

THE ASHER BRANCH FISH WEIR, 12-MI-320

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INTRODUCTION

Oral history and low water levels on the Wabash River led to the documentation of the Asher Branch fish weir, 12-Mi-320. The weir's cultural affiliation and period of use are unknown. A description, possible origins, and potential use of the site for harvesting a predictable food resource will be the focus of this paper.

LOCATION

The Asher Branch fish weir is located in the NE¹/₄ of the SE¹/₄ of the NE¹/₄ of Section 28, Township 27 North, Range 5 East (USGS 7¹/₂' map, Richvalley Quadrangle) in Miami County. Located on the upriver end of a large shallow area, the weir spans the Wabash River about 500 feet east (upstream) of the mouth of Asher Branch.

Dr. Stewart Rafert brought the weir to the attention of the Indiana State Museum during the summer drought of 1988. He knew of the weir's location through Lamoine Marks, a Miami Indian. Marks, in his eighties, learned of the weir as a child, when his father pointed out the location while fishing nearby. The weir is known to the Miami as "an old Indian Dam." Oral tradition states that the Miami never used the weir and that its construction was by other Native Americans.

DESCRIPTION

Archaeological Resources Management Service and the Indiana State Museum carried out a preliminary survey of the Asher Branch site in the summer of 1988. Field work focused on recording the location and size of larger, more prominent rocks within the weir. The survey resulted in a map of the site (Figure 1) and many photographs and slides documenting its current condition.

The weir, consisting of about 52 m of dam, measures 45.5 m between its northern and southern ends. The center of the weir forms a "V" with its apex pointing upstream. The apex opening is 1.75 m wide. Dam height varies between 17.5 and 52 cm above the river bed. The southern most 3 m of the dam turns upstream and towards the river bank.

Stones of various shapes and sizes were piled, stacked, or wedged in place to construct the dam. In some instances, flat stones, thin in cross section, are placed on edge. The width of the dam varies depending on the size and number of stones

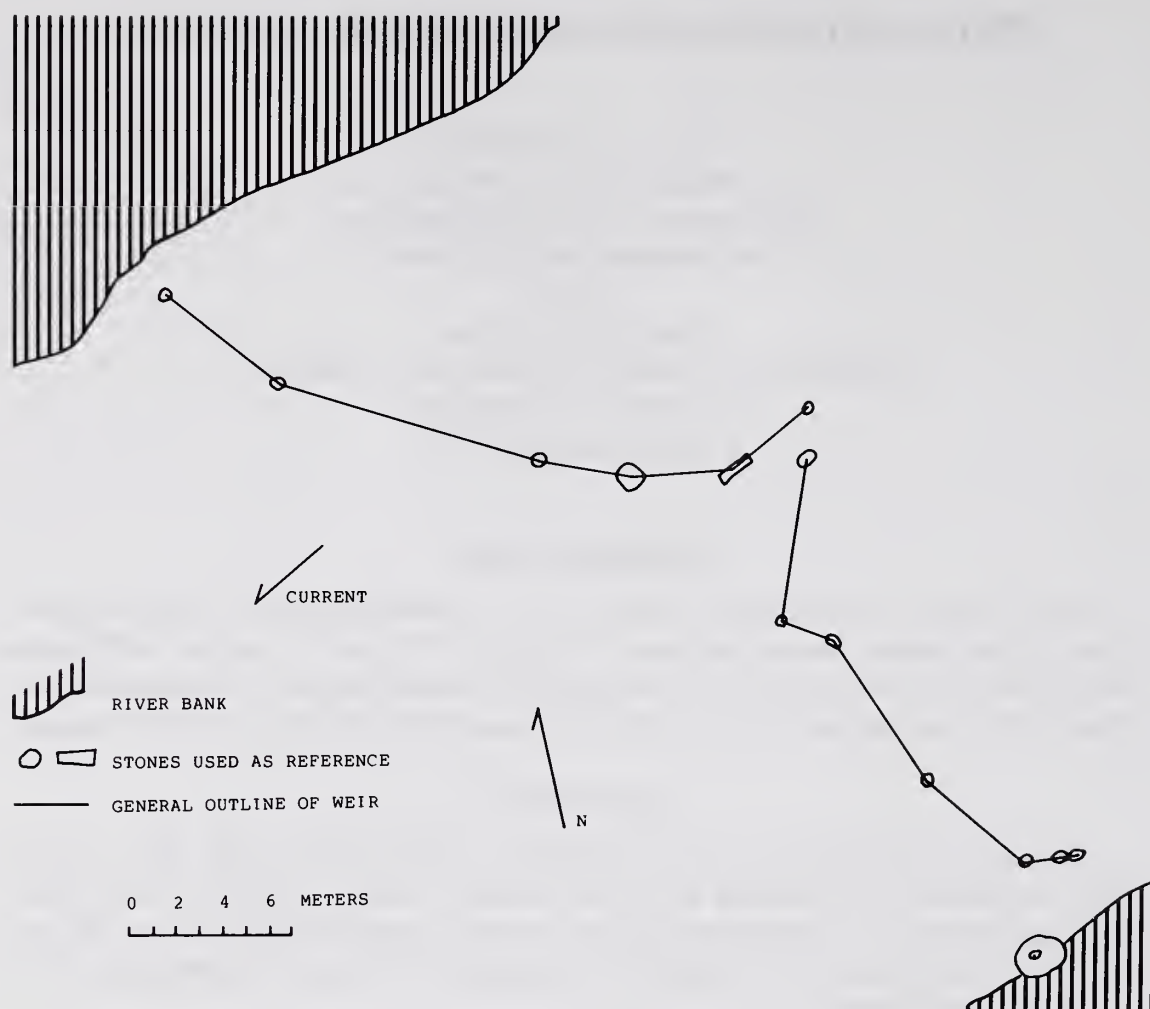


FIGURE 1. Schematic drawing of the Asher Branch Fish Weir, 12-Mi-320. Scale in meters.

used. The irregular outline of the weir and the size of some of the stones suggest that the weir's builders took advantage of larger rocks already at or near their original location.

The weir's layout suggests two primary fishing stations. The first is the apex of the V in the center of the weir. The second is where the wall bends upstream forming a narrow passage between the weir and the southern river bank. Field work found no evidence of traps in either location.

DISCUSSION

Miami oral tradition says that the weir is of Native American construction and that it predates the Miami's extensive use of the Upper Wabash. This suggests a precontact or protohistoric date for the weir's construction. Native American groups that inhabited Indiana historically and used fish weirs include the Potawatomie, Sauk, Fox, (Rostlund, 1952,) and Delaware (Rostlund, 1952; Weslager, 1972). However, the authors found no ethnohistoric data supporting the use of weirs in Indiana by Native Americans.

Site files at the archaeology laboratory, Ball State University, indicate that the General Land Office (GLO) recorded two "fish traps" in 1821, along a stretch of the White River heavily used by the Delaware. The same survey recorded five

Delaware villages in Madison and Delaware counties as well as some Euro-American settlers in the general area. (Use of the term "trap" could refer to a weir, a weir/trap combination, or a trap with no weir.)

These traps are located about one mile apart on either side of the Madison/Hamilton County line. The authors saw the remains of the Madison County trap, which is constructed from wood and not stone. These traps do not conform to those described as built by the Delaware elsewhere (Weslager, 1972; Zeisberer, 1885) and may have been built by early settlers.

The Asher Branch weir is dissimilar to the traps in the White River. It is also unlike the weirs of prehistoric construction reported from Kentucky and Tennessee (Funkhauser and Webb, 1932; Myer, 1928). Nor is it similar to the 19th and early 20th century weirs reported from Tennessee (Cobb, 1978; McCoy, 1980).

"All weirs are alike but no two are the same" (Rostlund, 1952, p. 102). The function of a weir is to obstruct or channel the passage of fish to aid in their capture. Fish pass through the weir by their natural movements or are herded through the weir by part of the fishing group. Capturing is by trapping, spearing, and netting. Passive and active methods of fishing are defined on the basis of how fish approach the weir.

Active fishing requires some individuals to herd or drive the fish to and through the weir while others wait to capture the fish. It is most effective when there are concentrations of fish in the shallows near the weir. Active fishing requires the involvement of several individuals.

Passive fishing relies on natural movement of the fish through the weir. This allows the fisherman to trap fish and collect them at leisure or to take them by spearing or netting as they pass by. Passive use of a weir is an individual or group effort.

Asher Branch weir can function in an active or passive manner. Active fishing is most efficient when fish are abundant in the shallow waters below the weir. Passive fishing is most efficient while fish are moving upstream in large numbers. In either case, concentrations of fish in the shallows or the movement of large numbers of fish occur in response to the natural life cycles of specific species.

Species taken at the Asher Branch weir probably included buffalo fish and suckers (family Catostomidae), which seasonally move upstream and gather in shallow areas. They are abundant, palatable, and catchable by either active or passive means. Sixteen species have occurred historically in Indiana (Blatchley, 1938). Golden redhorse (*Moxostoma erythrurum*) and the common white sucker (*Catostomus commersoni*) are particularly abundant in rivers (Gammon and Gerking, 1966). Although catostomids have many small bones, most are accepted as "well flavored" (Blatchley, 1938).

In the fall (typically November), many members of the sucker family concentrate in the deeper pools of rivers, where they remain throughout the winter. When water temperature rises in the spring (typically April and May), the suckers move upstream, gathering in shallows to spawn. Blatchley (1938, p. 40) described the spring sucker run as follows:

Sixty years ago this Red Horse was much more common on its spring run than now, so much so that I sometimes let a snare down in the

rapid water of an old mill race where I could not see the fish, dragged it slowly, a short distance down stream, then jerked, and about three times out of seven brought up a fish. . . . In the early days, the spring run of these suckers never failed to attract the attention of the settlers and large numbers of them were salted down or put in brine for winter use.

The natural movement of suckers through the mill race described by Blatchley is not unlike the channeling of fish by a weir. This suggests that the sucker run could have provided ample natural movement of fish through the weir to allow for passive capture while the run was in progress. The congregation of spawning suckers in the shallows near the weir provides an opportunity for active capture. Suckers taken during spawning season have the added advantage of the eggs (roe) which are regarded by many as a delicacy (Gammon and Gerking, 1966).

The weir's construction shows that the fish sought were moving up stream, either by natural movement or by herding. The weir's lack of height and slight build might favor the casualness of natural movement over the frenzied fleeing of fish associated with herding. These same factors suggest short term, seasonal use, as opposed to constant use over a long period.

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LITERATURE CITED

- Blatchley, W.S. 1938. The fishes of Indiana. Nature Publishing Company, Indianapolis.
- Cobb, J.E. 1978. Historic fish traps on the Lower Holston River. *Tennessee Anthropol.* 3(1): 31-58.
- Funkhauser, W.D. and W.S. Webb. 1932. Archaeological survey of Kentucky. Univ. Kentucky Rep. Archaeol. Anthropol. 2.
- Gammon, J.R. and S.D. Gerking. 1966. Fishes. In: A.A. Lindsey (Ed.), *Natural Features of Indiana*, pp. 401-425, Indiana Acad. Sci., Indianapolis, 597 pp.
- McCoy, W.J., Jr. Recollections of an early fish traps on the Holston River. *Tennessee Anthropol.* 5(2): 79-84.
- Myer, W.E. 1928. Indian trails of the Southeast. *Annu. Rep. Bur. Amer. Ethnol.* 1924-1925: 727-857.
- Rostlund, E. 1952. Freshwater fish and fishing in native North America. Univ. California Press, Berkeley and Los Angeles.
- Weslager, C.A. 1972. The Delaware Indians. Rutgers Univ. Press, New Brunswick, New Jersey.
- Zeisberger, D. 1885. Diary of David Zeisberger, a Moravian missionary among the Indians of Ohio, 2 vols. R. Clarke and Co., Cincinnati.