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DISCOVERY OF THE DOWNY YOUNG OF KITTLITZ'S MURRELET

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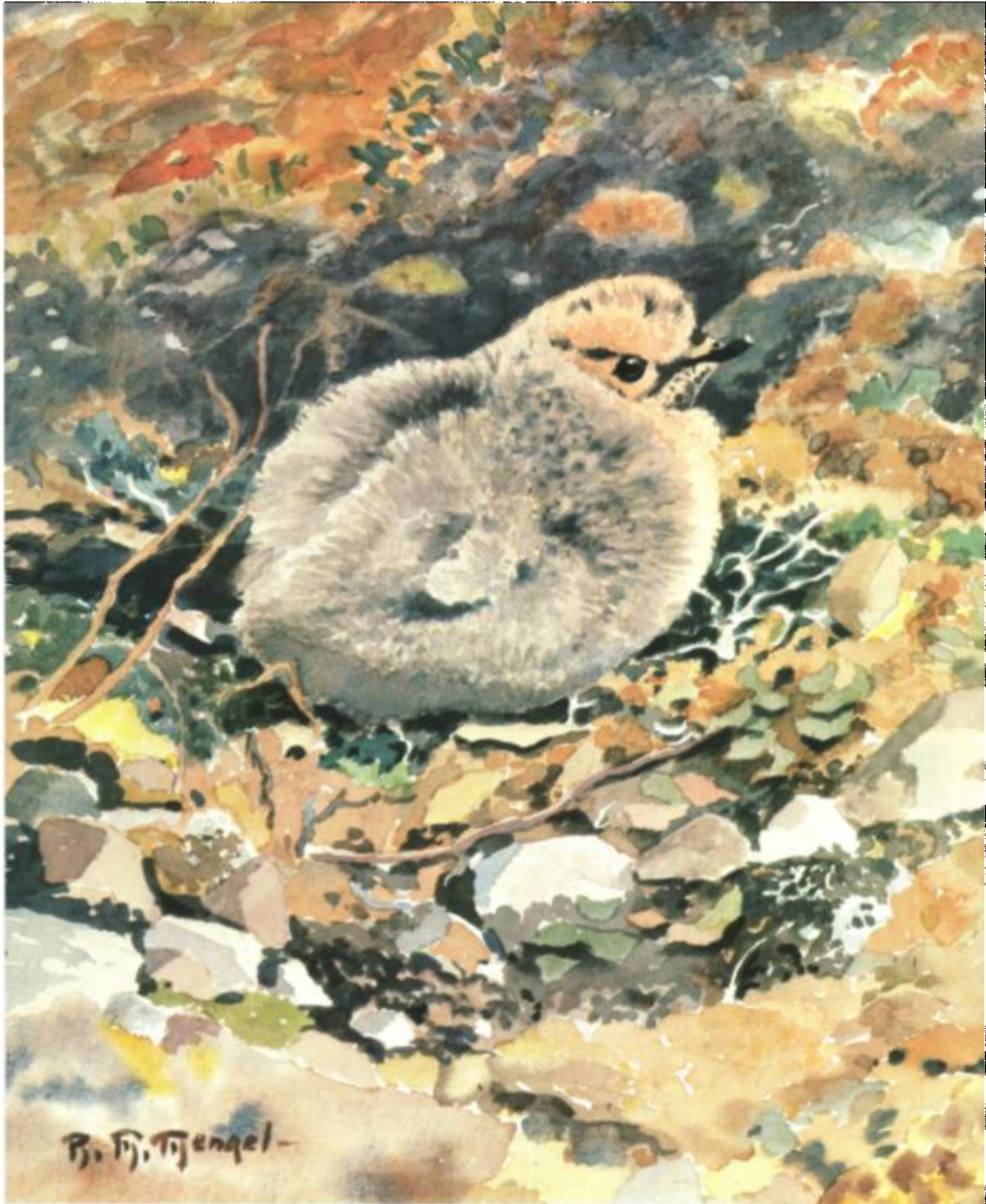
THE downy young of Kittlitz's Murrelet, *Brachyramphus brevirostre*, has remained unknown since the species was described by Vigors in 1828. J. E. Thayer (*Condor*, 16:117-118, 1914) first described the eggs, which were taken by F. E. Kleinschmidt on the side of Pavloff Mountain, 10 June 1913. This mountain is near the west end, and on the south side, of the Alaska Peninsula. Thayer's description included the following pertinent portions of Kleinschmidt's journal:

On June 5, while lying at anchor off Pavloff Bay, Alaska Peninsula, a trapper and miner came aboard, who saw me preparing skins of the Kittlitz and Marbled murrelets. He recognized the Kittlitz immediately, and said it was strange that a water bird should lay its egg far inland, high on the mountain sides, in the snow. Upon closer questioning he said he meant that the egg was laid, not on the snow, but far above timber line on the mountain, in bare spots, amid the snow. In the sixteen years he had been there he had found but two eggs, but he remembered well the eggs and bird. I had him describe the egg carefully before I showed him the one I possessed, and it tallied with his description.

On June 6, I was hunting brown bear for the Carnegie Museum, in company with this man, and while crossing a high divide, a Kittlitz Murrelet flew past us. "There is your bird," called the trapper immediately; "it has a nest here somewhere." On June 10, I saw with my glasses a she-bear and two cubs far up in the snow of Mount Pavloff. To reach them, I had to climb several miles inside the snow line, with only here and there a few bare spots to give me a much desired walking ground, when close to my feet rose a Kittlitz Murrelet. There on the bare lava, without even the pretension of a hollow, lay a single egg.

There are but three other records of this species nesting in Alaska. I. N. Gabrielson and F. C. Lincoln (*Birds of Alaska*, Harrisburg, Stackpole Co., 1959, p. 491) mention the following:

In a paper-covered pamphlet entitled "One Hundred Pictures of Little Known Alaska," published by the Rev. Bernard F. Hubbard, is a photograph of a "Rare Murrelet and egg" which Murie says "is undoubtedly that of a Kittlitz's Murrelet." The photograph was taken in the northern part of the Katmai National Monument in mid-July.



KITTLITZ' MURRELET, *Brachyramphus brevirostre*

DOWNY YOUNG APPROXIMATELY TWO DAYS OLD

From a water color by Robert M. Mengel based on a specimen and Kodachrome photographs from Angmakrog Mountain near Cape Thompson, Alaska
(approximately two-thirds natural size)

The other two published records are from Cape Prince of Wales (A. M. Bailey, *Proc. Colorado Mus. Nat. Hist.*, 18(1):105, 1943). In addition there are records, from the area of Glacier Bay, of birds with eggs in the oviduct.

On 26 July 1960, Ross Johnson found the nest of a bird on Angmakrog Mountain, 15.5 miles northeast of Cape Thompson, Alaska (165° 33' W long., 68° 17' N lat.). On 28 July 1960, Hines and Thompson returned to the area with Johnson in an attempt to find the nest and adult bird. Johnson had frightened the bird from its nest, the bird taking flight nearly under his feet. He described the egg to us as having a greenish-olive ground color with blotches of brown. The nest was found again, the egg had hatched, and the young (Frontispiece) still possessed an egg tooth. Pieces of egg shell were present. That evening, all attempts to secure the adult bird failed. However, early in the morning (0130 hours) of 29 July, Hines was able to obtain the adult thus verifying the specific identity of young and adult birds.

The nest site (seemingly unmodified by the birds) was in a depression on the *Dryas*-covered, fellfield slope. This depression apparently was a natural one on the lower side of a frost heave. The part of the "nest" next to the frost heave (uphill) was 78 mm deep, while the downhill side was 33 mm deep. The depression contained moss (*Rhacomitrium* sp.), plus a few limestone rocks about one half inch in diameter. The slope inclined about 15–20° westerly, and was strewn with limestone rocks. The nest was placed in a relatively smooth spot about 100 feet below the summit of this 1,500-foot mountain.

The plants of the nesting area were identified by Johnson (pers. comm.). These were matlike, growing among the frost heaves and large limestone rocks which cover approximately 50 per cent of the ground surface. Lichens were very abundant. Crustose lichens, together with mosses, occupied the area between the stones. The most abundant vascular plants were *Salix arctica*, *Saxifraga oppositifolia*, *Saxifraga punctata*, *Silene acaulis*, *Arenaria* sp., *Potentilla* sp., and some grasses (0.5 to 1.0 per cent), mainly *Festuca brachyphylla*. In the deeper depressions, *Carex* sp., *Arctogrostis latifolia*, *Saxifraga punctata*, *Saxifraga hirculus*, *Anemone* sp., *Salix arctica*, and mosses were abundant.

Following is a description of the downy young, in which color terms are those of the Villalobos Scale (Palmer, *Handbook of North American birds* New Haven, Yale Univ. Press, 1963; opposite p. 4): head near buffy yellow with black spotting; back medium gray suffused with buffy yellow, with a roughly rectangular blackish area resulting from the fact that the basal four-fifths of the down feathers in this area are black, the feathers being tipped with medium gray of a hue similar to the rest of the back;

throat buffy yellow suffused with black spotting becoming medium gray on the chest to pale gray on the belly; bill black with white egg tooth; legs and feet pink in front and blackish brown on back, webs dusky brown below, pale pinkish gray above, nails black; iris dark brown; weight 35.7 g; male (MCT orig. no. 1739; coll. Arctic Health Research Center, uncatalogued).

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