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Education-Game

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out

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PARTIAL FISHERIES SURVEY OF DUNHAM LAKE, ROSCOMMON COUNTY,

AUGUST 23, 24, 1943

by

Leonard N. Allison

A partial fisheries survey of Dunham Lake, Roscommon County (T. 21 N., R. 1 W., Sec. 14, Nester Township) was made on August 23, 24, 1943 to determine its suitability for trout. A chemical analysis of the water was made, fish were collected and studied, and various other factors were considered.

A small tributary of the West Branch of the Tittabawasse River flows through Dunham Lake, although very little flow was noted at the time of the survey. The lake appears to have been formed by a dam on this stream.

Dunham Lake has an area of approximately 20 acres with a maximum depth of 20 feet. It is sigmoid in outline.

The State ownership map shows that public access is assured on this lake.

The water analysis is as follows:

<u>Depth</u>	<u>Temperature</u>	<u>Oxygen</u>	<u>Carbon Dioxide</u>	<u>ph-th</u>	<u>M.O.</u>	<u>pH</u>
Sur.	73°F.	8.0	0.0	18	160	8.2
5'	70					
7'	69					
10'	67					
15'	64	8.0	0.0	13	164	8.2

A thermocline was found between 10 and 15 feet. This should prevent complete circulation of the water in hot weather when otherwise the entire

lake would rise in temperature, and, if thorough mixing occurred, temperatures would exceed the upper limit tolerated by trout.

The dissolved oxygen was found to be sufficient to support trout.

A study of the scales of ten yellow perch and one pumpkinseed sunfish was made. Although the sample is too small to have much significance, the fish were stunted as compared to the average for Michigan inland lakes. Blacknosed shiners seined near the public beach also appeared to be stunted and in poor condition.

The inlet of Dunham Lake was cruised on October 21, 1943. At this time the stream averaged two feet wide and five inches deep for approximately half a mile, then it became smaller. It originates in small springs in several swamps. The bottom is hard sand but there is no gravel for spawning beds. It would not be difficult to place gravel in the stream because it is close to a roadway and easily accessible. Approximately four cubic yards of gravel would be sufficient.

One brook trout approximately 14 inches long was observed in the inlet stream. Attempts to collect it drove it down into Dunham Lake, where it undoubtedly had spent last summer, and perhaps many more summers. The presence of the brook trout is a good indication that trout can live in the lake. However, the number of trout that the lake could support is a problem for future study.

Recommendations: Although Dunham Lake contains stunted fish and is comparatively shallow, experimental plantings of 200 legal rainbow trout might be made, preferably in the fall of the year, each year for the next two years. The success of the trout in the lake would determine future policies.

Gravel should be placed in the inlet stream and observed to determine whether the trout utilize it for spawning.

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