

U.S. Fish & Wildlife Service

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October 2007



Moosehorn

*National Wildlife
Refuge*



Ovenbird

S. Maslowski/USFWS

Moosehorn National Wildlife Refuge was established in 1937 as a refuge and breeding ground for migratory birds, endangered species, and other wildlife. The refuge is named for Moosehorn Stream, a waterway within its boundaries. Ironically, this is a misnomer, since moose have antlers and not horns!

Wildlife is our Priority

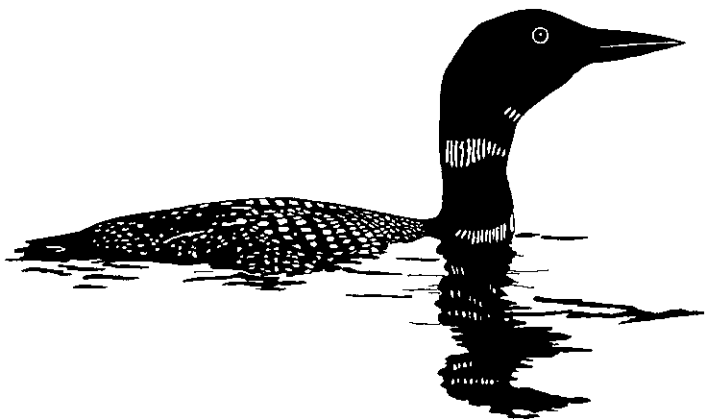


This blue goose, designed by J.N. “Ding” Darling, has become the symbol of the National Wildlife Refuge System.

The U.S. Fish & Wildlife Service’s first priority on national wildlife refuges is protecting wildlife and its habitat. However, a secondary purpose of refuges is providing opportunities for wildlife-related education and recreation. At Moosehorn, the Service offers numerous public use opportunities that are compatible with its wildlife management goals.

Moosehorn is one of the northern most national wildlife refuges in the Atlantic Flyway, a migratory route that follows the eastern coast of North America. The refuge provides important feeding and nesting habitat for many bird species, including waterfowl, wading birds, shorebirds, upland game birds, songbirds, and birds of prey.

The refuge consists of two divisions. The Baring Division covers 20,000 acres and is located off U.S. Route 1, southwest of Calais. The 8,800-acre Edmunds Division is between Dennysville and Whiting on U.S. Route 1 and borders the tidal waters of Cobscook Bay. Each division contains a National Wilderness Area, thousands of acres managed to preserve their wild character.



Woodcock, Waterfowl, Warblers and More

American woodcock are studied and managed intensively at Moosehorn. Unlike their relatives, these reclusive shorebirds have evolved to live in the forests of eastern North America. They spend their days in dense alder thickets, using their long bills to locate and extract earthworms from the ground. At night, they move to clearings to roost.



Sid Bahrt

Woodcock are best known for their spectacular spring courtship flights. At dusk and dawn from early April to mid-May, the males fly to their territories in open areas. Each bird begins his mating ritual with a series of nasal “peents.” He then takes wing in a spiral flight that carries him several hundred feet into the air while he warbles a plaintive song to waiting females. He returns to the same spot after each flight and repeats his performance several times over the next half hour.

Unfortunately, this rite of spring is in jeopardy. The woodcock population in the Atlantic Flyway has declined steadily over the past two decades. This downturn is due mostly to loss of habitat through conversion of brush-covered land into house lots, tree plantations, and mature forests. Research and management programs at Moosehorn have provided valuable information to stem this decline.

The refuge serves as a breeding area and migration stop for a variety of waterfowl, wading birds, and shorebirds. Black ducks, wood ducks, ring-necked ducks, Canada geese, and common loons can be seen on the refuge's lakes and marshes. In mid-May, Magurrewock Marsh, which borders U.S. Route 1 on the Baring Division, abounds with goose and duck broods. In addition, great blue herons and American bitterns feed there during the warmer months.



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Bald eagles, frequent both divisions of the refuge, feeding on fish in the streams, ponds, and flowages. In recent years, as many as three pairs of eagles have nested at Moosehorn. Eagles are frequently sighted around Magurrewock Marsh on the Baring Division and along the shore of Dennys Bay on the Edmunds Division. Osprey nest in several of the refuge marshes with as many as four pairs using platforms along the Charlotte Road.




The woodlands of Moosehorn are home to many songbirds, including neotropical migrants, species that breed in North America and winter in Mexico, the Caribbean, and Central and South America. In mid-May, a flush of migrating warblers fills the forest with song. Twenty-six species of these diminutive birds nest on the refuge. In addition, northern forest species, such as boreal chickadees and spruce grouse, are present.

Moosehorn

National Wildlife Refuge



Legend

-  Wilderness Area
-  Management Area
-  Refuge Boundary

CANADA

Calais

Woodland

1

9

191

Refuge Headquarters

Red Beach

Nash's Lake

Howard Lake

Robbinston

St. Croix River

CANADA
USA

Meddybemps Lake

Meddybemps

Baring Division

Round Lake

Pennamaquan Lake

Boyden Lake

1

191

Charlotte

214

1

Perry

Pembroke

1



North

0 2 4 Miles
0 2 4 Kilometers

Dennysville

191

86

Edmunds Division

Dennys Bay Whiting

Cobscook Bay State Park

East Bay

Cobscook Bay

South Bay

Eastport

Lubec

Hadley Lake

Gardner Lake

Rocky Lake

Whiting

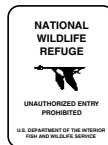
189

191

Grand Manan Channel

1

Habitat is the Key



The refuge's landscape is varied, with rolling hills, large ledge outcrops, streams, lakes, bogs, and marshes. A northern hardwood forest of aspen, maple, birch, spruce, and fir dominates the upland. Scattered stands of majestic white pine are common. The Edmunds Division boasts several miles of rocky shoreline where tidal fluctuations of up to 24 feet occur twice a day.

This habitat diversity supports many wildlife species. The staff at Moosehorn manages the land to protect the Service's "trust resources," which include migratory birds, endangered species, and wetlands. By improving habitat, the Service ensures that wildlife will thrive on the refuge.



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Black bears are often spotted foraging along refuge roads in the spring, in the blueberry fields in August, and under apple trees in the fall. White-tailed deer and moose feed in clearings. Coyotes, snowshoe hares, beaver, and river otters may also be seen.



© David Murray



Woodcock, ruffed grouse, moose, deer, and a variety of songbirds prosper only in a young forest. In the past, wildfires revitalized the forest, while farming maintained open areas. However, wildfire is a rare event today, and farmland acreage has decreased dramatically. Habitat management programs, including timber harvesting and controlled burning, mimic the effects of wildfire and farming by providing clearings and early growth forest.

Small clearcuts scattered throughout the forest provide openings and young, brushy growth that serve as food and cover for many wildlife species. Each year, the Service awards timber units to local harvesters according to the refuge forest management plan. The harvesters pay for the timber based on a fixed stumpage schedule. Much of this revenue is returned to the community in lieu of property taxes. This management has produced significant increases in woodcock, grouse, bear, and moose populations.

Moosehorn's fire management program uses controlled burns to reduce fuel loads by removing accumulated dead vegetation. This practice minimizes the chance of wildfires, while improving habitat. Fires stimulate new growth, providing food and cover for wildlife.

Wetlands management on the refuge has greatly increased waterfowl numbers. Dabbling ducks, such as black ducks and wood ducks, require water depths of no more than 18 inches in which to feed. Water control structures on marshes and ponds allow managers to maintain optimal water levels for plant growth and feeding by waterfowl. Water level control provides necessary food and cover during the breeding season. It also allows marshes to be drained periodically for rejuvenation.



Approximately one-third of the refuge is designated as federal wilderness. The two Wilderness Areas (one in each division) are part of the National Wilderness Preservation System. They are managed with a “hands-off” philosophy and granted special protection to maintain their primitive qualities. Internal combustion engines and mechanical means of transportation (i.e., bicycles) are not allowed. Habitat management is kept to a minimum to allow the areas to develop into old-growth, climax forest.

Enjoying the Refuge



There are many ways to experience the wildness of Moosehorn. Over 50 miles of dirt roads are closed to vehicles and available for hiking, biking, cross-country skiing, and snowshoeing. Three self-guided interpretive trails give insight into the refuge’s wildlife and management. The Woodcock Trail is a good place to observe the spring courtship flights of these birds. Visitors are also invited to accompany wildlife biologists on woodcock and waterfowl banding operations (call ahead to schedule). The viewing deck on the west side of U.S. Route 1 in the Baring Division offers a good vantage point for seeing nesting bald eagles. Interpretive programs are offered at various times during the year.

Many refuge streams are open to fishing, and boat access is provided at Bearce Lake (no motors) and Vose Pond. The refuge is open to deer hunting in November. The Wilderness Areas offer opportunities for solitude and traditional forms of recreation (hiking, canoeing, cross-country skiing, and snowshoeing). Cobscook Bay State Park, in the Edmunds Division, has camping facilities with spectacular views of Maine’s rugged coast.

Facilities for individuals with physical challenges are available. These include a viewing deck, nature trail, fishing pier, and restrooms. Contact the refuge office for a detailed map of the Baring Division.



Restricted Activities



Do not disturb or remove any wildlife, plants, artifacts, or government property. Pets are allowed but must be leashed at all times. Camping is only permitted on that part of the refuge known as Cobscook Bay State Park. This portion of the Edmunds Division of Moosehorn NWR is being leased by the Maine Department of Parks and Recreations.



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