

U.S. Fish & Wildlife Service

Maine Coastal Islands National Wildlife Refuges
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Hearing-impaired visitors may call the Maine Relay Center:
1 800/457 1220 (voice) or 1 800/437 1220 (TDD)

U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>

September 2007



Maine Coastal Islands

*National Wildlife
Refuges*



Strung along the Maine coast like a strand of pearls, the islands of Maine Coastal Islands National Wildlife Refuges protect precious habitat for nesting seabirds, wading birds, and bald eagles. The refuge's mainland units complement the offshore gems by supporting migratory songbirds, shorebirds, and waterfowl.



Conserving the Nature of the Coast



This blue goose, designed by J.N. "Ding" Darling, has become a symbol of the National Wildlife Refuge System.

The Maine Coastal Islands National Wildlife Refuges span over 200 miles of Maine coastline and contain 49 offshore islands and four coastal parcels, totaling more than 8,000 acres. The refuge complex includes five national wildlife refuges — Petit Manan, Cross Island, Franklin Island, Seal Island, and Pond Island. The U.S. Fish and Wildlife Service manages the refuge complex as part of the National Wildlife Refuge System.

The Service's primary focus at Maine Coastal Islands is colonial seabird restoration and management. Refuge islands provide nesting habitat for common, Arctic, and endangered roseate terns, Atlantic puffins, razorbills, black guillemots, Leach's storm-petrels, laughing gulls, and common eiders. Over the last 25 years, the Service has worked to reverse the decline in these birds' populations. As a result, many species have returned to islands where they nested historically.

In addition to seabirds, wading birds and bald eagles nest on refuge islands. The mainland divisions provide habitat for songbirds, shorebirds, and waterfowl, as well as opportunities for bird watching and hiking.

Bald eagle

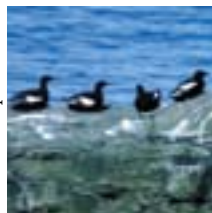
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Bill Silliker, Jr. ©

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of Inland Fisheries &
Wildlife



Seabird Struggles

Seabirds have always relied on Maine's offshore islands as havens for raising their young. Small, unforested, rocky islands provide a setting free of mammalian predators such as foxes, coyotes, and raccoons. Flying distance from the mainland discourages avian predators such as great horned owls. The cold waters surrounding the islands hold an abundant supply of fish for adults and young alike.



James C. Leupold

Black guillemots

Native Americans have used the coast's natural resources for more than 4,000 years. The Red Paint people camped on offshore islands in the summer and fished the deep ocean waters. Although they hunted seabirds and their eggs, they used sustainable methods, limiting harvest to certain islands and hunting any one colony once every three years.

Europeans began settling the islands in the 1600s, farming and raising sheep and hogs. The livestock disturbed nesting seabirds and trampled their habitat. The people hunted the birds and collected their eggs. In the late 1800s, the fashion industry posed an additional threat to the birds' existence. Women's hats were decorated with feathers. Egrets, herons, and terns were especially popular and, therefore, most harmed by the trend. At the start of the 20th Century, most seabirds in the Gulf of Maine were on the brink of extinction.

Concern for the future of all birds led to passage of the Migratory Bird Treaty Act in 1918. The Act protects migratory birds, their nests, and their eggs. At about the same time, trains and automobiles replaced boats as preferred forms of transportation. People relocated to the mainland, easing pressure on seabird habitat. Common and Arctic tern populations rebounded, reaching a high of almost 16,000 pairs along the Maine coast in

1940.

The recovery was short-lived, however. During the mid-1900s, the spread of open landfills along the coast and an increase in fishery waste provided easy pickings for herring and great black-backed gulls. These birds nest earlier than terns, claiming prime habitat and relegating terns to inferior nest sites. Some gulls also prey on tern eggs and chicks. The artificial food sources led to an explosion in gull populations. By 1977, the tern population in the Gulf of Maine had declined to roughly 5,000 nesting pairs.



Burton Glendenning

Common terns

Seabird Restoration

Between 1972 and 1980, the refuges in the Maine Coastal Islands National Wildlife Refuge were established for the protection of migratory birds, principally colonial nesting seabirds. The Service has focused on restoring terns because their populations were particularly low. The roseate tern, a federally endangered species, prefers large colonies of common or Arctic terns in which to nest. Therefore, saving this species requires assisting the other two.

To restore terns to an island, it must first be made suitable for the birds again. This requires discouragement of herring and great black-backed gulls. In some cases, human presence on the island during the start of the gull nesting season is enough. Small populations of gulls can be controlled

Maine Coastal Islands

National Wildlife Refuges



North

0 50 Kms

0 50 Miles

MAINE

CANADA
U.S.

Calais

Schoppee Island
Brothers Island (E)
Halifax Island
Little Libby Island

Nash Island
Inner Sand Island

Petit Manan NWR
Headquarters

Machias

1

Cutler

Scotch Island
Mink Island
Double Headshot Islands
Cross Island
Old Man Island

South Twinnie Island

Little Spoon Island
Little Marshall Island

Belfast

Ellsworth

Bar Harbor

Island Divisions

Petit Manan
NWR Office

Rockland

Petit Manan Island
Egg Rock

Machias Seal Island
Abbott Island
Bois Bubert Island
Sally Island

Maine Turnpike

95

1

John's Island
Little Marshall Island

Ship Island
Barge Islands
Bar Island
Trumpet Island

Jordan's Delight

Brunswick

Roberts Islands

Seal Island

Matineus Rock

Two Bush Island

Two Bush Island

Hart Island

Metinic Island

Franklin Island
Crane Island

O C E A N

Outer White Island
Little Thrumcap Island
Inner White Island
Lower Mark Island
Outer Heron Island

Pond Island

Ram Island

Upper Flag Island

Portsmouth
Duck Island
Smuttynose Island
Malaga Island

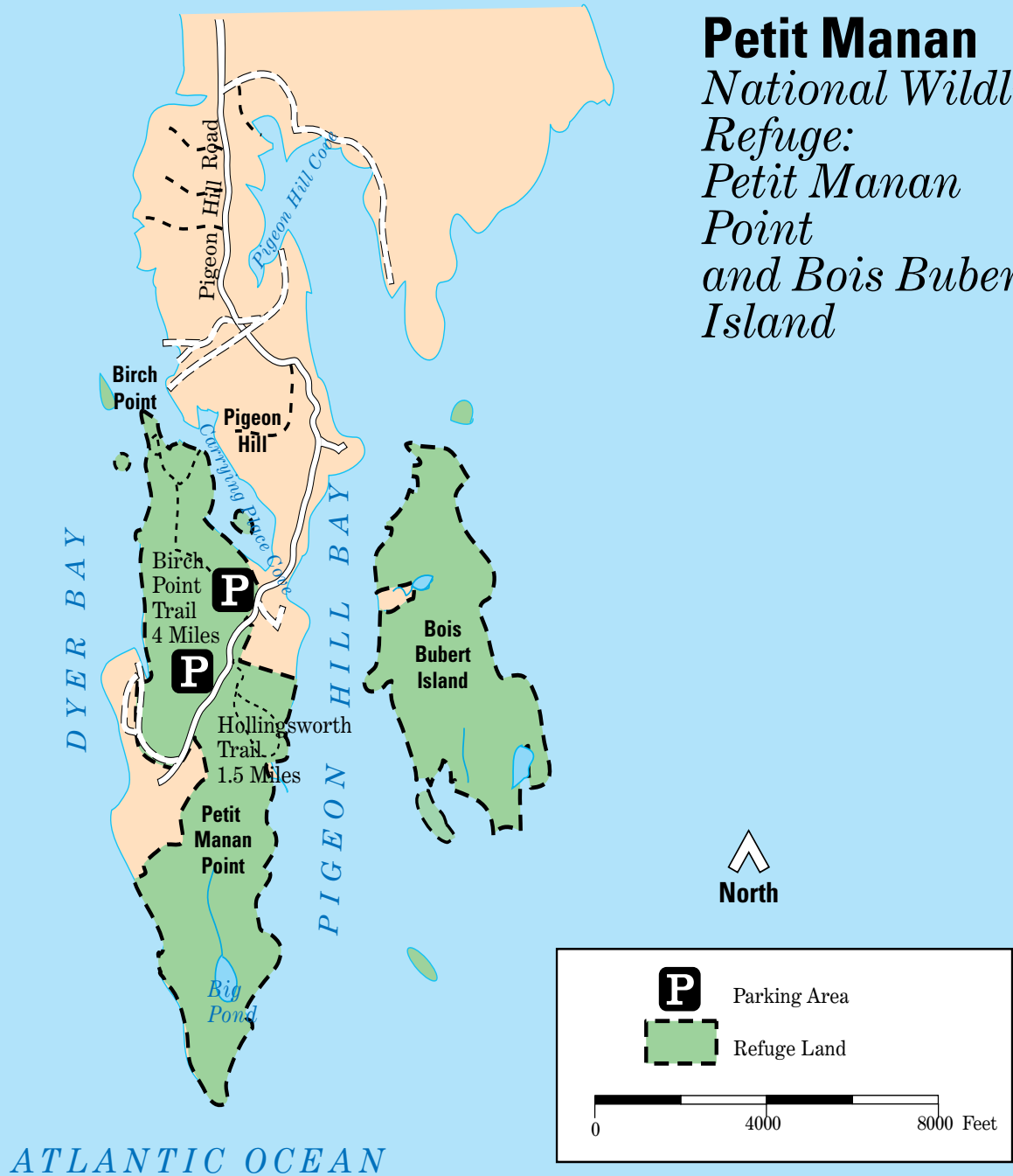
A T L A N T I C

MAINE
NEW HAMPSHIRE

Petit Manan National Wildlife Refuge: Mainland Divisions



Petit Manan National Wildlife Refuge: Petit Manan Point and Bois Bubert Island



ATLANTIC OCEAN

through egg and nest destruction and noise-makers. If a gull colony has grown too large, these techniques may be ineffective. Lethal means, including limited shooting and the use of an avicide, may be necessary.

If terns have recently abandoned an island, they may return rapidly once the gulls are gone. However, in many cases, it has been decades since terns nested on an island. To entice them back, the Service uses sound systems playing recordings of a tern colony and tern decoys scattered in suitable nesting habitat. This method has been highly effective on several islands within the Gulf of Maine.

Tern restoration began in 1984 on Seal and Petit Manan islands, which now support large colonies of common and Arctic terns. Roseates have returned to Petit Manan. More recent restorations have occurred on Pond, Metinic, and Eastern Brothers islands. The goal is to establish tern colonies on numerous refuge islands. This will ensure that a singular catastrophic event such as disease, an oil spill, or a hurricane, will not wipe out a species.

Other colonial nesting seabirds have benefited from tern restoration efforts. Atlantic puffins, black guillemots, laughing gulls, Leach's storm-petrels, and common eiders have recolonized some islands. Petit Manan Island now hosts all of these species during the nesting season. Razorbills, a relative of the extinct great auk, are at the southern end of their range along the Maine coast and nest on three refuge islands: Seal, Matinicus Rock, and Old Man. Herring and great black-backed gulls and double-crested cormorants breed on some refuge islands.

A "Bed and Breakfast" for the Birds

In addition to seabirds, refuge islands provide habitat for raptors, wading birds, shorebirds, and songbirds. Some of the forested islands, including Outer Heron, Sally, Bois Bubert, and Mink, have active bald eagle nests. Outer White Island supports a black-crowned night heron rookery. Migrating peregrine falcons stop on Seal Island to hunt and rest. Warblers such as the bay-breasted and blackpoll, and shorebirds, including ruddy turnstones and semipalmated plovers, rely on the islands as stepping stones on their long trips north and south.

Tern decoys



Roseate tern

Points of Light

Eight refuge islands possess historic light houses. For more than a century, light keepers operated beacons on Petit Manan, Franklin, Pond, Nash, Two Bush, and Libby islands and Matinicus and Egg rocks to ensure safe travel for passing vessels. With the advent of underwater electric cables and solar power, automation of the lights became possible. The islands were transferred to the Service from the Coast Guard. The Coast Guard maintains all of the lights except Nash Island Light, which no longer functions. All are on the National Register of Historic Places, with the exception of Two Bush Island Light.



Petit Manan Island Light

Meanwhile, On the Mainland

The refuge's four mainland properties are located in Hancock and Washington counties. Upland areas are characterized by spruce-fir forests with some mixed hardwoods. The 2,195-acre Petit Manan Point Division, in Steuben, also includes jack pine stands, coastal raised heath peatlands, blueberry barrens, old hayfields, freshwater and saltwater marshes, cedar swamps,

granite shores, and cobble beaches. The Gouldsboro Bay Division, in Gouldsboro, protects 623 acres, including a large tidal saltmarsh and mudflat. The 1028-acre Sawyer's Marsh Division lies at the head of a broad saltmarsh in Milbridge, just north of Petit Manan Point.

The Corea Heath Division is a 431-acre raised coastal peatland situated on the Corea peninsula in Gouldsboro.

A Seasonal Home

Neotropical migratory songbirds thrive in the forests of the mainland divisions. These birds breed in North America and winter in the Caribbean, Mexico, and Central and South America. Recently, populations of species such as the American redstart, Swainson's thrush, and song sparrow, have declined due to habitat loss throughout their migratory routes.



Sid Bahrt

Yellow warbler

The Service monitors songbird populations by conducting surveys at the height of the breeding season each year. Experts walk designated routes, stopping at set intervals to identify and count birds by sight and song. Other studies use banding to identify individuals and track their survival and productivity.

The saltmarshes and mudflats of the mainland divisions attract waterfowl, wading birds, and shorebirds. Black ducks, great blue herons, and American bitterns ply the waters of the saltmarshes. Semipalmated sandpipers, short-billed dowitchers, greater and lesser yellowlegs, and dunlins probe the mudflats for invertebrates.

During fall migration, the 80-acre Cranberry Flowage on Petit Manan Point is filled with over 4,000 ducks. Black ducks, green-winged teal, and mallards rest and feed on wild rice

in preparation for the long flight south. Long-tailed duck, surf, black, and white-winged scoters, common goldeneyes, and common eiders winter in coastal waters.

The former pastures and blueberry fields on Petit Manan Point provide nesting habitat for grassland birds such as bobolinks and savannah sparrows. In the spring, American woodcock use the clearings for their unique courtship displays. Whimbrels stop off here during their fall migration from the Arctic tundra to the southern United States. The Service maintains open areas through periodic mowing and controlled burning.

Some species call the refuge's mainland "home" year-round. Resident wildlife include ruffed and spruce grouse, white-tailed deer, bobcats, snowshoe hares, porcupines, coyotes, and raccoons.

A Group Effort

Partnerships between the Service and other public and private organizations are key to the success of seabird restoration efforts at the refuge. Since 1984, refuge staff have worked closely with representatives from

Razorbill



Linda Welch/USFWS



Linda Welch/USFWS

Atlantic Puffin

the Maine Department of Inland Fisheries and Wildlife, College of the Atlantic, National Audubon Society, Maine Audubon Society, and Canadian Wildlife Service in the Gulf of Maine Seabird Working Group. The Group guides restoration efforts on Maine's offshore islands, including those in the refuge.

Since the early 1980s, the National Audubon Society has worked with the Service to restore seabirds to Seal Island, located 21 miles southeast of Rockland, Maine. Through its Project Puffin, the Society successfully re-introduced Atlantic puffins to the island by transporting chicks from Newfoundland, Canada, and hand-raising them. Puffins now nest on the island, after a 150-year absence. Seal Island also supports the largest tern colony in the Gulf of Maine, with 2,000 pairs. National Audubon is working with the Service to manage and restore seabirds on Matinicus Rock and Pond Island.



Tom Goette/USFWS

Old Man Island

The Service works with private organizations at the local, state, and national levels to add land to the refuge. These groups serve a vital function by purchasing property from willing sellers and protecting it until it can be acquired by the Service. Through conservation easements, refuge staff help landowners manage their properties for wildlife.

Where You Come In

Wildlife comes first on national wildlife refuges. All human activities must be compatible with the needs of wildlife. Six priority public uses are encouraged when they do not interfere with the individual refuge's mission. These are: hunting, fishing, wildlife observation and photography, environmental education, and interpretation.

The refuge offers excellent opportunities for bird watching and hiking. Foot trails wind through a variety of habitats, from spruce-fir woodlands to grasslands to freshwater and saltwater marshes to mudflats. On Petit Manan Point, the Hollingsworth Trail is a 1.5-mile



Hollingsworth Trail - Petit Manan Point

loop with views of heaths and cobble beaches. Interpretive signs offer insight into refuge wildlife, habitats, and management. The Birch Point Trail (four miles round trip) begins in a blueberry field and leads to the saltmarshes of Dyer Bay, passing through a mixed-wood forest. A hiking trail on the Gouldsboro Bay Division is under development.

Cross, Scotch, Halifax, and Bois Bubert islands are open to visitors all year. Seal Island and Duck

Island are closed at all times. The remaining refuge islands are open from September 1 through March 31 and closed during the seabird nesting season, April 1 - August 31. Commercial tour boats provide views of nesting seabirds on Petit Manan and Machias Seal islands.



USFWS

Parts of the refuge are open to hunting. Contact the refuge office for a list of open areas and current regulations.

To reach the Petit Manan Point Division, take

Pigeon Hill Road off U.S. Route 1 in Steuben. The parking area for the Birch Point Trail is 5.8 miles from Route 1, and the parking area for the Hollingsworth Trail is 6.2 miles. The Gouldsboro Bay, Corea Heath and Sawyer's Marsh divisions have no public use facilities at present.

Your Cooperation is Appreciated....

To protect the refuge's wildlife and habitats, please comply with the following:

The refuge is open during daylight hours only.

Dogs are allowed on mainland divisions only and must be on hand-held leashes no longer than 10 feet.

All-terrain vehicles and open fires are not allowed.

Blueberries may be hand-picked; raking is not allowed.

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