

KITTLITZ'S MURRELET COORDINATED OBSERVATION PROGRAM



KIMCOP



A COOPERATIVE EFFORT OF THE USGS/ALASKA SCIENCE CENTER  
AND THE USGS/ALASKA VOLCANO OBSERVATORY

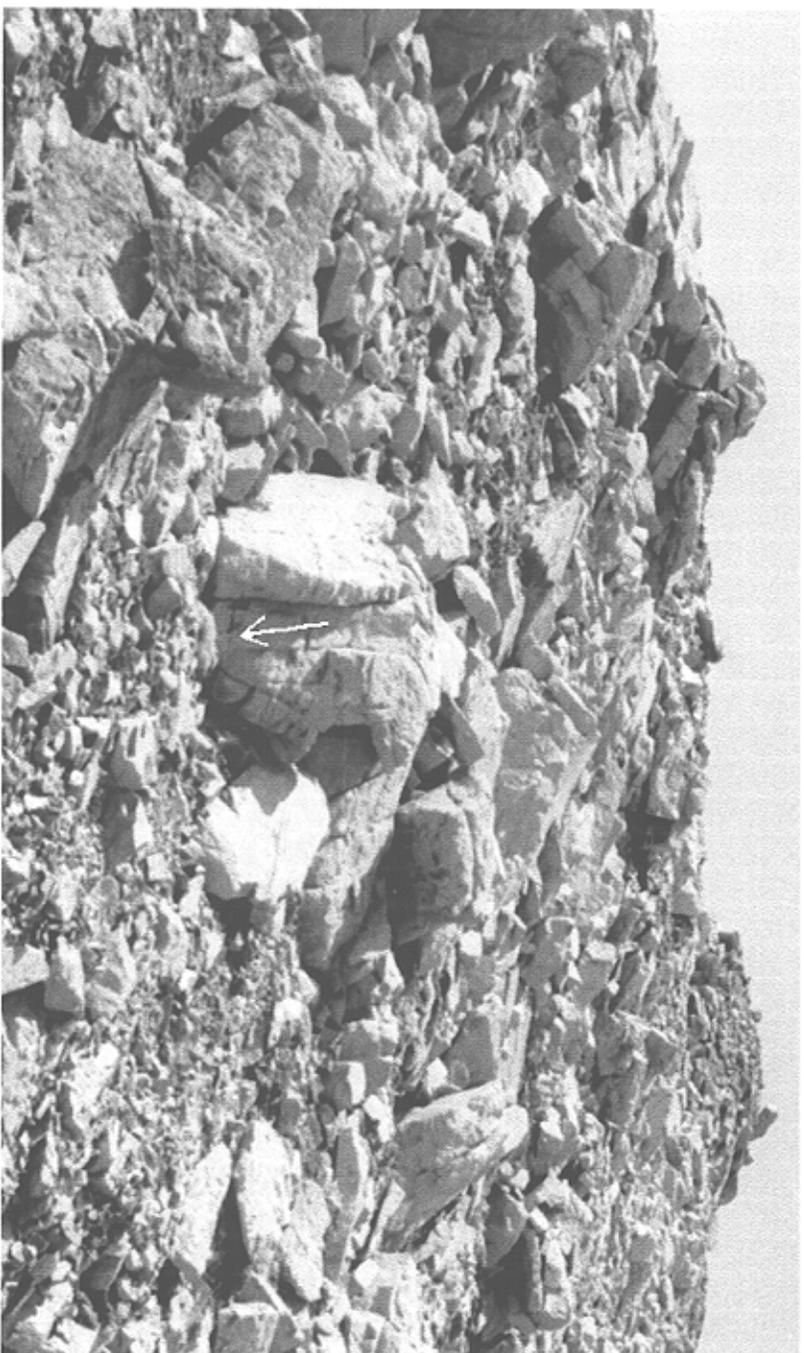
**BACKGROUND:** The Kittlitz's Murrelet (*Brachyramphus brevirostris*; "KIMU") is one of the rarest breeding seabirds in the North Pacific. Limited data suggest a total world population of about 20,000 birds. Except for small populations in the Russian Far East, most KIMU breed in Alaska. The KIMU appears to breed exclusively in recently deglaciated habitats, usually on alpine talus slopes. The nesting biology of the KIMU is poorly known, with only 17 confirmed nests described to date-- some as far as 70 km inland.

Kittlitz's Murrelets prefer to feed in marine waters adjacent to glacial outflows or near tidewater glaciers. Thus, the KIMU is an atypical seabird species, with both nesting and feeding areas that depend on glacial activity. The Biological Resources Division (BRD) of the USGS is interested in learning more about the ecology of this intriguing seabird, especially its link to glaciation. Any new information on KIMU will also be of value to resource and land managers.

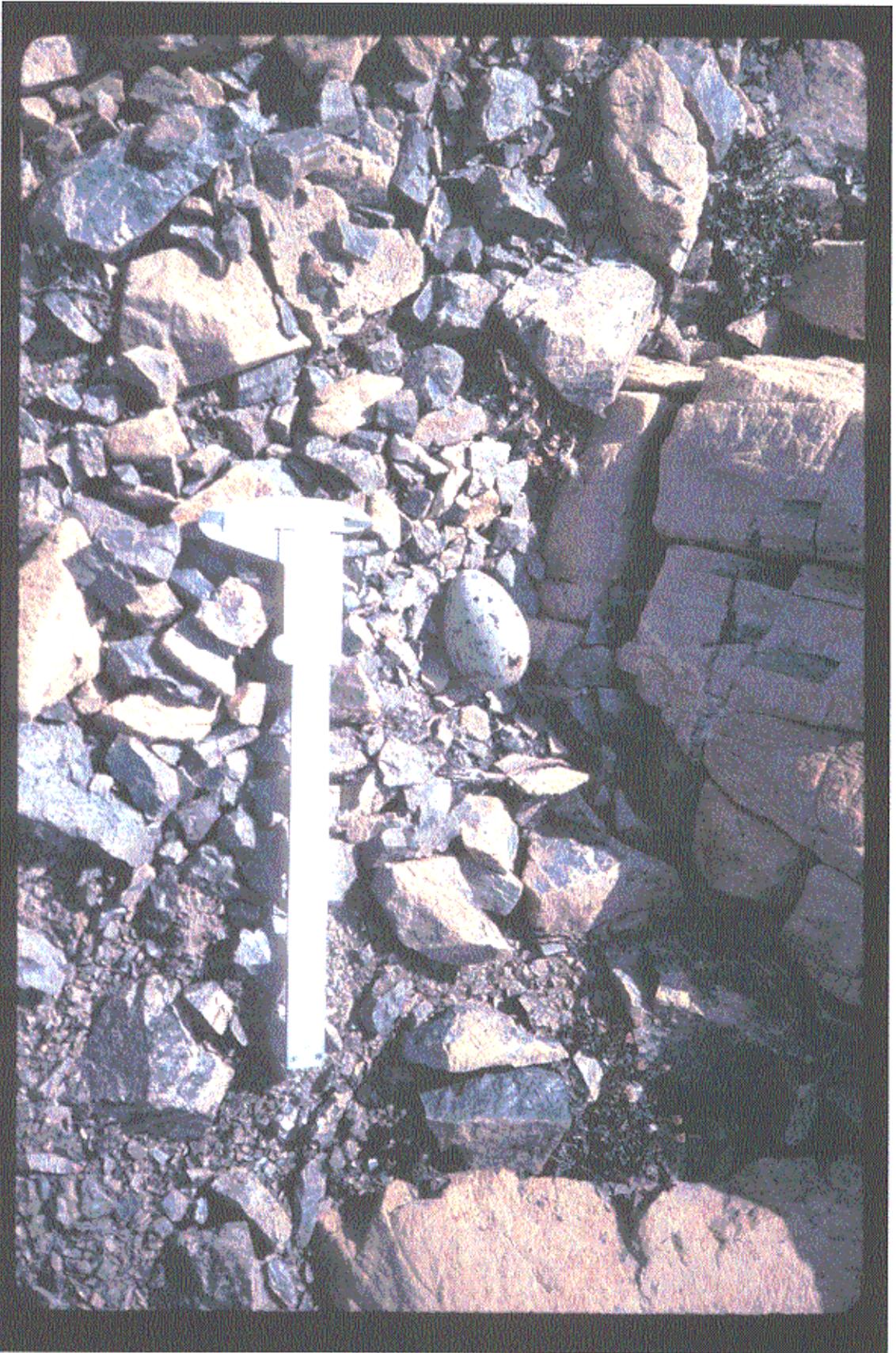
Improving our knowledge of KIMU nesting biology and nest-site habitat selection is an important step in conservation efforts. Owing to the cryptic coloration and secretive habits of breeding KIMU, however, searches for their nests have generally failed. Nearly all nests documented to date were found accidentally by geologists, surveyors, or naturalists who had reasons to be hiking in remote, post-glacial habitats. Several nests have been found on volcanoes with high-altitude glacier fields (e.g. Pavlof).

**PROGRAM OBJECTIVES:** Working in cooperation, the Alaska Science Center (USGS/BRD) and the Alaska Volcano Observatory (USGS) are initiating KIMCOP, a program to increase KIMU awareness among those people most likely to encounter KIMU nests. Such folks include geologists, biologists, surveyors, and backcountry hikers- most of whom might normally fail to recognize a nest of the little-known KIMU. We hope that the distribution of this package to people like you will result in new nest discoveries that otherwise would have been missed or remained unreported.

A series of three photos is included here, illustrating one example of KIMU nesting terrain, nest, egg, and chick. The last page gives contact information and outlines the kinds of data which could be taken at a KIMU nest by anyone, using basic equipment. We'd like to stress that any information on a suspected KIMU nest- even if only a location and a photo- would be an important contribution to the study of this enigmatic species!



Kitlitz's Murrelet nest with chick (arrow), near Red Mountain, Kenai Peninsula; shows representative Kitlitz's Murrelet nesting terrain.



Kittlitz's Murrelet nest with egg (60 mm long), showing typical nest construction and egg coloration.



Kittlitz's Murrelet chick in nest, near Red Mountain, Kenai Peninsula.

## KIMCOP: KITTLITZ'S MURRELET COORDINATED OBSERVATION PROGRAM

Kittlitz's Murrelets are pigeon-sized seabirds which typically nest on alpine talus slopes. Through much of their range, it would be difficult to confuse their nests with any other bird, except for ptarmigan. Kittlitz's Murrelets fly much faster and "buzzier" than ptarmigan- you will likely not see a nesting adult until almost on top of it, when it will quietly flush with surprising power and rapid acceleration. Look closely at the tail feathers as it flies away from you; take note of any light and dark patterns.

Kittlitz's Murrelets lay only one egg, and the chick is extremely downy and cryptic. If what appears to be a Kittlitz's Murrelet flushes from the ground near you, take a moment to search the immediate area for an egg or young chick. Minimize time spent at a nest (to avoid attracting predators or discouraging the adult from returning), but do take as much of the following data as possible. If time permits, build a cairn to facilitate relocation.

### PHOTOGRAPHS:

1. Close-up of egg or chick
2. Nest cup with egg or chick and scale reference (ruler, knife, or other)
3. Nest cup and ca. 5 meter diameter surrounding terrain
4. General view of terrain surrounding the nest
5. Distant shot from logical approach to nest, with cairn in background

### MEASUREMENTS AT NEST:

1. Nest cup diameter and depth
2. Dimensions of any sheltering large rocks, with distance to nest cup
3. Rough dimensions of rocks comprising the nest cup, as well as surrounding rocks
4. Average slope of the terrain at nest, and position relative to any nearby peaks
5. Aspect of nest (specify whether referenced to magnetic or true north)
6. Latitude and longitude (specify how determined; include accuracy if GPS fix)

### MEASUREMENTS OF EGG:

1. Dimensions (maximum length and width)
2. Weight

### MEASUREMENTS OF CHICK:

1. Wing chord length (from "elbow" bend to tip of longest down/feather)
2. Weight

### QUALITATIVE DESCRIPTIONS:

1. Describe nest location relative to USGS topo maps or local landmarks.
2. Describe (sketch) surrounding snowpack or estimated melt pattern.
3. Describe (sketch) nest's exposure to, or protection from, prevailing winds.
4. Describe surrounding vegetation.
5. Describe egg coloration, or chick coloration and behavior.
6. Note potential nest predators (ravens, raptors, foxes, etc.) seen in the area.

### PEOPLE TO CONTACT WITH INFORMATION ON SUSPECTED KITTLITZ'S MURRELET NESTS:

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