FAIR ISLE BIRD OBSERVATORY.

BULLETIN No. 6, 1950.

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1. Autumn Migration 1950.

There was a fairly steady flow of migrants during the last fortnight of August, beginning on the 19th after a day of SE.-E. wind. There was increased movement among most species on 21st, 25th (very marked) and 27th, as shown in the summary below.

SPECIES.	AUGUST. 18	19	20	21	22	23	24	25	26	27	28	29	30	31
	SE-E	SSE	SE	SE-S	S-E	SE	NW-S	SSE	SE	SE-SW	SW-S	NE-NW	N	NE-NW
TREE PIPIT, Anthus trivialis.				1		1	1	3			1			
PIED FLYCATCHER Muscicapa hypoleuca.				3	1	12	8	10	4	10	10	6	1	5
WILLOW WARBLER Phylloscopus trochilus.	4	14	?	100+	50	50	20	50	2	20	20	20	6	5
GARDEN WARBLER Sylvia borin.		7	?	8	2	3	2	12		10	16	10	2	3
WHINCHAT Saxicola rubetra.		8	?	7	6	6	2	10	1	30	26		1	
SWIFT Apus apus.		6						2		1	5		1	
WRYNECK Jynx torquilla.		2			1			2	1					
MERLIN Falco Columbar: :ius.	1			1	1		2	4	2	3	2	3	2	3
TEAL Anas crecca.		1		1			1	5	1	4	4	1		
WOOD PIGEON Columba palumbus.								12	1	1		2		
CURLEW Numenius arquata.		12		20	30	20	1	10	10	7	12	20	14	8
WHIMBREL Numenius pha-opus.		4		4	10		5	1		12	1	2		1
SNIPE Capella gallinago.		3			1	1		4		1	3			1
DUNLIN Calidris alpina.					15		9	15	30	12	7	10	9	2
SANDERLING Crocethia alba.		3						7		3	4			4

COM ON/

SPECIES.	18	19	20	21	22	23	24	25	AUGUST. 26	27	28	29	30	31
	SE-E	SSE	SE	SE-S	S-E	SE	NW-S	SSE	SE	SE-SW	SW-S	NE-NW	N	NE-NW
COMMON SAND: :PIPER Actitis hypoleuca.	4			1	1	1	1	4	4	3	3	14	1	2
REDSHANK Tringa totanus.		20			5	5	4	10	12	9	10	10	3	3
RINGED PLOVER Charadrius hiaticula.	5	17			8		4	20	20	15	14	14	12	20
COMMON GULL Larus canus.		60		500	50	50	30	200	150	130	100	50	50	20

A number of other species were concerned, and notes on the more important ones (together with earlier observations) follow.

ROSE-COLOURED PASTOR Pastor roseus. A single immature bird was in the neighbourhood of the Bird Observatory from August 22-30th (nine days). During the first few days it was much in company with the local Starling flock, and rather wild; but towards the end of its stay it was often observed alone, and became very tame. There was a distinctly pinkish suffusion over the buff of mantle and rump; the underparts were greyish-white, and the bill yellow. The bird often stood with a dumpy stance, the head "sunk into the shoulders"; the legs were long in comparison with those of the Starling, and although the normal gait was a walk the bird changed to long springy hops if it wanted to move quickly towards a promising source of food. It more than held its own in competition with the Starlings, who never attempted to withstand its bullying.

CHAFFINCH Fringilla coelebs. A cock bird which was caught when singing in the approach to the Haa Trap on June 6th has summered on the isle, and was again in the vicinity of the Haa at the end of August.

SCARLET GROSBEAK Carpodacus erythrinus. Two were seen at the Haa, August 31st, and one on the following day. This was trapped on September 2nd and, judging from the worn rectrices, was a bird of the year. The upper mandible was dark horn, the lower mauve, the legs dark flesh-colour and the inside of the mouth rose-red.

ORTOLAN/

ORTOLAN BUNTING Emberiza hortulana. A young bird on corn-stooks near the Haa, August 29th.

LAPLAND BUNTING Calcarius lapponicus. The characteristic call-notes of this species (rippling flight-note as well as the loud "see-oo") were heard on the moor, September 1st and 3rd.

WHITE WAGTAIL Motacilla alba alba. The first arrived on August 13th. There were six on North Haven shore next day and about ten each day from 17-27th. They increased to over thirty from 29-31st but were few during the early days of September.

SPOTTED FLYCATCHER Muscicapa striata. One, July 4th. One, August 28th, and two next day.

PIED FLYCATCHER Muscicapa hypoleuca. A 1st winter bird trapped in the Gully at 0730 hrs. August 23rd was re-captured at the South Lighthouse lantern at 2330 hrs. the same night.

RED-BREASTED FLYCATCHER Muscicapa parva. An immature bird on the south shore, August 25th.

RED-BACKED SHRIKE. Lanius collurio. Young birds from August 18-21st and 25-28th. David Jenkins noted that the latter spent much of its time catching Shetland Bees Bombus smithianus and impaling them on projecting strands of chicken-wire in a fence. A similar observation was made in 1948: see Scot. Nat. 61: 24-25.

WILLOW WARBLER Phylloscopus trochilus. A juvenile was trapped on August 1st and one was seen on 13th. (Two "Phylloscopus sp." were noted on 6th and 8th). There was one on 17th and four were trapped on 18th.

EVERSMANN'S WARBLER Phylloscopus borealis. For description and field-characters of two watched on August 30th see para . 2.

GRASSHOPPER WARBLER Locustella naevia. One in Burn of Gilly, September 1st.

SEDGE WARBLER Acrocephalus schoenobaenus. One, August 21st.

AQUATIC WARBLER Acrocephalus paludicola. One, found independently by E. J. Cottier and myself, was haunting long grass beside a rainwater pool on the evening of August 20th. It struck me as a very pale, almost sandy bird in flight, especially on the underparts: it gave a brief but perfect view of the distinctive head markings of buff coronal and superciliary stripes separated by blackish/

blackish streaks, when it alighted beside the pool. Apparently the fourth Scottish record, the third at Fair Isle.

BARRED WARBLER Sylvia nisoria. A young bird flew out of my skua-trapping hide on Byrewil on August 23rd. On the evening of 24th another was obliging enough to enter a net set for it among thistles on North Haven beach; it was a very tame individual and stayed at the Bird Observatory (always working among the thistles) for nine days, - (see para. 3). An adult was reported on 25th and young birds were seen in the village area 26-27th and on the west cliffs September 2nd.

WHITETHROAT Sylvia communis. 1st Winter birds were trapped August 19th and 21st.

LESSER WHITETHROAT Sylvia curruca. One, August 24th; two, 27th, one of which remained at the Bird Observatory until 31st.

WHEATEAR Oenanthe oenanthe. Considerable movement was evident on August 23rd and 28th, probably local and Shetland birds moving out. There were numbers at the South Lighthouse on the night of 22/23rd, when over forty were caught. They were all 1st Winter birds, as were twenty-one taken there on the following night, and four at the North Lighthouse on 24/25th. Of the last two hundred trapped (since July 27th) only five were adult males.

REDSTART Phoenicurus phoenicurus. Female on Ward Hill, July 22nd, and another August 25th.

WHINCHAT. Young birds, August 10th and 12th; one or two, September 1-2nd.

SWALLOW Hirundo rustica. Odd birds at intervals from mid-June to mid-July.

HOUSE MARTIN Delichon urbica. One, August 28th.

SAND MARTIN Riparia riparia. Singly, August 2nd, 20-22nd, 30th and two on 26th.

SWIFT Apus apus. Two, July 1-2nd, one on 6th and five on 25th. Two on August 10th increased to eight next day. Three, September 1st.

CUCKOO Cuculus canorus. Report of one calling at Sumburgh, Shetland, July 28th. Singly at Fair Isle, August 10th, 13-16th, 21st, 23-28th.

SHORT/

SHORT-EARED OWL Asio flammeus. One, July 10th, and another, August 12th. W. Horne reported two owls at Sumburgh, probably this species, in mid-July.

MERLIN Falco columbarius. The first was a female, August 4th.

KESTREL Falco tinnunculus. One from August 20-29th, with two on 26th. Ian Munro caught a young female in the Gully Trap on August 26th and re-trapped it on the Ward Hill next day: in each case it was chasing small birds.

MALLARD Anas platyrhyncha. Female, August 8th; three on 24th.

TEAL Anas crecca. Singly, August 4th and 13-14th.

PINTAIL Anas acuta. Drake on July 3rd, an unusual date.

TUFTED DUCK Aythya fuligula. Immature drake, August 27th.

VELVET SCOTER Melanitta fusca. Drake on September 1st.

TURTLE DOVE Streptopelia turtur. One, August 26th.

BAR-TAILED GODWIT. Limosa lapponica. One, August 25th.

BLACK-TAILED GODWIT Limosa limosa. A young bird, August 9th.

CURLEW Numenius arquata. Varying numbers from beginning of July, passage most marked on 4th and 25th.

WHIMBREL Numenius phaeopus. One or two during the week from July 11th, then a few daily with increases on 25th and August 1st.

TURNSTONE Arenaria interpres. First on July 29th; one, August 7th and eight next day. Small numbers, fluctuating, August 22nd onwards.

KNOT Calidris canutus. One, August 7th, and six next day; two, 26th, and four, 28-30th. W. Horne reports a small flock, some in summer dress, at Virkie Pool, Sumburgh, July 15th (wind SE), increasing to about eighty the following day (SE. gale and rain).

DUNLIN Calidris alpina. One, August 11-14th.

SANDERLING/

SANDERLING Crocethia alba. Three, August 9-12th; six on 14th; five, September 1-2nd.

RUFF Philomachus pugnax. A young bird, July 29th, and another August 11th, seen from the hide at the skuas' bathing-pool. A young bird at the north pools, August 29th; five adults at the south, 25-28th.

WOOD SANDPIPER Tringa Glareola. One, August 19-20th.

GREEN SANDPIPER Tringa ochrophus. Singly, July 17-20th, August 21st, 26-29th and September 1st. Two, August 6th and 11th.

REDSHANK Tringa totanus. First on July 3rd, three on 12th, six on 19th and 27th, otherwise one or two on most days.

GREENSHANK Tringa nebularia. Singly, July 27th, August 2nd, 10-11th, 22nd and 25-26th.

RINGED PLOVER Charadrius hiaticula. Odd birds from mid-July (seven on 22nd, five on 29th).

GOLDEN PLOVER Pluvialis apricaria. Eight on August 25th, four on 29th.

LAPWING Vanellus vanellus. Flock of 13, August 1st, and 20 on 23rd.

TERNS Sterna hirundo or macrura. Some at the South Lighthouse night of 22/23rd and one or two at the south end next day. A young bird in the North Haven, September 4th.

QUAIL Coturnix coturnix. One reported calling in rye-grass, July 3rd.

2. Field Notes on Eversmann's Warbler.

The birds were distinctly larger than the many Willow Warblers which had been passing through for several days, and in fact their size and the more greenish (less brownish) olive tone of the upper-parts was strongly reminiscent of the Wood Warbler. The crown was rather browner than the mantle and the tail was brownish-olive without any greenish fringes. The rakish yellow superciliary stripe, extending almost to the nape, was equally prominent as in the Yellow-browed Warbler and much more striking than in the Greenish Warbler trapped here June 2nd, 1949. A dark stripe through the eye contrasted with this and the yellowish cheeks. The lores were a dark olive colour.

A short yellowish-white wing-bar at the tips of the greater coverts was the main feature of the closed wing. There was a similarly coloured but much less obvious marking on the median coverts; this was present on both wings in the case of one bird, but was present on the left wing only in the other, - the right wing, seen several times in close view, appeared to have lost all trace of it. It would be an exaggeration to call this marking a bar, since the whitish mark was apparently confined to one or two feathers only. The tips of the primaries, in the closed wing, showed as a dull brown without any indication of greenish or olive, suggesting that the wing-feathers were old and in consequence well worn, and the birds probably adult.

The underparts were dull whitish, the sides of breast and flanks having a marked greyish wash, and, when seen at close quarters, a faintly striated effect. The centre of breast and belly was yellowish-tinged, and the under tail-coverts were also suffused with yellow.

The beak appeared long and spear-like for a Phylloscopus, and was brownish-orange, darkest at the tip of the upper mandible. The legs were paler, brownish-flesh, and the inside of the mouth was orange.

The birds haunted an enclosed cabbage-patch, seeking small green caterpillars (? Barathra brassicae), one of which was battered on the wall before being swallowed, or catching flies above the tops of the plants. A bird once flew nearly 30 ft. upwards to take a Tipulid, but sallies were normally confined to a low level. A caterpillar of the Large White Butterfly (Pieris brassicae) was taken on one occasion, but the bird apparently found it distasteful, as it discarded it.

When moving from place to place on the tops of the cabbage plants the birds kept up a constant flicking of the closed wings in typical Phylloscopine fashion, but when resting between energetic bouts of food-seeking the wings were held still. In form they appeared to be slenderer birds than Willow Warblers, and they had a habit, - which I have not seen in other leaf-warblers, - of stretch: :ing out their necks and at the same time twisting their heads to one side, as though alertly following some movement among the plants. In this way they adopted some quite unusual postures, - the type of extravagant posturing, in fact, that one only expects to find in an Audubon painting! Another feature was the unekmpt appearance of the head, - the feathers of the crown were often lifted, giving the impression of a tiny crest, and the chin-feathers were ruffled, giving a bearded effect. These may seem to be small points, but I think they are important: the field identification of Phylloscopus sp./

sp. must always rest on small differences, and so marked were these behaviour traits during our two hours observation that they are probably characteristic of the species.

One or twice the birds called to each other, a hard "zik", and on being disturbed by a cat one bird scolded with a more emphatic version of the same note, a repeated "tchik". They were watched by Ian Munro, David Nicoll and Drs. J. A. R. Miles and J. C. D. White as well as myself.

3. Some Weights of Autumn Migrants.

Normal procedure here on capturing a bird is to take it to the laboratory in a muslin bag, weigh accurately to the second decimal place on the beam-balance, then weigh the bag and subtract the tare. Sometimes the same bag is used for a number of birds, but in this case it is always necessary to check the weight after every third or fourth weighing, as small changes occur. Ringed birds are re-trapped whenever possible for re-weighing in order to determine to what extent migrants "feed up" and increase their weight before moving on; or, in the case of resident birds, to what extent weight varies at different times of the day. Some results of this investigation are given below:

SCARLET GROSBEAK. 1st Winter bird, 23.97 g.

TREE PIPIT. Two trapped, August 21st and 23rd, weighed 21.6 g. and 18.03 g. The average of nine September 1949 birds at their initial trapping is 20 g., with a range of from 17.6 g. to 22.7 g. A bird caught on September 20th at 1730 hrs. weighed 21.8 g., and had increased to 25.2 g. when re-trapped at 1130 hrs. a week later. This is the heaviest weight we have recorded for this species, and the nearest approach to it is 24.14 g. for a Spring migrant taken on May 22nd, 1950.

WHITE WAGTAIL. Trappings have been few this year, and weights for only three birds, all 1st Winter females, are available, - 20.95 g., 24.77 g., and 25.09 g. Only one (a 1st Winter female) of the 23 birds trapped last Autumn was heavier than the last, at 27.85 g.

RED-BACKED SHRIKE. First Winter bird, 25.91 g.

PIED FLYCATCHER. Twenty-one initial trappings during the last fortnight of August 1950, and nine in August-September 1949, give an average of 12.83 g., with a range of 10.41 g. to 16.52 g. The latter, trapped on Ward Hill at 0630 hrs., is an unusually heavy bird, and the nearest approach is 15.82 g. for another 1st Winter/

Winter male. Two "retraps" show the following changes in weight:

L 2746	1st W.	23.viii (0700 hrs.)	11.72 g.
		24.viii (1430 hrs.)	12.1 g.
L 2863	1st W.	26.viii (1830 hrs.)	14.37 g.
		28.viii (0645 hrs.)	11.2 g.

The difference in the first case is probably due to time of day; the second bird, however, certainly appears to have been unable to maintain its weight during its stay. Spring migrants may prove to be lighter on average than Autumn birds, but only three records are available, for 1st Summer males in May, - 9.6 g., 10.18 g. (both lighter than any Autumn bird), and 13.03 g. Our single June record for a Spotted Flycatcher, 11.66 g., is much below four Autumn weights, which range from 13.15 g. to 14.9 g.

WILLOW WARBLER. Average of forty birds trapped August-September is 7.97 g., with a remarkably wide variation for so small a bird, - 6.25 g. to 10.93 g. The latter was caught as early as 0630 hrs. Fourteen Spring migrants, varying from 7.3 g. to 9.65 g., average higher at 8.44 g. One bird which scaled 8. g. at 1330 hrs. on August 28th was 8.69 g. at 0830 hrs. on 30th. Another, 7.4 g. at 0730 hrs. on September 2nd, was 8.44 g. at 1630 hrs. next day.

BARRED WARBLER. The weighings of the trapped Barred Warbler mentioned in para. 2 showed a slight but steady increase during its stay:

August	24th (1845 hrs.)	21.71 g.
	27th (0730 hrs.)	22.15 g.
	30th (0730 hrs.)	23.04 g.
	30th (1300 hrs.)	23.46 g.

GARDEN WARBLER. Forty-two Autumn migrants average 16.81 g. with a range of from 12.7 g. to 20.44 g. The latter is unusually heavy and only two others scaled over 19 g. One weighing 18.06 g. at 1330 hrs. on August 27th was down to 17.28 g. at 1630 hrs. the same day, a considera-ble loss in so short a time.

WHITETHROAT. Two 1st Winter birds were 12.47 g. and 13.35 g. Two September migrants last year were 14.5 g. and 11.9 g. Five Spring migrants vary from 11.9 g. to 14.01 g.

LESSER WHITETHROAT. On the little material available there seems to be no difference between Spring and Autumn weights, and ten birds of the typical race (both categories) average 11.27 g. (initial trapping). The lightest Autumn bird was trapped at 0630 hrs. on August 27th at 9.54 g., and on being re-trapped at 1830 hrs. on the following day it showed 11.25 g. A bird in Spring which weighed/

weighed 9.27 g. (and is not included in the above) had been trapped overnight and part of the day in the porchway of a house; at 0530 hrs. on the day following release it was 9.6 g., and at 0615 hrs. three days later was 10.38 g. Three Sylvia curruca blythi in September 1949 were very consistent if due allowance is made for time of capture, viz. 10.2 g. at 0615 hrs., 10.65 g. at 0930 hrs., and 11.04 g. at 1530 hrs.

WHINCHAT. Fourteen birds, mainly 1st Winter, average 14.55 g., ranging from 11.02 g. to 17.16 g.

WRYNECK. One trapped on August 19th weighed only 22.95g. and was in very poor shape: it was found dead next morning. Another caught on 22nd weighed 33.39 g.

4. Ornithosis Viruses in Sea-birds.

Dr. J. A. R. Miles, of the Department of Pathology, Cambridge University, has paid two visits to Fair Isle during the Summer in the course of an investigation concerning the incidence of Ornithosis viruses in British sea-birds. His attention has been concentrated on the Fulmar Petrel, and his work in the Shetland area is a "follow-up" of investigation he made in the Fulmar population of the Faeroe Islands last year. He has kindly written a note concerning this fascinating, - and, to bird-watchers, little-known, - branch of ornithology, and I have pleasure in including it as an Appendix to this Bulletin.

K. Williamson,

Director.

Appendix/

FAIR ISLE BIRD OBSERVATORY.

Appendix to Bulletin No. 6, 1950.

Investigation for the presence of Ornithosis Viruses in British Sea-birds.

Since about 1870 it has been recognised that man could occasionally acquire a severe pneumonia from contact with Parrots, but until 1929-30, when the importation of large numbers of psittacines from South America (mainly the genus Amazona) led to over 700 human cases of psittacocis in Western Europe, this disease was regarded as a rarity.

In 1932 Meyer and Eddie showed that the disease was endemic in aviary-bred Budgerigars in California, and in a classical series of papers they demonstrated that the virus was latent in the adult, but that under bad conditions or during the physiological stress of breeding such a carrier could begin to shed virus in its excreta. Therefore a high percentage of young birds became infected in the nest and showed signs of disease at about the time of fledging. They were listless, ruffled and had soiled vents, and about 9% of such birds died. The remainder recovered clinically, but became carriers and all such birds carried the virus for at least one year, although some cleared themselves of virus later. It was soon shown that the disease was present in Australian as well as South American parrots, and by now 31 species of 19 genera of psittacines have been shown to be infected with psittacosis.

In 1930 a new human disease appeared in the Faeroe Islands, occurring in the first fortnight in September. The patients suffered from a severe pneumonia from which about 20% died. During the first three years there were only a few cases, but in 1933 and the years following epidemics occurred. Dr. R. K. Rasmussen recog:nised the association with the time at which young Fulmars were taken for food and the similarity of the disease to psittacocis, and in 1938 Haagen and Mauer of the Kaiser Wilhelm Institute, Berlin, isolated a virus similar to the Parrot virus from carcases of juvenile Fulmars sent from Faeroe.

Since that time it has been shown that tame Pigeon stocks both in America and the British Isles are heavily infected with a similar virus which is far less virulent for mice than the Parrot or Fulmar viruses and is apparently far less infective for man. Various other Columbiformes have now been shown, by serological testing, to be infected with similar strains.

In/

In America, domestic fowls and ducks have been shown to be infected with similar viruses which are again of low pathogenic: :ity for mice, and do not appear to infect man readily. Many other species of birds, especially finches, have been shown to be infected, but in most cases the infection has been acquired from diseased psittacines under crowded conditions in pet shops.

In 1947 Pollard reported the results of serological testing of sera from a variety of American sea-birds and waders. These results suggested that the American Herring-gull, several species of tern, and the Willet Catoptrophorus semipalmatus were infected, and a virus similar to others of the group was isolated from a willet.

In our investigations we are examining sera from a number of species of sea-bird to obtain an indication of whether viruses of this group are common in the British Isles.

For this purpose birds are captured, bled from a wing-vein, examined for signs of active disease, and if they are appar: :ently healthy they are released. Sick birds are killed and examined in detail, and a proportion of the juveniles captured are collected and examined for evidence of disease. From this material we are attempting to isolate strains of virus, to investigate their relations with one another and with the classical parrot strains, and to decide their pathogenicity for mammals. From the sera we hope to get some indication of how common past experience of viruses of this group is in the species of birds which we examine.

Up to the present we have examined one or more (up to 25) specimens of serum and/or organs from Greater Blackback, Lesser Blackback and Herring Gulls, Fulmar, Manx Shearwater and Puffin.

So far we have obtained serological evidence that some of these species are infected with viruses of the group, and we have isolated at least one strain of virus which differs substantially from any of those described previously. We particularly want to see whether Fulmars in this country are infected and, if they are, whether the virus involved is similar to the strain isolated by Haagen and Mauer, and which has shown such remarkable infectivity and pathogenicity for man.

J. A. R. MILES.