Original: Fish Division cc: Education-Game Institute for Fisheries Research Mr. Harold Hughes

W. F. Carbine

G. P. Cooper

INSTITUTE FOR FISHERIES RESEARCH Mrs. Margaret Glatz,

DIVISION OF FISHERIES MICHIGAN DEPARTMENT OF CONSERVATION COOPERATING WITH THE

UNIVERSITY OF MICHIGAN

December 28, 1945

ADDRESS UNIVERSITY MUSEUMS ANNEX

ANN ARBOR, MICHIGAN

Silver Lake, Manchester, Mich

ALBERT S. HAZZARD, PH.D. DIRECTOR

~ 4

REPORT NO. 1028

EXAMINATION OF FREEDOM (SILVER) LAKE,

WASHTENAW COUNTY

Ъу

W. F. Carbine and G. P. Cooper

During the past year there has been some correspondence between Mrs. Margaret Glatz and the Institute concerning Freedom (Silver) Lake (T. 3S., R. 4E., Sec. 28,33, Freedom Township, Washtenaw County). Mrs. Glatz could not understand why Freedom Lake had not been stocked during the past few years when other neighboring lakes had received plantings. Mrs. Glatz also requested that Freedom Lake be stocked with largemouth bass and bluegills. Dr. A. S. Hazzard answered these letters from Mrs. Glatz and explained our present policy in regard to warm water fish planting and promised that a check would be made of this lake to determine whether an actual shortage of bass and bluegills existed.

Freedom Lake has an area of 15 acres and a maximum depth of 65 feet. The amount of shoal area is rather limited because of the steep drop off. There is neither an inlet nor an outlet to this lake. Mrs. Glatz operates a boat livery of about 5 or 6 boats. Two visits were made to this lake in 1945. The writers did some seining on June 11 and Dr. Cooper and Mr. G. N. Washburn stopped at the lake on September 11. On June 11, both Mr. and Mrs. Glatz were contacted. They reported that fishing for bluegills and largemouth bass in past years had been good. Fishing during the past several years has been getting worse until in 1944 when many complaints were received about the poor fishing. Mr. Glatz claimed that the carp that are present in Freedom Lake ruin all of the bass and bluegill spawning beds and eat all of the eggs and fry. He also stated that many undersized bluegills were caught during the past several years. On September 11, several members of the Glatz family witnessed the seining operations, asked questions, and listened to an explanation of the current fish management policy of the Fish Division. At the conclusion of the seining, all of these people seemed to be satisfied that natural reproduction of bass and bluegills was adequate to maintain the population of these species in the lake.

On June 11, seven seine hauls were made along the southeast shore with a 25 foot bag seine. Approximately 2,500 square feet of shoreline were covered. Seining was made extremely difficult because of the dense growth of aquatic plants, especially algae. This necessitated much shorter seine hauls than we would have made normally and as a result, fewer fish were taken. The following fish were seined:

1 largemouth bass = 2.4 inches 66 bluegills = 1.5 to 4.0 inches 4 pumpkinseed sunfish = 2.8 to 3.1 inches 183 blackchin shiners = 1.5 to 2 inches 50 Iowa darters = 1 to 2 inches Numerous unidentified minnow fry

On September 11, two hauls were made with a 100 foot bag seine. Seining was made difficult because of the dense weeds. The seine rolled

-2-

up because of the weeds on the first seine haul. Approximately 5,000 square feet of shoreline were covered in the one good haul. The follow-ing fish were taken:

2 mud pickerel - 10 to 12 inches 7 perch - 4 to 5 inches 6 largemouth bass - 2.5 to 3 inches 132 bluegills - 1 to 5 inches 38 pumpkinseed sunfish - 2 to 4 inches 1 chub sucker - 8 inches

At the time that the above seining occurred, it was estimated that only 25 per cent of the fish present in the area seined were caught.

On the basis of the seining that was done and the observations that were made at Freedom Lake, we believe that the lake has an adequate supply of young fish of all of the game species and that no further stocking is necessary.

On our June collection trip several spawning beds were observed. It was believed that these beds were made by either the largemouth bass or the pumpkinseed sunfish. We also noted that the lake bottom was covered with a normal amount of silt and debris which indicates that carp could not be too abundant in the lake. Dense growth of vegetation is another evidence that carp are not too abundant. Carp, when present in any numbers would be expected to "root" up the bottom at this time of the year. Another reason for believing that carp are not too abundant in Freedom Lake is based upon the fact that no carp were taken in any of our seining operations.

A laboratory examination was made of the scales of a few of the fish collected in June. Seven of the larger bluegills (2.4 to 4.0 inches in

-3-

length) were in their third year of life. Three of the smaller bluegills (1.5 to 1.8 inches) were in their second year of life. Freedom Lake bluegills, therefore, are growing slower than the average bluegill in Michigan. Slow growth is usually the result of a food shortage brought on by over population. Apparently bluegill spawning is too successful in Freedom Lake. It is quite obvious that further stocking of bluegills would not improve conditions for this species in Freedom Lake.

INSTITUTE FOR FISHERIES RESEARCH

Report approved by A. S. Hazzard Report typed by E. F. Livingston