copy to: Fred McNamara 1-10-35

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

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Report 138

CAUSE OF DEATH OF BROWN TROUT IN BRANCH OF GALIEN RIVER

On the morning of April 19 the Institute received the following communication and request for report:

"I am sending you a brown trout by express that was found by conservation officer Cleve Horner of Galien, Michigan. The fish was found in a branch of the Galien river that flows from Dayton Lake.

"As the fish shows no marks Mr. Horner is anxious to learn the cause of death.

"Kindly send report as to cause of death to Mr. Horner at Galien Michigan or to State Fish Hatchery Benton Harbor, Michigan.

Very truly yours,

Keith Mack,
State Fish Hatchery,
Benton Harbor, Michigan."

The same afternoon the fish referred to arrived, packed in sawdust. The ice had melted, but no decomposition had resulted. Results of the examination follow:

Species: brown trout.

Sex: female; a number of old eggs loose in body cavity; new eggs developing normally in ovaries.

Length: 19 1/2 inches over all, 437 mm. standard length.

State of preservation: good; no odor of decomposition; gills without blood.

Color and general appearance: normal for adult female.

Condition: normal; contours well rounded; depth 4 inches; width 2 1/2 inches.

External signs: skin intact, except for cut or tear by one ventral fin. Lack of inflammation about cut indicates that it was made after death of fish. No external parasites found.

Gills: bloodless and dried, due to preservation, but not showing any obvious signs of disease or injury.

Muscles: fiber bundles loosely bound together, making muscles soft and easily broken up; ribs broken loose from ribs. Lack of any odor of decomposition was not due to poor preservation. No ulcerated areas.

Fat: muscles well charged with fat; mesenteric fat bodies developed.

Stomach contents: one adult black-sided darter, recently taken: one other fish (perhaps same species); one large caddis fly larva. This indicates normal feeding habits, and feeding shortly before death of fish.

Internal organs: virtually normal in appearance.

Internal parasites: only one small worm found (in large intestine); a patch of silvery cysts on external wall of stomach at pyloric end. These regarded as not the cause of death.

Conclusions: The trout showed no indications of death due to disease. The broken-up muscles and free ribs are the outstanding features of abnormality. This condition is apparently not due to state of preservation. In our opinion this trout was killed by dynamite.

Examination made and report prepared by the undersigned.

INSTITUTE FOR FISHERIES RESEARCH

Carl L. Hubbs

Carl L. Hubbs,
Director.