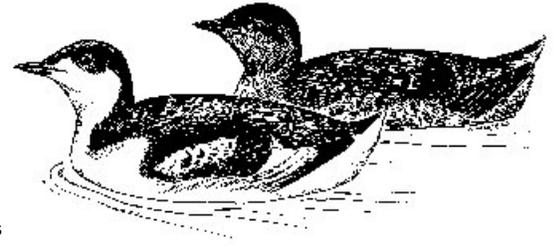


## Marbled Murrelet

The **Marbled Murrelet** (*Brachyramphus marmoratus*) is a small robin-sized seabird that nests in coastal old-growth forests. It is the only tree-nesting seabird, often flying miles inland to nest on mossy limbs of the rainforest canopy. In North America, the species range stretches along the Pacific coast from the Bering Sea to central California, with the largest populations occurring in southeastern Alaska.

**Identification:** Marbled Murrelets are in the same family as auklets, puffins and murre. All members of the Alcidae family swim under water, propelling themselves with their wings, much like their Penguin counterparts in the southern hemisphere. These birds have slender black bills, long, narrow wings and short tails. Murrelets, like many birds, have two different sets of plumage. During the breeding season, adult murrelets are marbled gray-brown, providing excellent camouflage at their nests. In winter, feathers are black above, white and gray below with white shoulder patches and a white throat. Juvenile birds resemble adults in winter plumage. Marbled Murrelets have a distinctive high pitched “keer, keer” call, making them easy to identify.



**Range and distribution:** Marbled Murrelets live in a narrow band along the Pacific coast of North America, from the Aleutian Islands of Alaska through British Columbia, Washington, Oregon to central California. Over 85% of the world's population of Marbled Murrelets resides in Alaska.

Murrelets are generally found in near-shore waters (within 3 miles from the coast) with nesting areas nearby. Some birds may venture miles inland to suitable nesting habitat. While some murrelets remain at breeding areas year-round, others migrate further south. It remains a mystery where the majority of Alaska's murrelets spend the winter.

**Life history:** Murrelets are relatively long-lived birds with an average lifespan of 10 to 15 years. Marbled Murrelets have been called “the Enigma of the Pacific” as they are one of the last birds in North America to have their nest described. In the United States, the first documented nest was discovered in 1974 high up in a Douglas fir tree in California's Big Basin Redwoods State Park. A small number of murrelet nests have been found in Alaska including, some on the ground usually on moss-covered ledges.

Beginning in early April, murrelets make their way from wintering areas to coastal inlets and bays for breeding. Pairs typically initiate nesting in May, although some birds may initiate nests as late as July. Murrelets do not build a nest; instead they usually nest on moss-covered limbs high in the forest canopy.

A single egg is laid in a shallow depression in the moss. The male and female share in incubating the egg for 28-30 days. They exchange incubation duties under the cover of darkness presumably to avoid leading predators, such as corvids and raptors, back to the nest. Soon after hatching, the chick is left alone on the nest, growing rapidly on a diet of small fish over the next 30 days. The parents take turns flying from sea back to the nest 3-5 times a day, returning with a single fish carried in their bill. The young murrelet must reach the ocean on its very first flight. Landing anywhere short of the ocean means likely death for the chick, as Marbled Murrelets are unable to take off once grounded in the thick understory of the forest. Flying on its own, the fledgling must navigate over the forest to the sea. Young murrelets, with their distinctive black and white plumage, are seen on Alaska's waters beginning in July with numbers increasing through the end of the month.

A single egg is laid in a shallow depression in the moss. The male and female share in incubating the egg for 28-30 days. They exchange incubation duties under the cover of darkness presumably to avoid leading predators, such as corvids and raptors, back to the nest. Soon after hatching, the chick is left alone on the nest, growing rapidly on a diet of small fish over the next 30 days. The parents take turns flying from sea back to the nest 3-5 times a day, returning with a single fish carried in their bill. The young murrelet must reach the ocean on its very first flight. Landing anywhere short of the ocean means likely death for the chick, as Marbled Murrelets are unable to take off once grounded in the thick understory of the forest. Flying on its own, the fledgling must navigate over the forest to the sea. Young murrelets, with their distinctive black and white plumage, are seen on Alaska's waters beginning in July with numbers increasing through the end of the month.

**Food habits:** In Alaska, Murrelets eat small schooling fish, such as Capelin, Pacific Herring and Pacific Sand Lance, as well as shrimp-like crustaceans. Murrelets are excellent swimmers and use their strong wings to literally “fly” underwater to forage at depths up to 100 feet. The distribution of prey largely influences the distribution of murrelets throughout the year.

**Threats:** Marbled Murrelets face a number of threats, which contribute to observed declines in populations across much of their range.

The loss of old-growth nesting habitat due to logging, primarily in the southern half of its range, is thought to be the most significant threat to the species. Oil spills can severely impact murrelet populations through oiling of the birds' feathers. And there is concern in Alaska and Canada regarding the numbers of murrelets that are entangled in commercial fishing nets. Changes in the marine environment driven by global climate change are likely affecting the abundance and distribution of prey species that these birds depend on.

**Conservation:** In 1992, the U.S. Fish and Wildlife Service (USFWS) listed the Marbled Murrelet as Threatened in Oregon, Washington and Endangered in California under the Federal Endangered Species Act. They are a red list species in Canada, which is similar to the U.S. listing as a threatened species. Populations are declining at an annual rate of 4-7% across the southern portion of their range. It is believed that Marbled Murrelets will likely become extinct in California within the next 40 years.

Conservation of the species is strongly dependent upon the protection of its nesting habitat and continued productivity of its marine habitat. Given the importance of Alaska to the bird's future, we need to closely monitor population trends in this bird, and take steps to ensure its survival. The Alaska Department of Fish and Game's Non-Game Program, with funding from the Federal State Wildlife Grant Program, is working cooperatively with other agencies and organizations on several research projects in southeast Alaska. This program has been established to ensure that species such as the Marbled Murrelet stay healthy and abundant in their remaining strongholds.

**Text:** Kristen Romanoff and Matthew Kirchhoff

**Illustrator:** Kathy Hocker

**Printed in 2006**