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MORTALITY AMONG BROWN TROUT AT STATE FISH

HATCHERY, HARRISVILLE, IN JULY, 1946

by

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A heavy loss among two-year-old brown trout occurred at the state fish hatchery at Harrisville beginning on June 28, 1946, and was investigated at the request of Mr. Joe Southwick, Superintendent of the hatchery.

The two-year-old brown trout had been transferred on June 28, 1946 from the Sturgeon River Rearing Station at Wolverine. The tank truck took water at Oden Hatchery at about 6:30 A.M. and drove to the Sturgeon River where it was loaded with 5,000 two-year-old brown trout at about 8:00 A.M. This number of fish was considered to be a heavy load as they were large fish and ice was not used to keep the water temperature down. The fish arrived at Harrisville around noon with a loss of about 2,700. Water temperature of the tank on the truck was 60° F. at that time. The remaining fish were placed in a pond and the mortality continued. At the time of my visit on July 2, 1946, the daily loss was about 230.

Examination of dead and dying fish revealed definite external and internal lesions caused by furunculosis. Since sulfamerazine had been reported as used successfully at the U. S. Fish and Wildlife Service

Fish Hatchery at Leetown, Virginia for curing furunculosis, treatment with this drug was instituted at once (eight grams sulfamerazine per 100 pounds of food for a period of three weeks). On July 6, 1946, Mr. Southwick reported that the loss had dropped to 100 per day the day following the first application and to twenty per day on July 6, 1946. Whether the treatment was entirely responsible for the reduction in mortality cannot be proven because it was not possible to run a control with comparable conditions at the hatchery.

An examination was made on July 5, 1946, of the stock of brown trout at the Sturgeon River Station from which the 5,000 fish for Harrisville were taken. According to Mr. Emerson Kreig, who is in charge of the station, no unusual losses had been experienced up to that date. The brown trout in the pond in question appeared to be normal in every respect. Five trout that were picked up dead on the bottom of the pond were examined for furunculosis. All apparently were in good condition. Two of the five showed definite furunculosis lesions. One characteristic of the disease is its ability to remain dormant or latent in fish until favorable conditions for development come about. It would have been advisable to have made bacteriological cultures of blood from apparently normal fish in the pond to determine the percentage of latent infection but time did not permit employment of the lengthy procedure. However, the large loss experienced in transit to Harrisville and subsequent loss in the pond at Harrisville was evidence that the percentage of latent infection was high.

Treatment with sulfamerazine (eight grams per one hundred pounds of food for three weeks) was recommended in an attempt to prevent another heavy loss should optimum conditions for development of furunculosis

again be reached. A sufficient quantity of the drug to complete the treatment was left with Mr. Kreig.

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