Original: Fish Division

cc: Mr. Ruhl Mr. Shetter

INSTITUTE FOR FISHERIES RESEARCH

DIVISION OF FISHERIES

MICHIGAN DEPARTMENT OF CONSERVATION

COOPERATING WITH THE

UNIVERSITY OF MICHIGAN

ALBERT S. HAZZARD, PH.D.

September 29, 1939

ADDRESS UNIVERSITY MUSEUMS ANN ARBOR, MICHIGAN

CC May went

Patt)

REPORT NO. 550

INVESTIGATION OF THUNDER BAY RIVER
BETWEEN FOUR-MILE DAM AND ALPENA

David S. Shetter

The Thunder Bay River was visited on Wednesday, August 2, 1939, by Edwin Cooper and the author. Almost the entire riffle area below the four-mile dam was inspected, and part of the Alpena dam backwaters. Temperatures were taken at several points, and a fish collection was taken from the riffles with a 30-foot 3/8-inch mesh seine.

Temperatures were as follows:

11:00 a.m. At four-mile dam - air 80° - water 78°

10:00 a.m. One-quarter mile below four-mile dam - air 77° - water 78°

1:00 p.m. One-eighth mile above
Alpena City limits - air 82° - water 78°

Five seine hauls, covering about 5,000 square feet of riffles and pools were made. Approximately 120 adult bullheads (Ameiurus melas) were taken and a few of the young. Several immature smallmouth bass (Micropterus dolomieu) were captured. Also collected were a few young suckers (Catostomus c. commersonnii), perch (Perca flavescens), rock bass (Ambloplites rupestris), and black sided darter (Hadropterus maculatus), and several crayfish. Northern pike (Esox lucius) are taken by hook and line fishermen all through the year.

According to correspondence from Mr. Ben Wright of the Alpena Chamber of Commerce, this section of the Thunder Bay River has, in past years, yielded a few rainbow trout, and it is this section which the Alpena sportsmen wish to stock with lake-run rainbow.

There is considerable doubt as to whether or not any significant run of rainbow trout moves up to the Alpena dam in the Thunder Bay River. Officer William Connors stated that he has always allowed suckersnaring below the dam, and in his course of inspection has not seen or heard of any rainbow trout being snared or observed during smelt-dipping or at any other time in the spring. He also stated that he had heard of the capture of only three rainbows during the last three years from the water in question.

The fish in the seine collection would hardly be considered normal associates of rainbow trout, and the temperatures taken indicate that the water in general is too warm for trout during the summer. It is possible, however, that somewhat cooler temperatures might prevail in the deeper waters which extend for some two miles above the Alpena Dam, and rainbow trout might survive here during the hot summer months.

It is suggested that no transference operations be undertaken unless a rainbow run at least as large as was obtained in the Main Au Sable takes place in the Thunder Bay River. An experimental planting of 1,000 tagged adult rainbows might be made late in the fall when the temperature of the river has dropped below 70 to determine the returns from such stocking.

INSTITUTE FOR FISHERIES RESEARCH
By David S. Shetter