

Original: Fish Division

cc: Education-Game

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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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November 21, 1944

REPORT NO. 969

MANAGEMENT CHECK ON BURKE LAKE, CLINTON COUNTY

by

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Four experimental gill nets were set overnight in Burke Lake October 25, 1944 by Louis Krumholz, Wm. Burt and the writer. The following fish were taken: brook trout (5 unmarked) having total lengths (millimeters): 342, 352, 396, ? , ? ; brook trout (3 right pectoral clip): 250, 267, 290; chub sucker (7)--all about 135 mm.; black bullheads (3) 125-165 mm.; northern pike (1) 690 mm. (The length of one fish questioned was not taken as it was released uninjured; measurement of the other was lost.)

Poisoning in 1942 was not complete or fish reinvaded the pond through the brush filter dam at the outlet. Either of these possibilities was also indicated by the results of a single overnight experimental gill net set on October 28, 1943 (results not previously reported). In that set were taken one unmarked brook trout (290 mm.) and one pumpkinseed sunfish (112 mm.).

Excellent growth and good survival of the two plantings of brook trout are suggested by the results of this check as well as by the first examination of the lake after planting (Institute for Fisheries Research Report No. 886). The first planting was made on December 23, 1942 and consisted (according to Mr. Lydell's Report of Fish Planted) of 200 unmarked brook trout

aged 11 months, total weight 36 pounds, length 8 inches. In the 22 months since planting the average gain in length was 6.3 inches. The second planting consisted of 500 fingerling brook trout marked by the removal of the right pectoral fin. The average length of these fish based on random samples measured was 5.7 inches and the total weight of the planting 32 pounds 4 ounces. These fish had been in Burke Lake approximately one year and had grown an average of 4.9 inches.

All fish were in excellent condition, being fat and highly colored.

Since neither the Fish nor Game Division was able to furnish the help needed to issue permits and check the anglers, Burke Lake was not opened to fishing in 1943 and 1944 as originally planned. It was suggested that no further plantings be made this year.

If the necessary help should be available next spring, Burke Lake should be opened to limited fishing as recommended in the original report (689) for this lake or as soon thereafter as is practicable. Annual fall planting with 500 marked fingerlings should then be resumed.

Since Burke Lake is in the "all other" class the designation should be changed to the trout lake class as recommended in the Summary of Management Proposals made in lake survey reports for Fisheries District #8.

An increase in water level of Burke Lake of from two to three feet would be very desirable as it would add to the area considerably and greatly increase the food-productive shoal. It would also bring the water up to high, firm ground, which would make fishing from shore safer and more enjoyable. It is understood that the Game Division has already considered this project as an improvement for waterfowl and muskrats and it is believed that it would have value for both fish and wildlife.

A new management card is being submitted for this lake.

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