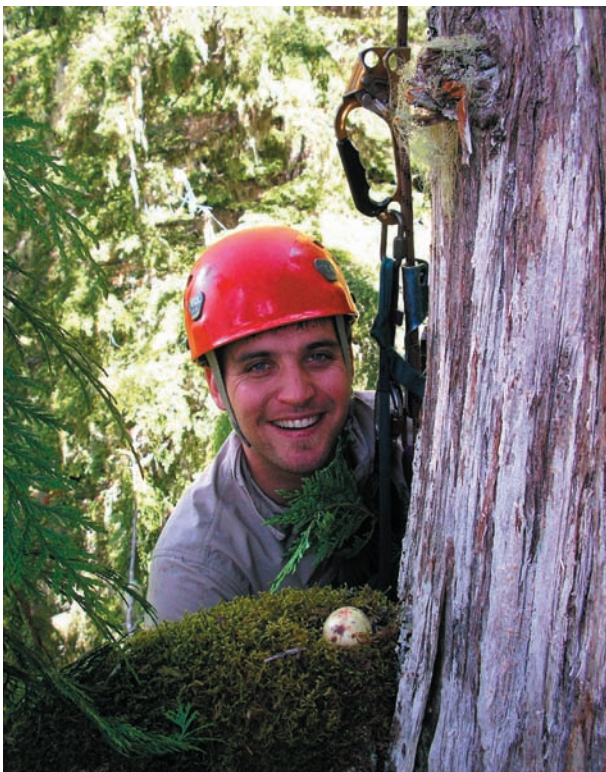




Foot Prints

Mysterious murrelets: Where are they nesting?

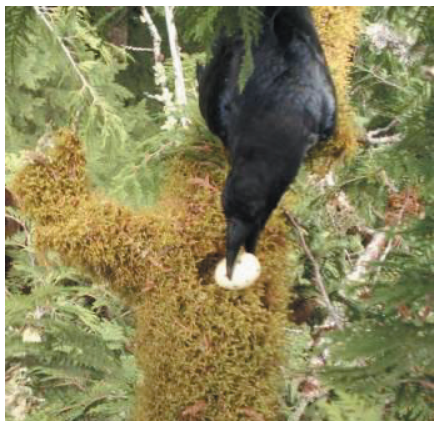


Josh Malt places an artificial murrelet egg on a moss covered red-cedar branch

Known to the Canadian Wildlife Service as “the most mysterious bird on the Pacific coast of Canada”, the Marbled Murrelet nests on the mainland in almost total obscurity. Although they are often seen on the water, and were discovered over 200 years ago, British Columbian observers have only seen one occupied nest!

This seabird feeds in marine waters on a variety of fish and crustaceans that are caught while diving underwater for up to 30 seconds. The mysterious behavior surrounding this bird is its choice of nesting habitat. Flying as far as 70 km inland, they build simple cup nests in moss on thick branches that are 20 to 40 m above ground. Suitable nesting platforms are found in old growth and mature forests, particularly in trees that are at least 200 years old.

The secretive nesting behavior of murrelets makes them notoriously difficult to study. In fact, until 1974, when the first nest was found in California, scientists had no idea where they nested. Fortunately, a large sample of nests has recently been found in British Columbia using radio telemetry. This technique involves capturing murrelets on the water during nighttime, using spotlights and “dip nets”. After radio transmitters are attached, murrelets can be located at their nests using radio telemetry from planes, helicopters, and on the ground. Another useful technique for studying murrelets is marine radar, which can be used to count the number of murrelets “commuting” between inland nest-sites and marine feeding areas. This is done early in the morning, as murrelets fly under the cover of darkness before sunrise to avoid predators.



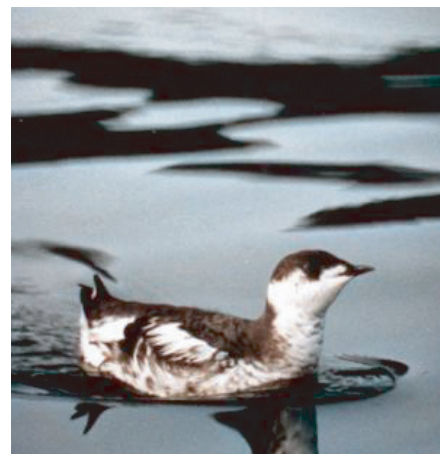
A raven preys on an artificial murrelet egg (Josh Malt)

While habitat loss is a concern, murrelets may also be at risk due to predators such as Steller's jays and Ravens, which eat their eggs and chicks. For his master's thesis, Josh Malt (Center for Wildlife Ecology, SFU) placed artificial eggs and nestlings high in the canopies of old-growth trees to help determine which habitats were safest for murrelets. Tree climbers accessed the canopy by shooting an arrow, which was attached to a fishing line, over a strong branch. This was then used to haul over a climbing rope. Josh used motion-sensitive cameras to catch predators attempting to prey on the artificial eggs. He documented a variety of exciting predators at his nests, including Steller's jays, gray

jays, common ravens, and even a sharp-shinned hawk. He discovered that nests next to recent clearcuts are the most dangerous for nesting murrelets, and that older, regenerating clearcuts provide relative safety. This information will be used to determine the design and location of protected areas for murrelet conservation in British Columbia.

Marbled murrelets facts: Did you know...!

- The marbled murrelet was once known as the "Australian Bumble Bee" by fishermen and as the "fog lark" by loggers
- Murrelets can fly at speeds upward of 70km/h
- The marbled murrelet is on British Columbia's Red List of species and is listed as Threatened under the federal Species at Risk Act.



Marbled murrelet (US Fish and Wildlife Service, Alaska)