

May 15, 1943

REPORT No. 876

SUMMARY OF INVESTIGATIONS OF DISTRICT FISHERIES BIOLOGIST (DIST.5)

FOR YEAR 1942 AND TO APRIL 1, 1943.

by

Leonard N. Allison

- I.A.I. All bass hatcheries were checked for the bass tapeworm. It was present at all hatcheries and control methods, consisting mainly of re-allocation of infected broodstock and the taking of fry before they had fed, were suggested. An attempt will be made to raise uninfected brood stock. Refer to Institute for Fisheries Research Report No. 852 for further details.
- I.B.I. The control of the gill louse, Salmincola edwardsii, has been prescribed for only one hatchery, Oden. This was done in conjunction with a total disinfection with chlorine to eliminate furunculosis.
- I. B. 2. No check for possible control of Abothrium crassum, a tapeworm of trout, was made.
- I. C. The following hatcheries were visited to investigate disease problems:
- Harrisville Hatchery. Fin rot present. Treatment with 1:2000 copper sulphate reduced loss.
- Tobacco River Rearing Station. Mortality among yearling brook trout. Found no causative organisms. Epidemic had subsided at time of investigation.
- With advice and direction of D. John O'Donnell of the Wisconsin Conservation Department and with the assistance of the district fisheries personnel, disinfected hatchery buildings at Oden with chlorine.
- Treated eggs at Oden with acriflavine.
- Set up programs for daily treatment of eggs with malachite green and copper sulphate at Oden, Thompson, and Grayling.
- Set up loss record sheets for use at all hatcheries.
- Outlined chlorine barrel instructions for use in hatchery sanitation.
- II. A Howe Lake, Crawford County, checked several times by fishing but no bass obtained. Sunfish and bluegills had bass tapeworm larvae, indicating that bass are infected.

Shupac Lake, Crawford County, contained infected large-and small-mouth bass.

George Lake, Ogemaw County, contained infected bluegills.

- B. Investigated smelt mortality in Lake Huron in vicinity of Harrisville, the Straits of Mackinac and Lake Michigan (Report No. 841) but found no cause.

Examined diseased northern pike from Shamrock Lake, Oscoda County and from Fletcher Floodwaters of the Thunder Bay River (Report No. 854). Disease is of bacterial origin causing large, unsightly body sores. Canadian workers studying a similar disease report the causative agent is the same as that causing red-leg in frogs. Further study is to be made during 1943.

- III. Dunham Lake, Roscommon County, was not investigated for suitability for trout.
- IV. A three-day visit to Clear Lake, Montmorency County was made to determine results of experimental fisheries management program. Report pending.
- V.,VI. Feeder streams and beaver dams not checked.
- VII. Supervised the winter mapping of Lake George, Frost Lake, Edwards Lake, Chapman Lake, Tea Lake, Hardwood Lake, Flowage Lake, North Dease Lake, South Dease Lake, Au Sable Lake and others in Ogemaw County.
- VIII. History of disease problems at each hatchery is being assembled when opportunity permits.

Additional Investigations

1. Visited Fish Pathology laboratory of the Wisconsin Conservation Department.
2. Checked dam in Cut Stream at Higgins Lake for possibility of migration of minnows into Higgins Lake.
3. Visited farm of D.G. Cahoon, Ogemaw County, with Mr. H.L. Peterson, Mr. Winton and Mr. Summers to inspect site of proposed dam and to estimate its probable effect on fish life.
4. Visited Little Wolf Lake, Montmorency County, with H.L. Peterson to investigate complaints of poor fishing. Weather conditions prevented detailed observations.
5. Inspected site for fish rearing pond in Cut Stream with H.L. Peterson, Bass Rearing Pond proposed by Higgins Lake Chamber of Commerce. Advised against building rearing pond here because of cold water and a drop of only one and one-half inches from head to foot of proposed pond.

6. Visited Avery Lake, Montmorency County, with H.L. Peterson to investigate complaints of poor fishing. Avery Lake is to be inventoried in summer of 1943.
7. Attended meetings of the Crawford County Board of Supervisors in regards to a dam on the Au Sable River proposed by Mr. Mc Donald. Plan abandoned.
8. Collected brook trout from Kimes Lake, Newaygo County, with Dr. Shetter.
9. Collected ciscoes from Avalon Lake, Montmorency County for age and growth studies.
10. Checked outlet of Grass Lake, Kalkaska County, for adequacy for fish migration.
11. Checked oxygen content of the water in the lagoon in Cadillac Lake, Wexford County, during ice conditions and found very low oxygen content (0.4 p.p.m.).
12. Checked chemistry and temperature in impoundment of the Au Sable River at Grayling, Crawford County. Some local sportsmen want to utilize this water, either as a winter holding pond for trout or as a recreational area.

INSTITUTE FOR FISHERIES RESEARCH

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