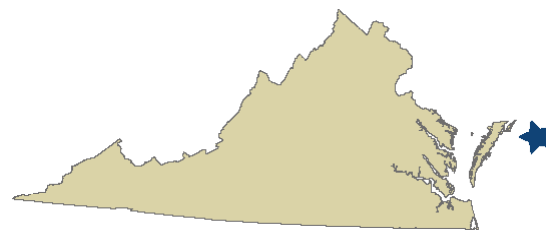


T/V Bow Mariner Seabird Restoration

Natural Resource Damage Assessment and Restoration Program



The Problem

The chemical tanker T/V Bow Mariner caught fire and exploded on February 28, 2004 approximately 45 nautical miles east of Virginia. Over 190,000 gallons of heavy fuel oil were released, in addition to ethyl alcohol and diesel fuel. The spill likely caused injury to marine mammals, fish, shellfish and a significant number of pelagic seabirds. The large off-shore oil slick was located in an area used by seabirds during migration. Aerial surveys conducted shortly after the spill confirmed that over 2000 seabirds of 10 species use this area. A model that estimates seabird mortality due to oil spills suggested that 50 to 450 seabirds were injured or killed as a result of this spill, including two vulnerable species—razorbills and northern gannets. Since the spill occurred in the U.S. Exclusive Economic Zone (EEZ), the U.S. Department of Interior, acting through the Fish and Wildlife Service (Service) is the sole trustee for the natural resources injured by the spill.

Natural Resource Damage Assessment and Restoration Program

When hazardous substances enter the environment, fish, wildlife, and other natural resources can be injured. The Department of the Interior, along with State, Tribal and other Federal partners, acts as “trustee” for these resources. Trustees seek to identify the natural resources injured and determine the extent of the injuries. Trustees work with the responsible parties to carry out restoration activities, or recover funds from responsible parties to carry out the restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program (NRDAR), the goal of which is to restore natural resources injured by oil spills or the release of hazardous substances.

Meeting Restoration Goals at Maine Coastal Islands National Wildlife Refuge

- Increase survival probabilities for seabirds in the restoration area(s);
- Improve prey base and nesting habitat for seabirds;
- Restoration project would contribute to the Service’s achievement of its objective of replacing between 2,000 and 3,000 seabirds; and
- Conservation work related to the razorbill will benefit two other State-threatened species, the Atlantic Puffin and the Arctic Tern .



Maine Coastal Islands National Wildlife Refuge



Seabird restoration activities help Razorbill colonies.

Restoring the Resources

The Responsible Party (RP) and the Service entered into a Settlement Agreement pursuant to which the RP agreed to reimburse damage assessment costs incurred by the Service and to pay approximately \$564,000 to the Service for planning, implementing and monitoring native pelagic seabird restoration projects. Since razorbills were the impacted species of highest concern, the Service selected them as the target restoration species. Maine has identified the razorbill as a state-listed threatened species; their nesting habitat in the United States is currently limited to a small number of islands within the Maine Coastal Islands National Wildlife Refuge. Razorbills were injured in their northward migration to nesting habitats in the Gulf of Maine. Seabird restoration is best implemented by improving habitat and eliminating predators at their nesting grounds.

The Refuge and Eastern Brothers Island

The Refuge currently manages six seabird restoration projects along the Maine coast. Refuge staff have 25 years experience managing seabird colonies, including populations of common, Arctic, and roseate terns, Atlantic puffins,



Atlantic Puffin

and razorbills. The Refuge acquired Eastern Brothers Island (EB Island) for protection and implementation of restoration activities. EB Island (17 acres) provides suitable nesting habitat for a variety of seabird species, including razorbills, black guillemots and Atlantic puffin.

Razorbill Restoration on Eastern Brothers Island

Eastern Brothers Island was chosen as the restoration site because:

- Location in Englishman's and Machias Bays provides foraging habitat for seabirds;
- Distance from mainland protects razorbills from mainland predators;
- Island provides abundant nesting habitat for razorbills and puffins;
- Distance to nearest razorbill colony is 1.4 miles to the west on Pulpit Rock;
- Currently and historically used by a limited number of seabird species; and
- EB Island is adjacent to Maine Department of Inland Fisheries and Wildlife-owned Western Brothers Island; thus it provides an opportunity for collaborative restoration efforts between the federal and state agencies.

Restoration Activities

- Utilize lethal and non-lethal predator management/gull control measures to open the Island for breeding razorbills and maintain it as "gull free";
- Utilize "social attraction" methods to attract razorbills to the Island;
- Utilize prescribed fire to maintain and enhance habitat vegetation for nesting terns;



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Maine Coastal Islands NWR, Eastern Brothers Island on right.

- Utilize signage to indicate seasonal closures of the Island;
- Implement extensive outreach and education to local commercial and recreational boaters; and
- Staff the Island throughout the nesting season to control predators and monitor seabirds.



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Prescribed fire is used to maintain and enhance habitat vegetation for nesting terns.

For additional information or questions contact:

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Razorbill decoys used as part of "social attraction" method to attract breeding Razorbills to the island.

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