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THE KITTIWAKE AS A TRANSATLANTIC BIRD

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FIFTEEN Kittiwakes are known to have carried bands across the Atlantic, more than a third of all the available records of transoceanic flights of banded birds. This naturally arouses some curiosity as to the migratory habits of the species. A common breeding bird on both coasts of the North Atlantic, the species winters at sea, and the evidence points to the probability that there is more or less of an exchange of individuals across the ocean. If fifteen birds are proved by bands to have crossed, it is a fair assumption that more, without bands, have done the same.

The Kittiwake is strictly a salt-water species, and its occurrence far inland is entirely accidental. This bird is said to drink sea water in preference to fresh, indicating that, like other pelagic species, it is physiologically adapted to assimilating sea water, which is as nauseating to many birds as it is to humans. The inability to utilize sea water is the reason that several species of gulls, including the Herring, seldom wander beyond coastal waters.

Except during the breeding season the Kittiwake is found far at sea. From mid-June to mid-August, however, even the year-old birds in "tarrock" plumage which are non-breeders, disappear from the pelagic zone. At this season the species is almost wholly confined to the coastal waters. Late in August the birds begin to move out to sea, and from November to April they are dispersed over all the unfrozen coastal and pelagic waters from about 60° North to the Tropic of Cancer. Half of the transatlantic records occur within this period. All writers on observations of birds at sea comment on the wide distribution of the Kittiwake. T. H. McKittrick, Jr. (*Ibis*, 1931, pp. 654-661) records

that on several voyages between Europe and America made from December to March, Kittiwakes were observed every day. He concludes: "European and American birds are apparently in contact from October to March if not longer, . . . and during that time considerable intermingling must take place. Then some time after the beginning of March the Kittiwake population at sea divides again to proceed east and west to its breeding grounds, and one is led to ask whether or not the birds can sort themselves out accurately. . . . It seems to me, in the case of such a wide-ranging species, more natural to think not, and that it is thus normal for a certain number to cross the ocean each year." The crossing of fourteen banded birds from Europe to America and one from Greenland to Holland certainly gives emphasis to this conclusion.

Birds "ringed" in Iceland have been recovered both in Europe and in America. The same is true of those banded in Great Britain, though the first five recoveries and one third of the total number from there have been from the western side of the Atlantic. The wide source of the banded Kittiwakes recovered in America further suggests a fairly regular exchange, for they were banded in Greenland, Iceland, Great Britain and Russia.

The wandering of birds previous to their first nesting has come to be rather expected, but at least a third of these transatlantic flyers were not known to reach America until they were adult. In fact, the two from Iceland were fully adult when banded, and their appearance in Newfoundland one and a third and four and a half years later suggests a regular route of migration. One from northern Russia apparently headed quite directly for America, since it was taken in Newfoundland just three months and one day after it was banded as a nestling. A bird taken in late May seems to have missed its direction when the return to coastal waters began and further to substantiate McKittrick's conclusion.

In this study it seems worth while to review in some detail the results of banding done on the west coast of Greenland in 1926 and 1927 under the direction of the Zoological Museum of Copenhagen. Apparently little notice of this work has been taken in this country (possibly because the report is in a Danish publication), yet some notable results were obtained. Many Eiders and a total of 375 nestling Kittiwakes were banded. At Umanak 20 Kittiwakes were banded in July, 1926, and 56 in July, 1927, and at Godthaab 147 were banded in August, 1926, and 150 in August, 1927.

By the end of 1930, 34 birds had been recovered, or slightly more than nine per cent of the total banded, a rather remarkable result. The Iceland project, under the museum at Reykjavik, has had nine recoveries from about 75 banded or twelve per cent. From 1909 through 1942, British bird "ringers" had banded 2,019 Kittiwakes

and had 27 recoveries or only one and a third percent. The high percentages of returns from Greenland and Iceland may be accounted for, at least partly, by the fact that close observations were kept at the places of banding and that many of the foreign recoveries were from America and the British Isles, where many persons have become "bird-band conscious."

The returns from the Kittiwakes banded in Greenland open up an interesting field for speculation, though data are not sufficient for positive conclusions. Of the 30 birds recovered in Greenland, all but three were at least two years old and were taken at or near the place of banding. Of those three, two were caught in their first fall migration and one the spring following banding. This suggests that the species is pelagic until ready to breed, when two or three years old. Two years after banding seven were retaken on their breeding ground; the third year fourteen were taken and the fourth year six of those banded in 1926. Unfortunately, the record for birds banded in 1927 stops at the end of three years. Two birds banded at Umanak returned, one each in the third and fourth years after banding.

But even more interesting to us are the four birds recovered outside of Greenland. Three were taken in Newfoundland during the first winter after banding, a migration route that would be generally expected. The fourth, banded at Godthaab in August, 1926, struck out across the Atlantic and in November of the same year landed on the "Nord-Hinder" lightship in long. 2° 30′ East, lat. 51° 30′ North, off the southwest coast of Holland.

As bird banders become more active again after the war, it is to be hoped that more Kittiwakes will be banded, especially on the west side of the Atlantic, and that an increasing number of recoveries will help to answer some of our questions.

INDIVIDUAL RECORDS

These records are grouped according to the projects responsible for the banding and arranged chronologically under each group. Numbers preceded by an asterisk were banded as nestlings.

England: "British Birds" Marking Scheme. Bands carry besides the number the inscription "Witherby—High Holborn—London." The management of this work has been transferred to a committee of the British Trust for Ornithology and the address now on the bands is "British Museum Nat. Hist. London."

*67423 banded in the Farne Islands, northeast coast of Northumberland, England, June 28, 1923, and found August 12, 1924, on Horse Island, St. Barbe Islands, Newfoundland.

*70450 banded in Farne Islands, England, June 30, 1924, and taken October 28, 1925, at Ticoralak, Hamilton Inlet, Labrador.

*69331 banded in the Farne Islands, England, June 23, 1928, and recovered December 10, 1930, in Newfoundland, exact locality not known. This was the first bird to reach America as an adult.

*RR.3190 banded in the Farne Islands, England, on July 1, 1929, and found December 24, 1930, at Twillingate, Newfoundland.

*RR.3221 banded in the Farne Islands, England, July 1, 1929, and caught in July, 1931, on board the steamship "Arctic Queen" in Davis Strait, 58° 17′ W., 60° 10′ N. If this bird had bred that year, which seems unlikely, it must have been in Greenland or on one of the Arctic islands.

*RW.6648 banded in the Farne Islands, England, June 21, 1936, and taken October 1, 1936, at Julianehaab, west Greenland.

*314740 banded at Bull Rock, Cork, Ireland, July 8, 1938, and found May 28, 1939, at Wesleyville, Newfoundland.

*31470 banded at Fair Isle, between the Orkney and Shetland Islands, August 4, 1939, and taken September 19, 1941, in Notre Dame Bay, Newfoundland.

*—— banded in the Faroe Islands in the summer of 1942 and taken in November, 1942, in Newfoundland.

Denmark: Zoological Museum, Copenhagen. Bands not seen.

*—— banded at Godthaab, west Greenland, in August, 1926, and in November, 1926, flew aboard the lightship off the southwest coast of Holland.

*A 269 banded near Umanak, Greenland, in July, 1926, and killed about November 23, 1926, at Seal Cove, White Bay, Newfoundland.

*—— 2 banded at Godthaab in August, 1926, and taken in Bonavista Bay, Newfoundland, one in November, 1926, and one in April, 1927.

Iceland: The Museum of Natural History, Reykjavik. Bands marked Mus. Nat. Reykjavik and number.

5/88 banded as an adult at Sautharkrokur,[1] north coast of Iceland, July 12, 1932, and killed in November, 1933, on Fogo Island, Newfoundland.

1695 banded as an adult at Kollsvik, in northwest Iceland, May 27, 1938, and caught January 13, 1943, on a fishing trawl off Lahave, Lunenburg County, Nova Scotia.

Russia: Central Bureau of Bird-ringing. Bands marked Moskwa and number.

*51412 banded on Kharlov Island, near the Murmansk coast, Barents Sea, June 19, 1937, and taken September 20, 1937, on Little Fogo Island, Newfoundland.

*56371 E banded on Kharlov Island, July 25, 1938, and captured during the autumn of 1939 near Bonavista, Newfoundland.

[1]The transliteration of the Icelandic letter *edh* as *th* is on the authority of Webster's and Standard dictionaries.

*69780 D banded on Kharlov Island, August 9, 1939, and shot November 14, 1939, about three miles from shore, near Twillingate, Newfoundland.

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