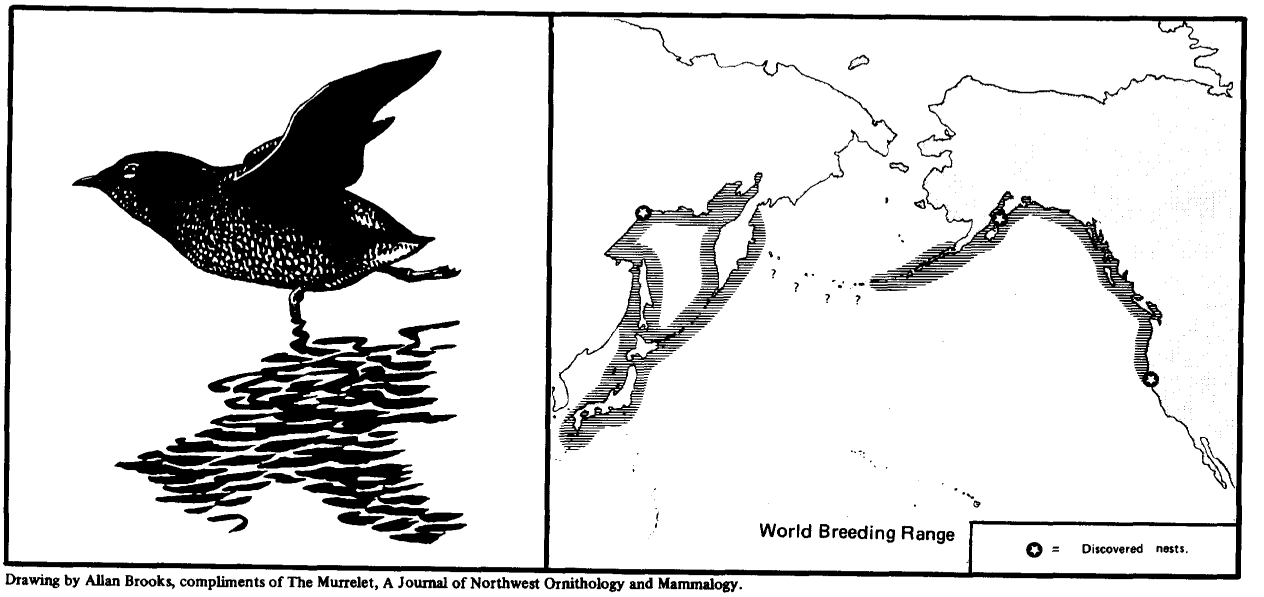
Marbled Murrelet *(Brachyramphus marmoratus)*



Drawing by Allan Brooks, compliments of The Murrelet, A Journal of Northwest Ornithology and Mammalogy.

NOTE

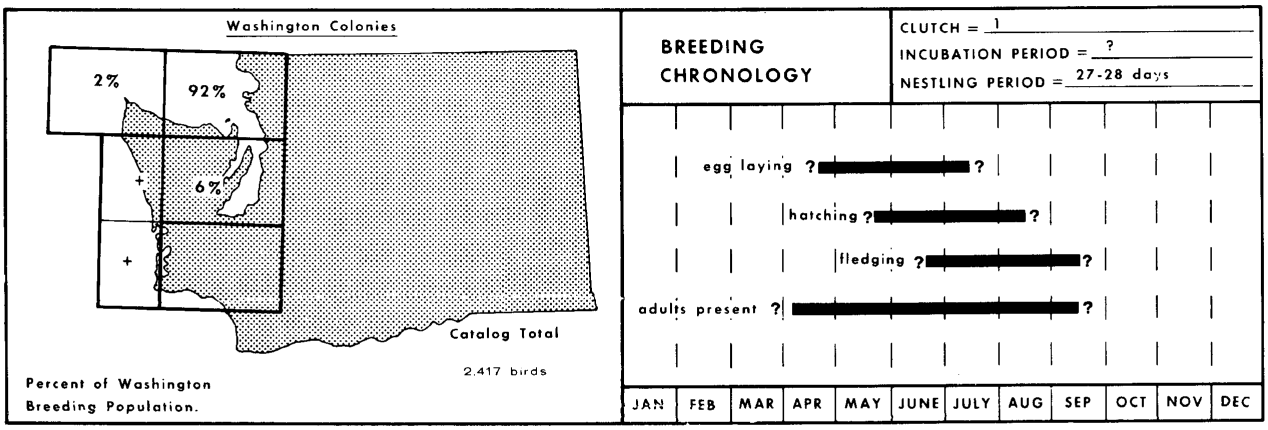
On January 15, 1988, the U.S. Fish and Wildlife Service received a petition from the National Audubon Society to add the Marbled Murrelet in California, Oregon, and Washington to the List of Endangered and Threatened Wildlife and Plants. A preliminary finding that the petitioned action may be warranted was published in the *Federal Register* on October 17, 1988. Further review is pending.

For additional information on this species, consult the following:

Marshall, D.B. 1988. Status of the Marbled Murrelet in North America: with special emphasis on populations in California, Oregon, and Washington. U.S. Fish and Wildlife Service Biological Report 88(30). 19 pp.

Copies of the publication may be obtained from the Publications Unit, U.S. Fish and Wildlife Service, Washington, DC 20240, or may be purchased from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161.

Marbled Murrelets are the least known, as to their breeding habits, of all the birds nesting in Washington. One of the earliest clues of their nesting habitat resulted from an egg found in Whatcom County, Washington (see Kiff 1981), but they remain for all intents and purposes "mystery birds" in the State. Only four nests have been found throughout the species' wide range around the perimeter of the North Pacific. One was found in Siberia (Kuzyakin 1963), one in California (Binford et al. 1975; Singer and Verardo



1975), and two in the Barren Islands in Alaska (Simon 1980; Hirsch et al. 1981). Kiff (1981) recently reviewed the known eggs and nests of this species.

Of the four nests, both the Siberian and California nests were found in trees, but the Alaskan nests were found on the tundra of a treeless island. The Siberian nest was found in the upper branch of a larch (Larix dehurica) 6.8 meters above the ground (Kuzyakin 1963). The California nest was found 45 meters above the ground on a moss-covered limb of a douglas-fir (Pseudotsuga menziesii) in northern California (Binford et al. 1975). This nest contained a Marbled Murrelet chick sitting in a small depression encircled by droppings.

Binford et al.(1975) theorized that the pale green egg, the cinnamon brown breeding plumage of the adult, and the light brown nestling are cryptic adaptations for nesting in trees. The entire breeding population of this species in California is suspected to nest in trees; and while this is likely also for Washington, the use of talus slopes or other ground sites cannot be ruled out.

Marbled Murrelets seen offshore are almost always in pairs and within about one kilometer of the shoreline. This is true all year, though they aggregate in foraging areas during the summer and in winter have been seen in large flocks, including one of over 5,000 birds passing Point Roberts, Washington (Wahl et al. 1981). Breeding birds return to their nests in the evening and depart at dawn (Sowls et al. 1980), and flights of calling birds over inland coastal forests in California are similar to reports in Washington (e.g., Dawson and Bowles 1909).

Marbled Murrelets, like all other alcids, spend a large percentage of the time on the water. They feed on fish and less frequently on crustaceans (Sealy 1975).

WASHINGTON POPULATION

Marbled Murrelets are present during the breeding season along almost all of Washington's marine

shoreline, but they are concentrated in certain areas. These concentrations likely are related to foraging opportunities, but the locations are also frequently near forested areas relatively undisturbed by humans. These include the Olympia Peninsula, particularly near Tongue Point and Voice of America, the south shore of Lopez Island, the southwestern shoreline of Lummi Island, and Obstruction/Peavine Passes between Orcas and Blakely Islands in the San Juan's. Marbled Murrelets also gather in loose but sizeable aggregations where fish runs appear to be heavy, as in Hale Pass, Whatcom County, during the season when Pacific herring (Clupea harengus) are spawning near Cherry Point.

Estimating numbers of Marbled Murrelets in Washington present at any season, including the breeding season, is difficult, considerably more so than in the case of the Pigeon Guillemot. We have treated it here similarly to that species and have estimated numbers by geographic subregion (see Appendix C). Numbers are likely underestimated as censusing was often done from fast-moving small boats or aircraft, and Marbled Murrelets in breeding plumage are inconspicuous under many conditions of observation. Data are almost completely lacking for areas along the outer coast of Washington, small concentrations along the northern section of the coast (Speich, pers. obs.), and numbers often are observed along the shoreline near Ocean Shores and in the Grays Harbor channel during the breeding season (Wahl, pers. obs.). The estimates presented here are intended to aid further investigations into the biology of this species. These estimates are based on our systematic censuses only, and many reports from other sources are useful in specific investigations of this little-known species. While the catalog total estimate is 2,417 breeding birds, insufficient coverage and difficulties of censusing lead us to believe as many as 5,000 Marbled Murrelets may nest in Washington.

HISTORICAL STATUS AND VULNERABILITY

There is virtually no information on the historical status of Marbled Murrelet breeding populations in Washington, though birds in breeding condition were collected in Puget Sound in the 1850's.

Disturbance to nesting birds probably has been and will continue to be primarily through the destruction of nesting habitat, particularly if, as strongly suspected, they nest in trees. Populations may have been reduced by the reduction of old-growth coastal forests. We suspect Marbled Murrelets may have formerly been more abundant than they are today.

Marbled Murrelets are vulnerable to oil contamination since they are often found very close inshore, feeding in tidal fronts and other places where their prey concentrates. This impact can be considered in perspective by referring to subregion estimates which indicate areas of concentration.

FIELD NOTES

The authors would appreciate copies of your field notes for updates