

Liberty Wildlife Rehabilitation Foundation



Liberty Wildlife

Education Program's Natural History



Northern Goshawk



Northern Goshawk (*Accipiter gentilis*)

Description: In addition to being North America’s largest accipiter, the Northern Goshawk is the most widely distributed accipiter in the world. Adult goshawks are brown-gray to slate-gray on top with pale gray barred underparts. Their heads have a dark crown or “cap” with a wide white stripe over the eye; the eye is orange to red in color. Underparts are light gray with some black streaking. The tail is dark gray above with 3 to 5 inconspicuous broad, dark bands, and sometimes a thin white terminal band. Females typically are larger, browner, and have more heavily marked underparts. Juveniles are generally brown on top and have brown streaking on the chest, with narrow dark bands in the tail. They have an indistinct pale eyebrow stripe and yellow eyes. Females average 24 inches in length with a wingspan of 41 to 45 inches and weigh 2½ to 3 pounds. The smaller males average 22 inches in length, with a wingspan measuring 39 to 41 inches and weighs 1½ to 2¼ pounds.



Female Adult – second year

Cornell Lab of Ornithology, Birds of North America Online



Juvenile

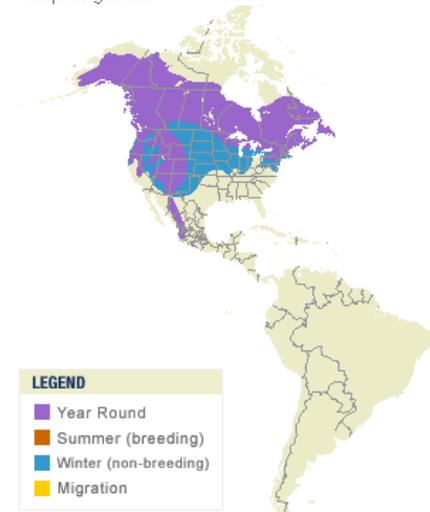
Cornell Lab of Ornithology, Birds of North America Online

Range: Northern Goshawks are found throughout the mountains and forests of North America and Eurasia. In North America they range from western central Alaska and the Yukon territories in the north to the mountains of northwestern and western Mexico. They are typically not found in the southeastern United States.

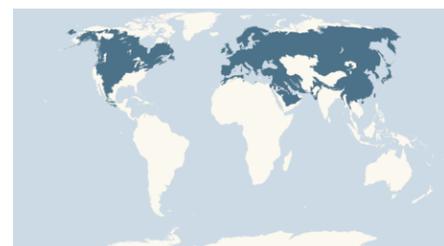
In Eurasia they are found in British Isles, Scandinavia, northern Russia and Siberia, south to Mediterranean region, Asia Minor, Iran, Himalaya Mountains, eastern China, and Japan.

Habitat: The Northern Goshawks can be found in coniferous and deciduous forests. However, researchers have found that these birds may avoid areas of very dense forest. During their nesting period, they prefer mixed woods rather than pure stands of coniferous trees. They seek out mature forests with a combination of old, tall trees with intermediate canopy coverage and small open areas

Northern Goshawk
Accipiter gentilis



Map by Cornell Lab of Ornithology
Range data by NatureServe



within the forest for foraging. High canopy closure is one of the most uniform habitat characteristics of Goshawk nest stands.

Most goshawks remain in the same area throughout their lives. During the cold winter months they migrate to warmer areas, usually at lower elevations. Only the goshawks that breed in the northern and northwestern parts of North America migrate. They fly south for the winter and then return home in the spring. During winter incursions to the south, may be found in any forest type.

Hunting/Prey: Because of the expanse of the Goshawks range, they may hunt in diverse habitats ranging from open-sage steppes to dense forests, including riparian areas. Goshawks are well adapted for hunting in forests but also hunt open habitats. In their forested habitats, they will hunt inside the forest or along its edge. At times, they are short duration sit-and-wait predators, perching briefly while searching for prey before changing perches. Other times, they will fly low to the ground in the hopes of scaring up prey. Their short, powerful wings allow rapid acceleration and their long tails quick maneuverability in trees. They take their prey by putting on bursts of amazingly fast flight, often twisting among the branches. As an aggressive North American hunting hawk, Goshawks eagerly crash through brush in the intensity of pursuit to capture prey or readily strike intruders approaching their nests. Their reckless nature when hunting is legendary among falconers.

The Goshawk is a powerful hunter capable of killing an extremely wide variety of birds and mammals of varying sizes. Depending on where they live, prey species include mice, shrews, chipmunks, jackrabbits, squirrels, grouse, raccoons, foxes, hares, geese, doves, woodpeckers, and crows. Known as a predator of other birds of prey, Northern Goshawks have been documented hunting Red-tailed Hawks, owls, kestrels, and Honey Buzzards, among other raptor species. Individual prey can weigh up to half the weight of the goshawk. The average diet ranges from 21% to 59% mammals; 18% to 69% birds, and the remaining percentages being made up of reptiles and invertebrates. Northern Goshawks sometimes save prey on tree branches or a crotch of a tree for up to 32 hours. This is usually only done by adults when nestlings are small and need frequent feedings. Most cached items are fed to the young on the same day it was caught.

Nesting/Breeding: Northern Goshawks can begin to breed when they are 1 to 2 years old. They breed once a year between early April and mid-June. A mating pair of Northern Goshawks begins to prepare their nest as early as two months before laying eggs. Prior to and during nest building, one or both birds perform aerial displays to advertise their territory. Typically the pair will perform a “sky dance” as part of their courtship, which involve high-circling with the male diving at the female high above the forest canopy or chasing her through the trees followed by slow-flapping flights, where the pair often then fly together in an undulating glide above the trees - one of the few times they are relatively easy to spot. Pair members may be silent during the display or may be highly vocal, uttering wails and chatters.

Northern Goshawks usually choose the largest trees in a stand for nest sites, placing the nest next to the trunk on a large horizontal branch or in a primary or secondary crotch. In the East and Midwest, goshawks choose beech, maple, oak, and aspen trees for their nests. Western birds build nests in conifers, such as Douglas-fir, white fir, and California red fir, ponderosa pines, western larch, and western hemlock, along with deciduous trees including aspens and paper birch.



During courtship, the female goshawk builds the nest or repairs an existing nest, sometimes with help from the male. Goshawks often reuse nests from previous years or appropriate nests of other accipiters. She gathers sticks from the forest floor or breaks them off trees near the nest site, carefully choosing material less than an inch across. Once constructed, the birds line the nest bowl with tree bark and greenery, and may continue adding fresh green material throughout the nesting period. Finished nests measure 3 to 4 feet long, 1½ to 2¼ feet wide, and nearly 2 feet high. Northern Goshawks are monogamous, and pairs typically lay a single clutch of three to four eggs each year. The incubation period lasts 35 to 38 days and the female does most of the incubating. Once the chicks hatch, males provide the bulk of the food while females guard the nest site. Young goshawks fledge when they are 36 to 42 days old, and become independent four to eight weeks later. Males fledge earlier and become independent sooner than their female siblings. Fledglings remain dependent on their parents and continue to associate with each other while their flight feathers harden and they learn how to hunt. As they become more proficient in flight, fledglings fly toward and intercept their parents as the latter return with prey. At 10-12 weeks of age, the youngsters begin to become independent of their parents' care, though they may stay in their parents' territory for up to one year.

Lifespan: The oldest known Northern Goshawk was at least 17 years, 7 months old, based on banding records from Michigan. One review reports a captive Northern Goshawk living 19 years.

Threats: There are few natural predators of the Northern Goshawks. Red-tailed hawks, short-eared owls, great horned owls, American martens, wolverines, coyotes, bobcats, and northern raccoons have been known to prey upon goshawks, particularly nestlings, during times of low food availability.

Timber harvest is a primary threat to nesting populations. Each year nests are destroyed by logging operations, but impacts to nesting populations are unknown; breeding densities may be lowered or individuals may redistribute to adjacent areas. Harvest methods that create large areas of reduced forest canopy cover may be especially detrimental. Other potential sources of Northern Goshawk mortality include starvation, disease, shooting, trapping, poisoning, and collisions with vehicles.

Northern Goshawks are widespread but uncommon, and their secretive nature makes it hard to estimate population trends. The North American Breeding Bird Survey indicates populations on the continent declined 21% between 1966 and 2014. Partners in Flight estimates the global breeding population at 400,000, with 27% spending part of the year in Canada, 23% in the U.S., and 1% in Mexico. The U.S. Forest Service includes the goshawk on its “Sensitive Species” list for many regions; this requires that proposed management activities, such as logging, consider potential impacts on goshawks.

Other Northern Goshawk Facts:

- Arizona’s Kaibab National Forest has the largest breeding goshawk population in the lower 48 states.
- Goshawks have also been called Blue Partridge Hawk, Blue Hen Hawk, Gray Hawk, and Blue Darter.



- The name goshawk comes from the Old English word for “goose hawk,” a reference to this raptor’s habit of preying on birds.
- Falconers have trained goshawks for more than 2,000 years. It was once called “cook’s hawk” for their success at snaring meat for the pot.
- During the Middle Ages, there was a hierarchy established for the type of bird a person could possess for falconry. For the Emperor, it was a Golden Eagle or a Gyrfalcon. A lowly yeoman or landed gentry could have “only” a Goshawk.
- The Northern Goshawk is found across northern America and Eurasia. Most of the Eurasian races have much darker barring on the chest than the American form, but about half of all Siberian goshawks are nearly white.
- John James Audubon was impressed by the Northern Goshawk’s hunting prowess, writing “When the Passenger Pigeons are abundant in the western country, the Goshawk follows their close masses, and subsists upon them. A single Hawk suffices to spread the greatest terror among their ranks, and the moment he sweeps towards a flock, the whole immediately dive into the deepest woods, where, notwithstanding their great speed, the marauder succeeds in clutching the fattest.”
- Northern Goshawks are secretive birds that typically live in large tracts of forest, so they are hard to find. Since they don’t typically occur in populated areas and are reclusive, any accipiter that you see in town or near a bird feeder is more likely a large Cooper’s Hawk than a goshawk.
- Northern Goshawks do not perch on posts and telephone poles along well-traveled roadways.
- Goshawks were once shot and trapped because they were seen as a threat to domestic poultry. In the 1930s, Pennsylvania and other states paid hunters a \$5 bounty for each goshawk they killed.
- Northern Goshawk pairs build and maintain up to eight alternate nests within their nesting area. Even with options available, they may use the same nest year after year, or may switch to a new nest after a brood fails. Pairs may add fresh conifer needles to the nest during breeding. Aromatic chemicals (terpenes) in the needles may act as a natural insecticide and fungicide.
- The Northern Goshawk is well known for its fierce defense of its nest. It commonly attacks people and other animals that approach the nest too closely.
- Attila the Hun wore an image of a Northern Goshawk on his helmet.
- It is commonly said that the Azores archipelago is named after the goshawk (Açor in Portuguese). Although there never have been any goshawks in the Azores, the first sailors reaching the islands confused them with the local buzzards (*Buteo buteo*). That originated the very name of the islands — “açor” (pl. “açores”) means precisely “goshawk” (the bird on the current Azores flag doesn’t look like a goshawk at all, but it is meant to be one).
- Unlike the other accipiters, Goshawk eats mammals equally as much as birds.
- The Northern Goshawk has been considered a Threatened Species since 1994.
- They are vocal, emitting a loud, screaming “Kak-Kak-Kak...” Its call can be heard at this site: https://www.allaboutbirds.org/guide/Northern_Goshawk/sounds





Adult (left) and juvenile (right) Northern Goshawks. Photos by Jack Kirkley.



Cersei

In May 2011, Cersei arrived at Liberty Wildlife as a juvenile with a fractured right wing. The veterinarian who brought Cersei in had kept the injured bird until the wing healed. The medical examination found that the left wing also had damage and there was severe feather damage to the healed wings. Determination of her flight abilities had to be delayed for a year until new feathers came in following the annual molt. During the subsequent flight testing, Cersei still was unable to fly any distance. Additional x-rays showed that during the year, both the right wing and left wing had changes to the bone structures. Despite physical therapy, the anomalies continued to limit the extension of her wings, allowing her to fly only short distances. Unreleasable now, Cersei was reassigned to the Education Team.

Compiled by Max Bessler

Sources: Cornell Lab of Ornithology “Birds of North America On-Line,” Cornell Lab of Ornithology “All About Birds,” National Audubon Society Field Guide On-Line, The Peregrine Fund, Hawk Mountain, Biokids University of Michigan, U.S. Forest Service, Hawk Watch International, Center for Biological Diversity, U.S Department of Interior/U.S Geological Survey 2016 Study “Longevity Records of North American Birds,” Raptors of Western North America by Brian K. Wheeler,

