

# ABOUT THE COVER

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## American Kestrel

The American Kestrel (*Falco sparverius*) is the smallest North American falcon, and the one with the most shallow wing beats and most buoyant flight. Its genus name is derived from a Latin word for "sickle," referring to either the shape of its bill or talons. Its species name means "relating to a sparrow," thus possibly referring to both its size and prey. American Kestrels are both sexually dimorphic — the female is about ten percent larger than the male — and dichromic, with the sexes differing substantially in plumage pattern. Males have blue-gray wings and rufous tails with a single subterminal broad black tail band. Females are entirely rufous above and have multiple narrow dark tail bands. Both have gray crowns, two vertical facial stripes, and a black spot on the nape, all of which are muted in the female. Males are buffy below with black spotting, while females have rusty streaking below. Kestrels can be separated from the slightly larger Merlins by the latter's lack of rufous, dark banded tail, and lack of pronounced facial stripes. Kestrels have proportionally the longest tails of any North American falcon.

American Kestrels are part of a super-species that includes at least a half dozen species worldwide, including the Eurasian and Australian kestrels. They are the only kestrel of the Western Hemisphere, range from northern Canada to Patagonia, and are currently divided into seventeen subspecies. *F. s. sparverius* is our dominant subspecies, ranging across most of North America. *F. s. paulus*, named and described in 1902 by Reginald Heber Howe, Jr., the first Headmaster of Belmont Hill School (Belmont, MA), and a prominent Nuttall Ornithological Club member, is found from Louisiana through Florida. *F. s. peninsularis* is largely a Mexican subspecies, but occurs in Arizona.


American Kestrels breed throughout North America as far north as the tree line, from Alaska to Newfoundland. The northern populations are migratory, and wintering kestrels are found in approximately the lower half of their North American breeding range. Some migrate farther south. Spring migrations are more diffuse than fall migrations, but both are concentrated in flight lines along the East Coast and Appalachian ridges in the eastern United States, where kestrels, like other migrating raptors, utilize mountain updrafts and thermals. In Massachusetts spring migration peaks in late April, and Fall migration peaks in mid-September. Females and juveniles tend to migrate earlier than males, and males tend to winter farther north.

American Kestrels are monogamous, and usually produce a single brood. They inhabit open areas with short ground vegetation, including meadows, agricultural fields, pastures, and grasslands, often near human habitation. For nesting they require large trees that contain suitable nest cavities. Males generally arrive before females and establish nesting territories. Agonistic displays involve raising back feathers and standing erect, often with tails spread. Fighting involves grappling with claws and dueling with bills, but usually does not produce injury. Calls, variously described as *kee kee*, *kli kli*, or *killy killy*, accompany aggressive encounters or aerial displays. Whine calls, some lasting a minute or more, and chittering are associated with

courtship. Kestrels will defend their territory against much bigger adversaries, including Red-tailed Hawks. They compete for nesting cavities, usually successfully, with flickers and squirrels.

American Kestrels nest in natural tree cavities and in woodpecker holes. They readily nest in nest boxes. Males escort females around territory to perspective nest sites, and the female selects the final cavity. No nesting material is used, although the female makes a scrape at the bottom of the cavity. They may reuse the same nest in subsequent years. The usual clutch is four to five white or cream-colored eggs, spotted and blotched brown. Both parents develop brood patches, but during the month-long incubation period the female does most of the work. The last hatched chick may not successfully compete for food and may be eaten by its siblings. Only the female broods the chicks during the approximately one month till fledging. The male is the sole provider of food for the first week, but then the female becomes the major provider. In the enclosed nest, sanitation can be a problem, but dermestid beetles routinely eliminate any leftover prey parts. The young are dependent on the adults for several weeks after fledging.

American Kestrels are largely sit-and-wait diurnal predators, which attack by pouncing from a perch, although they occasionally hover, and may take small birds and large insects in flight. They prey mostly on small mammals, birds, and invertebrates, although they have also been reported taking snakes, lizards, amphibians, and even small fish. The tooth-like bill serrations are thought to be an adaptation for slicing the spinal cord of vertebrate prey. They will cache prey in times of abundance, and cast pellets of indigestible materials.

Populations appear to be limited by nest site availability, and populations provided with nest boxes have expanded into previously unoccupied areas. Overall, their populations have increased since colonial times due to land clearance, and they are currently expanding in areas where large-scale clearing is occurring. They are declining in New England, where reforestation has occurred during the past century. They are subject to the usual nest predation from raccoons and snakes, and during the first half of the twentieth century large numbers were shot, particularly during migration bottlenecks such as Hawk Mountain. They largely escaped the ravages of the DDT era due to their reliance on herbivores as prey, thus escaping the pesticide concentration effects of taking prey higher up the food chain. They are not bothered by brood parasites such as cowbirds, but when nest sites are few they have been known to share nests with Eastern Screech-Owls, and reportedly one pair raised a brood of European Starlings! On a national level the future looks bright for the American Kestrel, and it will presumably remain our most common falcon. 

*William E. Davis, Jr.*

## About the Cover Artist

The work of noted wildlife artist Paul Donahue has appeared many times on the cover of *Bird Observer*. Some of our readers may also have enjoyed the experience of visiting the rain forest canopy walkway at the Amazon Center for Environmental Education and Research off the Rio Napo in the Department of Loreto in northeastern Peru. This canopy walkway, the world's longest, is the creation of Paul Donahue and Teresa Wood. Paul can be reached at PO Box 554, Machias, Maine. 