

copy to: Geo. W. Kirshman

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

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Report No. 49

REPORT ON EIGHT SMALLMOUTH BLACK BASS SENT TO US BY, MR. GEORGE W. KIRSHMAN,
CONSERVATION OFFICER, IONIA, MICHIGAN.

The fish arrived January 22, 1931. State of preservation excellent. Mr. Kirshman collected the bass from the Lookingglass River at Portland, Michigan. Apparently the place of collection was near a dam for he says that there were about seventy-five more dead bass "at this dam".

Fish ranged in size from 7.5 to 11 inches. As to sexes, there were six males and two females.

Externally these fish were normal in appearance except the one had an injured operculum of some duration.

Material that was very suggestive of being bread and which gave a decided test for starch with iodine, was found coating the mouth of two specimens. The material was especially abundant where there were teeth. In addition several pieces loose in the mouth were taken from one.

Trematodes parasite cysts were quite numerous in the muscles of the fish. These cysts do not constitute a cause for death.

The condition of internal anatomy was excellent but fluid the color of bile seemed to be somewhat unusually abundant. In all cases the stomach and intestine showed that none of the fish had taken animal food for some time. In each stomach there was a small amount of white pasty material. In the living fish this was

probably in the intestine and was forced into the stomach by muscular contractions of the intestine. ^{after death} In all cases the intestine was more or less full and the contained material was unusually white. It was strongly suggestive of a protozoan infection but examination of all specimens revealed no protozoa.

No protozoan parasites nor other parasites were found in gall bladder or ducts and there is little indication of trouble except possibly from a functional standpoint of the organ itself.

The condition of the digestive system and bread (?) in the mouth of several fish, indicates that they had possibly eaten unnatural food which possibly accounts for the difficulty.

From the statements in the letter it is reasonable to assume that the dead fish all died about the same time and observed sick ones were dying.

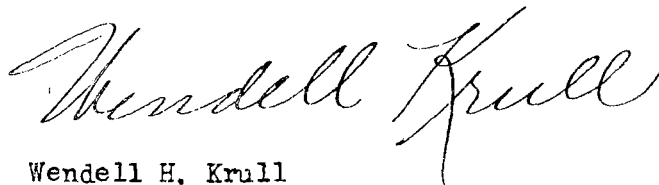
A single feeding of bread, no doubt, would have about the same affect on all of them at about the same time.

A temporary or sudden influx of bad water would possibly have the same killing effect on the fish. According to Mr. Kirshman who saw only dead bass it seems that only this species was attacked, but we do not know what other species occur in the region.

local

We do not know what the situation is in regard to pollution, which may of course have caused the death of the fish.

INSTITUTE FOR FISHERIES RESEARCH



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Fish Pathologist

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