

September 27, 1932

Report 170

REPORT ON DICKSON LAKE, MANISTEE COUNTY,
WITH RECOMMENDATIONS FOR THE IMPROVEMENT OF FISHING

<u>Size and location</u>	Dickson Lake has an area of 25 acres. It is located 1/2 mile east and about 1/2 mile north of Brethren.
<u>Inlets and outlets</u>	The outlet enters Mud Lake. Dickson Lake and Mud Lake are only a few hundred yards apart. The outlet is a tributary to Bear Creek and is a trout stream. The lake has two inlets. Both are trout streams and are closed to fishing.
<u>Water</u>	The water is fairly clear and clean. No evidence of pollution occurs.
<u>Use of water</u>	There is no resort development. A few boats are present. Very little swimming is carried on. So far as known, the water is used only for fishing.
<u>Temperature</u>	Temperature is fairly high near the surface (78 degrees, air temperature 89 degrees). Definite stratification occurs. The thermocline is present between 3 and 7 meters. Bottom temperature is 43 degrees.
<u>Oxygen</u>	Oxygen is present in abundance in the warmwater area. Only a trace could be found in the cold area. This indicates very definitely that the lake is poorly suited for trout in the summer.
<u>Other chemical conditions</u>	The lake is quite alkaline in the warm upper layer. It is almost neutral in the cold part of the lake. The water is fairly soft. No carbon dioxide is present in the warm portion but a large amount occurs near the bottom. Chemically, the lake is suitable for warmwater species.

- Cover Weeds are fairly abundant and furnish some cover. Very little protection, except that afforded by the vegetation, is present.
- Vegetation Plenty of vegetation occurs in this lake. The shore zone, shoal waters, and slope are well supplied with coontail, water milfoil, water weed, muskgrass, duck-weed, pickerel weed, various pondweeds, lilies, and bulrushes. Other less important weeds are present in moderate stands.
- Natural food Natural food is good. Minnows are fairly abundant. Snails are very abundant. Frogs and aquatic insects are abundant.
- Spawning grounds Spawning beds are present on all shores except the one at the northeast end. Most of these are on marl. Roots of plants and snail shells were used for the nests. Quite a few beds are present but conditions for bass spawning are not exceptional.
- Predators Blue herons, kingfishers, green herons, and turtles (snappers, Blanding's and painted) are fairly abundant. The large northern pike present undoubtedly tend to keep down the bass supply. Obnoxious fish were not found or reported.
- History of fishing Bass fishing is said to have been very good in the past. It is also reported that bluegills were once large but are now mostly small. Seine hauls indicate, however, that large bluegills are still quite common. Trout have been taken at times.
- Fishing is still fair. Some good bass and bluegills are present. Some very large northern pike are in the lake, but according to local residents, very few are taken.
- Species of fish present Game fish. Some very large northern pike present, but few are taken. Largemouth bass are common but are reported to be smaller than those taken in the past. Bluegills are fairly abundant. Perch are quite common and reach a fair size in this lake. Trout are reported.
- Coarse fish. Suckers are present in limited numbers. No bullheads or other coarse fish, other than common suckers, were taken.

Obnoxious fish. No obnoxious fish were seen or reported.

Forage fish. Minnows are fairly abundant. Golden shiners are large and are present in considerable numbers.

Laws and regulations

This is an undesignated lake. Bass and bluegills predominate.

Recommendations

The chief concern of some local residents seems to be over the northern pike. They insist that these fish are keeping down the bass and bluegills. According to some local residents these northern pike (reported to be up to 8 feet long) are not exceptionally abundant and few small pike are seen here. Local residents are especially anxious to have the large pike removed by the Conservation officer or by some other means. They feel that this is more important than stocking or improvement work. This item will be further discussed under predator control.

Stocking

Stocking with bluegills is considered unnecessary. The lake is poorly suited, in summer, for trout, and stocking with trout is not recommended. Annual stocking with 400 large-mouth bass fingerlings, and 800 perch fingerlings is recommended. Provision of brush shelters, before or in connection with stocking, is considered desirable.

Predator control

The northern pike, as previously mentioned, are not considered desirable by local residents. Since these large pike appear to be limited in number and since small pike are very few, also since it would be especially difficult to remove these fishes, no recommendation for their removal is made. The damage done by these fish will be less severe if brush shelters are provided. There are reasons to believe that a few local residents are also helping to deplete the lake by illegal means. The damage done by the pike is probably overestimated.

Gravel spawning beds

Spawning beds for bass are relatively unsatisfactory. The scattering of five (5) cubic yards of gravel on the sand along the southeast shore, as near the deeper water as the firm bottom extends, is recommended.

Food increase

Increase of food, except such increase as will be brought about by the brush shelters, is not recommended.

Cover increase

More protection for young fish is desirable. The construction of 10 brush shelters, such as the ones illustrated in the general report, is recommended. These should be placed in water 5 to 10 feet deep at more or less regular intervals around the lake.

Vegetation and fertility increase

Increase in vegetation and fertility is not recommended.

Water level

Water level appears to be fairly constant. A dam in the outlet to keep water at a certain level is not recommended.

Screens in inlets and outlets

A screen in the outlet would prevent bass and bluegills from entering Mud Lake. Since the later is stocked, more or less, by Dickson Lake, a screen between the two lakes is considered inadvisable.

The inlets contain trout, but since pike are few in the lake, screens in these two inlets are, for the present, considered unnecessary.

INSTITUTE FOR FISHERIES RESEARCH