

American kestrel

Falco sparverius

Class: Aves **Order:** Falconiformes (diurnal birds of prey) **Family:** Falconidae (falcons)

Other names: American sparrowhawk, Antillean sparrow hawk, Cuban sparrow hawk, Florida sparrow hawk, Guatemalan sparrow hawk, Hispaniolan sparrow hawk, San Lucas sparrow hawk, sparrow hawk.

Other subspecies: There are thought to be 17 different subspecies of the American kestrel, each varying in color and size [1].

Other Relatives:

Zoo Kestrel 0.1.0

'May' 0.1 – female

DOH: Approx. March-April, 2013 **AQ:** January, 2014 ~140 grams/5 oz

About May

May came from a wildlife rehabilitator in North Carolina. She suffered an injury to her right wing in the wild and was unable to be released after healing due to compromised flight. She is named for Cape May, which is a large gathering spot on the Eastern Flyway for migrating birds of prey in the fall.

Status

Least Concern

This species has an extremely large range, and hence does not approach the thresholds for Vulnerable under the range size criterion [2]

Data from the US Geological Survey's Breeding Bird Survey, National Audubon Society's Christmas Bird Count, nestbox monitoring programs, and Raptor Population Index (migration counts), collectively indicate long-term declines of American Kestrel populations in numerous regions of North America. [3]

Geographic Region

The American kestrel ranges across North and South America. They can be found in the United States, including locally in Delaware.

Habitat

American Kestrels occupy a wide range of habitats from alpine meadows to grasslands to deserts [4]. They are most likely going to be seen perched on top of telephone wires along the road in open country with few trees and short vegetation.

Characteristics

Weight: 2.82-5.81 oz

Length: It is 9-12 inches in length and has a wingspan of 21 inches.

Wingspan: 20.08-24.02 inches

Lifespan: Wild: 1 year 3 mos **Captivity:** 5 years 2 mos [5]

Physical Description

- The American Kestrel is one of the most colorful raptors and the smallest North American Falcon.
- They are around the size of a Mourning Dove, but have a larger head and longer, narrower wings [4].
- Both sexes have identifiable pairs of black vertical slashes on either sides of their faces, sometimes referred to as a "sideburn" or a "mustache" [4].
- Additionally, the square-tipped tail has a black band near the tip. American Kestrels have a short hooked beak, white cheeks, and pointed wings.

Special Adaptations

- Unlike humans, birds can see ultraviolet light. This enables kestrels to make out the trails of urine that voles, a common prey mammal, leave as they run along the ground. Like neon diner signs, these bright paths may highlight the way to a meal—as has been observed in the Eurasian Kestrel, a close relative. [4]

Dimorphism

Males: Males can be identified by their blue head and wings and their rusty-red back and tail, as well as their pale spotted belly.

Females: The females have the same reddish brown wings, back, and tail, but lack the blue coloring found in males. The female also has streaks on her breast rather than spots.



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Diet: Carnivore

Diet in the Wild: The diet of the American kestrel consists mainly of large insects and small rodents [1], but they may feed on other small vertebrates, too. This includes grasshoppers, beetles, dragonflies, butterflies, crickets, and sparrows. Unlike other falcons, they will often catch its prey on the ground.

Zoo Diet: small rodents, chicken

Behavior

- *Diurnal*, day active

Feeding Behavior

- Kestrels prefer to hunt from an exposed perch, which offers a vantage point over open areas to spot prey with its acute eyesight [1].
- Sometimes, they will stay in the same perch all day looking for prey or they will change perches every few minutes.
- They will also hover over their prey, facing into the wind, flapping and adjusting their long tails to stay in place, and then drop down on it [4].
- American Kestrels pounce on their prey with both feet, using its talons or beak to finish off their prey with blows to the head and neck [1].
- They will consume small meals on the ground or carry larger prey back to their perch.
- Kestrels hide surplus kills in grass clumps, tree roots, bushes, fence posts, tree limbs, and cavities, to save the food for lean times or to hide it from thieves [4].

Social Structure & Communication

- Males advertise their territory during breeding season by repeatedly climbing and then diving, uttering a short series of “*klee*” calls at the top of every ascent.
- Males in a courting pair may offer a gift to the female, usually in the form of food.

Home Life

- American kestrels compete over the limited number of nesting cavities and will attack and fight off other cavity nesting species including bluebirds, Northern Flickers, and small squirrels.
- When nature calls, nestling kestrels back up, raise their tails, and squirt feces onto the walls of the nest cavity. The feces dry on the cavity walls and stay off the nestlings. The nest gets to be a smelly place, with feces on the walls and uneaten parts of small animals on the floor [4].

Migration

- After breeding season, many kestrels migrate to spend the winter in areas with higher food abundance [1].
- Birds at northern latitudes and juveniles tend to migrate significant distances, while birds in more tropical regions may remain fairly resident year-round [1].
- Populations in Alaska & Canada may migrate as far as Panama and the Caribbean islands, and those in Tierra del Fuego may migrate northwards to the South American mainland [1].
- In winter in many southern parts of the range, female and male American Kestrels use different habitats. Females use the typical open habitat, and males use areas with more trees. This situation appears to be the result of the females migrating south first and establishing winter territories, leaving males to the more wooded areas [4].

Reproduction

- *Oviparous/ etc.*, descriptor OR *Placental mammal*
- Depending on its geographic location, the American kestrel will mate from March to April to early June.
- They will nest in cavities usually made by other animals or that occur naturally, such as woodpecker holes, rock crevices, or nooks in buildings.
- The male searches for the nesting sites, and then shows all the viable options to the female who ultimately makes the final choice.
- Females may mate with two or three males before deciding on a single mate.
- The female does most of the incubation, and will lay approximately three to seven eggs that will hatch in about a month.
- The male, at first, will bring food to the female who then feeds the chicks, but later that male will also feed the chicks.
- In about 30 days, the chicks will fledge but stay with their parents for a few weeks after fledging.

Conservation

- **Use & Trade:**
- **Threats:** The American Kestrel is the most common and widespread falcon on the continent. Apart from the Central United States, American Kestrels have been declining everywhere. Because the species is so widespread, however, they do not approach the thresholds for Vulnerable on the IUCN Red List.

- American Kestrel decline is linked with continued clearing of land and the felling of dead standing trees that these birds use for their nesting sites.
- Additionally, there are losing prey sources due to the clearing of hedgerows, trees, and brush for “clean” farming practices. Pesticides and pollutants can reduce clutch sizes and hatching success as well as destroy the insects and other prey the birds feed on. Nest box programs across the country including Delaware are being set up to provide alternate nesting sites for the birds.
- **Predators:** Despite their fierce lifestyle, American Kestrels end up as prey for larger birds such as Northern Goshawks, Red-tailed Hawks, Barn Owls, American Crows, and Sharp-shinned and Cooper’s Hawks, as well as rat snakes, corn snakes, and even fire ants [4].

Did You Know?/Fun Facts

- The American kestrel is America’s smallest falcon and is the only kestrel in the western hemisphere.
- Catch them by the hundreds at coastal migration sites—such as Cape May, New Jersey, or Kiptopeke, Virginia—in September or early October [4].
- Particularly in summer, listen for their shrill *killy-killy-killy* call to be alerted to when they're around [4].

References

- [1] Arkive, "American kestrel (*Falco sparverius*)," Arkive, 2015. [Online]. Available: <http://www.arkive.org/american-kestrel/falco-sparverius/>. [Accessed February 2015].
- [2] IUCN Red List, "Falco spaverius," The IUCN Red List of Threatened Species, 2012. [Online]. Available: <http://www.iucnredlist.org/details/22696395/0>. [Accessed February 2015].
- [3] Peregrine Fund, "Declines in American kestrel populations," American Kestrel Partnership, 2012. [Online]. [Accessed <http://kestrel.peregrinefund.org/index.php?action=decline> February 2015].
- [4] All About Birds, "American Kestrel," Cornell Lab of Ornithology, 2015. [Online]. Available: http://www.allaboutbirds.org/guide/american_kestrel/id. [Accessed February 2015].
- [5] S. Townes, "Falco sparverius," Animal Diversity Web, 26 January 2014. [Online]. Available: http://animaldiversity.org/accounts/Falco_sparverius/. [Accessed December 2014].