

The Northern Goshawk is an uncommon and declining year-round resident in forested areas of the Hudson River Valley.

Conservation Status

New York State regards this hawk as a Species of Greatest Conservation Need and lists it as Special Concern. Breeding Bird Survey data indicate that its population has drastically declined in New York over the past four decades. NYS Breeding Bird Atlas data reflect a decline in its distribution in the Hudson River Valley.

Identification

This bird is large and aggressive, with a heavy body, comparatively short, broad, rounded wings, and a long tail. The adult has a blue-gray back, pale, streaked underparts, with a dark cap and streak through the eye, a white eyebrow stripe, red eyes, and yellow legs. The immature is brown overall with yellow eyes. The female is larger than the male.



Habitat

Goshawks are found in mature, mixed stands of birch, beech, maple, and eastern hemlock. There are three critical needs for maintaining populations: a nest area, a post-family fledging area, and a foraging area. Large areas need to be identified and managed in such a way that all these necessary habitat attributes are available to support the species. In addition to forest cover type, other habitat attributes such as stand structure, patch size, landscape features, woody debris, snags, understory vegetation, openings, and canopy closure are important to goshawks and their prey. In Colorado estimated area requirements are 300 square miles of forest for 40 pairs. Habitat patch connectivity is also important to consider.

Food

This aggressive predator is built to move quickly and quietly. It approaches its prey stealthily, moving unnoticed through dense cover, until it is close enough to overcome its prey in mid-air with a burst of speed, or drop out of a tree and swoop down on ground-dwelling prey. The goshawk feeds on a variety of prey, including squirrels, rabbits, grouse, woodpeckers, and large passerines such as American Robins and crows. When breeding, the female generally defends the nest while the male provides food for the family. Foraging males rapidly traverse large home ranges when searching for prey. Goshawks are well adapted for hunting in forests, but also hunt open habitats.

Nesting

The nest, a platform made from thin sticks lined with bark and greenery, is typically placed at a major crotch in a tree 25-50 feet off the ground. The female does most of the nest construction, and the nest may be reused from year to year, growing quite large. This species prefers to nest in large forested areas containing mature timber; smaller forest tracts are seldom used. Nests are typically in mature to old-growth forests composed primarily of large trees with high (60–90%) canopy closure near the bottom of moderate hill slopes with sparse ground cover. Small forest openings may

increase nest access, serve as travel corridors, support open-country prey, or reduce flight barriers to fledglings. Both birds aggressively defend the nest, attacking any intruder, including humans. The single nesting density estimate for the eastern U.S. is 1.17 pairs per 60 square miles. Home ranges during nesting vary from 235-1,400 acres depending on sex and habitat characteristics.

Threats

- Timber practices can remove nest trees and degrade habitat by reducing stand density and canopy cover.
- Disturbance from human activities near nests during the incubation and nestling periods can cause nest failure due to abandonment.
- Fire suppression and insect and tree disease outbreaks can result in the deterioration or loss of nesting habitat.
- Predation on adults and nestlings by Great Horned Owls.

Management Recommendations

- Provide a nesting area of 30 acres of large, mature trees per pair.
- Leave a 20-acre buffer around each nest site.
- Provide a post-fledging area of at least 400 acres per nest.
- Maintain the post-fledging area by providing a variety of forest conditions and prey habitat attributes by timber harvest and prescribed burning.
- Provide a foraging area for each nest that encompasses 5,500 acres and is managed similarly to the post-fledging area, except that it should provide larger forest openings and less canopy coverage.
- Confine management activities to the non-breeding season.

This management summary is adapted from James 1984, NatureServe 2008 and Squires and Reynolds 1997.

For additional information, see the following references:

Block, W. M., M. L. Morrison, and M. H. Reiser, eds. 1994. The Northern Goshawk: Ecology and Management. Studies in Avian Biology no.16. Cooper Ornithological Society, Camarillo, CA. http://elibrary.unm.edu/sora/Condor/cooper/sab_016.pdf.

Bosakowski, T. and D.G. Smith. 1997. Distribution and species richness of a forest raptor community in relation to urbanization. *Journal of Raptor Research* 31:26-33.

Bosakowski, T., and D. G. Smith, 2006. [Ecology of the Northern Goshawk in the New York-New Jersey Highlands](#). *Studies in Avian Biology* no. 31:109-118.

Bosakowski, T., and R. Speiser. 1994. Macrohabitat selection by nesting Northern Goshawks: implications for managing eastern forests. *Studies in Avian Biology* no. 16:46-49. http://elibrary.unm.edu/sora/Condor/cooper/sab_016.pdf

James, R. D. 1984. Habitat Management Guidelines for Ontario's Forests: Nesting Accipiters, Buteos and Eagles. Ontario Ministry of Natural Resources. <http://www.mnr.gov.on.ca/mnr/forests/forestdoc/guidelihes/pdfs/buteos.pdf>.

Kimmel, J. T. and R. H. Yahner. 1994. The northern goshawk in Pennsylvania: habitat use, survey protocols, and status. Final Report. School of Forest Resources, Pennsylvania State Univ., University Park, PA.

Morrison, M. L, ed. 2006. The Northern Goshawk: a Technical Assessment of its Status, Ecology, and Management. *Studies in Avian Biology* no. 31 Cooper Ornithological Society, Camarillo, CA.

NatureServe. 2008. NatureServe Explorer: an Online Encyclopedia of Life [web application]. Version 7.0. NatureServe, Arlington, VA. Available <http://www.natureserve.org/explorer>. (Accessed: April

Speiser, R., and T. Bosakowski. 1987. Nest site selection by Northern Goshawks in northern New Jersey and southeastern New York. *Condor* 89:387-394. <http://elibrary.unm.edu/sora/Condor/files/issues/v089n02/p0387-p0394.pdf>

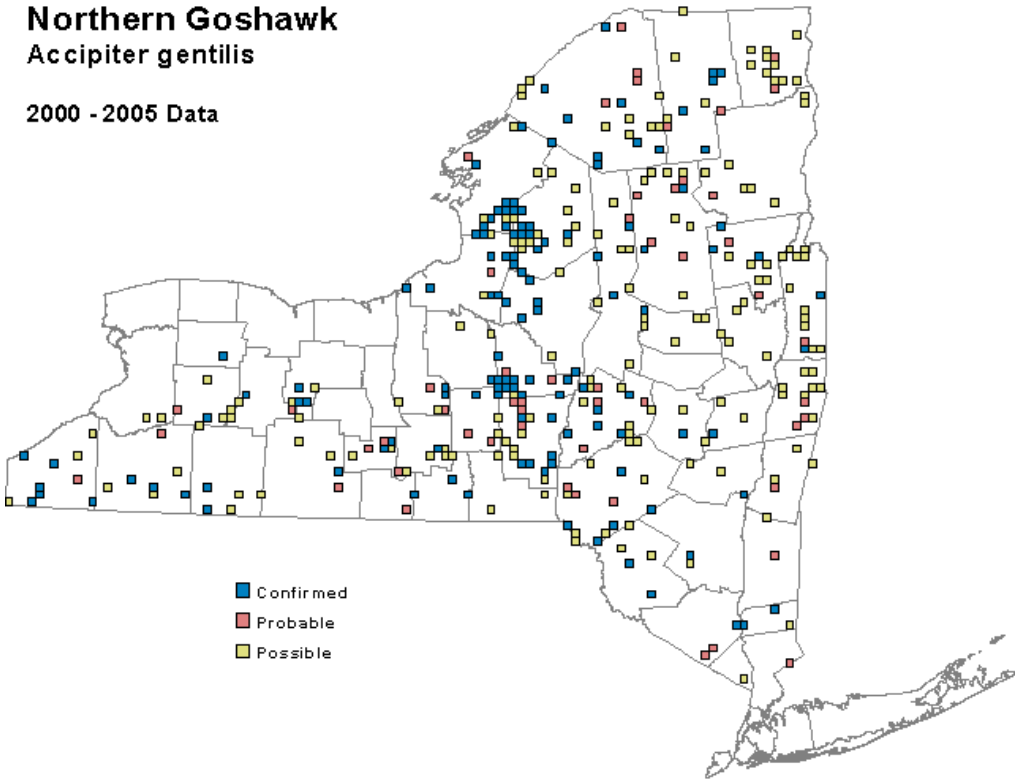
Squires, John R. and Richard T. Reynolds. 1997. Northern Goshawk (*Accipiter gentilis*), *The Birds of North America Online* (A. Poole, ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/298>

U. S. Fish and Wildlife Service. Gulf of Maine Watershed Habitat Analysis. 2001, Northern Goshawk Habitat Model. http://www.fws.gov/r5gomp/gom/habitatstudy/metadata/northern_goshawk_model.htm.

NYS BREEDING BIRD ATLAS COMPARATIVE DATA

Northern Goshawk
Accipiter gentilis

2000 - 2005 Data



Northern Goshawk
Accipiter gentilis

1980 - 1985 Data

