

Original: Fish Division
cc: Mr. Ruhl
Mr. Coursen

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

May 25, 1936

REPORT NO. 360

FISH MORTALITY IN STOPFER'S LAKE OR GREEN LAKE,
WASHTENAW COUNTY, MAY, 1935

This report, which could not be prepared promptly for lack of time, is drawn up now as a matter of record. The mortality of fish in this lake in May, 1935, is of especial interest in that this was one of the lakes which suffered a winter kill during 1936, and on which oxygen-replenishment experiments were run.

Stoffer's Lake (or Green Lake) is located in Sec. 28, T. 1 S., R. 3 E., Lyndon Township, Washtenaw County. It was said by Officer Coursen to have been formed by damming 3 small lakes about 5 years ago. The intention was to raise the level 3 feet, but this was not quite accomplished, it was said, because it developed that a road would thereby have been flooded. The fish mortality in this lake may or may not be related in some way to the flooding and rotting of previous land vegetation. The lake has always enjoyed a good reputation for fishing, according to Coursen.

Mr. Coursen submitted this and other information to the Institute on May 31, 1935. He reported that for about a week past fish had been dying in the lake. On May 29 he investigated the situation, finding many fish dead, including some fine large-mouthed bass and many small bass, black crappies, rock bass, large perch, bullheads, many chub-suckers, minnows, etc.

Mr. Coursen brought in for examination several specimens in fair condition, as a sample of the fish which had died. He asked for a determination of the cause

of death. The preliminary findings were given him verbally at the time. The fish submitted were:

1 adult female lake chub sucker
1 fingerling large-mouthed bass
1 8" perch
2 adult bluegills

The bass and perch were rather thin, but fish caught in the lake during the previous winter were said to have been in good condition. Of course some degree of emaciation is normal at the end of a winter. The bass sampled showed no such parasites as were found in the bluegills, but the notable lesion of all the internal organs indicated a heavy infestation with bass tape worm. The perch specimen showed no heavy internal infestation, but had a rather heavy infestation of skin trematodes, forming black specks, but hardly enough to indicate these as the direct cause of death.

The chub-sucker showed no obvious cause of death, but since the suckers are rather susceptible to bad water conditions, it may have died as a result of the death and decomposition of bluegills and other fishes killed by disease. The decomposition of flooded vegetation may have contributed to the bad water conditions.

The 2 adult bluegills had obviously died as the result of an extremely heavy infestation with parasites, identified by Mr. Elmer Cheatum as Diplostomum. These parasites filled the liver and heart so thickly as to largely displace the normal and vital tissues of these organs. Such infestations have been found to cause an extensive mortality of bluegills in other Michigan lakes, Fife Lake for example.

The intact air bladders and firm muscles of all the fish examined showed that their death was not due to dynamiting.

On the assumption that this small sample was representative, we attribute the death of fish in Stoffer's Lake in May, 1935, to the parasitization, especially of the bluegills, which according to Mr. Courson made up the bulk of the dead fish.

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