

ISSN 0036-9144

SCOTTISH BIRDS

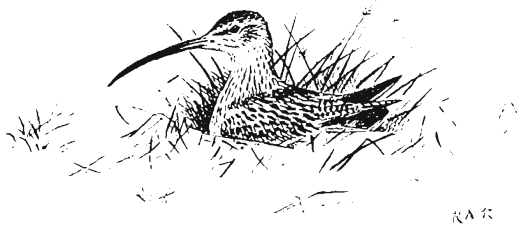


THE JOURNAL OF THE
SCOTTISH ORNITHOLOGISTS' CLUB

Volume 9 No. 6

SUMMER 1977

Price 75p



**THE ATLAS OF BREEDING BIRDS
IN BRITAIN AND IRELAND**

*compiled by J. T. R. SHARROCK for BTO and IWC
2nd impression, £10.00 net*

**RARE BIRDS IN BRITAIN
AND IRELAND**

*by J. T. R. SHARROCK and E. M. SHARROCK
336 pages, £6.00 net*

**BIRD OBSERVATORIES IN BRITAIN
AND IRELAND**

*edited by ROGER DURMAN
£5.00 net*

PINE CROSSBILLS

A Scottish contribution

*by DESMOND NETHERSOLE-THOMPSON
£5.00 net*

DUCKS OF BRITAIN AND EUROPE

*by M. A. OGILVIE
£5.00 net*

T & A D POYSER 281 High St, Berkhamsted, Herts.

**OBSERVE CONSERVE
BINOCULARS
TELESCOPES**
OF INTERNATIONAL
REPUTE

AT DISCOUNTS
OF UP TO

40%

We hold in stock what is believed to be the largest range of binoculars and telescopes for bird watching in the country. Here are some examples of our discount prices, correct at time of press (send coupon for up-to-date mail order price list and FREE COPY of 'Your Guide to Binocular Ownership').

ALL BRAND NEW COMPLETE WITH CASE & LANYARD

Swift Audubon 8.5 x 44 Mk. II	Retail	£108.00	Our price	£79.40
Swift Saratoga 8 x 40 Mk. II	Retail	£71.13	Our price	£52.10
Swift Grand Prix 8 x 40	Retail	£59.06	Our price	£43.40
Carl Zeiss 8 x 30B Dialyt	Retail	£232.65	Our price	£177.75
Carl Zeiss 10 x 40B Dialyt	Retail	£274.33	Our price	£209.25
Leitz 10 x 40B Hard Case			Our price	£228.80
Habicht Diana 10 x 40	Retail	£199.45	Our price	£144.61
Nickel Supra Telescope 15x60x60	Retail	£151.88	Our price	£100.50
Swift Telemaster 15x60x60	Retail	£157.50	Our price	£115.80

Part postage and packing 75p



**Camping, Climbing,
Rambling** send too, for
mail order price lists
from our associate
company Field & Trek
(Equipment) Ltd.

Same top quality, same keen prices,
same address.

**The Birdwatchers
Glasses.** Heron 8x40
BWCF

Mark II £26.16



To HERON OPTICAL CO. LTD.

(Dept. SB6), 23/25 Kings Road, Brentwood, Essex.

Please send binocular/telescope price list(s) and
Guide to Binocular/Telescope Ownership

Name.....

Address.....





CONSERVATION PUBLICATIONS by WAGBI

All these titles are available from
WAGBI's National Centre, Marford Mill, Rossett, Wrexham,
Clwyd, LL12 0HL,

or from WAGBI's Scottish Development Officer,
D. S. P. Cant, Barskaig House, Barr, Ayrshire.

Also available from the Bird Bookshop, 21 Regent Terrace, Edinburgh
EH7 5BT

SCOTTISH BIRDS

THE JOURNAL OF THE SCOTTISH ORNITHOLOGISTS' CLUB
21 Regent Terrace, Edinburgh EH7 5BT (tel. 031 - 556 6042)

CONTENTS OF VOLUME 9, NUMBER 6, SUMMER 1977

	<i>Page</i>
Puffins on the Isle of May (M. P. Harris)	285
Isle of May Bird Observatory and Field Station Report for 1976 (J. M. S. Arnott)	290
Short Notes	
Pied-billed Grebe in Kirkcudbrightshire (L. A. Urquhart)	297
Overland passage of Gannets from the Forth (I. R. Taylor)	298
Red-breasted Merganser killing Oystercatcher (John Phillips, James Duncan)	299
Display of Golden Eagle carrying stick (J. Hardey) ...	300
Arctic Terns breeding inland in Caithness (S. Laybourne, S. A. M. Manson, P. M. Collett) ...	301
Probable Swallow x House Martin hybrid (Roger A. Broad)	301
Rooks killing Carrion Crow (C. M. Morrison)	302
Obituary	
Seton Paul Gordon (Adam Watson)	307
Duncan Robertson Anderson (Alasdair Anderson) ...	309
Elsie Macdonald (C. E. Palmar)	310
Reviews	
The Atlas of Breeding Birds in Britain and Ireland by J. T. R. Sharrock (R. D. Murray)	310
The Dictionary of Birds in Colour by Bruce Campbell (Ian H. J. Lyster)	312
Der Zug Europaischer Singvogel vol. 2 by Gerhardt Zink (R. A. Eades)	312
Breeding Birds of the Medway Estuary; Wildfowl of Morecambe Bay; Caerlaverock; Loch Leven; The Sevenoaks Gravel Pit Reserve; Duck Wings; by WAGBI (A. G. Stewart)	313
The Book of Birds by A. M. Lysaght (Ritchie Seath) ...	314
The Titmice of the British Isles by J. A. G. Barnes (Andrew Deadman)	315
Birds of Town and Suburb by Eric Simms (D. Stead) ...	315
Greenland by Michael Banks (Jeremy Greenwood) ...	316
Fair Isle Bird Observatory: Report for 1975 ed. G. Waterston (L. L. J. Vick)	317
Birds of Siberia by Henry Seebohm (M. Densley) ...	317
Rare Birds in Britain and Ireland by J. T. R. and E. M. Sharrock (Andrew T. Macmillan)	318
Current literature	318
Letter: Great Skuas as predators of mammals (R. W. Furness)	319
Request for Information	321
Scottish Ornithologists' Club	321
Branch and Group News	323
Current Notes	323

Editor D. J. Bates

Business Editor Major A. D. Peirse-Duncombe

1977-78

SPECIAL INTEREST TOURS by PEREGRINE HOLIDAYS



Directors: Raymond Hodgkins, MA. (Oxon)MTAI.
Patricia Hodgkins, MTAI and Neville Wykes, (Accl.)

All Tours by scheduled Air and Inclusive.
Most with guest lecturers and a tour manager.

			*Provisional
AMAZON & GALAPAGOS	Aug 4-24	Dr David Bellamy	£1065
BIRDS OVER THE BOSPHORUS	Sep 22-29	Eagles with Dr Chris Perrins	£199
MINOAN STUDY TOUR	Sep 24-Oct 3	Birds & Archaeology	£239
AUTUMN IN CORFU	Oct 3-10	Birds	£125
KASHMIR & KULU	Oct 14-29	Birds & Flowers	£698
AUTUMN IN ARGOLIS	Oct 22-31	Birds & Sites	£171
AUTUMN IN CRETE	Nov 7-14	Birds & Leisure	£161
CHRISTMAS IN CRETE	Dec 22-31	Birds Flowers Archaeology	£181

This tour has been an annual "sell-out" since it started in 1974.
Registration at once advised.

INDA & NEPAL	Feb 10-25	Birds Wildlife	£675*
SPRING IN CRETE	Mar 5-13	Flowers Leisure	£185
SPRING IN VENICE	Mar 12-19	Art Architecture	£139*
SPRING IN ARGOLIS	Mar 15-24	Sites Flowers	£179
SPRING IN CORFU	Apr 17-24		
	Apr 24-May 1	Birds Flowers	£135*
PELOPONNESE	Apr 1-15	Birds Flowers	£340*
PELOPONNESE	Apr 4-18	Ancient History	£335*
CRETE	Apr 4-18	Birds & Flowers	£330*
NORTHERN GREECE	Apr 28-May 5	Birds	£210*
NORTHERN GREECE	Jun 8-22	Mountain Flowers	£340*

REGISTRATION FOR 1978

This entails no obligation, merely gives you first sight of the new Brochures.

Brochures by return. Registration without obligation.

PEREGRINE HOLIDAYS at TOWN AND GOWN TRAVEL,

40/41 SOUTH PARADE,
SUMMERTOWN, OXFORD,
OX2 7JP.

Phone Oxford (0865) 511341-2-3



Fully Bonded Atol No. 275B

SCOTTISH BIRDS

THE JOURNAL OF THE SCOTTISH ORNITHOLOGISTS' CLUB



Volume 9 No. 6

Summer 1977

Edited by D. J. Bates

Puffins on the Isle of May

M. P. HARRIS

(Plate 25)

This paper documents recent increases of Puffins on the Isle of May, Firth of Forth. By contrast the numbers of Puffins breeding at many colonies in the west of Scotland have declined in the last few decades (Harris 1976a). A research programme was begun in 1972 into the factors influencing Puffin numbers and the Isle of May was chosen as one of the main places where the numbers were increasing rapidly.

Population estimates

The relatively few earlier counts and more detailed recent data are given below. Where no source is given the information up to 1972 has been taken from Eggeling (1960, 1974) and records kept by the Isle of May Bird Observatory.

- | | |
|--------|--|
| 1883 | 30-40 pairs. |
| 1888 | Less than 20 pairs. (Diaries of H. Raeburn). |
| 1921 | 12 pairs. |
| 1924 | 6 pairs. |
| 1934 | 8-10 pairs. |
| 1935 | c.7 pairs bred; maximum count 35 birds. |
| 1936 | Perhaps 50 pairs. |
| 1950-9 | 5-10 pairs. |
| 1951 | Less than 10 pairs. |
| 1953 | Maximum count 92 birds. |
| 1954 | 7 pairs on west cliffs. |
| 1955 | There was apparently no increase in the numbers nesting, although 90 birds were seen on 29th May. |
| 1956 | Few pairs bred, maximum count 75 birds. Some birds seen inland on North Plateau. |
| 1957-8 | 50+ pairs attempted unsuccessfully to establish colonies on the Burrian, around Horse Hole and on southwest Rona. Birds also ashore near Cornerstone Cove. |
| 1959 | Few pairs bred, maximum count 90 birds on 20th July. |
| 1960 | Few pairs bred, 40 birds prospected the Burrian. |
| 1961 | 200-300 birds prospected the Burrian. |
| 1962 | 500+ birds present in mid June but few seen carrying fish. Breeding recorded on slopes above Colm's Hole and some birds were standing around west of Holyman's Road. |

- 1963 472 birds on the sea on 28th March and maybe 200 pairs bred including the first on Rona since 1957.
- 1964 More than 500 pairs present.
- 1965 Maximum count 830 birds on 22nd July.
- 1968 2,000 birds recorded off the western cliffs.
- 1970 An estimated 2,000 pairs bred.
- 1971 A "guess of 3-4,000 pairs" on 1st April presumably relates to a count of birds on the sea.
- 1972 In June 4,200 burrows occupied by either Puffins or Rabbits *Oryctolagus cuniculus* (Bellamy *et al* 1972). On 29th July I counted c.6,000 birds on the sea.
- 1973 c.3,500 and c.3,600 birds counted on 14th March and 11th April respectively when only mature birds should have been present at the colonies.
- 1974 Maximum pre-breeding count was 3,870 birds on 28th March.
- 1975 c.6,500 birds present on 14th April and a count of occupied burrows indicated c.3,000 pairs. Several areas were recounted in early June and there was fairly good agreement with the April counts thus (April burrow counts first): 3/6, 32/23, 30/41, 179/160, 43/30, totals 287/260.
- Very few Rabbits in spring and error due to mis-identification of burrows was probably small. Birds were recorded breeding on the southern slopes of the Loch.
- 1976 The colonies continued to expand and Puffins were seen standing on rocks on most parts of the island except around the lighthouse and the inland parts of South Plateau and West Braes.

Quadrat counts

A small population of Puffins can be counted or estimated fairly accurately by experienced observers, but estimates, subjective impressions, or even counts of more than about 200 birds become unreliable. Many more Puffins visit a colony than breed there. For example, between 1973 and June 1975 2,556 full-grown Puffins were colour-ringed on the Burrian, where there were 1,498 occupied burrows in 1975, yet only 25% (828 out of 3,327 sightings) of birds seen there in July 1976 had rings. Many of these extra birds at colonies are immature but some are old enough to be breeding and others have bred previously but cannot always obtain burrows (Ashcroft 1977). If these additional birds plus all the breeding adults are present at one time, the colony appears much larger than it actually is.

The only acceptable method available for estimating population changes is to count occupied burrows in well defined areas. In June 1972 a group led by D. Bellamy set up and counted burrows in seven permanently staked areas or quadrats, each covering about 1,000 square metres of high density Puffin colonies. They did not, however, distinguish between Puffin and Rabbit burrows. I have since followed the numbers of Puffins nesting in these areas and also in three similar quadrats set up in July 1972 (figure). In all but three areas there have been substantial increases in the numbers of occupied burrows (table 1). Early in the season, when these counts

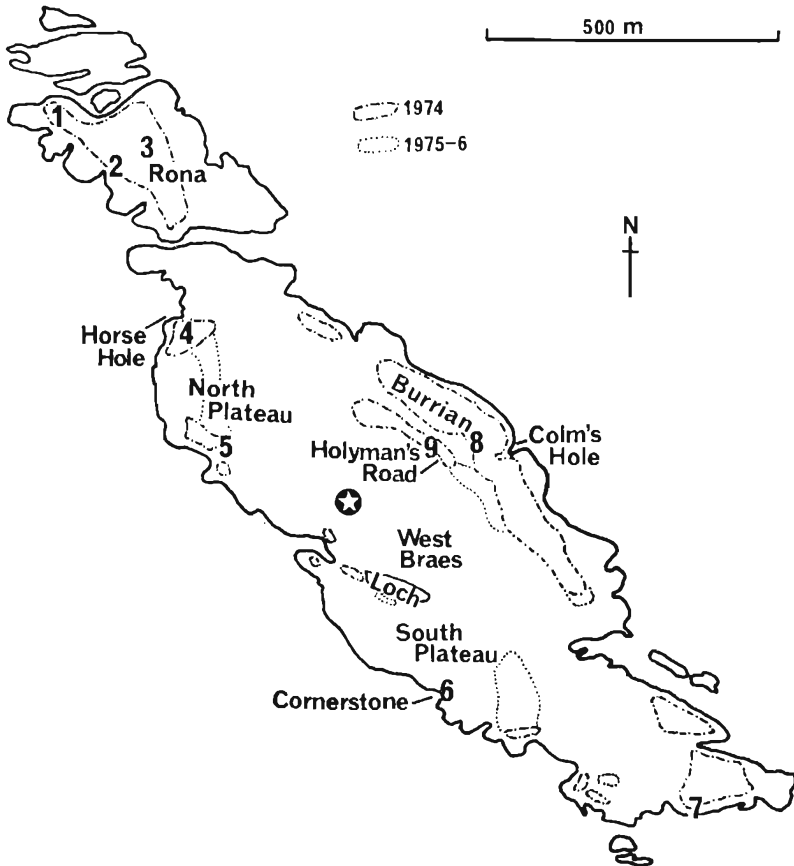


Figure. Positions of quadrats (1-9) and extent of Puffin colony on the Isle of May 1974-6. The star marks the lighthouse.

Table 1. Numbers of occupied Puffin burrows in permanently marked quadrats on the Isle of May

Areas 1a and 1b are excluded from the totals because of severe soil erosion (see text).

Quadrat	Place	Area (m ²)	Occupied Puffin Burrows			
			1972	1974	1975	1976
1a	Rona (NW)	c.400	112		76	43
1b	Rona (NW)	c.1000	78		77	88
2	Rona (W)	800		9	19	22
3	Rona (E)	400		27	34	51
4	Horse Hole	2000		55	147	173
5	Bishop's Cove	1024		40	57	67
6	Cornerstone	144		4	3	3
7	Lady's Bed	1450		34	35	c.100
8	Burrian	1200		119	144	179
9	Holyman's Road	396	0	34	53	78
Totals (excluding 1a and 1b)				322	492	c.673

were made, it is usually fairly easy to separate burrows belonging to Rabbits and Puffins. However, many more Rabbits than normal survived over the 1975-6 winter and so the 1976 count is probably less accurate than those made in earlier years. Even so the trend is clear, and the numbers of Puffins breeding in the already colonized areas have almost doubled in the last three years. The three atypical quadrats are at Cornerstone (No. 6) and the northwest tip of Rona (Nos. 1a, 1b). The first is a large Rabbit warren and not really suitable for Puffins; the other two are showing extreme soil erosion. The quadrats 1a and 1b were deliberately placed to follow the expected decline of the colony. Erosion is also becoming obvious in several other areas, especially on the Burrian and the north side of Colm's Hole. Here the thousand or more day-trippers who visit the island each year increase erosion by caving in burrows. Increasing numbers of both Puffins and humans could result in as severe a nature reserve management problem as they do on the Farne Islands.

The origin of the Isle of May birds

The rapid and still continuing increase in the numbers of Puffins on the Isle of May through the 1960s and 1970s must initially have been due entirely to massive immigration. Even now, when the population is thriving, the doubling of numbers noted between 1974 and 1976 would be impossible without a considerable influx of birds. Immigration is in fact proved by recoveries of 52 and 25 Puffins ringed as young and full-grown respectively on the Farne Islands (82 km SE), three young birds from Craigleith (16 km SW) and one full-grown bird from Fair Isle (375 km NNE)—details up to the end of 1975 in Harris

(1976b). The numbers of Farnes-ringed birds recovered reflects the large numbers ringed there but the Farnes is also the only nearby colony large enough to supply significant numbers of birds. All other east coast colonies are either small or also increasing (Harris 1976a). An occasional Puffin does move from the west of Britain to the east as shown by a three-year old bird found dead on the Bass Rock which had been ringed as young on Skomer Island, Dyfed. However, work in progress shows that Puffins from the west coast of Scotland, as typified by those from St Kilda, are significantly smaller than those from the east (table 2) suggesting that there is little interchange between these two areas.

Table 2. Measurements of breeding Puffins from St Kilda and the Isle of May.

All differences are significant at the 1% level.

	Isle of May		St Kilda	
	No.	Mean \pm SE	No.	Mean \pm SE
Wing length (mm)	193	161.4 \pm 0.30	124	157.6 \pm 0.38
Weight (g)	180	397.3 \pm 2.44	129	374.1 \pm 2.33
Bill length (mm)	89	28.9 \pm 0.13	43	28.2 \pm 0.16
Bill depth (mm)	90	36.2 \pm 0.20	40	33.9 \pm 0.24

Note: These measurements were all made by S. Murray or the author. There were no significant differences in the means of 50 birds measured by both of us.

Continuing studies are designed to monitor the inter-colony movements of birds ringed as young. Doubtless, there will be immigration and emigration to and from most colonies but, assuming that the Isle of May population continues to grow at the present rate, it will be surprising if the Farne Islands are not supplying many more birds to the Isle of May than they receive from there.

Acknowledgment

This study was financed by a Nature Conservancy Research contract.

Summary

The colony of Puffins on the Isle of May is expanding rapidly; there were only a few pairs in 1959-60 but c.3,000 in 1975. This increase is due in part to immigration of birds from the Farne Islands.

References

- ASHCROFT, R. E. 1977. Breeding, biology and survival of Puffins. Unpubl. D. Phil. thesis, Oxford.
- BELLAMY, D., BELL, D., GREEN, C. H. L., GREENAWAY, M. J., MORGAN, E. & THOMAS, D. J. 1972. Puffins on the Isle of May. Unpubl. report to Nature Conservancy.
- EGGELING, W. J. 1960. *The Isle of May*. Edinburgh and London, Oliver and Boyd.

- EGGELING, W. J. 1974. The birds of the Isle of May—a revised assessment of status. *Scot. Birds* 8: 93-148.
- HARRIS, M. P. 1976a. The present status of the Puffin in Britain and Ireland. *Brit. Birds* 69: 239-264.
- HARRIS, M. P. 1976b. Inter-colony movements of Farne Islands Puffins. *Trans. Nat. Hist. Soc. Northumb.* 42: 115-118.

Dr M. P. Harris, *Institute of Terrestrial Ecology,*
Hill of Brathens, Banchory, Kincardineshire AB3 4BY.

Isle of May Bird Observatory and Field Station Report for 1976[†]

Prepared for the Observatory Committee
by J. M. S. ARNOTT, *Honorary Secretary*

(Plate 27)

The Observatory was manned from 25th March to 8th June in the spring, with some intermittent cover across the summer, and in the autumn from 7th August to 30th October. Altogether 144 species were observed during the year, with the addition of a Red-headed Bunting which was probably an escape. A new bird for the island was Cory's Shearwater and other rarities included two Pallas's Warblers (second and third records), a Great Shearwater, a Tawny Pipit, a Woodchat Shrike, two Yellow-breasted Buntings, and a Cirl Bunting. Larger numbers than usual were recorded of Manx and Sooty Shearwaters, Woodcock, Arctic Skua, Little Gull, Short-eared Owl, Redwing, Blackcap, Dunnock, Red-backed Shrike and Chaffinch.

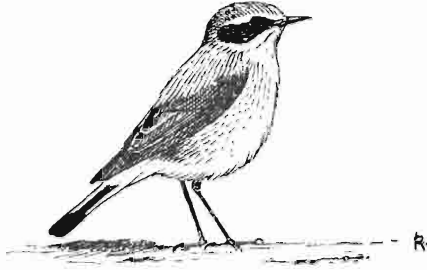
A total of 5,396 birds of 69 species was ringed and there were 265 recoveries, mostly of Herring Gulls and Shags. The Woodchat Shrike was the only addition to the ringing list. Among the breeding birds the Shags continued to decline in number and Lapwings nested for the first time.

Spring migration

On the whole, migration in the spring was quiet and according to pattern. As usual, falls of migrants in both the spring and autumn were generally associated with southeasterly winds and poor visibility. For example, the first night of south-east wind after the Observatory opened, 12th April, brought over 50 Goldcrests and the highest number ever recorded in

[†]Reports since 1958 have been published annually in *Scottish Birds*.

spring of about 30 Wrens, as well as a Treecreeper, an unusual spring visitor. The same conditions occurred early on 7th May, when there was a fall of 200 Willow Warblers, and amongst others the year's first Garden Warbler, Whitethroats and Pied Flycatchers, and for the second year running a very high spring number of Wheatears, at 150.



WHEATEAR by R. A. Richardson

Most of these moved on in the good visibility later that day but on 9th May, following another clear night and light and variable wind, there was a fall of at least 300 Willow Warblers (105 of which were ringed that day) as well as about 20 Sedge Warblers and 20 Whitethroats. A period of easterly winds at the end of May brought a small movement, including a single Red-backed Shrike on 25th, four on 29th, and then the highest recorded number of seven on 30th.

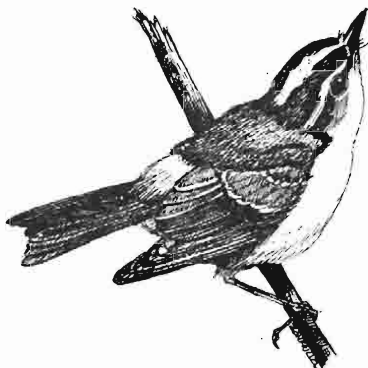
Autumn migration

A feature of this autumn was the exceptional passage of shearwaters from the end of August to the middle of October. The records are somewhat patchy, reflecting no doubt observers' experience and inclination as far as seawatching is concerned, but they show the movement starting on 28th August with ten Manx Shearwaters, three Sooty Shearwaters and the island's third record of Great Shearwater. Numbers continued small for a fortnight until, following a force nine gale from the north on 9th September, the 10th saw a spectacular movement of both Manx and Sooty Shearwaters and the first record for the May of a Cory's Shearwater. Sample counts throughout the day produced figures of 175 for Manx and 144 for Sooty, indicating a passage of at least 500 for each species, which is comparable with the previous highest recorded daily figures.

The later autumn passage began on 17th September at the start of a period of easterly wind which lasted through to 3rd

October. Amongst a steady build-up of numbers this included a Yellow-breasted Bunting on 18th, a Woodchat Shrike on 21st, a Red-breasted Flycatcher on 22nd and a Great Grey Shrike on 27th. This last was ringed on 30th, when the ringing total was 215, including 53 Robins, 58 Chaffinches, and 63 Dunnocks; 21 Blackcaps were ringed on 1st October, and 39 on 2nd. The last day of this large passage on 3rd October saw the arrival of 350 Chaffinches, and amongst others a Hen Harrier, a Merlin, four Kestrels, six Short-eared Owls, a Long-eared Owl, two Great Grey Shrikes, four Shore Larks, 50 Skylarks, 70 Redwings, and 70 Reed Buntings. A Pallas's Warbler was seen on 15th.

The easterly winds returned on 18th October, bringing a fall of over 1,500 Song Thrushes and 400 Redwings (though no Fieldfares or Blackbirds) and 120 Bramblings. The Brambling numbers quickly built up to 250 until the end of the month. Fieldfares were comparatively scarce, with an autumn peak of 200 on 27th, which also saw a fall of an estimated 4,000 Redwings and 1,000 Song Thrushes. To make up six species of thrush present at the same time there were also 500 Blackbirds, three Ring Ouzels, and two Mistle Thrushes. It was one of those days on the May when the whole island was alive with birds, swarming on every rock, wall, patch of grass, ditch and building. As well as the thrushes there were over 1,000 Robins and over 1,000 Starlings, 250 Bramblings, 150 Dunnocks and many others including, late in the afternoon, another Pallas's Warbler. First recorded only the previous year, this was now the third record.



PALLAS'S WARBLER by B. Zonfrillo

Passage dates of some migrants

Great Skua 1 Aug-15 Oct, 4 on three dates.
 Arctic Skua 13 Aug-18 Oct, 15 on 10 Sep.
 Wryneck 24 Aug-27 Oct, 2 on 24 Sep.

- Swallow 30 Apr-23 May, 50 on 2nd and 7 May. 19 Aug-17 Oct, 75 on 18 Sep.
 House Martin 3 May-14 Jun, 20 on 20 May. 4 Sep-16 Oct, 6 on 4 Sep.
 Sand Martin 30 Apr-31 May, 3 on 2 May. 23 Jul-7 Sep, 7 on 7 Sep.
 Fieldfare To 5 May, 50 on 19th and 21 Apr. 20 Sep onwards, 200 on 27 Oct.
 Song Thrush To 5 May, 50 on 2 Apr. 4 Sep onwards, 1,500 on 18th and 23 Oct.
 Redwing To 11 May, 50 on 24 Mar. 15 Sep onwards, 4,000 on 27 Oct.
 Blackbird To 9 May, 75 on 24 Mar. 12 Oct onwards, 500 on 27 Oct.
 Wheatear 31 Mar-11 Jun, 150 on 7 May. 1 Jul-15 Oct, 50 on 17 Sep.
 Redstart 1 May-2 Jun, 6 on 9 May. 23 Aug-26 Oct, 60 on 23 Sep.
 Blackcap 8 May-1 Jun, 2 on 8 May. 16 Sep onwards, 150 on 2 Oct.
 Garden Warbler 7 May-7 Jun, 3 on 1 Jun. 17 Aug-3 Oct, 12 on 29 Aug.
 Whitethroat 7 May-3 Jun, 20 on 9 May. 13 Aug-3 Oct, 10 on 23 Sep.
 Willow Warbler 17 Apr-18 Jun, 300 on 9 May. 24 Jul-18 Oct, 13 on 30 Aug.
 Chiffchaff 9-20 May, 4 on 20 May. 16 Sep onwards, 25 on 3 Oct.
 Spotted Flycatcher 8 May-2 Jun, 3 on 1 Jun. 14 Aug-4 Oct, 3 on 6th and 23 Sep.
 Pied Flycatcher 7 May-1 Jun, 3 on 29 May. 10 Aug-17 Oct, 8 on 22-25 Sep.

Unusual occurrences

- Great Northern Diver One 30 Oct—10th record.
 Red-throated Diver Six, 12 Oct—equal most in a day.
 Cory's Shearwater One, 11 Sep—1st record.
 Manx Shearwater 175 on 10 Sep—high number.
 Great Shearwater One 28 Aug—3rd record.
 Sooty Shearwater 314 between 28 Aug-14 Oct including 144 on 10 Sep (3 in 1975).
 Tufted Duck Two, 3 May; one, 24 Aug-6 Sep—8-9th occurrences.
 Goldeneye One, 24 Mar-3 Apr; max 3 from 1-30 Oct—only c.20 occurrences.
 Greylag Goose One, 22 Mar-1 Apr—1st spring record.
 Brent Goose One Dark-bellied *B. b. bernicla* 30 Oct—6th occurrence.
 Canada Goose 25 on 2 Sep—7th occurrence.
 Hen Harrier Singles 3rd and 27-29 Oct—5-6th records.
 Quail One 25 May—11th record, 1st since 1969.
 Woodcock Heavier passage than usual from 10 Sep, peak of 20 on 28-29 Oct.
 Whimbrel Unusually small autumn passage with only 2 birds.
 Green Sandpiper One 29 Sep—equal latest date.
 Great Skua One 30 Apr—5th spring record.
 Pomarine Skua One 16 Sep—10th occurrence.
 Glaucous Gull One 25 Apr—only 9th record in 20 years.
 Little Gull Eight 29 Oct—most in a day.
 Short-eared Owl Six 3 Oct—most in a day.
 Wryneck One 27 Oct—latest date; the last three years have all had later records than earlier years.
 Shore Lark One 4-5 May—7th spring record.
 Raven One 27 Oct—6th occurrence.
 Treecreeper One 13 Apr—5th spring record.
 Redwing 4,000 on 27 Oct—unusually high number.
 Wheatear 150 on 7 May—large number for spring for second successive year.
 Nightingale One 19 Aug—3rd autumn record.
 Bluethroat Singles on 20 May and 29 May-1 Jun.
 Reed Warbler Five in autumn; previously only c.20 autumn records.

Icterine Warbler Singles on 6th, 12th and 28-29 Aug—unusual to have as many.

Blackcap 150 on 2 Oct and an exceptionally high figure of over 300 altogether in autumn.

Wood Warbler One 2 Oct—latest record.

Pallas's Warbler Singles 15th and 27 Oct—2nd-3rd records.

Red-breasted Flycatcher Singles 30 May-7 June—4th spring record—and 22-25 Sep.

Tawny Pipit One 1 Jul—4th record.

Great Grey Shrike At least six in autumn.

Woodchat Shrike One 21 Sep—3rd record.

Red-backed Shrike Seven 30 May—most in a day.

Chaffinch 350 on 3 Oct—most in a day.

[**Red-headed Bunting** One 27 Aug—probable escape.]

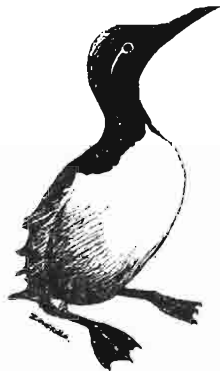
Yellow-breasted Bunting Singles 30 Aug and 18 Sep—9th and 10th records.

Cirl Bunting One controlled 11 Jun (see under Recoveries for details)—4th occurrence, 1st since 1947, previously in Sep-Oct.

Reed Bunting 70 on 3 Oct—highest autumn number.

Breeding population (all numbers refer to pairs)

Following a small-scale cull, the population of Herring and Lesser Black-backed Gulls was maintained at about 2,500 and 250 respectively. Once again a count was made by Hector Galbraith of the cliff nesting species in early June and his figures show a continuing decline of breeding Shags with 365 (676 in 1975, 979 in 1974, 1,129 in 1973). Fulmars were also down, to 57 (72 in 1975, 91 in 1974), as were Kittiwakes at 3,382 (3,869 in 1975, 3,125 in 1974) and Razorbills at 412 (525 in 1975, 451 in 1974). Guillemots fared better with about 4,170 (3,880 in 1975, 3,923 in 1974) and it appears that Puffins may also have increased with over 3,000.



BRIDLED GUILLEMOT by B. Zonfrillo

A new breeding bird was added to the list with the first confirmed nesting of Lapwings. Two nests each with four eggs were found but no young were reported. Other breeding birds were Eider with about 100, Oystercatcher with about 18, two pairs of Swallows, and 40-50 pairs of Rock Pipits.

Ringling

A total of 5,396 birds of 69 species was ringed. By far the highest species total was 1,447 for Puffins, as part of the current research programme, but other high figures were 523 Robins (previous highest figure 398 in 1951), 403 Willow Warblers (taking the observatory total past the 7,500 mark), 328 Song Thrushes (previous highest figure 211 in 1966, and usually under 100), 222 Chaffinches (previous highest figure 123 in 1946) and 211 Blackcaps (more than twice the previous highest figure of 97 in 1973). Highest annual figures were also obtained for Oystercatcher (20), Chiffchaff (41), and Dunnock (175), and second highest figures for Redstart (130), Great Grey Shrike (6), and Starling (150).

Among unusual ringing records Woodchat Shrike was ringed for the first time, and there were also Kestrel (1), Woodcock (2), Long-eared Owl (4), Treecreeper (2), Mistle Thrush (2—first time since 1966), Icterine Warbler (1), Barred Warbler (1—17 in 1975), Wood Warbler (1), Red-breasted Flycatcher (2), Red-backed Shrike (4) and Yellow-breasted Bunting (1). The most surprising drive of a Heligoland trap during the year produced but two birds, a Rook (third to be ringed on the island) and a Sparrowhawk (seventh).

Recoveries

There were 265 recoveries of 16 species; 141 of these were Herring Gulls, following the usual east coast distribution, but including three from Lancashire, and many of them the result of culls on the Forth islands, the Farnes, and elsewhere. There were 87 Shag recoveries, ranging down the east coast from the Moray Firth to Kent. Only five Puffins were recovered away from the island, from Yorkshire to the Forth, but including a breeding adult of 1973 controlled breeding on Craighleith in 1976. A selection of detailed recoveries includes (species followed by age code in brackets):

	Ringed	Recovered	
Woodcock (4)	2. 5.74	6.11.76	Stilde Forest, Holstead, Jutland, Denmark.
Great Black-backed Gull (3)	15.12.74	28. 7.76	Knarrlagsund, Hitra, Sor-Trondelag, Norway.
Kittiwake (1)	3. 6.73	17. 9.76	Weybourne, Sheringham, Norfolk.
Kittiwake (1)	8. 7.74	20. 9.76	Fogo, Newfoundland, Canada.
Blackbird (3♂)	21.10.74	13. 4.76	Royken, Buskerud, Norway.
Whinchat (3♀)	2. 9.74	30. 4.76	Oued Zem, Morocco. (Trapped by children).
Redstart (4♂)	9. 5.75	4. 5.76	Châlette-sur-Loing, Loiret, France.
Robin (3)	24. 9.76	19.11.76	Canton, Cardiff, Glamorgan.
Willow Warbler (3)	7. 9.74	28. 4.76	The Calf, Isle of Man (controlled).

Goldcrest (2♀)	27. 9.75	8.11.75	Rickmansworth, Hertfordshire.
Great Grey			
Shrike (3)	3.10.76	15.12.76	Lesmahagow, Lanarkshire.

Ringling details notified during the year of controls on the Isle of May of birds ringed elsewhere included :

	Controlled	Ringed	
Redshank	7.10.74 (1)	8. 7.69	Vagnbrekka, Skútustadir, Sudur-Thingeyjar, Iceland.
Blackbird	23. 4.75 (4♀)	2.10.74	Heligoland, West Germany.
Blackbird	9.10.75 (3♂)	30. 9.74	Insel Scharhorn, Hamburg, West Germany.
Blackbird	17.10.75 (5♀)	28. 3.75	Hjelm, Jutland, Denmark.
Goldcrest	22.10.75 (3♂)	5.10.75	Kallskar, off Eugmo, Vaasa, Finland.
Red-breasted			
Flycatcher	10.10.75 (3)	3. 9.75	Lagskär, Aland Is., Finland.
Starling	15.10.75 (3)	5. 4.75	Pandrup, Jutland, Denmark.
Cirl			
Bunting	11. 6.76 (3J)	27. 7.75	Beachy Head, Sussex.

The Red-breasted Flycatcher was the first British recovery. The Cirl Bunting was also remarkable as only the second recovery of one ringed in Britain and the eighth acceptable Scottish record.

Research

Gulls Neil Duncan of Durham University continued his study of breeding success among Herring and Lesser Black-backed Gulls, recruitment associated with the cull, and his analysis of ringed cull birds.

Puffins Dr M. P. Harris of the Institute of Terrestrial Ecology continued his study of the status and breeding biology of the population, including a large-scale ringing programme.

Behaviour Staff and students of St Andrew University under Dr R. Prescott carried out behavioural studies of Rabbits *Oryctolagus cuniculus* and Herring Gulls.

Marine fauna Dr J. L. S. Cobb of St Andrews University continued a monitoring programme begun last year.

Vegetation Study of the changes following the gull cull were continued by Dr Rosalind Smith of the Nature Conservancy Council.

Management

Gulls A small cull of Herring and Lesser Black-backed Gulls was carried out at the end of May by staff of the Nature Conservancy Council to maintain the population at its target level, following the main culls of 1972-4.

NCC Warden The Nature Conservancy Council again em-

ployed a part-time reserve warden on the island during the summer months to talk to day-visitors and minimise the damage they cause. With well over 100 visitors on some days during the summer this continues to be a problem, particularly with regard to egg-stealing, turf-fires, and trampling of Puffin burrows.

Bookings secretary Mrs Rosemary Cowper has taken over as honorary bookings secretary. Her address is 9 Oxgangs Road, Edinburgh 10, telephone number 031-445-2489.

The Committee's thanks are extended to the lightkeepers for all their assistance in various ways during the year, to Mr Jim Smith for making the sailing arrangements, to all observers who helped with record-keeping and maintenance of traps and other equipment, and to Dr Derek Langslow for making up all the ringing schedules.

*J. M. S. Arnott, East Redford House,
Redford Road, Edinburgh, EH13 0AS.*

Short Notes

Pied-billed Grebe in Kirkcudbrightshire

On 1st October 1975 I found an unfamiliar small grebe at Carlingwark Loch, Kirkcudbrightshire. It came no nearer than 200 yards and the light was poor but through the telescope I could see it was a drab, dusky grey little bird, slightly larger, thicker necked and even dumpier than the Little Grebes in view, darker in general appearance, with a much stouter and heavier looking bill. Compared with Little Grebes, which it briefly joined only once, it was heavier headed altogether, the head having a noticeable triangular shape.

In swimming about it cocked its tail and this was a most distinctive feature—a thin, pointed little tail cocked straight up to show white below. When its tail was down the white rear did not show, except when it faced directly away and a wave rocked its stern up. It also rolled on its side, showing its belly. It often stretched its neck and leant forward, giving it a long, thin-necked appearance, but when relaxed the neck was thick. It normally dived head first without a jump but also disappeared vertically with a little splash in a sort of crash dive. It threw its tail up in one of these splashy disappearances. When it briefly joined eight Little Grebes all were harried by Black-headed and Common Gulls swooping and forcing them to dive and it crash dived several times. It once

caught a five inch fish which it shook vigorously and apparently swallowed, and although it had been diving frequently it did not dive again for at least half an hour. I watched it for about an hour and a half on the 1st when I thought it might be a Pied-billed Grebe. On the forenoon of 2nd October, in better light, I returned with A. D. Watson and we found it in the same place, but not much further detail was obtained.

Description Dark grey upperparts, paler on nape and sides of neck. White on chin and from lower breast to under tail-coverts. Throat, upper breast and flanks reddish brown; perhaps an orange tone in good light (LAU). W. Jackson later noted plain wings in flight, without barring or any noticeable relief. Bill appeared uniformly pale—perhaps a yellow-green tinge (ADW)—but we could not distinguish the colour with exactness.

It was seen by several other observers until at least 8th October. This is the first Scottish record and probably only the fourth individual of this American species to have been found in Britain.

L. A. URQUHART.

Overland passage of Gannets from the Forth

In his paper on the dispersal of first-year Gannets from the Bass Rock (8: 295-8) Thomson states that two early recoveries in the Firth of Clyde “could conceivably indicate a short overland crossing.” Evidence for this has already been given by me (4: 564) and I present it again in more detail with other unpublished records.

27th August 1966 (wind E3, overcast, good visibility): an adult flying over the Forth between Grangemouth and Kincardine rose to 100-150 feet and disappeared SW three to four miles inland.

25th September 1966 (calm, clear, good visibility): half a mile W of Grangemouth one of seven first-year Gannets flying W along the Forth headed SW at 200 feet until it disappeared three to four miles inland. The other six made no attempt to follow and flew up the estuary past Kincardine Bridge, as Gannets not infrequently do.

27th August 1967 (calm, good visibility): a mile E of Kincardine Bridge three first-year Gannets left the Forth SW at 150 feet until lost to view three miles inland.

13th September 1967 (calm, misty, poor visibility): over the centre of Falkirk, three miles from the estuary, a first-year Gannet flying SW at 50 feet was followed for 300 yards before being hidden by tall buildings.

17th September 1967 (light wind, good visibility): near

Carronshore, two and a half miles from the Forth, a first-year Gannet flew SW at 100-125 feet until it disappeared five to six miles inland.

With the possible exception of the bird seen briefly over the centre of Falkirk, all the birds took the same course and were seen to fly several miles inland without changing direction. If this remained unaltered they would have arrived on the coast near Ayr. The observations are, of course, no direct proof that the birds flew all the way to this destination and there appear to be no records of Gannets flying SW over the Clyde coast. Equally, however, there are no records of Gannets returning towards the Forth from inland.

Seven birds in two years indicate only a small passage but Gannets are fairly common in the upper Forth in autumn and the passage may be greater. Most inland records of Gannets are attributed to severe weather but there is no doubt that the movements noted here were voluntary, occurring even in calm and clear conditions. In one case the urge to fly inland was even stronger than the urge to remain with a group of six others.

I. R. TAYLOR.

Red-breasted Merganser killing Oystercatcher

On 4th June 1976 at 09.32 BST in the Sma' Glen on the River Almond, Perthshire, we noticed a disturbance. A duck Red-breasted Merganser accompanied by eight ducklings, a day or two old, was locked in combat with an Oystercatcher. Gripping the Oystercatcher's neck, the Merganser shook it and buffeted it with its wings. Although obviously getting the worst of the encounter, the Oystercatcher made little attempt to escape. After about a minute, they disappeared behind some trees, so we drove downstream and approached the river from below them. The battle was still raging as they drifted down towards us, although the Oystercatcher was showing signs of weakening. As its struggles became feebler, the Merganser held its head under water for longer periods. At 09.40 the Oystercatcher was lifeless, although the Merganser continued to belabour it. Both came to rest in shallow water 25m away, having travelled 300m downstream since first observed. The Merganser noticed us and dived, leaving her ducklings to take cover.

We retrieved the Oystercatcher, a male, which had been ringed as an adult on Piel Island, Barrow in Furness, in November 1968. It showed skin damage on both upper and lower mandibles, 1cm anterior to the nares, which would have been

compatible with the bird being gripped by the sawbill, and some superficial contusions on the head and neck. The bird (wet) weighed 520gm. A post-mortem examination by J. W. Macdonald at the Veterinary Laboratory, Lasswade, Midlothian, showed bruising of the skin and muscle at the posterior end of the breast bone and slight excoriation of the skin for 10mm x 2mm on the anterior surface of the left shank. A bacteriological examination was negative and there were no parasites. Drowning appeared to have been the immediate cause of death.

Another Oystercatcher was on the grass meadow beside the river edge near where the two birds were first seen, but we had no evidence that it was the dead bird's mate. Several other pairs were nesting within 600m. Possibly the Merganser and ducklings went on to shingle on the Oystercatcher's territory, from which he tried to evict her.

JOHN PHILLIPS, JAMES DUNCAN.

Display of Golden Eagle carrying stick

On 2nd March 1975 R. and S. Rae, J. Chapman and I saw an adult Golden Eagle soaring over a hill in upper Deeside, Aberdeenshire. With legs extended it was carrying a large stick, about two feet long, parallel with its body. It rose about 400 feet above the hill and dropped it. After the stick had fallen about 50 feet the eagle dived and caught it. During the dive it somersaulted once and twisted round one and a half times with its wings half closed. After catching the stick the eagle rose slightly, dropping it and diving and catching it twice as before, and vanished behind the hill. It reappeared, rose 200 feet, and dropped and caught the stick before disappearing again. It then rose over the hill and repeated this once before vanishing. The eagle now rose above the hill without the stick but with a second adult eagle and both performed a mutual undulating display (Brown and Amadon, 1968. *Eagles, Hawks and Falcons of the World*). The male then soared away while the female returned behind the hill. No eyrie was found during a subsequent search.

In February 1973 E. Duffy and N. Chapman observed undulating display in the same area by a pair. One bird left, later returned with a stick, and displayed with the stick as above. Seton Gordon (1927, *Days with the Golden Eagle* and 1955, *The Golden Eagle*) does not describe any similar instance.

J. HARDEY.

Arctic Terns breeding inland in Caithness

In June 1975 SL, SAMM and PMC were at Loch Caluim, Caithness, watching a small ternery on a rocky, grass-covered island. With his newly acquired skill in identifying 'commic' terns (see *British Birds* 67: 133-6) SL pointed out two or three Arctic Terns. On closer observation at least eight pairs were discovered with two or three pairs of Common Terns. At nearby Loch Scye a pair of Arctic Terns was identified among the five pairs of Common Terns at a similar island site, and a further pair of Arctics at a small dubh loch by Lochan Dhu, Strathmore, was on a small piece of firm ground surrounded by quaking *Sphagnum* bog. Parents feeding chicks provided proof of breeding at these sites.

These lochs are 16-20 km (10-12½ miles) from the nearest coast and terns have been observed carrying fish from the direction of both Sandside and Thurso Bays across the intervening moorland to the lochs. They have not been noted feeding inland.

Since Arctic Terns are thought of as a primarily maritime species these inland sites seem unusual and may be of interest.

S. LAYBOURNE, S. A. M. MANSON, P. M. COLLETT.

[The *Atlas* map (Sharrock 1976, *The Atlas of Breeding Birds in Britain and Ireland*) shows proved breeding in this 10 km square and in a few other inland squares closer to the sea in north Caithness, Fife and Argyllshire. The *Atlas* also shows more widespread breeding further inland in the north and west of Ireland. Inland breeding in Scotland is rarer than often supposed—see also previous editorial comment (8: 281).—Ed.]

Probable Swallow x House Martin hybrid

Early on 8th June 1974 what I took to be a Swallow flew towards me from the old huts between the observatory and North Haven, Fair Isle. I took little notice of it until it flew past when I was surprised to see what appeared to be a House Martin flying away. I was able to confirm the odd combination of plumage characters when it returned to hawk insects around the huts. The bird was in view for only a few minutes and nobody else was in the vicinity, nor was the bird seen again. No calls were heard. Plumage details and structure ruled out the possibility of Red-rumped Swallow and I could only assume that the bird was a hybrid Swallow x House Martin.

Description Crown, nape and mantle uniform dark metallic blue. Rump and tail as adult House Martin with squarish, clean white rump patch. Rusty red throat and dark bluish breast band (all throat region looked dark at any distance). Rest of underparts off-white, a little darker than House Martin and not appearing so clean. Forked dark tail lacking streamers and not showing any noticeable white in the spread tail.

My notes were almost identical to the description given for a similar bird trapped in autumn 1972 in Sussex (*British Birds* 66: 398-400, plate 60a) except for the coloration of the rump which in the Sussex bird was buff.

ROGER A. BROAD.

[A few probable Swallow x House Martin hybrids were recorded by Gray (*Bird Hybrids*, 1958). *British Birds* (66: plate 66b) shows an extraordinary photograph of a House Martin copulating with a Swallow. An interesting aberrant or hybrid Swallow is also described in *British Birds* (68: 246-7).—Ed.]

Rooks killing Carrion Crow

On 20th March 1975 I saw a group of Rooks on the ground below a rookery near Peebles, apparently attacking something that moved. As I neared them they flew up into the trees, leaving on the ground what was evidently a smallish Carrion Crow. It walked away then flew rather slowly over the River Tweed a few yards away, but was followed and attacked by a Rook which forced it down into the water. It floated downriver about 100 yards, splashing a little but ignored by the Rooks. Drifting near the bank it was caught in a fallen branch which I pulled in, but by the time I reached it, it was dead. To make sure it was not a first-summer Rook with feathered face, I took the remains to be identified at the Royal Scottish Museum where it was confirmed as a Carrion Crow.

C. M. MORRISON.

[Dr J. D. Lockie comments that he had not heard of Rooks killing a Crow. Crows are usually dominant in any encounter with Rooks but all corvids will gather round another that behaves abnormally. Unfortunately it could not be ascertained whether the specimen was preserved nor confirmed that it was in fact unusually small.—Ed.]



PLATE 25. Isle of May Puffins (p. 285)
(a) The Burrian colony, Low Light and North Horn behind, April 1975. The dark areas are bare soil caused by Puffins digging and erosion occurs in the larger excavated areas.
(b) Puffin landing at study colony north of Colm's Hole (c).

Photographs by M. P. Harris (a, c) and K. Taylor (b).





PLATE 26 (a) Partial albino Puffin on Craigleith, Firth of Forth, 1969. This bird was probably also present in 1968.

Photograph by R. W. J. Smith.

(b) Arctic Tern at coastal freshwater loch in Shetland. Breeding at any distance from the sea, however, is rare in Scotland (see p. 301).

Photograph by R. T. Smith.





PLATE 27. Two migrants recorded on the Isle of May more frequently in 1976 (p. 290): (a) Reed Warbler on 28th August; note prominent growth bar across tail, a structural fault caused by the bird's metabolic condition during feather development. Observers had been puzzled by this skulking, nondescript warbler showing whitish tail spots.

(b) Great Grey Shrike on 3rd October.

Photographs by A. Brown.





PLATE 28. The distinctive figure of Seton Gordon at 90 on high ground in the Cairngorms (obituary p. 307).

Photograph by A. Watson.

Obituary

SETON PAUL GORDON

(Plate 28)

The grand old man has gone, on 19th March 1977 at Brackley, Northamptonshire, only a fortnight short of 91. With his passing ends the period of wholly exploratory naturalists in Scotland and their extraordinary breadth of interests. He was long the last practitioner, overlapping for decades with the modern period when scientific method dominated ornithology. Astride two centuries, Seton had a timeless attitude, exemplified by the patched, decades-old kilt he wore on every occasion, sun or snow, mansion or bothy. Plate 28 might have been in Harvie-Brown's time, showing nothing to indicate the real date—August 1976.

Seton Gordon spent his boyhood at Aboyne. Educated privately, he illustrated the paradox of loving his native Deeside deeply and yet having no trace of Aberdeenshire in his voice. At Oxford he graduated with honours in biology, choosing as his essay subject the vegetation of snow beds in the Cairngorms. While a naval patrol officer in the 1914-18 war he came to know the Hebrides, where he eventually made his home for 50 years. In these early years he also visited Spitsbergen on an Oxford University expedition.

Gordon began writing articles to newspapers and magazines in his late teens, and published his first book *Birds of the Loch and Mountain* in 1907. Others soon followed. A pioneer in bird photography, he took photographs of Golden Eagle and Greenshank that are still classics. He was also a pioneer in camping on the high tops. These early books brimmed with enthusiasm and already showed his wide interest in birds, rare plants, snow beds, regeneration of the old Caledonian forest, piping, weather, folk lore, history, place names, the survival of Gaelic, and a deep appreciation and knowledge of the Highlands. He also described vividly some winter climbs and storms. A natural hillman, he never over-wrote the difficulties or dangers and was at home in the Cairngorms winter or summer, alone or in company.

He became a prolific book writer: *Birds of the Loch and Mountain*, *The Charm of the Hills*, *Hill Birds of Scotland*, *The Land of the Hills and the Glens*, *Wanderings of a Naturalist*, *Hebridean Memories*, *Amid Snowy Wastes*, *The Cairngorm Hills of Scotland*, *Days with the Golden Eagle*, *The Charm of Skye*, *In the Highlands*, *Islands of the West*, *Thirty Years of Nature Photography*, *Sea-gulls in London*, *Highways and Byways in the West Highlands*, *Afoot in Wild Places*, *A High-*

land Year, Highways and Byways in the Central Highlands, In Search of Northern Birds, Edward Grey of Falloodon and his Birds, The Immortal Isles, Wild Birds in Britain, Highlands of Scotland, The Golden Eagle, Highland Days and Highland Summer. His CBE in 1939 recognized this great contribution that delighted many thousands and educated them about the Highlands and their natural history.

Birds featured prominently in all his books. His most detailed study was of Golden Eagles; he and his wife Audrey spent 167 hours watching a Speyside eyrie in 1924. During this period his best bird books were *Hill Birds of Scotland* and *Days with the Golden Eagle*. He wrote simply, often beautifully, capturing many an incident so well in words that one felt one was there seeing it. But the classic for me was *The Cairngorm Hills of Scotland*, where birds came second to the hills themselves. I first saw it at Ballater when I was eight. It changed my life, opening up a whole new world. I wrote to him, and it says much for a busy author that he bothered to reply to a schoolboy he had never seen. He wrote "It is a fine thing for you to have a love of the hills because on the hills you find yourself near grand and beautiful things, and as you grow older you will love them more and more." I also remember the excitement of cycling to Crathie to meet him when I was 13. He showed me my first Golden Eagle eyries, and started me on the observations of eagles I have continued ever since.

In 1955 *The Golden Eagle* appeared, after decades of studying his favourite bird. In *British Birds of Prey*, Leslie Brown noted that Gordon had not condensed his observations into tables from which others could benefit by doing their own statistical analyses. The fact is Gordon was a pre-tables man. As with many fine naturalists, most details within his exceptional experience will have died with him. He was a masterly describer of things in breadth, of incident, of anecdote. Detailed analytical research was not his way, and this is as true of his contributions on place names and history as on ornithology. Nor could one expect it, as his training had been different; the change did not start in field ornithology till David Lack's papers in the mid 1930s. However, analytical researchers and men interested in problems often fail to interest the layman, and seldom excite him as Gordon did for many. Future Scotsmen will read him when many of the analysts have been forgotten.

Gordon continued to write books into his 80s and numerous articles into his 90s. He also gave many lectures. I remember one in Aberdeen on Hebridean birds; he followed the slides with a pibroch reverberating through the cafe. When 90, he lectured at Braemar in aid of the Scottish Wildlife Trust. The

slides were ancient and blurred, but his word pictures were as good as anything he ever wrote. Describing the dawn sun rays catching the gold hackles on a brooding eagle's neck, he had us there with him, over 50 years ago. Last August I spent a day with him on the Cairngorms. Though slower, he still had a steady step on the plateau. Remarkably, his blue eyes sparkled as keenly as ever, and his conversation was full of excited comments on snow patches, birds, place names and the Cairngorm range itself, which I believe was the most beloved part of Scotland to him. He wrote an article about it in *The Field*. Only days before his death, *The Field* published a letter of his about Whooper Swans, simple and evocative as usual. It was a good farewell from the grand old man.

ADAM WATSON

DUNCAN ROBERTSON ANDERSON

Duncan Anderson died on 31st January 1977 in his 88th year. He will always be remembered for his study of birdlife in Holyrood Park, Edinburgh, especially Duddingston Bird Sanctuary where he was warden for many years. "The Birds of Duddingston Loch, Edinburgh" (1: 393-416, special supplement) comprised largely of his notes and records.

Born in East Lothian he acquired early a great love of the countryside and especially birds. As a young man he joined the Edinburgh City Police and in 1914 enlisted in the Scottish Horse. He served in the Near East and France and was severely wounded, which caused him considerable trouble in his latter years. At the end of the war he rejoined the police, retiring in 1939.

It was only during the last ten years of his life that I got to know him well, meeting him daily and visiting the sanctuary, never deterred by weather no matter how bad. I found his company always stimulating as his enthusiasm was so outstanding, his patience unlimited and his knowledge wide. He was blessed with a strong physique and good health until the last few years of his life. In spite of serious crises he never complained and faced the weakness these illnesses inflicted on him with typical courage. My last meeting with Duncan was three days before he died when after collecting some supplies for him I asked if there was anything else he would like. With a bright glint in his eyes he said he would like some export and a flagon of Woodpecker cider.

Duddingston sanctuary has lost its greatest protagonist and it is sad to think it will never be the same again.

ALASDAIR ANDERSON.

ELSIE MACDONALD

The death of Elsie Macdonald on 2nd January 1976, at the age of 92, ought not to pass unnoticed because Elsie, together with the Rev E. T. Vernon, whose private secretary she was, kept the club records and business going through the difficult war years, so that when peace came the club was in a position to surge forward and found branches all over Scotland. At first, meetings were held alternately in Edinburgh and Glasgow, but it soon became clear that separate branches were needed. The Glasgow Branch—the first of the many—was founded in October 1948 and Elsie Macdonald became its first secretary—a post she held until 1957. The success of the new Glasgow guinea pig branch was vital to the future expansion of the whole club. Those of us who knew her honour the memory of Elsie Macdonald as we know its success was due in no small measure to her loyalty and efforts.

While professing no special expertise at birds, Elsie was a person as delightful to talk to as she was devoted to the welfare of the club. Her minutes were models of lucid reportage, while being homely and chatty at the same time. She was a first class committee person, being entirely complementary to Edward Vernon, the first branch chairman. She got on quietly and efficiently with everybody, having in full measure that magic quality which is to this day an outstanding characteristic of our club—that of being a good mixer.

C. E. PALMAR.

Reviews

The Atlas of Breeding Birds in Britain and Ireland. Compiled by J. T. R. Sharrock. Tring, British Trust for Ornithology, 1976. Pp. 477; numerous maps, drawing and figures. 26 x 19 cm. (Now published with minor corrections by T. & A. D. Poyser, 1977, £10.00.)

The ornithological world in general and the field workers involved in particular have awaited the publication of the *Atlas* with keen anticipation since the completion of fieldwork in 1972. The occasional appearance of maps in BTO publications has only served to whet the appetite and there can be little doubt that the final product is well worth the wait. It represents the first systematic attempt to objectively map the breeding distribution of a whole avifauna. Prior to this distribution maps ranged from subjective outlines of the type shown in most field guides to more detailed and objective maps of single species. The publication of *The Atlas of British Flora* in 1962 indicated that systematic mapping was more desirable and could provide an accurate baseline for the future. The success of the BTO/Irish Wildbird Conservancy scheme must have surprised even the most optimistic, who had forecast only 25% coverage

in Scotland. The enthusiasm of 10-15,000 field workers achieved 100% coverage in Britain and Ireland. Its success can also be assessed by the extent to which other countries have initiated similar projects.

The methods used in the compilation and presentation of data (nearly 300,000 records) are discussed in the introduction. The maps and their analysis are presented on facing pages, the maps taking the form of a full page outline of the British Isles with distribution indicated by red dots. The size and colour are an enormous improvement on the flora atlas and in no case is the distribution pattern hard to distinguish, even when rarity records are deliberately obscured by displacement of dots. Some maps of former distribution are included in an appendix for comparison. Each map is accompanied by a thorough description of the ecology and known history of the species and in many cases probable limiting factors on range are suggested. Great use has been made of the Common Bird Census, Nest Record and ringing schemes. The full references and small illustration accompanying each species are invariably excellent but some illustrations, especially of the warblers, are stereotyped and uninteresting.

Many features are readily seen from even a brief inspection of the maps. The most striking is that many of the rarer species (Bittern, Goshawk, Hobby, Dotterel, Fieldfare) are much more widely distributed than may hitherto have been suspected. Conversely, some are clearly more limited than was generally thought (Pintail, Long-eared Owl, Woodlark, Black Redstart, Marsh Warbler, Red-backed Shrike, Hawfinch, Twite). The creation of baseline maps will be of great assistance in precisely monitoring any changes in these species.

Several distribution patterns are evident in Scotland. Surprisingly, only 15 species are restricted to the country because many others that might be thought of as Scottish reappear elsewhere (Golden Eagle, Greenshank, Fieldfare) although Scotland remains the British stronghold. One distinctive pattern is the curious manner in which several species do not penetrate the Borders, or where they do so, their Scottish ranges are local (Garganey, Marsh Tit, Nuthatch, Yellow Wagtail). Clearly the Borders mark the northern limit in Britain for a number of species but this is difficult to understand as many of these occur much farther northwards elsewhere in Europe. It may well be that the Southern Uplands and their impoverished biota are the limiting factor. A gap occurs in the ranges of other species between the Highlands and Southern Uplands. In upland species (Hen Harrier, Golden Plover, Ring Ouzel) the reason is obvious but similar gaps occur where lack of suitable habitat would not seem to be a limiting factor (Oystercatcher, Jay, Pied Flycatcher, Siskin) and it might be of interest to discover what limitations are operative in these cases. The surprisingly widespread distribution of the Shoveler, Green Woodpecker, Blackcap, Garden Warbler and Corn Bunting in Scotland appear to be correlated to some degree with the distribution of arable land and its associated land uses. The presence in Speyside of such species as Honey Buzzard, Hobby and Wryneck during the breeding season may similarly be related to the presence of mature semi-natural forests in that region.

Relationships of these types on a local or national scale can be seen throughout and many enjoyable hours could be spent browsing for them. This is perhaps the only area of interest not fully covered by this excellent book, the author clearly leaving that pleasure to the reader.

R. D. MURRAY

The Dictionary of Birds in Colour. By Bruce Campbell. London, Michael Joseph, 1974. Pp. 352; map; 9 drawings; 1,008 colour photographs. 31 x 24 cm. £3.50 (reduced).

This book really is a dictionary of birds in colour. Of the 8,650 or so known species, 1,200 are described and 1,008 illustrated by colour photographs. The introduction describes zoogeographic regions, anatomy and classification. The dictionary section, in alphabetical order of scientific name, includes distribution, description, behaviour and so on, and squeezes a lot of information into a small space. Happily, errors are relatively few, the worst being some incorrect labelling of the skeleton. The statement that "except for the ducks and the kiwis, whose nostrils open at the tip of the sensitive bill, birds are not credited with much sense of smell," perhaps should have been put differently since it conjures up an odd picture of the typical duck's beak!

The quality of colour reproduction is high, and the ratio of photographs to number of species in each family is generally fair but there are some discrepancies. This is understandable; after all, some occur in habitats far removed from the most ardent photographers and others are just plain dull! However, to show ten of the 12 grouse, yet only ten of the 360 tyrant flycatchers, or 37 of the 502 buntings and tanagers does give a false impression. Even so, to have stuck rigidly to the correct number for each family would have resulted in missing some fine photographs! Apart from minor niggles the selection is good with most birds easily identifiable.

This book is probably the only compact yet comprehensive account of the majority of the better known birds of the world available today. I recommend it to all who want to broaden their interest in ornithology. It is a mine of information.

IAN H. J. LYSTER

Der Zug Europäischer Singvogel: ein Atlas der Wiederfunde Beringter Vogel, volume 2. Edited by Gerhardt Zink. Moggingen (West Germany), Vogelwart Radolfzell, 1975. Pp. 166; 120 maps. 34 x 27 cm. DM62 (£13. 10).

This series maps notable recoveries of European passerines and is an indispensable migration reference. Volume 2 deals with 26 species of larks, pipits, flycatchers, accentors, wagtails and shrikes. Several, such as Pied Wagtail and Sand Martin, have yielded so many recoveries that map analysis was not practical, but an excellent bibliography for all omitted species was given in volume 1. Two major improvements on volume 1 are the bound instead of loose leaf format and the enlarged map symbols.

About 80% of the 5,000 recoveries are displayed in 120 superb maps. The symbols are easy to use and enliven the maps, so it is a shame there is no multilingual key. Samples are kept as pure as possible, nestlings and free flying birds usually on separate maps. Despite the distortion shown by hunting pressure, as in France and Iberia, and seriously inadequate ringing in eastern Europe, a clear indication is given of the migration patterns underlying the recoveries. The Red-backed Shrike with its southeastern recoveries contrasts with the Woodchat which migrates southwest. The Great Grey Shrike is a partial migrant with winter recoveries of both central European and Scandinavian breeders scattered across Europe. The Yellow Wagtail needs 25 maps to show over 700 recoveries, including 160 between Europe and Africa.

The text complements the maps, detailing migrations, winter quarters

and unusual or important recoveries. Written in plain German, it completely updates previous standard works. To take but one example, the description of the House Martin's winter quarters is the best available. There are omissions, but any censure of such a painstaking and vast work would be trivial.

The outstanding roles of Fair Isle and the Isle of May are noticeable. One expects recoveries in Europe of Spotted Flycatchers drifted to Fair Isle but similar recoveries of Dunnocks are more surprising. The multitude of Dunnock recoveries between Scandinavia and Iberia puts the handful between Scottish observatories and the Continent in perspective. The recovery of a Norwegian nestling on the Forth in winter confirms the occurrence in Scotland of a Rock Pipit from Scandinavia (but probably *petrosus*). The Meadow Pipit maps show that Fair Isle's dominance is perhaps not healthy. The 746 recoveries are displayed in no fewer than 21 maps and it is striking that almost all from Scotland are from Fair Isle. When one considers its breeding abundance here, and the recoveries between Iceland and Spain of birds that probably pass the west coast, it is evident that Scotland needs more ringing of common species before the migrations of many of our most numerous birds can be understood.

R. A. EADES

Breeding Birds of the Medway Estuary. By Jeffery Harrison, J. N. Humphreys and Geoffrey Graves. 1973. Pp. 32; 14 monochrome photographs; 1 map. **Wildfowl of Morecambe Bay.** By John Ruxton. 1973. Pp. 48; 24 monochrome photographs; 6 maps. **Caerlaverock: Conservation and Wildfowling in Action.** By The Nature Conservancy Council, Caerlaverock Panel and The Wildfowl Trust, 1974. Pp. 84; 28 monochrome photographs; 1 map. **Loch Leven National Nature Reserve: a study of waterfowl biology.** By the Nature Conservancy Council, The Institute of Terrestrial Ecology and The Wildfowl Trust. 1974. Pp. 124; 41 monochrome photographs; 5 maps. **The Sevenoaks Gravel Pit Reserve.** By Jeffery Harrison. 1974. Pp. 116; 59 monochrome photographs; 5 maps. **Duck Wings: a study of duck production.** By Hugh Boyd, Jeffery Harrison and Allan Allison. 1975. Pp. 112; 46 monochrome photographs; 5 maps. Chester, WAGBI. 21.5 x 14 cm. 50p-£1 each.

The Wildfowlers' Association of Great Britain and Ireland (WAGBI) is the national body responsible for the many gun clubs whose members shoot wild duck. They are also a conservation body (Dr Jeffery Harrison being one of the leaders in this field) and these six publications detail the field work and conservation management carried out by WAGBI and others at the different places.

The Breeding Birds of the Medway Estuary and Wildfowl of Morecambe Bay both note the importance of these two sites to birdlife and contain some good hints on estuary census methods. The count figures could now be different after several years since the census dates, but are important records for future comparison.

In *Caerlaverock* and *Loch Leven* we have the success stories of wildfowling and conservation working together at both places under the care of the Nature Conservancy Council, Wildfowl Trust and WAGBI. The whole biological management of these two differing places is reviewed in each booklet, highlighting their separate importance as reservoirs for many bird species throughout the year, but more especially during the winter months.

At Sevenoaks, a man-made lake has been adapted as a haven for many species of birds. *The Sevenoaks Gravel Pit Reserve* is the story of how industry, in the shape of a large gravel extracting company, and conservationists have worked together to produce this new type of nature reserve, which could and should be copied in many other areas.

Finally, in *Duck Wings* we have a study of wildfowl plumage mainly of interest to wildfowlers and ringers, as the information contained mainly applies to the bird in the hand. Nevertheless, students of duck populations can glean much from this publication.

Pamela Harrison's photographs illustrating all the booklets are as usual superb, especially in *Duck Wings*. I enjoyed these booklets, they are interesting and contain a lot of important facts never published before. If you are selective, you will get good value for your money.

A. G. STEWART

The Book of Birds: Five centuries of bird illustration. By A. M. Lysaght. London, Phaidon, 1975. Pp. 208; 96 plates, 40 in colour. 37 x 28 cm. £20.00.

This book is better considered under its secondary title *Five centuries of bird illustration*, covering the fifteenth to nineteenth centuries. In a comprehensive introduction the author discusses the history of bird illustration from the earliest known examples in connection with magico-religious myths and primitive medical practice, which eventually rendered necessary the identification of individual birds, thus leading to the classification scheme of Aristotle. But 2,000 years before then we know that the Egyptians painted birds very well indeed—an art then lost till the Middle Ages. The suggestion is made that the Minoans and then the Greeks learnt to paint from the Egyptians. Chinese work is considered at some length, various manuscripts are commented on and we eventually come to the early printed books of the fourteenth to eighteenth centuries and the great illustrated books published regularly throughout the nineteenth century—in the words of the author “the supreme climax to the preceding centuries”.

The chosen illustrations, 142 in number, are given in 96 plates of which 40 are in full colour, each accompanied by a short description of the picture, artist, book or painting. The choice of plates, indeed a difficult matter, we find a little disappointing; but it must be said that no two people would make anything like the same selection over such a wide field. At best we have the opportunity to see reproductions of little known works, not easily seen in the original by most people, and this is perhaps the most interesting feature of the book. We particularly like plate 83 by F. L. Bauer, famous as a botanical painter, of the Port Lincoln Parrot, at least as good as any of Lear's famous parrots, and “Shoebills” by Josef Wolf, plate 124, is a splendid example, hitherto unpublished, of this great painter's work which we have not seen before.

One might have expected some reference to, if not example of, the work of Albrecht Dürer, and one looks in vain for some appreciation of a very fine group of painters who dominated the latter half of the nineteenth century. J. G. Keulemans indeed is represented (called T. G. in the description to plate 137 and in the index); but what of other artists of that period—H. L. Meyer, W. Neale, J. Smit, A. Thorburn, G. E. Lodge, H. Grönvold, F. W. Frohawk, the incomparable Edwin Alexander and Bruno Liljefors, to name a few?

For what it offers this book is reasonably priced and adequately produced and will take its place as a work of reference on its subject. To find in one work so much information on little-known and, to most of us,

unheard-of bird illustrators and their work is indeed a measure of the author's success and Dr Lysaght is to be complimented accordingly.

RITCHIE SEATH

The Titmice of the British Isles. By John A. G. Barnes. Newton Abbot & London. David and Charles, 1975. Pp. 212; 12 black and white plates; 5 diagrams; 15 tables. 14 x 22 cm. £5.25.

The Paridae, especially the Great Tit, must be among the most intensively studied of all European passerines and have played a significant role in the development of theories of population regulation in birds, particularly among the Oxford school. At the same time the commoner species have become part of the winter scene at the bird table and have provided hours of pleasure to casual observers. The author is therefore to be congratulated for producing, for the first time, a book that draws together the results of published research on the various tit species on the British list, together with a generous admixture of results from the author's personal studies. Apart from the Great Tit, Blue Tit and, to a certain extent, the Coal Tit, the British Paridae have been subjected to comparatively little scientific study and this is reflected in the content which, although hardly the author's fault, is weighted towards these three species. The Bearded Tit is rightly excluded on the grounds of classification. There is little mention of the Long-tailed Tit largely as a result of lack of objective information.

A chapter of general characteristics sets the scene but is a little heavy going and much of it could perhaps have better suited an appendix. The first half of the book is concerned with breeding biology and the author has managed to compress a considerable volume of published material into a generally lucid and well written comparison between the species. One might almost say the account is too compressed as the section on territory does not do full justice to the information available on this perhaps most important and fascinating aspect of tit biology. The chapter on flocking which follows suffers from the same problem. Little information is provided on winter range of juvenile and adult birds and the relationship of this to flocks and with the subsequent breeding territory. Feeding is tackled in some depth, as are activities like sunbathing and anting. The chapter on individuality and intelligence provides some interesting, if somewhat anecdotal, information on experiments concerning tit learning ability. There is an interesting and well-balanced account of tits as pest controllers which is followed by a summary of that most well known piece of tit behaviour—milk bottle opening. The book is completed with an account of studies into the population regulatory mechanisms.

At £5.25 this book is rather expensive and not over-endowed with photographs but, despite this, its value as a readable account of a fascinating group of birds should ensure a wide readership and one would hope it goes some way towards stimulating more research into the less studied species—included the SOC's emblem.

ANDREW DEADMAN.

Birds of Town and Suburb. By Eric Simms. London, Collins, 1975. Pp. 256; 61 photographs, 14 in colour; 14 diagrams. 22 x 14 cm. £3.50.

Eric Simms has spent most of his life in and near towns and has obviously kept detailed bird records from an early age. His own London suburb is part of the biggest built-up area in the UK and one which has been richly served over many years by bird recorders. The book's ex-

tensive bibliographies and much information quoted from these reveal the extraordinary breadth of Mr Simm's reading. He deals with his subject by habitat, not by species, and chapters headed 'The Nearer Suburbs', 'The Outer Ring', 'The Edge of the Countryside', 'Rivers, Lakes and Reservoirs', 'Marshes, Sewage Farms and Gravel Pits' show the areas covered. Three chapters cover 'Birds and the Pursuit of Sport', 'Suburban Roosts and Flyways', and 'Birds on the Move': observations on migration.

"Town and Suburb" is interpreted generously and over 250 species, excluding escapes, occur in the text, compared with 122 in the systematic list of the same author's *New Naturalist Woodland Birds*. *Birds of Town and Suburb* is not in the same series and one feels that it has been written with greater freedom in consequence. The author's manner is informative in a chatty way, and the book is full of anecdotes and observations of bird behaviour and movement, mainly his own. They are told without the drab, impersonal jargon characterizing so much ornithological literature.

References to all but the rarer species are necessarily scattered through the text and this makes indexing unusually important. The index seems accurate but there is no heavier type to indicate the more important references and little by way of sub-headings. As some birds are referred to upwards of 40 times the search for a particular item can become rather tedious.

Most of us have a special regard for certain birds and Eric Simms is not exceptional in this, but by no means conventional in his choice. He admits to affection for that successful picker-up of unconsidered trifles, the Dunnock, and one can infer that he has a measure of liking for two species at which most birdwatchers tend to look down their noses, the Feral Pigeon and the House Sparrow. About the latter he makes the delightful understatement "... it reserves for itself a certain reticence and prudence in behaviour that makes it difficult for us to approach it..." but I hasten to add that this is not typical of the Simms style!

The photographs are good and relieve a text which is rather closer printed, no doubt in the interests of economy, than I find ideal. A book to be read for pleasure and retained for reference.

D. STEAD.

Greenland. By Michael Banks. Newton Abbot, David & Charles, 1975. Pp. 208: 30 monochrome photographs; 2 drawings; 8 maps. 22 x 14 cm. £5.25.

Michael Banks has written an easily read but comprehensive book on this fascinating island. The physical geography is dealt with clearly and the depth is right for a general account. The human history is a story of battles against the same harsh environment that imposes on the flora and fauna. Its heroes were normal people, but the explorers were all a little mad. It has often been the fashion to praise the maddest but Mr Banks' account makes plain that it is the most level headed, making the most careful plans, who have achieved most. I found the nine chapters on man fascinating

Unfortunately Mr Banks is not a naturalist and the four chapters on flora and fauna make this evident. The accounts of mammals are the best but even here there is too much reliance on classical tales and too little on facts. Of the lemming he tells us of "travelling in a fixed direction" and "suicidal plunges" over cliffs; the only concession to the facts of Greenland life being "The extreme form of these stampedes, however, appears to be restricted to Scandinavia". It is not good enough. In the chapters on plants and birds inaccuracies and misspellings abound.

This book is a fine general description of Greenland but is not a useful source for natural history. The bibliography should be longer and less idiosyncratic—is it really more useful to list Fabricius' *Fauna Greenlandica* (1780) than Salomonsen's *Birds of Greenland* (1950)?

JEREMY GREENWOOD

Fair Isle Bird Observatory: Report for 1975. Edited by G. Waterston. Edinburgh, Fair Isle Bird Observatory Trust. Pp. 88, 7 monochrome photographs, drawings; 21½ x 14 cm. £1.00.

For some species Fair Isle has a near monopoly. Examples that occurred in 1975 were Pechora Pipit, Lanceolated Warbler and Citrine Wagtail, but even these were pushed out of the limelight by four species new to the island list: Hermit Thrush, Laughing Gull, two Tennessee Warblers and a Siberian Rubythroat; the passerines also being new to the British Isles. A most readable account of migration is given in the warden's report and 202 species (a record) were seen. Storm and Leach's Petrels were caught by playing tape recordings of their calls, including a Storm Petrel ringed a few weeks earlier on St Kilda. In view of the many rarities caught it is surprising their photography is not dealt with more professionally. The Tennessee Warbler and Siberian Rubythroat plates are disappointing, as well as having captions transposed. Fortunately, far better photographs of these birds appear in the *Scottish Bird Report* (9: plate 19).

L. L. J. VICK

Birds of Siberia: A Record of a Naturalist's visits to the valleys of the Petchora and the Yenesei. By Henry Seebohm. Dursley, Alan Sutton. 1976. Pp. 504; numerous illustrations and one map. 22½ x 14 cm. £8.00.

This is a facsimile of the earlier and much coveted edition of 1901, now long out of print. It describes the adventures of this Sheffield steel-maker in Siberia, part one dealing with the author's first expedition to the Petchora River in 1875, in company with J. A. Harvie-Brown; part two is an account of the journey to the River Yenesei in 1877.

Recounted in the fascinating and peculiarly dated style of the time, it is a detailed account of ornithological plunder in the Grand Manner. Speaking of the Grey Plover, whose eggs were one of the great prizes of the expeditions, Seebohm writes "When the hen came within fifty yards of me I fired, (after missing her twice before), this time with No. 6 shot, and laid the poor bird on its back." The eggs "made us an excellent omelette for breakfast the next morning." Encounters with many other highly interesting species are described, including Red-breasted Goose, Petchora Pipit, Curlew and Terek Sandpiper, and Blyth's Reed and Pallas's Grasshopper Warbler. Although primarily a collector, Seebohm nevertheless possessed the ability to observe and record, and the book contains valuable and in some cases unique notes on the behaviour of the birds he sought. He also conveys an excellent impression of the character of the country and the people who live there.

The book contains the original complementary illustrations by Charles Whymper, one of the finest illustrators of his time, and the binding and general production is of a high quality rarely found today. It will appeal to many as the collector's piece that it is; to many more of us it is a rare and valuable insight into the bird life of one of the most tantalisingly attractive places in the world.

M. DENSLEY.

Rare Birds in Britain and Ireland. By J. T. R. and E. M. Sharrock; illustrated by R. Gillmor, P. J. Grant, R. A. Richardson, D. I. M. Wallace and I Willis. Berkhamsted, T. and A. D. Poyser, 1976. Pp. 336; drawings, maps, histograms and figures throughout. 23½ x 15½ cm. £6.00

Since 1958 the *British Birds Rarities Committee* has set standards for a rising flood of reports of rare birds and published annual lists of accepted records. Similar arrangements apply to Irish rarities. Dr and Mrs Sharrock have made a fascinating analysis of the 8,000 records for 1958-72, adding those of the rarest species to the end of 1975 and summarizing earlier records. Two hundred and twenty-one species are covered (including eleven in Category D not admitted to the main list), and 23 more, unrecorded since 1957, are listed in an appendix—in total nearly half the species on the British and Irish list. One is struck by how much more frequently than in the past these birds are noted, clearly because so many more people are looking for them and are competent at identification. For 1975 alone the Rarities Committee accepted nearly 700 records.

A visual presentation is used, with double-page spreads for 122 species. The records are mapped by old counties, most on separate maps for spring and autumn, and there are histograms of numbers at these seasons each year from 1958 to 1972 and in each seven-day period of the year. The remaining species get half a page each and are interspersed throughout the book, usually in groups of four, thus enabling all data for a species to be presented on a single opening and playing havoc with generic affinities. There are references in the main sequence to these half-page birds, but not the other way. Robert Gillmor, P. J. Grant, R. A. Richardson, D. I. M. Wallace and Ian Willis provide a vignette of each species, and there are brief notes on identification and references to useful sources. The layout is very good, neatly displaying a large amount of information in a way that brings out patterns from the records.

In appendices the authors relate the records to the increased number of birdwatchers and consider which species are truly occurring more or less often than before. There are also analyses of American waders and landbirds and of the best counties for rarities.

Birds wandering from place to place are mapped in only one county, which accounts for some apparent gaps; but Orkney records of Night Heron and Little Bittern have been transposed to the Outer Hebrides. An autumn Red-rumped Swallow in Shetland appears as a scarcely noticeable open circle instead of a filled one. Careful checking of the Scottish records reveals a few trivial errors, but overall the standard of accuracy is high.

Through the years much time and effort has gone into collecting and assessing these records of rare birds. Tim and Erika Sharrock have done a valuable job in collating and analyzing them and must be congratulated on presenting their results in so attractive and interesting a book. Every keen birdwatcher will want to have it.

ANDREW T. MACMILLAN.

Also received—

Coloured Canaries. By G. B. R. Walker; illustrated by Dennis Avon and Tony Tilford. Poole, Blandford, 1976. Pp. 140; 63 colour photographs, many figures. 21½ x 14½ cm. £4.25.

Current Literature Recent material of Scottish interest includes :

The return of the Hen Harrier. E. A. Blake, 1976. *Forth Naturalist and Historian* 1: 21-38.

- Habitat selection in the birds of woodland and open woodland in the Stirling area. C. J. Henty, 1976. *Forth Naturalist and Historian* 1: 39-48.
- Stirling and Clackmannan bird report (1974-5). C. J. Henty, 1976. *Forth Naturalist and Historian* 1: 49-75.
- The Golden Eagle in the west of Scotland. T. D. H. Merrie, 1976. *Forth Naturalist and Historian* 1: 77-87.
- Ayrshire Coastal Survey, Scottish Wildlife Trust. (Survey of natural resources including status of birds. No date, address or price.)
- Survival and causes of mortality in Eider ducklings on the Ythan Estuary, Aberdeenshire. V. Mendenhall, 1976. *Wildfowl* 27: 160.
- Highland Ringing Group 1975 Report. (No address or price.)
- The Wren on the Uists, Outer Hebrides. I. Hawthorn, R. Crockford, R. G. Smith and I. Weston, 1976. *Bird Study* 23: 301-3.
- Breeding biology of the Red-throated Diver. Graham Bundy, 1976. *Bird Study* 23: 249-256. (Study in Shetland).
- Breeding of sub-adult Golden Eagle. Geoffrey G. Bates, 1976. *Bird Study* 23: 284. (Note from Sutherland).

Letter

Great Skuas as predators of mammals

The Great Skua is usually considered to be a predator and pirate of seabirds. In the past six summers I have examined the food and feeding of Great Skuas on Foula, Shetland, the largest colony of the species in Britain. My studies show that kleptoparasitism and predation of birds are only minor feeding techniques, employed principally when shoals of fish are scarce. They obtain most of their food by plunge-diving onto dense shoals of Sand-eels *Ammodytes marinus* or Norway Pout *Trisopterus esmarkii* that come to the surface frequently, but irregularly, throughout the summer months. Occasional short periods occur when weather conditions or the behaviour of the fish reduce their availability to Great Skuas. They then turn to kleptoparasitism of birds or predation of birds or mammals, but these feeding methods are time and energy consuming and have a low success rate, so feeding on fish shoals is preferred wherever possible (pers. obs.). I consider that predation and kleptoparasitism of birds have been exaggerated because they are both conspicuous activities, and most ornithologists who visit skua colonies do so late in the breeding season, by which time shoals of fish are moving into deeper water (Pearson 1968) so the skuas are more likely to turn to avian predation (see also Burton 1970, Cramp, Bourne and Saunders 1974). Normally only one of a breeding pair leaves the territory to feed. The female usually remains within the territory and will take advantage of feeding opportunities that present themselves (pers. obs. and Young 1963). Examples of such opportunism include predation on lost racing pigeons, migrant Crossbills, exhausted seabird fledglings, and scavenging on carrion.

Booth (1976) suggests that his observation of predation by Great Skuas on Mountain Hares *Lepus timidus* and Rabbits *Oryctolagus cuniculus* may be the first record of Great Skua predation on mammals other than lambs. In fact there are several records of Great Skuas killing and eating mammals, which fall into the category of opportunistic feeding described above, and do not represent a major part of the food requirements of any Great Skua population. Rabbits are a regular but minor item in the diet on Foula with a few being recorded as killed by Great Skuas in every year (Furness 1974a, Jackson 1966) and are also taken by the Brown Skua *Catharacta skua lonnbergi* on Kerguelen Island (Hall 1900) and Macquarie Island (Johnston 1973), while Mountain Hares have been recorded in pellets regurgitated by Great Skuas in the Faeroes (Bayes, Dawson and Potts 1964). Other mammals recorded as killed (not just eaten as carrion) include, for the northern Great Skua *Catharacta skua skua*, Hedgehog *Erinaceus europaeus* on Foula (Jackson 1966) and for the Brown Skua, rats (species not recorded) on South Georgia (Stonehouse 1956) and injured pups of both Elephant Seals *Mirounga leonina* (Johnstone 1973) and Weddell Seals *Leptonychotes weddelli* (Stonehouse 1956, Eklund 1961). In no case did Great Skua or Brown Skua predation have a detectable effect on the numbers of mammals in the vicinity of skua colonies.

On the other hand Booth (1976) suggests that Great Skuas may kill lambs. A similar unsubstantiated suggestion is made by Witherby *et al* (1938-41). This suggestion perpetuates and strengthens the bad reputation which has been given to the Great Skua. Burton (1970) found that sheep carcasses on Foula were fed on by Great Skuas, but that the carcasses were "barely touched". Perry (1948) found no evidence of feeding on sheep and lamb carcasses on Noss although he spent a complete season on the island. Bayes, Dawson and Potts (1964) quote P. Davis as not having encountered Great Skuas feeding on dead sheep on Fair Isle although he considered that they did in some years on Shetland. I have only found sheep's wool in pellets regurgitated by Great Skuas in spring, before fish is abundant. I found an appreciable number of pellets containing wool in the spring of 1973 on Foula but also noticed that more than 75% of sheep and lamb corpses had not been opened by birds, and I found no evidence that Great Skuas had killed either healthy or dying sheep or lambs (Furness 1974b). In an unpublished report to the Department of Agriculture and Fisheries for Scotland Dr K. Houston found no evidence of lamb-killing by Great Skuas in Shetland and attributed all the lamb losses he encountered to the rigours of hill sheep farming. Many Shetland shepherds and crofters dislike Great Skuas intensely, but not one that I have spoken to has

claimed to have seen them actually attempting to kill lambs, and no such claim has reached the Shetland Bird Club (Kin-
near pers. comm.). If lamb-killing does ever occur it must be
extremely rare, and negligible in relation to the high losses
of lambs which occur every year as an unavoidable part of
sheep farming in the Northern Isles.

References

- BAYES, J. C., DAWSON, M. J., and POTTS, G. R. 1964. The food and feeding behaviour
of the Great Skua in the Faroes. *Bird Study* 11: 272-279.
- BOOTH, C. J. 1976. Great Skuas probably killing Mountain Hare and Rabbits. *Scot.
Birds* 9: 125.
- BURTON, R. W., 1970. Biology of the Great Skua. In *Antarctic Ecology* Vol. 1: 561-
567.
- CRAMP, S., BOURNE, W. R. P., and SAUNDERS, D. 1974. *The Seabirds of Britain and
Ireland*. London, Collins.
- EKLUND, C. 1961. Distribution and life history studies of the South Polar Skua. *Bird
Bandung* 32: 187-223.
- FURNESS, R. W. 1974(a). Studies of the Great Skua on Foula. *Seabird Report* 4: 19-
28.
- FURNESS, R. W. 1974(b). The ecology of the Great Skua on Foula. *Brathay Explora-
tion Group Field Studies Report* 25: 1-32.
- HALL, R. 1900. Field-notes on the Birds of Kerguelen Island. *Ibis* (seventh series)
6: 1-34.
- JACKSON, E. E. 1966. The birds of Foula. *Scot. Birds* 4: 1-60.
- JOHNSTON, G. C. 1973. Predation by Southern Skua on Rabbits on Macquarie Island.
Emu 73: 25-26.
- PEARSON, T. H. 1968. The feeding biology of seabird species breeding on the Farne
Islands, Northumberland. *J. Anim. Ecol.* 37: 521-552.
- PERRY, R. 1948. *Shetland Sanctuary*. London, Faber and Faber.
- STONEHOUSE, B. 1956. The Brown Skua of South Georgia. *Falkland Islands Dept. S.
Sci. Rept.* 14: 1-25.
- WITHERBY, H. F., JOURDAIN, F. C. R., TICEHURST, N. F., and TUCKER, B. W. 1938-41.
The Handbook of British Birds. London, Witherby.
- YOUNG, E. C. 1963. Feeding habits of the South Polar Skua. *Ibis* 105: 301-318.

R. W. FURNESS.

Request for Information

Dead predators Freshly dead Great Crested Grebes, Herons, raptors, owls
and Kingfishers are needed for pesticide analysis. Due to limited resources,
other species cannot be examined. Please send specimens, with date and
place of collection, first class letter post to A. A. Bell, Institute of Terres-
trial Ecology, Monks Wood Experimental Station, Abbots Ripton, Hun-
tingdonshire, PE17 2LS. Postage costs will be refunded and a report of
findings sent to the collector.

Scottish Ornithologists' Club

Will members please note that the dates of the first Meetings of
Branches next winter will be as follows:

September	20th	Edinburgh and Inverness
	21st	Ayr, St Andrews and Thurso

22nd Dundee, New Galloway and Stirling
 27th Wigtown (meeting in Newton Stewart)
 28th Dumfries

October 3rd Aberdeen and Glasgow

Dundee Branch The venue for the first meeting (above) and the last meeting (April 1978) will be the Chaplaincy Centre, University of Dundee, at 7.30 p.m.

The venue and times for all other Branches is unchanged; full details of all the winter meetings are published in the Syllabus of Lectures sent to members with the autumn number of the journal early in September.

ANNUAL CONFERENCE

Members who attend the annual conference will know of the discussions which have taken place in recent years regarding the venue and time of year at which it is held. Since 1974 the conference has taken place at Stirling University in January, but prior to that it had been held at various locations, although from 1961 to 1972 it had been held at the Hotel Dunblane Hydro, Perthshire.

The facilities at Stirling University in the MacRobert Centre for lectures and the exhibition room are excellent, and those who attended by the day were well pleased. However those resident for the weekend increasingly found that other facilities, including the distance between the halls of residence, MacRobert Centre and the annual dinner location, were not conducive to a convivial weekend during which members could talk in comfortable surroundings. In addition, many consider that January is not a good month to travel because of the risk of bad weather.

At a meeting in March, council considered various alternatives for the next conference, including a return to Stirling University. It was decided that, since the majority were in favour of a move from a University location, we would accept a special conference quotation given by the Marine Hotel, North Berwick. With inflation still with us, the standard cost is understandably slightly higher than at Stirling University last January, but very generous reductions have been offered to those prepared to share in some of the four and seven bedded rooms in the hotel.

Unfortunately previous bookings at the Marine Hotel prevent an autumn conference this year, and so the next conference will take place during the weekend 20th-22nd January 1978. So that a return can be made to an autumn conference we have also booked at the Marine Hotel for the following conference; this will take place over the weekend 27th-29th October 1978, and we have been assured that the charges will remain unaltered for the second conference.

Bookings for the conferences will initially be made through the club secretary, and full details for the first one, in January 1978, will be published in the autumn number of the journal early in September.

EDINBURGH BRANCH SECRETARY

At the Edinburgh Branch AGM in April, Mrs D. R. Langslow retired having completed her term of office. Will members please note that the new Secretary of the Edinburgh Branch is Mrs R. Adams, 18 Braehead Loan, Barnton, Edinburgh EH4 6BL (tel. 031-336 4320).

NEW LOCAL RECORDER

Norman Elkins is now recorder for Nairn, Moray and Banff, and records should be sent to him at 10 Oakbank Place, Elgin, Morayshire, IV30 2LZ. Our thanks go to John Edelsten for looking after the area so well since 1969.

Branch and Group News

Stirling

During the Argyll weekend 87 species, including Greenland White-fronts, Siskin and Brambling, impressive numbers of geese and close sightings of several species combined with good weather to make 4th-6th March memorable for club members from the Stirling, Glasgow and Edinburgh branches who attended. The well equipped cottage provided an excellent base for travelling around the district. After a much appreciated dinner on Saturday evening, kindly prepared by Mrs H. Greig, a convivial atmosphere prevailed and at one point the company was treated to a rendering of "Nicky Tams" from Stirling's vice-chairman, Russell Young. The Stirling branch hope to repeat this weekend next year.

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.

Dealing with late winter first, mainly Feb-Mar, good numbers of **divers** were seen on the Islay crossing with 7 **Black-throated** and 144 **Great Northern**. Roosting **Red-throats** numbered 75 at both Gullane and Tynninghame (E Loth). **Slavonian Grebes** numbered 61 in Gosford Bay (E Loth), 43 in Sullom Voe (Shet) and 9 in L Ryan (Wig). A **Pied-billed Grebe** at Strathbeg (Aber) from 9 Jan-end Mar was the 2nd Scottish record. There was an interesting report of 2 **Storm Petrels** in the Forth in late Jan. The East Lothian **Ring-necked Duck** re-appeared once on 23 Mar and a **Steller's Elder** was suspected at Fraserburgh (Aber). **King Elders** were reported from 6 widespread localities, and **Smews** from 7, including 3 at Hamilton (Lan). Rarer **geese** included 3 **European Whitefront** (*albigrons*) in both Shetland and L Ken (Kirk), 2 **Bean** at Kelton (Kirk) in late Feb and 1 on Fair Isle, another **Snow Goose** at Dunsyre (Lan) on 11 Apr and something resembling the blue-phase, which may have been a strange hybrid, at Duddingston (Midl) in spring. **Barnacles** wintered in Shetland max 40-50 in Yell Sound. Shetland also has 3 reports over 9 months of a **Golden Eagle** from Hermaness, Foula and North Mavine. A big count of 285+ **Snipe** with 6 **Jack Snipe** comes from Ayr and 29 **Greenshanks** wintered on the Clyde. The usual scatter of rarer **gulls** included 7 **Glaucous** at Fraserburgh and 8 near Ayr and 4 **Iceland Gulls** at Fraserburgh and 3 at Kirkwall (Ork). A **Mediterranean Gull** was again at Musselburgh (Midl) in Mar. Ten **Little Auks** were picked up, several around the Forth and some after Feb gales; a very few others were in Shetland but 5 were on the Islay crossing on 22 Mar. In an unprecedented **Shore Lark** winter 7 visited Scotstown Head (Aber); the Tynninghame flock dropped from 55 in Feb and 20 were the last seen on 3 Apr, and 3 visited Costa (Ork) in late Mar. The Gullane **Hooded Crow** roost went up to 35. During the frost **Redwings** were conspicuous in towns but

most went south; **Blackcaps** remained numerous but most **Chiffchaffs** vanished. Almost 20 **Scandinavian Rock Pipits** (*littoralis*) could be recognized on the Ayrshire coast by spring. The only **Waxwings** reported were 1 in Selkirk and 3 in Edinburgh, where up to 8 **Hawfinches** dispersed in the Royal Botanic Garden.

Turning to spring arrivals, a summer plumage **White-billed Diver** was found in Shetland. Two **Cory's** and 2 unidentified large shearwaters passed **Barns Ness** (E Loth) on 18 Apr. **White Storks** were reported at **Monymusk** (Aber) in late Feb and **Ardnamurchan** (Arg) in Apr. A **Spoon-bill** stopped briefly at **Aberlady** (E Loth) in late Apr. A **Green-winged Teal** (*carolinensis*) was at **Broadbay** (Lewis) on 26 Mar and a **Ferruginous Duck** joined the **Pied-billed Grebe** at **Strathbeg** from 12th-end Mar. Observers chasing an extraordinary report of **Barrow's Goldeneye** (*Bucephala islandica*)—a species not on the British List—at **Ballochroy** (Arg) in Apr found a **Surf Scoter** there instead. **Brent Geese** visited **Balranald** (O Heb) in Apr, max 41 on 17th, and a **Marsh Harrier** hunted there from 7-17th. A **Crane** reached **Strichen** (Aber) on 22 Mar. April skua passage was marked, with 4 **Great** at **Girdleness** (Kinc) on 17th and 1 on 20th, 5 at **Southernness** (Kirk) on 24th, 7 **Pomarine** near **Haskeir** (O Heb) on 28th and single **Arctic** at **Barns Ness** on 3rd and 25th. A **Little Gull** was at **Balranald** in April. **Wood pigeons** passed **Girdleness** at a rate of 4,600/2 hrs on 13 Feb. A **Hoopoe** appeared near **Blair Atholl** (Perth) and a **Wryneck** in Shetland in early May. Unusual for **Fair Isle** were 2 **Great Tits** and max 12 **Stonechats** in Mar, when 7 **Black Redstarts** were scattered along the east coast. A **Grey-headed Wagtail** (*thunbergi*) stopped at **Barns Ness** on 25 Apr and a **Blue-headed** (*flava*) visited **Aberlady**.

Arrival dates of summer migrants were: **Corncrake** Lewis 3 Apr, **Whimbrel** **Doonfoot** (Ayr) 16 Apr, **Common Sandpiper** **Harperrig** (Midl) 20 Mar, **Greenshank** on breeding ground **Rannoch** (Perth/Arg) 12 Mar, **Common Tern** **Barassie** (Ayr) 15 Apr, **Little Tern** **Southernness** (Kirk) 24 Apr, **Sandwich Tern** 2 **Musselburgh** 12 Mar (but 2 wintered in the Forth) and **Dee** (Aber/Kinc) 26 Mar, **Cuckoo** **Stornoway** (O Heb) 27 Apr, **Swift** **Duddingston** 28 Apr, **Swallow** **Dunbar** (E Loth) mid Feb (may have wintered but coincided with other migrants) and **Barrloch** (Ayr) 16 Apr, **House Martin** **Aberlady** 18 Apr, **Sand Martin** **Bridge** of **Allan** (Stir) 23 Mar, **Ring Ouzel** **Lammermuirs** (E Loth) 12 Mar, **Wheatear** **Aberlady** 12 Mar, **Redstart** **Arran** 2 Apr, **Willow Warbler** **Ballantrae** (Ayr) 6 Apr, **Chiffchaff** **Tynninghame** 19 Mar, **Tree Pipit** **Dunalastair** (Perth) 7 Apr, **White Wagtail** **Fair Isle** 16 Mar.

We wonder how long the **Hermaness** (Shet) **Black-browed Albatross**, nest building in Mar, will take to attract a mate. The blue **Fulmar** at **Tantallon** (E Loth) was occupying a cliff ledge on 30 Apr. Nesting **Osprey** numbers are not yet known but ♀♀ **Snowy Owls** on **Fetlar** (Shet) are again disappointed by absence of any ♂♂.

Latest news (late Apr-early May)—single **White Storks** **Cameron Reservoir** (Fife), **Aberdeenshire** and **Caithness** (location reported as 2 miles from maternity hospital); ♀ **Ring-necked Duck** **East Fortune** (E Loth); **Marsh Harrier** **Aberdeenshire**; ♂ **Lapland Bunting** **Aberlady**.

S.O.C.

BIRD BOOKSHOP



Dept. E
21 REGENT TERRACE
EDINBURGH EH7 5BT

Tel. (031) 556 6042

NEW STOCK

- | | |
|---|-----------------------|
| The Birds of Angus <i>Crighton</i> | 90p |
| Birds of Coast and Sea <i>Campbell & R. Watson</i> | £3.75 |
| The Naturalized Animals of the
British Isles <i>Lever</i> | £7.50 |
| A List of the Birds of Ireland <i>Ruttledge</i> | 75p |
| The Bird and Flowers of the Saltee
Islands <i>Perry & Warburton</i> | £4.75 & £3.90 (paper) |
| Atlas des Oiseaux Nicheurs de France <i>Yeatman</i> | £8.75 |
| De Danske Ynglefugles Udbredelse <i>Dybbro</i>
(Danish atlas) | £10.15 |
| A Field Guide to the Birds of West
Africa <i>Serle et al</i> | £5.95 |
| A Guide to the Birds of Panama <i>Ridgeley</i> | £12.20 |
| Wildfowl of Europe <i>Owen</i> | £12.00 |
| A Natural History of Owls <i>Everett</i> | £3.50 |
| Crows of the World <i>Goodwin</i> | £15.00 |
| Bird Sounds <i>Thielcke</i> | £3.10 & £2.50 (paper) |
| Guide to the Mammals of Britain and
Europe <i>Burton & van Assen</i> | £4.50 & £1.95 (paper) |
| A Field Guide to the Mediterranean Sea
Shore <i>Luther & Fiedler</i> | £4.95 |
| Flowers of Greece and the Aegean
<i>Huxley & Taylor</i> | £6.50 & £3.95 (paper) |

WRITE FOR OUR BOOKLIST

NEW TERMS—Add 50p to your order total.

THE SCOTTISH ORNITHOLOGISTS' CLUB

THE Scottish Ornithologists' Club was formed in 1936 and membership is open to all interested in Scottish Ornithology. Meetings are held during the winter months in Aberdeen, Ayr, Dumfries, Dundee, Edinburgh, Glasgow, Inverness, New Galloway, St Andrews, Stirling, Thurso and the Wigtown District at which lectures by prominent ornithologists are given and films exhibited. Expeditions are organised in the summer to places of ornithological interest.

The aims of the Club are to (a) encourage and direct the study of Scottish ornithology; (b) co-ordinate the efforts of Scottish ornithologists; (c) encourage ornithological research in Scotland; (d) hold meetings at which Lectures are given, films exhibited and discussions held, and (e) publish information regarding Scottish ornithology.

There are no entry fees for Membership. The Annual subscription is £3.00, or £1.00 in the case of Members under twenty one years of age or Students under 25, who satisfy Council of their status as such at the times at which their subscriptions fall due. The Life subscription is £75. Family Membership is available to married couples and their nominated children under 18 at an Annual subscription of £4.50, or a Life subscription of £112.50. 'Scottish Birds' is issued free to Members but Family Members will receive only one copy between them. Subscriptions are payable on 1st October annually.

'Scottish Birds' is the Journal of the Club. Published quarterly it includes papers, articles and short notes on all aspects of ornithology in Scotland. The Scottish Bird Report is published in the Journal.

An Application for Membership form is printed below and should be sent to the Club Secretary, Major A. D. Peirse-Duncombe, Scottish Centre for Ornithology and Bird Protection, 21 Regent Terrace, Edinburgh, EH7 5BT (Tel. 031-556 6042)

APPLICATION FORM

Date.....

Name(s).....

Address.....

Date of birth if under 21 or student under 25
(or nominated child under 18 on family membership)

Type of membership.....

I enclose cheque/postal order/cash for £.....

Signature.....

Proposed by.....

Seconded by.....

(If you do not know any members who can propose or second you please leave blank)

Please detach and send with your subscription to The Club Secretary, Scottish Ornithologists' Club, 21 Regent Terrace, Edinburgh, EH7 5BT.

Notes—

1. Those entitled to draw the State old age pension may pay a reduced subscription of £2 (single) or £3 (family) on application to the Club Secretary.
2. Banker's Order and Deed of Covenant forms can be supplied by the Club Secretary.

BIRD BOOKS

BOUGHT

by

IAIN RAMSAY

2 EAST FETTES AVENUE,
EDINBURGH,
EH4 1DN.

Tel. 031-343 1769

ISLE OF MULL

**STAFFA COTTAGES
GUEST HOUSE
TOBERMORY**

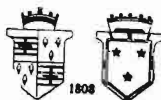
Get away from it all . . .
beautiful scenery, good bird-
ing and comfortable accom-
modation at Staffa Cottages.

Quiet situation looking across
the Sound of Mull to Morvern.

SAE for colour brochure.

Proprietors :

Richard & Elizabeth Coomber
Tobermory (0688) 2464



**SUTHERLAND
ARMS HOTEL
GOLSPIE
SUTHERLAND
SCOTLAND**

Telephone: Golspie 216

Situated on the main North
Road near the sea, Golspie
offers invigorating open air
holidays to all.

In addition to its unique
golf course, it has fine loch
fishing, sea bathing, tennis,
bowls, hill climbing, unrival-
led scenery, including inex-
haustible subjects for the
field sketcher and artist and
is an ornithologist's paradise.
It is, indeed, impossible to
find elsewhere so many nat-
ural amenities in so small a
compass.

The astonishing diversity
of bird life in the vicinity
has been well known to or-
nithologists for many years,
but it is still possible to
make surprising discoveries
in Sutherland.

The Hotel is fully modern
but retains its old world
charm of other days, and en-
joys a wide renown for its
comfort and fine cuisine.

Fully descriptive broch-
ures, including birdwatching,
will gladly be forwarded on
request. Central Heating.

Proprietor, Mrs F. HEXLEY

Garage & Lock-ups available

A.A. R.A.C. R.S.A.C.

COLOUR SLIDES

We are now able to supply slides of most British Birds from our own collection, and from that of the R.S.P.B. Send 25p for sample slide and our lists covering these and birds of Africa—many fine studies and close-ups.

FOR HIRE

We have arranged to hire out slides of the R.S.P.B. These are in sets of 25 at 60p including postage & V.A.T. per night's hire. Birds are grouped according to their natural habitats.

W. COWEN

Penrith Rd., Keswick, Cumbria



ORKNEY FIELD CENTRE

LINKS HOUSE, BIRSAY,
ORKNEY

Telephone Birsay 221

Ideally situated on the Atlantic shore with RSPB nesting cliffs within a mile, wetland and moorland within walking distance. 79 separate sightings May-June this year. Hen Harriers, Red-throated divers, Skuas, Puffins and Twites abound.

Our aim is to provide a high standard of food and comfort in a remote and beautiful place.

SAE for brochure to MIm Hughes

WILDLIFE HOLIDAYS

in the

HIGHLANDS

Send stamp for details of
one and two-week holidays
April-November.

Divers, blackgame, slavorian grebe,
deer, porpoises . . . see what we
have to offer!

CALEDONIAN WILDLIFE SERVICES

2 Kingsmills Gardens,
Inverness, IV2 3LU.

CENTRALLY HEATED FULLY MODERNISED SELF CATERING HOLIDAY COTTAGES to let in GALLOWAY

Caldow Lodge, Corsock, Castle-Douglas,

Kirkcudbrightshire,
Scotland, DG7 3EB.

Tel. Corsock 286.

Amidst Moor, Marsh, Forest
and Lochs, glorious country-
side. Birdwatchers' paradise.

Off Season Lets.

Please send for brochure, stamp
appreciated.

The Humane Research Trust

is a national Charity working
with scientists towards
replacing animals
in Research.

The Edinburgh group will give you
more information c/o Mrs M. Bell,
10 Coillesdene Drive, Joppa, Edin-
burgh, EH15 2JD, or send for bird
and animal drawings notepaper
pack of 10 with envelopes 60p post
pd. to :—

**The Humane Research Trust,
Brook House,
29 Bramhall Lane South,
Bramhall,
Cheshire, SK7 2DN.**



Open all year round

1½ miles north of
Loch Ken

Mrs B. FORREST

KEN BRIDGE HOTEL New Galloway

Kirkcudbrightshire

DG7 3PR

Tel. New Galloway 211

DORNOCH CASTLE HOTEL

A.A. * R.A.C. * R.S.A.C.

'Ashley Courtenay' and 'Signpost' Recommended

Retaining the romance of a Castle and the
homely charm of a country house combined
with the amenities of a modern hotel, our
guests receive a warm welcome and a first-
class service.

Conveniently situated for the Dornoch Firth, Tain Bay, Ederton
Sands, Skilbo Estuary and Loch Fleet as well as many interesting
moorland, mountain and forestry areas, Dornoch has much to offer
the observer of wild life, even while enjoying excellent local golf.

A new wing of bedrooms with private bathrooms and extended
public rooms greatly enhances the existing comfort of this hotel.
Early and late season reductions offered for 1977.

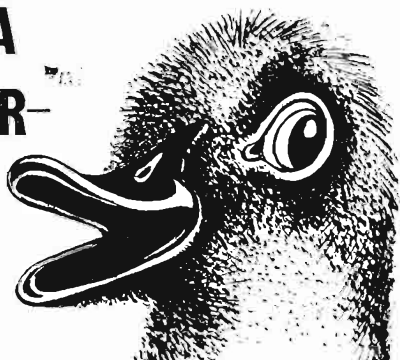
Illustrated brochure of Hotel and tariff gladly sent on request with
stamps to :

Resident Proprietors, IRENE and STUART THOMSON

Telephone : Dornoch 216



TAKE A GANDER—



at Mr Frank's
unusual
binocular
offer :

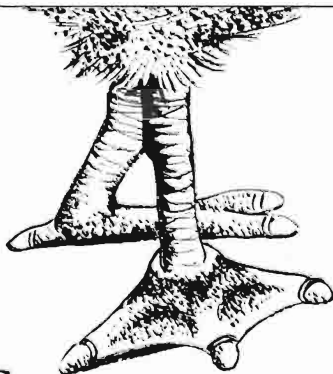
Test any FRANK-NIPOLE binocular free for 7 days and see for yourself why these remarkable binoculars were chosen by the 1975 Everest Expedition; why they are recommended and sold by the Royal Society for the Protection of Birds and entitled to carry the seal of approval of The Game Conservancy. See why professional bodies such as the Wildfowl Trust, to whom binocular performance is of paramount importance, select FRANK-NIPOLE.

Five models particularly favoured by birdwatchers :

<i>Model</i>	<i>Exit Pupil</i>	<i>Relative Brightness</i>	<i>Field of View</i>	<i>Weight</i>	<i>Height</i>	<i>Price with case</i>
8 x 30	3.7	13.6	7°	18 ozs.	4½ ins.	£23.50
10 x 50	5	25	5.5°	36 ozs.	7 ins.	£33.00
8 x 40	5	25	9°	36 ozs.	5½ ins.	£45.31
8 x 20	2.5	6.2	7°	6 ozs.	3¾ ins.	£46.20
10 x 40	4	16	7.5°	25¼ ozs.	4½ ins.	£47.83

It is our claim that FRANK-NIPOLE binoculars are comparable with other famous makes costing two or three times as much. If after 7-day free test you are not convinced that our claim is justified, return the binoculars and we will refund any money paid. In addition, we will give you the opportunity of purchasing a Zeiss, Leitz or Swift binocular about 25% below R.R.P.

Colour brochure free on request.



Charles
Frank^{LTD}

144 Ingram Street, Glasgow G1 1EH.
Binocular specialists since 1907.
Tel. 041-221 6666