

# FAIR ISLE BIRD OBSERVATORY BULLETIN



Edited by  
**KENNETH WILLIAMSON**  
Director

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Issued to the Friends of Fair Isle

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FAIR ISLE BIRD OBSERVATORY BULLETIN - No. 1 1951.

E D I T O R I A L.

During 1950 we made the experiment of issuing, periodically, a "Bulletin" giving news of the bird-migration at Fair Isle, and of our activities there. This document was conceived on a small scale, being primarily intended for distribution to other Bird Observatories and interested workers in this country and abroad, but by the end of the season it was clear to us that, if a means could be found of extending its circulation, many Friends and visitors to Fair Isle would welcome the opportunity of receiving this Bulletin.

So, in 1951, a new series in a more attractive form will be produced, and a copy of each issue will be sent to all Friends of Fair Isle. The cost of this new venture will be considerable, but it is hoped that it can be met by a saving on future Annual Reports. The period between the issue of reports, in these days of printing difficulties, is a long and uncertain one, and it is our feeling (and, we are sure, that of numerous Friends) that something ought to be done to fill in this long period of silence with frequent up-to-date news of events at Fair Isle and notes on the progress of research at the Bird Observatory.

Probably six or eight bulletins will be sent out in the course of the year, as and when there are sufficient observations to make a Bulletin worth while. The present issue may seem to many to be somewhat overloaded with technical matters concerning bird-weights etc., but a winter issue, in the absence of outdoor activities, must be based largely on results of an examination and analysis of the previous season's records. When active field-work begins and the bird-migration is under way, the balance will be restored.

We sincerely hope that all Friends of Fair Isle will welcome this effort to keep them fully informed of how the Trust's work is developing. We hope also that you will show the Bulletin to others, and so help to make the work of Fair Isle Bird Observatory as widely known as possible.

We hope, whenever possible, to include in the Bulletins news from other well known observatories so that anyone, by becoming a Friend of Fair Isle, can be assured of being kept up to date not only on Fair Isle migrants but on European migration generally.

We would like you to make this as widely known as possible, since every new friend makes our work that much the easier.

Compiled by the Director, Kenneth Williamson,  
for the Fair Isle Bird Observatory Trust,  
February 1951.

1. Hawfinch at Fair Isle.

Pat Robertson reports that there has been little bird-movement at Fair Isle during the winter. Undoubtedly the most interesting bird observed was a Hawfinch, Coccothraustes coccothraustes, at the North Haven on January 9th. "It looked like a male as the head was dark: the big, heavy bill, the broad white bars on the wing and the short tail were very noticeable". It had probably arrived on the previous day, when a fresh SE. wind during the night brought in well over 100 Fieldfares, Turdus pilaris. There are only four previous records of the Hawfinch at Fair Isle, - adult males in May 1908 and 1909, a female on June 2nd, 1924, and one unsexed on April, 27th, 1926.

2. Winter Bird-Ringing, 1950-51.

The trapping total at the end of February stood at 166 birds, mainly Blackbirds (56) and Starlings (49). Last year we had 300 birds at this time. The number of species trapped is higher, however, at 27. These include 13 Robins, 6 Bramblings, 5 Snow Buntings, 3 Long-eared Owls, 3 Water Rails, 2 Woodcock, 2 Snipe, and single examples of Northern Bullfinch, Woodlark, Blackcap, Black Redstart, Turnstone, and Little Auk. The capture of the Turnstone, in the Observatory Trap, must be credited to young Donald, Pat's three-years'-old son!

James A. Stout found the Little Auk, Plautus alle when out rabbiting with a light on the night of January 4th: he reports that the bird, which was sitting in the middle of a field, was quite strong and flew well when

released the following morning. It weighed 150 g., considerably heavier than one driven ashore in North Haven by a storm in November 1949, and which was 114.2 g. Weigold gives 120 g. average of four storm-driven birds at Heligoland (116 g. to 125 g.): Heinroth has 160 g., and Hantzsch records 168 g. for an Iceland breeding-bird.

### 3. Blackbirds' Loss in Weight in Hard Weather.

A 1st-winter female Blackbird, Turdus merula, trapped at the Haa on November 7th, 1950, weighed 97.64 g., and an adult female taken in the Gully Trap on November 29th was 90.18 g. Both were released at North Haven, and remained there. The former had increased to 105 g. when retrapped on December 1st, and the adult showed 93.8 g. on the same morning.

The 1st-winter bird had lost 6.5 g. when taken again on December 3rd and the adult, re-trapped at the same time, showed a loss of 10.4 g. since the last weighing on 1st. Pat Robertson suggests that these falls in weight were due to the hard weather, with heavy snow, which prevailed at Fair Isle at this period.

The latter bird was again retrapped on the 14th and had dropped to 79.47 g., which is very nearly the lowest weight we have for an adult female Blackbird. However, by January 4th the bird was recovering well, showing 92.94 g. whilst on the 16th of that month it had put on a further 10 g. to reach 102.42 g. On February 21st it had further increased to 111.59 g.

#### 4. Geographical Variation in the Weight of the Wren.

It is well-known that the insular populations of the Wren, Troglodytes troglodytes, in the North Atlantic area are more robust than the Continental and British mainland birds. Such few records as are available suggest that a most interesting study could be made of the difference in weight of the various geographical populations of this species.

The average weight of 7 wrens trapped in an English garden habitat is 9.27 g., ranging from 7.05 g. to 10.9 g. (George Marples, British Birds, 29, p. 22). H. Weigold gives a range of 8.5 g. to 11 g., with an average of 9.5 g., for birds trapped at Heligoland.

The average weight of 18 wrens trapped during September-October 1950 at the Isle of May Bird Observatory is 9.3 g., with a range of 8.4 g. (two birds) to 10.7 g. The majority of these birds are probably wanderers from the nearby Fifeshire coast, but some may be immigrants from the Continent.

The Rev. John Lees (in litt.) gives the average of 12 males trapped at Avoch, Ross-shire, in winter, as 11.4 g., while 18 females average 9.9 g. These figures suggest a generally heavier bird than is to be found in more southerly parts of Britain.

The average weight of 50 Fair Isle Wrens, unsexed, is 12.21 g., ranging from 10.1 g. to 15.1 g. Birds with a wing-length of 44-47 mm. (doubtless predominantly females) show 11.6 g. and those with the wing-length 49-51 mm. (and

predominantly males) show 13.2 g. Juveniles, which are included with the above figures, appear to be somewhat lighter than adults at 10-11 g., gaining as the autumn advances. There are insufficient age records to warrant conclusions on this point, which will be followed up in future seasons. Figures for Fair Isle birds show a further increase in weight, of the order of nearly 2 g., sex for sex, on north Scottish birds.

Unfortunately comparable figures for other island populations - Shetland, St. Kilda, the Faeroe Islands - are not available, but the Rev. E. A. Armstrong has drawn my attention to Timmerman's records for the Iceland Wren, Troglodytes t. islandicus. Two males weighed 16.5 and 20 g., and four females varied from 13.5 g. to 16.4 g. As these weights refer to "collected" birds they are probably a little on the low side: the specimens were said to be "very fat".

That an Iceland Wren should weigh 20 g. - as much as a Meadow Pipit, and twice as much as an English Wren - is a startling fact, but a by no means improbable one when we consider that the Iceland bird is much the biggest representative of the species in the North Atlantic area.

##### 5. Bird Ectoparasites.

Ron Edwards, B.Sc., has completed a preliminary examination of the parasitic flies, Ornithomyia fringillina Curtis, which were collected from birds trapped at Fair Isle in 1950. In all, 92 flies were collected from

10 different host-species, the first on June 6th from a migrant Garden Warbler, Sylvia borin, and the last on October 21st from a Merlin, Falco columbarius. The first flat-fly seen escaped from a Red-spotted Bluethroat, Luscinia s. svecica, which was trapped on May 24th.

A number of these flat-flies were themselves parasitized by mites of the genus, Microlichus (see "First Annual Report, 1949", p. 23), a little-known group in which Mr. Edwards is especially interested. Perhaps the most remarkable flies, however, were two taken from a juvenile Starling, Sturnus vulgaris, on August 3rd, which were found to have bird-lice (Mallophaga) attached to their abdomens. The most heavily affected fly had 4 bird-lice and no fewer than 100 mites clustered together on its abdomen, and the other had 3 lice as well as a number of mites. A fly captured on another juvenile Starling on August 6th was carrying a single Mallophagan and a number of mites. This unusual association of fly and lice is probably an example of the phenomenon known as phoresy, which is the exploitation of one animal by another as a convenient mode of transportation.

The mites found were of two kinds which have been given specific rank as M. uncus Tr. and M. avus Vitz. It is possible, however, that these may prove to be different forms of a single species. The uncus type is found attached to the wings of the fly, often surrounded by a cluster of eggs; the avus type usually occurs on the fly's abdomen, and its association with the fly may prove to be a further example of phoresy. M. avus is known to be an epidermal parasite of birds.



6. Water Rail Weights.

The Water Rail, Rallus aquaticus, is a species which promises to reward a closer investigation in connection with the significance of changes in bird-weights. In future seasons we must try to increase our catch by constructing small traps at various points along the Gilsetter Burn and in suitable ditches. The species is not much in evidence during the day-time; it is a bird of nocturnal habits, and a walk along the Gilsetter Burn in the autumn dusk not infrequently produces one or more sight-records. When birds are seen during the daylight hours it is usually on the day of their arrival. Sometimes we are able to surprise them as they feed on the Gully stream, or we find one or two in the approach to the trap, - or even in the catching-box, - during the early morning "drives".

Since the start of our work in 1948 we have trapped 28 birds, or more than half the total number ringed in Britain since the "British Birds" Ringing Scheme began in 1909. Weight records are available for 24 of these. As the males have longer bills and wings than the females (vide "The Handbook of British Birds", 5, 196), and there is very little overlap in measurements, it is possible in most cases to segregate the weights of the two sexes. When this is done, it is seen that males are rather heavier than females, and also that the lowest weights recorded in both sexes occur at the beginning of the autumn migration.

In 1950, Water Rails first appeared on October 15th and 17th, during a spell of westerly weather (wind moderate SW. 14-16th;

westerly gale, 17th). At first sight, this suggests Icelandic origin, but the birds caught were compared in the laboratory with skins of Continental birds and of the Iceland race, Rallus aquaticus hibernans, lent to us by Dr. F. Salomonsen of the Universitetets Zoologiske Museum, Copenhagen. They agreed with the Continental subspecies. Moreover, examples of the typical race of the Redwing, as well as other Continental migrants, were arriving at the same period.

The exceptionally low weights of these Water Rails suggests a long struggle to reach the island in the face of adverse winds. Birds which arrived in 1949, with a helpful east wind on September 13th, ESE. wind on 22nd, and again ESE. on October 23-24th, showed much higher arrival weights; but in that year also there was an influx of very light birds during a westerly spell which lasted for some days prior to September 30th.

The highest weights of all are found in November captures, which are presumably of birds that have been on the island for a time, and may even be wintering. Four males caught between November 1st and 24th range from 121 g. to 130 g. and average 125.2 g. against a combined average of 103.2 g. for new arrivals of this sex. Three females show an average of 109.1 g. against a comparable figure of 83.9 g. for fresh arrivals. These represent very considerable gains, and it would appear that Water Rails, in common with some passerine migrants, lose weight heavily during their overseas migratory flights, but are able to make good the loss fairly quickly once they reach a suitable environment.

Alec Butterfield, who has made a statistical study of the Water Rail figures, says that his analysis suggests a high probability that these differences are real and not due to sampling errors. At present, the data are too meagre (especially for east wind arrivals) to show conclusively that the findings are correct, but we may confidently hope for sufficient new data in the course of another season.

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WATER RAIL - ARRIVAL WEIGHTS.

<u>East Wind Arrivals.</u>			
<u>Males.</u>		<u>Females.</u>	
<u>Date</u>	<u>Weight.</u>	<u>Date.</u>	<u>Weight.</u>
14.ix.49	112.0	23.ix.49	103.0
24. x.49	105.3		
24. x.50	109.1		
Average		Average	
	108.8		103.0

<u>West Wind Arrivals.</u>			
<u>Males.</u>		<u>Females.</u>	
<u>Date.</u>	<u>Weight.</u>	<u>Date.</u>	<u>Weight.</u>
30.ix.49	99.2	15.xi.48	77.0
"	105.5	15. x.50	81.1
12.xi.49	101.4	"	76.1
15. x.50	94.8	17. x.50	92.2
"	98.6	"	74.1
Average		Average	
	99.9		80.1

7. Dark Phase Fulmar at Fair Isle.

A dark phase or "blue" Fulmar, Fulmarus glacialis, was observed by M. J. Wotton on September 22nd, 1950, on the coast near Sheep Craig. He reported: "Head and neck light bluish-grey, hardly differing from the rump and tail (slightly greyer, less blue). Wings and back normal. Underparts similar to head but a little paler. The striking feature was the uniformity of tone at a little distance, which rendered the bird inconspicuous when banking or turning against the background of the cliffs; in contrast, the white heads of the other birds present showed up at great distances". This colour-phase, although a common one in Bear Island and Spitzbergen seas, is very rare in British waters (see James Fisher British Birds, 40, pp. 338-339) where it does not exceed 2% of the population. It is interesting to note that George Russell, a Lerwick ornithologist, found a dark Fulmar on the cliffs of Noss (Shetland) in the summer of 1950.

Fisher (op. cit.) gives only five records of dark birds at British breeding-stations (Co. Durham north to Caithness) other than St. Kilda, and at this ancient site the type is equally rare. These birds are in all likelihood mutants which arise rarely in the British population rather than visitors from northern regions, though some winter records may fall into the latter category. A dark phase female in the St. Andrews' University Museum, taken on November 2nd, 1911, at Largo Bay, Fife, has the large bill of the British-Faeroes-Iceland birds and not the much smaller bill and skull that one finds in dark phase Greenland and

Spitzbergen Fulmars, the so-called Fulmarus g. minor. (See F. Salomonsen, Dansk Orn. Foren. Tidss., 44, pp. 100-102, for comparative measurements of these birds).

### 8. Some Ringed Bird Recoveries.

SKYLARK, Alauda arvensis. A bird ringed from a corn-baited Potter Trap at Upper Stoney: Brake, by George and Alex Stout on March 17th 1950, was caught by a Keeper at the Bell Rock Lighthouse, Angus, on the night of October 11th, 1950. It was released unharmed.

ROCK PIPIT, Anthus spinoletta petrosus. One ringed at Fair Isle on August 30th, 1949, (in heavy moult, so undoubtedly a breeder), was trapped by H. M. Coastguard at Wick, Caithness, on December 12th, 1950. The ring was removed and the bird released.

BLACKCAP, Sylvia atricapilla. An adult male caught in the Mill Trap on October 25th, 1950, was found dead at St. Margaret's Hope, South Ronaldshay, Orkney, on November 6th, and reported by the local Police Officer.

ARCTIC SKUA, Stercorarius parasiticus. One ringed as a nestling above the Brae of Restensgeo on July 16th, 1949, was found dead at La Panne, West Flanders, in November of the same year.

9. Recoveries of Ringed Blackbirds.

An adult male Blackbird, Turdus merula, ringed as a migrant on October 31st, 1949, at the low weight of 98.5 g., was recovered in the breeding season at Haarby, Fyen, Denmark, on June 20th, 1950.

An adult female, ST 305, taken in the Observatory Trap on November 18th, 1950, had been ringed as a nestling at Noss, Scousborough, Shetland, by L. S. V. Venables on June 11th, 1949. This is the first of a large number of Shetland-bred Blackbirds ringed by Venables to be recovered away from the island of cirth.

10. Distribution of Age and Sex Groups in Migrant Blackbirds.

In autumn 1949 the majority of the early trappings were of 1st-winter birds, both sexes appearing in equal strength; following October 30th there was a preponderance of adult birds, and especially adult females. Over the whole period of the autumn and early winter adult males were the least in evidence, which seems to accord with the view that this group is the most sedentary (see Chr. Krüger, Dansk Zootop. Undersøgelse ved Fugle (1940), 7, pp. 114-153; D. Lack, British Birds (1943), 37, pp. 122-130, 143-150).

In the spring, the pattern of migration was entirely different. As will be seen from the table on p. 14, the early days of this movement, March 7-16th, were completely dominated by males, of which the great majority were adults. This again accords with a widely

held view, namely that the adult males in migrant species are the first to seek out the breeding-quarters. A number of females followed after March 17th, but even so 75% of all spring migrants were males. Actually, few birds passed Fair Isle after March 20th, and presumably a change in weather conditions in the North Sea area diverted the migration of the later birds.

Period	Adult		1st winter		Total
	Male	Fem.	Male	Fem.	
Sep. 15-Oct. 29, 1949.	5 7%	4 5%	33 45%	32 43%	74
Oct. 30, 1949, - Feb. 15, 1950.	13 31%	22 35%	16 25%	12 19%	63
Total Autumn-Winter 1949-50.	18 13%	26 19%	49 36%	44 32%	137
March 7-16, 1950.	18 69%	1 4%	7 27%	-	26
March 17-May 23.	7 27%	3 11%	7 27%	9 35%	26
Total Spring 1950.	25 48%	4 8%	14 27%	9 17%	52
Total Autumn-Winter 1950.	40 17%	43 19%	77 32%	77 32%	237

The distribution of the age and sex groups in autumn 1950 was very different from that of the previous year, in that when the migration reached Fair Isle late in October adult birds were well represented almost from the first. There were no adult males, and only two adult females, among the 17 birds trapped between October 12-20th, but adult males were fairly common afterwards. In the table, therefore, the results for the 1950 autumn-winter period have been taken together. Comparing them with the results for the whole 1949 period, it will be seen that the percentage of adult and immature females is the same for the two years, but that the percentage of adult males was somewhat higher (and that of immature males correspondingly lower) in 1950. Both seasons agree in that the female sex enjoys a very slight numerical advantage.

#### 11. Rock Doves at Fair Isle.

The Rock Dove, Columba livia, appears to be on the increase at Fair Isle. 10 was the most seen during April 1950, but 15 were recorded on May 18th and a dozen on 21st, whereas during the same period of 1949 not more than half-a-dozen birds were seen. 20 birds were noted on June 25th.

The majority of the August to October records are for small numbers, but 22 were counted on September 23rd and 20 on October 9th and 14th. It is interesting to note that at least one pair summered in the neighbourhood of the Bird Observatory, where we had not seen the species before.



All the Fair Isle birds examined at close range have been of the normal type with pale grey wings and black bars, the form with darker wings and heavily-spotted coverts, which occurs as a mutant in a number of populations (see Ibis (1949) 91, pp. 17-23) being absent. At least one feral dove-cote pigeon, a cream-coloured and rather smaller bird, has kept company with the Rock Doves during the past two seasons.

## 12. Rare Birds in Shetland.

Tom Henderson, of Spiggie, has excellent close views of a Black-bellied Dipper Cinclus c. cinclus, on a burn near the loch on January 4th, 1951. This is the 5th occasion on which this subspecies has been recorded in Scotland, - twice at Spiggie, twice at Fair Isle, and once at Whalsay.

G. Theo Kay, George Russell, W. Tulloch and J. Peterson were presented with a unique opportunity at Lerwick in December when a 1st-winter Ivory Gull, Pagophila eburnea, visited the harbour and allowed itself to be filmed and photographed at less than three yards' range!

The herd of Whooper Swans, Cygnus cygnus, wintering on Loch Spiggie peaked in December at the record total of 132 birds.

# FAIR ISLE BIRD OBSERVATORY

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## THE WORK OF THE OBSERVATORY

The purpose of the Bird Observatory is to provide facilities for visitors to carry out scientific research on the island, not only in the sphere of ornithology, but in every aspect of Natural History. Work will be mainly concentrated however on ornithology under the supervision of the Director.

## TERMS

Full board, including service, is *Six Guineas per Head per week*. Reduced terms are available for parties of students from schools and universities.

## APPLICATIONS

Priority in bookings will be given to "Friends of Fair Isle," and to *bona fide* naturalists prepared to take part in the scientific investigations of the station under the leadership of the Director, and to help with such other duties as may be necessary from time to time in connection with the station or hostel. Anyone else wishing to visit the island will be made welcome, provided room is available. Those who are not keen ornithologists are asked to book for the summer months—June, July, and August—so that more accommodation will be available in the spring and autumn for students of bird migration. Application should be made as follows:—

- (1) *If made between 1st April and 31st October.*  
To the Director, Fair Isle Bird Observatory,  
by Lerwick, Shetland. Telegraphic address:  
"Migrant, Fairisle." Telephone Fair Isle 8.
- (2) *If made between 1st November and 31st March.*  
To the Director, Fair Isle Bird Observatory  
Trust, 17 India Street, Edinburgh.  
Telephone: Edinburgh CENTral 4532.

## PROSPECTUS

Prospectus giving details of transport to and from Fair Isle, and other information, will be sent on application.

# FAIR ISLE BIRD OBSERVATORY

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

