

INSTITUTE FOR FISHERIES RESEARCH
UNIVERSITY MUSEUMS
UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

Report No. 79

ON THE CAUSE OF DEATH OF YEARLING BROOK TROUT AT
THE TURTLE LAKE CLUB, HILLMAN, MICHIGAN.

The condition of fish at this station was reported to the Institute by Mr. F. A. Westerman, Fish Division, on June 10th. He asked that we undertake an investigation.

According to Mr. Frank L. Snipes, Superintendent of U.S. Fisheries Stations in Michigan, the yearling brook trout are kept in raceways fed by Cold Creek. The fish began to die in June and during a period of several weeks they lost 2,600 out of 10,000 fish. The fish, according to Mr. Snipes, were possibly raised as fingerlings at the U.S. Fisheries Station, Northville, Michigan.

We received a shipment of six dead trout on ice on June 12, 1931. These fish ranged in length from 4.5 to 7.0 inches. The internal organs had disintegrated and were not in a condition for examination. Two of the specimens were excessively fat. Two showed a dorsal fin infection, others showed abnormally shaped and abbreviated fins, apparently, the result of past fin infections. No cause of the death of these fish was clearly apparent.

Several days after the examination of these fish, Mr. Frank L. Snipes, brought to us some of the healthiest living specimens from the rearing ponds at the Turtle Lake Club.

In questioning Mr. Snipes about the conditions in general at the station we found that the fish in the main stream, ahead of the rearing ponds, were also affected and that such specimens were found against the head screens. He described some of them as having red circles on the abdomen.

The living fish which Mr. Snipes brought to us were kept in an aquarium under

conditions the same as those used on our rainbow trout, brook trout, and landlocked salmon.

The fish died at the rate of two or three a day and death was rather sudden. Several of the dead fish showed one or two red spots in the skin on the sides of the body. On June 22, 1931 the blood from each of eight living specimens was cultured on blood agar and three plated. A blood smear of each was made and all were positive for bacteria. All blood agar cultures developed bacteria and from the three which were plated bacteria responsible for furunculosis were isolated.

At another time a loop of blood from each of two living fish was plated on nutrient agar and colonies characteristic of the bacterium causing furunculosis were found in abundance.

We are of the opinion that the fish are dying as the result of this bacterial infection and suggest that Mr. Frank L. Snipes communicate with Dr. H. S. Davis, Fish Pathologist, Bureau of Fisheries, concerning recommendations in the handling of these trout.

cc. to Frank L. Snipes

INSTITUTE FOR FISHERIES

Wendell H. Krull
Wendell H. Krull
Fish Pathologist