



Female in nestbox

Common Name: SOUTHEASTEN AMERICAN KESTREL

Scientific Name: *Falco sparverius paulus* Linnaeus

Other Commonly Used Names: Sparrow Hawk

Previously Used Names: None

Family: Falconidae

Rarity Ranks: G5T4/S2

State Legal Status: Rare

Federal Legal Status: Not listed

Federal Wetland Status: N/A

Description: The American kestrel is the smallest falcon (23 cm in length) found in northern North America. Both sexes have a reddish-brown back with dark horizontal barring, a reddish-brown tail, a blue-gray cap with reddish-brown center, a white face with a dark mustache stripe under the eye, and a dark vertical stripe on the side of the head behind the eye. The female has reddish-brown upper wings with darker reddish-brown barring while the male has blue-gray upper wings. Her breast is white with wide reddish-brown vertical streaking or

spotting. The male's breast is buff colored with some larger dark spots, particularly on the flanks. The vent area on both sexes is white. Kestrels wag their tails when perched and will regularly hover to search for prey on the ground.

Similar Species: The merlin (*Falco columbarius*) is similar in size and form to the kestrel, but is much darker overall and has only a single faint "mustache" stripe on its face rather than a dark mustache stripe and a second dark vertical stripe on the head like the kestrel. Both male and female merlins have heavy brown or black streaking on the breast, abdomen, and undersides of the wings. Males are usually dark bluish gray to black above and females are usually very dark gray to black. Flight of the merlin is usually direct and rapid. The peregrine falcon (*Falco peregrinus*) is substantially larger (40 cm vs. 23 cm in length) than the kestrel and tends to be significantly darker in overall appearance. It has a white throat with a single, wide "mustache" stripe under its eye. Adult birds have a dark cap, dark blue-gray upperparts, and dark horizontal barring on the breast and abdomen. The undersides of the wings also have dark barring. Immature peregrines are darker brown with a pale brown crown and dark vertical streaking on the breast and abdomen.

Habitat: The kestrel is found in large open habitats including grasslands, pastures, sandhills, and open pine forests as well as in urban and suburban areas. It is an obligate secondary cavity nester that uses old woodpecker holes or other cavities in trees. It also nests and roosts in nest boxes, buildings, and other human-made structures.

Diet: Invertebrates including grasshoppers, cicadas, beetles, dragonflies, butterflies, moths, other insects, spiders, and scorpions. Vertebrate prey includes small mammals, especially mice and voles, small birds, snakes, lizards, and frogs.

Life History: The breeding season in Georgia begins in late March or April when the male escorts the female to potential nest sites within his territory. She chooses a nest cavity and lays four or five eggs. Both sexes incubate the eggs, although the female does most of the work. Eggs hatch in 26–32 days and only the female broods the young in the nest. Fledging usually occurs 28–31 days after hatching and young become independent of their parents within about two weeks. Kestrels will regularly nest and roost in nest boxes and in buildings and recently they have been found nesting in hollow cross-member pipes on power poles where they have displaced European starlings. The nest material the starlings brought into these pipes insulates the kestrels from excessive heat and allows them to incubate eggs and rear young in these metal structures. Two kestrel subspecies breed in the state, but only in small numbers. The migratory northern subspecies, *Falco sparverius sparverius*, breeds above the Fall Line and the non-migratory Southeastern American kestrel, *Falco sparverius paulus*, breeds below the Fall Line. The Southeastern kestrel historically inhabited open longleaf pine and similar forests as well as openings and other open habitats throughout much of the Coastal Plain. Thousands of kestrels that breed farther north move into the state in winter and these birds can be seen perched on power poles and wires along roadsides adjacent to open habitats such as farm fields and pastures. Most wintering kestrels leave the state by early May.

Survey Recommendations: Roadside or power line right-of-way surveys by automobile, ATV, or on foot from mid-May through July to record nesting activity or identify new nesting sites. Helicopter surveys may also be feasible along some power line corridors that are not easily accessible via the ground. Monitoring of nest boxes on utility rights of way and state Wildlife Management Areas and Natural Areas and cooperative monitoring of nest sites on military bases, federal refuges, and private conservation lands.

Range: In North America this species breeds throughout most of Canada south of the tree line and in central Alaska, northern New England, the northern Midwest, Montana, and Wyoming. It is a year-round resident in the rest of the United States except for southern Texas; the coastal areas of Louisiana, Mississippi, and Alabama; very southern Florida; and parts of the coast of Washington. Resident populations also occur in much of northern Mexico, parts of southern Mexico, northern Central America, and on some Caribbean islands. In Georgia, the northern subspecies breeds above the Fall Line and the Southeastern American kestrel breeds in

the Coastal Plain. Breeding bird atlas surveys documented kestrels in 37 counties, with breeding confirmed in 4 counties north of the Fall Line and 9 counties below it. More recently, a population was discovered along a power line corridor from Pierce County west to Dougherty County. A second population currently nests in similar power line towers in central Georgia from Warner Robins west to Butler (Houston, Peach, Crawford, and Taylor counties) and in nest boxes placed on replacement towers in Taylor and Talbot counties.

Threats: Today the biggest threats to kestrel populations in the state are loss and alteration of open habitats, loss of cavity trees, and heavy pesticide use in feeding areas. Direct loss of habitat to urban and suburban development is a concern; however, changes in forestry and agricultural practices such as dense restocking of pine trees and "clean" farming practices likely affect a much greater amount of habitat. The canopy of densely stocked stands closes quickly and eliminates the herbaceous ground cover used by the kestrel's prey. Cleaner farming practices that leave little or no vegetation along field borders is also reducing foraging habitat that this species could utilize. Shorter harvest rotations reduce the number of cavity trees available for nesting. Increased pesticide use can cause direct poisoning of birds as well as decrease prey numbers, particularly insects. This can lead to reduced survival rates for kestrels as well as lowered reproductive success.

Georgia Conservation Status: Fall Line Sandhills Natural Area, Ft. Gordon, Ft. Stewart

Conservation and Management Recommendations: American kestrel populations appear to be relatively stable throughout most of the species' range; however, populations of the Southeastern subspecies appear to have declined since European colonization and there is concern that this subspecies could be extirpated from Georgia and other portions of its range. Natural grassland habitats that provide natural nest sites are the major limiting factor for the kestrel throughout its range. Providing adequately designed nest boxes has increased populations in some areas. In Georgia, kestrel populations have increased in response to a nest box program at Fort Gordon and in several areas in the Coastal Plain. Various nest box designs, including some made from PVC pipe are being evaluated as a replacement for nest sites in hollow power pole cross-members as aging poles are replaced. Electricity generating and distribution companies have been valuable partners in this effort. Fortunately, the kestrel uses a variety of anthropogenic habitats, including roadsides and most forms of agriculture, and has found some human-made structures suitable as nest sites. Providing nest sites in the existing habitats and further conservation of grassland habitats throughout the state will help to ensure the survival of this species in Georgia.

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Male fledgling



Female



Male