

Original copy: Fish Division

cc: Mr. Mattison

Mr. Adams

Mr. Ruhl

Mr. Woodbury

INSTITUTE FOR FISHERIES RESEARCH

DIVISION OF FISHERIES

MICHIGAN DEPARTMENT OF CONSERVATION

COOPERATING WITH THE
UNIVERSITY OF MICHIGAN

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REPORT NO. 400

REPORT ON FISH MORTALITY IN SAGINAW RIVER

On December 28, the undersigned received a box of fish specimens on ice from Mr. F. George Mattison of the Mattison Fish Company of Bay City, and the following letter addressed to his attention:

"For the past ten days a great many fish have been seen floating on the surface of the Saginaw River. Being of interest to commercial fishermen, this seemingly, wanton waste of our future source of supply has been investigated.

"We have found that these fish floating are all but dead and we have succeeded in bringing some of them back by putting them in fresh water. From this we came to the conclusion that some sort of waste being dumped in the river was responsible for this condition. We also found that there seemed to be a heavy coating of a substance like oil, on the outer edge of the gills.

"We have also found that when the fish eventually die they sink to bottom and by going along the river one can see in the shoaler spots literally thousands on the bottom. There are all kinds and sizes among those dead. Also the river surface is covered with an oil like substance, that when it sort of gathers along the shore it becomes a grey color and in places is as much as an inch thick.

"We have dipped a few of the fish out of the river and have sent same to you today by express, prepaid. As we feel that this is of interest to your department as well as to ourselves, would it be possible for you to analyze these sample fish and let us know if possible, the reason for this condition. A few of the larger fish that were dipped out are wrapped in a paper in the box. These also are some that we were unsuccessful in bringing to. The others are just as they came out of the river.

"Trusting we may look to an early reply or a request for additional information, we are"

On the same day the specimens were submitted to Mr. Lowell A. Woodbury, graduate student in parasitology and fisheries, with the request that he examine the fish to determine if there were any evident signs as to cause of death. He has submitted the following memorandum:

"The fish were in good condition, showing no signs of malnutrition or of any chronic disease.

"Post-mortem examination failed to reveal any parasitological or pathological conditions capable of causing death. Only a few parasites were found and these consisted of occasional Proteocephalus larvae encysted in the liver of about 2 out of 5 fish.

"A peculiar odor was noted emanating from the flesh and viscera of all fish examined. While hard to describe, this odor resembled that of some of the halogen compounds, though at times it seemed to smell like cresol."

These findings called to mind past instances of the effect on fishes of the Saginaw region, of chemical compounds from the plant at Midland. It is, of course, not certain that the death of the fish was due to chemicals from that plant or from other sources, but there is certainly grounds for suspicion. The examination of the fish gave evidence that the mortality was due to pollution. Consequently this brief report is submitted to Mr. Milton P. Adams of the Stream Control Commission as well as to the Department of Conservation.

INSTITUTE FOR FISHERIES RESEARCH

Carl L. Hubbs.

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