

*copy to: Langlois*

INSTITUTE FOR FISHERIES RESEARCH  
UNIVERSITY MUSEUMS  
UNIVERSITY OF MICHIGAN  
ANN ARBOR, MICHIGAN

Report 320

October 17, 1935

A SECOND PLANTING OF GIZZARD SHAD IN WHITMORE LAKE, MICHIGAN

As it was realized that the 100 to 114 adult Gizzard Shad (Dorosoma cepedianum) which were placed in Whitmore Lake on August 23, 1935 (see Institute report 315) might be too few in number to successfully spawn and establish the species, it was decided that another load of shad should be obtained. Consequently on October 2 a letter was sent to Dr. T. H. Langlois, Chief of the Bureau of Fish Propagation of the Ohio Division of Conservation, requesting permission to obtain another truck load of shad from Lake St. Marys, Ohio. On October 4, a reply was received from Dr. Langlois, a portion of which is as follows:

"Although our carp seining season has been brought to a close, I have instructed Mr. Yingling to make a haul and get some gizzard shad for you. This [the Ohio] truck has been directed to reach the Museums Building at Ann Arbor at about 8 A.M. on October 10th, and to proceed with you and Cooper and the fish to Whitmore Lake."

Mr. Yingling, accompanied by Mr. Bupp arrived in Ann Arbor with the truck load of shad at 6:00 A.M., October 10. Shortly afterward they left Ann Arbor for Whitmore Lake, accompanied by G. P. Cooper and M. B. Trautman of the Institute staff. The shad were planted between 6:45 and 7:15 A.M., at the southern end of Whitmore Lake, at the locality where the August shipment was liberated.

The present plant consisted of between 300 and 320 adult shad. They ranged in standard length from 7.80" to 14.10" (total length 10.20 to 16.00"). Thirty-two of the shad were either dead upon arrival or were so weak as to die immediately upon being placed in the lake. The remaining shad (between 268 and 288) seemed to be in uniformly good condition upon arrival, though appearing somewhat sluggish as they swam toward the deeper water.

Between 9:00 and 10:30 A.M. an examination of the shores of the lake in the vicinity of the shad planting was made by Trautman, to ascertain if any more fish had died, were dying or were swimming at the surface. None were noted.

The Ohio truck which brought these fish was approximately 3 tons in weight and carried 6 tanks (approx. 4.5' x 2.5' x 2.5') which when loaded contained about 2 tons of water and fish. The tanks were of metal and not insulated. A pump forced air through many small holes in a pipe coil which lay at the bottom of each tank, the air bubbling through the water and thus oxygenating it. Each tank held between 50 and 60 shad. It was noted that those shad in the forward tanks were apparently in better condition than were those in the rear tanks.

The shad had been transported in the truck from Lake St. Marys, Ohio to Whitmore Lake, a distance of 162 miles, Yingling and Bupp leaving the Ohio lake about midnight. The latter half of the night, during which period the fish had been transported, was cool and cloudy (40 to 60°F).

It is quite obvious that a truck, equipped with non-insulated tanks and an air pump as was the Ohio one can successfully haul adult shad at night during moderately cool weather.

A daily examination of the lake in the vicinity of the shad planting was made for one week after the first introduction of this species in Whitmore Lake last August, to ascertain the number of fish which died shortly after the planting. No examinations were made after the October planting, as at that time there were at least 20 Ringbilled Gulls present, a sufficient number of gulls to eat the dead shad as rapidly as they rose to the water's surface. Because of these birds it would have been impossible to accurately note the mortality of shad.

There is now a possible maximum number of 400 adult shad in Whitmore Lake, though this number will very probably have decreased considerably by the time of the spawning season next spring. However, due to the second planting, which was made possible largely through the courtesy of the Ohio Division of Conservation, there should be a sufficient number of shad left in Whitmore Lake next spring to make possible a successful spawning.

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