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

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ADDRESS
UNIVERSITY MUSEUMS ANNEX
ANN ARBOR, MICHIGAN

REPORT NO. 768a

(SUPPLEMENT TO REPORT NO. 768)

FURTHER OBSERVATIONS ON CRYSTAL LAKE, MONTCALM COUNTY

by

L. E. Perry

On September 10, 1942, a party of the Institute for Fisheries Research, comprising R. Van Deusen, P. Galvin, S. Lieveense, and L. E. Perry, visited Crystal Lake, Montcalm County, pursuant to correspondence from the Crystal Lake Cottage Owners' Association concerning the recommended (Report No. 768) cessation of stocking of all fish in the lake.

Mrs. Ada La Du, Secretary of the Crystal Lake Cottage Owners' Association, and Mr. Earl Hammtree, Secretary of the Rod and Gun Club, were contacted. Other officers and members of the local organizations were not available because of the late date of the season. An attempt was made to explain to these people some of the principles and reasons for making the management recommendations given in Report No. 768 on this lake and also to give them an opportunity to better present their argument for continued stocking of the lake.

The main points in their argument were that fishing improved when stocking was first begun years ago and if discontinued now, fishing would certainly decline; there are believed to be too many garpike in the lake; and because of the many large bluegills that are caught, the bluegill growth does not appear to be stunted. They agree that there are many young fish around the shores, especially bluegills, and that fishing has been good this year, 1942. Mr. Claude Lydell, District Supervisor of Fisheries Operations, has made some analyses of the fisheries report on this lake before members of the Rod and Gun Club. It was suggested that a member of the Institute staff might be available to meet with an organized group of the club sometime in the future.

A brief investigation of the number of young fish hatched this year was made by seining at several locations around the lake and in various types of habitats. A 25-foot bag seine was used in all operations. On the south side of the lake the seining was done over a bottom of fibrous

peat and gravel, on the west and north sides over gravel and sand with some patches of bulrushes and beds of muskgrass, bushy pondweed and water lilies. Counts of young-of-the-year game fish from four seine hauls are as follows:

Pike	1	...	...	...
Bluegills	102	13	5	84
Largemouth bass	6	14	4	8
Rock bass	18	4	...	...
Pumpkinseeds	Adults	...	...	1
Long-eared sunfish	12	4	...	Adults
Perch	...	...	...	5

Black-nosed minnows, blunt-nosed minnows, menona killifish, tadpole madtoms and adult game fish were also found.

Since no stocking has been made this season the results of these collections are evidence that these species spawn in the lake. Obviously bluegills are the most abundant and largemouth bass are plentiful. Perch had probably moved out from the seining areas, but their presence was indicated in one seine haul.

From this investigation it appears that natural reproduction is considerable in Crystal Lake and certainly sufficient to keep the lake stocked to its carrying capacity. This conforms with the findings of the previous survey. It was suggested to Mr. Hammontree that if they desired, the Institute might supply the local club with scale envelopes and directions for taking scale samples from bluegills and largemouth bass. This would supplement the information obtained by the survey in 1941 and show any change in growth rate. An alternative and probably more satisfactory method would be for the Institute to make another check on the progress next year and take scale samples at that time if necessary.

Mr. Hammontree gave assurance that the Rod and Gun Club would uphold any policy the Department of Conservation desires in managing this lake because of satisfactory relations in the past.

INSTITUTE FOR FISHERIES RESEARCH

By L. E. Perry

Report approved by: A. S. Hazzard

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