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cc: Education-Game
C. Lydell
J. G. Marks

(W)

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INSTITUTE FOR FISHERIES RESEARCH
DIVISION OF FISHERIES
MICHIGAN DEPARTMENT OF CONSERVATION
COOPERATING WITH THE
UNIVERSITY OF MICHIGAN

Conservation Officer Bigelow
Institute for Fisheries
Research

ALBERT S. HAZZARD, PH.D.
DIRECTOR

September 19, 1944

ADDRESS
UNIVERSITY MUSEUMS ANNEX
ANN ARBOR, MICHIGAN

REPORT NO. 956

FURTHER OBSERVATIONS ON CRYSTAL, DUCK AND
LOON LAKES, MONTCALM COUNTY.

by

W. F. Carbine and G. N. Washburn

At the suggestion of Mr. Westerman, the Institute made another check on the extent of natural reproduction in Crystal, Duck and Loon lakes in Montcalm County on August 31, 1944. Previous checks have been made on these lakes and the findings and recommendations have been summarized in Reports 768 and 768a.

Three seine hauls were made at intervals along about one-quarter of a mile of the south shore of Crystal Lake. Each haul covered approximately 30 by 20 feet of shoreline in water ranging in depth of from three feet to shore. Beds of vegetation (Chara, Potamogetons and Vallisneria) were included in each seine haul. The lake bottom over which we seined varied from sand, marl to muck. The following fish were taken in the three seine hauls:

42 bluegills	1-4 inches in length
21 largemouth bass	2-3.5 inches in length
4 rock bass	1-2 inches in length
3 smallmouth bass	2.5 inches in length

The majority of the bluegills taken in Crystal Lake were young of the year as were all of the large and smallmouth bass and rock bass. Numerous menona killifish and blacknose minnows were taken. Blunt-nosed minnows were also fairly common. Young-of-the-year long-eared sunfish were also abundant.

Several fishermen contacted claimed that fishing had been good in Crystal Lake this year. One man who watched us seine told us that many largemouth bass had been observed spawning last spring out from where we were seining.

Conservation Officer Bigelow said that he had received several complaints this year because bluegills and bass had not been planted. We explained to Mr. Bigelow the reasons for discontinuing stocking and we are certain that from now on he will be in a better position to handle similar complaints.

Duck Lake was also seined on this trip. Three seine hauls, each covering approximately 20 by 40 feet, were made along the southwest shore, out to a depth of about three feet. An effort was made in each operation to cover a portion of the rather abundant weed beds consisting of Potamogetons, rushes and yellow water lilies. The following fish were taken in the three seine hauls:

47	bluegills	1-2.5 inches in length
17	largemouth bass	2-3 inches in length
15	pumpkinseed sunfish	1-2.5 inches in length

The majority of the bluegills and pumpkinseeds and all of the largemouth bass were young-of-the-year fish.

Fishermen contacted claimed that fishing in Duck Lake was excellent this year up to the time of the hot spell and now that cool weather has

set in, fishing has improved again. Northern pike are not as abundant as formerly but are of a larger average size. Some nice catches of real large perch have been made and bass fishing has been good. The man who operates the boat livery on Duck Lake told us that bluegills and bass will maintain themselves in this lake without stocking. He also claimed that waste from the oil wells killed many fish in 1932.

We had a little difficulty in obtaining a sample of fish from Loon Lake. We did not arrive at the lake until late evening and as we were not acquainted with the lake we had difficulty in selecting a good place to seine. We tried seining, and covered at least 400 feet of shoreline, along the east end of the lake. Because the lake was about one and a half feet lower than normal we found that the marl bottom in about one foot of water was too soft to seine in successfully. Vegetation was also sparse along this shore. We were able to pick up hundreds of menona killifish and blunt-nose minnows but only one game fish, a pumpkinseed sunfish about three inches in length. We also made one haul along the north shore (about 20 by 30 feet) and picked up 11 bluegills, 3 largemouth bass and 2 perch. All were young-of-the-year. No other seining was attempted after this because of darkness and impending rain.

People interviewed at Loon Lake told us that fishing had been good up until the hot spell and was again improving. During our inspection of the lake we saw one man with a limit catch of bluegills. One party of two people had 15 bluegills and another party of two people had about 15 bluegills and one northern pike. A boy caught two northern pike while trolling just before dark.

In conclusion we might add that although few seine hauls were made in these three lakes, the samples of fish obtained were adequate to prove to our satisfaction that natural reproduction is occurring and we feel

that it should be sufficient to maintain the populations of bluegills and bass under present conditions. More extensive seining on the shoal areas would undoubtedly have given results comparable to the above samples and we felt that additional seining was unnecessary. Although perch were obtained in only one lake (Loon) does not necessarily indicate that natural reproduction of this species was not taking place. Past studies have shown that perch populations in most lakes have been able to maintain themselves even under an intensive fishing.

INSTITUTE FOR FISHERIES RESEARCH

W. F. Carbine and G. N. Washburn

Report approved by: A. S. Hazzard

Report typed by: M. Klaphaak