



Mountain Loop Conservancy Fact Sheet:

Marbled Murrelet *Brachyramphus marmoratus*

Range: From Sakhalin Island to Kamchatka on the Asian side of the Pacific Ocean and from Alaska's Kodiak Island south to central California on the North American side of the Pacific.



Identification: This robin-sized seabird measures 9-10.5 inches (24-27 cm) in length. They have a short neck, rounded body, pointy bill and a short tail. In breeding plumage, marbled Murrelets are dark brown above and mottled or "marbled" brown and white on their undersides. In winter, they are dark brown above and mostly white on their undersides and on their shoulders. The undersides of their wings are dark brown. A dark partial collar is visible in their winter plumage. Young birds are dark brown above and white below with light mottling. Their call is a series of loud, high *Kree* notes.

Unique characteristics: This seabird was discovered over 200 years ago but its breeding habits were a mystery until the 1960's. At that time, a Siberian ornithologist found a nest in a huge tree in Kamchatka. A nest was located in the Santa Cruz Mountains of California in 1974. While most seabirds nest close to shore, marbled murrelets are known to nest as far as 50 miles (80 km) inland from the ocean. Marbled murrelet www.HamerEnvironmental.com ©

Habitat Needs and Life History: This small seabird spends most of its time at sea within about 1-3 miles (2-5 km) of shore. They can be seen in bays and sounds and occasionally on rivers and lakes within 12 miles (20 km) of the ocean. Marbled murrelets are generally found singly, in pairs, or in small groups. In flight, this bird has a low, zigzagging flight pattern. Its small, stubby wings enable it to "fly" underwater like a penguin. They dive to depths up to 98 feet (30 m) and feed on fishes, crustaceans, and mollusks.

The breeding season for marbled murrelets begins in March or April. The birds move to mature/old growth forests in May. Most nest sites have been located 29-52 miles (47-84 km) inland but nests have been located as far as 61 miles (102 km) from the ocean. The nest is located in a mature tree and consists of a shallow, moss or lichen-lined depression 120-150 feet (37-46 m) above ground level. Nests are located on large, horizontal limbs or in "witch brooms" created by dwarf mistletoe infections. The female murrelet lays a single egg. Both parents incubate the egg in 24-hour shifts over a 30-day period. Murrelets minimize movement when on the nest and rely on that, and their cryptic coloration, to avoid predators. Parents visit and feed the nestling 2-4 times daily. Most feeding occurs at night or around dusk or dawn. Young birds fledge in 27-40 days and begin to appear in coastal areas in early summer months. Marbled murrelets may live as long as 25 years. "Witch broom" formations in a mature Douglas-fir tree



Status and Conservation: Population numbers of marbled murrelets are very rapidly declining worldwide. In parts of Washington, Oregon, and California, Murrelets are rare or uncommon where they were once abundant in the early 1900's. They are listed as a "threatened" species in Canada and the United States. They are threatened at the state level in Washington, Oregon, and California. Threatened species are likely to become endangered if unfavorable factors affecting the species and their habitat are not managed. Marbled murrelets are threatened due to several factors. These include:

Loss of nesting habitat – Nesting birds are dependent on finding large trees in mature forests for nest sites. Timber harvesting of prime murrelet habitat has decreased their ability to find adequate nest sites. Where logging or other disturbances occur, "edges" form. Predation by ravens, crows, and Steller's jays increases in edge habitats. Nesting becomes more concentrated in the remaining islands of habitat and predation is higher in those areas.

Changes to marine environment – Fish farming facilities can adversely affect marbled murrelets. They can become entangled in nets, displaced from traditional feeding areas, have their food source contaminated with antibiotics and antifoulants, and have the water polluted with decomposing fish food and excrement. Climate change and overfishing by humans has caused a change in prey availability. If there is not enough of the right kind of prey, murrelets do not build as many nests and/or abandon established nests.

Gill nets – Marbled murrelets are vulnerable to drowning in gill nets in some parts of their range. Gill net mortality is highest north of Oregon.

Oil pollution and energy developments – Since murrelets tend to concentrate in areas near shore, they are vulnerable to both chronic pollution from sea vessel traffic and catastrophic oil spills. The 1989 Exxon Valdez oil spill in Alaska killed an estimated 12-15,000 marbled murrelets. As new energy sources are developed, such as wind and tidal power, there will be impacts on murrelets.

Reproductive rate – Murrelets lay one egg per pair per season so they are more fragile than species with higher reproductive rates.

Noise – Marbled murrelets can be affected by noise in both marine and terrestrial environments. They are extremely sensitive to underwater noise such as detonations and pile driving. In terrestrial environments, they are sensitive to prolonged noise (lasting longer than 10-15 minutes) near nest sites. Noise can be associated with nest failure.



Interesting Facts: Only 29 nests of this secretive bird have been located in Washington State. Marbled murrelet populations in the U.S. are declining at a rate of 4-7 % per year. The U.S. Fish and Wildlife Service may increase their protection by listing them as 'endangered' in the future.

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