



Marbled Murrelet – *Brachyramphus marmoratus*

Listing status: Federally listed threatened species in Washington, Oregon and California

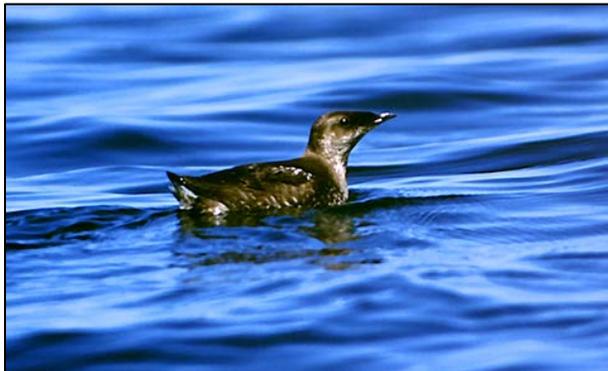
Marbled murrelets are pigeon-sized seabirds that live along the Pacific coast of North America from California to Alaska. The marbled murrelet is an extremely secretive seabird that nests in older forests and forages in nearby marine waters. They are adapted for both underwater (to pursue prey) and aerial flights. In Washington, they have been seen up to 50 miles from marine water but primarily use suitable habitat within 40 miles of the coast.

Washington’s populations occur mainly in northern Puget Sound, Strait of Juan de Fuca, and northern Pacific Coast. While at-sea distribution varies over time and location there is a general shift in winter abundance eastward from the Strait of Juan de Fuca to Puget Sound and San Juan Islands.

In fall and winter, British Columbia populations move south to the Puget Sound.



Marbled murrelet with winter plumage. Photo: Rich MacIntosh



Breeding plumage. Photo: Aaron Barna



Juvenile (hatch-year) marbled murrelet just before fledging from nest. Photo: Tom Hamer

Marbled Murrelet Plumage and Breeding Season

Males and females have identical plumage that varies seasonally. When breeding, they are dark above with rust-color tips of the back feathers, and heavily mottled below. This “marbled” pattern is thought to protect breeding birds from detection by predators in forested habitats. In winter, adults have a brown-grey upper body, and white lower body. Juvenile and adult birds only can be distinguished for a brief period in late summer and early fall.

Life Cycle

Marbled murrelets nest inland, mainly on broad mossy ‘platforms’ limbs of large conifer trees. Each female lays a single egg, cared for by both parents. Parents take turns incubating the egg, exchanging places in the pre-dawn darkness. Egg incubation lasts for about 30 days. After hatching, the chick is left largely unattended. For about 30 days, the parents provide the nestling with fish, mainly at dawn and dusk. There is no evidence of parental care during or after fledging. On their first flight, fledgling murrelets must fly from the forest to marine waters and then fend for themselves.

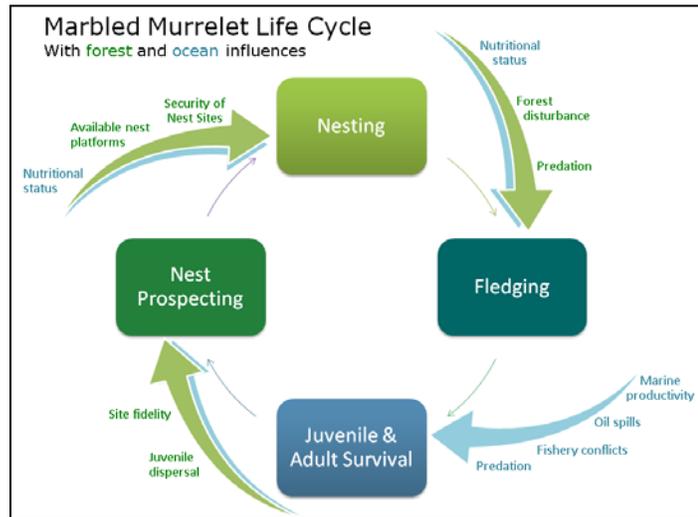
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Habitat Use

Marbled murrelets have the unique behavior of foraging in marine waters and flying inland to nest in large conifer trees—on large, broad mossy horizontal branches or other suitable platforms, with a preference for mature and old forest in Washington, Oregon and California.

DNR's [State Trust Lands HCP](#) (1997) defines platform structures as 7 inches or greater in diameter and 50 feet or greater in height. Nesting sites are usually found in old forests of 175-to-600-years of age. While nesting habitat generally is in older forests, nests have been found in younger forest stands that have remnant old trees, and also in trees as young as 80 years that have developed platforms from damage by mistletoe, storms, or other causes.



Murrelets prey primarily on [near-shore forage](#) such as Pacific herring, northern anchovy, Pacific sand lance, and capelin. Fish comprise 60-to-100 percent of the diet. During the breeding season, murrelets have been observed feeding on juvenile salmon in freshwater lakes, although typically they are found offshore of areas with abundant nesting habitat. Other physical and biological marine processes may affect prey concentrations, which can affect murrelet at-sea distribution—including water upwelling, outflow of large rivers, shelves at mouths of inlets, shallow banks, rip currents, tidal eddies, and kelp beds. Fewer birds are found further from the shoreline, and juvenile birds tend to remain closer to shore.

Why are marbled murrelets included in the Aquatic Lands HCP?

The *Aquatic Lands Habitat Conservation Plan* (HCP) addresses 29 species of animals that depend on submerged or intertidal lands for either all or a significant portion of their life history. Specific threats that warrant protection for marbled murrelets include:

- Changes in forage fish populations
- Changes in habitat structure and distribution
- Increased nest predation
- Decline in water and sediment quality
- Physical harm or harassment from covered activities

The Washington State Department of Natural Resources is the steward of more than 2.6 million acres of state-owned aquatic lands beneath Washington's navigational lakes, rivers, marine waters, estuaries and many tideland beaches. DNR sustainably manages these aquatic lands on behalf of the people of the state—to protect fish and wildlife and to provide opportunities for commerce, navigation, and public access.

The increased demand for the use of aquatic lands can be harmful to aquatic habitats and species. To encourage a balanced approach to managing and protecting these lands, DNR is developing an *Aquatic Lands Habitat Conservation Plan*. The HCP will provide a framework for managing the aquatic lands under DNR's stewardship to ensure the continued health of our state's marine and fresh waters and the species that inhabit them. Visit DNR's to learn about the other species that are covered in the plan: www.dnr.wa.gov/aquaticHCP; and DNR's [Marbled Murrelet Conservation Strategy](#), being developed.

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