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Marbled Murrelet

Brachyramphus marmoratus

General Information

Official Status: Threatened, the marbled murrelet is Federally listed under the Endangered Species Act as a threatened species in Washington, Oregon and California, and State-listed as endangered in California and as threatened in Oregon and Washington. Critical habitat is designated for the species and a new proposal for critical habitat is available for review. A final recovery plan is in effect.

Date Listed: September 28, 1992; [Federal register 57 FR 45328](#) (pdf, 1.5 MB)

Critical Habitat: October 4, 2011; [Federal register 61 FR 26256](#) (pdf, 3MB). [Critical Habitat GIS data](#).

Recovery Plan: [Recovery Plan for the Marbled Murrelet](#) (Washington, Oregon, and California Populations, 1997) (pdf, 15MB)



Marbled Murrelet at Sea

Photo Credit: Thomas Hamer,
Hamer Environmental L.P

 [Photo Gallery for Marbled Murrelet](#)

Identifying Characteristics:

The marbled murrelet is a small Pacific seabird belonging to the family Alcidae. They are fast fliers with rapid wingbeats and short wings. Males and females have sooty-brown upperparts with dark bars. Underparts are light, mottled brown. Winter adults have brownish-gray upperparts and white scapulars. The plumage of fledged young is similar to that of adults in winter. Chicks are downy and tan colored with dark speckling.

Current Geographic Range:

The breeding range of the marbled murrelet extends from Bristol Bay, Alaska, south to the Aleutian Archipelago, northeast to Cook Inlet, Kodiak Island, Kenai Peninsula and Prince William Sound, south coastally throughout the Alexander Archipelago of Alaska, and through British Columbia, Washington, Oregon, to northern Monterey Bay in central California. Birds winter throughout the breeding range and also occur in small numbers off southern California.

Life History:

Marbled murrelets are long-lived seabirds that spend most of their life in the marine environment, but use old-growth forests for nesting. Courtship, foraging, loafing, molting, and preening occur in near-shore marine waters. Throughout their range, marbled murrelets are opportunistic feeders and utilize prey of diverse sizes and species. They feed primarily on fish and invertebrates in near-shore marine waters although they have also been detected on rivers and inland lakes.

Marbled murrelets produce one egg per nest and usually only nest once a year, however re-nesting is documented. Nests are not built, but rather the egg is placed in a small depression or cup made in moss or other debris on the limb. Incubation lasts about 30 days, and chicks fledge after about 28 days after hatching. Both sexes incubate the egg in alternating 24-hour shifts. The chick is fed up to eight times daily, and is usually fed only one fish at a time. The young are semiprecocial, capable of walking but not leaving the nest. Fledglings fly directly from the nest to the ocean.

General Habitat Characteristics:

Marbled murrelets spend the majority of their lives on the ocean, but come inland to nest. They generally nest in old-growth forests, characterized by large trees, multiple canopy layers, and moderate to high canopy closure. In the non-forested portions of Alaska however, murrelets can also nest on the ground or in rock cavities. In California, nests are typically found in coastal redwood and Douglas-fir forests. These forests are located close enough to the marine environment for the birds to fly to and from nest sites. Nests have been found inland from the coast up to a distance of 50 miles in Washington State.

Population and Habitat Status:

All population modeling efforts to date that predict murrelet population trends in to the future

have concluded that the listed population exhibits a long-term downward trend. Monitoring to determine a trend in murrelet populations began in 2000 with standardized at-sea surveys and has continued annually since, as part of effectiveness monitoring for the Northwest Forest Plan. The population point estimates from this monitoring are as follows: year 2000, 18,571 birds; year 2001, 22,180 birds; year 2002, 23,673 birds; year 2003, 22,217 birds; year 2004, 20,578 birds. At least 10 years of surveys are needed to adequately document trends in population size.

The amount of suitable habitat has continued to decline throughout the range of the marbled murrelet, primarily due to commercial timber harvest. The precise amount of suitable murrelet habitat within the listed range is unknown.

Threats:

Threats include loss of habitat, predation, gill-net fishing operations, oil spills, marine pollution, and disease. Recent reviews have concluded that the risk of predation is currently a larger threat than previously considered.

Conservation Needs:

In general, stabilizing and increasing habitat quality and quantity on land and at sea are the primary means for stopping the current population decline and encouraging future population growth. Conservation actions are categorized by short-term and long-term actions and are identified as follows:

Short-term conservation actions:

1. maintain all occupied nesting habitat on Federal lands administered under the Northwest Forest Plan;
2. on non-Federal lands, maintain as much occupied habitat as possible and use the Habitat Conservation Plan process to avoid or reduce the loss of habitat;
3. maintain potential and suitable habitat in large contiguous blocks;
4. maintain and enhance buffer habitat surrounding occupied habitat;
5. decrease adult and juvenile mortality; and
6. minimize nest disturbances to increase reproductive success.

Long-term conservation actions:

1. increase the amount and quality of suitable nesting habitat;
2. decrease fragmentation of nesting habitat by increasing the size of suitable stands;
3. protect "recruitment" nesting habitat to buffer and enlarge existing stands, reduce fragmentation, and provide replacement habitat for current suitable nesting habitat lost to disturbance events;
4. speed up development of new habitat; and
5. improve the distribution of nesting habitat across the landscape

Related Documents:

- [Marbled Murrelet 5-year Review](#) (pdf, 880 KB)
- [Evaluation report for the marbled murrelet 5-year status review](#) (pdf, 7 MB)
- [Regional Population Monitoring of the Marbled Murrelet: Field and Analytical Methods](#) (pdf, 1.6 MB)
- [10-year report for the Northwest Forest Plan: Marbled Murrelet](#)

- [2003 Methods for Surveying Marbled Murrelets](#) (pdf, 3 MB)
- [California Marbled Murrelet Forest Survey Form](#)
- [Estimating the Effects of Auditory and Visual Disturbance of NSO and MM in Northwestern California](#) (pdf, 1 MB)

Other Informational Weblinks:

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