First Bird-Marking Results from Iceland.

By P. Skovgaard.

Mr. Skovgaard is the head of the important Danish organization for bird-marking at Viborg. In response to the suggestion*that a centre ought to be established at Reykjavik, he discloses the fact that bird-marking has recently been carried out on a considerable scale in Iceland, and with remarkable results hitherto kept sccret. In order to explain the significance of these new data, we invited Mr. Nicholson to supply a series of notes, which are printed in brackets at the appropriate points.

In Mr. Nicholson's article there are many statements and suggestions of great interest, and among them a proposal for a ringing station at Reykjavik. One already exists, or at any rate the work is rapidly developing in Iceland. Beginning with only one assistant in 1921, it has now the help of thirty-eight assistants in seventeen different districts, and has so far marked 4,464 birds. These have yielded hitherto 124 recovery records, of which 86 were outside Iceland including 54 from Britain. I therefore suppose the results may be of special interest to the readers of Discovery:—

SPECIES MARKED IN ICELAND.

(Re-arranged according to accepted British classification.)

•		NUMBER OF BIRDS	
		MARKED.	RECOVERED
Raven, Corvus c. corax	•••	. 9	. 0
Hawfinch, Coccothraustes c. coccoth	iraustes	1	o
Mealy (?) Redpoll, Carduelis l. lin	aria	I	o
Snow-bunting, Emberiza nivalis		45	0
Meadow-pipit, Anthus pratensis		338	2
White wagtail, Motacilla a. alba		234	. 2
Iceland Redwing, Turdus mi	ısicus		
coburni	,	160	0
Merlin, Falco columbarius aesalon		5	o
Gyrfalcon, Falco rusticolus		3	I
Whooper swan, Cygnus cygnus		· ?	. 0
Bean-goose, Anser fabalis (?)		6	O
Mallard, Anas platyrhyncha		58	. 0
Gadwall, Anas strepera		28	4
Pintail, Anas acuta		61.	5
Wigeon, Anas penelope		294	31
Teal, Anas crecca		125	. 11
Tufted duck, Nyroca fuligula		. 52	ī
Scaup-duck, Nyroca m. marila	,	239	10
Barrow's goldeneye, Bucephala isla	ındica	. 19	0
Long-tailed duck, Clangula hyemal	is	155	2
Harlequin duck, Histrionicus h.		33	. "
	•••	49	. t
Eider, Somateria mollissima	• • •	115	2
Common scoter, Oidemia n. nigra	•••	57	3
Red-breasted merganser, Mergus se	errator	бо	2
Cormorant, Phalacrocorax c. carbo	•••	1	o
Gannet, Sula bassana	• • •	}	о.

^{*}Put forward in Mr. E. M. Nicholson's article on "Rationalisation in Bird-Marking," *Discovery*, April, 1930.

	Species Marked in Iceland—(Continued).					
	Great northern diver, Colymbus im	ner	2	Ι		
	Red-throated diver, Colymbus stella	tus	3	_		
	Oystercatcher, Haematopus o. ostral	egus	. 2	0		
1	Ringed plover, Charadrius histicula	-6:0	and the second	. 0		
	Northern golden plover, C. aprica	vinc	30	0		
	altifrons					
	Dunlin, Calidris a. alpina	•••	341	23		
	Purple sandpiper, Calidris m. mariti	1424.44	. 110	0.		
	Iceland redshank, Tringa totanus rob		6	0		
	Red-necked phalarope, Phalaro	usia.	58	·. O		
	lobatus	pus				
	•••	• • •	392	0		
	Whimbrel, Numenius p. phaeopus	•••	174	3		
	Snipe, Capella gallinago	•••	184	3		
	Arctic tern, Sterna macrura		409	0		
	Great black backed gull, Larus mari	nus	47	3		
	Kittiwake, Rissa t. tridactyla		50	0		
	Great skua, Stercorarius s. skua		g	0		
	Arctic skna, Stercovarius parasiticus		12	0		
	Razorbill, Alca torda	• • •	r			
	Guillemot, Uria a. aalge	•••	89	0		
	Ptarmigan, Lagopus mutus		83	_		
			~3	3		

[In order to avoid confusion for British readers the scientific names are given according to the Check-List. A surprising feature of this impressive record is the recovery percentage of the Gadwall, Pintail, Wigeon, Teal, Scaup, and Golden Plover group, which would be creditable anywhere.]

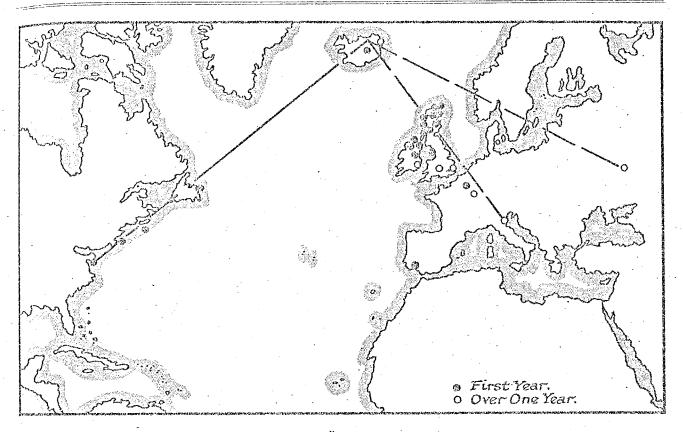
RECOVERY RECORDS ABROAD OF BIRDS MARKED IN ICELAND. (Dates in italics refer to recoveries more than a year after marking.)

- Meadow-pipit.
 - Caught 29.x.29 at Oosthoven, Turnhout, Antwerp Belgium.
- Shot c. 19.xi.28 at Penaroyo, Cordova, Spain.
 White wagtail.
- 1. Caught 5.ix.28 at Rockall.

[Rockall is a bare minute uninhabited islet (lat. 57° 40′N., 13° 30′ W.), beyond St. Kilda. For a case of another first-year bird of this sub-species coming aboard twenty-four days earlier between Iceland and Rockall see *British Birds*, XXII, p. 124.] Gadwall.

- Shot 26.x.27 at Rye, Sussex, England.
- 2. Shot 27.i.29 at Currandulla, Co. Galway, Ireland.
- 3. Shot 12.ii.30 on Lough Glore, Co. Westmeath, Ireland.

DISCOVERY



 $\label{eq:fig.t.} \textbf{Fig. t.}$ MAP SHOWING RECOVERIES OF WIGEON MARKED IN ICELAND.

Out of twenty-seven recoveries abroad on both sides of the Atlantic, eighteen are in the British Isles. Although longer distances have been flown by marked swallows, white storks, etc., no other case of such broad dispersal has so far come to light. (Birds.recovered within one year of ringing and after are separately indicated.)

[The recovery of three birds in the British Isles out of only 28 marked in Iceland is a striking case, the dates suggesting strongly that this may be the normal winter quarters.]

Pintail.

- 1. Shot 25.ix.26 at Hornborgasjö, Västergötland, Sweden.
- 2. Shot 8.xii.27 at Clonmorayh, Rathangan, Co. Kildare,
- 3. Shot 11. Aii. 27 on L. Atalia, Co. Galway, Ireland.
- 4. Shot 16.i.27 at Ballydaheen, Castletown, Co. Cork, Ireland.

[The occurence in its first autumn near the Cattegat of a pintail native to Iceland is one of the most disturbing instances of the dangers of dogmatizing even from a considerable amount of marking data. Mortensen recovered 67 pintail out of 320 caught on migration at Fanö, Denmark, and a number of summer recoveries led to the conclusion that these were birds native to Scandinavia and northern Russia migrating to winter quarters south-west. The possibility is now open that some may actually have been Icelandic birds travelling by an unexpectedly circuitous route to their recovery localities in Italy and western Europe. The new position seems to be that while Icelandic pintail are now proved to winter

in the British Isles it is no longer possible to assume from Mortensen's results that north European birds do the same, as Landsborough Thomson concludes ("Problems of Bird-Migration," p. 214). The Swedish bird, at the time when it was shot, must certainly have been still on its way to winter quarters.]

Wigeon.

- Shot 16.ix.27 at Acnoba, Lochgilphead, Argyllshire, Scotland.
- 2: Shot 25.ix.29 at Holy Island, Northumberland, England.
- 3. Shot 15.ix.28 on Orkney Isles, Scotland.
- 4. Shot 28.ix.28 at Gerston Bog, Halkirk, Caithness, Scotland.
- 5. Shot 5.x.27 at Stephenville Crossing, Newfoundland.
- Shot 8.x.28 at Lesmurdie, Morayshive, Scotland.
 Shot 9.x.28 on L. Swilly, Co. Donegal, Ireland.
- 8. Shot 14.x.26 on Rio Macete, Huelva, Spain.
- 9. Shot 19.x.29 at Rogerstown, Co. Dublin, Ireland.
- o. Shot 29.x.28 at Autrecourt on Meuse, Ardennes, France.
- 11. Shot 30.x.29 at Hamel, Nord, France.
- 12. Taken 2.xi.27 on Loch Eye, Ross & Cromarty, Scotland.
- 13. Caught 5.xi.28 in a decoy near Ipswich, Suffolk, England.
- .14. Shot 14.xi.27 at Great Pond, Eastham, Cape Cod, Mass., U.S.A.
- 15. Shot 27.xi.29 at Toomebridge, Co. Antrim, N. Ireland.
- Shot 29.xi.29 at Colston Lake, Cambridge, Maryland, U.S.A.

- Shot 1 xii. 26 at Hawk Point, Cape Sable Island, Nova
- Shot 6.xii.28 at Keiss, Caithness, Scotland. 18.
- Shot 14.xii.28 on Lough Foyle, Ireland.
- 20. Shot 23.xii.28 at Ravenna, Italy.
- Shot 24.xii.26 on Loch Tarbert, Argyllshire, Scotland. 21.
- Shot 25.xii.28 at Laitburn, Invergordon, Ross & Cromarty, Scotland.
- Shot 27.i.29 on Lady's Island Lake, Co. Wexford, Ireland.
- Shot 1.ii.30 at Kirkwall, Orkney, Scotland.
- Shot 15.ii.29 at Fleetwood, Lancashire, England.
- Shot 8.iii.29 at Rugby, Warwickshire, England.
- Shot 12.vii.28 at Bogorodizk, Tula, Russia.

[Bird-marking data provide no more conspicuous example of the value of the method than this series of recoveries, shown on the sketch-map in Fig. 1.

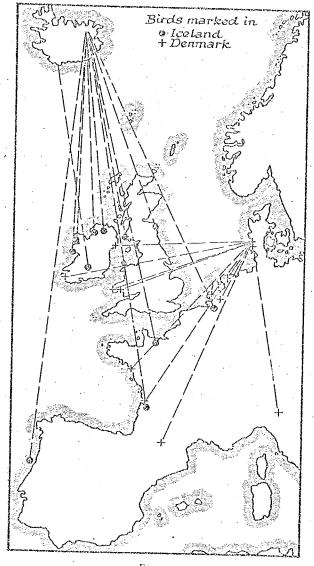


Fig. 2. RECOVERIES OF TEAL.

This map shows recoveries of teal marked in Iceland and at Fano (Denmark). The British Isles are here seen to be an area of concentration of birds native to two distinct areas.

It proves what has long been suspected that native Iceland birds may migrate habitually down both coasts of the Atlantic, a fact perhaps not irrelevant to the absence of geographical races among various species of holarctic duck. The fanning-out of birds from one small native area over nearly 30° of latitude and 110° of longitude is much the greatest recorded. It seems analagous to the double south-west and south-east migration of Central European White Storks via Spain or Asia Minor, but on an incomparably larger scale. The suggestion of a possible overland route to the Adriatic is also noteworthy. British native wigeon have covered some very long distances, but these data must place the species among the most remarkable migrants whose travels are at all accurately. known.]

Teal.

- Shot 20.viii.28 at Lawrencetown, Co. Down, Ireland. I.
- Shot 25.x.27 at Varoville, Calvados, France.
- Shot 30.x.28 on Longfield Flats, L. Foyle, Co. Londonderry, Ireland.
- Shot 30.x.28 at Valado dos Frades, Portugal.
- Shot 27.xi.29 at Cashel, Co. Tipperary, Ireland.
- Taken by net 7.xii.27 at St. Ciers. Gironde, France.
- Shot 10.xii.29 in Wigtownshire, S.W. Scotland,
- Shot 14.xii.28 in Northumberland, England.
- Shot 10.i.29 at Ballinasloe, Co. Galway, Ireland. ŧο.
- Shot 20.ii.29 at Ballacroy, Co. Mayo, Ireland. Shot -.iii.29 at Rethy, Antwerp, Belgium.

[While only 14 British ringed wigeon out of 122 marked have so far been recovered, the material for teal is much more substantial, amounting under the British Birds scheme to 88 records. Although many of these refer to birds marked as adults on passage as well as natives recovered in Norway, Sweden, Denmark, Finland, Germany, and Russia, the extensive traffic to Iceland had not been brought to light from this in estigation. The sketch-map (Fig. 2) showing some Danish records in addition to the Iceland ones could be amplified to the point of unintelligibility by adding all available British data. It does, however, show clearly the position occupied by the British Isles as a winter reservoir for breeding teal, not only of home-bred stock, but of native areas far to the north-east, via Denmark, and north-west, in Iceland. In contrast with the wigeon, which shows an enormous south-east and south-west spread from a compact summer centre, the teal appears to make a moderately broad north-east and north-west fan from limited winter quarters.]

Tufted duck.

- 1. Shot 11.viii.28 at Northwich, Cheshire, England. Scaup-duck.
 - 1. Caught 12.x.28 on Hoornsche Meer te Horn, Holland.
 - 2. Shot 30.x.26 at Belfast, N. Ireland.

- 3. Shot 10.xi.28 at Duncormick, Co. Wexford, Ireland.
- 4. Shot 30.xi.28 at Kampen on Zuider Zee, Holland.
- Shot -.i.28 at Monbach, near Mainz on Rhine, Germany.
- Shot 23.i.29 at Belfast, Ireland.
- 7. Shot 3.ii.30 at Makkum, Friesland, Holland.
- Found c. 15.ii.29 at Trewern, Newbridge, Cornwall, England.
- 9. Shot 23.ii.29 at Tillysburn, Co. Down, Ireland,
- 10. Shot 3.viii.29 on Nigg Bay, Killary, Ross & Cromarty, Scotland.

[Iceland is one of the more important breeding-areas of this northerly species, and these records suggest that it is from Iceland that large numbers of the scaup-duck wintering in the British Isles may come. Scaup appear freely on the eastern portion of the Mcditerranean, and the three recoveries of Icelandic birds from the Rhine basin indicate the possibility of an overland route south-east across Central Europe, although no doubt Arctic Russia and Siberia supply the bulk of the wintering stock in the Levant-Caspian-Persian Gulf area.]

Long-tailed duck.

1. Shot 27.v.29 at Christianshaab, Greenland.

[Christianshaab is on the west coast, on Disko Bay, comfortably north of the Arctic Circle, and of any point in Iceland. A bee-line from the place of marking would lead straight across the ice-cap; more likely the coast would have been followed by Cape Farewell. The date is noteworthy, for laying has begun in Greenland by 1st June: there is thus a suspicion of abmigration (or adoption of a fresh summer area distant from the native one) such as has been detected in various species of European duck.]

Common scoter.

1. Shot 24.x.27 at Ponta Delgada, St. Miguels, Azores.

[Previous records of European marked birds from the Azores include a British black-headed gull and a Dutch Spoonbill—see Landsborough Thomson, p. 231.] Red-breasted merganser.

- Shot 20.ii.30 at Lemmer, Friesland, Holland. Northern Golden Ployer.
 - 1. Shot 12.x.29 on Canal de Lucon, near La Rochelle, France
 - 2. Found 21.x.27 at Tullarvan, Kilkenny, Ireland.
 - 3. Shot 22.x.27 at Ballinasloe, Co. Leitrim (?), Ireland.
 - Shot -,x.29 in Ireland.
 - 5. Shot 3.xi.26 at Bihones, Coudarn, Gers, France.
 - 6. Shot 4.xi.26 in Offaly, Ireland.
 - 7. Shot 1.xii.20 on Solway Sands, Wigtown, S.W. Scotland.
 - 8. Shot 15.xii.29 near Lisbon, Portugal.
 - 9. Shot 26.xii.29 at Cloughmills, Co. Antrim, Ireland.
 - 10. Shot 6.i.30 at Hornby Castle, Lancaster, England.
 - Shot 6.i.30 at Hairpin Island, Garringaloz, Co. Cork, Treland.
 - Shot 30.i.23 on Spanish Island, Baltimore, Co. Cork, Ireland.
- Shot 1.ii.28 at Dooyork, Geesala, Ballina, Co. Mayo, Ireland.
- 14. Shot c. 3.ii.30 at King's Lynn, Norfolk, England.

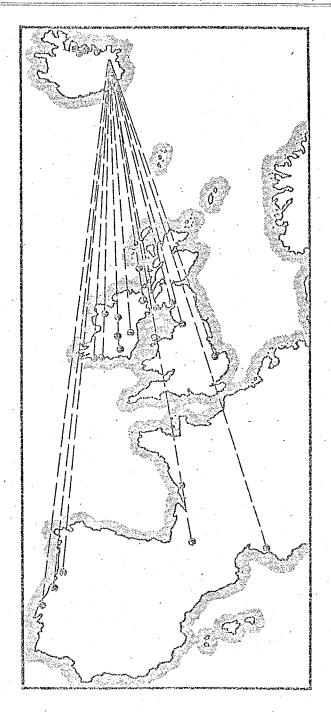


Fig. 3.
RECOVERIES OF GOLDEN PLOVER.

These birds were marked in Iceland and their narrow belt of distribution may be contrasted with the broad fan shown by the wigeon (Fig. 1).

- 15. Shot 16.ii.29 at Walada do Ribotejo, Portugal.
- Shot (? date) at S. Martinho do Porto, Leiria, Estremadura, Spain.
- 17. Taken 22.ii.30 at Moniaive, Dumfriesshire, Scotland.
- Shot 17.iii.29 on L'Etang de Berre, Bouches-du-Rhone, France.
- 19. Shot 12.iv.29 on Tiree, Inner Hebrides, Scotland.

[Golden plover of various races are amongst the best-known long-distance migrants in the world, but comparatively little marking work has hitherto been done on them: in this country, in fact, it has taken twenty years to mark 108 birds. The encouraging series of records here provided shows a curiously narrow north-and-south path, and raises the same problem as the Scottish Lapwing results; whether the birds wintering in Spain and Portu 1 get there via Ireland and the Bay of Biscay, or whether Ireland is simply an alternative destination, the rest travelling through England and by the west coast of France?]

Whimbrel.

- Shot 11.ix.27 at Rochefort-sur-mer, Charente Inf., France.
- 2. Shot 21.x.28 at Dakar, Senegal, W. Africa.

[Whimbrel being for the most part passage migrants through the British Isles, cannot be marked by us on a satisfactory scale. Although no Iceland marked birds are yet recorded, there can be little doubt that this country lies on their normal route.]

Faroe Snipe.

- 1. Shot c. 5.xi.29 at Claremorris, Co. Mayo, Ireland.
- 2. Shot ii.30 at Ballina, Co. Mayo, Ireland.

[The distinct geographical race of snipe inhabiting Iceland and the Faroes was only finally accepted in 1923, and similarities of northern Scottish specimens have hindered recognition in some cases. This conclusive evidence of the presumed migration has therefore a certain value to students of geographical variation. Scottish marked snipe also migrate to some extent in winter to western Ireland.]

Greater Black-backed gull

1. Found 3.i.29 on North Uist, Hebrides, Scotland.

[The sketch-maps show recovery localities outside Iceland. It should be understood that lines connecting the places of marking and recovery are inserted purely for convenience, and are not to be taken as representing the route by which the journey was made.]

To Mr. Nicholson's article I should like to add some remarks. The area now reporting birds is greater than that shown on his sketch-map (April, p. 119). I can add the rest of the African west coast, Greenland, and Iceland. The separate stations are collaborating as much as possible in order to search out birds reported which may have been overlooked by the station of origin. I wonder that the following ringing stations are overlooked by the author: Stockholm, Tartu, Riga, Brussels—further the stations which Roumania and Spain are preparing.

I fear that there will be many difficulties over collaborating under unified direction, and laying down

the law regarding ringing in the separate countries will, I fear, only make difficulties for the stations, and seems not to be needed.—P. Skovgaard.

[The sketch-map referred to was, of course, only intended to give a rough idea of the regions covered by bird-marking schemes: the additions which Mr. Skovgaard's personal experience enables him to make are nevertheless very satisfactory, as bridging the two chief gaps indicated. There are various other marking stations extant, in addition to those mentioned in the original article, or now added by Mr. Skovgaard, but exhaustiveness was not aimed at, my original list (on p. 117) being expressly restricted to stations working on a useful scale—i.e., those with over 10,000 marked birds to their credit. Small stations, or those which do not publish their records, are of doubtful utility to ornithology, as the article sought to show. With reference to Mr. Skovgaard's claim that collaboration is already practised as far as possible, it must be agreed that there is much to be said for private freedom of action; nevertheless, the fact that the important work carried out in Iceland is now made available for the first time to British ornithologists, who have done much to secure these records under the impression that they were Danish birds, is the best proof of the urgent need for a real pooling of resources in bird-marking. I should like personally to thank Mr. Skovgaard for his very generous response to my appeal for a better understanding, and for the trouble he has taken to make these extraordinarily interesting data available for English readers .--E. M. NICHOLSON.]

Cruises to the Tropics.

COMPARATIVELY few parts of the world may still be described as "unexplored," and the only regions of this character easily accessible by ordinary travel routes are in South America. The most interesting to the naturalist is the Amazon River, which flows through the largest tropical forest in the world. the eastern end of this belt of forest lies British Guiana, which has recently been brought to the notice of scientists by the work of the Oxford University Expedition. The port of call here for the Harrison Line steamers is Demerara, other calls on this route being made at Barbados, Grenada, and Trinidad. Two weeks after leaving London the voyager reaches Bridgetown, which presents a vivid first impression of the tropics. A combination of sea and river cruise is available on the Booth Line, whose steamer Hildebrand crosses the Atlantic before proceeding a thousand miles up the Amazon itself. Particulars are announced of special winter cruises.