Some focus species of greatest conservation need



American marten

The American marten, is a member of the mustelid (weasel) family. The name mustelid comes from the fact that members of this family have scent glands which produce strong odors that are often used to mark territories. Other members of this family that can be found in New York include fisher, weasel, mink, and the river otter.



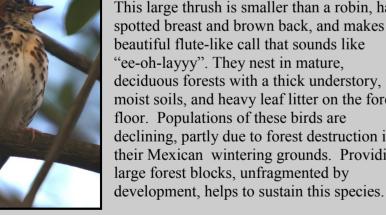
Eastern red bat

Common in warmer southern states, the red bat is less abundant in New York. In the late 1800s, red bats were reported migrating in substantial flocks during the daytime. Today, daytime encounters rarely exceed more than a few individuals. Female red bats are noticeably grayer than the reddish-orange males. Reds typically roost low in the trees among dense foliage.



Wood thrush

This large thrush is smaller than a robin, has a spotted breast and brown back, and makes a beautiful flute-like call that sounds like "ee-oh-layyy". They nest in mature, deciduous forests with a thick understory, moist soils, and heavy leaf litter on the forest declining, partly due to forest destruction in their Mexican wintering grounds. Providing large forest blocks, unfragmented by



Ruffed Grouse

The Ruffed Grouse is dependent on early successional stages of forest growth, and its numbers have declined in recent years as forests have matured. If habitat is managed for grouse, up to 40 additional species of early successional habitat species of wildlife also flourish.







Some wildlife species found in Northern Hardwood forests

The species listed here are closely associated with Northern Hardwood forests. Be on the lookout for these species and follow stewardship guidelines to help maintain or enhance habitats for these and other species that depend on these woodlands. The species below in **bold face** are listed as Species of Greatest Conservation Need (SGCN) as identified in the N.Y. Comprehensive Wildlife Conservation Strategy.

Birds	Mammals	Reptiles/amphibians
American woodcock	American marten	Blue spotted salamander
Canada warbler	Black bear	Ribbon snake
Cerulean warbler	Bobcat	Smooth green snake
Cooper's hawk	Coyote	Wood turtle
Golden eagle	Eastern red bat	Worm snake
Ovenbird	Flying squirrel	
Northern goshawk	Gray fox	
Pileated woodpecker	Hoary bat	
Ruffed grouse	Moose	
Spruce grouse	Silver haired bat	
Wild turkey	White-tailed deer	
Wood thrush		

Authorship

Veery

Worm eating warbler

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About the Habitat Stewardship Series

Much of the land in New York State is privately owned. Landowners are the primary stewards of our wildlife and woodlands, which also provide clean water, scenic views, fresh air, natural and cultural heritage, forest products, and recreational resources. The Habitat Stewardship Series has been created to help landowners and land managers recognize the habitats critical for wildlife species at risk, and to illustrate the role private landowners can play in sustaining these species through conservation, management, and sound stewardship. For information on woodland management, and the N.Y. Comprehensive Wildlife Conservation Strategy, go to: http://www.dec.ny.gov/animals/30483.html, or http://www.nyfoa.org.

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Northern Hardwood Forests

Habitat Stewardship Series



A collaborative effort of:

The New York State Department of **Environmental Conservation**, The New York Forest Owners Association, Cornell Cooperative Extension of Chenango County, **Cornell University Department of Natural Resources**



Recognizing Northern Hardwood Forests

Thousands of acres of Northern Hardwood forests grow on well-drained, fertile slopes of hillsides in New York State. Northern hardwood forests are typically made up of sugar and red maple, American beech, yellow birch and, to a lesser extent, black cherry and white ash. Other tree species that are fairly common in northern hardwood forests include eastern hemlock, basswood, eastern red oak, and white pine. Striped maple, witch hazel, and hobblebush shrubs are found in the understory with a variety of wildlfowers on the forest floor. The vast expanses of northern hardwood forests found over much of New York State are famous for spring wildflower displays and brilliant fall foliage. The best examples of northern hardwood forests have patches of large trees in the canopy, young trees in the understory, many standing dead trees (snags), and abundant dead and decaying trees on the ground. Large cavity trees, pockets of wetlands, spring seeps and patches of conifers make some areas of northern hardwood forests especially rich for wildlife.



A typical mixed Northern Hardwood forest interspersed with cropland, grassland, and shrubland in New York State, providing a diverse variety of wildlife habitat

Where are northern hardwood forests in New York State, and who owns them?

New York State has a total land area of 30.2 million acres, and is 63% covered in forests; 18.95 million acres total. Northern hardwood forests (maple-beech-birch) make up 53% of the forested area in New York State, just over 10 million acres total, and is the most common forest type in the state. Lands with extensive examples of northern hardwood forests, with conifer inclusions include parts of the Adirondack and Catskill Parks. They are also found over much of the rest of the state, such as the vast Southern Tier. Northern hardwood forests are also found through the Saint Lawrence River Valley and through the Champlain Valley of eastern New York. 687,000 private forest landowners own 76% of New York's forest lands. Private forest landowners have a critical role in maintaining northern hardwoods forests and their associated wildlife populations.

Northern Hardwood Forests





Northern-Hardwood forests provide habitat for hundreds of species of wildlife, including reptiles, amphibians, mammals, birds, and freshwater fish. Why are New York's Northern Hardwood Forests important to Wildlife?

- Keep common wildlife common: Northern hardwood forests help keep our common wildlife common, providing space for everything from the smallest insects to the widest-ranging mammals and birds. Today, sightings of black bears, scarlet tanagers, pileated woodpeckers, and fisher are becoming more common.
- **Refuge for forest birds:** New York forests are home to a high concentration of breeding songbirds. Migrating birds such as eastern wood-pewee, black-throated blue warbler, wood thrush and many others time their arrival to coincide with the swarms of insects (such as black flies and mosquitoes) that are an important food source for young birds. Maintaining rich and healthy breeding areas for these birds is especially important.

Some risks to Northern Hardwood Forests:

- Uniformity: Many stands of northern hardwood forests in New York are the same age, roughly 80-100 years old. They grew back after extensive timber harvesting and abandonment of farms throughout the last century. Many wildlife species of conservation concern found in northern hardwood forests are attracted to patches of old growth, or younger early successional habitat within the larger forest area. As a result, many of today's uniform forests don't support the same high diversity of wildlife species as older forests that contain a diversity of live and dead trees of different ages and sizes and early successional forests.
- High-grading is a non-sustainable logging practice where the best trees are
 cut and poor quality trees are left to grow; "take the best and leave the rest".
 Some forests have been repeatedly high-graded, and are now dominated by
 low-quality, low-value trees and are less dense, less mature, and less diverse.
 High-grading affects wildlife by removing the larger diameter trees, which
 reduces the development of large nut-producing trees, large diameter cavity
 trees, and lessens woody material on the woodland floor.

Stewardship Guidelines for Northern Hardwood Forests

• Conserving large blocks (>1000 acres) of northern hardwood forest from development will provide habitat for wide-ranging wildlife such as black bear, bobcat, and northern goshawk. Landowners with small holdings can contribute by allowing some land to revert to old growth.

Focus on northern hardwood habitat with these unique features:

- *Large trees* (>18" diameter) which are important for roosting bats, goshawk nests, and as future snags (standing dead trees) and den trees for bears, bats, birds, and other species.
- Forested areas near wetlands, streams, ponds, or spring seeps which provide
 moist habitat for wood turtle, blue-spotted salamander, ribbon snake, wild
 turkeys, and many songbirds.
- Areas of young, regrowing forest, which provide critical habitat for many wildlife species of conservation concern such as American woodcock, Canada warbler, and ruffed grouse. Patches at least five (5) acres in size will benefit the most wildlife.
- Areas of mature forest with characteristics of old-growth, such as:
 - -many snags and cavity trees
 - -a diversity of tree sizes including both young a and old trees growing at all levels of the forest
 - -fallen, decaying trees on the forest floor gaps in the canopy where trees have fallen or been cut.



- **Pockets of spruce, fir, pine or hemlock trees** (conifers), used as winter shelter by northern goshawk, great horned owl, red squirrel, and deer.
- Using forest management, work to regenerate a mix of tree age classes and tree species. A full range of age classes, well-distributed across the landscape, is important to support the great diversity of wildlife dependent on northern hardwood habitats.
- Provide a supply of patches, over time, of young, regenerating forest (>2 acres) to enhance cover for wildlife, berry-producing shrubs, stump sprouts, and other key features of early successional habitats.
- Always consult a NYSDEC Cooperating Consulting forester before conducting a timber harvest on your property.
- Discuss land stewardship plans with neighboring landowners; consider cooperating with them to create coordinated habitat management projects.