

Original: Fish Division
cc: Institute for Fisheries Research
Education-Game

Mr. Taube
INSTITUTE FOR FISHERIES RESEARCH
DIVISION OF FISHERIES
MICHIGAN DEPARTMENT OF CONSERVATION
COOPERATING WITH THE
UNIVERSITY OF MICHIGAN

Mr. Scully
Mr. Shust

ALBERT S. HAZZARD, PH.D.
DIRECTOR

ADDRESS
UNIVERSITY MUSEUMS ANNEX
ANN ARBOR, MICHIGAN

June 1, 1948

Report No. 1176

PROGRAM OF INVESTIGATIONS FOR THE DISTRICT FISHERIES

BIOLOGIST IN DISTRICT NO. 2, 1948

by

Clarence M. Taube

The following outline lists all research investigations and practices in District #2 for which records of requests were found, and therefore it applies to some work with which the district biologist may not be much concerned. For example, lake poisoning jobs now are handled by the lake and stream improvement section, although the biologist may help with the work if time allows, and usually he makes a check following poisoning to determine the completeness of kill.

It is obvious that considerably more work appears on this program than can be done in one season. The outline was made comprehensive so that it might serve as a check list as well as a work schedule.

Two asterisks before a lake name indicate an Institute map is available for that lake; one asterisk indicates a U. S. Forest Service map has been made.

all
(K)
(L)

- I. Sea lamprey investigations. Observations on sea lamprey occurrence, abundance, migrations, and spawning activity.
- A. Intensive study. One to two weeks of full time study are to be devoted to this investigation during the peak of the lamprey spawning run, which is expected to occur within the period of May 10-30. Emphasis will be placed on estimating the size of the major runs. Among the observations, a careful check is to be made on the streams entering Millecoquin Lake, Mackinac County. The biologist in District #2 will be responsible for the Lake Michigan drainages from the Menominee River to St. Ignace, and probably some work will be done on the Lake Superior drainages also.
- B. Routine observations. All reports of sea lamprey occurrence are to be recorded and attempts may be made to verify occurrence if it should constitute a new record for a particular stream. Any of such specimens collected will be preserved. A look-out will be maintained during the summer for lamprey nests that may have persisted beyond the spawning season.
- II. Trout investigations. A major problem in District #2 this year will be the study of trout lakes, especially regarding results of stocking at various levels and the comparative results of fingerling and legal-size plants. Scale samples and length and weight data are to be obtained from brook trout stocked at different levels. In addition, a number of lakes and some streams are to be checked as to their suitability for being stocked with trout. The bulk of the latter work probably should be done from August 1 to 31, when pronounced lake stratification and maximum water temperatures are most likely to occur.

A. High priority assignments.

<u>Lake or Stream</u>	<u>County</u>	<u>Remarks</u>
Hendrie River	Chippewa 45-7-	Check suitability for stocking with brown trout.
Betsey River	Chippewa 50-6,7-	Check suitability for stocking with brown trout.
Black Creek	Chippewa 48-6- 49-6-	Check suitability for stocking with brown trout.
Barclay Lake	Luce 49-9-11	Check suitability for trout by running chemistry and temperature series. (Netted unsuccessfully in 1947).
** N. Manistique Lake	Luce 45-11-18,19	"Check for possible rainbow trout."
** Holland Lake	Luce 49-11-26,27	Study growth and condition of brook trout.
Quarry Pond	Mackinac 42-13-3	Test for trout possibilities.
Brocky Lake	Marquette 48-28-6	Test for trout possibilities.
** Airport Lake	Marquette 45-25-23	Study growth and condition of brook trout.
Legion Lake	Marquette Ely Twp.	Test for rainbow trout possibilities.
** Little Lake	Marquette 45-24-19	Test for trout possibilities and a check on species present.
** Mehl Lake	Marquette 45-25-25	Test for trout possibilities and a check on other species.
Big Chief Lake	Marquette 45-30-?	Test for rainbow trout possibilities.
Tibbetts Lake	Marquette 45-29-12	Check suitability for trout - also public access.
** Swanzy Lake	Marquette 45-25-13	Study growth and condition of brook trout.

II. A. (continued)

** Squaw Lake	Marquette 45-30-9,16	Study growth and condition of rainbow trout.
Stone Quarry	Schoolcraft	Test for trout possibilities.
Moccasin Lake	Marquette 25-24-7	Study growth and condition of brook trout.

B. Less urgent assignments.

<u>Lake or Stream</u>	<u>County</u>	<u>Remarks</u>
* Deer Lake	Alger 47-21-7,8	Test for rainbow or lake trout possibilities.
** Mitchell Lake	Alger 48-13-22	Test further for trout. Also determine what other species are present and see if public ownership can be arranged. (Chem. run 8-15-47).
Unnamed Lake	Alger 44-19-14	Check results of planting.
Andrus Lake	Chippewa 50-6-27	Test for trout possibilities.
Johnson Lake	Chippewa 47-6-34	Test for trout possibilities.
Bow Lake	Delta 43-18-15	Test for trout possibilities.
Lost Lake	Delta 42-20-35	Test for trout possibilities.
* Ramsey or Horseshoe Lake	Delta 42-20-36	Test for trout possibilities.
* Gleason Lake	Delta 42-19-8	Test for trout possibilities.
Shoepac Lake	Delta 42-18-13	Test for trout possibilities.
No name Lake	Delta 43-18-26	Test for trout possibilities.
* No name Lake	Delta 43-18-1	Test for trout possibilities.

II. B. (continued)

Dollar Lake	Mackinac 44-8-21	Test for trout possibilities.
* Silver Lake	Mackinac 40-4-4	Test for trout possibilities.
No name Lake	Mackinac 44-12-14	Test for trout possibilities.
** Michigamme Lake	Marquette 47-30- 48-31-	Check on survival of smelt and lake trout plants.
Harcourt Lake	Schoolcraft 45-13-11	Check on survival of trout, with nets.
Mike White Lake	Schoolcraft 44-18-31	Test for trout possibilities.
* Stump Lake	Schoolcraft 45-18-25	Test for trout possibilities.
** Fish Lake	Marquette 47-29-5	Test for trout possibilities and net.
Twin Lake	Marquette 45-30-	Check on success of rainbow plantings.

III. Checking of lakes for need of stocking and of lakes on which poor fishing has been reported. Gill-netting, seining and observing is planned for a number of lakes which have been listed by Mr. Shust, Mr. Scully, and others for such investigations.

A. High priority assignments.

<u>Lake</u>	<u>County</u>	<u>Remarks</u>
* Red Rock or Billy Good Lake	42-19-24 Delta	Determine need for stocking new species.
Mine Formed Lake	Dickinson 39-28-8	Determine suitability and need for stocking.
Stuart Lake	Luce 48-10-1,2	Determine need for stocking and check for private ownership.

III. A. (continued)

<u>Lake</u>	<u>County</u>	<u>Remarks</u>
*East Lake	Mackinac 43-4-9,10,16	Determine need for restocking after winterkill in 1947-48.
**Noren Lake	Marquette 45-25-24	Make at least a partial survey.
**Dodge Lake	Schoolcraft 43-16-23	Check on reported poor fishing.

B. Less urgent assignments.

<u>Lake</u>	<u>County</u>	<u>Remarks</u>
No name Lake	Dickinson ?	Determine suitability and need for stocking.
Bodi Lake	Luce 50-8-29	Determine suitability and need for stocking bluegills.
Camp 8 Lake	Luce 49-11-34	Determine suitability for pike-perch stocking.
**Perch Lake	Luce 49-10-18,19,20	Determine suitability for pike-perch stocking.
Pretty Lake	Luce 49-11-34	Determine suitability for pike-perch stocking.
Rainey Lake	Luce 49-11-5,6	Determine suitability for pike-perch stocking.
**Simons Lake	Marquette 45-30-5,32	Check on what species are present with view of introducing bluegills and largemouth bass.

IV. Miscellaneous investigations of, and projects for, lakes and streams.

Assignments under this heading are of diverse kinds. These should be done at the time best suited for any particular investigation or, if not so limited, will be handled when other confined programs (such as the intensive lamprey study and testing lakes and streams for trout possibilities) are not being pursued.

A. High priority assignments.

<u>Lake or Stream</u>	<u>County</u>	<u>Remarks</u>
**Big Trout Lake	Chippewa 44-6-22,27	Complete survey started in 1947.
Escanaba River	Delta	Cruise stream and locate spring holes for possible blasting to deepen holes for trout.
Floodwood Lake	Dickinson 44-30-11,14	Check survival of largemouth bass and bluegills planted in 1945.
Crystal Lake	Dickinson 40-31-36	Complete survey
**Youngs Lake	Luce 47-11-29	Poison in 1948
**Milakokia Lake	Mackinac 42-12- 43-	Check need for dam to raise water level and need for screen in outlet.
**Strouble Lake	Mackinac 43-7-4	Check on stranded perch in lowlands during spring of 1948.
**Big Trout or Wilson Lake	Marquette 46-24-32	Build barrier dam and poison lake in 1948.
Big Cedar River	Menominee	Determine whether work should be done for improvement for smallmouth bass and, if so, where. Section not to exceed 3-4 miles.
Big Fox River	Schoolcraft	Evaluate needs on main stream with respect to stream improvement and select section of stream for such work.
**Ashford Lake	Schoolcraft 43-16-3	"Poison lake for trout."
**Dutch Fred Lake	Schoolcraft 47-13-18	"Poison in 1948 and restock with brook trout. Full of perch."
**Clear Lake	Schoolcraft 45-17-34	Needs to be poisoned before trout can be planted.

IV. A. (continued)

Manistique River	Schoolcraft	Check on survival of smallmouth bass planted in the fall of 1947.
------------------	-------------	---

B. Less urgent assignments.

<u>Lake or Stream</u>	<u>County</u>	<u>Remarks</u>
**Ackerman Lake	Alger 45-20-3	Check on growth rate of bass and pan fish. If trout population is poor in summer of 1948, poison out; if fair or better, defer poisoning 'till 1949.
*Perch Lake	Alger	Check results of bluegill introduction made in 1945.
**Stoner Lake	Alger and Delta 43-19- 44-20-	In cooperation with Dr. Ball, run alkalinity tests to determine the effect of adding limestone in 1946.
**Antoine Lake	Dickinson 40-30-20	The Kingsford Club of Iron Mountain wants to know why pikeperch do not show up in this and following lakes after they were planted some years ago.
**Norway Lake	Dickinson 42-28-5	The Kingsford Club of Iron Mountain wants to know why pikeperch do not show up in this and following lakes after they were planted some years ago.
Pickeral Lake	Dickinson 43-28-33	The Kingsford Club of Iron Mountain wants to know why pikeperch do not show up in this and following lakes after they were planted some years ago.
6-Mile Lake	Dickinson 42-29-22	The Kingsford Club of Iron Mountain wants to know why pikeperch do not show up in this and following lakes after they were planted some years ago.
East and West Branches, Sturgeon River	Dickinson	"Check" in interests of improving stream for better trout fishing.

IV. B. (continued)

Two Hearted River	Luce	"Check" small rainbow reported-- contact H. Surrell at Newberry for additional information.
**Indian Lake	Marquette 48-30-5	Check for survival of largemouth bass plants made by plane in fall of 1946.
**Keewaydin Lake	Marquette 49-30-31	Check for survival of smallmouth bass plants made by plane in fall of 1946.
Goldmine Lake	Marquette 48-28-26,35	Check growth rate of bluegills, prevalence of walleyes and presence of bass.
**Mary Lake	Menominee 35-28-3	Check growth rate of perch--see whether stunting is occurring.
Taylor Lake	Schoolcraft 47-14-5,8,9	Check on results of largemouth bass plantings made in 1947.

INSTITUTE FOR FISHERIES RESEARCH

Clarence M. Taube

Approved by: A. S. Hazzard, 5/5/48

Typed by: S. E. Putman