American Kestrel

Natural History

Kestrels are our most common and widespread falcon, but the species is in decline. The decline is due in part to the felling of dead trees upon which kestrels depend for nest sites, and the use of pesticides and clean farming practices which have reduced their invertebrate food sources.

Kestrels are attracted to lands that have been modified by humans: pastures, grasslands, open woodlands, parklands and towns. They often perch in ball parks, catching moths and other insects during night games. Kestrels mainly consume invertebrates, but will take mice and voles, small snakes and birds. They can see ultraviolet light which allows them to follow the urine trails left by rodents. Kestrels hunt by day, scanning the area while perched, then pounce on their prey.

Nesting Habitat

Kestrels are cavity nesters, so trees or nest boxes are required to raise young. Kestrels do not make their own nesting cavities and instead must find an old woodpecker cavity, rock crevice or building nook to use as a nest cavity. They do not use additional nesting materials, like pine needles or leaves, but leave the cavity mostly bare. The male finds several options and shows them to the female. Then, the female chooses the nest site and lays 4-5 eggs.

Box Location

Mount nest box on lone trees in fields, on trees along the edge of a wood lot or on farm buildings.

Box Installation

Attach nest boxes to buildings, posts or trees, 10' to 30' above the ground facing south or east and a half a mile away from other kestrel boxes.

Fill the box with 2"-3" of woodchips, but *not* sawdust.

Box Dimensions

A 3" entrance hole is placed on the front of a 15" deep box with the entrance hole located 12"-13" above the floor. The floor area of the box is 7-3/4" by 9-1/4" with a 2" layer of coarse wood shavings on the floor.

Additional Notes

Sometimes kestrels will evict a squirrel or a flicker from their nest cavity and then use the box for themselves.

Primary Sources

http://www.allaboutbirds.org/guide/American_Kestrel/lifehistory
http://nestwatch.org/learn/all-about-birdhouses/birds/american-kestrel/
http://www.fws.gov/migratorybirds/newreportspublications/pamphlet/house.html#2j
http://www.nestboxbuilder.com

american kestrel partnership

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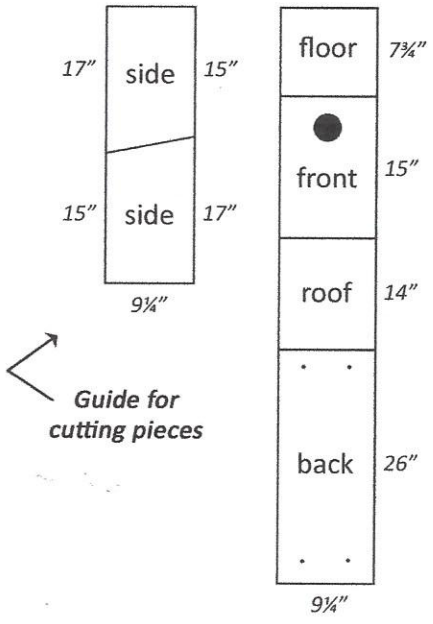
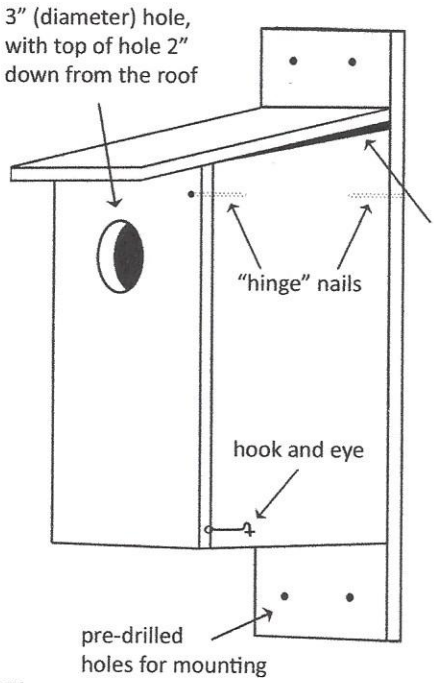
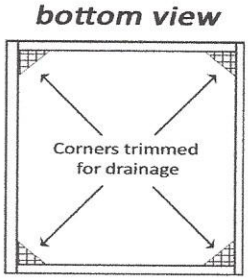
Build an American Kestrel Nest Box







*attach floor 1" up from box bottom to protect it from dampness and rotting.

You will need:

- 1" x 10" x 8' untreated cedar or white pine (1" x 10" boards from the store actually measure ¾" x 9¼").
- Two 6d or 8d nails.
- 20-30 1½" wood screws.
- 2" hook and eye closure.
- Coarse wood shavings (not sawdust).
- Four 3" wood screws or lag bolts for mounting.

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Instructions

- **Cut lumber using a table saw and entrance hole using a hole saw or jig saw. Pre-drill holes in back if using 3" screws to mount box.**
- **Assemble box as shown, with wood screws. Nail two 6d or 8d nails parallel at top of opening side, so that it swings open. Attach hook and eye at bottom of hinged side to keep it closed.**
- **Do not use paint or preservatives.**
- **Place 2" of wood shavings in the bottom of the box for bedding.**
- **Mount box at least 6 feet off the ground. Try to space boxes at least ½ mile apart.**
- **Install nest box by late February, before the breeding season.**

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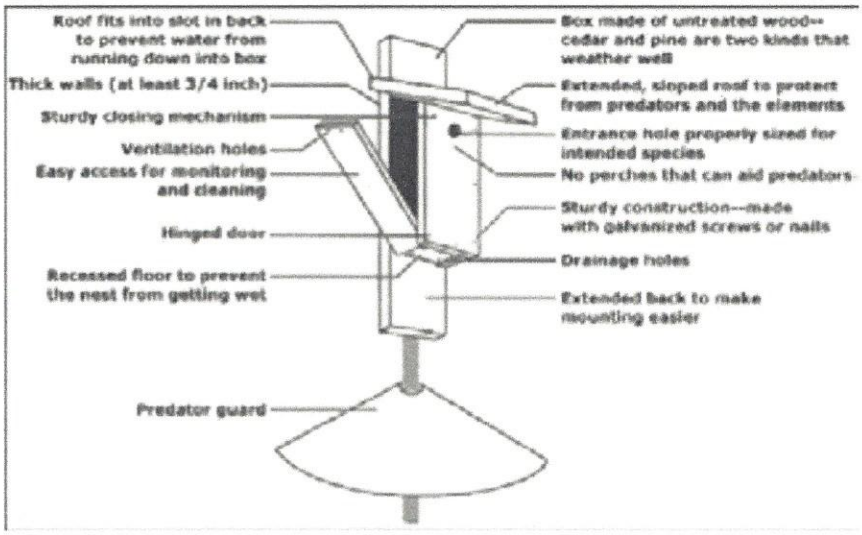
General Hints for All Nest Boxes

Local habitat is the primary factor determining which animals will utilize backyard nest boxes. Nest boxes can be substitute homes for cavity dwelling species that typically build their nests in tree trunks- like woodpeckers, squirrels, raccoons, some songbirds, and owls.



Materials: Nest boxes of untreated and unpainted wood are more attractive to birds and mammals and less toxic. Cedar, cypress, redwood, or pine are good choices. Nails, woodscrews and hinges must be rustproof. Painting boxes decreases the camouflage of the box, drawing in predators.

Perches: Perches on songbird houses create problems for our native species. Perches make it easier for predators to enter the box. Only non-native species of birds use perches, so boxes without perches are preferred.

Ease of exit: By adding rough or grooved interior walls to the nest box, fledglings and young animals can exit more easily when it is time.

Warm nest: By using lumber that is at least 3/4 of an inch thick, you provide insulation for young mammals and birds. Box should open from the side or top for maintenance and cleaning.

Dry nest: The interior of a nest box needs to be dry in order to keep young animals warm. A slightly slanted roof that overhangs the entrance hole keeps rain from entering the box. By constructing boxes with the floor recessed at least 1/4 inch up into the walls, water will not seep into the box floor. Drainage holes drilled in the floor allow animal waste and any other moisture to drain from the box. By cleaning out the box every year in fall, you prevent the bottom from rotting.

Critical nest box features: Make sure that your box incorporates features preferred by the particular species you hope to attract. These features include the double thick entrance hole size and extended roof to deter predators like squirrels. The height at which the box is posted, and the type of habitat surrounding the box need to need to match the desired species. Invest in a functional, rather than ornamental, nest box.

Tree care: Aluminum nails and screws are less damaging to trees when installing boxes on trees. Wiring boxes to trees can girdle and kill the tree.

Other nest box plans are available from:

1) Cornell Lab of Ornithology's website http:/ /nestwatch.org/ or http:/ /allaboutbirds.org.
2) http://www.wildlifehc.org/new/wp-content/uploads/2010/10/Artificial-Nesting-Structures.pdf
3) http://wdfw.wa.gov/living/projects/index.html
4) http://www.tnwatchablewildlife.org/woodworkingforwildlife.cfm
5) http://www.csu.edu/cerc/researchreports/documents/WoodProjectsforIllinoisWildlife.pdf