Original: Fish Division Institute for Fisheries Research Education-Game

Mr. Reynolds

INSTITUTE FOR FISHERIES RESEARCH Mr. James Scully

DIVISION OF FISHERIES

Mr. Stanley Shust

MICHIGAN DEPARTMENT OF CONSERVATION

COOPERATING WITH THE UNIVERSITY OF MICHIGAN

ALBERT S. HAZZARD, PH.D. DIRECTOR

ADDRESS UNIVERSITY MUSEUMS ANNEX ANN ARBOR, MICHIGAN

Report No. 1155

SUMMARY OF ACTIVITIES, DISTRICT #2 APRIL 1, 1947 - DECEMBER 13, 1947

by

Dexter B. Reynolds, Jr.

1. Frenchman and Twin Lake Investigation, April 3 - July 15:

The investigation begun by Dr. E. W. Roelofs in 1942 was continued in 1947. A weir was placed in the same intermittent stream and observations were carried on in the marshes. Rainfall during the two years was practically the same. Only a small number of adults were handled going upstream. Some loss was recorded in the total numbers returning downstream. It was noted that the bulk of the upstream migration occurred in a very short period of time and that most of the adults had returned before a dangerously low water level occurred in the marshes. It was recommended that no further weir operations be carried out, but that doubtful marshes (those with low levels reported from previous years) be blocked off and that conditions for movement to the marshes and in the marshes be made better for spawning and migration.

2. Manistique Lakes Investigation:

Investigation was concerned with the loss of pikeperch and northern pike from South to Big Manistique Lake. A weir was placed above the



county road bridge in Portage Creek to check the downstream and upstream migrations. A total of 1,007 pikeperch, 1 rock bass, 4 northern pike, and 10 redhorse were handled. The right pectoral fin was removed from all fish. Eight of these marked fish were caught in Big Manistique. A total of 8 had returned upstream at the time the project was discontinued. At present there is no dam at the outlet of South Manistique Lake.

3. Aid in Securing Stock:

Approximately 600 northern pike fingerlings were removed from the Frenchman Lake weir to the Thompson Hatchery. It was observed that the fish did not handle at all well, bearing out Dr. Lagler's observations of the same species at the Seney Refuge.

4. Rock River Investigation near Au Train:

The Denil ladder at this dam was checked carefully on several occasions. It was also checked at various times by Mr. Robertson of the Marquette hatchery. It was suggested that the flume portion be lengthened, placed on movable hinges to decrease the volume of water and placed in slack water. A crude lead-in should be used.

5. Sea Lamprey Control Studies:

Reports were investigated and streams cruised for the presence of lampreys until illness interrupted the work on June 20, 1947.

No work was done at the Manistique Paper Mill as a construction change blocked off the old sewer inlet.

6. Site for Weir on Black River, Mackinac County:

The river was cruised at various times for an advantageous site for a possible future weir. It was recommended that the high-banked area immediately above the whirlpool at the US-2 highway bridge be considered for future possibilities.

7. Tahquamenon River Investigation, Newberry, Michigan:

On the basis of water analyses and other observations made during a period of low water level and high temperatures, it was concluded that the effect of untreated domestic sewage on conditions for fish life in this stream is not notable.

8. Experiment to Determine Relative Value of "Spot" and "Boat" Planting, Thompson Creek:

Four hundred jaw-tagged brown trout were released at various dates during four months of 1947. The experiment yielded very little information of value.

9. Opening Day, Creel Census, Holland Lake, Luce County:

Mr. R. Beach, Conservation Officer, Newberry, contacted the fishermen for the total numbers caught. Results were detailed in letter sent
to the Institute. Measurements, scale samples, pictures and stomach
contents of some specimens were also sent to the Institute.

10. Opening Day Check, Trout Fishing, Black River, Mackinac County:

Several photos of a typical opening day catch of rainbow were taken and are on file at the Institute. The river was checked at other times. It was found that valuable data could be obtained from campsite records of the Forestry Division.

11. Lake Inventory:

1. Alger County

(a) Mitchell Lake, T48N, R13W, Sec. 22, 27

A chemistry was run in the depression in the northwest arm of the lake and temperature and chemical conditions suitable for trout were found.

2. Delta County

(a) Schaawe Lake, T40N, R21W, Secs. 7, 8

A chemistry was run on this lake, a net was set and pertinent observations were recorded. As a trout lake, it was the judgment of the biologist that this was a borderline lake. Dam construction in the outlet and flooding are a strong possibility.

3. Dickinson County

Benton Lake and Red Dam Lake were found to be unsuited to trout.

Mine-formed lake, City of Norway, was sounded and a water analysis made. It has excellent future possibilities, but should be allowed to fill before future work is undertaken.

4. Luce County

Water analyses were made in conjunction with the lake survey party on the following lakes: Little Fur Farm (Lost), Pike, Peanut, and Youngs.

5. Schoolcraft County

- (a) Ashford Lake was found to have very good trout possibilities.
- 12. Checks to correct fishing digest:
 - (a) Penglasse Lake, TLION, R30W, Sec. 29

Penglasse Lake, T45N, R28W, Sec. 7

Both lakes were netted, chemistries taken and observations recorded. The lake in T45N, R28W, Sec. 7 was judged to be a very good trout lake, but conditions were found to be somewhat less favorable in the lake in T46N, R30W, Sec. 29. No change suggested, pending further study.

(b) Sagola Lakes, T45N, R28W

While reviewing data for district, it was noted that these lakes were not trout waters and it was recommended that they be taken from the digest.

(c) North Shoe Lake, Alger County
South Shoe Lake, Alger County

Field observations showed that North Shoe is the correctly designated lake.

13. Determining survivals of hatchery plantings or after poisoning:

A. Trout waters

- 1. Alger County
 - (a) Ackerman Lake, T45N, R20W, Sec. 3

Two nets were set in this lake. Two rainbow trout 6.8 and 7.1 inches in length were taken. A report by a resort owner indicated some bass and trout being caught.

(b) Dead Lake, T45N, R19W, Sec. 10

Chemistry series indicate this is a borderline trout lake. Reports indicate that the first year following planting yielded a few fish, but none since then. It was recommended that stocking be discontinued on this lake.

(c) Hemlock Lake, T45N, R19W, Sec. 10

Another chemistry was run on this lake and a net was set. The presence of many pan fish led to the recommendation that this lake be held off the planting list until poisoned.

(d) Unnamed pothole, Thin, R19W, Sec. 14

No net set was made, but reports indicate that some trout are taken but that many are sub-legal.

2. Dickinson County

(a) Lake Mary, T39N, R28, 29W, Secs. 24, 25, 19, 30

Fourteen bluegills, I yellow perch and I northern pike (no rainbow trout) were taken via handline and gill net. It is my opinion that the

present pike population is taking care of a considerable number of planted trout. Due to poor returns from planted trout, it was suggested that this lake be removed from the planting list.

3. Marquette County

(a) Airport Lake, T45N, R25W, Sec. 23

This lake was netted for growth and condition of the trout in September. Mr. W. Hastings took photographs. Ten brook trout, $8 - 12^n$, in good condition, were taken.

(b) Squaw Lake, T45N, R30W, Secs. 9, 16

This lake was netted for growth and condition of trout. An overnight set produced one 9.9" rainbow trout.

(c) Swanzy Lake, T45N, R25W, Sec. 13

This lake was also netted for growth and condition of trout. It produced 10 brook trout, 9.5 - 14.9", in an overnight gill net set.

(d) Witch Lake, T45N, R25W, Sec. 13

Two net sets produced only one lake trout.

4. Schoolcraft County

(a) Harcourt Lake, T45N, R13W, Sec. 11

A net set produced no results.

14. Nettings for survival after poisoning:

1. Marquette County

(a) Sporley Lake, T45, 46N, R24W, Secs. 5, 31, 32

A total of four net sets produced only cisco and suckers, suggesting that the partial poisoning had achieved the desired results.

(b) East Voelker Pond, Thon, R27W, Sec. 22
Observations and a net set in the upper pond showed no fish present.

- 2. Chippewa County
 - (a) Dukes Lake, T45N, RIW, Sec. 28

Two net sets produced no survivors of the earlier poisoning.

15. Nettings for survival of plantings in non-trout waters

- 1. Dickinson County
 - (a) Floodwood Lake, Thin. R30W. Secs. 11. 14

Two nets produced suckers, shiners, perch and bullheads. No bass were taken, but many were observed jumping. Local conservation officer assisted. He reported some winterkill.

16. Miscellaneous investigations

- 1. Dr. D. Shetter was assisted in lake trout investigations at the Marquette Hatchery in March and again in September.
 - 2. Talks were given to the following groups: Carney High School, Carney, Michigan Kiwanis Club, Escanaba, Michigan Kiwanis Club, Manistique, Michigan Lions Club, Manistique, Michigan
 - 3. A chemistry series was made on Simmons Lake, T45N, R30W, Sec. 5.
- 4. Three net sets in Island Lake, T45N, R30W, Sec. 14, produced no trout.
- 5. A partial survey was made on a lake at the southwest end of the city of Iron Mountain. It was proposed as a possible fishing spot for the Veterans' Hospital. However, it was filled with aquatic vegetation, which precluded any management suggestions.
- 6. Two nets were set in Milakokia Lake, Mackinac County at the request of Mr. Jones of Camp Owosso. Five northern pike were taken.

7. Scale samples were taken from a number of small perch in South Manistique Lake at the request of Mr. Ferris. It was his belief that they were stunted.

17. In addition to the above agenda, some data were obtained for the following:

Clear Lake, Schoolcraft County
Section 10 Lake, Schoolcraft County
Section 7 Lake, Schoolcraft County
Bosworth Lake, Schoolcraft County
Klondyke Lake, Schoolcraft County
Suggestions for future study have been made.

INSTITUTE FOR FISHERIES RESEARCH

Dexter B. Reynolds, Jr.

Approved by: A. S. Hazzard

Typed by: S. E. Putman