

Doing the Right Thing In the Right Place



Moosehorn National Wildlife Refuge, Sustaining Healthy Forests for Wildlife, Plants, and People

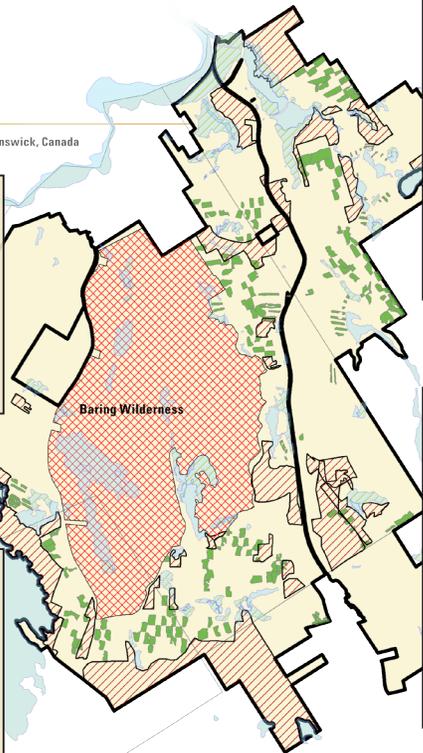
About The Refuge

Moosehorn National Wildlife Refuge is a northern treasure in the National Wildlife Refuge System. It is in northeastern coastal Maine bordering the boreal forests in New Brunswick, Canada. Moosehorn is part of the Northern Maine Refuge Complex and has management responsibility for five other units of the Refuge System in central and northern Maine. The diversity of forests and wetlands at these areas provides habitat for over 225 species of birds, endangered species, resident wildlife, and rare plants.



Habitat connectivity is important at the refuge. The refuge will work with partners to identify important corridors and will manage the refuge to provide connectivity within the surrounding landscape.

The refuge contains 7,508 acres of federally designated wilderness where no active management will occur, providing mature forest habitat for bird species such as the bay breasted warbler and northern parula, and mammals such as the fisher, that prefer older aged forests.



The Moosehorn Comprehensive Conservation Plan will describe how the refuge will be managed to make the most valuable contribution to the surrounding landscape, the State of Maine, and the Northern Forest. In the future, more of the refuge's forest will be managed for late successional habitat which is underrepresented statewide.

Since its establishment in 1937 portions of the refuge have been managed to provide early successional habitat to benefit a wide variety of species including the American woodcock, chestnut-sided warbler, ruffed grouse, and resident mammals such as deer and moose.

Moosehorn NWR protects over 29,000 acres of wildlife habitat in eastern Maine, including inland and coastal wetlands, spruce-fir and aspen-birch forests, cedar swamps, bogs, lakes, ponds, blueberry barrens, and old fields.

- Harvest Units
- Baring Wilderness Area
- No Cut Areas
- Refuge Boundary

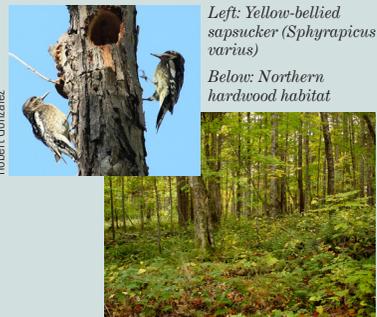
Conservation Designed To Make a Difference

Wildlife conservation is a top priority at the refuge. The refuge provides regionally significant breeding and migratory habitat for a variety of migratory birds.

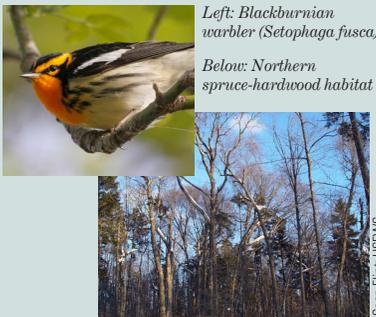
Commercial forest management is used to provide habitat for "focal species." Focal species represent a variety of wildlife and plants that utilize similar habitats. The forested upland focal species are:

- Yellow-bellied sapsucker
- Blackburnian warbler
- Northern parula
- American woodcock

The refuge contains a mosaic of spruce-fir, northern hardwood, and northern hardwood-conifer forest communities that provide habitat for these species.



Left: Yellow-bellied sapsucker (*Sphyrapicus varius*)
Below: Northern hardwood habitat



Left: Blackburnian warbler (*Setophaga fusca*)
Below: Northern spruce-hardwood habitat



Left: Northern parula (*Setophaga americana*)
Below: Late successional spruce-fir habitat



Left: American woodcock (*Scolopax minor*)
Below: Early successional young forest habitat

Perpetuate the biological integrity, diversity, and productivity of uplands to sustain plant communities and wildlife native to the Atlantic Northern Forest Region, including species of concern to the Service.

Strategic Habitat Management

Guided by our vision for the refuge's future, we've developed a strategic approach to maintaining and enhancing wildlife habitat while protecting sensitive resources. To be strategic, landscape scale planning guides stand level decisions. Refuge plans will include:





Focal Species, Desired Forest Conditions and Forest Management

Forest management at the refuge is used to sustain well-distributed, high-quality habitat for species of conservation concern...

Focal species are used to represent a variety of wildlife and plants that utilize similar habitats. Focal species habitat requirements and other important ecological features are used to develop the *desired forest conditions*. Desired forest conditions are used to evaluate forest stands. When needed, forest management is used to create and maintain desired conditions.

Other important considerations for developing desired forest conditions include mixedwood forests with a high proportion of conifers, complex forest structure, deer wintering areas, coarse woody debris on the forest floor, and presence of large diameter snag and cavity trees.

Providing suitable habitat for focal species also provides habitat for a variety of associated wildlife and plant species.

Northern parula represents:

- Mature spruce-fir habitat
- Cape May warbler
- Bay-breasted warbler
- Spruce grouse
- Wintering white-tailed deer
- Pine marten
- Velvetleaf blueberry
- Threelobed goldthread
- And more



Northern parula (*Setophaga americana*)

Forest Management Prescriptions

Forest management prescriptions include traditional silvicultural descriptions and important considerations for providing desired forest conditions. Prescriptions also include guidelines that protect vernal pools, describe important trees to reserve, and important considerations for road and landing layout.

- The prescription for American woodcock is to clearcut the forest where site conditions are best suited and, using area regulation, create and maintain 4 forest age classes (40-year rotations) distributed in approximately 5 ac patch sizes.
- Prescriptions for other focal species include single tree and group selection harvests that rehabilitate (or maintain) forests with attributes important to focal species and similar to those that developed through natural processes such as greater than 70% canopy closure, a range of tree ages including some more than 120 years old, shade-tolerant plant species, large diameter trees, small openings of varying size, and a variety of understory layers.

Further emphasized are the retention of:

- ▲ Coniferous tree species, particularly red spruce
- ▲ Snag and cavity trees that range in diameter
- ▲ Good candidates for future snag and cavity trees (damaged or in decline)
- ▲ Short lived species (e.g. aspen and balsam fir)
- ▲ Coarse woody debris on the forest floor
- ▲ Super-canopy trees, especially large pines, but also eastern hemlock and red spruce
- ▲ Trees with large horizontal branching
- ▲ Uncommon tree species
- ▲ Beech trees, especially those that exhibit potential resistance to beech bark disease



For more information on Strategic Habitat Management at Moosehorn National Wildlife Refuge, visit:

<http://www.fws.gov/refuge/moosehorn/>

Other information is available at: p3130-13518358.toursphere.com