BIRDS OBSERVED FROM SHIPBOARD IN CROSSING THE NORTH ATLANTIC.

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During four crossings of the North Atlantic Ocean made in the past four years, the writer has made many notes upon the birds which could be seen from the ship. A few of these are familiar to most Canadian and American ornithologists but most of them are seldom seen except by dwellers along the rocky coast of the continent and still others are found only in European waters. It is hoped that the notes below will give the intending ocean traveller some idea of what species are likely to be seen by careful observation from the deck, and of the regions in which each should be sought.

The sailing dates were as follows:

Eastbound, leaving Montreal, Sept. 16, 1927. Westbound, leaving Glasgow, Sept. 29, 1928. Eastbound, leaving Montreal, July 12, 1930. Westbound, leaving Glasgow, Aug. 31, 1930.

It is evident that the observations hereinafter reported are limited to the summer and early autumn months.

The route followed was the same on all four crossings, namely, along the St. Lawrence River, north of the Island of Anticosti in the Gulf of St. Lawrence, through the Straits of Belle Isle (between Newfoundland and Labrador), across the Atlantic from approximately Lat. N. 52° to Lat. N. 56°, around the north of Ireland and up the Firth of Clyde, west of the island Ailsa Craig to Greenock. One's ticket is made out with Glasgow as the destination, but few large ocean boats go further up the Clyde than Greenock, and passengers are conveyed the last eighteen miles by train. The present notes are confined to "deep water" birds and do not include those seen further inland than Greenock on the Clyde, or Quebec on the St. Lawrence.

The first voyage served chiefly as an introduction to species which were practically all new to the writer, but on subsequent crossings identifications were made much more easily. These

were facilitated in part by consultation of standard works of reference, but somewhat more by inspection between voyages of specimens in the Royal Scottish Museum, Edinburgh, the Victoria Memorial Museum, Ottawa, and the Field Museum of Natural History, Chicago. With the exception of the first voyage, all observations were made with good field glasses. In the following list of the birds seen, only those are included which were positively identified. Except when there was too much fog or rain to see very far, at least ninety minutes of each morning and of each afternoon were spent on the watch so that the list below should represent fairly well the species most likely to be seen.

The nomenclature follows that of the new A. O. U. 'Check-List' but I have (usually) deliberately avoided sub-specific names because it would be impossible to assign one by any criterion other than range and I do not consider that a sound practice.

In the case of the Shag and some of the vernacular names of European races that do not occur on the American coast I have followed the British List.

Alca torda. RAZOR-BILLED AUK.—On September 4, 1930, our boat (westbound) passed Belle Isle between 9 and 10 P. M. On this same day eight small flocks and strings of birds, each numbering from four to twenty-five and believed to be mostly (if not all) Razorbills were seen between 1 and 2 P. M. at a distance estimated to be 150 miles off-shore. Others were noted closer to land. On the previous west-bound voyage, in October, Razorbills were almost abundant in the Gulf of St. Lawrence up to some sixty miles beyond the western end of Anticosti.

It was often impossible to distinguish between the Razorbill and Brünnich's Murre when the birds were at such a distance that their bills were not easily seen. This was the case with large flocks of stolid birds lining the edges of several of some forty icebergs encountered in the Straits of Belle Isle in July, 1930. Those perching were accompanied by a milling guard of birds on the wing. They were evidently Alcidae, and were most likely Razorbills, but distance prevented definite identification.

In European waters, Razorbills were seen 135 miles off the Irish coast, and on all four trips were frequently seen in the Clyde.

Uria aalge. Atlantic Murre or Guillemot.—This species was seen in the Firth of Clyde on all four voyages. The birds are often deployed in long lines, one of which, seen just outside of Belfast Lough, had over fifty birds in it. The Guillemot is common right up to Greenock. It was not positively identified on the Canadian coast.

Uria lomvia. Brunnich's Murre. Fairly common in the Gulf and

in the Straits of Belle Isle. From the deck it is impossible to say whether one sees this species or the one above, but Brünnich's Murre is common on the American coast and rare in European waters, whereas *U. aalge* is almost abundant off the Scottish coast and *U. lomvia* is there exceedingly rare.

Alle alle. Dovekie or Little Auk.—The Dovekie was seen on only one voyage, in October, 1928, when several score were noted in the Gulf of St. Lawrence and others outside the Straits of Belle Isle. Although I have handled a live Dovekie, I found it difficult to distinguish at a distance between this species and other Alcidae. The differences in size are less obvious when the birds are partially submerged. The Dovekie seemed more inclined to patter away from the boat with its wings before diving, whereas the Razorbills and Puffins usually dived as soon as they became alarmed. This species is likely to be seen (on either side of the Atlantic) only in the late fall and winter months.

Cepphus grylle. Black Guillemot.—Only one specimen was seen and that northeast of Anticosti in July, 1930.

Fratercula arctica. Puffin.—This bird was seen on both sides of the Atlantic on all four trips. In October, 1928, Puffins were fairly common from Belle Isle through the Gulf up till about four hours after passing the western end of Anticosti. In September, 1930, one was noted approximately forty-five miles out in the Atlantic from Belle Isle. In the Clyde the Puffin is most common near the rocky island, Ailsa Craig, where so many sea birds nest.

Puffinus puffinus. Manx Shearwater.—On the one occasion when the writer staxed on the boat till it reached Liverpool, the Manx Shearwater was found to be quite common in the Irish Sea, particularly between the Isle of Man and Liverpool. It is easily recognized by its entirely black upper parts, with white color below.

Puffinus griseus. Sooty Shearwater.—A single representative of this species was seen about eighty miles out from Belle Isle on September 4, 1930.

Puffinus gravis. Greater Shearwater.—This species was common in the open sea in July and in early September, 1930, but I have no mention of it in notes of my first voyage eastbound in late September, 1927, and saw only three specimens on the return trip in early October, 1928. In July and early September it was usual to see from five to thirty Shearwaters in an hour's watch, and single flocks including up to thirty-four were noted.

The rather erratic flight, just skimming the waves and turning first on one wing, then on the other, reminded me of the somewhat similar flight of the Night-hawk.

Fulmarus glacialis. ATLANTIC FULMAR.—This is the most common bird of the North Atlantic. On every crossing it was noted in abundance almost every day on which we were out of sight of land, with the exception that in mid-Atlantic one might see only two or three, sometimes none, in a watch of over an hour.

On July 16, 1930, when about 700 miles out (eastbound) from Belle Isle, over fifty Fulmars were following the boat at 5 P. M. The next day in mid ocean not more than three were visible at one time till 7 P. M., when eight were following the boat, but on July 18 there were over sixty in our wake most of the day.

It is quite usual to have a flock of Herring Gulls following the vessel as night falls on the first day out from either Canadian or Scottish coasts. When one goes out for his before-breakfast stroll the next morning, the gulls are apparently still there, till a second look shows that the crowd behind is composed entirely of Fulmars with perhaps one or two Kittiwakes, but that there is not a Herring Gull in the lot. Few of the passengers recognize that there has been a change. The Fulmar is not unlike a short-necked gull with the front edge of the wing rounded rather than angular, but its sweeping glides and soaring flight distinguish it from any gull. As one looks back at forty of fifty following Fulmars, their white heads stand out against the water almost like polka dots on dark green cloth.

I noticed in October, 1928, when our westbound boat approached land in daylight, that the Fulmars deserted the boat before land was sighted. It is well known that these birds are less common offshore than in the open sea, but the interesting problem is to find out why they turn back even before land is visible. The same behavior was repeated as we approached the Irish coast in July, 1930. Although visibility was very poor, the Fulmars began to drop astern thirty-five miles out from the point where land was first visible from the deck. My notes on this occasion read as follows:

July 19, 1930.

- 2 P. M. In sight: 50-80 Fulmars, 13 Kittiwakes, 4 Gannets (including one young bird).
 - 2:20. No decrease in the number of Fulmars.
 - 2:30. A Lesser Black-back and 2 Herring Gulls have joined us.
 - 2:40. Only 5 Fulmars left.
 - 4:00. Many Herring and Black-backed Gulls behind. No Fulmars.
 - 4:15. Land sighted.

From this it was concluded that the signal to return to the open sea was given when the Black-backed and Herring Gulls arrived on the scene. There was no evidence that the gulls were molesting the Fulmars, but the latter seemed to realize that they had reached the limit of their usual range as soon as the coastal gulls appeared on the scene. On both the other voyages the boat came to land during the night and the desertion of the Fulmars could not be studied.

A small proportion of the Fulmars seen were in the dark phase. Many of those observed in July were apparently molting, having lost the inner primaries of both wings.

Oceanodroma leucorhoa. LEACH'S PETREL.

Oceanites oceanicus. Wilson's Petrel.—It is fairly certain that both of these species were among the petrels commonly seen as much as ten hours out from Belle Isle in September and October. In early September, 1930, one could usually see from one to five in a ten minute watch. One of these which flew up over the deck was identified as Wilson's from its lack of distinct fork in the tail, but I was unable to distinguish between the two species at a distance.

Moris bassana. Gannet.—These great birds were fairly common in the Gulf of St. Lawrence, especially off the western end of Anticosti, and were also seen in the Straits of Belle Isle. On the European side of the ocean Gannets were quite common off the north of Ireland and up the Clyde. One has an opportunity to see one of their few known nesting places as the boat passes that round dome of granite called Ailsa Craig, in the Firth of Clyde. In the summer months there is usually a swarm of sea birds around it and Gannets can be seen headed for the rock from various directions.

Phalacrocorax carbo. European Cormorant,—The Common Cormorant was seen in the Firth of Clyde on all four voyages but was not identified off the Canadian shore.

Phalacrocorax auritus. Double-crested Cormonant.—This species was noted, but not frequently, in the Gulf of St. Lawrence on every trip.

Phalacrocorax graculus. European Shag.—From the boat it was possible to distinguish this species from *P. carbo* but, had the range of the former overlapped that of *P. auritus*, it would have been impossible to differentiate in the flying bird between these two species. However, since the European Shag is not found in North America, its identification was simplified. It is fairly common in the Firth of Clyde and in the Irish Sea.

Stercorarius pomarinus. Pomarine Jaeger.

Stercorarius parasiticus. Parasitic Jaeger or Artic Jaeger.—Both of these Skuas were noted with varying frequency at different times all the way across the ocean, the Pomarine being the commoner of the two. Both species were more abundant on the western side of the Atlantic than on the eastern, and less common in July (when only two were seen) than in September and October. The inverted V formed by the projecting central tail feathers of the Pomarine Jaegar is not always visible, but one can more often see whether these feathers are broad and rounded, indicating S. pomarinus, or narrow and pointed as is typical in S. parasilicus.

Two unidentified jaegers were seen at the same time as the Great Skua noted above. The next day, in the course of a two-hour watch in the vicinity of Lat. N. 55° 29′ and Long. W. 39° 54′, a total of forty-two jaegers was counted, including one flight of fifteen. The majority of these were flying south. Most of those identified were the Pomarine, but both species were present. Several of these were in the light color phase. A jaeger was

seen as far inland as Father Point, about 156 miles east from the city of Quebec.

Stercorarius longicaudus. Buffon's Skua or Long-tailed Jaeger.—The long, pointed, central tail-feathers, projecting more than twice as far as those of S. pomarinus and S. parasiticus, made it quite easy to identify the only Buffon's Skua seen in all four crossings. In this case the distinguishing characteristic was visible even without field glasses. The bird was noted on September 3, 1930, at approximately Latitude N. 55° and Longitude W. 42°, a distance of about 500 miles from the Labrador coast.

Catharacta skua. Northern or Great Skua.—Only a single representative of this species was seen and that at 8 P. M. on the second day out from Greenock, westbound, September 2, 1930. From the ship's positions taken on the bridge at noon on September 2 and 3, and the fact that a steady speed was maintained for the twenty-five hour interval between those readings, it has been possible to determine fairly accurately by interpolation that this Great Skua was seen at Lat. N. 56°, 08′, Long. W. 36°, 57′, or practically in mid ocean.

Larus marinus. Great Black-backed Gull.—On every crossing this gull was noted on both the Canadian and Scottish coasts. It was not uncommon to see four at once in the Gulf of St. Lawrence.

Larus fuscus. Lesser Black-backed Gull.—This European species is distinguished from *L. marinus* by its smaller size (being slightly smaller than the Herring Gull) and by having yellow legs in contrast to the flesh-colored shanks of the larger gull. It is abundant in the Firth of Clyde and off the north of Ireland, making up almost half of the crowds of gulls which follow boats in those waters.

Larus argentatus. Herring Gull.—This familiar gull was as abundant in the Firth of Clyde as in the St. Lawrence where crowds of fifty or more might be seen following the boat anywhere between Quebec and Anticosti.

Larus delawarensis. Ring-billed Gull.—A few of these were seen in the St. Lawrence River.

Larus canus. Common Gull.—The name of this European bird is a misnomer for it is decidedly less common than several others of the same genus. A few representatives were usually seen in the upper part of the Clyde but the birds did not follow the boat to deep water. The Common Gull somewhat resembles the Kittiwake in size, but is built more heavily and has white spots on the tips of the primaries, which the Kittiwake lacks.

Larus ridibundus. Black-headed Gull.—In the Tail-o'-the-Bank at Greenock, in Belfast Lough, and in the harbour at Liverpool, the little Black-headed Gull was seen in swarms. It is a versatile scavenger but does not follow the boats out of the harbor as do some of the larger gulls. I have frequently seen it following the plough in Scotland just as its cousin, Franklin's Gull, does in Manitoba.

Rissa tridactyla. ATLANTIC KITTIWAKE.—This gull is the first of its

family to greet the traveller to either shore of the Atlantic, and is quite common on both coasts. On October 4, 1928, at a point forty miles out in the ocean from Belle Isle, nearly 300 Kittiwakes were observed milling about in a dense swarm almost like gnats. Many were in the so-called "Tarrock" plumage of immature birds in which there is a black terminal tail band, a thin, dark mark making an incomplete collar, and a black border on the anterior margin of the wing. In September, 1930, two Kittiwakes in Tarrock plumage were seen twenty-nine hours before reaching Belle Isle, at a distance estimated to be 490 miles from land. Others were seen over ninety miles from the Irish coast, and in July, 1930, at fifty miles from this same coast the ship had a convoy of fourteen Kittiwakes.

This bird is more a lover of the open sea than any of the gulls listed below. On both eastward voyages the Kittiwakes picked up at sea followed the ship up the Clyde well past Ailsa Craig, but on neither westbound journey were any Kittiwakes seen till the second day out from port.

Oenanthe oenanthe leucorhoa. Greenland Wheatear.—In September, 1927, at about four hundred miles east of Belle Isle, an unrecognized Passerine bird spent most of the day on the boat. It was suspected of being the Greenland Wheatear and this identification was later confirmed by comparison of my notes with descriptions of the bird and by acquaintance with O. oenanthe in Scotland. Four others, believed to be of this species but not positively identified, flew around the boat when twenty miles from Belle Isle in October, 1928. The Greenland Wheatear is known to migrate through Europe to Africa and might easily be seen in the autumn months if it is accustomed to using passing boats as resting places.

The above list of twenty-eight species identified from the decks of liners does not exhaust the possibilities afforded the ornithologist by a crossing of the North Atlantic. A few ducks were seen but were not identified. Small flocks of swiftly flying birds thought to be Red Phalaropes were seen in the Gulf of St. Lawrence. A pair of Juncos which came aboard in the St. Lawrence are not included. A great gull which accompanied an outbound vessel met some eighty miles off Belle Isle was possibly a Glaucous Gull, but positive identification was not possible. This species should be seen in these waters by more fortunate observers. Storm Petrels are frequently noted near the European side of the Atlantic, but in spite of careful watch, I was unable to find any in four crossings. These few species and others not mentioned are quite likely to be seen by observers more experienced, more fortunate, and more persistent than the present writer.

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