

# American Kestrel

Scientific Name: *Falco sparverius*



Publication 82  
(1099)

## Introduction

The American kestrel, also often called the sparrow hawk, is the smallest and most numerous falcon in North America. There are seven subspecies of kestrels, three of which inhabit the United States. Only one of these subspecies, *Falco sparverius sparverius*, is found in Ohio.

The kestrel population in Ohio grew as the state's forests were cleared for agricultural uses. Today it is common to see kestrels hovering and hunting for prey in the grass median between many of the state's major highways. According to Ornithologist Bruce Peterjohn, in Ohio, kestrels are found residing in all 88 counties; however, they are less numerous in the agricultural areas of the western part of the state. Kestrels are widely distributed, but fairly common winter residents in Ohio.

The kestrel can be found throughout North America. Breeding pairs can be found from Alaska and southern Canada through the United States (excluding southern Texas and the south tip of Florida) and Central America. This species winters from south-central Alaska, southern British Columbia, Ontario, Quebec, and Nova Scotia, into the northern United States south to the Bahamas and nearly all of Central America.

## Description

The American kestrel is a raptor or bird of prey. Most female raptors are larger than their male counterparts and kestrels are no exception. Generally, females of this species weigh

3 to 5.8 ounces, are between 9 and 12 inches long, and have a wingspan of 22.5 to 24 inches. Males weigh 3 to 5 ounces, are 8.75 to 10.5 inches long, with wingspans of 20 to 22 inches long.

Kestrels are beautiful birds with distinctive coloration. Kestrels are rusty brown above, with a black nape and two vertical black stripes on a white face; one of these resembles a mustache below the bird's eye and the other stripe is located near the bird's ear area.

American kestrels have several physical characteristics that are beneficial in their role as predators: they have large dark round eyes and their wings are long and pointed, improving their visual and flying abilities, respectively. The legs of both male and female are orange to yellow, and the beak is notched on both sides of the tip.

The male's crown is blue-gray with a reddish crown patch; it has slate gray to bluish wing coverts, and a reddish-brown tail terminating in a broad black stripe with white tips. The underbody--feathers, lower abdomen, and thighs--is cinnamon to pale buff with black spots. The female's crown is similar to the male's but paler. The female's back and upper wing coverts are more evenly barred with a dark brown color. The female kestrel's tail is barred and has a broad dark brown band near the end of the tail, followed by a narrow white band at the very end of the tail. The underparts are white to pale buff with pale streaks. Juvenile males have short, narrow black streaks on their breast

and upper abdomen and the back is completely barred. Juvenile females are similar to adult females, but abdominal streaks are darker and the dark brown band near the end of the tail is not as defined. Young kestrels molt into their adult plumage in the first fall of their lives.

## Habitat and Habits

American kestrels inhabit open areas including meadows, pastures, woodland openings, suburbs, city parks, and farmland. They live in diverse habitats where prey and elevated perch sites are available. Kestrels use three daytime hunting techniques when foraging for prey: hovering, perch hunting, and hawking or coursing. Kestrels hover by fluttering their wings while remaining fairly stationary when seeking out prey. When prey is located, the small falcon dives to the ground capturing its victim with its feet. At this point the prey may be killed or carried to a nearby perch and devoured. For hovering to work, some wind is needed to help the bird stay aloft and to minimize energy spent. The stronger the wind, the more likely the kestrel is to use the hovering technique.

Perching on utility poles, wires, stumps, and trees to watch for prey movement is the most common hunting strategy for the kestrel. Prey as far away as 900 feet is vulnerable to kestrel attack.

Hawking or coursing--flying lower over a field--is sometimes used for catching aerial prey. Insects may be caught in the beak and consumed while the bird is flying. Kestrels commonly consume large insects such as grasshoppers, crickets, dragonflies, cicadas, and beetles. They will also eat rodents, bats, reptiles, amphibians, and birds. The proportions of any of these that are consumed are dependent upon their availability and may vary by season or foraging area. When prey species are abundant, kestrels may store or cache food for later consumption in grass clumps, tree stumps or holes, fence posts, bushes, or on tops of utility poles.

Kestrels are cavity nesters, often taking over the holes hollowed out by Northern flickers. Natural tree cavities, holes in cliffs, and cavities in man-made structures are also used for nesting. Kestrels are adaptable and will readily use nest boxes erected near good foraging habitat. East facing holes with snug entrances are preferred. Nesting cavity entrances have been found from ground level to over 328 feet off the ground. If you are placing a nest box hoping to attract kestrels it's recommended that it be between 10 and 30 feet from the ground.

In the winter, male and female kestrels have been found to use different habitat types. Females are found in open habitat with short vegetation; males prefer woodland openings, edges, and more densely vegetated cover for a winter territory. This practice helps decrease

competition for food at a time when prey is less abundant.

## Reproduction and Care of the Young

Kestrels are monogamous, but they may not remain with their mate during the winter. Male kestrels generally return to their nesting area first and begin to set up territories. Females join them a few days later and pre-nesting behavior begins. In Ohio, pairs may begin courtship displays as soon as late February. Courtship displays include five individual behaviors: aerial displays, vocalizations, male to female food passing, copulation, and nest cavity inspection. Both the male and female partake in aerial displays, but most of this activity is performed by the male while he is vocalizing. Males perform a dive-display consisting of repeated climbs and dives with a klee call at the peak of each rise. Food is passed to females by males for several weeks before the egg laying, throughout incubation, and for one to two weeks following hatching. Males are also the ones that seek out and explore cavities for potential nest sites. After the male explores a cavity, the female will inspect it and determine whether or not it is suitable for nesting.

Once a nest site is chosen, hens will lay a clutch of three to six eggs at a rate of one egg every other day. The eggs are white to cream with brown blotches. Both members of the pair will incubate the eggs through the 29-to-31-day period that begins after the third or fourth egg is laid. Females do the bulk of the incubating, with males relieving them in the morning and evening and sometimes throughout the night.

In Ohio, by late April or early May, eggs begin to hatch asynchronously over a two to four day period. Nestlings are altricial, but grow rapidly attaining adult weight in 16 or 17 days. The male provides food to the female and the young in the first 7 to 10 days and then the task is shared with the female. Young kestrels fledge between 29 and 31 days, sometime in late May or the beginning of June in Ohio. The fledglings can continue to be fed by the adults for up to 12 days after leaving the nest.

Juvenile kestrels sometime stay with adults and hunt in family groups for a month or so after fledging. They also frequently travel in pairs or small groups of unrelated juveniles. By late in the nesting season, young kestrels generally have become independent.

## Management Plans

The Ohio Division of Wildlife does not actively manage for American kestrels; however, efforts to increase grasslands and Conservation Reserve Program (CRP) acreage in Ohio will benefit kestrels by increasing quality foraging habitat for these birds. Landowners can get nest box plans from various books on building birdhouses or use the screech owl nesting box plans outlined in the Division's publication *Attracting Birds in Ohio*.

## Viewing Opportunities

Kestrels are easy to sight on telephone wires and utility poles near open grassland habitat along Ohio roads and highways. Many wildlife areas throughout the state provide habitat attractive to these birds: Deer Creek and Delaware wildlife areas are two sites where visitors can observe this species. Although they can be seen and easily identified with the unaided eye, the striking colors of this raptor can be better appreciated through binoculars. Viewing opportunities are greater in the summer and in the unglaciated portions of Ohio, but kestrels are also fairly easy to spot in the winter except in the northeastern snowbelt area of the state. Spring migrants can also be seen along the western shore of Lake Erie.

## Do Something Wild!

The American kestrel, as a hawk, is a completely protected species in the state of Ohio. It is an important part of our ecosystem and contributes to the wildlife diversity of the state. Helping us to manage and research many other non-game species are the generous citizens of the state of Ohio. With money they either donated through the state income tax checkoff, the purchase of wildlife conservation license plates, or their direct contribution to the Endangered Species Special Account, the Division is able to purchase critical habitat essential to sustaining species like the American kestrel and provide educational materials and opportunities on wildlife to children and adults.

Contributions to our Endangered Species and Wildlife Diversity Program are accepted throughout the year. To make a donation, please send a check to: Endangered Species Special Account, Ohio Division of Wildlife, 2045 Morse Road, Bldg. G, Columbus, Ohio 43229-6693. All contributions, whether made on your income tax return or directly, are tax deductible.

## At a Glance

Mating: Monogamous

Peak Breeding Activity: Late February-late March

Incubation Period: 29-31 days, generally April

Number of Eggs: 3-6

Young Hatch: Generally in late April or early May; they are altricial and require their parents' care.

Eggs Produced: Once a year, but they will renest if the first nest is destroyed. There are also reports of second broods following a successful first nesting.

Adult Weight: Males - 3-5 ounces; females - 3-5.8 ounces

Adult Length: Males - 8.75-10.5 inches with a wingspan of 22.5-24 inches

Life Expectancy: 15 months

Migration Patterns: Many kestrels are year-round residents in Ohio.

Feeding Patterns: Known to feed throughout the day, but may have morning and evening peaks depending on prey availability, season, or reproductive activities.

Native to Ohio: Yes

## Additional Reading

*The Birds of Ohio* by Bruce G. Peterjohn

