

Fair Isle Bird Observatory

REPORT

1963



PETER E. DAVIS

and

ROY H. DENNIS

Wardens

PRICE 5/-

Fair Isle Bird Observatory Trust

Trustees

*Mr D. G. Andrew; Dr John Berry; *Mr A. G. S. Bryson; Dr James W. Campbell; *Sir Charles G. Connell; Dr F. Fraser Darling; *Dr W. J. Eggeling; Mr James Fisher; Cmdr. Sir G. Hughes-Onslow, R.N.; Mr G. T. Kay; *Professor M. F. M. Meiklejohn; Col. R. Meinertzhagen; Mr E. M. Nicholson; Dr Ian D. Pennie; Mr Peter Scott; Mr P. J. Sellar; *Mr Peter Slater; Dr A. C. Stephen; Sir A. Landsborough Thomson; *Mrs Irene Waterston; *Professor V. C. Wynne-Edwards.

Chairman—*Sir Arthur B. Duncan.

Hon. Secretary—*Mr George Waterston, 21 Regent Terr., Edinburgh, 7.

Hon. Treasurer—*Mr Ian R. Pitman, 48 Castle Street, Edinburgh, 2.

*denotes Member of Executive Committee.

Warden—Mr Roy H. Dennis, The Bird Observatory, Fair Isle, Shetland.
(Tel. Fair Isle 8).

Solicitors—J. & F. Anderson, W.S., 48 Castle Street, Edinburgh, 2.

Auditors Lindsay, Jamieson and Haldane, C.A., 24 St Andrew Square, Edinburgh.

Bankers—The Bank of Scotland, 64 George Street, Edinburgh, 2.

ANNUAL SUBSCRIPTION — *Friend of Fair Isle* — ONE GUINEA.

Please support by Donation or Legacy—

THE FAIR ISLE BIRD OBSERVATORY ENDOWMENT FUND.

With the generous help of the Pilgrim Trust, the Observatory Trustees have established an Endowment Fund for Ornithology and Bird Preservation in Scotland. The objects are—To establish the Fair Isle Bird Observatory on a permanent financial basis; to extend Fair Isle research methods to other stations in Scotland; and finally to develop Bird Sanctuaries and Bird Protection in general.

Capital subscribed to the Fund will be held as a permanent Endowment by the Trustees and cannot be spent. Income from the Fund will be carefully used by the Bird Observatory Executive Committee in keeping with the above objects.

Please write to the Hon. Secretary for particulars.

GEORGE WATERSTON,
Hon. Secretary.

21 Regent Terrace, Edinburgh, 7.

FAIR ISLE BIRD OBSERVATORY TRUST

Annual Report for 1963FOREWORD

THIS has once again been an eventful year at Fair Isle as you will see from the pages of this Report. The record number of birds ringed at the Observatory is matched by the valuable number of recoveries of which I must mention that of the Rustic Bunting which turned up four months later in the Aegean Sea.

At the end of 1963 we lost the services of Peter and Angela Davis after a period of six years of devoted work for the Trust. They took over the running of the Bird Observatory at a somewhat critical stage in our finances, and it is due entirely to their enthusiastic and thrifty administration that we are now on a much sounder financial footing, with the Hostel showing a useful profit each year. Peter has been appointed to a post with the British Trust for Ornithology at Tring, and I am sure I am speaking for us all in extending to him our very best wishes for the future.

Barry Spence, our Assistant Warden for the past two years, is also leaving to take over the post of Warden at Spurn Bird Observatory. Barry has worked tremendously hard and has been a tower of strength at the Observatory. To him too we extend our very best wishes.

In place of the Davis family we warmly welcome Mr and Mrs Roy Dennis. As a former Assistant Warden, Roy knows Fair Isle well and we are confident that he and Marina will maintain the high standards already set.

Finally—what would we do without the ever-cheerful Pat Adams, our invaluable cook-caterer? Everyone who has stayed at the Hostel will know how much we are indebted to her for her never-failing good humour and her excellent catering. She is back with us again in 1964; the Hostel would not be the same without her.

We have always had wonderful team-work on Fair Isle, and for this we must all be thankful. But to maintain the important scientific work in ornithology and other fields of natural history we must have the funds. Without regular subscriptions from our "Friends of Fair Isle" we cannot exist.

I sincerely hope you will give us your support.

ARTHUR B. DUNCAN,

Chairman.

FAIR ISLE BIRD OBSERVATORY TRUST

TREASURER'S REPORT

You will see from the accounts that they cover a period of ten months to 31st October, 1963. This alteration in the Trust year was made to suit the convenience of the Trustees. The annual meeting is normally held in January each year, and finalising the accounts on 31st October enables me to provide detailed figures for the January meeting.

I point this out because the figures for 1962, given for comparison, are for the full twelve months of the previous year and are, therefore, not strictly comparable.

The figures themselves are reasonably encouraging.

Hostel. The hostel made a good profit in 1963 as opposed to a loss for the previous year, there being an increase in hostel receipts of £326. We raised our charges for 1963, following the poor result in 1962, and I am glad to say that we have had no complaints.

Trust Revenue. In the Trust Revenue Account you will see that we show a small overall profit for the ten months of £55 odd, which is satisfactory. The only item which requires comment is the figure of £320 for travelling expenses. This includes a payment towards the Hon. Secretary's Scandinavian trip of £100, which was met by a private subscriber and is included in the figure of £539 under subscriptions.

Balance Sheet. I have little to comment on in the balance sheet. The Assets have been well written down in previous years. The balance due to Messrs J. & F. Anderson is covered by cash in bank, and in addition we still have our investment in 3% Savings Bonds to fall back on in the event of need.

Fair Isle Endowment Fund

		<i>Market Value</i>			
		as at 31st Oct., 1963			
1.	21 Regent Terrace, Edinburgh at cost	£3050	0 0	£3050	0 0
2.	£4,300 British Govt. 3% Savings Bonds 1960/70 at 90	3659	9 0	3870	0 0
3.	£140 Whitbread & Co. "A" Ordinary Stock at 18/- per 5/-	313	11 0	504	0 0
		£7023	0 0	£7424	0 0
		£7023	0 0	£7424	0 0

The Endowment Fund stands at £7424 as at 31st October, 1963, taking Regent Terrace at cost. The Regent Terrace property is let to the Scottish Ornithologists' Club who pay no rent but carry all overheads. It provides a permanent headquarters for the Fair Isle Bird Observatory Trust, The Scottish Ornithologists' Club and the Royal Society for the Protection of Birds and as such, whilst bringing in no income, serves as a centre, and a very valuable centre, for Scottish Ornithology. The income from the invested Endowment funds is payable to the Fair Isle Trustees. The Capital cannot be encroached upon and is held by the Bank of Scotland as Trustee. In the event of the Fair Isle Bird Observatory having, for any reason, to close down, the income from the Endowment would continue to be used by the Trustees for similar ornithological research or for bird protection.

At the risk of becoming a bore I cannot emphasize too strongly the importance to Scottish Ornithology and Bird Protection of the Fair Isle Endowment Fund.

Our activities at the moment are largely dependent on the individual subscriber. I would like, as I have said before, to see the Endowment fund with a capital of £30,000, as opposed to £4,000, of invested cash. Then we could know that the work we have put in since 1948 could be continued and enlarged upon, year in and year out, for the future. I again ask you to help, by legacy or donation, to build up the Endowment Fund.

Finally I would remind you that your trustees have under their direct control, again through the Bank of Scotland, the capital and income of the Helena Howden Trust, established some years ago with the purpose of creating a sanctuary or sanctuaries for birds in Scotland. So far your Trustees have used the income of the fund in connection with, amongst others, the Isle of May, St Kilda, Handa and Lochmaben reserves. The capital is still available for any worthwhile project or projects. George Waterston would welcome any suggestions you may have and would pass them on to the Trustees.

FAIR ISLE BIRD OBSERVATORY TRUST

1.—Hostel Revenue Account

EXPENDITURE

12 months to 31st Dec.

1962

£75	0	0	Stores at 1st January, 1963	...	£110	0	0
766	1	11	Foodstuffs, Supplies, etc.	...	725	12	0
43	12	5	Telephone	...	19	6	0
218	19	4	Wages and National Insurance	...	185	18	0
61	15	0	Sundry Payments	...	8	12	6

16	15	0	Insurance of Huts	...	...	62	15	0
146	18	0	Fuel	...	...	169	10	4
229	6	0	Repairs and Renewals	...	...	87	2	0
0	0	0	Postages	...	...	3	17	7
0	0	0	Profit for period	...	...	250	6	8
<hr/>						<hr/>		
£1558	7	8				£1623	0	1
<hr/>						<hr/>		

INCOME

£1166	2	2	Board and Booking Fees	...	...	£1492	15	0
28	16	10	Miscellaneous	...	...	8	5	1
110	0	0	Stores	...	...	122	0	0
253	8	8	Loss for year	...	...	0	0	0
<hr/>						<hr/>		
£1558	7	8				£1623	0	1
<hr/>						<hr/>		

2.—Trust Revenue Account

EXPENDITURE

12 months to 31st Dec.
1962

£671	10	2	Wages and National Insurance			£516	5	9
9	15	0	Rent and Insurance	...	...	4	12	5
11	14	0	Interest paid	...	...	14	6	2
64	3	3	Travelling expenses	...	...	320	2	0
80	5	1	Bird Ringing and Trap Repairs	...	...	40	6	0
125	4	2	Printing, Stationery, etc.	...	...	134	8	6
0	0	0	Freight	...	...	25	19	11
0	0	0	Removal Expenses	...	...	57	7	0
0	0	0	Subscription paid	...	...	1	0	0
106	12	8	Expenses of Administration	...	...	83	6	6
35	0	0	Shetland Model Boat	...	...	0	0	0
13	1	10	Repairs and renewals	...	...	0	0	0
253	8	8	Profit for period	...	...	55	19	7
<hr/>						<hr/>		
£1370	14	10				£1253	13	10
<hr/>						<hr/>		

INCOME

£490	12	2	Subscriptions etc.	...	...	£539	12	6
386	18	10	Income Tax recovered	...	...	310	0	0
19	11	6	Interest on Savings Bonds	...	...	11	16	0
149	15	11	Income from Endowment Fund	...	...	141	18	8
0	0	0	Profit on Hostel Account	...	...	250	6	8
97	19	5	Legacy received	...	...	0	0	0
27	13	0	Donation received	...	...	0	0	0
198	4	0	Loss for year	...	...	0	0	0
<hr/>						<hr/>		
£1370	14	10				£1253	13	10
<hr/>						<hr/>		

Balance Sheet as 31st October, 1963

LIABILITIES

12 months to 31st Dec.
1962

		Capital Account:				
£1723	15	3	Balance per last Balance Sheet	£1525	11	3
	198	4	Add: Profit for period	55	19	7
<hr/>				<hr/>		
£1525	11	3		£1581	10	10
		Balance Due to				
	72	7	Messrs J. & F. Anderson, W.S.	341	14	4
<hr/>				<hr/>		
£1597	18	4		£1923	5	1
<hr/> <hr/>				<hr/> <hr/>		

ASSETS

£200	0	0	Buildings, Traps, etc. written down	£200	0	0
			Add: Additions	183	1	3
				<hr/>		
				£383	1	3
		Less: Sale of bricks		12	0	0
				<hr/>		
				£371	1	3
		Furniture, Furnishings etc. at Fair				
300	0	0	Isle as written down	£300	0	0
			Add: Additions	16	0	0
				<hr/>		
				316	0	0
150	0	0	Scientific Equipment as written down	150	0	0
619	1	3	Investment—£642 3% Savings	619	1	3
			Bonds 1960/70 (Market value as at 31st October, 1963 £581)			
			Consumable Stores:			
			Food stuffs	£32	0	0
			Livestock	40	0	0
			Fuel	50	0	0
				<hr/>		
110	0	0		122	0	0
		Cash in Bank:				
			Trust Account	£4	18	10
			Hostel Account	340	12	2
				<hr/>		
				£345	11	0
		Cash overpaid		0	8	4
				<hr/>		
218	17	1		345	2	8
<hr/>				<hr/>		
£1597	18	4		£1923	5	1
<hr/> <hr/>				<hr/> <hr/>		

EDINBURGH, 30th December, 1963: Examined and found correct.

LINDSAY, JAMIESON & HALDANE, C.A.

WARDEN'S REPORT FOR 1963

PETER DAVIS and ROY H. DENNIS

The observatory opened for the 1963 season on 27th January, and closed on 4th December. Between late April and mid-November a total of 162 visitors stayed at the observatory for 241 visitor-weeks; a considerable improvement on the situation in 1962, and not far short of the record of 254 weeks in 1961. There were many more bookings in the spring than there had been in 1962, and the total was boosted by the six-week stay of a party of Royal Engineers engaged in an astronomical survey in September and October.

As before, there were a good many visitors from overseas, including four from Sweden, three from France, two from Germany and two from Belgium, and others from Australia and the United States.

Staff. The change of wardens took place in late September, Roy and Marina Dennis having arrived for a period of "overlap" at the beginning of the month. Miss Pat Adams continued her good work in the hostel kitchen, and Barry Spence most ably carried out the duties of assistant for a second year. We should like to congratulate Barry on his appointment as warden of the Spurn Bird Observatory, early in 1964.

Island Events. This was a more hopeful year for the island community, since two families of immigrants settled in. The Bancrofts, a family of seven from Kent, came in to occupy the Haa house and croft in June, while a newly-wed couple from Edinburgh, the Fergussons, took over the Quoy holding in July. On the debit side, William Stout of Houll chose to emigrate after his marriage to the island nurse, Miss Winifred Duncan, in late July; and the couple took with them his widowed mother, Mrs Babs Stout. Willie's place in the mailboat was taken by Thomas Stout of Busta. No islanders died or were born, and the net result of these changes was an increase in the crofting population to 48 (including seven young people engaged in full-time education away from the isle). It is planned that a further three immigrants, two of island stock, shall arrive in the course of 1964.

Mr and Mrs Gordon Cornish, who had been at the school for almost three years, departed early in the year, and were replaced by Mr and Mrs Girvan McKay. A temporary nurse was resident from October until the end of the year, and the new nurse, with her husband and child, arrived at the beginning of 1964.

Workers from International Voluntary Services returned to the island to work on extensions to the Old Haa and Quoy houses, and some of the islanders were employed on this work

during the late summer and autumn. One boat fished the lobsters all summer with great success, and two others joined in for shorter periods. Reseeding experiments carried out by Gordon Barnes had encouraging results, and should be extended in future years. No National Trust cruises landed on the isle, but woollen goods were sent away to be sold to passengers; during a visit from the "Orcadia," arranged by members of the Orkney British Legion, some 150 passengers enjoyed a fine July day in the isle.

Eric Simms and two cameramen from BBC TV made a film on the island in June, which was to be shown on television in the spring of 1964. Recordings made at the same time were broadcast in the "Countryside" programme in late July.

Field-work. In addition to the routine work of observation and ringing, we carried out censuses of the Eider population and of breeding land-birds in the crofts. The Arctic Skua study having ended in 1962, Peter Davis paid a ten-day visit to Shetland in June, to examine colonies in Dunrossness, on Mousa, Noss, and Unst. Many useful counts of the proportions of the colour-phases in these localities were made, but only one ringed bird was seen, a breeding adult at Noss Hill in Dunrossness which carried a size D.E. ring as formerly used at Fair Isle, but which had no colour-rings. A total of over 200 skuas was examined at sufficiently close quarters to be certain that they had no rings.

The brunt of the seabird ringing programme fell upon the shoulders of Barry Spence, as P.D. had to devote a great deal of time to bookwork, particularly the completion of the island check-list, before his departure in the autumn. It is greatly to Barry's credit that the seabird totals were scarcely lower (and for several species considerably higher) than in 1962.

Two botanists who are preparing a new flora of Shetland, Walter Scott and Richard Palmer, came to survey the island, and added several species to the lists compiled by earlier workers. Richard Butler completed his field-work for a thesis on the geography of the isle.

Co-operation. We continued to supply regular reports on the migrants to the Migration Research Officer, and responded to several requests for additional information from both the B.T.O. and from private individuals.

A collection of flat-flies was made on behalf of Mr Denis Hill of the University of Hong Kong.

Ornithology

In this year's annual report the sections on migration and breeding birds have been amalgamated and presented in a systematic list. The presentation of a yearly systematic list in

the annual reports will, after the completion of the "Checklist of the Birds of Fair Isle" in 1964, make it easier to appreciate the status at Fair Isle of any species.

The pattern of migration at Fair Isle in 1963 was one of extreme contrasts, with unusually prolonged periods of abundance and scarcity; but on the whole one may say that it was a good year for common birds (notably for Blackbirds and the warblers at both seasons, and for Robins in spring), and a rather poor one for the tally-hunter. In spring, March was outstanding, mid-April almost as exciting as in 1962, the end of May and early June unprecedented, and the rest nowhere. In autumn, the whole of August and the first days of September were full of interest, the rest of September and early October almost unrelievedly discouraging, while late October and early November could hardly have been bettered.

The spring movements have already been reviewed in the Bulletin (Vol. 5, No. 3), and the autumn passage will be reviewed in detail in Bulletin No. 4.

The summer weather from late May to August was drier and warmer than for some years past, and most species enjoyed a successful season. Fuller details of the 1963 breeding season have appeared in the Bulletin No. 3.

179 species were recorded in 1963; the Black-throated Diver was the only addition to the Fair Isle list.

Systematic List for 1963

BLACK-THROATED DIVER *Gavia arcticus*. One seen at the Tail of Uren on 15th and 20th November was a new record for Fair Isle.

GREAT NORTHERN DIVER *Gavia immer*. Singles on 2nd and 29th September, 2 on 3rd November and singles on five days from 5th to 24th November.

RED-THROATED DIVER *Gavia stellata*. Singles on 19th March, 10th and 27th May, 2 on 9th June and singles on four other June dates, at least 2 on 1st and 2nd July and singles on 5th and 8th July, 1st to 15th August, 7th September and 14th November.

RED-NECKED GREBE *Podiceps grisegena*. One off Bunes on 16th September.

LEACH'S PETREL *Oceanodroma leucorhoa*. At least one on the crossing, 17th September.

STORM PETREL *Hydrobates pelagicus*. Small numbers seen on the crossing from 11th June to 17th September, maximum ca. 20 on 17th September. Birds again seen on the cliffs at night, but breeding not proved, mainly at Malcolm's Head and Kirn of Skroo. A bird ringed at Malcolm's Head on the

- 1st August was recovered and released at Foula on the 4th August.
- MANX SHEARWATER *Procellaria puffinus*. One seen on crossing on 10th April and 2 on 2nd July.
- SOOTY SHEARWATER *Procellaria grisea*. One off Skaddan on 7th September and 2 on 13th November. On the crossing, singles were seen on 20th August, 7th and 25th September, but 2 on 17th September.
- FULMAR *Fulmarus glacialis*. A good breeding season. Blue Fulmars seen on 15th September and 15th October.
- GANNET *Sula bassana*. Small numbers offshore throughout spring and summer, increasing to ca. 60 on 23rd August, smaller numbers offshore all autumn.
- CORMORANT *Phalacrocorax carbo*. One in South Harbour all January. Singles once in February and twice in March; 6 on 10th April. Singles on 10th May and 4th to 24th July. Passage from 19th August, when ca. 30, peaks of ca. 30 on 6th, 70+ on 12th September, and 9 on 2nd October. Small numbers in October and November.
- SHAG *Phalacrocorax aristotelis*. No change noted in the breeding population, another species which enjoyed a good breeding season.
- HERON *Ardea cinerea*. One wintered until 5th February. Small spring passage, maximum of 5 and return passage from 24th July, peaks of 11 on 13th August and 13 on 19th September.
- MALLARD *Anas platyrhynchos*. Two wintered, small numbers on spring passage, maximum of 5. Occasional birds during summer, and small autumn passage from 12th September; peaks of 10 on 20th September, 16 on 4th October and 22 on 11th November.
- TEAL *Anas creca*. Small passage in April and May, 2 on 15th and 16th June. Autumn passage from 18th September, peaks of 7 on 20th, 11 on 25th September and 9 on 4th October. Last record of 2 on 15th November.
- WIGEON *Anas penelope*. Small passage from 16th March to 17th May. Autumn passage from 1st September to 28th November, peaks of 14 on 25th September and 16 on 3rd November.
- PINTAIL *Anas acuta*. A pair on 1st April and 6th May. Singles on 20th, 21st September and 2nd November.
- SHOVELER *Spatula clypeata*. One pair on 8th June.
- SCAUP *Aythya marila*. A ♀ on 11th October.
- TUFTED DUCK *Aythya fuligula*. Single ♀ on 7th February and 24th and 25th March. A pair from 2nd to 12th June. A ♀ from 11th to 20th October.
- GOLDENEYE *Bucephala clangula*. Two wintered. Spring passage from 27th January to 22nd April; maximum of 6 in February

- and 7 in March. Autumn passage from 15th October to 29th November, maximum 12 on 1st November.
- LONG TAILED DUCK** *Clangula hyemalis*. Only spring record was a pair on 12th April. Autumn passage from 1st October to 26th November, peaks of 10 on 2nd and 31st October, 24 on 9th and 13 on 14th November.
- VELVET SCOTER** *Melanitta fusca*. ♀ from 26th to 28th March, 5 ♂♂ on 4th August, ♂ from 4th to 16th November and a ♀ on 26th November.
- SCOTER** *Melanitta nigra*. Four spring records, ♂ from 13th to 25th March, ♀ on 30th-31st March, ♂ on 10th-11th April and ♂ on 22nd to 29th June. In autumn, ♂ on 31st October and 1st November and up to 7 ♀♀ from 9th to 25th November.
- EIDER** *Somateria mollissima*. A count on 3rd May gave a total of 407, almost equally divided by the sexes. A successful summer for rearing young.
- RED-BREASTED MERGANSER** *Mergus serrator*. One pair from 7th to 21st February. Small numbers April to 6th June. Singles twice in July and August, but 3 on 2nd July, Autumn passage from 23rd September to 22nd November, maximum 4.
- SHELDUCK** *Tadorna tadorna*. One from 18th to 20th March. 1 to 3 between 7th and 22nd April, and 2 on 20th May.
- GREYLAG** *Anser anser*. One from 19th to 28th March. Up to 2 from 11th to 17th and 2 on 27th April and up to 2 from 12th to 18th May. One on 24th September, 45 on 26th and 10 on 29th September. One on 7th October and 1st November. A large arrival of ca. 150 on 3rd November, biggest fall since the 1914 war, stayed in decreasing numbers until 29th November.
- PINKFOOT** *Anser arvensis*. 15 on 26th and 1 to 3 from 27th to 30th September.
- BRENT GOOSE** *Branta bernicla*. An adult and two immatures in North Haven on 12th October, were referable to the pale-breasted race (*hrota*).
- WHOOPER SWAN** *Cygnus cygnus*. Present in small numbers, maximum 7, from January to 8th April. 11 on 18th, 14 on 19th April and one on 23rd May. Autumn passage from 28th September (2) to 29th November, maximum of 17 on 10th October.
- ROUGH-LEGGED BUZZARD** *Buteo lagopus*. One adult on 29th May and one from 3rd to 10th November.
- SPARROWHAWK** *Accipiter nisus*. One on 7th March. ♀ on 13th September. 1 to 2 between 15th October and 10th November.
- HEN HARRIER** *Circus cyaneus*. A fine ♂ from 25th to 29th November.
- OSPREY** *Pandion haliaetus*. One on 6th June.

- PEREGRINE *Falco peregrinus*. A pair appeared to lay eggs but no young were reared; the first time since at least 1957. 3 seen together on 21st and 22nd September.
- MERLIN *Falco columbarius*. One on 20th February, Singles between 23rd March and 16th May. Autumn passage 26th August to 29th November, maximum 6 on 8th, 12th and 29th September.
- KESTREL *Falco tinnunculus*. One present until 12th April. Spring passage from 16th May to 19th June, maximum 4 on 10th June. Singles seen on some days in July. Autumn passage from 18th August to 10th October, maximum 3 on 24th September, singles on a few dates until 27th November.
- QUAIL *Coturnix coturnix*. 2 on 19th June and singles on 20th, 21st June and 15th August.
- WATER RAIL *Rallus aquaticus*. One on 3rd April. One on 26th September, main autumn passage from 14th October to 24th November, with maximum of 3 on 6th November.
- CORNCRAKE *Crex crex*. Singles on 21st April and 6 dates between 5th and 26th May. Two ♂♂ called most of the summer, one at Lower Leogh and Kennaby, but the nests were not found. Singles on 11th August, 1st and 2nd September and 5th and 23rd October.
- MOORHEN *Gallinula chloropus*. One on 18th March and 13th-14th April. Singles on 7 dates between 4th October and 19th November.
- COOT *Fulica atra*. Spring arrival of 3 on 24th March, 2 until 1st April and one stayed until 20th June. One on 5th November.
- OYSTERCATCHER *Haematopus ostralegus*. Arrival in first week of February, maximum 5 in February. Increasing during March from 13 on 2nd to ca. 50 on the 16th, settling down to the breeding population. Flocking of 52 on 2nd July, numbers decreasing in August, maximum of 15 in September and small numbers, 3-4, in October and November.
- LAPWING *Vanellus vanellus*. One on 12th February, 4 on 28th February, 30 on 6th, 100+ on 10th, ca. 500 on 19th and ca. 300 on 21st March. Decrease on 25th to ca. 30 and 60 on 1st April. A poor breeding season, population dropped from about 12 pairs to only 3 pairs. Maximum of 7 after breeding season, until 3rd October when 50+. Small passage October and November, peaks of 45+ on 2nd and 60+ on 5th November, last record, 6 on 25th November.
- RINGED PLOVER *Charadrius hiaticula*. Spring passage and arrival from 6th February, maximum 7 on 13th March. Two pairs nested on Bunes. Autumn passage from end July to 12th October, peaks of 22+ on 5th August, 25 on 2nd and 20 on 22nd September. Birds referable to the arctic race, one on 9th and 2 on 23rd September.

- GREY PLOVER *Charadrius squatarola*. One from 30th September to 8th October and another from 1st to 6th November.
- GOLDEN PLOVER *Charadrius apricarius*. Small spring passage from 8th February to 6th June, maximum 14 on 19th April. Autumn passage from 2nd July (3) to 7th November, with peaks of 25+ on 31st August, 30+ on 2nd, 15th, 27th, 70+ on 28th September, 25 on 1st and 26 on 20th October.
- DOTTEREL *Charadrius morinellus*. A ♀ in the Hill Dyke area on 10th and 11th June.
- TURNSTONE *Arenaria interpres*. Small number, maximum 12, wintered. Spring passage from 7th March to 21st May, peaks of 35 on 12th, 45+ on 24th March and 40 on 1st April. Two on 4th July. Autumn passage from 23rd July, peaks of 40+ on 22nd and 30th August, 70 on 16th, ca. 100 on 26th September, 90+ on 4th and 23rd-24th, 135 on 31st October and 98 on 22nd November.
- SNIPE *Capella gallinago*. Small numbers wintered. Very little spring passage, peak of 10 on 20th March. One pair nested in Gilsetter but probably failed to rear young. Autumn arrivals from 17th August, peaks of ca. 10 on 10 on 1st and 26th September, 12 on 5th October and 13th November.
- JACK SNIPE *Lymnocyptes minimus*. Singles on 2nd, 5th and 18th February and 13th April. Singles in autumn on 1st, 28th-29th October, 3rd and 5th November.
- WOODCOCK *Scolopax rusticola*. Spring passage from 9th February until 24th April, main movements, ca. 10 on 19th and ca. 50 on 20th March. One on 16th June. Autumn passage from 3rd October to 30th November, a poor autumn, peaks only 68+ on 1st and ca. 50 on 2nd November.
- CURLEW *Numenius arquata*. Small numbers in winter. Spring passage from 6th March to 24th May, maximum of 24 on 22nd April. Small numbers in June, increasing to 25 on 2nd July and 34 on 5th July. Autumn passage until 28th September, peaks of 24 on 19th August and 10 on 1st September, singles on a few days until 11th November.
- WHIMBREL *Numenius phaeopus*. Spring passage from 24th April to 29th June, maximum of 6+ on 18th May. Peak of 6 on 2nd July and small numbers on autumn passage until 10th September.
- BAR-TAILED GODWIT *Limosa lapponica*. One on 3rd July and 12th August and 2 on 3rd October.
- GREEN SANDPIPER *Tringa ocropus*. At least 1 18th-21st April, 1 from 6th to 9th May and one on 10th June. Autumn passage from 30th July until 8th September, singles on most days except 3 on 5th and 6th August.
- WOOD SANDPIPER *Tringa glareola*. 1 to 3 from 26th to 29th May.

1 from 6th to 11th and 2 on 9th June. 2+ on 5th and 6th and single from 7th to 17th August.

COMMON SANDPIPER *Tringa hypoleucus*. Singles on 11 days from 5th to 12th June, but 2 on 26th May, 3rd and 5th June and 3 on 7th June. 1 to 2 on dates from 4th August to 8th September.

SPOTTED REDSHANK *Tringa erythropus*. One from 19th to 22nd September.

REDSHANK *Tringa totanus*. Small numbers wintering. Maximum of 13 on 13th February. Spring passage from about 20th March to 17th May. Peaks of 20 on 25th March, 14 on 13th and 21st April. Single birds on several days in June. Autumn passage from 1st July with peaks of 54 on 24th July, ca. 40 on 18th August, ca. 30 on 15th September, 30 on 4th October and 25 on 19th and 20th November.

GREENSHANK *Tringa nebularia*. Single birds on 21st and 24th May. Singles also on 26th and 30th July and on several dates from 2nd August to 12th September. Peaks of 3+ on 20th August and 2 on 13th September.

KNOT *Calidris canutus*. 1 on 13th May. Return passage from 21st July to 3rd October. 12 on 6th August and 7 on 5th September. An early flock of 44 birds in beautiful red summer plumage on 31st July.

PURPLE SANDPIPER *Calidris maritima*. A few wintering birds. Maximum of 14 on 7th February. Small movements until 19th May. Maximum of 12+ on 11th May. Autumn arrivals from 23rd July. Maxima of 8 in August, 10 in September and 15 in October. Maximum of 22 on 8th November.

LITTLE STINT *Calidris minuta*. Single bird from 20th to 31st August, single at Leestat from 5th to 12th October, with 2 present on 7th and 10th October.

DUNLIN *Calidris alpina*. 1 on 12th February. Up to 7 seen on 5 dates in March. 1 on 24th April. Small numbers from 6th May to 9th June. Autumn passage from 7th July to 7th November. Maximum of 10 on 4th and 6th August, 12 on 3rd October. A late bird on 26th November.

CURLEW SANDPIPER *Calidris testacea*. Single birds on Skaddan from 5th to 8th September and 3rd to 9th November constitute the 7th and 8th record for the isle.

SANDERLING *Crocethia alba*. Autumn passage of small numbers on dates from 19th July to 24th September. Maximum of 8 on 5th August.

RUFF *Philomachus pugnax*. Autumn passage from 6th August to 7th September. Mostly 1 or 2 but 6 on 9th August, 3 on 10th August. One late bird on 2nd November.

PHALAROPE spp. One flew across the Havens on 14th September.

STONE CURLEW *Burhinus oedicnemus*. One at Horstibrecks

- from 23rd to 25th May—second record for Fair Isle.
- ARCTIC SKUA** *Stercorarius parasiticus*. Spring arrival from 19th April, main arrival on 26th April. The breeding population decreased by about five pairs from the peak of 70 pairs in 1962, and although detailed records of nesting success were not maintained, it was evident that they reared fewer chicks than average, partly owing to the impact of the increase of the Great Skuas. Apart from the ringing of chicks, work on this species was confined to the following up of the birds which have habitually laid 3-egg clutches; one of these again produced 3, while another laid 4, the first time this has been known on Fair Isle. As in earlier years, all were infertile.
- GREAT SKUA** *Stercorarius skua*. Spring arrival from 9th April, main arrival 14th April. Breeding pairs increased from 25 to 31 pairs, plus many non-breeders. Nesting success was very poor due to disturbance. The breeding population were late to leave the isle, the last record being 22nd October.
- POMARINE SKUA** *Stercorarius pomarinus*. One pale phase bird frequented the crofting area from 21st October. It was trapped and ringed at Midway on the 30th October and proved to be a second winter bird, probably a male.
- GREAT BLACK-BACKED GULL** *Larus marinus*. Breeding numbers remained steady. Some large flocks were recorded in the autumn with peaks of 200 on 22nd November and 100 on 31st October and on 3 other dates in November.
- LESSER BLACK-BACKED GULL** *Larus fuscus*. 2 on the 12th and 1 on the 25th March. Main arrival during late April. A good breeding year and the population was double that of 1962. A few late migrants in September, the last on 26th September. 1 of the Scandinavian race on the 25th September.
- HERRING GULL** *Larus argentatus*. The breeding population increased markedly and had a successful season. Some large congregations in the autumn, notably 200 on 26th September, 320 on 7th November and 400 on 21st November.
- COMMON GULL** *Larus canus*. First arrivals from 11th February, main passage 19th to 20th March and 18th to 22nd April. Autumn passage from 5th July. Main movements of 600+ on 31st July, ca. 600 on the 5th, ca. 250 on the 19th and about 500 on 28th August, ca. 245 on 19th and ca. 200 on 20th with ca. 130 on 26th September. 112 on the 4th, ca. 100 on the 8th, 206 on the 15th, 240 on the 16th and 140 on 31st October. 136 on 1st November and 72 on 4th November.
- GLAUCOUS GULL** *Larus hyperboreus*. 1 on 12th October, single birds on 4th, 15th, 16th and 18th November with 2 on 7th November.
- BLACK-HEADED GULL** *Larus ridibundus*. 1 or 2 wintering. Spring

passage from 7th March, maxima of 25 on 20th March, and 32 on 29th April. Return passage from 13th July to 20th November. Peaks of 17 on 21st July, 13 on 9th August, 10 on 25th September and 16 on 11th October.

KITTIWAKE *Rissa tridactyla*. First seen on 26th February, first ashore on 13th March. They reared exceptional numbers of young, but a large proportion of these died around the island after fledging, apparently of starvation. Departure during August, small numbers in September, but a flock of 72 on Skaddan on 3rd October.

COMMON TERN *Sterna hirundo*. Small numbers in July; a westerly gale deposited about 110 on 26th September. A record total for the isle.

ARCTIC TERN *Sterna macrura*. Small numbers were specifically identified from 23rd May, a few in June, July, August and September. Small numbers of Common/Arctic Terns were recorded from 29th May to 3rd October, maxima of 11 on 14th August and 10 on 20th September.

LITTLE AUK *Plautus alle*. None recorded from the isle, but many on crossings on 2nd February and 3 on crossing on 13th November.

RAZORBILL *Alca torda*. First ashore on 13th March. Main arrivals on shore from 6th April. A very successful breeding season. Last seen on isle on 1st August.

GUILLEMOT *Uria aalge*. First ashore on 13th and 18th February and 13th March, mainly from 8th April. Enjoyed a good breeding season. Last seen on the isle on 3rd August. More than usual in island water in October and November. Some recovered dead on beaches.

BLACK GUILLEMOT *Uria grylle*. Enjoyed a good breeding season, population much the same as 1962.

PUFFIN *Fratercula arctica*. First ashore on 8th April, main arrival on the 15th. They did not have such a successful year as the rest of the sea birds. Last seen ashore on 23rd August. A few late autumn records off the isle.

STOCK DOVE *Columba oenas*. 1 to 2 between 31st March and 18th May. 1 on 29th and 30th November.

ROCK DOVE *Columba livia*. A few wintered, peaks of 14 on 12th March, 11+ on 27th March and ca. 25 on 22nd May. Maximum numbers after breeding season, ca. 20 on 22nd September and 23 on 23rd October.

WOOD PIGEON *Columba palumbus*. Spring passage from 16th March to 21st June. Maxima of 15 on 1st April and 10 on 15th May. Single birds on 5 dates in July and 1 in August. Autumn passage, 1 to 2 from 12th October to 18th November.

TURTLE DOVE *Streptopelia turtur*. Single birds from 16th May

- to 16th July, with 2 from 2nd to 6th June. 1 to 2 between 24th August and 20th September.
- COLLARED DOVE** *Streptopelia decaocto*. Single birds on 7 dates in May. 1 to 2 from 3rd to 19th June with 2 new birds on 20th June.
- CUCKOO** *Cuculus canorus*. Single birds seen on 6 dates in May, from the 9th. Mainly ♂♂'s. A ♀ on 19th June. Single bird from 24th to 25th June. A juvenile on 13th to 17th July and 1 on 1st September.
- LONG-EARED OWL** *Asio otus*. 1 on 18th February, 1 on 16th March and 21st March, 2 on 12th April. Strong autumn passage from 21st October to 18th November, maximum of 8 on 4th November. Last one on 28th November.
- SHORT-EARED OWL** *Asio flammeus*. 1 on 20th to 24th March. Single birds on 7 dates in April, 2 dates in May and 1 on 9th June. Single birds on 4 dates in August, 2 dates in September. A strong passage in the autumn between 28th October and 10th November with a maximum of 20 on 8th November.
- NIGHTJAR** *Caprimulgus europaeus*. A ♂ in the Observatory area from 9th to 13th June.
- SWIFT** *Apus apus*. First arrival of 2 on the 8th April, 1 to 2 on 4 dates in May, maximum of ca. 30 on 6th June, small numbers on 6 dates in June, maximum of 9+ on 5th July with small numbers on 7 other dates in July. 1 on 21st, 3 on 22nd, 7 on 25th August with with 6+ on 4th September. Single birds on 6 dates between 2nd and 24th September.
- GREAT SPOTTED WOODPECKER** *Dendrocopus major*. A single bird around Shirva on 4th and 5th November.
- WRYNECK** *Jynx torquilla*. 1 on 29th April. Single birds from 21st to 31st May. Small passage 19th August to 7th September. Maxima of 6 on 31st August, 4 on 1st and 2, plus 2 dead, on 2nd September.
- SHORT-TOED LARK** *Calandrella cinerea*. 1 southern type specimen, in the Stoneybrake area and then the Busta area, from 25th September to 14th October.
- WOODLARK** *Lullula arborea*. Single birds on 4th and 5th April, and 7th to 15th November.
- SKYLARK** *Alauda arvensis*. About 40 to 50 wintering. Arrival of ca. 350+ on 12th March and ca. 400 on 20th March, ca. 300 on 1st April. Movements noted from mid-September, slowly decreasing to winter population of ca. 60.
- SHORE LARK** *Eremophila alpestris*. 1 at Taing from 2nd to 6th November.
- SWALLOW** *Hirundo rustica*. Spring passage from 19th April to 16th June with peaks of 15+ on 9th, ca. 20 on 15th, 30+ on 22nd and ca. 50 on 27th May. Maximum of 10 in June. Small

- numbers summered but did not nest. Small passage between 1st and 9th September, maximum of 5 on 4th September.
- HOUSE MARTIN *Delichon urbica*. Spring passage from 10th May to 16th June, early birds on 29th April and 1st May. Peaks of 10 on 15th May, 32+ on 2nd June and 20+ from 6th to 8th June. Small numbers over summer. Small autumn passage from 31st August to 18th September, maxima of 20+ on the 4th and ca. 25 on the 6th September.
- SAND MARTIN *Riparia riparia*. One on 24th April. 1 or 2 on six dates between 21st May and 2nd June. Small autumn passage; 2 plus on 3rd, 3 plus on 4th, ca. 10 on 5th, and 2 on 6th September.
- RAVEN *Corvus corax*. Pre-breeding season flock of 9, but only 2 pairs nested successfully. The maximum autumn flock was 8.
- CARRION CROW *Corvus corone*. One from 7th April, 4 from 25th and ten on 29th April. 1 or 2 until 24th May. Only autumn record, one 3rd to 15th November.
- HOODED CROW *Corvus cornix*. 20 in the pre-breeding season flock and 21 in the autumn, except on 22nd September, when 31 were recorded.
- ROOK *Corvus frugilegus*. Small spring passage from 15th March until 21st April, maximum 9 on the 21st March. A single bird from 16th June to 2nd July. Autumn passage 3 on 15th November, and a single on four dates between 17th and 22nd November.
- WREN *Troglodytes troglodytes*. No change noted, enjoyed good breeding season.
- DIPPER *Cinclus cinclus*. A black-bellied form *cinclus* from 7th to 13th April, and our first Brown-bellied form *Gularis* from 30th April to 7th May.
- MISTLE THRUSH *Turdus viscivorus*. Spring passage from 17th March to 26th April. Singles on 7 days, 3 on 30th and 6 plus on 31st March, 4 on 1st and 5 on 2nd April. Only autumn record, one on 20th November.
- FIELDFARE *Turdus pilaris*. A few wintered. Main spring passage from 16th March to 29th April, small numbers except 50+ on 12th, ca. 150 on 19th, ca. 100 on 20th, 70 on 22nd and 50 on 23rd April. Late birds in May, singles on three days up to 23rd and 9 on 5th May. Autumn passage from 2nd October, extremely strong passage from 26th October to 3rd November, with a peak of 2000 plus on 27th and 28th October. The highest total recorded on the isle since October 1952.
- SONG THRUSH *Turdus ericetorum*. 1 or 2 wintered. Spring passage from 12th March to 30th April, maximum ca. 40 on 19th April. Late migrants, 1 on 14th and 2 on 15th May.

- Singles on 1st and 13th June. Autumn passage from 18th September, main movement after 2nd October, with peaks of 30+ on 27th October and 28 on 2nd November.
- REDWING** *Turdus iliacus*. A few wintered. Spring passage from 11th March to 1st May. The small numbers noted on the isle this spring reflect the severity of the winter of 1962/63; the maximum recorded on one day was 20. Late birds on 21st and 22nd May and one singing in the gully on 13th June. An early migrant from 3rd to 10th September. Autumn passage from 1st October, main peaks of 180 on 7th, 300 on 14th, 1000+ on 23rd, 26th, 1200 on 27th, 400 on 28th, 29th, and 600 on 30th, 31st October. 550 on 1st November, 300 on 2nd, 150 on 3rd. A few stayed to winter.
- RING OUZEL** *Turdus torquatus*. Spring passage from 11th April to 12th June, peaks of ca. 25 on 18th, ca. 20 on 19th and ca. 10 on 21st April. Small autumn passage, one on 1st and 22nd September; one on 3rd/4th, 3 on 27th and 31st October; 2 on 1st and one on 2nd November.
- BLACKBIRD** *Turdus merula*. Small numbers, up to 6, wintered. Passage from 12th March to 8th May; peaks of ca. 1000 on 20th, 800 on 21st, 300 on 23rd and 100 on 24th March. A ♀ noted in May, June and July, but no breeding proved. One or two seen in September. Autumn passage from 3rd October, main movements from 23rd October to 8th November. Peaks of 440 on 27th, 655 on 28th, 300+ from 29th to 31st October, 1000+ 1st and 2nd, and 300+ on 3rd November.
- WHEATEAR** *Oenanthe oenanthe*. Spring passage from 2nd April to end of May. Main arrival 200 on 23rd April, and a few greenlanders *leucorrhoa* from 23rd April to 5th June. The breeding population increased considerably, a welcome change from the low numbers of 1962. A rather poor autumn passage from 21st August to 30th October; late birds on 3rd, 15th and 16th November.
- WHINCHAT** *Saxicola rubetra*. Small spring passage from 21st April to 9th June, peaks of 6 to 8 between 22nd and 25th May. Autumn passage from 15th August to 24th October. Peaks of 18 to 30 between 31st August and 5th September, 22 on 9th and ca. 15 on 19th September. Only singles recorded daily from 9th October.
- STONECHAT** *Saxicola torquata*. ♂♂s on 11th and 29th March.
- REDSTART** *Phoenicurus phoenicurus*. First arrivals of 1 to 3 birds from 18th to 27th April, but main passage from 10th May to 12th June, maxima of 22 on 22nd, 13 on 23rd May and 8 on 2nd June. Autumn passage from 31st August to 29th September, maxima of 9 on 4th and ca. 20 on 19th September. One or two stragglers up to 23rd October.
- BLACK REDSTART** *Phoenicurus ochrurus*. ♂ on 28th March 1 or 2 from 18th to 27th April. One on 1st June. Autumn singles

on 31st October, 12th, 30th November and 2nd December.

BLUETHROAT *Cyanosylvia svecica*. A fine white-spotted bird *cyaneola* from 18th to 22nd April. First red-spotted bird *svecica*, a ♂ on 23rd, 3♂♂ and 2♀♀ on 24th, 2♂♂ and 3♀♀ on 25th, ♂ on 26th, 1 on 27th and a ♀ on 28th May. Very poor autumn passage: 2 on 19th, singles on 20th, 27th, 28th September, 2nd and 3rd October.

ROBIN *Erithacus rubecula*. At least 3 wintered. Spring passage from 18th March to 8th May, peak period from 18th to 28th April, maximum 300+ on 19th April. Late birds on 23rd May, 1st to 11th June and an early bird on 19th August. Autumn passage from 1st October, very small numbers, peaks of 10 on 28th October and 9 on 4th November, the autumn Robin movement missed Fair Isle this time.

GRASSHOPPER-WARBLER *Locustella naevia*. Single bird from 22nd to 26th May.

REED WARBLER *Acrocephalus scirpaceus*. One on 23rd June, 2 on 31st August and 2 caught in the Shirva reeds on 19th September. Acrocephalus warblers were seen but not caught on 21st, 28th and 29th June and one or two between 31st August and 22nd September, and 3rd and 4th October.

MARSH WARBLER *Acrocephalus palustris*. Singles on 29th May, 1st and 5th June, 29th and 31st August and 2nd September.

SEDGE WARBLER *Acrocephalus schoenobaenus*. Spring passage from 9th May to 1st June, maximum of 5 on 16th May. Only two autumn records, single birds on 8th August and 19th September.

ICTERINE WARBLER *Hippolais icterina*. One at Swartz Geo on 22nd May and one at Busta in the oats on 3rd and 4th September.

BLACKCAP *Sylvia atricapilla*. Early ♂♂s on 11th and 23rd April, small spring passage from 10th May to 1st July, maximum of 6 between 8th and 10th June. Autumn passage 31st August to 16th November, maxima of 6 on 4th September and 4 on 4th October.

BARRED WARBLER *Sylvia nisoria*. A small autumn passage from 9th August to 19th September, mainly 1 or 2, but 4 on 4th and 3 on 5th September. A very late bird on 3rd and 4th October.

GARDEN WARBLER *Sylvia borin*. Spring passage from 21st May to 21st June, peaks 11 on 22nd, 23rd May, 18+ on 2nd June and 12 on 10th June. Strong autumn passage from 11th August to 25th September, peaks of ca. 30 on 31st August, ca. 40 on 1st, 21 on 2nd, 18 on 4th and 12+ on 19th September. Singles on four days in October and last record on 4th November.

WHITETHROAT *Sylvia communis*. Spring passage from 6th May

to 15th June, peaks of 10+ on 21st, 16 on 23rd, 12 on 27th May and 8+ on 3rd June. Autumn passage from 16th August to 23rd September, maxima of 4 on 1st and 3rd September, and a late bird on 2nd October.

LESSER WHITETHROAT *Sylvia curruca*. Spring passage from 8th May to 13th June, singles in May, except 2 on 9th; maximum 8 on 2nd June. Autumn passage, singles on 8th, and 23rd August, 5th, 17th, 18th September, but 3 on 19th September, 1 to 2 from 3rd to 7th October.

WILLOW WARBLER *Phylloscopus trochilus*. An early migrant on 23rd April, but main passage from 9th May to 13th June; peaks of ca. 40 on 22nd, ca. 30 on 23rd, ca. 20 on 26th May and ca. 12 on 8th June. Birds of the northern race on 21st June and 1st July. Main autumn passage from 9th August to 26th September, except an early migrant on 29th July and a late one on 7th October. Peaks of 50+ on 18th, 60+ on 22nd, ca. 50 on 31st August, 60+ on 1st/2nd, ca. 50 on 3rd, ca. 40 on 4th and 25+ on 19th September.

CHIFFCHAFF *Phylloscopus collybita*. Small spring passage from 2nd April to 17th June, peaks of 5+ on 18th, 4+ on 19th and 7+ on 20th April. Autumn passage from 19th September to 8th October, majority from 3rd to 8th October, with maximum of 5 on 7th October. Late migrants on 31st October and 2nd November, and a bird of the northern race from 27th October to 2nd November.

WOOD WARBLER *Phylloscopus sibilatrix*. Singles on 16th, 27th May, 5th and 6th June. Strong autumn passage for Fair Isle from 13th August to 14th September, mainly singles, but 3 on 3 dates in August and a maximum of 4+ on 22nd August.

YELLOW-BROWED WARBLER *Phylloscopus inornatus*. Singles on 1st, 2nd and 7th October.

GOLDCREST *Regulus regulus*. Small numbers in spring, maximum of 6+ on 20th March, one or two on four days to end of month, one or two on five days in April, singles on 3rd and 8th May. Sparse autumn passage from 29th August to 15th November, recorded on less than half the days; peaks of 21 on 3rd, 12 on 4th, 7 on 7th October and 15 on 4th November.

SPOTTED FLYCATCHER *Muscicapa striata*. Spring passage from 21st May to 20th June, maxima of 30+ on 2nd and 40 on 3rd June. Small autumn passage, singles on six days in September and 3 on 5th September.

PIED FLYCATCHER *Muscicapa hypoleuca*. Small passage from 22nd May to 24th June. One on 22nd July. Autumn passage from 6th August to 22nd September, peaks of 6+ on 31st

August, 7 on 5th and 40 on 20th September. Late birds on 3rd, 4th (2) and 7th October.

RED-BREADED FLYCATCHER *Muscicapa parva*. A ♀ on 4th and 5th May was only the second spring record for Fair Isle, a ♀ on 20th and 21st June. Autumn passage 2 on 19th, and singles on 20th, 22nd September and 3rd October.

HEDGE SPARROW *Prunella modularis*. Spring passage from 11th March to 27th May; peaks ca. 20 on 20th, ca. 30 on 30th March, ca. 25 on 2nd and ca. 20 on 18th April. Four birds referable to the British race on 17th March. Late birds on 3rd and 4th June. Small autumn passage of one or two between 1st and 15th November.

MEADOW PIPIT *Anthus pratensis*. Spring arrival and passage from March 12th, main arrival from 8th April. A large decrease in the island's breeding population. Autumn migration from 22nd August to 26th November, some days of strong passage in September.

RICHARD'S PIPIT *Anthus novaeseelandiae*. One at Dronga on 7th October, and one in the crofting area on 11th, 13th and 17th October.

TAWNY PIPIT *Anthus campestris*. One on Meones on 6th June.

TREE PIPIT *Anthus trivialis*. Singles from 22nd to 30th April, but main passage from 10th May to 12th June, peaks of 20+ on 22nd and 15 on 26th May. Small autumn passage of one to two birds on 15 days between 17th August and 19th September.

ROCK PIPIT *Anthus spinoletta*. Population steady and a good breeding season. Some days of migration in late August and mid-October.

WHITE WAGTAIL *Motacilla alba alba*. Singles on 12th/13th March and 1st to 3rd April, main passage 17th April to 31st May, peaks of 7 on 22nd April and 6 on 8th May. A pair nested at Furse and reared two young; the first successful breeding on Fair Isle since about 1944. Autumn migration from 14th August to 6th October, peaks of ca. 20 on 17th, ca. 40 on 29th, 32 on 31st August, ca. 45 on 1st, ca. 35 on 5th and ca. 30 on 9th September.

PIED WAGTAIL *Motacilla alba yarrelli*. Spring migration from 17th March to 4th April, maximum of 3 on 31st March. A ♂ on 4th May.

YELLOW WAGTAILS *Motacilla flava*. Blue-headed Wagtail *flava*, ♂ on 10th, ♀ on 25th May and a ♀ on 7th June. Grey-headed Wagtail *thunbergi* ♂ on 13th, 21st-23rd, 3 ♂♂ on 26th, ♂ on 27th June; ♀ on 6th and 10th June. Indeterminate birds, 2 on 26th May and singles on 5th and 6th June. In the autumn, ♀ Blue-head *flava* from 1st to 13th

- September, and an indeterminate ♀ on 23rd and 24th September.
- WAXWING *Bombycilla garrulus*. A strong autumn passage from 28th October to 18th November, peaks of 50+ on 2nd and 25 on 4th November, many of them were in a weak condition.
- GREAT GREY SHRIKE *Lanius excubitor*. Singles on 19th April and 3rd to 7th May. Singles on 4th, 6th, 27th to 29th and 31st October. Strong movement from 1st to 7th November, maximum of 5 on the 4th. Singles on 9th and 28th November.
- WOODCHAT SHRIKE *Lanius senator*. A ♂ 2nd to 22nd June; trapped and ringed at the Bull's Park on 10th June.
- RED-BACKED SHRIKE *Lanius cristatus*. Spring passage from 25th May to 13th June. Maximum of 2 ♂♂ and 1 ♀ on 25th May. Autumn passage; single juveniles on 31st August and 10th September. Adult ♂ at Lower Leogh on 4th and 5th September and a ♂ at Pund on 6th October.
- STARLING *Sturnus vulgaris*. Strong spring movements on 16th, 18th and 20th March. A pale fawn juvenile was reared near Duttfield. Autumn passage from 14th October to 2nd November.
- HAWFINCH *Coccothraustes coccothraustes*. One on 12th April and another on 24th May.
- GREENFINCH *Chloris chloris*. Small spring passage from 8th April to 5th May, mainly singles but 3 on 18th April. Only autumn record, one on 1st November.
- SISKIN *Carduelis spinus*. Singles on 10th, 21st April, 3rd, 5th and 8th June. 2 on 11th and 12th June. 4 on 8th September, and singles on 20th and 25th September.
- LINNET *Carduelis cannabina*. Spring passage from 16th March to 27th May, peaks of 6 on 20th March, 4 on 21st to 23rd April and 4 on 13th May.
- TWITE *Carduelis flavirostris*. First arrival on 7th March. Peaks of ca. 20 on 20th, ca. 45 on 27th and ca. 70 on 29th April. The breeding population continued to decline; one of the species most likely to be affected by toxic seed dressings. Rather few flocks in the autumn, largest flock only 80. Numbers decreasing in late October to about ten residents. Visible migration from Shetland noted on 9th, 16th and 23rd November.
- REDPOLL *Carduelis flammea*. Two wintered, until 2nd February. Singles on 31st March and 11th to 19th April. Small passage from 9th to 31st May, mainly Mealy Redpoll *flammea*, but single Greater Redpoll *rostrata* on 11th and 16th and Lesser Redpoll *cabaret* on 30th and 31st May. ♂ *cabaret* on 15th June and a ♀ on 9th July. Small autumn

passage of *rostrata* from 27th September to 21st October, maximum of 5 on 6th October. Single *flammea* from 6th to 10th November, but 3 on 9th November.

BULLFINCH *Pyrrhula pyrrhula*. ♂ on 31st October and 1st November and another ♀ from 17th to 20th November.

SCARLET GROSBEEK *Carpodacus erythrinus*. A very poor autumn for this species, singles on 4th and 9th, and 3+ on the 8th September.

CROSSBILL *Loxia curvirostra*. An early migrant on 23rd June.

A few were present from the 11th July, but the only suggestion that a big irruption was to come was the passage of 34 to the south on the 13th. This species was to dominate the scene in August; a few came in on 2nd, and these built up to about 40 by 9th. Then on 11th and 12th at least 150 were on the isle, the largest fall since the 1956 irruption, and unexpected both because major invasions have rarely occurred in successive years, and because they have never before occurred so late in the summer. Their numbers decreased to about 20 by the 22nd, but increased again to over 70 on 23rd; and although there were no further obvious falls, some were always present until late September, and odd birds appeared until early November, providing the latest records ever made on Fair Isle. Of over 130 trapped, nearly all in mid-August, some 120 were adult birds, a situation which has no precedent in other invasions, at least since 1948.

PARROT CROSSBILL *Loxia pytyopsittacus*. Two on 20th March.

CHAFFINCH. *Fringilla coelebs*. Spring passage from 12th March to 22nd May, peaks of ca. 45 on 23rd March and ca. 40 on 1st April. A ♂ throughout May, June and July, and still present on 28th August. Autumn passage from 10th October to 25th November, maximum 27 on 3rd November.

BRAMBLING *Fringilla montifringilla*. One on 12th February.

Spring passage from 30th March to 5th May; main movements 18th to 28th April, peaks of 50+ on 18th and ca. 40 on 23rd April. A ♀ from 8th to 15th June. Autumn passage from 3rd October to 15th November, early birds on 10th and 20th September, peaks of 48 on 27th and 95 on 28th October.

YELLOW HAMMER *Emberiza citrinella*. Small spring passage from 20th March to 18th May, mainly one to three, but 4 on 19th April. Small autumn passage from 23rd October to 16th November, peaks of 4 on 3rd and 9th November.

CORN BUNTING *Emberiza calandra*. 3 on 11th and 12th April. Single from 13th to 16th November.

YELLOW-BREASTED BUNTING *Emberiza aureola*. One at Gaila from 3rd to 5th September, and another (trapped) at Shirva from 13th to 16th September.

ORTOLAN BUNTING *Emberiza hortulana*. ♂ on 25th May and a ♀ on 8th June. Singles on 18th, 26th August and 10th October.

RUSTIC BUNTING *Emberiza rustica*. A ♀ trapped in Vaadel on 12th and present until 19th June; this bird was later found in Greece (see ringing report). A ♂ at Taing on 24th and 26th October.

LITTLE BUNTING *Emberiza pusilla*. Single at Lower Leogh from 2nd to 4th November.

REED BUNTING *Emberiza schoeniclus*. Single from 15th to 19th March. Small spring passage from 20th March to 19th June, maxima 6+ on 25th April and 10 on 25th May. Autumn passage from 19th September to 13th November, one or two recorded on half of these dates.

LAPLAND BUNTING *Calcarius lapponicus*. Single on 20th and 22nd March, 2 on 20th and a ♂ on 23rd/24th April, single on 6th and 8th May. Autumn passage from 9th September to 8th November, peaks of 8 on 10th and 17th September and 5 on 6th and 7th October.

SNOW BUNTING *Plectrophenax nivalis*. 30-40 wintered. Small spring passage until 25th May. Peaks of ca. 100 on 11th February and 21st March. An unusual record of a ♀ from 18th to 30th July. Autumn passage from 8th September, peaks of ca. 120 on 7th, 230 on 29th October, 500 on 4th and 6th, 250 on 8th, 113 on 23rd November.

HOUSE SPARROW *Passer domesticus*. Breeding population declining.

TREE SPARROW *Passer montanus*. Six wintered. An arrival of 30+ on 21st May was most unusual. Two pairs nested in the Reeves. The autumn flock was steady at about 10 to 12 birds.

The Traps

The traps were in good order this year and continued to be successful. The number of permanent Heligoland traps was reduced, because the old established Haa trap was dismantled to make way for an extension to the Haa house. It was a great loss to us, because it was our only permanent trap in the south of the isle. The small Bluethroat trap above Hjon Park was also closed down.

The small plantation of spruce trees at the entrance to Vaadal continues to thrive; in fact they now provide such good cover for birds that many of the smaller passerines cannot be persuaded to leave the plantation and venture into the Vaadal trap. Mist nets were again used most successfully and an assortment of portable traps were also in use.

Ringing

The year's ringing totalled 5863 of 120 species, an increase of 109 birds over 1962, but a decrease of 5 species. Sixty-six of the birds were ringed in Shetland, 25 ringed for us by Magnus Sinclair in Unst and the rest by Peter Davis when he visited Shetland in June.

The leading scores were Blackbird 879, Wheatear 612, Shag 536, Puffin 500, Starling 466, Meadow Pipit 300, Fulmar 240, Robin 239, Rock Pipit 220, and Redwing 193. Species ringed for the first time by the Observatory were Tufted Duck, Golden Plover (2 in Shetland), Pomarine Skua and Collared Dove. Other unusual birds ringed were Long-tailed Duck, Greylag, Wood Sandpiper (3), Ruff, Dipper, Marsh Warbler (5), Red-breasted Flycatcher (2), Waxwing (3), Great Grey Shrike (6), Woodchat, Crossbill (124), Parrot Crossbill, Yellow-breasted Bunting, Ortolan Bunting, Rustic Bunting and Little Bunting.

The annual and cumulative totals which were revised in 1962, have been brought up to date in Table I.

TABLE I

Year	No. of Birds	No. of Species
1948	288	38
1949	1505	63
1950	2394	74
1951	2234	77
1952	1932	74
1953	2550	80
1954	2317	75
1955	2457	82
1956	3290	81
1957	2924	87
1958	4572	101
1959	4761	116
1960	5110	112
1961	5656	111
1962	5754	125
1963	5863	120
Grand Total	53607	190

Table 2 gives the ringing totals for the individual species, together with the number of recoveries of each species away from Fair Isle (or, in a few instances away from the ringing-locality in Shetland).

TABLE 2

	Numbers Ringed			Numbers Recovered		
	1948-62	1963	Total	1948-62	1963	Total
Slavonian Grebe	1		1			
Little Grebe	1		1			
Storm Petrel	60	10	70		1	1
Fulmar	1177	240	1417	7		7
Gannet	8	1	9			
Cormorant	3	1	4			
Shag	2467	536	3003	77	8	85
Heron	5	2	7			
Mallard	2	1	3			
Teal	6	1	7	1		1
Wigeon	3	2	5			
Scaup	1		1			
Tufted Duck		1	1			
Goldeneye	2		2			
Long-tailed Duck	1	1	2			
Velvet Scoter	1		1			
Eider	21	2	23			
Red-br. Merganser	1		1			
Greylag Goose	1	1	2			
White-fronted Goose	1		1			
Whooper	3	3	6			
Sparrowhawk	44	2	46	8		8
Peregrine	3		3			
Merlin	88	8	96	9	1	10
Kestrel	15		15	3		3
Red-footed Falcon	1		1			
Water Rail	104	3	107	2		2
Spotted Crake	2		2			
Corncrake	18	3	21	2		2
Moorhen	23	3	26			
Coot	3	1	4			
Oystercatcher	366	37	403	14	2	16
Lapwing	188	15	203	1	1	2
Ringed Plover	131	18	149	1		1
Golden Plover		2	2			
Turnstone	13	6	19			
Snipe	65	10	75	1	1	2
Jack Snipe	14	1	15			
Woodcock	80	3	83	2	1	3
Curlew	7	1	8			
Whimbrel	4	2	6			
Bar-tailed Godwit	4		4	1		1
Green Sandpiper	8	2	10			
Wood Sandpiper	1	3	4			
Common Sandpiper	13		13			

Redshank	34	5	39		1	1
Spotted Shank	1		1			
Greenshank	3		3			
Knot	22	1	23			
Purple Sandpiper	42	5	47			
Little Stint	8		8			
Western Sandpiper	1		1			
Am. Pectoral Sandpiper	2		2			
Dunlin	100	11	111	2		2
Sanderling	38	1	39			
Ruff	3	1	4	1		1
Red-necked Phalarope	2		2			
Arctic Skua	1016	47	1063	17	1	18
Bonxie	294	28	322	3		3
Pomarine Skua		1	1			
Great Blackback	181	8	189	7	3	10
Lesser Blackback	173	62	235	3		3
Herring Gull	255	75	330	6	2	8
Common Gull	9	29	38			
Glaucous Gull	5		5	1		1
Black-headed Gull	33	1	34	1	1	2
Kittiwake	56	13	69			
Common Tern	4	7	11			
Arctic Tern	95		95			
Razorbill	208	86	294	13	2	15
Little Auk	4		4			
Guillemot	191	40	231	8	1	9
Black Guillemot	171	52	223	2		2
Puffin	2875	500	3375	4		4
Wood Pigeon	10	2	12			
Turtle Dove	12		12			
Collared Dove		1	1			
Cuckoo	24	2	26	1		1
Long-eared Owl	23	7	30	1		1
Short-eared Owl	1		1			
Swift	5		5		1	1
Great Spotted Woodpecker	7		7			
Wryneck	30	3	33			
Short-toed Lark	1		1			
Woodlark	1		1			
Skylark	286	19	305	1	1	2
Swallow	64	7	71	1		1
House Martin	18	2	20			
Raven	1		1			
Hooded Crow	7	1	8			
Rook	3	1	4			
Great Tit	1		1			
Blue Tit	2		2			

Treecreeper	1		1			
Wren	303	15	318			
Dipper	3	1	4			
Mistle Thrush	7	1	8			
Fieldfare	127	25	152			
Song Thrush	416	41	457	10	3	13
Redwing	2064	193	2257	18	2	20
Dusky Thrush	1		1			
Black-throated Thrush	1		1			
Ring Ouzel	51	7	58	1		1
Blackbird	6627	879	7506	117	20	137
Grey-cheeked Thrush	2		2			
Wheatear	6758	612	7370	33	2	35
Stonechat	12		12			
Whinchat	175	30	205	1		1
Redstart	518	29	547			
Black Redstart	24	3	27			
Nightingale	1		1			
Thrush Nightingale	2		2			
Bluethroat	72	5	77	1		1
Robin	1500	239	1739	9	1	10
Grasshopper Warbler	12	1	13			
Lanceolated Warbler	3		3			
Pallas's Grasshopper Warbler	1		1			
River Warbler	1		1			
Reed Warbler	25	5	30			
Marsh Warbler	10	5	15			
Paddyfield Warbler	1		1			
Thick-billed Warbler	1		1			
Sedge Warbler	99	8	107			
Aquatic Warbler	4		4			
Melodious Warbler	1		1			
Icterine Warbler	18		18			
Booted Warbler	1		1			
Blackcap	337	45	382	2		2
Barred Warbler	77	7	84			
Garden Warbler	427	113	540			
Whitethroat	283	41	324			
Lesser Whitethroat	117	9	126			
Subalpine Warbler	4		4			
Willow Warbler	652	142	794			
Greenish Warbler	5		5			
Chiffchaff	112	16	128			
Wood Warbler	8	7	15			
Bonelli's Warbler	1		1			
Arctic Warbler	6		6			
Yellow-browed Warbler	17		17			

Dusky Warbler	1		1			
Goldcrest	284	27	311			
Spotted Flycatcher	121	23	144	1		1
Pied Flycatcher	261	20	281	1	1	2
Red-breasted Flycatcher	25	2	27			
Hedge Sparrow	266	96	362	2	1	3
Meadow Pipit	3430	300	3730	30	2	32
Tree Pipit	147	5	152			
Petchora Pipit	1		1			
Red-throated Pipit	1		1			
Rock Pipit	2767	220	2987	6		6
Richard's Pipit	3		3			
Tawny Pipit	1		1			
Pied/White Wagtail	206	25	231	2	1	3
Grey Wagtail	4		4	1		1
Yellow Wagtail ssp.	6		6			
Yellow-headed Wagtail	3		3			
Waxwing	4	3	7			
Great Grey Shrike	11	6	17			
Lesser Grey Shrike	3		3			
Woodchat Shrike	2	1	3			
Red-backed Shrike	31	2	33			
Starling	4383	466	4849	28	4	32
Rose-coloured Starling	1		1			
Greenfinch	8	2	10			
Goldfinch	1		1			
Siskin	96	1	97			
Linnet	7	2	9			
Twite	1606	55	1661	2		2
Redpoll	91	3	94			
Arctic Redpoll	2		2			
Bullfinch	6		6			
Scarlet Grosbeak	15		15			
Crossbill	131	124	255	1		1
Parrot Crossbill	34	1	35			
Chaffinch	408	28	436			
Brambling	193	5	198			
Yellowhammer	12	3	15			
Corn Bunting	1		1			
Red-headed Bunting	3		3			
Yellow-breasted Bunting	1	1	2			
Ortolan	4	1	5			
Rustic Bunting	2	1	3		1	1
Little Bunting	7	1	8			
Reed Bunting	58	5	63	1		1
Lapland Bunting	25	4	29			
Snow Bunting	145	8	153	2		2
Song Sparrow	1		1			

House Sparrow	746	3	749		
Tree Sparrow	9		9		
GRAND TOTAL	47744	5863	53607	470	65 535

Recoveries 1963

Recoveries of sixty-five birds ringed by the Observatory were reported during the year; eight birds ringed elsewhere were found at Fair Isle. The most exciting recovery was a Rustic Bunting ringed at Fair Isle on 12th June, 1963 and recovered at Kambos, Island of Chios in the Aegean Sea about the 15th October 1963.

Only eight Shags were reported; 7 ringed as chicks between 1960 and 1963 were recovered as follows, Shetland (5), Orkney (4), and Caithness (1). The eighth was ringed as a chick in June 1958 and recovered in August 1962 (reported in 1963) off Fecamp (Seine Maritime) France. A Merlin ringed in October 1962 was found dying at Deerness, Orkney on 2nd January 1963.

Two Oystercatcher chicks were reported; a 1956 chick controlled (recovered and released) at Gronant, Flintshire in November 1963 and the other controlled at Holbeach, Lincolnshire in September 1963, 460 miles south, two months after ringing date. A Lapwing chick ringed by Magnus Sinclair in Unst in June 1960 was recovered in February 1963 at Butlar, Spain. This is the second Unst Lapwing recovered in Spain. A Snipe ringed in August 1960 was shot near Bantry, Cork in January 1963. A Woodcock ringed in November 1960 was recovered at Bullover, Sweden, in May 1963. A Redshank ringed on 14th August 1962 was found in Schleswig-Holstein, West Germany on 18th April 1963.

Only one Arctic Skua was reported, a 1959 chick caught off Portugal in November 1963. Two adult Great Black-backs ringed on Fair Isle in November 1960 and December 1961 respectively, were recovered in Norway in Spring and Summer 1963. A local Great Black-back chick ringed in July 1959 was found tangled in herring nets fifty miles south-east of Aberdeen in August, 1963. An adult Herring Gull, ringed on the same night as the December 1961 Great Black-back, was found in Nordland, Norway on 16th April 1963. One of this year's Herring Gull chicks was found dead near Sutton Bridge, Lincolnshire in October 1963. A Black-headed Gull chick ringed at Spiggie on 30th June 1955 was found dead on Shapinsay, Orkney on 9th January, 1963. Two Razorbills were reported; a 1961 chick was found oiled in Beadnell Bay, Northumberland in March 1963 and a 1962 chick was killed

off south-west Norway in November 1963. A 1962 Guillemot chick was found oiled at Sunderland, Durham in February 1963.

Four Swifts were mist netted at Fair Isle on 30th April 1962, one of these was found dead near Ostersund, Jamtland, Sweden in June 1962, but reported in 1963. A Skylark ringed in October 1956 was found six and a half years later near Boston, Lincolnshire. A Song Thrush ringed on 29th September 1960 was killed by a raptor in Spain on 20th February 1963. Another ringed in March 1962 was found dead in Cheshire in February 1963. An adult ringed on 24th March 1963 was found at Skaelskor, Denmark on 20th May; another example of a bird reaching Fair Isle in the spring and then returning south-east to its breeding area. A September 1961 Redwing was caught in January 1963 in the Landes district of France. Another ringed in October 1962 was found dead near Londonderry, Ireland in January 1963.

Twenty Blackbirds were reported. Eleven in Scandinavia, all between April and November, four in Ireland in January and February, one in Scotland in January and one in Wales in February. A Blackbird ringed in October 1960 was controlled at Heligoland in April 1963. One ringed in April 1958 was found dead on board a boat on 22nd March 1963, between Shetland and Faeroes. Another ringed on 11th November 1962 was killed at Bardsey Lighthouse, North Wales on 31st November 1962 (reported in 1963). Only two Wheatear returns; a 1st-winter bird ringed in September 1959 found in West Flanders, Belgium in April 1962. A Fair Isle juvenile ringed in 1963 was killed in Almeria, Spain during September 1963. An adult Robin ringed on 25th May 1963 was controlled at Ottenby, Sweden nine days later.

A Pied Flycatcher ringed on 30th May 1961 was caught in a mist net near Agadir, Morocco on 9th May 1963. A Hedge Sparrow ringed on 30th March 1963 returned south and was controlled on the Isle of May on 11th May 1963. A juvenile Meadow Pipit ringed in July 1960 was shot in Spain in February 1963 and another ringed in August 1962 was trapped in Spain in November, 1963. A White Wagtail ringed on 22nd April 1963 was found dead near Loftus, Yorkshire on the 8th May 1963. Finally we received four Starling reports; one in Shetland, one ringed in April 1963 found dying in the Norwegian Sea north east of Fair Isle in May. Two examples of reversed migration, a female ringed on 27th March 1963 came down the chimney of the lifeboat station on Blakeney Point, Norfolk on the 9th April 1963 (460 miles south) and a male ringed on 17th April 1963 was caught on a fishing boat in the North Sea, 270 miles north-east of Lowestoft on 21st May 1963.

RINGED STRANGERS

A young Cormorant ringed in June 1962 on Gairsay, Orkney found freshly dead on the isle in April 1963. The ring of a Foula Shag, ringed as a chick in 1958, was found on Fair Isle in April 1963. One of Chris Booth's Merlins ringed as a chick in July at South Nesting, Shetland was controlled on Fair Isle in September 1963. A young Herring Gull from Noss, Shetland controlled on Fair Isle in its first autumn. A Black-headed Gull ringed as a chick in Jutland in June 1961 found on Fair Isle on 19th March 1963.

An Icelandic Redwing ringed at Reykjavik in April 1961 controlled at Fair Isle on 22nd October 1963. A Blackcap ringed at Culross, Fife on 21st July 1963 controlled on 10th September 1963. Finally a Coot caught at the Haa on the 5th November 1963 was carrying a Heligoland ring. We have not received the ringing details to date.

Publications

Three Bulletins were sent out during the year; Vol. 5, No. 1 in January, No. 2 in June, and No. 3 in October, the last being brought forward by three months owing to the necessity of completing it before the change of staff in late September. The Annual Report for 1962 was circulated to members in September.

The following publications relating to the work at the observatory were printed during the year:

DAVIS, P. The Parrot Crossbill Irruption at Fair Isle. *Bird Migration*: 2, pp. 260-264.

Recent Developments at Fair Isle. *Scottish Birds*: 2, pp.

NISBET, I. C. T. Western Sandpiper at Fair Isle. *British Birds*: 56, pp. 55-57.

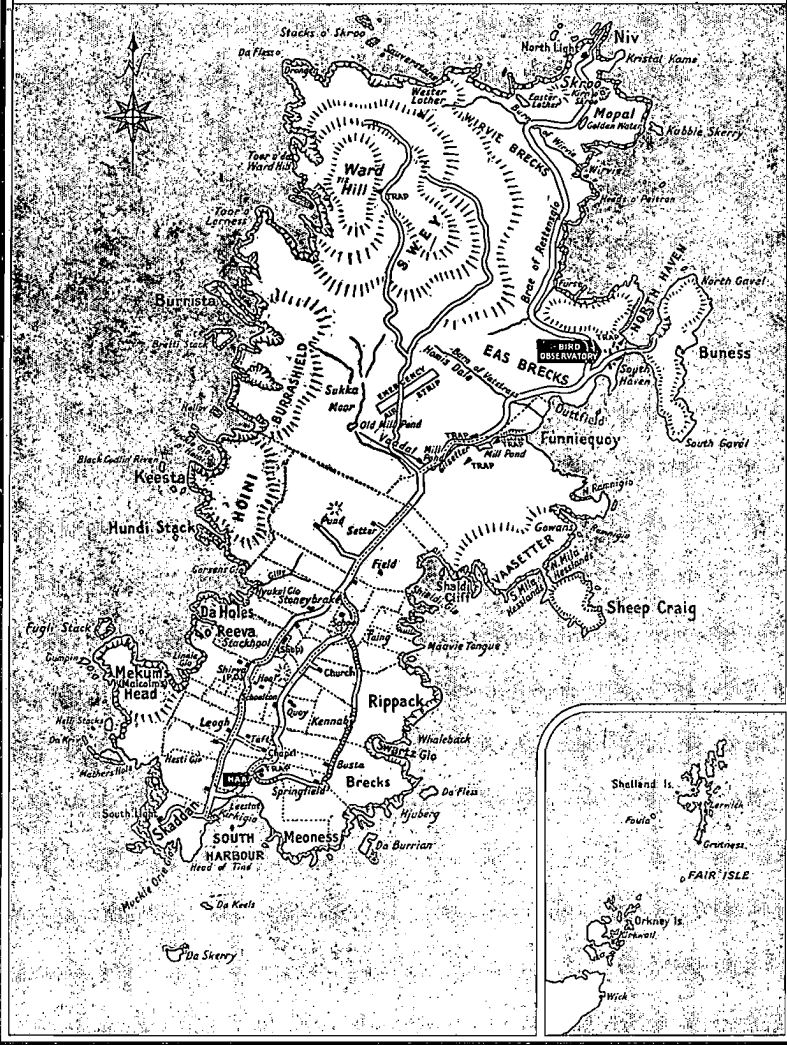
SAGE, B. L. Notes on the Coleoptera of Fair Isle. *Scottish Naturalist*: 71, pp. 1-12.

Bird-weights from Fair Isle were used in the preparation of I. C. T. Nisbet's paper, "Weight Loss during Migration", part II, published in *Bird Banding* Vol. 34, pp. 139-159.

The next Bulletin (Vol. 5 No. 4) will be published in November 1964.

FAIR ISLE BIRD OBSERVATORY

0 100yds. 440yds. 880yds. 1 mile
 Roads ——— Bird Trap — TRAP Boundaries



PRINTED BY WALTER THOMSON
 EDINBURGH