

Songbirds are among nature's greatest indicators of a quality environment. In and around many industrial centers and agricultural areas, the number of songbirds has decreased in recent years because of pollution, pesticide use and loss of habitat.

This is not the case in most of Oklahoma, where clean air, excellent habitat and people interested in nature are the rule and not the exception. Many people are concerned about the in roads being made upon nature by an expanding human race and are working to improve habitat, thus enhancing the populations of many bird species. One important element of habitat that can be improved by people is nesting location. For birds that naturally build their nests in tree cavities, simply providing a safe, clean birdhouse will go a long way toward helping these species.

Help of this kind is increasingly important because habitat destruction is critically reducing songbird nesting areas, especially the deadwood snags that many hole-nesting birds prefer. A good project this spring would be to build a bird-house or two.

Those who wish to help cavity-nesting birds will find these houses inexpensive and fun to build. A well-built birdhouse should be durable, rainproof, cool and readily accessible for cleaning. By using some imagination, the builder can also add an attractive touch to the landscape.

Wood is the best building material and rough slabs with the bark left on make ideal material for rustic-looking houses. If you must use metal, choose aluminum because other metals become extremely hot when exposed to the sun.

Roofs should be constructed with sufficient pitch to shed water. At least three inches of overhang should be allowed to protect the entrance from driving rain. Some water may still seep into the house, however, so cut away the bottom corners or drill a few small holes in the floor to allow drainage.

Builders should put several holes near the top of the box to provide ventilation in hot weather. The house should be constructed with galvanized screws for easy disassembly when cleaning.

Entrance holes should be near the top of the box and proportional to the

size of bird that will use the house (see chart on back). Houses should have the interior walls roughened or grooved just below the hole to assist the young in climbing to the opening.

Place birdhouses at locations inaccessible to predators, facing the opening away from both the prevailing wind and afternoon sun. If possible, situate houses in partial sunlight. Those located in direct sunlight should be painted white to reflect the heat. In general, though, birdhouses should be a subdued color and it is best not to use paint or stain. Also, perches should not be placed in front of the box's hole because this often attracts house sparrows.

Birdhouses shouldn't be placed too close together. Some birds insist on territorial rights and conflicts could result in empty birdhouses. Allow at least 100 yards between houses of the same type.

Descriptions of Various Nestboxes

Different species of birds need houses constructed to suit their particular needs. The following brief sketches describe a few types of birdhouses suitable for common Oklahoma species. Check the nest-box dimensions on the chart on back.

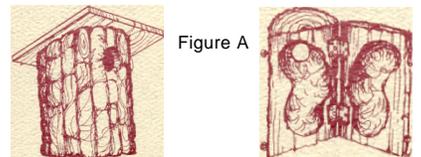


Figure A

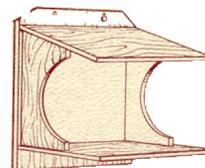
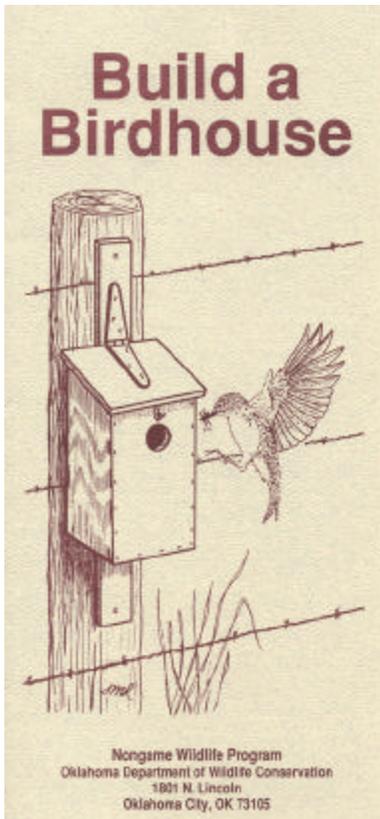
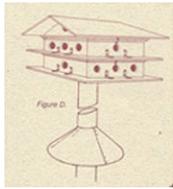


Figure B



Figure C





Predator guards should be at least 18 inches wide to protect birds from predators



Figure E



CHICKADEES, TITMICE AND NUTHATCHES (Figure A): These birds prefer rustic homes built to simulate natural abodes. Old orchards and woodlands are good places for their houses. Chickadees often nest within a few feet of the ground, but nuthatches and titmice prefer higher elevations.

ROBINS AND PHOEBES (Figure B): These birds will use a nesting platform when natural nesting sites are unavailable. Platforms should be placed in partial shade along main branches of trees or under the eaves of ashed or porch roof.

SW (Figure B): Water near the box will help entice these birds to artificial nests. Open or partially covered nest shelves are best for barn swallows, especially if placed under the sheltering eaves of buildings. Cliff swallows should be provided a narrow shelf under an overhanging roof where they can construct their mud nests.

WRENS (Figure C): Wrens find almost any sort of cavity good enough to suit their needs. Small boxes with horizontal slots for an entrance are best. The slot opening

permits this small bird to carry cumbersome nesting material more readily. A supply of small twigs about three inches long will aid in nest building. It may be best to place several houses in the immediate vicinity, for the wren often builds several nests before completing one to its liking.

PURPLE MARTINS (Figure D): The gregarious nesting habits of martins will allow the builder to employ skill and imagination in construction. Important factors to consider are coolness and accessibility. A multi-storied apartment house will attract a colony of martins. The availability of water is another factor in inducing martins to nest. The houses should be situated in an open space and painted white to reflect heat.

BLUEBIRDS (Figure E): Any type of house with the proper dimensions will suit this birdwatchers' favorite, which prefers open areas rather than deep woods. The house should be placed at about eye level, four-to-five feet above the ground, to reduce conflict with house sparrows. Fencerows, abandoned orchards and woodland borders are the bluebird's favorite habitats.

FLICKERS (Figure E): A rough interior is favored by these woodpeckers. A quantity of sawdust, ground cork or small chips should cover the bottom so the birds can shape a cavity for eggs. A dead branch makes an excellent support for their boxes.

Protecting Your Nesting Birds

Natural enemies pose the greatest hazards to birds using man-made houses. Most nestboxes should be outfitted with a one-to two-inch wooden guard at the opening. Iron poles used for mounts or a sheet metal predator guard (Figure D) encircling trees or wooden poles will help protect birds from cats, squirrels, raccoons and snakes. Houses suspended from wires beyond the jumping range of these predators also can be effective.

Aggressive English house sparrows and European starlings can prove exasperating to those seeking to attract native species to birdhouses.

Only by persistent harassment can these pests be eliminated. Often sparrows can be trapped inside the houses during the night. But remember: any relaxation of the war against starlings and sparrows will find them re-established.

If pests can be eliminated and birds find the house satisfactory, the only requirements remaining are periodic cleaning of the interior and monitoring of the nest.

Monitoring and Cleaning Nestboxes

After your boxes are up, you should check the nests on a weekly basis. Note any problems with parasites or losses due to predators. If European starlings or house sparrows are using the boxes.. clean the nests out. Keeping records will help in managing the boxes and in knowing whether the nests were successful.

Introduced into this country in the 1800s, starlings and house sparrows have become an unwanted part of the American landscape. Once established, they spread to practically every corner of the country, out-competing our native birds for food and nesting cavities. These birds will evict and even kill native species, building their nest on top of the previous nest.

Keeping starlings out of nest boxes can be accomplished relatively easily. The large chunky birds need equally large entrances, so keep entrance hole diameters only large enough for the desired species. On the other hand, excluding house sparrows is more difficult. Since they are approximately the same size or smaller than many native songbirds, reducing entrance dimension is rarely effective.

Trapping house sparrows is the best method to help eliminate them from your area. This can be accomplished by using homemade or commercially available traps. Since traps are not species specific, you may accidentally catch a native bird; therefore, traps should be checked frequently. After removing the trapped house sparrows, clean out the nest so it can be used by native birds.

After the young have fledged, remove the nest and clean the box.

It's okay to leave bluebird and chickadee boxes open during the winter for use as roosting boxes by those species. However, you should plug martin houses in wintertime because house sparrows and starlings will take up residence.

Birds And Federal Protection

Most species of wild, migratory North American birds and their eggs, nests or parts thereof are protected by federal regulations under the provision of treaties between the governments of the United States, Canada and other countries. In some states and Canadian provinces, additional species of birds are fully protected by regulations not afforded by the federal government.

Under federal regulations it is illegal to capture, hold, transport or kill any protected species and to take or otherwise destroy its eggs or nests-including old nests long since abandoned by the builders. In addition, it is illegal to possess any live bird (even one that is sick or injured) or to pick up or otherwise possess a dead bird including feathers or other parts of the bird.

Since European starlings and house sparrows are not native species, they are not protected by law and can be controlled by traps, shooting and regular removal of their nests.

What to Do If You Find Young

Birds

People often find eggs or young birds in their yards during the spring. If the nest is visible, place the eggs or young birds back in the nest. Contrary to popular belief, songbirds do not have a well-developed sense of smell and will not abandon their young if you touch them. If you have eggs but cannot find the nest, leave them alone -it is illegal to possess wild bird eggs. Generally, the parent birds will attempt to renest.

If a partially or completely unfeathered hatchling is found out of the nest, put it back in the nest. If the nest is too high or not visible, construct an artificial nest by wiring a grocery store berry basket to the trunk of the same tree. Line the basket with paper towels to form a cup.

If you find a completely feathered young bird, you can assume it has left the nest on its own and is still under parental care. Place the young bird on the top of a shrub away from predators.

Remember, besides being illegal, it is very difficult to raise young birds-even for trained rehabilitators. It is best just to leave them alone.

Nongame Contributions Aid Bird Species

Oklahoma taxpayers can help conserve the 800-plus nongame

species in this state, more than half of which are birds, by sharing their state tax refund. Since the Nongame Wildlife Act was created in 1981, taxpayers entitled to a refund have been able to check the appropriate line on their state income tax form to donate \$2, \$5 or any portion of their refund to the Nongame Wildlife Program. Donations to the program are deducted from the refund check and are tax deductible on next years federal form if you itemize.

Oklahomans concerned about the future of nongame wildlife, including endangered species, can also support the Nongame Wildlife Program with an annual donation by mail. Your donations will be used to manage these species for future generations to enjoy.

A major concern of the program is the apparent decline in the populations of neotropical migrant bird species such as Bell's vireo, yellow-billed cuckoo and Eastern kingbird. The program hopes to raise the public's awareness about why these and other species are declining.

To send a donation simply mail a check to the Nongame Wildlife Program, Oklahoma Department of Wildlife Conservation, P.O. Box 53465 Oklahoma City, OK 73152.

Specifications for Bird Houses

Species	Floor Cavity	Depth of Cavity	Entrance Above Floor	Diameter of Entrance	Height Above Ground
	inches	inches	inches	inches	feet
Bluebird	4 x 4	6	6	1 1/2	3-6
Chickadee	4 x 4	9	7	1 1/8	4-15
Titmouse	4 x 4	9	7	1 1/4	5-15
Nuthatch	4 x 4	9	7	1 3/8	5-15
Bewick's Wren	4 x 4	6-8	4-6	1 1/4	5-10
Carolina Wren	4 x 4	6-8	4-6	1 1/2	5-10
Purple Martin	6 x 6	6	1	2 1/4	10-20
Crested Flycatcher	6 x 6	8-10	6-8	1 9/16	8-20
Flicker	7 x 7	16-18	14-16	2 1/2	6-30
Red-headed Woodpecker	6 x 6	12	9	2	10-20
Downy Woodpecker	4 x 4	9	7	1 1/4	5-15
Robin	6 x 8	8	one or more sides open		6-15
Barn Swallow	6 x 6	6	one or more sides open		8-12
Phoebe	6 x 6	6	one or more sides open		8-12
Screech Owl	8 x 8	12-15	9-12	3	10-30
Wood Duck	12 x 12	22	17	4	10-20
Prothonotary Warbler	4 x 4	6	4	1 3/8	4-12