

May 17, 1932

Report 145

ON CONDITION OF LAKE TROUT IN HULBERT LAKE, CHIPPEWA COUNTY

On March 31 the department of Conservation requested a report on lake trout stomachs from Hulbert Lake, which had shortly before been turned over to the Institute. The food was at once studied, but considerable delay has been experienced in getting the parasites identified.

The memorandum regarding these specimens, furnished by the Department of Conservation is as follows:

"Two lake trout brought to the office for exhibition on March 18, 1932, by Mr. Newbrough of Hulbert Lake (Chippewa County) Development Club, caught by the caretaker of the club, Mr. Massey, on March 16, 1932, using hook and line through the ice--baited with a yellow perch.

"Both fish were twenty-six inches long, one weighed seven and three-quarters pounds and the other eight pounds. The fish were stocky, fine condition, although abdomen flabby. Stomachs returned for examination, also head and portion of skin for age determination.

"Deliver to Dr. Hubbs for examination and report. Also enter on survey card for Hulbert Lake."

The food examination was made April 1 by J. Clark Salyer of the Institute staff. One stomach was found empty. The other contained a salmonoid fish which had been 7" or 8" long in life. Although this existed only as fragments, careful comparison showed that the fish eaten was in all probability another lake trout.

In examining the food, it was found that an enormous mass of tapeworm parasites occupied the pyloric or caecal end of the stomach. These are what imparted the fullness to this portion of the stomach. The fish were about equally affected. The mass of parasites was sufficient to lead to the belief that they might

seriously affect the health of the fish, either by draining their vitality or by clogging the outlet of the stomach. There is no evidence that they would seriously affect the food value of the fish; they certainly would be no source of danger to man.

The parasites were identified by Prof. George R. LaRue of the University, as the tapeworm known scientifically as Abothrium crassum. This is a relatively large parasite, well known in the adult condition. In America it has been known to affect lake trout, land-locked salmon, brook trout, whitefish and lawyer. Its life-history is not well known, though in Europe it has been claimed that the perch may serve as the means of infecting larger fish with the parasite. Since perch abound in Hulbert Lake, these may serve as the source of infestation here.

Since the life-history of this parasite is not known in this country, no recommendations for its control can be made. Furthermore, there appear to be no means available for studying this problem now.

To determine the age of these lake trout Dr. Greeley and I both examined scales under the microscope. These showed quite a number of winter lines, but were quite difficult to read. The indicated age appeared to be 8 or 9 years, but could be as low as 7 or as high as 11 years.

Report prepared by the undersigned.

INSTITUTE FOR FISHERIES RESEARCH

Signed by Carl L. Hubbs
Director