A-1-98

THE OHIO STATE UNIVERSITY EXTENSION

Extension FactSheet

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Placing Artificial Fish Attractors in Ponds and Reservoirs

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Many ponds and reservoirs in Ohio contain little or no natural underwater structure that could, if present, concentrate fish and increase angling success. Ponds treated with aquatic herbicides are essentially without any type of vegetation that could provide structure for fish. Most reservoirs in Ohio had natural structure (such as trees) removed prior to filling to ensure safe navigation. Natural structure may also be lacking because age has decayed any remaining timber and fluctuating water levels prevent growth of submerged vegetation. Placement of artificial structure in ponds and reservoirs is an effective way to concentrate fish. In the absence of structure, fish are often widely dispersed or travel in hard-to-locate groups known as schools. Angling is often difficult when fish exhibit these behaviors. Research done at Ohio State University has shown that artificial structures can concentrate fish and increase angling success.

The guidelines listed below are based on five years of research conducted in an Ohio reservoir. Many conclusions are applicable to small ponds as well.

Materials for Structure

Three of the most commonly used materials were evaluated: brush piles, stake beds and evergreen trees (Figure 1). While all three materials attracted satisfactory numbers of fish, anglers typically caught more fish from evergreen structures. It was not unusual on any given day for anglers to catch five to ten times more fish from these trees as compared to the other materials. Two other advantages of using evergreen trees as structure are cost and availability. In 1988, the cost of placing seven evergreen trees, considered to be one structure, was $2.80 or $.40 per tree. This cost estimate does not reflect labor — labor needs are best filled by volunteers, either individuals or fishing clubs. The cost is considerably less than $57 for a stake bed of comparable size. The brush pile structure was inexpensive to construct but angler success was much lower than with evergreen trees.

Evergreen trees are readily available during the three weeks after Christmas. Individuals wishing to add structure to their ponds can use their own tree and obtain additional trees from neighbors. The larger size of a reservoir will require the placement of considerably more trees to serve more anglers. Fishing clubs or groups of anglers may want to join together to plan a reservoir project. The largest source of Christmas trees is the thousands collected by public workers in residential areas. Contact your local government offices to arrange for use of these discarded trees.

Attracting Fish Species

Bluegill, redear sunfish, largemouth bass and channel catfish are the species most commonly stocked in Ohio ponds (see *Ohio Pond Management*, Ohio State University Extension Bulletin 374). All four species should use evergreen trees in ponds if the pond is largely void of other structure.

Reservoirs usually contain many species of fish. During the study, bluegills, white crappies and black crappies comprised about 90 percent of the total catch from the artificial structures. Lesser numbers of largemouth bass, yellow perch and channel catfish were also caught.

How Deep to Place the Structures

Ponds

Place evergreen trees in 6 to 10 feet of water in areas not used for swimming activities. In deep ponds, placement should still

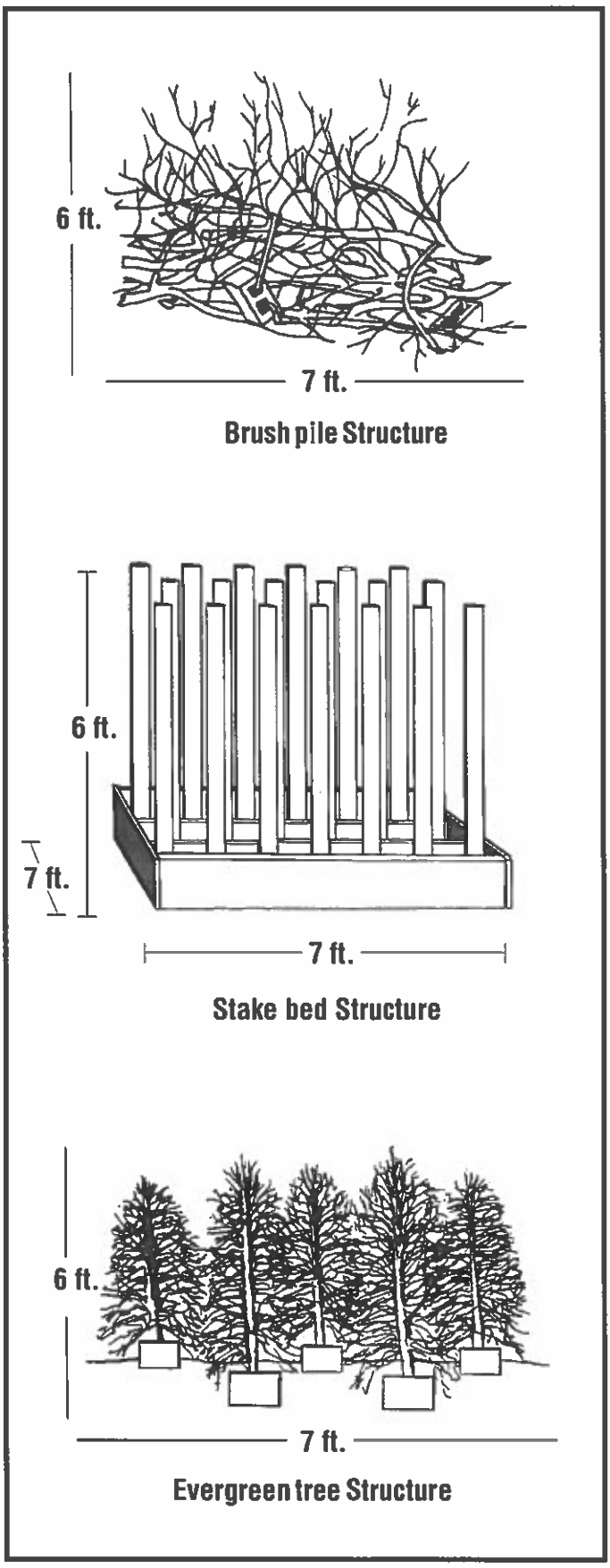

Figure 1. The three commonly used structure materials tested during the five-year study are shown above.

be in 6 to 10 feet of water because the deep water is usually devoid of oxygen due to decomposition of organic materials that collect in the deepest portion of the pond. Structure placed in water lacking oxygen will not attract fish.

Reservoirs

Structure should be placed in 12 to 21 feet of water in reservoirs. Angling for bluegills is most successful when fishing 12-foot-deep structure. White and black crappie catches are greatest from 21-foot-deep structure, especially in summer and early fall. Shallower structure, such as that placed in 6 feet of water, will attract harvestable fish only in the spring. Beginning in June, these shallower structures are used mostly by very small fish.

How Much Structure to Add

In a pond, a structure to attract fish need only consist of a few trees (Figure 2). Using more than 100 trees per surface acre can inhibit largemouth bass predation on bluegills, which results in a large but stunted bluegill population.

In reservoirs, create long lines of trees, three to four trees wide, extending from 12 feet to 21 feet of water (see Figure 2). The actual number of trees needed will depend on the bottom slope of the area where the structures are to be placed. Steep-sloped areas require fewer trees to construct a 12 to 21 feet deep tree line. Thus, for the same number of evergreen trees, more tree lines can be created in steep-sloping areas than in areas with gradual slopes.

Tree lines are easier for anglers to locate than smaller isolated structures. They also provide continuous lines of structure that allow anglers to fish various depths depending on where the fish are at any given time.

Construction and Placement

Individuals or groups need to obtain permission before placing trees in ponds or reservoirs. This is particularly important for reservoirs where improperly placed floating trees can be a serious hazard for boaters. Contact the Ohio Division of Wildlife for permission and direction before placing structure in reservoirs. District offices are located in Columbus, Findley, Akron, Athens and Xenia.

To prepare an evergreen tree for use as structure, gather these materials: one evergreen tree, one 8-inch concrete construction block, a 24-inch piece of wire, a power drill with a 1/4-inch drill bit, and a pair of pliers. As shown in Figure 3:

- Drill two holes, 9 inches apart at the bottom of the tree trunk.
- Slide the trunk through the hole in the block.
- Run the wire through the tree's bottom hole, around the outside of the block, and through the top hole on the trunk.
- Twist the two ends of the wire several times, using the pliers if necessary — the wire should be heavy enough to prevent breakage during the twisting.

The easiest method for submerging evergreen trees in ponds is to place them on the ice during winter and let them sink when the ice melts. This method is not recommended for reservoirs,

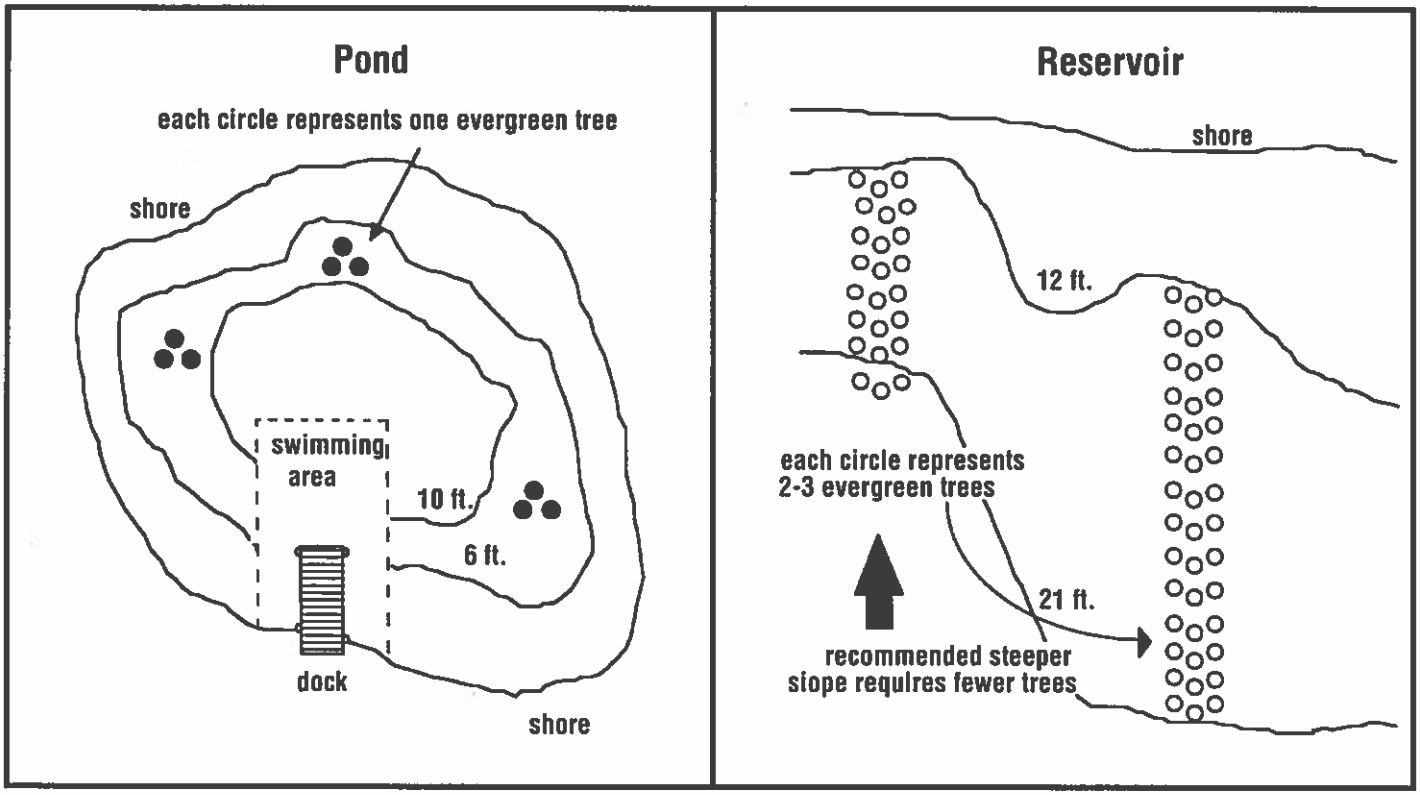

Figure 2. Recommended stategy for placing evergreen trees in ponds and reservoirs.

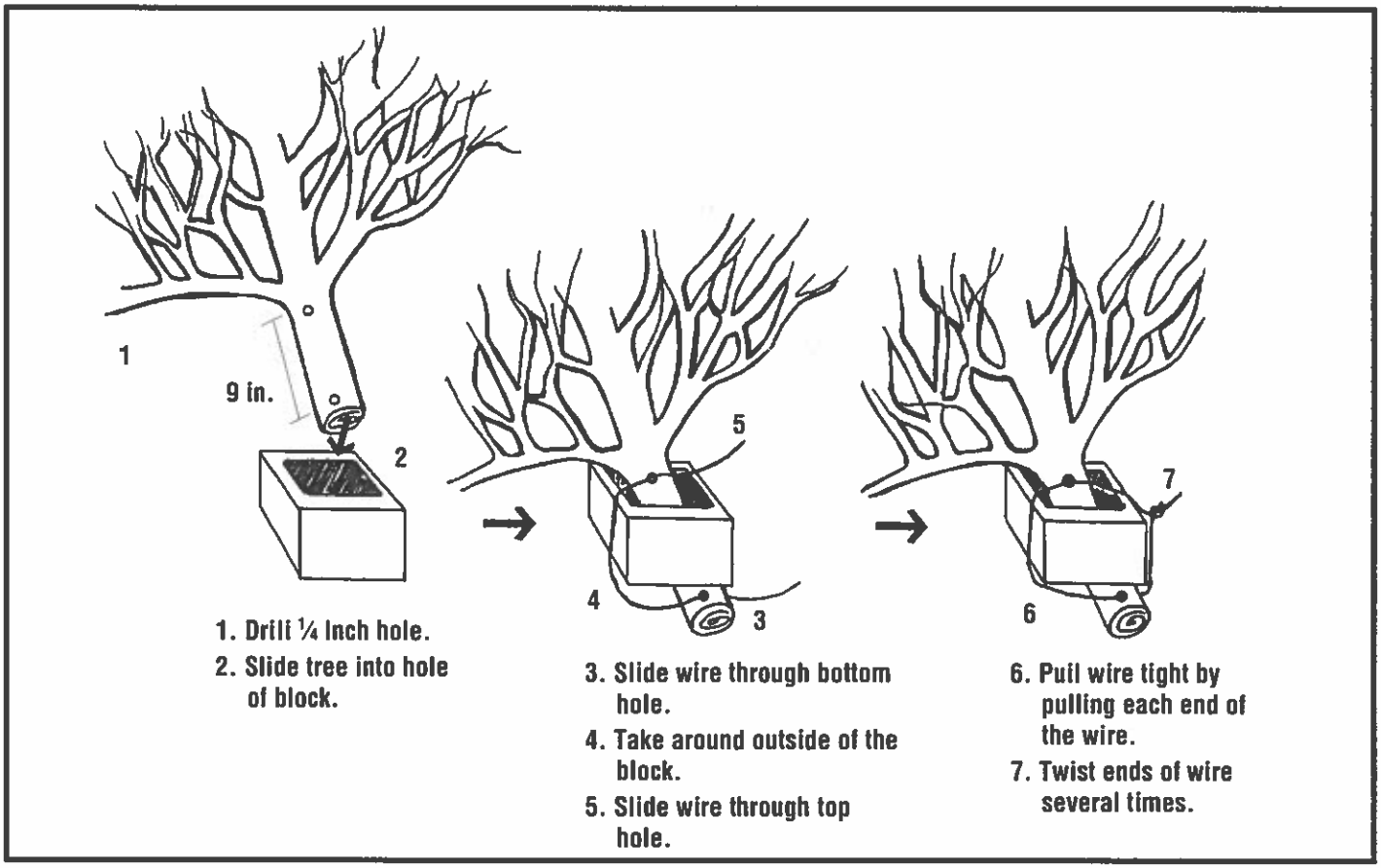

Figure 3. Attachment of concrete block to evergreen tree.

however. Melting ice moves around and could dump the structure in an unintended location. In large bodies of water, evergreen trees with attached cement blocks should be placed by dropping them from the side of the boat. This is best done during warm spring weather.

Summary

The placement of evergreen trees in ponds and reservoirs where natural structure is lacking will attract fish and increase angling success. Evergreen trees placed in ponds should be located between the depths of 12 and 21 feet. These lines should be placed on steeper slopes so as to allow creation of several lines from the collected number of trees. Permission from the pond owner or the Ohio Department of Natural Resources-Division of Wildlife (reservoirs) must be obtained before placing trees.

Additional Pond Management Information

Pond Measurements; Ohio State University Extension Fact Sheet A2.

Controlling Filamentous Algae in Ponds; Ohio State University Extension Fact Sheet A3.

Chemical Control of Aquatic Weeds; Ohio State University Extension Fact Sheet A4.

Ohio Pond Management. Ohio State University Extension Bulletin 374.

Controlling Weeds in Ohio Ponds. 41-minute videotape. VT50.

Visit your county office of Ohio State University Extension for copies of these resources.

Visit Ohio State University Extension's web site "Ohioline" at:
http://ohioline.osu.edu

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Reprinted 5/03—5/98—250—klw