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INSTITUTE FOR FISHERIES RESEARCH  
DIVISION OF FISHERIES  
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FISH DIVISION

REPORT NO. 698-A

MANAGEMENT OF HOFFMAN LAKE

by

Walter R. Crowe

In 1941 as a result of a fisheries survey of Hoffman Lake by the Institute for Fisheries Research, certain proposals for the management of the fisheries resources of this body of water were made. (Institute Report No. 698). One of the suggestions was that 2000 adult trout be planted. The planting was to consist of 1000 each of brook and rainbow trout. This suggestion could be expected to show the most immediate results, as far as sport fishing was concerned, and in the fall of 1941 this planting was made. Other suggestions such as the installation of brush shelters, and gravel for the improvement of the fishing in the lake have not been followed up to this time, but probably will be in the near future.

Fishing during the 1942 trout season is known to have been rather good, as might be expected with about 17 legal trout to the acre at the opening of the season, assuming that there had been no great loss over winter. Few creel census slips were obtained, but some turned in by Mr. Gaffney of Detroit indicated that fishing for brook trout was much faster than it was for rainbows. There are two possible explanations for this; either the brook trout were much more readily captured or else the survival of the rainbows had been relatively poor. The purpose of planting two species of trout was to learn which would furnish better fishing, and it was suggested that the biologist visit the lake at the close of the season to learn if possible to what extent the trout population had been reduced during the season.

The lake was visited on September 29, 1942 in company with Howard van Oosten. An experimental gill net set over night captured 6 suckers, 1 perch, and 6 rainbow trout. The fact that only rainbows were captured indicates that the reason for the better brook trout fishing was that brook trout were more easily captured by angling, not that their survival had been better. Creel census slips turned in by Mr. Gaffney showed the catch to be about 2 to 1 in favor of the brook trout. From these data we may conclude that while brook trout furnish immediate fishing to a few, actually it is the rainbow trout which may be expected to furnish

better fishing to a greater number of anglers. No trout were planted in the lake in 1942, and at the end of the 1942 season rainbow trout were still present in good numbers. A catch of 6 rainbows in 125 ft. of gill net indicates that the rainbow trout, at least, are fairly abundant; for a catch of 6 trout in an overnight set compares favorably with netting results in other trout lakes. As a further check on the relative success of brook and rainbow trout in the lake it is suggested that during 1943 (spring planting) 250 each of marked adult brook and rainbow trout be planted. Creel census slips will be obtained by the biologist, and these creel census slips should answer the question.

Some mention should be made of the condition of the rainbows captured. All were adult fish, and there is little doubt that they were from the 1941 fall planting. The 6 rainbow trout captured ranged in size from 10.9 inches to 12.3 inches, and in weight from 6.0 to 8.5 ounces. They were in good condition as compared with trout of the same length from other localities.

The lake was again visited on November 2, 1942 with Dr. Leonard Allison. The purpose of this trip was to try to find any spawning brook trout in the inlet or the outlet, or at the mouth of the springs entering along the west and south shores. No brook trout of any kind were observed. Gravel was found to be present a short distance above the mouth of the inlet, but much of this small inlet is blocked by beaver workings. However, gravel is present in some of the passable area. Seining in the outlet failed to produce any trout of any kind; nor were any brook trout observed at the mouths of springs. The inlet and outlet should be checked in the spring for the presence of spawning rainbows. However, it is considered likely that trout fishing in this lake will be maintained largely through more or less regular stocking, depending on the amount of fishing. It is also considered probable that after a further check in 1943 that rainbow trout will furnish steadier and more consistent sport fishing.

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