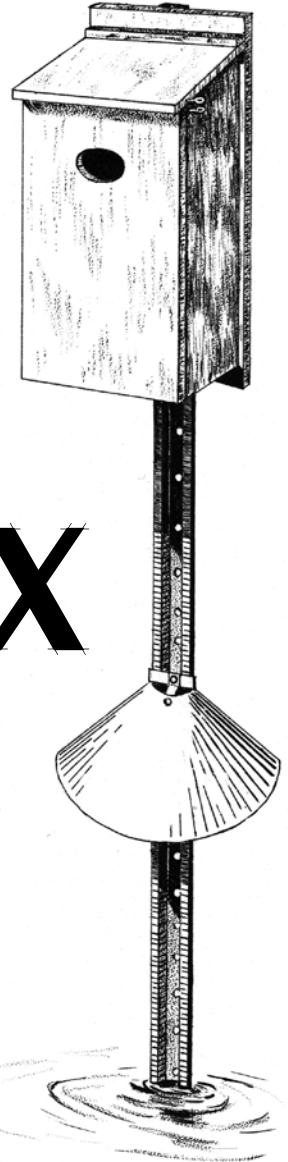
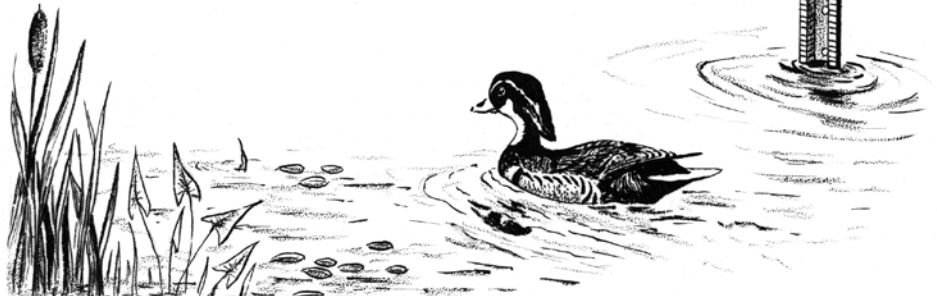


DIVISION OF WILDLIFE



NEST BOX PLANS

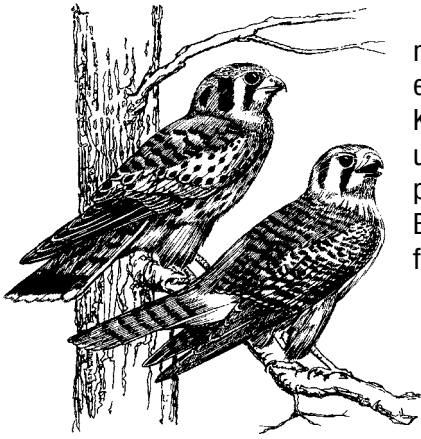


BIRD HOUSE DIMENSIONS AND PLACEMENTS

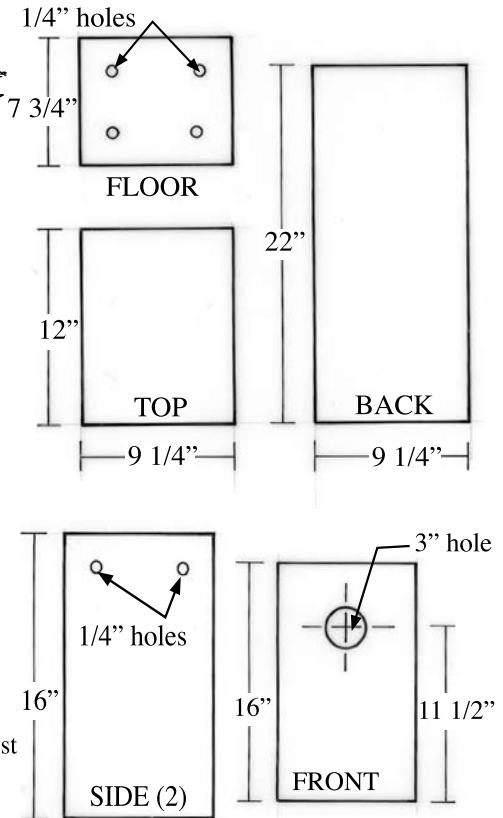
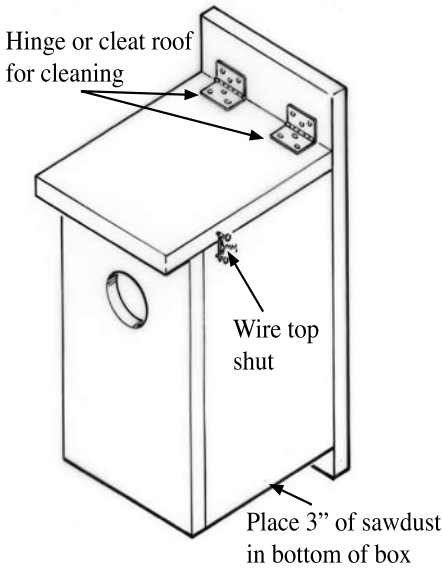
| Species | Specifications | | | | | |
|----------------------------|--------------------|-------------|------------------|-------------|-------------------|--|
| | Inches | | | | Feet Above Ground | Preferred Habitat |
| | Entrance | | Floor Dimensions | House Depth | | |
| | Diameter | Above Floor | | | | |
| Bluebird | 1 ½ | 6-7 | 5 x 5 | 8-9 | 5-10 | Open field with perches |
| Chickadee, black capped | 1 ½ | 6-8 | 4 x 4 | 8-10 | 5-15 | Woodland with perches |
| " Carolina | 1 ½ | 6-8 | 4 x 4 | 8-10 | 6-15 | Woodland |
| Flicker | 2 ½ | 14-16 | 7 x 7 | 16-18 | 6-20 | Woodland |
| Fly catcher, great crested | 2 | 6-8 | 6 x 6 | 8-10 | 8-20 | Woodland |
| Kestrel | 3 | 9-12 | 8 x 8 | 12-15 | 10-30 | Open field |
| Martin, purple | 2 ½* | 18 | 6 X 6* | 6* | 15-20 | Open fields AWAY from trees & near water |
| Nuthatch, white-breasted | 1 ¼ | 6-8 | 4 x 4 | 8-10 | 12-20 | Woodland |
| Owl, barred | 7 x 7 arch | 12 | 12 x 12 | 23 | 20-23 | Woodland |
| " screech- | 3 | 9-12 | 8 x 8 | 12-15 | 10-30 | |
| " barn | 6 x 6 | 6 | 12 x 36 | 15-18 | 20-25 | |
| Phoebe | Open front & sides | | 7 x 7 | 8 | 8-12 | Backyard |
| Robin | Open front & sides | | 7 x 7 | 8 | 8-12 | Backyard |
| Swallow, tree | 1 ½ | 1-5 | 5 x 5 | 6 | 6-10 | Open field near water |
| Titmouse, tufted | 1 ¼ | 6-8 | 4 x 4 | 8-10 | 6-15 | Woodland edge & interior |
| Warbler, prothonotary | 1 ½ | 6 | 5 x 5 | 8 | 5-10 | Over and near water |
| Woodpecker, downy | 1 ¼ | 6-8 | 4 x 4 | 8-10 | 6-20 | Woodland interior |
| " hairy | 1 ½ | 9-12 | 6 x 6 | 12-15 | 12-20 | |
| " red-bellied | 2 ½ | 10-12 | 6 x 6 | 12-14 | 12-20 | |
| " red-headed | 2 | 9-12 | 6 x 6 | 12-15 | 12-20 | |
| Wren, Carolina | 1 ½ | 4-6 | 4 x 4 | 6-8 | 5-10 | Near brushy areas & backyards |
| " house | 1 ¼ | 4-6 | 4 x 4 | 6-8 | 5-10 | |

*These are the dimensions for one compartment. Martins nest in colonies; therefore, martin houses should have a minimum of six self-contained apartments.
 Removing unwanted species such as starlings and house sparrows will increase your chances for nesting success.

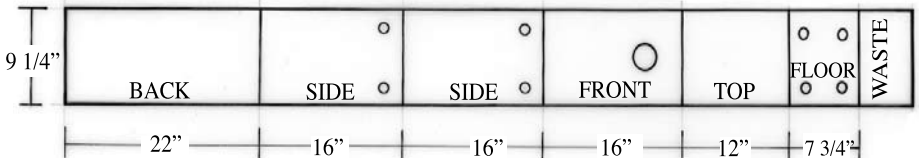
AMERICAN KESTREL, EASTERN SCREECH-OWL NEST BOX



Preferred habitat for owls includes mixed stands of deciduous forest on the edge of woods adjacent to fields or wetlands. Kestrels prefer more open country. To prevent use by squirrels, the box for owls can be placed on a pole with a predator guard. Boxes should be placed at least 10 feet high for owls, and 10 to 30 feet high for kestrels



LUMBER: One 1" x 10" x 8'0"

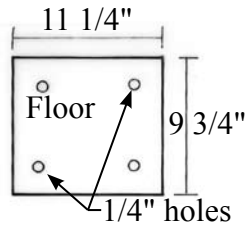
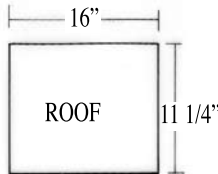
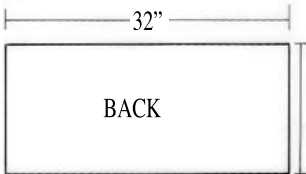
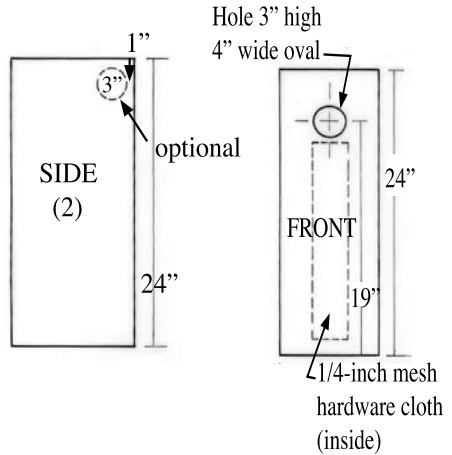
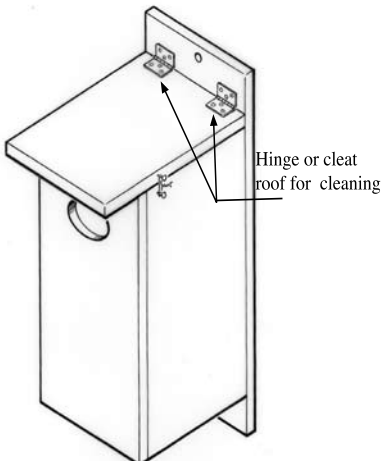


WOOD DUCK NEST BOX

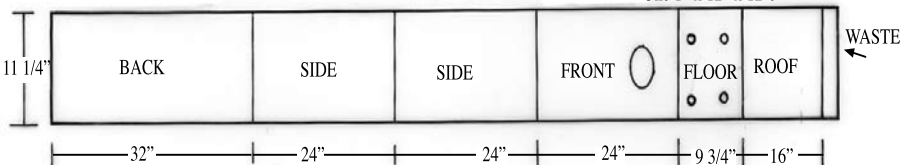


Boxes placed on posts in water should be six to eight feet above the water. Wood duck boxes can also be placed in woodland habitat up to a half mile from lakes, ponds, marshes, and rivers. Since the hen must lead her ducklings to water after they hatch, the habitat between the house location and the water's edge should be free of major obstacles, such as fences, highways, mesh wire, or curbing.

Cavity nesting ducks do not carry nesting materials. It is important to help them out by placing 2-4 inches of wood shavings (not sawdust) in the bottom of the box. Also, some type of predator guard should be used.

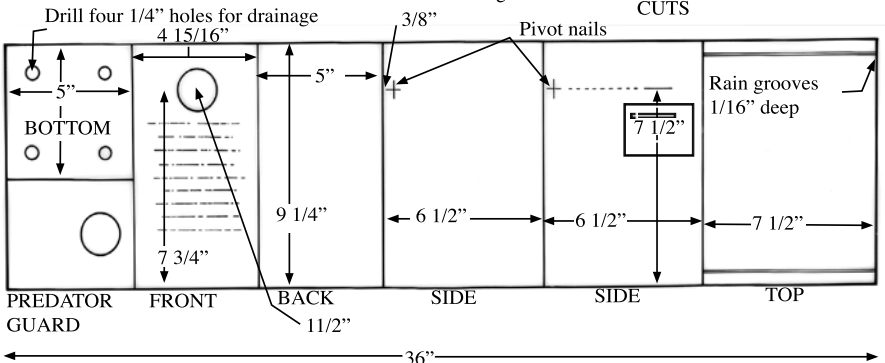
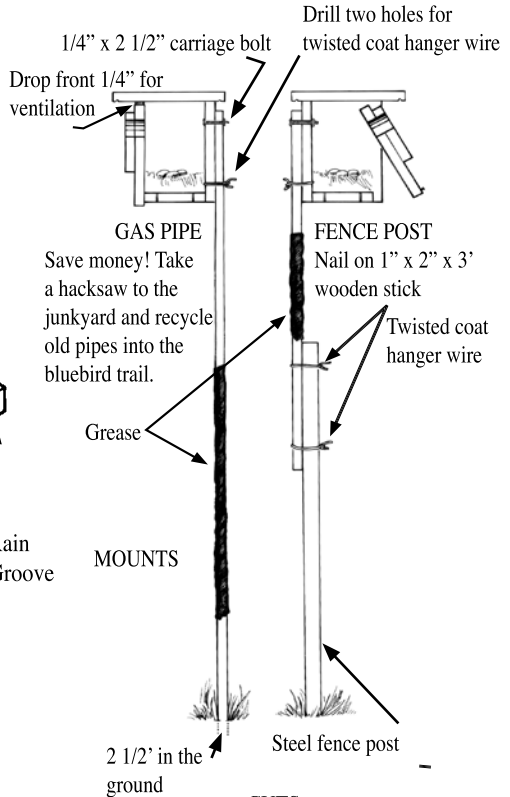
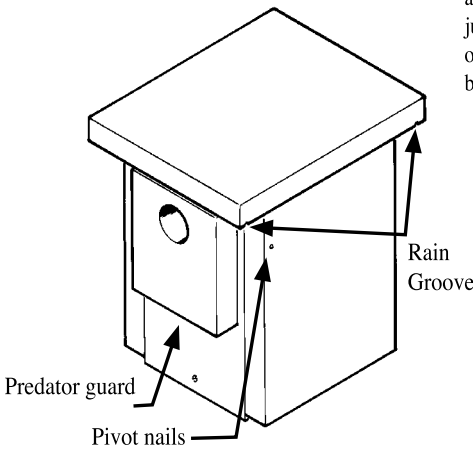
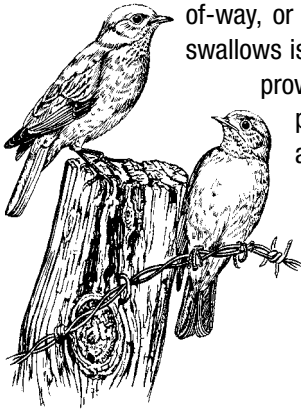


LUMBER:
One 1" x 12" x 12'0"



EASTERN BLUEBIRD, TREE SWALLOW NEST BOX

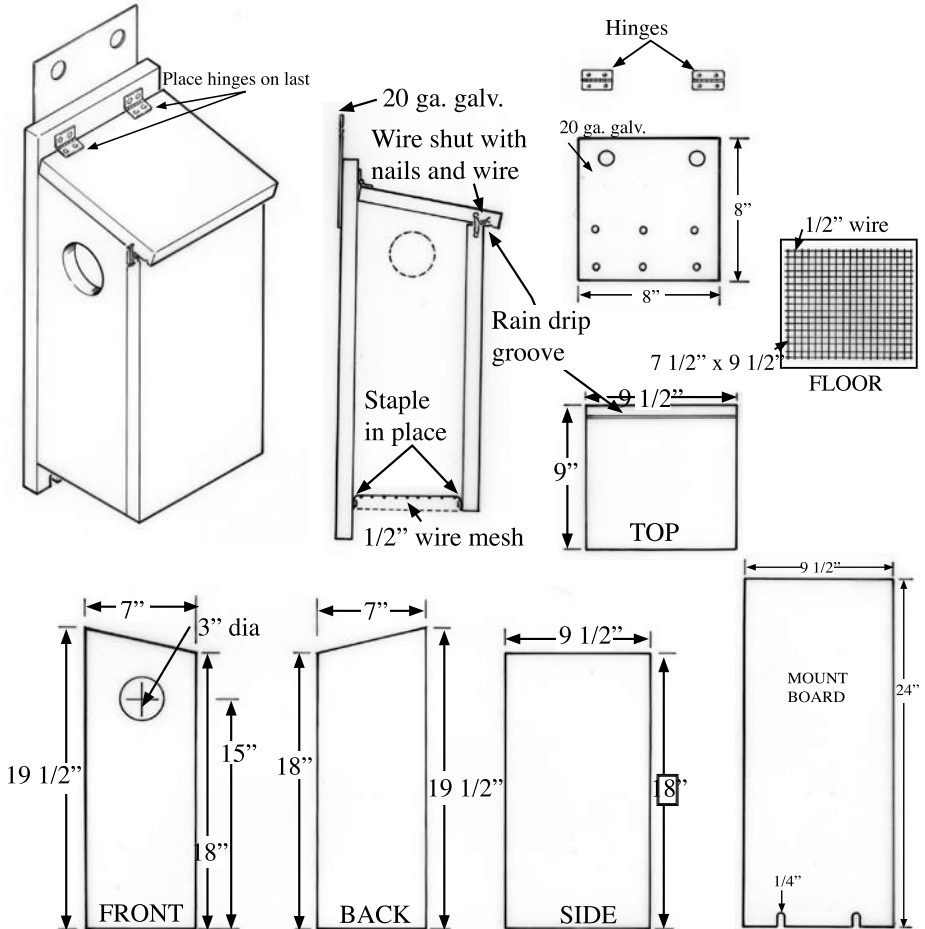
Ideal bluebird habitat is mixed hardwood forest and grasslands. The grassy areas may be meadows, pastures, yards, cemeteries, highway rights-of-way, or prairies. The most desirable grass for bluebirds and tree swallows is short or sparse, mowed or grazed. The area must also provide enough feeding perches. There can be power lines, fence posts, or scattered trees. Boxes should be mounted on posts, about five feet above ground.



GRAY AND FOX SQUIRREL NEST BOX



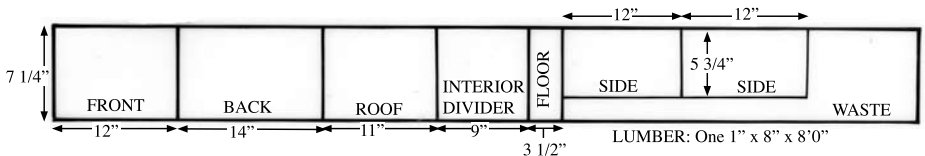
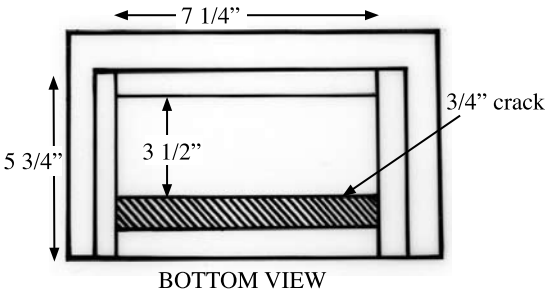
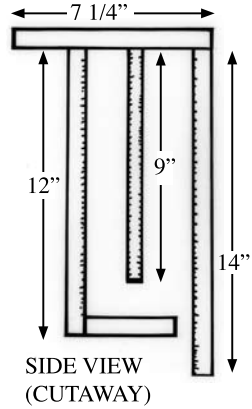
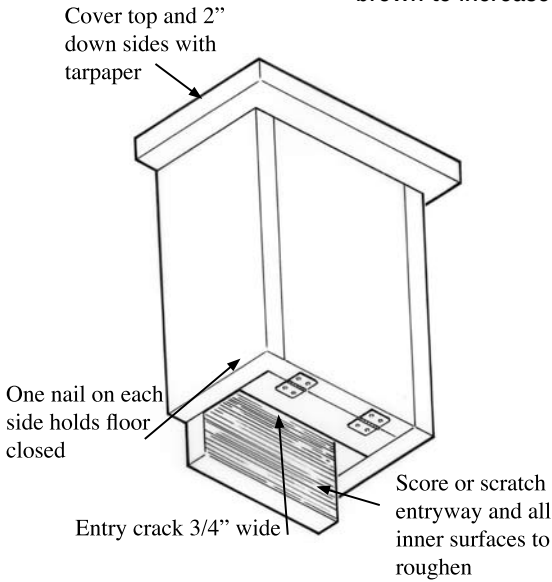
The squirrel house should be placed at least 30 feet above the ground in a tree at least 10 inches in diameter. The entrance hole should face either east or south, away from prevailing winter winds. The box can be made more enticing to squirrels by half-filling it with dry leaves. Attach the box to the tree with two lag screws and washers, and loosen the screws each year to allow for tree growth. Boxes should be set out in the fall, since the heaviest use is in winter. Three or more boxes per acre will maintain a maximum squirrel population. Boxes should be placed only in forests with nut-producing trees less than 60 years old.



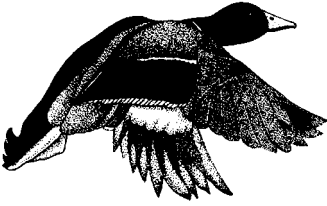
BAT HOUSE



Bat houses should be fastened securely to a pole or the side of a building, 12 to 15 feet above ground. They should be on the east side of the house or pole where they will receive sun during the morning and be shaded during the afternoon. Sites protected from the wind and near rivers, lakes, bogs, or marshes where insect populations are high will increase the likelihood of use. Bat houses should be put up before April. Here in Ohio, it is a good idea to paint a bat house either black or brown to increase the absorption of solar radiation.



MALLARD NEST CYLINDER



Most of us are familiar with wood duck nest boxes and the success of that program. Wood ducks were lacking suitable nest cavities in trees and readily took to artificial nesting structures, bringing these beautiful ducks back from the brink of extinction to become the most abundant breeding ducks in Ohio. Mallards, although not near extinction, are in need of help. Drought, habitat destruction, and predators take their toll as mallards try to nest in fragmented habitat. This is where you can come in- by providing safe nesting sites for more mallards in Ohio.

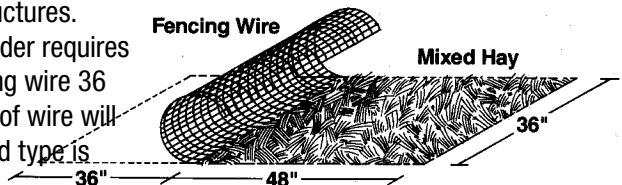
Mallards don't take to nest structures with the same tenacity as wood ducks, but they will use them if the structures are properly placed and maintained. This nest cylinder is easy to build, easy to maintain, relatively inexpensive, and liked by mallards. On a wetland wildlife area in Pennsylvania, 35 to 50 percent of the structures are used annually, and in farm ponds the use is approximately 100 percent! The really good news is that 90 percent of nests are successful in these structures.

To make this nest cylinder requires a seven-foot piece of fencing wire 36 inches wide. Several types of wire will work, but the recommended type is

welded, plastic coated garden fencing with a 2-inch by 2 1/2-inch mesh. A 50-foot roll will make seven nests. Also needed is a supply of grass or hay such as timothy/orchard grass mixture or blue-joint grass. Sudan grass also works well. Straw is a poor choice because it doesn't last long: don't use it.

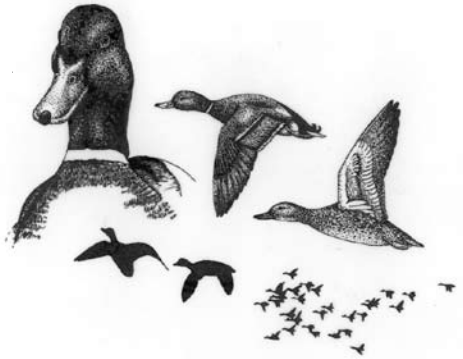
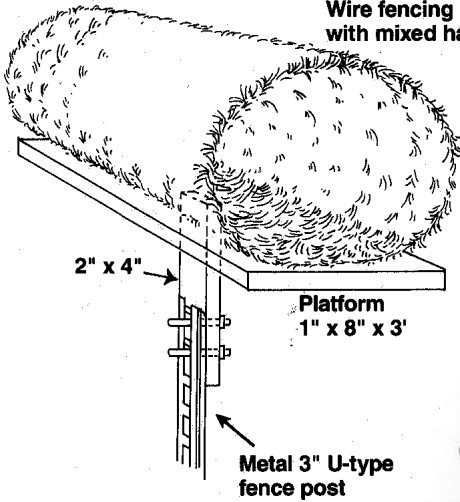
Cut seven feet of fencing off the roll and place on a flat, hard surface. Measure three feet in from one end and mark the wire. Roll the end of three-foot section of wire to the mark, to produce a cylinder 36 inches long by 12 inches in diameter. Place approximately two inches of hay/grass over the remaining four feet of fencing. Continue rolling the wire over the grass and fasten with pig rings, or wrap the ends of the cut wire to secure it in place. Place a handful of grass in the center for nesting material. Now you are ready to place the nest on a platform or post.

The nest cylinder should be placed over water no less than three feet above the highest water level expected in spring. Place it perpendicular to the prevailing winds in your area. This will prevent nesting material from being blown out of the nest, and-more



Attach cylinder to platform with wire or a rubber shock cord

Wire fencing with mixed hay



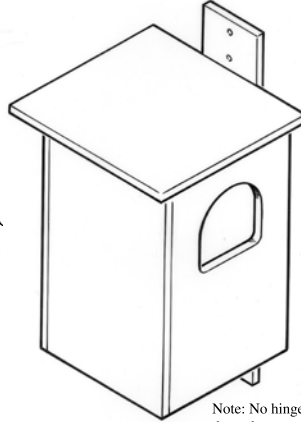
importantly- it will prevent the hen's scent from being spread over a large area and possibly attracting predators. The nest cylinder should be placed far from shorelines and should have a predator guard on the post. The cylinder should be placed near adequate brood cover such as a marsh or stream corridor where the hen can transport her brood to a marsh.

Nesting mallards need overhead cover and the cylinder does an excellent job of providing it. The cylinder can be rotated after the first year to insure overhead cover, and a small handful of grass can be placed in the cylinder to supply additional nesting material. Every three years the grass should be replaced.

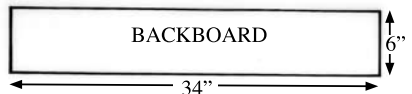
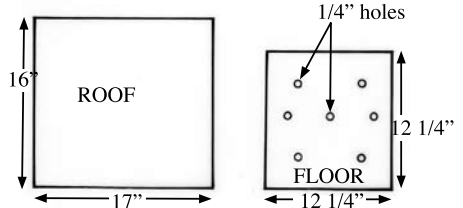
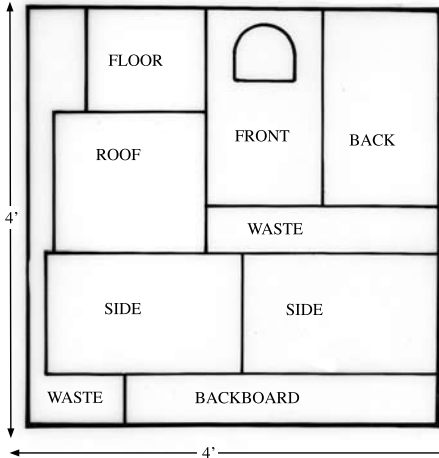
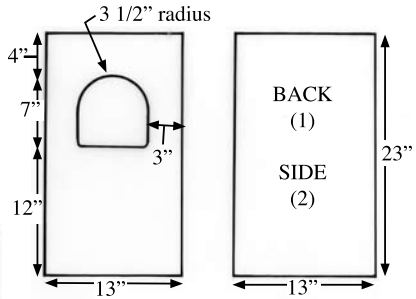
Once mallards catch on to the cylinders and begin raising young in them, success will increase and the local mallard population will build naturally. Young that were produced in the cylinders will search for a similar place to raise their young, so you should continue with this project as long as you have adequate habitat. This is also a great project to get young hunters and conservationists involved with. Raising a wild brood of mallards, which will supply observation and hunting pleasures and return each year to nest, will be extremely rewarding. Plus, mallards could sure use the help.

BARRED OWL NEST BOX

The box should be placed in January, 20 to 30 feet high in a mature lowland hardwood area, preferably within 200 feet of water. It should not be on the edge of a clearing or within 150 feet of a residence. The entrance hole should not be obscured by branches or leaves, but a perch near the nest box is desirable.



Note: No hinge door needed - clean through entrance hole



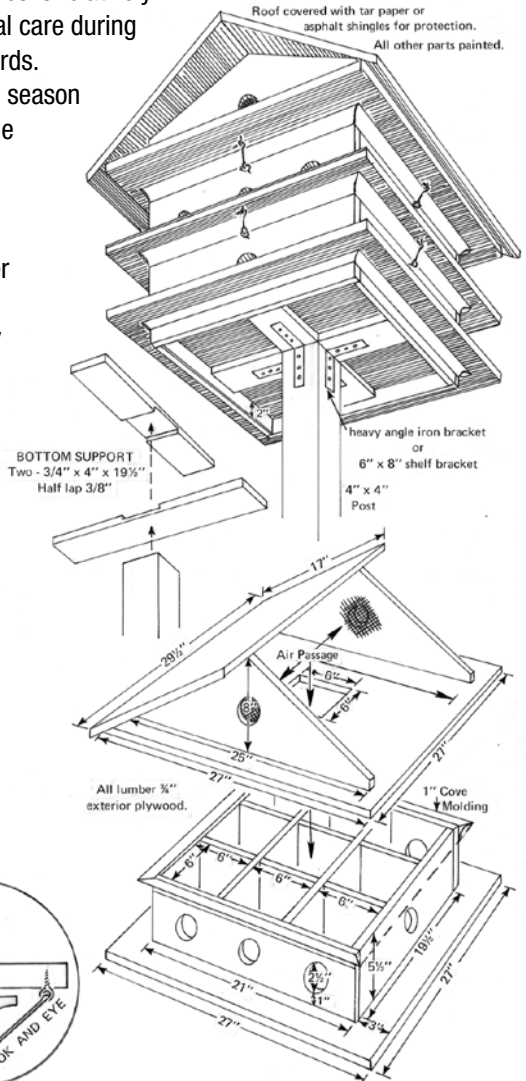
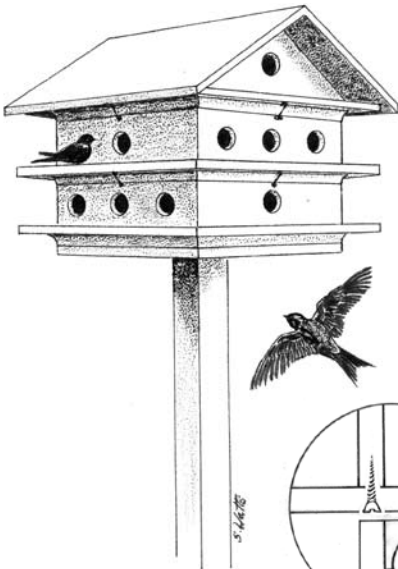
PURPLE MARTIN HOUSE

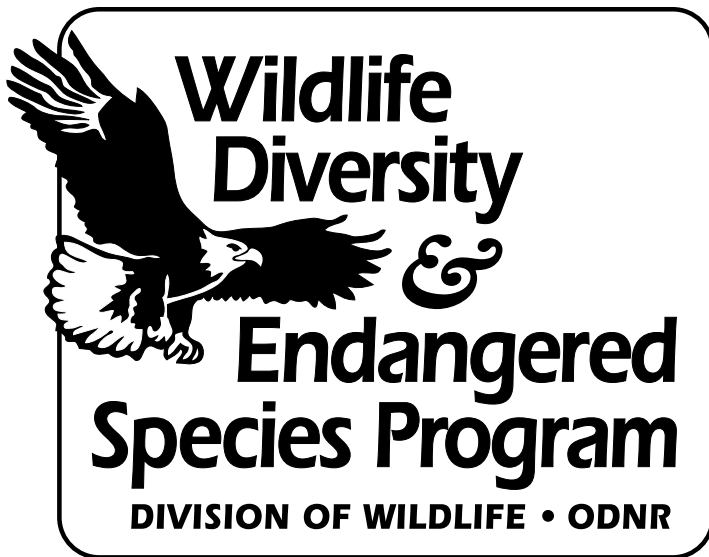
Nesting time is an anxious time for birds and bird watchers alike. There are normally many natural losses. Experienced bird students advise that objectivity is important. Don't get too emotionally involved with individual birds and bird families, even if you enjoy them and follow their daily routines in detail. Do all that's possible to protect them during the vulnerable nesting period by providing good habitat, nesting sites and absence of disturbance from man, or cats and dogs, but recognize that nature's way is to produce far more young than are needed to maintain the species. Loss is inevitable, so make an effort to understand death as a part of the balance of nature.

Nesting and rearing for most species is relatively short (five or six weeks), so take special care during this period. Then relax and enjoy the birds.

One way to help make the nesting season more successful is by providing suitable bird houses or nesting boxes and, in some cases, nesting material.

Bird houses should be erected in the fall so they can weather over winter and be ready for spring occupancy. If erected in spring, they should be up by mid-March.





DO SOMETHING WILD!

Remember to check off a portion (or all) of your state income tax refund for endangered and other wildlife, or write a check to the Endangered Species and Wildlife Diversity Fund and mail to the Division of Wildlife, 2045 Morse Rd. Bldg. G, Columbus, Ohio 43229-6693. All contributions are earmarked for wildlife diversity and endangered animals.

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