

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

STATE OFFICE

STILLWATER, OKLAHOMA 74074

PLANT SCIENCE TECHNICAL REFERENCES - FOR IN SERVICE USE ONLY

BIOLOGY - OK-20

June 24, 1977

Re: Wood Duck Nesting Boxes

Wood ducks normally nest in Oklahoma in the eastern one-half of the state but they have been known to nest as far west as Lake Humphries in Stephens County.

Unlike most other ducks which nest on the ground, the wood ducks nest in tree cavities. Undisturbed native bottomland hardwoods would usually provide adequate nesting cavities to supply the needs of wood ducks. The mature trees which provided these nesting areas have disappeared due to timber clearing, harvesting, or flooding.

The provision of artificial nesting boxes made from various materials have proven reasonably successful in attracting nesting wood ducks. These are particularly effective where other habitat components such as lakes or perennial streams for brooding, feeding, and roosting are present in reasonable proximity. Perimeters of water areas should have an abundance of overhanging woody vegetation or emergent aquatic vegetation for feeding areas and protection for young ducklings. Boxes should be located either over water or not more than a few hundred yards from permanent water. Wood ducks seem to prefer a certain density of boxes per unit of wooded area. Two to four boxes per acre have been readily accepted. More boxes may be added at a similar density as original ones become occupied. Boxes should be installed at least 15 feet above the ground in an area where the box can be readily seen by the ducks.

TYPES OF NEST BOXES:

Several different types of nest boxes have been tried throughout the wood duck range. Most of them are effective if they can be made predator-proof. The main predators are raccoon, squirrel, bull snake, blackrat snake, and mink. Each animal uses different techniques to reach the nesting cavity. It is necessary to modify box design and placement to make it impossible for the predators to enter the box. For instance, a fox squirrel will jump from an adjoining branch and grab a foothold on the edge of the entrance hole. An elliptical entrance hole 3"x4" will exclude most large raccoons.

On the following sheet are illustrations on some ways that the box may be made more predator-proof. These features should be incorporated into the design of any box built for wood ducks. The galvanized pipe nest box has proven to be the best when mounting features are incorporated.

AC
DC

It is suggested that a wood duck nesting box program should not be attempted unless a management plan can also be applied. The box should be inspected annually to remove old nesting material, squirrel nests, bee hives, etc. This probably should be done in January as wood ducks nest rather early in Oklahoma. A 3" depth of new nesting material in the form of wood shaving or shavings and saw dust should be added after cleaning. Wood ducks do not carry in nesting material.

The inside of boxes should be coated with automobile undercoating to provide a climbing toe-hold for young ducklings. A strip of 1/4" to 1/2" hardware cloth attached to the inside of the box is also effective for toe-holds.

It is believed by most authorities that the widespread installation of nest boxes throughout the wood duck range has brought the wood duck from very low numbers to a substantial huntable population.

References:

Frank C. Billrose. "Housing for Wood Duck," 1955.

Circular 45: Illinois Natural History Survey.

Clark C. Webster. "Better Nest Boxes for Wood Duck," 1958.

Wildlife Leaflet 393, Department of Interior, Fish and Wildlife Service.

/s/Roland R. Willis

Roland R. Willis
State Conservationist

ILLUSTRATIONS

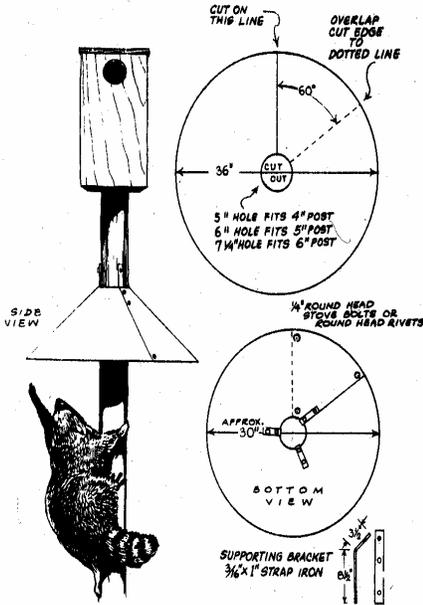
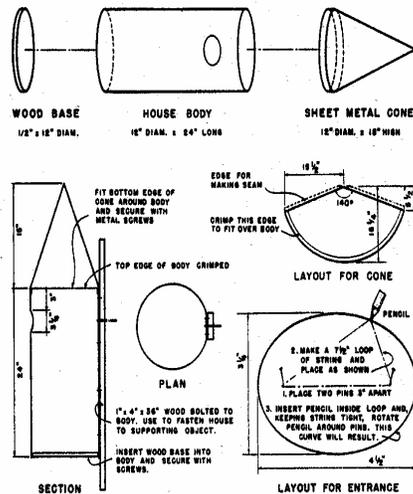
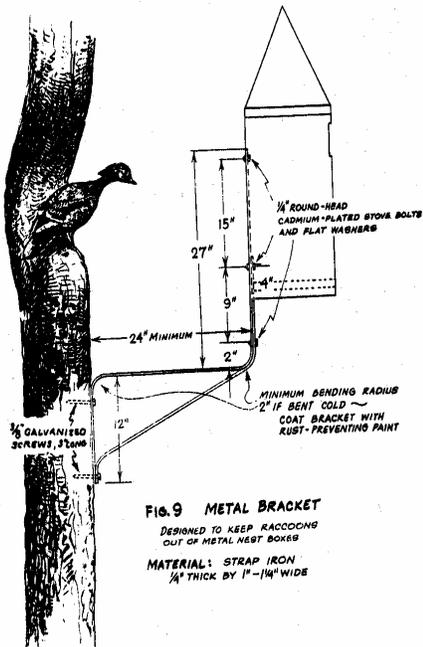
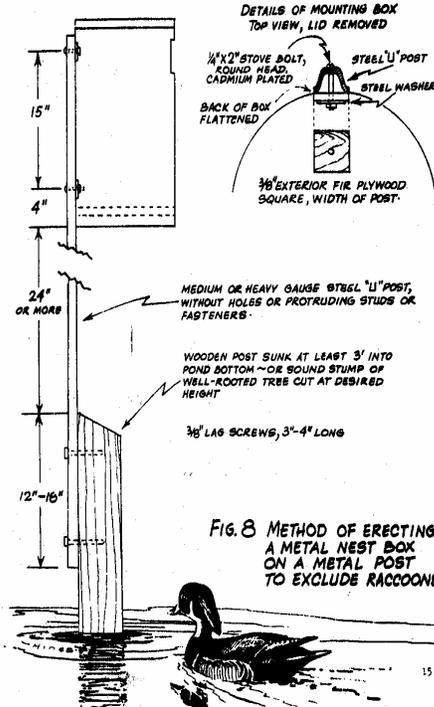


FIG. 6. SHEET METAL GUARD FOR PROTECTING WOODEN NEST BOXES FROM PREDATORS.

TECHNICAL NOTES
BIOLOGY OR-20



This plan shows construction details of the latest model galvanized-pipe nest house for wood ducks. Dimensions for the "raccoonproof" entrance, larger than for the entrance of the box of rough-cut lumber, allow for curvature of the pipe. The top of the cylindrical section is crimped enough to permit the roof to fit over it easily. One to three upholstery clips or metal screws hold the roof in place. The back of the house is flattened somewhat and held firmly against the wooden brace by six to eight screws or bolts. The edges of the entrance are smoothed with a file. Linings, not indicated here, are discussed in the text.