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July 1, 1935

THE GILL BACTERIAL DISEASE OF A YELLOW PERCH AND A BLUEGILL FROM
SQUARE LAKE, OAKLAND COUNTY, MICHIGAN

On June 28, 1935, Mr. A. T. Stewart, Superintendent of the Drayton Plains State Fish Hatchery, obtained an adult Yellow Perch (13 inches in total length) and an adult Bluegill (9 inches in length) from Square Lake (Section 6, Bloomfield Township, Oakland County, T. 2 N., R. 10 E.). Mr. Stewart informed the writer that a considerable mortality of the fish life of the lake was occurring at the time these two specimens were picked up along the lake shore.

An examination of these two fish revealed that both had suffered a severe bacterial infection (probably caused by Bacillus columnaris Davis) on the gills and on large areas on the body. It is believed that this infection caused the death of these fish because (1) the infection was quite severe, destroying approximately one-fourth of the total gill-filament area of both specimens, and (2) a similar epidemic of this bacteria has caused, during the past spring, a considerable mortality of fish life, mostly Bluegills, in many Michigan lakes.

The occurrence of this disease should not be alarming to the local sportsmen, as the disease probably kills only a very small fraction of the fish population of any one lake, and there is no reason to believe that the occurrence of the malady in a lake renders all the fishes of the lake unsuitable for human consumption.

According to Dr. H. S. Davis, the disease can be successfully combated by subjecting the affected fishes to a 1 to 30,000 solution of copper sulphate for 20 minutes. This method is practical only where the fishes are in small bodies of water from which they can be easily seined. No treatment is recommended for the disease where it occurs in large lakes.

A detailed description of the disease is given by Dr. H. S. Davis in a publication entitled: "A New Bacterial Disease of Freshwater Fishes". Bull. U. S. Bur. Fish., Vol. 38, Doc. No. 924, pp. 261-280.

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