

## FEASIBILITY STATEMENTS FOR RAZORBILLS

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**Goal:** Increase the number of Razorbills nesting on the coast of Maine, and increase the public's awareness and understanding of Maine's nesting seabirds, including Razorbills.

**Population Objective 1:** With partners, develop and implement by 2002 a program to inventory and monitor nesting Razorbills in Maine.

Desirability: Population inventory and monitoring are key components to the management of Razorbills in Maine. Current inventory data are inadequate to ascertain Maine's breeding population size, productivity, and trend.

Feasibility: To date, reliable data on Maine's Razorbill breeding population are limited: nesting islands are inaccessible, nests are difficult to observe from the water, multiple counts on nesting islands are required due to the presence of a large proportion of nonbreeders to breeders and the temporal changes in number of individuals present at nesting colonies, and human disturbance needs to be minimized around nesting sites. However, Department biologists, in cooperation with conservation partners, can develop a program to inventory and monitor nesting Razorbills (based on established seabird inventory techniques).

Capability of Habitat: Not applicable

Possible Consequences: The breeding population of Razorbills in Maine has a tenuous viability due to its small size and the fact nesting primarily occurs on islands that subject Razorbills to harassment and predation by gulls. Monitoring population size and productivity of Razorbill nesting colonies will enable Department biologists to determine the status and trend of this breeding population. However, some inventory methods (e.g., nest counts by ground survey) may be extremely detrimental to the productivity of these breeding colonies (exposing eggs and chicks to predators). It may be necessary to utilize less intensive inventory methods with less precise estimates to minimize loss to annual production of Razorbills.

**Population Objective 2:** By 2015, increase and then maintain the number of Razorbills nesting in Maine by 50% over 2000 levels using intensive, long-term management.

Desirability: Razorbill colonies in the Gulf of Maine form the southern edge of this species' breeding distribution. Alcid populations are presumed to fluctuate in the

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long term with variations in their food supply caused by climatic changes. In addition to this fluctuation, viability of nesting colonies in Maine is tenuous due to limited numbers of nesting pairs. Increasing the number of Razorbills nesting in Maine will enhance the stability of the state's breeding population.

Feasibility: Breeding colonies of Razorbills on Maine islands have increased from 3 in 1976 to 4 in 2000, with a possible colony on a 5<sup>th</sup> island. Gull control and limited application of attraction techniques have been used to restore breeding Razorbills on 2 additional Maine islands. However, the larger Razorbill colonies established recently have resulted from natural pioneering (no gull control), with an associated slow rate of recolonization. Maintenance of Razorbill breeding colonies on the Maine coast depends on continued management to maintain habitat, limit human disturbance, and reduce harassment and predation by gulls (on some nesting colonies). Even though this objective is feasible, it will require a long-term financial commitment by the Department.

Capability of Habitat: Razorbills probably were eliminated from nesting islands in Maine in the mid-1800s as breeding grounds were subjected to increased human disturbance. Habitat protection efforts since the early 1900s contributed to the reappearance of Razorbills in the early 1920s; however, recolonization of former breeding sites has been very slow. Prior to the 1970s, Razorbills were nesting on only 2 islands off Maine's coast (Matinicus Rock and Machias Seal Island). Potential nesting habitat needs protection from disturbance from gulls and humans to be suitable for Razorbill breeding colonies.

Possible Consequences: Larger colonies will increase the stability of Maine's breeding population of Razorbills, reducing its vulnerability to decline or extirpation due to catastrophic events. Increasing the number of nesting pairs may require continual protection of nesting populations by reducing or eliminating gull populations and restricting human visitation on Razorbill nesting islands. Some conservation partners may not support the use of lethal control on gull populations; some public groups also may object to this management approach. Additionally, to continue to enhance population growth through management, a better understanding of life history and habitat requirements of Razorbills may be needed (e.g., breeding success and productivity, use of foraging habitat during breeding season, nesting habitat partitioning among seabird species, chick rearing habitat, predation, winter ranges, and survival of chicks to maturity).

**Habitat Objective 1: By 2005, identify and prioritize sites with suitable nesting habitat for Razorbills and cultivate a relationship with partners and landowners to facilitate management.**

Desirability: Human disturbance may increase the vulnerability of nesting Razorbills to predation or reduce productivity of nesting colonies. Harassment and predation by gulls can inhibit Razorbills from recolonizing former breeding areas and reduce

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or eliminate existing colonies. Management of Razorbills in Maine involves protecting nesting islands, especially islands not currently protected that potentially could support nesting Razorbills.

Feasibility: In the past, federal, state, and private conservation agencies have acquired and/or managed Razorbill nesting islands in Maine. Limited breeding by Razorbills currently occurs on 2 nesting islands that are cooperatively managed by private, state, and federal conservation agencies using attraction and gull control techniques. With the mutual goal of securing the presence of Razorbills in Maine, these cooperative management relationships should continue to be cultivated. The financial responsibilities of Razorbill management also will need to be borne by the Department in conjunction with its cooperating partners.

Capability of Habitat: All current nesting islands for Razorbills off the coast of Maine are owned or under management authority of a conservation agency. Conservation ownership of Razorbill nesting islands aids in protecting habitat. Nesting islands for Razorbills can be protected as Significant Wildlife Habitat (NRPA), Essential Habitat (Maine's Endangered Species Act), and as P-FW or P-RP zones (LURC). However, to maintain or improve the suitability of potential nesting islands, a cooperative relationship needs to be developed and enhanced with conservation partners and landowners.

Possible Consequences: Protection of nesting habitats and breeding populations of Razorbills in Maine will increase with the support of cooperating partners and landowners. However, there may be public resistance to these habitat management approaches (i.e., predator control and reduction of human-related disturbance).

**Habitat Objective 2: By 2015, increase the number of islands with nesting populations of Razorbills by 3 over 2000 levels (5 islands), ensuring these islands are distributed between Penobscot Bay and downeast Maine.**

Desirability: Increasing the number and distribution of nesting colonies of Razorbills in Maine will decrease the vulnerability of this population to catastrophic events.

Feasibility: During the last 2 decades, Razorbill breeding populations have returned to 1 (possibly 2) nesting islands in Maine primarily due to natural pioneering. Management utilizing attraction and gull control techniques has restored a limited breeding presence on 2 additional islands. Establishing new breeding colonies depends on habitat protection from disturbance and degradation, likely requiring attraction and gull control techniques. Maintenance of existing colonies will require protection from human disturbance, and some islands (depending on nesting habitat) may require continued gull control. This management requires a stable financial commitment by the Department.

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Capability of Habitat: Historical records of Razorbills nesting in Maine are sparse. However, by the mid-1800s, Razorbills were no longer nesting on Maine's coastal islands due to increased human disturbance. Harassment and predation by gulls can inhibit Razorbills from recolonizing former breeding areas. Human disturbance on nesting islands may increase Razorbills' vulnerability to predators or reduce the colony's productivity. Razorbills are colonial nesters; attraction techniques may be needed to lure prospecting birds to potential nesting sites.

Possible Consequences: Increasing the number of breeding colonies will increase the stability of Maine's breeding population of Razorbills, reducing its vulnerability to decline or extirpation due to catastrophic events. To improve habitat suitability, gull populations on potential nesting islands for Razorbills will need to be reduced or eliminated; additionally, human visitation will need to be restricted on Razorbill nesting islands. There may be public resistance to these management approaches.

**Outreach Objective: By 2002, develop, expand, and implement, in conjunction with partners, an outreach plan to promote an understanding and awareness of nesting seabirds, including Razorbills, in Maine.**

Desirability: The Razorbill's breeding population in Maine is vulnerable because they nest on only a few islands. There is a need for outreach activities to promote an awareness and understanding of this nesting seabird, including its habitat requirements.

Feasibility: Department biologists and Information and Education staff, in conjunction with interested partners, can meet this Outreach Objective. The U.S. Fish and Wildlife Service and National Audubon Society have already made significant contributions to this effort. The Department needs to increase its level of assistance to these partners, as well as provide some financial support.

Capability of Habitat: Not applicable.

Possible Consequences: Human disturbance of critical Razorbill nesting habitat in Maine hopefully will decrease as people attracted to Maine's coastal islands (for recreational use and nature appreciation) have increased awareness of Razorbill habitat needs. This awareness also may increase the public's understanding and acceptance of management tools that will be used. Currently, most tourists are able to observe Razorbills via tour boats, in which they do not go ashore on islands (only a limited number go ashore daily on Machias Seal Island).