

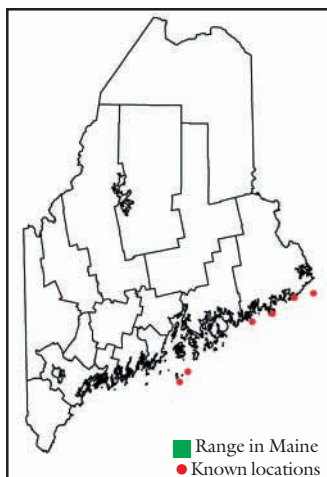
Razorbill

(*Alca torda*)

Description

In the northern hemisphere, Maine's puffins, guillemots, and razorbills are the ecological equivalent of penguins. Appropriately dressed in "formal attire," these tuxedoed birds fly underwater, capture fish, and live in large colonies. Another relative, the extinct great auk, used to winter off the coast of Maine.

Razorbills are short (17 inches long), chunky seabirds with short, stubby wings. They are members of the auk family and are closely related to puffins, guillemots, and murrelets. The breeding adult razorbill is distinguished by a black back and head, white belly, thick bill, and uptilted tail (when swimming). The black bill is flat with a vertical white mark midway along its length. A white line extends from the eye to the bill. Winter plumage is similar; the bill covering is shed, and the throat, cheeks, and ear coverts are white. Legs and feet are black. On breeding grounds, razorbills make a low guttural or croaking *urrrr* sound.



Range and Habitat

The razorbill is found in arctic and subarctic marine waters from Maine to northern Russia. There are about 700,000 razorbills in the North Atlantic, and over 70 percent of the population nests in Iceland. About 330 pairs nest in the Gulf of Maine, which is the extreme



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southern edge of their range. Razorbills nest on rocky, isolated islands, although they occasionally nest on mainland cliff faces or headlands if mammalian predators are absent. Islands must have suitable nesting sites, which include ledges with crevices and boulder fields, and deep rock fissures. Razorbills only nest on three islands in Maine: Matinicus Rock, Freeman Rock, and Old Man Island. The largest colony in the Gulf of Maine is on Machias Seal Island on the Maine/New Brunswick border. After breeding, razorbills stay out to sea along pack ice areas of the North Atlantic. In the western Atlantic, razorbills winter at sea off Atlantic Canada south to Massachusetts.

Life History and Ecology

Razorbills breed for the first time when they are 4-6 years of age. Immatures return annually to breeding colonies, with the youngest birds arriving later in the breeding period and staying the shortest amount of time. As birds get older, each year they arrive at the breeding colonies progressively earlier and spend more time at the colony prospecting for mates and nesting sites. Most return to breed at the colony where they were born, and keep the same mate for several years. Razorbills return to breeding

colonies in Maine in February and early March, about three months before egg laying begins. During this period, they alternate time at the colony displaying and defending nest sites with time at sea feeding. Nest sites are typically under rocks and in crevices. Egg laying occurs during May and June, and is closely related to sea surface temperature. A single egg is laid on bare rock, and is incubated by both adults for about 35 days.

After hatching, the chick is closely brooded by the parents until it can regulate its own body temperature at about 9-10 days of age. When about 18 days old, the partially grown and flightless chick leaves the colony in the middle of the night to avoid gull predation. Primary and secondary wing feathers develop after the young bird has left the colony. The adult male accompanies its chick to sea, where it feeds the chick for several weeks. Adults feed primarily on fish, including sand lance, Atlantic herring, Atlantic cod, and capelin. Fall migration begins in mid-September in Maine. Longevity may exceed 30 years.

Threats

Historically, razorbills were more numerous, but not abundant, at the southern edge of their range. They declined from overharvest for food, feathers, and eggs. In the last 50 years, expanding populations of black-backed and herring gulls became serious predators of razorbills, their chicks and eggs. The presence of gulls inhibits razorbills from recolonizing some former nesting areas. The availability of food can affect breeding success. Incidental take in gill nets can be a serious problem in some areas. Oil pollution and spills have the potential to kill large numbers of birds. Maine razorbill nesting islands are remote and rarely visited by humans, so human disturbance is not typically a concern.

Conservation and Management

Historic data on razorbills in Maine are nonexistent. Hunting and egg collecting eliminated the species from Maine islands by 1890. At some time in the 1900s, they began to return to some former nesting islands, and by the 1970s there were about 25 pairs on two islands. About 180 pairs currently nest on three islands, and the population is believed to be slowly increasing. About 150 pairs nest on Machias Seal Island. Unlike most other endangered seabirds, razorbills still exist on unmanaged islands (Old Man Island and Freeman Rock). These rocky enclaves are unsuitable for nesting gulls, thus providing predator-free habitat for razorbills.

Ongoing gull control and management pro-

grams on Matinicus Rock and Machias Seal Island benefit razorbills. Active programs are underway to establish new colonies at Eastern Egg and Petit Manan Islands. Razorbills were listed as threatened in Maine in 1997 because of their small population size and limited distribution. All razorbill islands in Maine are in conservation ownership and protected by Significant Wildlife Habitat provisions of the Natural Resource Protection Act.

Recommendations:

- ✓ Protect seabird nesting islands and adjacent waters from further development, especially human dwellings, fishing piers, docks, and aquaculture facilities. Review Essential Habitat maps and guidelines prior to development near roseate tern islands. Consult with a biologist from MDIFW and the U.S. Fish and Wildlife Service to assist with planning.
- ✓ Municipalities should strive to prevent development of seabird nesting islands and adjacent waters and identify these areas in comprehensive plans. Consider protecting a ¼ mile buffer around seabird nesting islands.
- ✓ Use voluntary agreements, conservation easements, conservation tax abatements and incentives, and acquisition to protect important habitat for threatened and endangered species.
- ✓ Stay off seabird nesting islands during the nesting season (April 1 to August 15). If visitation is approved (e.g., commercial tours to a seabird island), remain on designated paths and in blinds to minimize disturbance.
- ✓ Keep boat activity more than 660 feet from seabird nesting islands. If birds flush from the island, you're too close.
- ✓ Keep all pets off islands. Do not introduce mammalian predators.
- ✓ Locate aquaculture facilities farther than ¼ mile from seabird nesting islands.
- ✓ Avoid overfishing and polluting nursery areas for herring, hake, and other fish stocks important as food for seabirds.
- ✓ Do not use gill nets near seabird islands or known feeding areas.
- ✓ Do not dump oil, litter, or waste overboard. Even small amounts of oil can kill birds. Seabirds are often injured by eating plastic particles from trash that are mistaken for food.
- ✓ Avoid overboard discharge of fish waste or bait. Predatory gull populations have increased because of this readily available supply of food. 🐦