SEA BIRDS FOUND FAR INLAND IN ALASKA

By OTTO WILLIAM GEIST

On September 21 or 22, 1937, an apparently immature Crested Auklet (*Aethia cristatella*) flew against the radio antenna of the Government Radio Station at Nulato on the Yukon River, Alaska. Mr. F. Alba, who worked near-by, picked up the bird, saved its skin, and brought same to me on October 23, 1937. Mr. O. J. Murie of the U. S. Biological Survey identified it for me. Nulato is rather far inland from the sea. The nearest point on Norton Sound, Bering Sea, in a straight line and leading over fairly high mountain ranges (the highest are about 3500 feet in altitude according to Mr. S. E. Robbins, pilot for the Pacific Alaska Airways), is about 85 miles. Following the winding valley of the great Yukon River from its north mouth to Nulato, however, the distance at once increases to about 580 miles.

Most likely, weather conditions have a great deal to do with such unusual flights as this. I contacted Mr. R. Frost, Chief of the Fairbanks Government Weather Station, who furnished me with the following data pertaining to the particular days during which the flight must have been made.

"There is enclosed a summary of the weather conditions that prevailed over the lower Yukon river country last September. As you will note, only scant information is available. The lower Yukon region is so large and we receive so little information from there that it is difficult to prepare a general summary of the weather conditions for this region. I doubt if the summary enclosed will be of much assistance to you; however, it contains all the information that is available."

Weather Summary for the Lower Yukon and Kuskokwim river regions from September 18 to 21, 1937, inclusive: "During the second week of September a pronounced storm center moved eastward across Bering Sea and on the 16th it was located a short distance southwest of the mouth of the Kuskokwim River. The storm area caused unsettled weather throughout the lower Yukon and Kuskokwim river regions. Surface winds were light variable. Moderate to fresh easterly winds prevailed aloft at both Fairbanks and Nome. Stations in this area reported heavy low stratus clouds with rain and fog. Fair weather prevailed in the Seward Peninsula as well as in the region around Fairbanks. These weather conditions continued through the 18th, and for the next week fair weather prevailed. Early morning fog was reported at some stations along the lower Yukon River. The surface winds continued light and variable while moderate westerly winds prevailed aloft. No weather reports were received from points along the coast of Norton Sound.

"No precipitation or fog was reported at St. Paul Island during the entire period. Up to the 18th the winds at St. Paul were light but on the 19th they increased and strong southeast winds were reported. On the 20th and 21st the winds shifted to northeast and increased to gale force. Very little wind was reported at Nome during the period. On the 18th the maximum velocity recorded was 11 miles per hour from the west. Light variable winds were recorded during the next week. On the 21st the maximum velocity was only 10 m.p.h. from the southwest. The winds aloft at Nome were moderate westerly. At Fairbanks light to gentle variable winds were recorded except on the afternoon of the 19th when moderate southwesterly winds prevailed. The maximum velocity on that date was 18 m.p.h. from the southwest.

"The lower Yukon and Kuskokwim region includes a vast territory from which few weather reports are obtainable. There are no weather stations along the Yukon River below Nulato, and no weather reports were received from stations along the vast coast of Siberia or along the east coast of Norton Sound during the period in question."

(Signed) R. L. Frost,
Asst. Meteorologist.

In order to get a still closer check on the weather situation during the flight period, I contacted Mr. O. K. Anderson, in charge of the weather mapping at the Fairbanks Weather Station. I quote herewith in part the information he was able to furnish me for the period in question.

"As stated by Mr. Frost, our surface weather reports from the Seward Peninsula and Norton Sound area are of the sketchiest, and those we do receive are at infrequent intervals. Also, coded reports used for map preparation and analysis from this area are inadequate for comprehensive study.

"Detailed analysis of available surface and pilot balloon reports for the Norton Sound and Seward Peninsula area for the period September 15 to 23, 1937, indicates a period of generally unsettled weather, with surface winds generally northerly, with an hourly velocity of near 10 miles per hour. The weather for the entire area was under the influence of a series of waves, moving along a quasi-stationary front, extending from the northern coast of Siberia to north of Pt. Barrow. This wave formation acted as a series of separate disturbances, moving from the Siberian coast westward, and affecting the entire eastern Alaskan coast. Reports from Nulato show the occurrence of light to moderate fog on all reports received from September 15 to 17, and there is a strong probability that this same condition existed on the lower Yukon during the same period."

(Signed) O. Kenneth Anderson,
Asst. Meteorologist.

This brings another similar incident to my mind when during the first week in November, 1932, several Fork-tailed Petrels (*Oceanodroma furcata*) were carried during heavy storms as far inland as Curry Station, on the Alaska Railroad. The birds were found dead near the government hotel by employees who did not recognize them, but brought them to Mr. A. B. Cummings, the manager of the hotel. About three weeks later during a visit to the hotel, while discussing birds with Mr. Cummings, he mentioned the extraordinary incident and very carefully described the birds to me. Unfortunately, the birds were not saved, but from the excellent description, they could have been hardly anything else but Fork-tailed Petrels.

After being driven, perhaps by storms, that far inland, the birds very likely had become not only lost, but were exhausted and hungry as well. Alighting in the shelter of the high hills at Curry, they rested in the snow but soon froze to death. The distance from Curry to the nearest salt water at Knik-Arm in Cook Inlet (via the Alaska Railroad) is 80 miles. From the nearest point in the Bering Sea region due west in an airline to the mouth of Black River, the distance is, however, about 450 miles.

I became interested in this incident chiefly because on November 2, 1932, during a terrific snow and sleet storm from the northwest, a Fork-tailed Petrel (*Oceanodroma furcata*) was obtained by me at Northwest Cape, St. Lawrence Island, Alaska. A large flock of birds flew into the rigging of the U. S. Motor Ship "North Star" while at anchor only a short distance from shore. This bird was killed outright, while the others managed to fly clear of the rigging. It proved to be the only Fork-tailed Petrel I was able to secure during the nine seasons (including two winters) I spent on St. Lawrence Island, Alaska. They seem rather rare, at least near shore. The bird I secured is now no. 7508 of the Washington State Museum Bird Collection (see Archaeological Excavations at Kukulik, St. Lawrence Island, Alaska, by Otto William Geist and Froelich G. Rainey, 1936, Government Printing Office, Washington, D. C.; Appendix No. 5, The Birds of St. Lawrence Island, Alaska, by Olaus J. Murie). The question which naturally arose was: Could it be possible that the birds found dead at Curry, apparently during the same week, were of the same flock? To know that would be interesting because the distance would then be extended by over 200 miles (the distance from Northwest Cape on St. Lawrence Island to the mainland of Alaska directly to the east).

This same storm caused the vessel to drag anchor at Northwest Cape (Cape Chibukak) and forced it on several occasions during a period of nearly two weeks to seek shelter at "Boxer Bay," a small but fairly well protected harbor, which, incidently, is also the only one on the entire island. During one of the trips from Cape Chibukak to Boxer Bay, a distance of about 25 miles, made just before nightfall, there flew against the mast and rigging not less than two dozen Pacific Eiders (*Somateria v-nigra*), several King Eiders (*Somateria spectabilis*), and numerous Old-squaw Ducks (*Clangula hyemalis*). Most of these birds were killed.

As we were safely anchored in the little harbor, we could see and hear many weary birds of various sorts riding the much calmer water of the bay or flying toward it from the open sea. When looking over the side of the vessel, we could see by the ship's lights great numbers of them close to the vessel, chiefly Pacific Eiders and Old-squaw Ducks.

I was also able to observe a rather peculiar phenomenon during several of our trips to Boxer Bay, and also while we stayed there, which may be worth mentioning. Towering cliffs, used by various species of birds as rookeries during the nesting season, start some ten miles south of Northwest Cape and run on in a southerly direction to West Cape (where there is an enormous bird rookery) and on down to Southwest Cape. It seems that during heavy west, northwest, and southwesterly storms, the air moves at a terrific force against these cliffs (over one thousand feet high in several places), bounces back and forms an eddy. Sea birds, during heavy weather from any direction, as a rule fly by preference near the shore. At the time of my observations, they were chiefly flying south. Thus they would come in from the open sea in great numbers—strings of them; as soon as the cliffs were reached they turned south and flew with apparent great ease and speed southward, very close to, perhaps fifty feet from, the cliff.

One's first impression would naturally be that birds would keep far away from a cliff during such weather, to avoid getting dashed against it or blown and tossed upward, which would occur directly at the face of the cliff. I have observed that during heavy "face on" storms, fair-sized creeks, which ordinarily discharge over the cliff-top after heavy rains, discharge thus; but much of the water never reached the bottom until the storm broke, because the terrific up-draft at the cliff face picked up the running water, blowing it all over the ground atop the cliffs in enormous sprays and continually repeating the process until the force of the wind broke. At times the spray was carried straight up for about 100 feet above the cliff, then blown away with such force that one could not go within several hundred feet without rubber boots, raincoat, and rainhat.

Thus, the birds must know just how far they can go, for between "the devil and the deep sea" they seem to find flying shelter. This "sheltered lane" seems to be about 10 to 15 feet wide. It is also well known that some sea birds do not like to alight in a wild, churned sea, especially near land, but prefer to keep flying instead. Thus, it is possible for sea birds to be carried on far beyond their habitats. Once over unfamiliar lanes, especially over land in heavy weather or fogs, they may occasionally be driven far inland, to their doom.

Museum Department, University of Alaska, College, Alaska, October 20, 1938.