

NEW RECORDS OF ALCIDS FROM ST. LAWRENCE ISLAND, ALASKA

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While conducting studies on the ecology of the plankton-feeding alcids, I spent a total of eight spring and summer months on St. Lawrence Island, Alaska, in 1964 and 1965. The purpose of the present note is to report on the finding of four species of Alcidae rare or new in that area: one constitutes a second record for the island; one sight record was reported previously for a second species; and, finally, two are entirely new for the island.

Cepphus grylle mandtii. Black Guillemot. Two specimens were obtained on Sevuokuk Mt. on 31 July 1965. Both were females in full summer plumage and were perched together on the same boulder among the rubble of the slope, in loose company with numerous Pigeon Guillemots (*Cepphus columba*). Before fleeing upon my approach, both birds gave the typical "scream," circled and landed again on the same boulder. One was then shot, and within a few minutes, the second bird landed again on the same spot. This behavior indicates that both Guillemots were somewhat familiar with the area to the point that they exhibited a degree of adherence to a specific landing spot, as is the case in breeding alcids. It may be inferred that they were not merely casual visitors to this particular locality.

Both birds were moderately fat and weighed, respectively, 354 and 345 g. Both had new and lustrous plumage with none of the white feathers on the nape and neck that one would expect on immature birds. One female had a slightly enlarged oviduct and an ovary of 12.5 mm. One skin only could be preserved and is now no. 12491 in the Zoological Museum at the University of British Columbia (hereafter, ZMUBC).

The nearest known breeding grounds are located on the north side of the Chukot Peninsula, between Cape Serdtse-Kamen' and Chaun Bay (Kozlova, 1957). Friedmann (1932) reported on a specimen of this species obtained by Collins on 23 November 1930, close to Gambell. There are also a number of records for the Alaskan coast below the Bering Strait (Anderson, 1915; Bailey, 1943; Brandt, 1943). Kozlova (1957) states that sexually immature *mandtii* can be obtained during the summer in Providence Bay, on the south side of the Chukot Peninsula. Although this constitutes only the second record for St. Lawrence Island, it is believed that the Mandt's Guillemot is a regular summer visitor there, but has so far escaped detection.

Synthliboramphus antiquum. Ancient Murrelet. One female was obtained on 29 July 1964, about 200 meters from shore in Kavalghak Bay, some 15 kilometers south of Gambell. The bird was alone, and its digestive tract was empty.

There are numerous winter records from the Pribilofs listed by Gabrielson and Lincoln (1959:493) as well as one summer record from that area (Gabrielson, 1944). Gabrielson also identified one Ancient Murrelet off South East Cape, St. Lawrence Island, on 3 August 1946 but did not collect it (Gabrielson and Lincoln, 1959).

The present specimen, now no. 11873 in ZMUBC, constitutes the first definite record for St. Lawrence Island. The extent of wear and fading of the plumage indicates that it had not molted in the preceding spring. Since the bird is in summer dress, it is difficult to reconcile the specimen with the little we know of the molt patterns in the species (see Kozlova, 1957).

It is noteworthy that the Ancient Murrelet is a bird familiar to the keenest

eskimo observers. The most reliable of those assured me that some can be seen during the winter, far offshore in the open leads.

Brachyramphus marmoratum marmoratum. Marbled Murrelet. Two individuals were seen together about four kilometers offshore in Kavalghak Bay on 29 July 1964. One of them was collected, a male weighing 234 g; its left testis was 6.9×3.0 mm. The specimen was assigned to the form *marmoratum* and is now no. 11874 in ZMUBC. Its summer plumage shows only very light signs of wear.

The present record does not constitute the most northerly one for *B. m. marmoratum*, since one spring specimen (19 May) was collected at the Diomed Islands in the Bering Strait (Kozlova, 1957), and one was obtained by Koren near Kolyuchin Bay on the north coast of Chukot Peninsula (Thayer and Bangs, 1914, *vide* Bent, 1919). To the south, the closest record is by Hanna (1920), who obtained a straggler on St. Paul in the Pribilofs on 13 January 1918.

No specimen of the genus *Brachyramphus* has ever been collected on St. Lawrence Island with the exception of a single humerus found in the middens and assigned by Friedmann (1934) to *brevirostre*. Fay and Cade (1959) have since accumulated several sight records of *Brachyramphus* which they assumed in the above publication to be *brevirostre*. It is not impossible that some of those were indeed *marmoratum* (Fay, personal communication).

Brachyramphus reportedly nests on the slopes of the interior mountains (Fay and Cade, 1959) and is referred to by the eskimo as the "fog-bird" (Tagi-tuekk). It is worth noting that the same name is used to designate the Ancient Murrelet, which is claimed by some informants to nest on the sea-exposed slopes on the eastern end of the island. Some confusion could have arisen from the distant likeness of both genera in winter dress, but the native informants are insistent that the similarity of designation is merely incidental and that there are indeed two different kinds of "fog-birds."

Plautus alle. Dovekie. One male of this species in full breeding plumage was collected on the eastern slope of Sevuokuk Mt. behind Arrsorâluk Camp on 4 July 1965. The bird was in company with several *Aethia cristatella*, *A. pusilla*, and *Cyclorhynchus psittacula*.

The specimen obtained had moderate fat (2 on a scale 0-4) and enlarged testes (14.9×6.1 and 11.8×6.2 mm); it is now no. 12492 in ZMUBC. The subspecific determination has not yet been attempted. Plumage is very lustrous with only slight wear on the tips of the remiges.

Altogether a total of five *Plautus* were observed in 1965, the earliest record was 24 May, when one bird was observed swimming at the periphery of a "raft" of *Aethia* spp. amidst the slowly opening leads in the ice, below the northern slope of Sevuokuk Mt. In June and July four more Dovekies were located in various points of this alcid colony, which stretches for about two kilometers in the vicinity of Gambell. Two of those were seen repeatedly on the same spots, and one of them, which was located by an eskimo around 10 July, was seen several times between that date and 8 August, landing faithfully within the same few square meters in an area densely populated by *Aethia*.

One of these birds was seen to display what could be called a "nest-site-prospection" behavior, and one was seen engaged in a loud chattering.

Most, if not all the eskimo, are familiar with the Dovekie to which they refer as "Ko-kek" or the "little murre." None was seen by me in 1964. But a few natives reported its presence, and their claims that it is present in small numbers year after

year are unequivocal. One reliable informant, who spent every summer of his early life in a traditional "fowling" camp amidst the alcid colony of Sevuokuk Mt., even pointed out to me, in addition to several prominent boulders where one could observe them landing year after year, two crannies in which pairs nested once or more in the past.

At any rate, the Dovekie appears to be more than a straggler. There is some evidence for its regular occurrence and perhaps even for its occasional breeding in the Bering Sea or more precisely in the northern third of it.

The fact that the species deserves a name in the eskimo dialect is significant and indicates the degree of familiarity which the natives have with the Dovekie. One would scarcely expect a straggler of so little food value to receive more than a metaphorical or descriptive name. But such is not the case here.

More convincing is the birds' early arrival in the area at a time when all possible routes between their known breeding grounds (North Land, Franz Josef Land) are tightly closed by ice. It is almost certain that the Dovekies observed in the spring and summer of 1965 on St. Lawrence Island had spent the preceding winter in the Bering Sea, presumably somewhere in the Aleutian district or at the edge of the pack-ice and presumably mixed with flocks of *Aethia* or *Cyclorrhynchus*, which they closely resemble ecologically. The only possible time for their reaching the Bering Sea is during their post-breeding dispersal in the early fall when several water routes are opened between their breeding grounds and the Bering Strait. It is also apparent that this process must be repeated with some regularity in order to account for their continuous presence, at least in the St. Lawrence Island waters. In the subsequent spring, they would aggregate freely with *Aethia* and *Cyclorrhynchus* and accompany them on their nesting grounds (observation of 24 May, only three days after the mass arrival of *Aethia* spp.). Their close association with the flocks of indigenous birds throughout the summer, their faithfulness to a perching site, and the fact that the specimen obtained had fully developed gonads lead me to think that they may well survive for several years and eventually breed in the Bering Sea.

It would not be surprising if a careful search would reveal the presence of *Plautus* in other colonies of St. Lawrence Island as well as in other breeding areas (King, Diomedé islands, coast of Chukot Peninsula, among others). As opposed to the three preceding species (Ancient, Marbled murrelets, Black Guillemot), which were most likely sexually immature individuals, *Plautus* is probably represented here by ice-locked individuals which normally reach maturity in the Bering Sea but are handicapped in breeding by their scarcity and the difficulty of finding a mate.

The available information suggests that there may well be among the North Pacific forms of Alcidae at least a partial northerly trend of dispersal among the sexually immature individuals. Such a trend has been recognized in some North Atlantic populations of *Uria aalge* (Salomonsen, 1944; Tuck, 1961). That a southerly trend of dispersal is present also in *Cepphus* and *Plautus* is indicated; but at least in the case of *Plautus*, there is conjectural evidence that it may indirectly result in true pioneering. At any rate, those records emphasize the importance of the Bering Strait seaway in the distributional history of the Alcidae, a fact which has been recently stressed by Udvardy (1963).

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