

Northern Goshawk, *Accipiter gentilis*

Status:

State: Endangered

Federal: Not listed

Identification

The northern goshawk is the largest of the three North American accipiters, or forest hawks. Female goshawks are similar in size to the common red-tailed hawk (*Buteo jamaicensis*), whereas male goshawks are somewhat smaller. Like all accipiters, goshawks exhibit short, rounded wings and a long tail compared to those of buteos such as the red-tailed hawk. The goshawks' wings are more tapered or falcon-like and its tail is broader than that of its closest relative, the Cooper's hawk (*A. cooperii*). The wing beats of the northern goshawk are heavy and deep like those of some of the larger species of buteo. The call of the northern goshawk is a series of loud, piercing "cacks" that can be heard from nearly a mile away.

Adult northern goshawks are pale blue-gray on the back and whitish underneath with fine charcoal-colored barring. Juveniles are brown above with a narrow, tawny bar across the upperwing and buff-colored below with broad, dark vertical streaking on the breast and belly. Juvenile goshawks obtain adult plumage during their first molt, which occurs in their second year of age. All ages show a diagnostic broad, white superciliary (eyebrow) line. Eye color changes from yellow in juveniles to blood red in adults. The sexes are nearly identical in plumage.



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Habitat

The northern goshawk nests in mature, contiguous forests that are safeguarded from human activity and development. Characteristics of goshawk breeding forests include large-sized trees, a closed canopy, and an open understory. Northern goshawks may nest in wooded swamps, lower gentle slopes, or flat areas at elevation. Goshawk nesting territories may contain small, unfrequented roads or trails within the forest, which the birds may use for foraging or as landmarks. In the Highlands region of New Jersey and New York, goshawk nests were located, on average, more than 1,000 m (3,280 ft) from paved roads or areas of human habitation (Bosakowski and Speiser 1994).

Northern goshawks may occupy coniferous, deciduous, or mixed forests. In northern New Jersey, territories have been located in northern hardwood/hemlock stands, oak-dominated stands, maple forests, mixed conifer (hemlock, pine, cedar)/northern hardwood stands, or groves of white (*Pinus strobus*) and red pine (*P. resinosa*). The southern New Jersey nest was located in a dense Atlantic white cedar (*Chamaecyparis*

thyoides) swamp surrounded by mature mixed forest. Nests may be located in either deciduous or coniferous trees, although deciduous trees are used more frequently by goshawks nesting in New Jersey. The nest is constructed in a crotch in the lower canopy layer of a large, canopy-sized tree, such as an American beech (*Fagus grandifolia*), black birch (*Betula lenta*), oak (*Quercus spp.*) maple (*Acer spp.*), white pine, red pine, or hemlock (*Tsuga canadensis*). Within their nesting territory, goshawks maintain plucking posts, favored sites such as trees, stumps, fallen logs, or old nests, where the birds consume their prey.

Goshawk habitat use is much less restrictive during the nonbreeding season. During migration and winter, goshawks may forage in mature as well as young woods, scrubby areas, and treelines along marshes or open fields. Forested stands are favored for roosting, as they provide shelter against harsh weather.

Status and Conservation

Historically, northern goshawk were shot in large numbers by farmers and hunters who regarded the goshawk as a pest because it consumed chickens and game birds. In 1929, Pennsylvania passed a law entitling gunners a \$5 bounty for each dead goshawk. Fortunately, conservation has accomplished a great deal and laws now exist to protect birds such as the goshawk, rather than harm them.

The northern goshawk was not discovered as a breeding species in New Jersey until the later half of the 20th century. Although possible breeding was suspected in the 1950s, the first goshawk nest in New Jersey was not confirmed until 1964. During the 1960s and 1970s, the goshawk expanded its breeding range in the northeast, nesting in northwestern New Jersey, Pennsylvania, New York, and Connecticut. The maturation of eastern forests may have facilitated the surge in nesting goshawks. In 1982, there were nine confirmed pairs of goshawks in New Jersey (Speiser and Bosakowski 1984). The Breeding Bird Atlas confirmed breeding goshawks in 13 atlas blocks from 1993 to 1997 (Walsh et al. 1999).

Due to its need for large contiguous old-growth forest, a habitat type of limited availability in the state, and its rarity as a breeder, the northern goshawk was listed as a threatened species in New Jersey in 1987. Breeding Bird Surveys revealed a decline in goshawk populations in the Northeast from 1980 to 1999 (Sauer et al. 2000). Due to the increasing threats facing forested habitats and the scarcity of nesting goshawks, the status of the goshawk was reclassified as endangered in 1999. The New Jersey Natural Heritage Program considers the goshawk to be “apparently secure globally,” yet “critically imperiled in New Jersey because of extreme rarity” (Office of Natural Lands Management 1992).

In 1995, the first goshawk nest was discovered in the Pinelands of southern New Jersey. Perhaps in the future contiguous, mature forests protected in the Pinelands Preserve will provide additional sanctuary for nesting goshawks, enabling them to expand their range and increase their population in the state.