

Liberty Wildlife Rehabilitation Foundation



Liberty Wildlife

Education Program's Natural History



Cooper's hawk



Cooper's hawk (*Accipiter cooperii*)

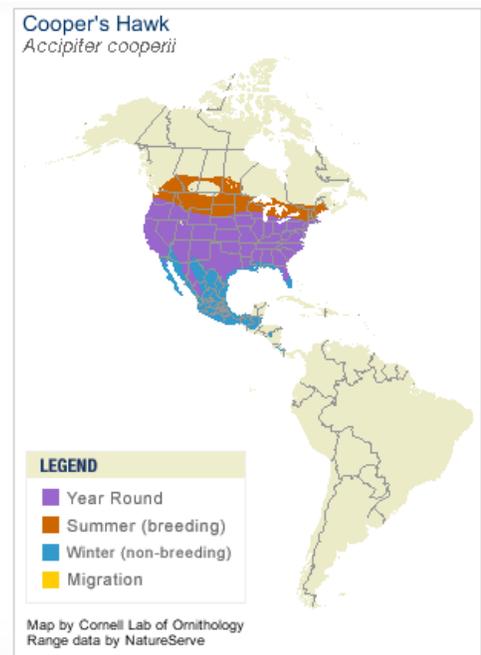
Description: Among the bird world's most skillful fliers, Cooper's hawks are common woodland hawks that fly through dense tree canopies in high speed pursuit of other birds. They are medium-sized accipiters with short, rounded wings and long rounded tails. Adults are grayish above and light underneath with rufous barring. Their crown is darker and contrasts with the lighter nape and buffy cheeks, giving them the appearance of wearing a "beret." The juvenile's iris is a grayish blue which becomes yellow during the second year of life and turning a deep orange-red as an adult.

Although the sexes are similar in plumage, the males on average are more brightly colored and markedly smaller than females. Males weigh an average of 12 ounces compared to the females, 19 ounces. The males measure from 14 to 16 inches in length with the females measuring 16 to 19 inches. They have a wing span between 2 and 3 feet. The western birds will be significantly smaller. Of the three bird-eating *Accipiter* hawks (Northern Goshawk, Cooper's hawk, and Sharp-shinned Hawk), the Coop Hawk is the mid-sized species and the most widespread as a nesting bird south of Canada.



Range: Cooper's hawks are common throughout the United States, southern Canada and Mexico. However as recent as the 1990's some the populations in 16 eastern states were listed as endangered, threatened, or of special concern. Some individuals remain in their home territory year-round, but those in the northern part of their range migrate to warmer areas when winter sets in and prey generally becomes harder to find. During migration, these hawks are known to fly as far south as Honduras, Nicaragua, Costa Rica, Panama, and even Colombia.

Habitat: The Cooper's hawk is a forest species and can be found in a variety of habitats, including mixed and deciduous forests, open woodlands, small woodlots, riparian woodlands, open and pinyon woodlands, semi-arid woodlands of the southwest United States and forested mountainous regions.



Once thought averse to towns and cities, Cooper's hawks have recently proven remarkably adaptable and are now fairly common urban and suburban birds. Some studies show their numbers are actually higher in towns than in their natural habitat, forests. Since Cooper's hawks naturally are adapted to hunting in structurally complex habitats such as full-leaved tree canopies, the urban/suburban settings represent a similar environment. Not surprisingly, the species often nests at higher densities in such regions than in 'natural' habitats; e.g., in Tucson, AZ, most nests were in or near urban areas, where nesting density actually was higher than in natural areas. Additionally cities provide plenty of Rock Pigeon and Mourning Dove prey which are found in abundance around bird feeders. However one study in Arizona found a downside to the high-dove diet: Cooper's hawk nestlings suffered from Trichomoniasis, a parasitic disease they acquired from eating infected dove meat.

Hunting/Prey: Cooper's hawks mainly eat birds. Small birds are safer around Cooper's hawks than medium-sized birds with studies showing that starlings, Mourning Doves, and Rock Pigeons are common targets along with robins, several kinds of jays, flickers, and quails, pheasants, grouse, and chickens. Cooper's hawks sometimes rob nests and also eat chipmunks, hares, mice, squirrels, kestrels, and, bats. In the west, mammals are more common in diets of Cooper's hawks.

The Cooper's hawk hunts by stealth and concealment, moving from perch to perch through dense cover and then pouncing with a rapid, powerful flight to overtake its prey. Their short, rounded wings make them very maneuverable fliers in dense, forested habitats. It will also fly close to the ground using bushes to conceal its approach or will also hunt during higher flights, stooping on prey in open habitat. Experienced hawks usually make only a single try at a prey, and then abandon the effort should that fail.

The Cooper's hawk captures a bird with its feet and kills it by repeated squeezing.

Falcons tend to kill their prey by biting it, but Cooper's hawks hold their catch away from the body squeezing it until it dies. They've even been known to drown their prey, holding a bird underwater until it stopped moving.

Nesting/Breeding: Cooper's hawks build nests in pines, oaks, Douglas-firs, beeches, spruces, and other tree species, often on flat ground rather than hillsides, and in dense woods. They prefer nesting trees that offer dense canopies to preclude depredation from other birds of prey. Nests may be reused either in successive or alternate years, but often a new nest is constructed.

Males typically build the nest over a period of about two weeks, with just the slightest help from the female. It is typically 25-50 feet high, often about two-thirds of the way up the tree in a crotch or on a horizontal branch. The platform nest of sticks and twigs measuring 27 inches in diameter and 6-17 inches high with a cup-shaped depression in the middle that is lined with softer material.

Most Cooper's hawks do not breed until they are at least two years old. They are monogamous, and many pairs mate for life. Pairs breed once per year and raise one brood per breeding season, but may have a second brood if the first fails early. The female usually lays three to six eggs with incubation taking 30-36 days. She does most of the incubating with the male providing food for her and their young. The female feeds the nestlings. If the female is away from the nest when the male returns, he will drop off food at the nest but will not feed the young. The young leave the nest after 27 to 34 days when they learn



to fly. The parents continue to provide food to the chicks until they learn to feed themselves at about 8 weeks old. Young fledge when they are 27-34 days old.

Lifespan: While Cooper's hawks are known to live as long as 12 years in the wild, the average age is found to be 16.3 months in a study of banded birds. The oldest recorded Cooper's hawk was a male and at least 20 years, 4 months old. It had been banded in California in 1986, and was found in Washington in 2006.

Threats: In the first half of the 20th century, many Cooper's hawks were shot on sight because they were considered a threat to chickens and game birds, such as quail. In fact, Cooper's hawks were often referred to by the unfortunate name of "chicken hawk," which didn't do much for their cause. In eastern North America in the 1930s, for example, mortality from shooting was estimated at between 28% and 47% for first-year birds. It is now known that predation by these hawks on domestic animals is negligible, and they are rarely hunted these days. Additionally, just like with so many birds of prey, including the Peregrine Falcon and Osprey, the use of DDT in the mid-1900s caused these birds to lay eggs with thin shells so that when the female sat on the eggs to incubate them, they often broke beneath her weight. This meant that very few young ever survived to hatching. This species has recovered remarkably well from both the use of DDT and heavy persecution. Today, populations are thriving owing mostly to this species' ability to exploit human-altered landscapes. Predation of the young by raccoons, the Great Horned Owls, Red-tailed Hawk, Goshawks and even immature Cooper's hawks remains one of the most widespread and important causes of mortalities. Collisions with human-made objects is the cause of 70% of deaths in urban Cooper's hawks. And degradation and loss of habitat through management activities like logging make their former habitat unsuitable for breeding.

Other Cooper's hawk Facts:

- Dashing through vegetation to catch birds is a dangerous lifestyle. In a study of more than 300 Cooper's hawk skeletons, 23% showed old, healed-over fractures in the bones of the chest, especially of the wishbone.
- The current population of this wholly North American species is estimated to be between one-hundred thousand and one million birds.
- Life is tricky for male Cooper's hawks. As in most hawks, males are significantly smaller than their mates. The danger is that female Cooper's hawks specialize in eating medium-sized birds. Males tend to be submissive to females and to listen for reassuring call notes from the females before they approach.
- The Cooper's hawk was named in 1828 by Charles Bonaparte (*American Ornithology*) for his friend and fellow naturalist William Cooper who collected specimens of the hawk that Bonaparte used in officially naming and describing the bird. Cooper became the first American to join the London Zoological Society.
- While studying Cooper's hawks, biologist Noel and Helen Snyder noticed that chicks often mistook the adult's red eye for a piece of meat and pecked at it with their sharp beak – a dangerous situation for a hunter that needs its vision. Yellow eyes, on the other hand, were ignored by the feeding chicks. They speculated that the long period of eye



color change from yellow to orange to red gave the adults several seasons of experience in feeding chicks before they began mistaking their eyes for food. (Weidensaul)

- The Cooper's hawk, as a natural predator of almost any North American bird smaller than itself, can inadvertently deplete populations of rarer, conservation-dependent species. The American kestrel, whose populations have experienced considerable decrease, is one species in which the extensive predation by the recovered Cooper's hawk population is a major concern.
- A Cooper's hawk can eat an amount of food equivalent to 12% of its body weight in one day. This is equivalent to a 120-pound person eating 14 pounds of food or about four or five large pizzas a day.
- In the fall, females migrate south before males, but in the spring the males migrate north before the females do.





Monk

Monk was found on the ground in 2012 as fledgling by a well-meaning rescuer. For the next several weeks, the rescuer fed him chicken before trying to release him and immediately realizing that Monk's flight ability had been compromised by the wing injury. Monk arrived at Liberty on July 7, 2012 with a healed fractured left wing and a crooked keel, possibly due to diet-caused calcium deficiency. His diminished flight ability classified him as non-releasable.

He joined Tukee as Liberty's newest education Cooper's hawks in 2013.





Photos above 2013



Photo 2016

Tukee

Tukee arrived at Liberty Wildlife as a fledgling in June 2012 having been transferred from another rehab facility in Phoenix. He was missing part of his left wing from the "wrist" on. It was apparent that it was an old injury since it had healed. The cause of the injury was unknown and left Tukee unreleasable because of his inability to fly. Steps were taken to see if he might be adaptable to becoming an education animal. Tukee responded well to being around people and standing on the glove with jesses. In a year, he was designated as one of Liberty's two new education Cooper's hawks along with Monk.

Compiled by Max Bessler

Photos by Carol Marshall, Claudia Kirscher and Barb Del'Ve

Sources: Raptors of Western North America by Brian Wheeler, The Peregrine Fund, Cornell Lab of Ornithology, Animal Diversity Web - University of Michigan Museum of Zoology, University of Michigan, The Carolina Raptor Center, Audubon Society, Hawk Mountain Sanctuary, National Geographic.

