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AN UNUSUAL CASE OF OCTOMITUS AMONG YEARLING RAINBOW TROUT

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Octomitus (Hexamitus) salmonis, an intestinal protozoan that infests salmonid fishes, causes mortality among fingerlings in hatcheries. According to Dr. H. S. Davis (1953, Culture and Diseases of Game Fishes), ". . . trout more than 3 or 4 inches long show little or no effects, even when the parasite is abundant in the intestine; . . ." My observations during the past 20 years agree with this statement. Consequently, it was surprising when a chronic mortality among yearling rainbow trout infested with Octomitus responded promptly to treatment with carbarsone.

In June, 1962, mortality among yearling rainbow trout in three of eight parallel raceways at the State Fish Hatchery, Grayling, Michigan, gradually increased to a chronic above-normal level. Daily mortality in raceways 6, 7, and 9 varied from 30 to 252 of the 32,218 fish. Mortality among the fish in raceways 4, 8, 11, 35, and 40 remained normal. Fish in the affected raceways had been held at the Grayling station since May, 1961, and those in the other raceways had been transferred to Grayling in October, 1961.

Octomitus was not immediately suspected as a cause of the mortality because of the age of the fish and absence of the usual symptoms, such as whirling, loss of appetite, and dark color. However, since no other pathogens were noted, the intestinal contents were examined microscopically. Octomitus was abundant in the affected fish, and a four-day treatment with one gram of carbarsone per pound of food was given. The treatment reduced losses to normal. Before treatment, mortality in one week was 773 fish, or 2.4 percent; after treatment, weekly mortality was 72 fish, or 0.2 percent. Mortality remained low for the following three months, when observations were discontinued.

This is the first instance of record in Michigan where Octomitus appeared to be responsible for a mortality of yearling trout of any species.

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