. His observations in the area of the oilfield showed that fortunately few birds were present at that time of year, mostly gulls and fulmars. Of those seen only 3% were oiled and none seriously. Five days after the well was capped the oil slicks had largely dispersed and were no longer lethal to seabirds.

This incident has highlighted the dangers arising from a proposed oilfield much closer to the Scottish coast. This is the field discovered by the Mesa Group in the Moray Firth within 15 miles of the hugh seabird colonies on the east Caithness coast. Our research this summer suggests that these colonies are possibly the biggest on the mainland of Britain and obviously terribly vulnerable to any oil spills, let alone a blow-out, so close to the cliffs.

OSPREYS

At the time of writing the ospreys at Loch Garten are feeding two young and prospects look good. Elsewhere it has been a disappointing year, perhaps because of the late spring, and it looks as though no more than six pairs will breed successfully.

FILM SHOW

The new programme of RSPB films will be shown throughout Scotland this winter. This features a major film on the Hebrides together with films about reserves and southern heathland, Venues up to Christmas are: Dumfries (18 Oct), Ayr (19 Oct), Ardrossan (20 Oct), Kirkcaldy (25 Oct), Eastwood, Glasgow (31 Oct), Edinburgh (3 Nov), Milngavie (8 Nov), Hamilton (10 Nov), Perth (14 Nov), Greenock (15 Nov), Paisley (16 Nov), Aboyne (14 Dec).

RESEARCH

The two-year research project in Orkney has continued with detailed monitoring of the important seabird colonies and exhaustive beached bird surveys helping to provide valuable information in a very vulnerable area. In the Highlands the breeding success of blackthroated divers has been assessed to see if these sensitive birds are being unduly disturbed. Volunteers wishing to help with the Beached Bird Survey are needed this winter and should write to the address below.

> Enquiries and donations to THE ROYAL SOCIETY FOR THE PROTECTION OF BIRDS 17 Regent Terrace, Edinburgh, EH7 5BN 031-556 5624/9042

SCOTTISH BIRDS

THE JOURNAL OF THE SCOTTISH ORNITHOLOGISTS' CLUB



Volume 9 No. 7

Autumn 1977

Edited by D. J. Bates

Editorial

Ross's Gull The paper in this issue on Ross's Gulls in Britain is of great interest to Scottish ornithology but the accompanying plates on their Siberian breeding grounds deserve special comment. They were photographed by a Soviet naturalist and given to A. J. Prater of the BTO with full permission to publish them abroad. Since the legality of this transaction may be somewhat dubious in Soviet eyes, the photographer must regrettably remain anonymous, for the time being at least. As far as we know these are the first photographs of breeding Ross's Gulls to be published anywhere and we are grateful for the unique opportunity of presenting them here.

An endemic Scottish bird? Before it was merged with the Willow Grouse Lagopus lagopus, the Red Grouse L. l. scoticus was affectionately regarded as a species peculiar to the British Isles. But instead it seems we may have a species endemic to Scotland itself. In his "List of recent Holarctic bird species" (1977 Ibis 119: 390) Prof. K. H. Voous gives full species status to "L[oxia] scotica Hartert. Scottish Crossbill or Scottish Pine Crossbill." By recognizing the Scottish Crossbill as a species, distinct from the common Crossbill and Parrot Crossbill, Prof. Voous follows the proposals of SOC member A. G. Knox in Pine Crossbills (Nethersole-Thompson 1975, pp. 191-201) and Bulletin of the British Ornithologists' Club (1976, 96: 15-19).

To many, this news will bring a gratuitous addition to their life list, but for the sake of stability and convenience our more conservative editorial policy must be to continue treating the Scottish Crossbill as a race of the common Crossbill. If, however, its unique status gains widespread acceptance, we wonder if the Crested Tit will be ousted from its position as the Scottish bird.

Mrs Irene Waterston

Irene Waterston retired from the staff of the SOC on 4th August 1977, after many years dedicated to the club and its members. She joined the SOC in 1949 as Miss M. I. Kinnear. After moving from Glasgow to the east of Scotland she became secretary of the Edinburgh branch, a position she held from 1954 to 1959, when, shortly after becoming Mrs George Waterston, she was appointed first full-time secretary of the club.

George had been secretary of the SOC from the beginning in 1936, but in 1959 he became the RSPB's full-time representative in Scotland and decided he could not continue as secretary. The council agreed that, with the growth in membership, and the opening of the Scottish Centre for Ornithology and Bird Protection, the considerable increase in secretarial work required a full-time secretary. Irene was chosen and took up her duties on 1st April 1959, giving a happy link with the retiring secretary. Living right over the shop she soon found her life inextricably and continuously tied up with her work.

Irene brought to the club her very considerable administrative skills, and when in 1963 the SOC received the go-ahead to start a bird bookshop she ably organized the work of running it and taking books to many conferences. Its growth and international recognition, and its great value to the club, reflect her groundwork at the start of this venture.

As well as organizing the bookshop Irene was responsible for the winter programme of lectures given at all branches, and for the administrative work that ensured the success of our annual conferences. She looked after the club's expanding reference library, and through each winter opened the room for evening meetings of various groups. And of course she and George were always on hand to receive and entertain visiting birdwatchers from all over the world. In 1966 she brought all her energies and skill to bear as secretary of the committee set up by the club to run the Scottish Bird Islands Study Cruise. As summed up at the time in *BTO News*, one of the reasons for the outstanding success of the cruise was "the hours, days and months of work and careful planning by the cruise committee—above all by Irene Waterston".

In March 1969 Irene handed over the secretaryship of the club to Alastair Peirse-Duncombe; in October 1973 Harry Greig took over the bookshop, now managed by David Bates; and in August this year she formally retired from the staff, although she continues as librarian, with the help of Daphne Peirse-Duncombe, until a successor can be found. During those 18 years Irene devoted herself to the service of the club. The growth of the bookshop and upkeep of the library, the lectures, meetings and conferences she organized, all reflect the very high standards she maintained. The debt owed by the club is a large one, and as a token of esteem and gratitude the council has unanimously elected Irene an honorary member of the SOC. In addition, many members have contributed to a present to be handed over in the autumn. We send her our very best wishes and look forward to seeing her at SOC functions and conferences for many years to come.

ANDREW T. MACMILLAN, President.

Rookeries in Scotland - 1975

M. E. CASTLE

(Plate 32a)

Introduction

Early Rook censuses in Scotland were done in 1875-87 and 1921-9, followed by a major investigation in 1944-6 (Anon. 1948-9). The organizer, the late James Fisher, concluded that in Great Britain there were about 3,000,000 Rooks, with an estimate of 750,000 in Scotland (Nicholson 1951). The accuracy of the 1875-87 figures is unknown but it was felt that the population was increasing in Scotland up to 1944-6. Since then there have been local censuses (e.g. Walls 1956, Castle 1968, Cowper 1964, Dunnet and Patterson 1965). In 1975, a survey of rookeries in Scotland was conducted as part of the BTO survey of Great Britain. The main object was to record the location and size of all rookeries in Scotland and thus form a baseline against which future changes in population and distribution could be measured. Changes in populations since earlier censuses could be made also (Mitchell 1976).

Methods

The survey was conducted by local organizers, each responsible for one of 40 areas. Record cards, one per ten-kilometre square, provided space for the six-figure map reference of each rookery, the locality, the number of nests, the altitude of the rookery, the type of tree and the date. It was requested that the survey should be made in late spring before the leaves were out. Areas missed in 1975 were covered in 1976. A rookery was defined as a group of nests, including single nests, 100 metres (109 yards) or more from the next nearest group of nests.

Density

The number of rookeries and nests in each county is presented in table 1 using the regional grouping of the Department of Agriculture and Fisheries for Scotland (Anon. 1975). Including estimates for fifteen unrecorded squares, the total number of rookeries was 3,197, containing 252,339 nests. Aberdeen had the largest number of rookeries and nests, and Shetland the smallest.

		Numbe	r of	Nests	per
	County	Rookeries	Nests	Rookery	\mathbf{km}^2
Highla	nd				
	Argyll Inverness Ross & Cromarty Sutherland Shetland	78 59 95 30 2	3217 4445 8599 2055 110	41.2 75.3 90.5 68.5 55.0	$\begin{array}{c} 0.40 \\ 0.41 \\ 1.07 \\ 0.39 \\ 0.08 \end{array}$
North			40050	100 0	9.72
	Aberdeen Banff Caithness Kincardine Moray Nairn Orkney	359 103 48 65 77 21 15	49650 14117 6124 3707 7389 1993 957	138.3 137.1 127.6 57.0 96.0 94.9 63.8	9.72 8.66 3.45 3.75 5.99 4.72 0.98
East (Central				0.70
	Angus Clackmannan Fife Kinross Perth	134 15 149 35 147	8424 545 7400 1511 6778	62.9 36.3 49.7 43.2 46.1	3.72 3.85 5.66 7.13 1.05
South	East				= 0.4
	Berwick East Lothian Midlothian Peebles Roxburgh Selkirk West Lothian	123 48 99 49 127 43 47	8336 3487 4903 4870 8174 2557 2902	67.8 72.6 49.5 99.4 64.4 59.5 61.7	7.04 5.04 5.17 5.41 4.75 3.69 9.33
South	West				C C0
	Ayr Bute Dumfries Dumbarton Kirkcudbright Lanark Renfrew Stirling Wigtown	246 26 280 72 155 155 154 64 113 119	19360 803 21869 2807 12301 13252 3481 5637 10579	78.7 30.9 78.1 39.0 79.4 86.0 54.4 49.9 88.9	6.60 1.42 7.85 4.49 5.30 5.70 5.98 4.83 8.38
Total	and mean	3197	252339	78. 9	3.26

Table 1. Number and density of rookeries and nests

The density of nests per square kilometre (table 1) was calculated from the total area of each county, and Aberdeen, with 9.72 nests/km², had the highest density. West Lothian, Banff, Wigtown and Dumfries all had high densities of nests, whereas Shetland, Sutherland, Argyll and Inverness had low densities with fewer than 0.5 nests/km². The highest density in a 10 km square was 63.3 nests/km² in NJ 93, in Aberdeenshire north of Ellon. The next highest densities were in NJ 73, also in Aberdeen, and NY 17 in Dumfries, with values of 37.9 and 31.5 nests/km² respectively. A large number of squares in counties including Ross and Cromarty, Argyll and Inverness contained no rookeries and these squares are indicated clearly in *The Atlas* (Sharrock 1976). The mean density of nests in Scotland was 3.26/km² (table 1).

The mean number of nests per rookery was 78.9 with a range from a mean of 138.3 nests in Aberdeen to 30.9 nests in Bute (table 1). Banff and Caithness had high values with 137.1 and 127.6 nests/rookery respectively. The average number of nests per rookery in Scotland is considerably larger than the mean value for some areas in England. Hertfordshire had a mean rookery size of 31 nests in 1960-61 (Sage and Nau 1963) and in Suffolk the number of nests per rookery was only 17.1 in 1975 (Jeanes and Snook 1976). There is evidence that the mean size of rookeries is declining (Castle 1968, Sage and Nau 1963) but it would seem that in Scotland the mean size of rookeries is still high.

The rookeries on islands have been included in the appropriate county in table 1 but more details are as follows. In Shetland the two rookeries were on Mainland, and in Orkney on Hoy, Rousay and Mainland. Lewis had four near Stornoway, containing 212 nests, but Harris, Barra and the Uists had none. Skye had twelve, with 423 nests in seven squares. Rhum, Eigg, Tiree, Coll and Colonsay had none but Islay had five, with a total of 98 nests, and Jura one rookery with 15 nests. Mull had two and Iona one; Lismore Island, Bute and Great Cumbrae had rookeries but none was found on Arran.

Rookery size

Further details of the sizes of rookeries are given in table 2. The small difference between the totals in tables 1 and 2 is due to the inclusion of the estimated values in table 1. Rookeries of up to 25 nests were the most frequent and constituted 33.8% of the total number of rookeries but contained only 5.2% of nests. A similar pattern was seen with rookeries containing up to 100 nests comprising 75.8% of rookeries but only 34.2% of nests. The larger rookeries containing more than 300 nests

	Number of	rookeries	Number	of nests
Number of nests	in each	% of	in each	% of
in rookery	group	total	group	total
1-25	1062	33.8	12807	5.2
26-50	640	20.3	23496	9.4
51-100	684	21.7	48773	19.6
101-200	474	15.1	65157	26.2
201-300	159	5.1	38951	15.7
301-400	70	2.2	24724	9.9
401-500	21	0.7	8790	3.5
over 500	36	1.1	26037	10.5
Tota	al 3146	100.0	248735	100.0

Table 2. Distribution of rookeries by size

accounted for only 4.0% of rookeries but 23.9% of nests. Of the 36 rookeries with over 500 nests, 24 were in Aberdeen and Banff, with the others scattered from Dumfries to Ross and Cromarty. The largest was at Arnage Castle, Aberdeen (NJ 93) and contained 2,087 nests. Two others had over 1,000 nests, and the mean number of nests in the 36 largest rookeries was 723 per rookery. The mean altitude of these 36 largest rookeries was 370 feet (113 m) above sea level, with a range from 100-700 feet (30-213 m).

The distribution of rookeries according to size varied widely in the different counties. Rookeries with 1-25 nests were less than 20% of the total number in Inverness, Moray and Nairn, but over 50% in Argyll, Shetland, Fife, Kinross, Perth, Bute and Dumbarton. At the other end of the scale, rookeries with more than 300 nests comprised 10.7, 13.1 and 18.9% of all rookeries in Banff, Aberdeen and Caithness and contained 44.7, 47.7 and 57.2% of all nests respectively.

Altitude

The distribution of rookeries and nests according to altitude (table 3) shows a progressive decline in numbers with increasing altitude. At heights up to 100 ft (30 m) above sea level there were 26.2% and 20.8% of the total number of rookeries and nests respectively, whereas above 300 ft (91 m) the proportion of both rookeries and nests decreased rapidly.

Wide variations in the distribution according to altitude were recorded in the different counties. No rookeries were found below 400 ft (122 m) in Peebles and Selkirk whereas in Bute, Nairn and Sutherland over 80% of nests were at altitudes less than 100 ft (30 m). In Lanark 78% of all nests were over 500 ft (152 m). The mean altitude of all nests per county showed that Selkirk and Peebles had the highest values of

Altitude	Number of rookeries		Number of nests		
(feet above	in each	% of	in each	∑ of	
sea level)	group	total	group	total	
0-100 (0- 30m)	822	26.2	51419	20.8	
101-200 (31- 61m)	609	19.4	47605	19.2	
201-300 (62- 91m)	540	17.2	43802	17.7	
301-400 (92-122m)	361	11.4	32297	13.1	
401-500 (123-152m)	282	9.0	21889	8.8	
501-600 (153-183m)	195	6.2	18086	7.3	
601-700 (184-213m)	144	4.6	14725	6.0	
over 700 (213m)	190	6.0	17654	7.1	
				100.0	
Total	3143	100.0	247077	100.0	

Table 3. Distribution of rookeries by altitude

760 ft (232 m) and 720 ft (220 m) respectively). At the other extreme, Bute, Orkney and Sutherland had values of 60 ft (18 m), 70 ft (21 m) and 90 ft (27 m). Seventeen rookeries were at 1,000 ft (305 m) and above, and these had an average of 73.7 nests/rookery and were situated in Aberdeen, Banff, Berwick, Midlothian and Peebles. The highest rookeries were at 1,175 ft (358 m) in NT 75 in Berwick and Midlothian, and at 1,150 ft (351 m) in NJ 22 in Banff.

Species of tree

The number of nests in the various species of tree was recorded for 78% of all nests and the results are summarized in table 4. Scots Pine Pinus sylvestris was the most frequently used and held 51.5% of all nests. Beech Fagus sylvatica and Sycamore Acer pseudoplatanus were next and in ten counties were used more than Scots Pine. Other species used were Oak Quercus robur, Elm Ulmus procera, Ash Fraxinus excelsior, Spruce Picea abies, Larch Larix decidua, Silver Fir Abies alba, Douglas Fir Pseudotsuga taxifolia, Corsican Pine Pinus nigra var. calabrica, Chile Pine Araucaria araucana, White and Black Poplar Populus alba and nigra, Rowan Sorbus aucuparia, Holly

Table 4. Distribution of nests according to tree species

Tree species	Number of nests	% of total
Scots Pine	101844	51.5
Other conifers	8133	4.1
Beech	37571	19.0
Sycamore	23174	11.7
Oak	8725	4.4
Common Elm	8186	4.1
Ash	5735	2.9
Other deciduous	4478	2.3
Total	197846	100.0

Ilex aquifolium, Hornbeam Carpinus betulus, Wych Elm Ulmus glabra, Plane Platanus acerifolia, Hawthorn Crataegus monogyna, and Salix and Prunus spp. In Moray, Nairn and Kincardine over 80% of nests were in Scots Pine, whereas in Dumbarton, Stirling, Bute and Caithness less than 15% of nests were in this species. More than 50% of all nests were in Sycamore in West Lothian, Caithness and Orkney, whilst in Perth. 25.7% of nests were in Oak. Of all the recorded trees, 55.6% of nests were in conifers and 44.4% in deciduous tree species.

Accuracy

Only 15 squares were not recorded in the whole country, and the coverage of virtually 99% was considered highly satisfactory. Omissions were not apparently systematic and thus the data can be accepted as an accurate sample of the population. Without doubt a few rookeries were not counted although every precaution was taken to obtain data from counters with local knowledge who covered a relatively small area. In addition the county organizers did much cross checking before the results were analyzed.

Probably the largest source of error in the survey was due to the variation in the date of the count. The number of nests in a rookery varies according to the date (Dunnet and Patterson 1968) and in theory the maximum count should be used as a true index of the population. For example, in the Ythan valley in Aberdeen the maximum counts of nests occur in the second half of April and detailed counts are confined to this period. In the present survey, the dates of counting ranged from March to June and clearly many counts would not be the maximum one. The results in the survey are without doubt an underestimate due to rookeries either not counted or counted too early or too late.

There is also the major problem of counting nests with accuracy in Scots Pines. This source of error, which may be either an overestimate or an underestimate, was commented on by many recorders who confirmed the problems expressed by Watson (1967). In view of all these facts, and a study of duplicate counts of some rookeries, it is suggested that the total population in table 1 could be underestimated by at least 10%.

Population trend

One object of the survey was to enable comparisons to be made with those in earlier years. From the 1945-6 survey it was estimated that the Rook population in Scotland was 750,000 (Nicholson 1951) compared with the present population of about 500,000 birds. Thus in 30 years the population has declined by 33%. Errors in counting have already been mentioned, and may have occurred in both surveys, but this large decline in numbers is thought to reflect a true picture of a decreasing population. For confirmation on a county basis, the number of nests in Ayrshire has dropped from 26,000 in 1956 (Walls 1956) to 19,000 in 1975, a decrease of 25% in 19 years although the number has been as low as 18,000 in 1966 (Castle 1968). In Angus, a detailed comparison of the 1945 and 1975 data showed a decline of 35% in the number of nests (Atkinson, pers. comm.). In the Loch Lomond catchment area of 700km² the number of nests has declined by 20% in the 30 years since 1945 (Mitchell 1976). Nests within the Edinburgh city boundary decreased by 60% from 1945 to 1970 (Munro 1970). In Suffolk a comparison of the 1945 and 1975 data shows a nest decrease of 46% (Jeanes and Snook 1976) which is even higher than the mean change in Scotland. It is of interest that the 212 nests recorded near Stornoway, Isle of Lewis, are virtually the same number as counted in 1939 (Nicholson 1951).

A vital aspect of the 1975 survey was to establish a good base line of detailed information on Rook population in Scotland in order to accurately monitor future changes in numbers. It is thought that this object has been achieved with the results summarized in this report. Detailed information for all Scottish 10km squares is now in the club library and this data should be useful for future comparisons.

Acknowledgments

The excellent coverage in this survey was achieved by the hard and loyal work of almost 1,000 helpers and grateful thanks are due to them all for their valued assistance. The author is indebted particularly to the following county organizers who gave so much time and effort to field and desk work : S. M. D. Alexander, N. K. Atkinson, C. G. Booth, J. L. Burton, E. D. Cameron, D. L. Clugston, R. Coomber, C. N. L. Cowper, W. A. J. Cunningham, Sir A. B. Duncan, Mrs M. H. Dunn, J. Edelsten, H. Galbraith, T. Gray, F. D. Hamilton, M. Harvey, C. G. Headlam, C. J. Henty, A. Kellie, P. A. Kemp, R. M. C. Lambie, S. Laybourne, D. Lea, R. Leavett, D. Macdonald, E. J. Maguire, J. Milne, J. Mitchell, C. M. Morrison, D. W. Oliver, S. M. Ottaway, A. Ramsay, R. Richter, G. Sheppard, R. Smith, R. W. J. Smith, Miss I. Thomson, R. J. Tulloch and J. West.

Particular thanks are due to Iain Leach for his reliable assistance with the detailed tabulating and checking in the survey, and to Jennifer Castle for her painstaking help with the tree data. On behalf of the SOC, our sincere thanks to you all.

Summary

A total of 3,197 rookeries containing 252,339 nests was recorded in Scotland during a survey conducted in spring 1975. Virtually 99% of the country was surveyed, and it is estimated that there has been a 33% decrease in numbers since 1945. The mean number of nests per rookery was 78.9 with an average density of 3.26 nests/km^2 .

The number of rookeries and nests decreased progressively with increasing altitude, with only 20.4% of all nests over 500 ft (152 m).

Scots Pine, Beech and Sycamore were the most frequently used nesting trees, with 51.5, 19.0 and 11.7% of all nests respectively in these species.

It is considered that this survey can act as a sound base line for future population studies of the Rook in Scotland.

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Ayr, Scotland.

Ross's Gulls in Britain

M. DENSLEY

(Plates 29-31)

Introduction

Ross's Gull has been aptly described as "one of the most mysterious birds in the world" (Fisher and Lockley 1954) and even today comparatively few ornithologists have seen the bird in its normal range. Fortunately for ornithologists in this country, this normally High Arctic species is now being recorded in British waters with some regularity. In the last 130 years 21 have been identified in the British Isles, all but two since 1960. The trend towards more frequent occurrence, due in part no doubt to better observer coverage, is likely to continue. These British occurrences are examined in the light of the bird's distribution and behaviour, and my experence of it in this country and on migration in northern Alaska in autumn 1975 (Densley in prep.)

Discovery and breeding distribution

Ross's Gull was found by Sir James Clark Ross (after whom the bird was named) in the central Canadian Arctic in June 1823 (Stenhouse 1930) and what is considered to be the type specimen is now in the Royal Scottish Museum in Edinburgh. Originally mounted, the bird has subsequently been converted, not too successfully, into a cabinet skin.

The breeding grounds (fig. 1) lie between $62^{\circ}27'$ and $70^{\circ}30'$ north and 142° to 160° east in the valleys and deltas of a few large, north flowing rivers of extreme northeastern Siberia (Dementiev and Gladkov 1969). It nests in small colonies, often with Arctic Terns on small dry islands in wet birch and alder scrubland (Buturlin 1906). Two exceptional cases of breeding have occurred outside Siberia: at Disko Bay, Greenland, in 1885 (Salomonsen 1950) and in Spitsbergen in 1955 (Lovenskiold 1963).

Post-breeding dispersal

While still at the half down stage, the young Ross's Gulls are led by their parents away from the breeding grounds towards the shores of the Arctic Ocean. They arrive there in late July (Buturlin 1906) by which time the young are completely feathered and the adults have undergone a partial moult. This moult was still under way in some of the September and October adults I examined in Alaska. On their arrival at the coast, both adults and young immediately move away together along the shoreline. The subsequent pattern of their dispersal is indicated in fig. 1.

Large numbers of Ross's Gulls, almost all flying east, were observed on the north coast of Alaska as early as the late autumn of 1881 (Murdoch 1885), clearly indicating a large scale eastward movement away from the breeding grounds. However, no systematic documentation took place of these early coastal Alaskan movements, and some reservations have recently been expressed regarding the numbers of birds apparently then involved. Despite its abundance along the north coast of Alaska as far as Point Barrow, the Ross's Gull is rarely seen east of there. Observations from land and investigative cruises in the Beaufort Sea, including one of my own in 1975,

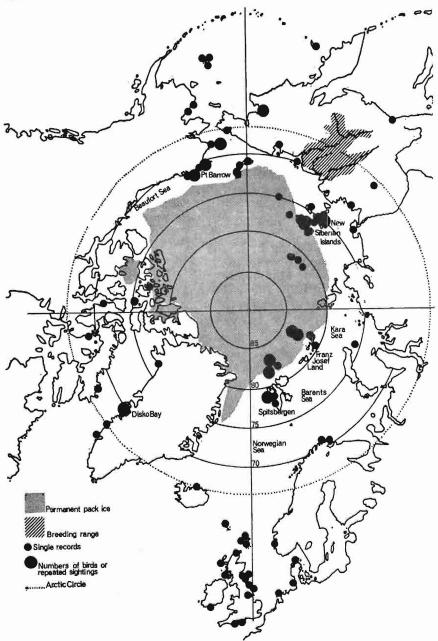


Fig. 1. North polar regions showing distribution of Ross's Gull.

have failed to reveal significant numbers of the bird. No spring return passage returns at Barrow, and Murdoch (1885) suggested that the September and October birds might retrace their route westwards after encountering the edge of the permanent pack ice north of the Alaskan coast. Surprisingly, there are only six records of Ross's Gull from North America outside Alaska: five from Arctic Canada including those seen by Ross in 1823, and an adult at Salisbury, Massachusetts, in March 1975.

In Greenland the bird is regularly seen on the west coast in summer, with at least ten records for the Disko Bay area where the 1885 breeding occurred. There is one record for the east coast. (Salomonsen 1950 and pers. comm.). There are seven Icelandic records, again all in summer (F. Gudmundsson pers. comm.) and four for the Faeroes, at least two of which were in summer, but none in recent years (F. Salomonsen pers. comm.).

Many Ross's Gulls also head west along the Arctic Ocean coast after leaving the breeding grounds, arriving at the New Siberian Islands between late July and September (Dementiev and Gladkov 1969). Some birds continue west, following the pack ice edge through the Kara Sea, eventually reaching the areas of broken ice north of Franz Josef Land and Spitsbergen where large numbers of immature and non-breeding adult Ross's Gulls apparently summer (Collett and Nansen 1900, Stenhouse 1930). At least some of the summering Ross's Gulls in the northern waters of the Barents and Norwegian Seas may remain in the area to winter (it is generally assumed that they winter somewhere in the Arctic Ocean).

In winter, the Arctic drift ice with which the Ross's Gull outside the breeding season is associated, extends southwards from the pack edge north of Spitsbergen, reaching its maximum southern limit in February. From it, wandering immature as well as inexperienced adult birds could easily reach British and other European waters, as well as those of Iceland, Greenland and North America, especially if aided by northerly winds or a homebound distant water fishing vessel with its attendant gull flock.

Distribution in the British Isles

Bannerman (1962) lists the following occurrences in Europe Heligoland 1858, Sardinia 1906, Norway 1909 and 1949, France 1913, Germany 1953 and another since, Denmark 1955, Holland 1958 and Britain 1846/7, 1936 and 1960. Since then there has been a further record for Norway and no less than a further 18 for Britain and Ireland. No doubt this sudden increase in the

number of records in this country at least partially reflects the increase in the number and improved ability of observers.

Fig. 2 illustrates the geographical distribution of the British Ross's Gulls. With the exception of the bird from Ireland (Cape Clear Island 1967, not on the map) and those from the south coast of England and the west of Scotland, they have occurred between the Humber and Shetland, with the main concentration on the northeast coast England. This pattern of distribution clearly indicates an arrival into British waters from the northeast, supporting the theory of a wintering population in the Spitsbergen area, with a southwest drift of birds from there. Much the same theory has been used to explain the remarkably similar distribution of the White-billed Diver in Britain, supported by the known exstence of a wintering population of the

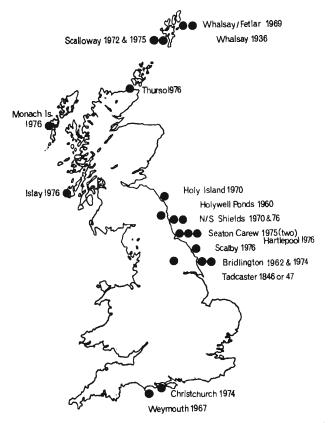
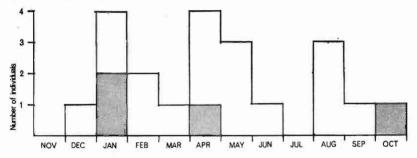
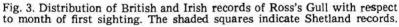


Fig. 2. Geographical distribution of British records of Ross's Gull. The one Irish record (Cape Clear Island 1967) is omitted.

birds off the Norwegian coast (Burn and Mather 1974). The existence of only a single record between Shetland and the Tweed might partially be accounted for by a shortage of winter observers there. This is, however, unlikely to be the reason for the dearth of records south of the Humber, and it would appear that the bird's true distribution in this country, for whatever reason, does not usually extend south of Yorkshire.

Fig. 3 illustrates the distribution of British and Irish records of Ross's Gull with respect to the month of first sighting. It will be seen that the month of peak arrival in Shetland (and the north coast of Scotland) has been January. A single Shetland record in April coincides with the peak month of arrival on the mainland, and may mark a northward return of birds to breeding, or, in the case of non-breeding birds, summering areas. The delay between first arrival in Shetland and elsewhere suggests that the northern Scottish islands may be a point of passage than an actual destination.





An immature bird first seen in June 1974 at Christchurch Harbour remained until August, and it, together with adults in August in Dorset and Islay, and one at Cape Clear in September, could have arrived in British waters the previous winter and have summered here. An October Shetland bird could equally have been simply an early arrival. The occurrence of a bird in apparently first winter plumage at Seaton Carew, Cleveland, on 8th August is quite remarkable, considering that the newly fledged young do not reach the Arctic Ocean coast in Siberia until late July.

Plumage

Of the 21 Ross's Gulls seen in Britain up to the end of 1976, 13 have been adults in full or almost complete winter plumage, almost all with the dark smudge around the eye, and the dark

spot behind it (a feature of the winter adult lacking in the illustrations in some of the popular field guides). Only six of these birds showed any discernible pink in the plumage, and this varied considerably in intensity and extent. At times, the Scalby bird of 1976, which I saw in late March, showed the entire white areas of its plumage except the rump and tail suffused with bright shrimp pink. At other times neither I (nor my companion) could see any pink at all on the bird. In the case of other records, different observers who saw the same bird reported differing amounts of pink visible to them. All the winter adults I saw in Alaska in late 1975 were suffused with bright pink, and yet none of the close-up colour transparencies taken of these birds at the time showed this at all. It would seem that the appearance of this pinkness is in some way controlled by the light conditions prevailing at the time of observation.

Two summer plumaged adults have been recorded in this country. The first was found freshly dead, probably shot, at Holywell Ponds, Northumberland, in April 1960. It possessed the full collar of the mature adult, but completely lacked the pink suffusion (Jobling 1960), as did a Dutch summer adult of June 1958 (Kist 1959). The lack of pink in these birds was attributed to some form of dietary deficiency, poor physical condition or sexual immaturity. The Holywell bird did, however, show the usual pinkish-rose skin fat. The other was seen at Hartlepool fish quay in early May 1976. It possessed all the plumage features of the summer adult, including the pink flush, mainly on the belly. It could have been the same individual that was seen a few weeks earlier at Scalby and Tynemouth, after having undergone a moult to at least the head and body.

Five British birds have been immatures. Two appear to have been in first winter plumage, one post first winter, one first summer and one second winter.

Behaviour

Most British Ross's Gulls have occurred in concentrations of other gull species, usually including Black-headed Gull or Kittiwake, and often in the vicinity of a sewage outlet. Although appearing to need the company of other gulls, the Ross's Gull nevertheless seems to prefer feeding alone and has been observed doing so on a number of occasions in Britain, sometimes enduring harassment by other species. Many British birds have been observed to establish a feeding run that was repeatedly quartered, usually into the wind. This was the normal feeding pattern of the Alaskan birds, imposed by the existence of only narrow leads of open water between the ice floes.

Dipping to the water in flight in the manner of marsh terns *Chlidonias* spp. and shallow surface plunging have been the most commonly observed feeding methods of birds seen here, and pattering of the feet on the water by the birds in flight has been noted several times. Contrary to popular belief, the British birds have taken readily to water, as some Alaskan birds did, resting and sometimes feeding on the surface, or, at times, wading while looking for food. Foot paddling in order to obtain food has also been observed (King 1974).

Several observers, including myself, have noted the rapid, and seemingly rather ineffectual wing beats of British individuals on take-off. No doubt the species is normally assisted in this in its natural habitat by a much stronger and more reliable wind flow.

Acknowledgments

The necessary fieldwork in Alaska for this paper was made possible by the financial support of the Winston Churchill Memorial Trust, and I was granted leave of absence from my work by Rotherham Metropolitan Borough Council.

My stay at the Naval Arctic Research Laboratory at Barrow was facilitated by R. K. McGregor, Director Arctic Programme, Office of Naval Research, Arlington, Virginia. Many of the staff and visitors at N.A.R.L. rendered valuable assistance while I was there, in particular Russell Greenberg and Larry S. Underwood.

Dr T. C. Wolford, Director of Oceanography, U.S. Coastguard Oceanographic Unit, Washington D.C., directed my attention to useful literature, as did Dr G. E. Watson of the Smithsonian Institution. I also gratefully acknowledge information on the status of Ross's Gull from Iceland, Greenland and the Faeroes supplied by Finn Salomonsen and Finnur Gudmundsson.

To Captain R. J. M. Fournier and the officers and crew of the U.S. Coastguard icebreaker Burton Island very special acknowledgment is made for the memorable privilege of cruising with them in arctic waters.

J. N. Dymond and J. O'Sullivan gave me access to information contained within the files of the *British Birds* Rarities Committee.

Summary

The discovery, breeding, distribution and present knowledge of the postbreeding dispersal of Ross's Gull are summarized.

A wintering area in the north Norwegian and Barents Sea is suggested, and the 21 occurrences in the British Isles are examined.

The records indicate an arrival of birds from the northeast via Shetland and an eventual distribution along the northeast coast of England from Yorkshire to the Tweed. The peak arrival time for the Shetland birds is January, and that for the mainland April.

Plumage and feeding behaviour in Britain are discussed.

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Short Notes

Predation of seabirds by Grey Seals

On 9th May 1976 L. Dalziel drew my attention to a Grey Seal Halichoerus grypus some 50 yards (c.45m) off the coast at Sumburgh Head, Shetland, holding a decapitated Guillemot in its mouth. Although we did not witness the capture, it seems unlikely that the seal happened to find the bird dead and no other predators, which might have lost their kill to the seal, were evident.

This was the first occasion I had seen a seal eating a seabird, although it is not regarded as a particularly unusual event locally. Judging by the note of Grant and Bourne (1971) such incidents have rarely been reported. In a review of the literature Birkhead (1976) was unable to find any documented evidence of seals predating guillemots Uria spp.

P. K. KINNEAR

[Neither Hewer (1974) nor Southern (1964) mention birds as seal prey. Grant and Bourne (op. cit.) reported a Gannet attacked by a Grey Seal and the remains of a gull (possibly Kittiwake) and a Razorbill in Grey Seal stomachs. The late



PLATES 29-31. Ross's Gulls (p. 334). 29(a) and inset (b) Scalloway, Shetland, with Kittiwakes January 1975 (cf. 9:207 plate 17b) in virtually adult winter plumage with dark smudge around eye and dark spot behind it. Note also small bill, black outer web of outer primary, dark underwing with white rear edge, and pointed tail (lacking some feathers). Photographs by D. Coutts. PLATES 29(c)-31. Breecing Ross's Guils, Indigirka River region, N.E. Siberia. Photographs (anon.) courtesy of A. J. Prater. 29(c) Adult at nest. Nests are usually on small, dry islands, up to 10 inches (25 cm) high, in wet birch and alder scrub, often in colonies of Arctic Terns. This nest in shallow, freshwater, riverside Carex marsh appears to be in a wetter and more open situation than most.





PLATE 30(a) Ross's Gull nest and eggs. The nest is made of dead grass and sedges sometimes with reindeer moss and dead alder and birch leaves. It is often, as here, on a living cushion of Sphagnum moss and Dwarf Birch Betula nana. The eggs, usually three, are olive green marked with dark brown. (b) Young, well camouflaged chick in water; note short bill.





PLATE 31(a) Adult Ross's Gull on nest. The long wings, rounded head, small bill and black collar (absent in winter) are features of the adult and well shown here. The mantle is pale pearl grey but appears darker due to the angle of the light. (b) Adult at nest. This striking photograph shows two characteristic features of the adult the long, pointed tail with the central pair of feathers projecting well beyond the rest; and the broad, white trailing edge to the upper and lower surfaces of the open wing. The under wing surface appears darker than it really is due to the angle of the light.





PLATE 32(a) Rook at nest with young. The 1975 census (p. 327) showed that the Scottish population had fallen by 33 per cent since 1945. About half the nests were Photograph by R. T. Smith
(b) Unusual Red Grouse nest of straw (p. 347). Photograph by A. Watson
(c) Sir A. Landsborough Thomson (obituary p. 351). Photograph courtesy Sir C. G. Connell



N. F. Ellison (1955) gave two instances of two Grey Seals playing with an oiled Guillemot, apparently injuring one. D. J. Bates saw a Grey Seal devouring a live bird, probably a female Eider, at North Berwick, East Lothian, on 20th March 1977. Predation of birds by seals is doubtless under-recorded and in the absence of a suitable mammal journal we would be glad to have other records.—ED.]

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Peregrine apparently hunting on ground

On 9th June 1976 I saw a tiercel Peregrine glide across a freshwater loch in Wester Ross, change direction and alight on the moor c.600 yards (c.550m) away. It spent about 15 minutes jumping and fluttering over an area only a few yards wide before flying in the direction of its eyrie with nothing in its talons.

It occurred to me that it could have been searching for prey and five hours later I visited the spot, a slight depression about ten yards (c.9m) across filled with Heather Calluna vulgaris and Bog Myrtle Myrica gale. I saw nothing to account for the Peregrine's presence until after a minute or two a tight-sitting Common Sandpiper rose at my feet from the centre of the depression and flew round a knoll out of sight. There was no sign of a nest or young.

PATRICK STIRLING-AIRD

[D. N. Weir comments that Peregrines regularly take a variety of prey from the ground but that it is under-recorded. —ED.]

Exceptional Red Grouse nest made of straw

Red Grouse nest in scrapes on the ground, occasionally unlined but usually with an incomplete thin lining of fragments of Heather Calluna vulgaris, grass, moss or other vegetation within the sitting hen's reach; they do not build large nests. On 3rd June 1976 I flushed a hen from a nest of oat straw at 150m (c.500 feet) altitude on Kerloch moor, Kincardineshire (plate 32b). This was exceptional in the material used and its thickness. The nest was in tall Heather on a 50 x 20m area where the farmer had dropped oat sheaves for cattle food in winter and where straw still lay in swathes and patches among the heather. As most of the territory that this pair occupied contained no oat straw, plenty of normal nest sites and lining materials were available. The nest looked like a basket around the eggs, and on the uphill side the straw projected above the sitting hen's head, hiding her and sheltering her from wind and rain. The thickness of straw under the hen varied from 1 cm at one side to 4 cm (0.4-1.6 inches) at the uphill side. The stalks had been carefully intertwined and built into a compact nest. As virtually no loose straw lay around the nest (see photograph), probably the hen had removed it for nest making, taking what was within her reach while sitting on the nest. The hen's dark plumage looked conspicuous against the pale yellow straw once one noticed her, but on each visit she was very difficult to spot in the first place, probably because the small patches of contrasting colour gave a camouflaging effect. All eight eggs hatched successfully.

ADAM WATSON

Great Black-backed Gull killing Wigeon

On 8th November 1976 the Eden estuary at Guardbridge, Fife, was full of duck, mainly Wigeon and Mallard, with gulls amongst them. A Great Black-backed Gull swam up to an apparently healthy Wigeon, caught it by the back and, holding it under the water, proceeded to drown it. It then pulled some feathers out of the body and started to eat it. Meantime, other duck were swimming about close at hand and, apart from keeping a wary eye on the gull, did not seem unduly worried.

K. C. R. HALLIDAY

[The Handbook mentions killing healthy, full grown birds up to the size of shearwater and Puffin, as well as wounded ducks. Of course, the unfortunate Wigeon may have been incapacitated in a way imperceptible to the human observer but not to the more discriminating eye of a predator.—ED.]

Behaviour of Wryneck and Great Grey Shrike

On 3rd October 1976, when many migrants were on the Isle of May, we joined M. Fraser and others to admire a Wryneck perched openly on a coil of rusty cable near the ringing hut. A Great Grey Shrike, also watching from a low perch, soon landed only 2m (c.6 feet) from it, whereupon the Wryneck apparently began to preen its back. However, it was in fact turning its head vigorously from side to side without actually touching its feathers. The shrike began to move in a similar manner but definitely preened the fathers about its rump. The Wryneck then flew out of sight but the shrike remained preening for another ten minutes until, after the other observers had left, DJB saw it fly to a nearby cable to feed on something already impaled on a metal spike, later found to be a quarter of a Meadow Pipit in fresh condition.

We do not think the birds' behaviour was affected by our presence, hidden behind a wall, as the shrike's meal was eventually interrupted by the more distant approach of another person.

The Wryneck's snake-like contortions are believed to deter predators and indeed we had seen a potential predator underline its frustration by performing a displacement activity (or out-of-context behaviour when normal activity is thwarted, in this case preening instead of hunting). In the literature Wrynecks are described as rolling the head back with raised crown feathers, usually when disturbed on the nest or captured, and DJB has seen a bird in the hand writhe in this manner. We have been unable, however, to find any description of behaviour when faced with an enemy in the open and we suggest that the motions of our bird with the shrike, which were so unreptilian as to be mistaken for preening, might be a different response to this situation.

D. J. BATES, ALAN BROWN

Male Ring Ouzel associating with a pair of Blackbirds

My wife and I saw a male Ring Ouzel daily in our garden near Portree, Isle of Skye, from 26th April 1976. It is an unusual bird at this low level and the first we have seen near the house. He frequented a nearby heathery and rocky outcrop and sang or scolded from the garden trees. Within a short time he joined up with a pair of Blackbirds. At first he seemed to pay more attention to the cock and followed him around for much of the time. There was, however, no sign of pugnacity and the two birds frequently sat in the trees or on the ground a few yards apart, often with their backs to one another. Meanwhile the hen Blackbird began sitting on a nest near the house.

While she was off the nest on 9th May the Ring Ouzel twice tried to rape her, until he saw me only a few yards away and flew off. There was no mistaking his attempt to mate, nor her successful evasion, though she only hopped a few yards.

We saw the Ring Ouzel only four times after 13th May and last on 5th June, twice here and twice half a mile (c.800m)

SHORT NOTES

away. The brood of Blackbirds fledged successfully but none of them had a suspicion of a white bib!

D. E. P. GEORGE

[Captain George has supplied carefully detailed notes, leaving the identification of the Ring Ouzel in no doubt.—ED.]

Waxwings drinking birch sap

On 5th March 1976 in a small park in Hillhead, Glasgow, we saw ten Waxwings feeding on the berries of a Hawthorn *Crataegus monogyna*. They fluttered to a Silver Birch Betula pendula only six feet (1.8m) from where we stood. The tree had been recently lopped and sap was dripping steadily from the wounds in sufficient quantities to make small depressions in the gravel path below.

The Waxwings were drinking the sap, twisting their bodies to catch the drips. Some took to the air, hovering for three or four seconds, their beaks searching for the drips. There was considerable competition for the three best sources of sap and frequently a bird would jostle another from its position.

We caught and tasted the sap drips which were pleasant and mild.

M. JANE TYRER, FRANK T. MORAN

[Waxwings eat berries and flying insects according to season. We can find no record of sap.—ED.]

Obituary

WILLIAM MILES LOGAN-HOME

During his long life (1884-1977) Lieutenant-Colonel "Bill" Logan-Home, MC, of Edrom House, amassed a great knowledge not only of the birds of the Borders but also from his frequent visits to faraway places. Almost up to the end he was making long, exhausting trips to East and South Africa with undiminished enthusiasm and stamina.

He always wanted to share his experiences and would telephone on many occasions, reporting the first appearance of Collared Dove and Green Woodpecker, and the daily visit of a Wryneck to his lawn—curiously in the exact place as one recorded by Muirhead in *The Birds of Berwickshire* in the middle of the last century. One day recently a guest of his had left for the south and telephoned in great excitement from Kelso that he had seen a Black Woodpecker running across the road close to the Tweed. Bill was unwell at the time so I went immediately with a friend to the spot. During our long OBITUARY

vigil I suddenly realised there might be an error. Several Moorhens ran across the road to and from the river. I telephoned Bill with some trepidation about my theory. He chuckled and after correspondence with his friend he confirmed that the running Black Woodpecker was none other than a Moorhen with its brilliant red forehead shining in the sun.

He was to the Borders as Seton Gordon was to the Highlands and now that these two grand gentlemen of nature have left us we will miss their knowledge and their company which many of us were privileged to share for so many years.

HENRY DOUGLAS-HOME

ARTHUR LANDSBOROUGH THOMSON

(Plate 32c)

Sir Landsborough Thomson, C.B., O.B.E., M.A., D.Sc., LL.D., F.R.S.E., who died on 9th June 1977, was born on 8th October 1890 in Edinburgh. He attended the Royal High School and later Aberdeen Grammar School when his father Sir J. Arthur Thomson was appointed to the Regius Chair of Natural History. Landsborough later studied at the Universities of Aberdeen, Heidelberg and Vienna. For a time he was assistant in the natural history department in Aberdeen but from 1915 he served with the Argyll and Sutherland Highlanders largely in France—and ultimately held the rank of lieutenant colonel. From 1919 he worked with the Medical Research Committee and later with the Medical Research Council as Second Secretary but this is not the place to detail the great contribution he made to the organization and development of medical research.

From his earliest days Landsborough's spare time (it is difficult to know how he had any) was devoted to natural history and in particular to the study of bird migration on which he soon became an authority. Inspired by the work of Gätke and Eagle Clarke, he started a ringing scheme at Aberdeen University simultaneously with the Witherby scheme in 1909. His first book was Problems of Bird Migration (1936) but his most outstanding work was to edit A New Dictionary of Birds (1964) to which he contributed at least 30 major articles.

Landsborough played an outstanding part in the development of many natural history and scientific bodies. In particular he was President of the BOU and Chairman of the BTO. He had been Chairman of the Natural History Museum and of the Council for Nature and was a trustee of the World Wildlife Fund.

OBITUARY

Joining the SOC in 1937 he was made an honorary member in 1966, since when he also represented the club on the British Section of the International Council for Bird Preservation. He lectured at two of the conferences and as recently as 1975 he contributed to *Scottish Birds* a notable article on "Dispersal of First-year Gannets from the Bass Rock" written with his usual lucidity and authority. Along with his wife Maisie he was on the "Scottish Bird Islands Cruise" in 1966.

Landsborough was the most modest of men, kind and helpful to all who sought his help, ever ready with encouragement and wise counsel. He was never referred to but with respect and affection by all who knew him. It can be said he was at once a man of the widest interests, an outstanding scientist and an exceptionally able administrator. In Who's Who he described his recreations as "Travel, formerly climbing". When he completed his History of the Medical Research Council in 1973 (referred to in a medical journal as "a great book by a great man") he decided the time had come for the long awaited travel. The next few years found him in Asia, Australasia and Galapagos. When he returned from the Galapagos in 1976 he was full of wonder at the wealth of interest in the famous islands.

Although natural history and the study of birds were in one sense only hobbies, no one could ever say that Landsborough was an amateur. By his death Scotland has lost a most distinguished son. Many of us have lost a most valued friend. He was indeed a prince among men.

CHARLES G. CONNELL

KENNETH WILLIAMSON

Kenneth Williamson, a distinguished and long-standing member of the SOC, died suddenly at Tring on 13th June. He came to Scotland in 1948 as the first Director of the Fair Isle Bird Observatory, spending most of each year in Fair Isle and the winters in Edinburgh. On Fair Isle he set up the bird observatory and developed the ornithological research into the relationship between weather conditions and migratory movements. In this he built on the early observations of W. Eagle Clarke, who in his book *Studies in Bird Migration* had pointed out the importance of Fair Isle in this field. Ken readily acknowledged the pioneer work on migration drift made by the Misses Rintoul and Baxter, but greatly developed knowledge in this field, making himself a competent meteorologist in the process. He published many papers on the subject, while weather influences on bird migration were summarized in a published lecture to the XI International Ornithological Congress in Basle in 1954. On Fair Isle too he started studies of bird weights, moults and ectoparasites, and initiated valuable research on the genetics of the polymorphic forms of the nesting Arctic Skuas.

In 1957 he spent a season as Nature Conservancy warden on St Kilda where his work included the most complete census to date of the St Kilda Wren population. He was then appointed Migration Research Officer at the BTO, co-ordinating the work of the bird observatories. During this period he edited the journal Bird Migration and published the three guides to the warblers identification for Ringers (1960-4). Ken had a natural gift for lecturing and writing lucidly with an output of over 250 papers and notes in scientific journals. He had also edited the BTO journal Bird Study since 1969 and found time to write books—The Sky's Their Highway (1937), The Atlantic Islands (1948), St Kilda Summer (1960) and A Mosaic of Islands (1963), these two in collaboration with Dr J. Morton Boyd. Fair Isle and Its Birds came in 1965. In 1962 he was put in charge of the BTO Populations section, organizing the Common Birds Census monitoring scheme. Ken loved his many visits to Scotland doing this work with his team of enthusiasts. He was elected a Fellow of the Royal Society of Edinburgh in 1959, received the British Ornithologists' Union medal in 1976 and was secretary of the International Bird Census Committee.

Ken, the centre of a happy family, was friendly and unassuming with a great breadth of interests including archaeology, music and literature. He had many friends in all age groups and was a delightful and knowledgeable companion on ornithological outings, where he stressed the value of the contribution from amateurs. His pawky sense of humour led him to describe the only bird he claimed not to have been able to identify in the field as "probably a common Wheatear which had been nesting in a coal mine". He gave solace to a close friend who found his failing hearing worrying saying that his wife "must just act as his ear strumpet".

During the years 1967-76 Ken had held the responsible post of Principal Editor of *The Atlas of Breeding Birds in Britain and Ireland* published in 1976. Only a few hours before he died he was working on his latest book on the effect of climatic change on bird life, containing his unique knowledge of distribution, populations, range changes and systematics of European birds. The finest compliment we can pay to Ken is for this book to be completed and published as he would so dearly have wished.

J. H. B. MUNRO.

Reviews

Birds of Prey. By Michael Everett. London, Orbis Publishing, 1976. Pp. 128, many colour photographs, 5 figures. £3.95.

The author states that this book is not intended as a detailed reference work, but rather as an introduction to stimulate interest in raptors. It begins with a chapter on their evolution, and continues with one on 'The Falconiformes', which is virtually an annotated checklist of most of the world's raptors and seems to derive almost entirely from standard reference works, notably Brown and Amadon's Eagles, Hawks and Falcons of the World. Subsequent chapters on 'Physical Characteristics', 'Hunting and Feeding', 'The Breeding Cycle', 'Migration' and 'Birds of Prey Today', also largely re-work published material, although they are, admittedly, written clearly and enthusiastically by a person with an obvious feeling for raptors. Throughout the book, the text would have been enlivened greatly by drawing extensively on the author's own field experience, of which there is little mention.

The numerous illustrations, all in colour, marry well with the text, even if some species are represented up to six times. Scottish readers will be pleased to see Dick Balharry's fine eagle picture given just treatment (compare its reproduction in *Highland Birds*). I was disturbed by the illustration of the Merlin which shows white string tying back the vegetation and numerous broken heather stems resulting from extensive 'gardening'. Nobody doubts the havoc still wrought among our raptors in the supposed interests of game preservation, but it is a most unfortunate oversight to publish a picture with a caption accusing a gamekeeper of stringing up a dead Kestrel (p. 110) when the illustration shows only too clearly that the unfortunate bird was lost by a would-be falconer and had died a wretched death hanging from its jesses.

Overall, the author succeeds well in his purpose by putting so much material into a popular format. The book is attractively produced and reasonably priced and will certainly be useful for those with little knowledge of raptors. Most other ornithologists will look for a book with more new material.

N. PICOZZI.

The Birdwatcher's Key: a guide to identification in the field. By Bob Scott and Don Forrest. London, Frederick Warne, 1976. Pp. 276, 112 colour plates; 19 cm x 10.5 cm. £3.95 and £2.25.

With such a wealth of bird books already on the market today one of the most daunting tasks facing the aspiring ornithological author is to find a theme which has not already been done to death. Bob Scott and Don Forrest are therefore to be congratulated for both spotting the need for a simple, pocket-sized identification key for use in the field and for producing this tact-filled little volume to neatly fill the gap. Simplicity and ease of use are the keynotes of this book. To identify a bird one first refers to either of the inside covers where there is a key page of line drawings and a list of the orders of birds. These are colour coded, as are the relevant margins of the book. Thus one can quickly turn to that section of the book where the unidentified bird is most likely to be described.

Birds of 382 species found in the British Isles and north-west Europe are illustrated in colour, the plates including the seasonal, sexual and immature plumage where relevant, and flight patterns. The text is REVIEWS

opposite each plate and covers habitat, behaviour, calls and plumage (emphasizing important features with bold type), with brief notes on distribution. A more detailed checklist-cum-distribution table is placed at the end of the book.

The success of such a field guide depends very much on the quality of the illustrations. These must inevitably be something of a compromise since they need to both clearly show the diagnostic features of the plumage yet also capture the characteristic pose or jizz of the bird. Don Forrest's colour plates in general cover both aspects admirably, but for me there is an awkwardness in some of the poses and a fussiness in some of the painting that I find disappointing. There are also some errors in the colours but the fault may lie in the printing. However, these are minor criticisms and on the whole the pictures illustrate well the important diagnostic features of the birds. The text neatly complements the illustrations and together they provide all the basic information one needs to identify an unknown bird in the field. Birdwatchers, whether newly hatched or fully fledged, should certainly find this book a useful companion.

IAN H. J. LYSTER.

Bird Observatories in Britain and Ireland. Edited by Roger Durman. Berkhamsted, T. and A. D. Poyser, 1976. Pp. 286; 17 plates; 15 maps; 19 other text figures and maps; 22 x 15 cm. £5.00.

As one who has never visited any of our bird observatories I looked forward to reading this book. I was not disappointed, for it contains a wealth of detail and information for ornithologists, or anyone planning to visit an observatory. Roger Durman, a past Chairman of the Bird Observatories Council, has done a good job in collecting and editing the stories of life and ornithological coverage at the fourteen observatories in Britain and Ireland.

The introduction by Robert Spencer deals with the origins of observatories and the first migration studies associated with them and contains some fascinating old records and anecdotes from observatory log books. The fourteen observatories are then dealt with separately in chapters by writers who each have an intimate knowledge of the particular site, giving first the position and layout of the observatory with its general history, followed by excellent notes and records of the birds seen throughout the year, indicating the species most likely to be seen and the best time to visit. A map is included in each chapter, but omit some places mentioned in the text. Ringing is an important aspect of research at observatories and this is well covered in the text and by histograms plus maps of recoveries. Notes on the botanical, insect and mammal records follow, and descriptions of the adapters. There follow two appendices, the first and most important lists the 393 bird species identified at the various observatories up to 31st December 1973. Strangely, these 18 Appendix 2 lists all the non-avian species are given, but an annual information sheet, covering all the sites, issued by the BTO, is mentioned in the foreword to the book. This should up-date all intending visitors as to addresses, prices and facilities.

Reading records of one observatory after another may seem boring, but the whole style of this book makes for easy reading, and when compared with each other these records reveal many different aspects of the various observatory sites. I found one or two glaring errors in the text, and the printing of page 267 of my copy (Appendix 1—count the pages !) was very poor. At £5.00 a copy. I suggest this book is overpriced, but for those interested in field work at bird observatories is nevertheless a good addition to their library.

A. G. STEWART.

A Guide to Bird-watching in Mallorca. By Eddie Watkinson. Stockholm, AB Grafisk Formgivning, 1976. Pp. 56, 22 maps. 24 x 16 cm. £1.75.

In recent years Mallorca (or Majorca to many of us) has become widely recognized as one of the best places in Europe to watch birds, particularly during the spring and autumn migrations. This recognition plus the fact that it is easy to get to on a package holiday has attracted more Scottish visitors and this guide by Eddie Watkinson is therefore especially welcome

Before covering the major bird habitats, the booklet provides some useful background information including sections on where to stay, local transport, the people and their customs, car hire and laws affecting motorists. This last section itself could quite easily save the visitor the cost of the booklet several times over. Nevertheless £1.75 for a paperback booklet of 56 pages can hardly be described as cheap—presumably the price we have to pay for publication in Sweden.

The major part of the guide is devoted to excellent descriptions of the best mountain, marsh, woodland, scrub and coastal habitats. A detailed best mountain, marsn, woodland, scrub and coastal habitats. A detailed map of each place is complemented by text on how to get there, how to explore the area and the birds likely to be seen. Together they ensure that the visitor can use all his time to the best advantage. Precise instruc-tions are given on how to find all Mallorca's specialities including Eleon-ora's Falcon, Marmora's Warbler, Audouin's Gull and Black Vulture. I personally found particularly mouth-watering the description of a route to a summit regularly frequented by Black Vultures, where the author photographed three together with a standard lens.

The omission of an inclusive checklist is disappointing and there is a slight tendency to repetition. However, these are minor criticisms and this guide is a must for any birdwatcher going to Mallorca. Although well briefed for a visit in spring 1976, I found myself frequently saying "if only I'd known that". I can think of no better recommendation.

Similar guides to Sweden and Denmark are also available at similar prices. We can hopefully look forward to more.

ALAN BROWN.

Current literature. Recent material of Scottish interest includes :

Behaviour of Manx Shearwaters, R. J. Tulloch, 1977. British Birds 70; 35. (Observation from Shetland).

Oystercatcher hatching Lapwing's eggs. R. C. Dickson, 1977. British Birds 70: 36. (Record from Galloway).

The food of Red Grouse chicks. C. J. Savory, 1977. Ibis 119: 1-9. (Study in Kincardineshire).

Body weights and carcass composition of the Common Eider. H. Milne, 1976. Wildfowl 27: 115-122. (Study in Aberdeenshire).

Tay Ringing Group 1975. P. N. J. Clark (ed.). 20p. (Annual report; no address given.)

A Survey of Rookeries in Buteshire in 1975. M. E. Castle, 1976. Transactions of the Buteshire Natural History Society 20: 81-85.

Trumpeter Finches: new to Britain and Ireland. D. I. M. Wallace, F. K. Cobb and C. R. Tubbs, 1977. British Birds 70: 45-49. (Details of first Scottish record.)

- Puffins on St Kilda. M. P. Harris and S. Murray, 1977. British Birds 70: 50-65.
- Behaviour of Black Grouse on elevated perches. B. King and M. P. Visick, 1977. British Birds 70: 77. (Observation on Islay.)
- An ornithological survey of Sule Skerry. A. C. Blackburn and D. Budworth, 1976. Seabird Report 5: 27-33.
- Counting Tysties: some results from Orkney. A. D. K. Ramsay, 1976. Seabird Report 5: 34-38.
- Scottish shearwaters. R. L. Swann and A. D. K. Ramsay, 1976. Seabird Report 5: 38-41.
- Effects of Great Skuas on Arctic Skuas in Shetland. R. Furness, 1977. British Birds 70: 96-107.
- Aerial roll display of Golden Eagle in winter. C. J. Northeast, 1977. British Birds 70: 119. (Tayside record.)
- Status of the Linnet in Shetland. P. K. Kinnear, 1977. British Birds 70: 128.
- Edinburgh Ringing Group: Four, 1976. D. R. Langslow and S. R. D. da Prato (eds.). 30p. (Annual report; 35p post free from J. H. Ballantyne, 6 Mansfield Place, Edinburgh 3).
- Contamination of Peregrine Falcons with Fulmar stomach oil. A. Clarke, 1977. J. Zool., Lond. 181: 11-20. (Analysis of corpses from Scotland.)
- Birds of the Monach Isles, Outer Hebrides. I. R. Hepburn, P. and R. A. Schofield, 1977. Bird Study 24: 25-43.
- Autumn birds on the Monach Isles. J. Harwood, 1977. Bird Study 24: 44-46.
- Kleptoparasitism of Sandwich Terns by Black-headed Gulls. E. Fuchs, 1977. Ibis 119: 183-190. (Study at Sands of Forvie).
- Dumfriesshire Rook census 1963 and 1973. (Unpublished report in SOC library.)
- National Rookery Survey 1975. British Trust for Ornithology. (Copies of unpublished Scottish record cards in SOC library.)
- 1975 Canna report. A. D. K. Ramsay and R. L. Swann. (Unpublished report in SOC library of seabird studies.)
- Tystie work in Orkney 1976. A. D. K. Ramsay. (Unpublished interim report in SOC library on Black Guillemots.)

Letters

The status of Snow Geese in Scotland

Most birdwatchers seem to accept the Snow Goose Anser caerulescens as a Scottish wild bird. It is not even thought of as very rare. The idea is that with over 150 records some must surely be vagrants from Canada.

Yet even at the time of the first Scottish record, an immature Lesser A.c. caerulescens shot on Barra on 9th October 1917, birds were escaping from captivity in England, and 16 seen in Morayshire in August 1933 were evidently escapes from Woburn. There were only three other published records before 1940, including one of Snow Geese consorting with Barnacles in the Inner Hebrides in 1927-32. Up to 12 at a time in central Scotland in the winters 1940-7 were presumably escapes, and there were no more until winter 1953-4, when four different birds appeared, including a Greater A.c. atlanticus and a blue-phase Lesser.

From 1957-8 Snow Geese have been recorded every winter, with some six to twelve records annually in the past 15 years, more about 1967, but only one reported in 1972; there have also been a few records of Ross's Geese A. rossii.

Most of these birds are undoubtedly escapes. Some associate with other geese, especially the large flocks of Greylag and Pinkfeet in central and south Scotland, and stay with them for long periods, taking part in their migrations. A Greater and a blue Lesser, seen first with Pinkfeet in the Clyde area in 1959-60, were recorded in Scotland for three and six consecutive winters respectively; and a pair of Ross's Geese (both ringed and so presumed to be escapes) seen in Scotland in four successive winters were probably the same birds that attempted to breed in Iceland in at least one of the intervening summers. Other Snow Geese remain on their own, singly and in small groups; and breeding season records include birds staying in Scotland all summer.

As with some other rare wildfowl, the problem is to tell any vagrants from the many birds of captive origin. There is nothing unlikely about wild Snow Geese in Scotland but without ringing recoveries it is hard to pick one reasonably certain record. Rather few records are from the Hebrides, where birds from North America might be expected to appear (though of course even escaped passerines such as the Red-headed Bunting regularly find their way to remote islands). M. A. Ogilvie has drawn my attention to an individually identifiable bluephase Lesser Snow Goose that has completed its fourth consecutive winter in one small area on Islay with Greenland Whitefronts A. a. flavirostris.

It is simpler to pose the problem than to resolve it, but perhaps this letter will encourage someone to try.

ANDREW T. MACMILLAN

Great Skuas killing mammals

Chris Booth's note (9: 125) on this subject prompts me to record observations on Noss, Shetland, in 1973 when I was RSPB warden. Two pairs of Bonxies or Great Skuas Stercorarius skua regularly hunted the infield. During May and June I regularly saw these birds taking Kittiwakes and Herring Gulls but when large numbers of Rabbits Oryctolagus cuniculus began dying of myxomatosis in late June both pairs switched to an all Rabbit diet. Both dead and half dead LETTERS

Rabbits were taken, although I never saw any attacks on healthy Rabbits. As myxomatosis gradually spread Bonxies with adjacent territories also began to feed on Rabbits.

R. Gall (pers. comm.) has seen Bonxies making swoops at Mountain Hares Lepus timidus but attacks were not pressed home. The Brown Skuas S.s. lonnbergi of Macquarie Island are well known for taking Rabbits, but this habit seems poorly developed in Bonxies. This is a reflection of the ease with which they can obtain other forms of food. On Noss I never saw Bonxies feeding on any lamb corpse and elsewhere in Shetland eye-witness accounts of Bonxies killing lambs are lacking. All too often, I suspect the Bonxie is a scapegoat for sub-standard sheep management.

P. K. KINNEAR

The Scottish Ornithologists' Club

THIRTIETH ANNUAL CONFERENCE MARINE HOTEL, NORTH BERWICK 20th - 22nd January 1978

PROGRAMME

Friday 20th January

4.30 - 9 p.m.	Conference office open for members and guests to register and collect name cards.						
6.15 p.m.	Meeting of Council.						
7-9 p.m.	Supper.						
8.30 - 9.30 p.m.	FILM AND SLIDE PROGRAMME in the lecture theatre.						
9.30 p.m.	Lounges open for informal discussions and refreshments (late licence).						

Saturday, 21st January

8-9 a.m.	Breakfast.					
8.45 - 9.15 a.m.	Conference office open for registration.					
9.20 a.m.	Official opening of the Conference by the President, Andrew T. Macmillan in the lecture theatre.					
	Lectures on "BIRDS ON ISLANDS".					
9.30 - 10.30 a.m.	Introduction by Professor George M. Dunnet, FRSE, Regius Professor of Natural History, University of Aberdeen.					
10.30 - 11 a.m.	INTERVAL for coffee.					
11 - 11.55 a.m.	LECTURE by Dr M. P. Harris, Institute of Terrestrial Ecology, Banchory.					

360	SCOTTISH ORNITHOLOGISTS' CLUB 9(7)
11.55 a.m 12.50 p.m. 1 p.m.	LECTURE by Dr Martin Gorman, University of Aberdeen. INTERVAL for lunch.
2 p.m.	Afternoon free for private excursions.
2.15 p.m.	"RSPB—1977'. Short talks and discussion by RSPB staff, in the Tantallon Suite (1st floor).
4 p.m.	Tea
5.30 p.m.	41st ANNUAL GENERAL MEETING OF THE CLUB in the main Dining Room. The Agenda will be published with the winter number of the journal.
7.30 for 8 p.m.	ANNUAL DINNER in the lecture theatre (dress informal).

Sunday 22nd January

8.15 - 9.15 a.m.	Breakfast
9.30 - 11 °a.m.	A series of short lectures on ornithological research in Scotland will be given : "Wintering sea-fowl in Scapa Flow", by David Lea, "Breeding ecology of Gannets on Ailsa Craig" by Sarah Wanless, and "History and habits of the Great Skua" by Robert Furness.
11 - 11.30 a.m.	INTERVAL for coffee.
11.30 a.m.	FILM "The Ythan estuary—one of nature's hotels".
12.30 p.m. (approx.)	CLOSING remarks by the President.
1 p.m.	LUNCH
2 p.m.	CONFERENCE DISPERSES;

Conference Office

Outwith the registration hours the Conference Office and the Exhibition Room will be open most of the weekend for members to see the exhibits. A wide selection of new books from the SOC Bird Bookshop will be on display for purchase or orders, and paintings by wildlife artists will be displayed for sale in these rooms. In addition to exhibits by various organisations, Messrs Charles Frank Ltd. will have their usual extensive selection of binoculars and telescopes.

Film and Slide Programme

The programme from 8.30 to 9.30 p.m. on Friday evening is intended to give members and guests an opportunity of showing 2" x 2" slides or 16mm films. These must however be submitted beforehand to the Conference Film Committee and should be sent by 13th January 1978 at latest to the Club Secretary, 21 Regent Terrace, Edinburgh EH7 5BT. The slides should be titled and sent with brief notes on what will be said about them, to enable the Committee to make a selection and to form a good programme.

INFORMATION

 General The conference will be held in the Marine Hotel, North Berwick. Numbers staying in the hotel are limited to 200, but 240 can be accommodated for the annual dinner and 270 in the main lecture theatre. Priority at the dinner and lectures will be given to those staying at the Marine Hotel. There are twin bedded rooms but very few single rooms and, for the benefit of others, members are urged to make arrangements to share with a friend. In addition there are 6 four bedded rooms and 5 seven bedded rooms; generous reductions are made to members sharing these rooms providing that all beds in the rooms are filled. If more than 150 members and guests stay at the Marine Hotel, the SOC is guaranteed the sole use of the whole premises for the entire weekend.

- 2. Reservations at the hotel must be made direct with the Manager, but in order to check numbers these must be on a form only obtainable from club secretary (see enclosed Booking Sheet). As there are fewer seats in the lecture hall than in recent years, early booking is advised to avoid disappointment. Booking should be made before Friday 23rd December 1977.
- 3. Charges The special Marine Hotel conference charge which covers the annual dinner, but not wines at the dinner nor the registration fee (see below), is £24.00. This includes bed, all meals and coffees, service charge and VAT, from Friday afternoon to Sunday lunch inclusive. For those prepared to share in the four bedded rooms there is a reduction of £4 for the week-end, and for those in the seven bedded rooms a reduction of £8, provided that all beds in the rooms are occupied. All resident charges, except the registration fee, are payable direct to the Marine Hotel.
- 4. Registration Everyone attending the conference must register at the conference office on arrival. The registration fee is $\pounds 1.25$ for the whole conference or 75p if attending for one day only. Members attending only the Annual General Meeting do not require to pay a registration fee.
- 5. Annual Dinner The cost for members and guests staying at the Marine Hotel is included in the special conference charge payable to the hotel. Advance booking by non-residents is essential; tickets may be paid for in advance when returning the conference booking sheet or purchased when registering on arrival. The cost is £5.00 per person, inclusive of service charge and VAT, but not wines. Wine for the dinner can be booked during the conference.
- 6. Other meals Non-residents can obtain dinner (£4.00 fully inclusive) on Friday night and lunch (£3.00 fully inclusive) on both Saturday and Sunday, by prior arrangement with the hotel reception staff. Morning coffees for all are included in the registration fee.

LOCAL RECORDER CHANGES

Pressure of work has regrettably forced Donnie Macdonald to give up as recorder for Sutherland and Ross and we gratefully acknowledge his service since 1969. His place is taken in Sutherland (only) by Dr I. D. Pennie whose new address is 5 Badcall, Scourie, Sutherland, Dr Pennie was previously recorder for St Kilda which is now merged with the Outer Hebrides under the recordership of W. A. J. Cunningham. For the time being records for Ross-shire (except Black Isle) should be sent to Roy Dennis at Landberg, North Kessock, Inverness, IV1 1XD.

WINTER EXCURSIONS - DUNDEE BRANCH

Sunday, 23rd October 1977 LOCH OF STRATHBEG. Coach outing : see below.

Saturday 13th November BALGAVIES RESERVE. Leader ; B. Lynch.

Saturday 11th December PARKHILL. Arranged by Tay Ringing Group. Saturday 22nd January 1978 MONIKIE & CROMBIE RESERVOIRS. Leader : B. Pounder.

Saturday 12th February TENTSMUIR. Leader D. B. Thomson. Saturday 26th March KILCONQUHAR LOCH (by kind permission of Elie Estates). Leader : Mrs J. A. R. Grant.

All excursions, except October, are by private car and start at 10 a.m. from City Square, Dundee; bring picnic lunch. For details of the coach outing on 23rd October, and further infor-

mation about the other excursions, contact the Branch Secretary, Mrs A. Noltie, 14 Menteith Street, Broughty Ferry, Dundee, DD5 3EN (tel. 0382 75074); please send s.a.e. if writing.

INVERNESS BRANCH

Saturday 24th September THE FIRTHS. Leader : Roy Dennis. 9.30 a.m. Sunday 23rd October TARBAT NESS. Leader : David McAllister. 9.30 a.m. Sunday 27th November LOCH OF STRATHBEG. Leader : Malcolm Harvey. 8 a.m.

All excursion meet at Cathedral car park at time shown (lunch and tea). Names to and further information from Mrs J. Morrison, 83 Dochfour Drive, Inverness IV1 5ED (tel. 0463 32666); please send s.a.e. if writing.

BRANCH AND GROUP NEWS

Aberdeen seabird conference

This international three day conference on 'The Changing Seabird Populations of the North Atlantic' at Aberdeen University in March was sponsored by the BOU, BTO, RSPB, SOC, Seabird Group and Wildfowl Trust. The university kept us comfortable and well fed and the SOC bookshop provided a popular and profitable side-show. Nearly 200 attended and representation was well balanced with half the speakers from the British Isles, a quarter from North America and rest from countries bordering the North Sea from Belgium to Iceland. The vast amount of information presented cannot be summarized here but abstracts of the 44 papers should soon appear in Ibis.

Much current interest in seabird numbers and ecology derives from such threats as pollution and over-fishing, and the related conference themes of human influences, population ecology and censusing reflected this. It was disturbing to learn how much remains uncertain. What exactly do seabirds eat and how much? Do they compete with commercial fishing? Are PCBs really harmful? And if they are threatened, how can population changes be monitored when patterns of distribution at sea and attendance at colonies are so complex?

Evidence was presented for some surprising conclusions. Cadmium and mercury in concentrations intolerable to terrestrial animals occur naturally in the sea. Culling gulls in a few big colonies may eventually increase the population by deterring recruits and dispersing them to reinforce other colonies and also by increasing chick survival in the big colonies through reduced density. The twentieth century population explosion of gulls may be due largely to cessation of persecution, yet centuries of sophis-ticated fowling in the Faeroes may have actually benefited Puffin populations. Colonies were managed to prevent the Puffins burrowing too far and causing serious soil erosion, and in any case fowlers caught only nonbreeding birds.

A useful NERC report (series C No. 18) was available reviewing ecological research on seabirds in the UK and suggesting further work. The topicality of the conference was highlighted soon after by the blow-out at Ekofisk Bravo. Although environmental damage on this occasion was minimal, the possibilities are horrible.

D. J. BATES

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Stirling

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The River Devon field weekend of 27-29th May went well from the initial instructional meeting on Friday evening until the dispersal meeting on Sunday afternoon. Those attending divided into ten groups on the Friday evening and each group carried out a census of the avifauna of a stretch of the River Devon and its environs on the Saturday. The whole length of the river from source to mouth was covered. Glorious weather on the Saturday provided excellent conditions for the fieldwork. On Saturday evening most of those attending met for a buffet meal and a chat. On Sunday some additional fieldwork was done and some members also visited areas they had not been in the previous day. Members dispersed after a short meeting on Sunday afternoon. The whole week-end was enjoyed by all and was particularly encouraging for this new venture of the club. It is intended to prepare a paper from the information obtained. SANDY MITCHELL

Current Notes

These notes include unchecked reports and are not intended as a permanent record, nor will they be indexed. Please send items of interest to local recorders for forwarding to the editor at the end of January, April, July and October.

Departing winter visitors included 2 White-billed Divers off Fetlar (Shet) in May, another suspected at Tongue (Suth) in June, $2 \triangleleft \triangleleft \triangleleft$ King Eiders in Shetland, Brent Goose at St Kilda on 9 May, Rough-legged Buzzard in Deeside (Aber) and hybrid Glaucous Gull at Girdleness (Kinc) in Apr, Great Grey Shrike at Balranald (O Heb) on 17 May, and Water Pipits A. s. spinoletta at Strathbeg (Aber) in Apr and Mull of Galloway (Wig) on 3 May.

Spring migration was remarkable for rarities of widely different origins; undated records here refer to May. A Purple Heron and a Black Stork in Shetland coincided with 8+ widely dispersed White Storks. L Leven (Kinr) had a pair of American Wigeon for two days. A Honey Buzzard was in Deeside on 27 Apr and Hobbies at Balranald in May and Aberlady (E Loth) in June. A few Marsh Harriers arrived in the east and a young pair summered. Widespread Osprey sightings outwith the Highlands doubtless included Scandinavian migrants. A nice selection of waders in May-June comprised Dotterel at Fair Isle, Little Ringed Plover at Auchmacoy (Aber), Terek Sandpiper at Reay (Caith) on 5 June, Little Stint at Stornoway (O Heb), 6 Temminck's Stints in the southeast, 2 Avocets in E Lothian, Grey Phalarope at St Abb's (Ber) and Red-necked Phalarope at Musselburgh (E Loth). A steady trickle of Great and Arctic Skuas was noted off Girdleness and St Abb's Head from Apr-June but a phenomenal skua passage was detected off Balranald between 7-18 May totalling 35 Great, 147 Arctic (max 52 on 7th), no fewer than 318 Pom-arine (max 95 on 7th, 75 on 9th, 81 on 13th) and 24 Long-tailed (in one flock on 10th). A Gull-billed Tern was at Bo'ness (W Loth) on 21 May, and Fair Isle and St Kilda had a Hoopoe each. The usual few Turtle Doves, Wrynecks, Shore Larks, Black Redstarts and Bluethroats occurred on the eastern seaboard, a Golden Oriole sang in Speyside, and Fair Isle had Nightingale and 2 Thrush Nightingales. A Reed Warbler sang at St Abb's from 29 May-12 Jun, Icterine Warblers reached Fair Isle and Isle of May, Subalpine Warblers were on Fair Isle and Fetlar, and Fair Isle had a Tawny Pipit and St Kilda a Red-throated Pipit. A good influx of Yellow Wagtails included 3 Blue-headed M. f. flava at Aberlady and 5 Grey-headed thunbergi scattered between Aberlady and Shetland. A Lesser Grey Shrike reached St Kilda, and E Scotland had good numbers of Red-backed Shrikes, max 25 Fair Isle on 26-27 May, including fresh

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arrivals on 27th. The most amazing event this spring must have been the Cape May Warbler Dendroica tigrina singing in (of all places) Paisley (Renf) in June. This would be the first European record and it coincided with other American passerines: Myrtle Warbler on Fair Isle on 18 May (perhaps the first spring records of American warblers), a White-crowned Sparrow Zonotrichia leucophrys (another European first) there on 15-16th and a Slate-coloured Junco in Glen Affric (Inv). Hawfinches in Sutherland and Skerries (Shet) were also interesting. Five Scarlet Rosefinches occurred at Whalsay (Shet), Fair Isle (2), St Kilda and Wick (Caith), and a Two-barred Crossbill at L Moan (Kirk) on 8 May was quite exceptional. Ortolan Buntings were on Whalsay (3), Skerries (2) and Isle of May, and Fair Isle had a Little Bunting. Shetland and Fair Isle between them had 11 + Lapland Buntings 26 Apr-5 May.

Lapland Bunting and Red-backed Shrike augmented the Scottish breeding list this summer. Two pairs of Lapland Buntings reared 4 young each at one site, $3 \ d \ d$ and a φ were found at another and single $d \ d$ were at two other Highland sites. A pair of Red-backed Shrikes reared young in the north while another pair nested unsuccessfully in the north-east. This curious redistribution after a long decline in England closely parallels that of the Wryneck. After five years suspense, a Shore Lark nest with eggs was actually found in the Highlands. Ospreys fared less well with only 6 pairs breeding successfully, perhaps due to difficulty fishing in the unsettled weather at laying time. A Whimbrel, 2 Spotted Redshanks and several Temminck's Stints displayed in Inverness-shire before moving on, but Shetland kept its Black-tailed Godwits. A greedy Peregrine brought 2 adult Wood Sandpipers to its eyrie in Speyside, where a May influx of Wrynecks produced at least 2 nests. Highland Redwings were scarce but Lesser Whitethroat and Yellow Wagtail bred in Aberdeenshire.

WITHOUT COMMENT

"Rhum journey for ospreys—by our staff correspondent in Oslo.—Six young ospreys are to be sent from Norway to Rhum, off the west coast of Scotland, to help re-establish an osprey population. Ten, who have been transferred in the past two years, seem to be thriving."

—Daily Telegraph 9th June 1977.

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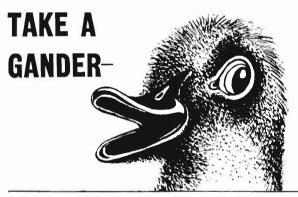
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