

July 23, 1932

Report 163

SURVEY OF FORD LAKE, MASON COUNTY,
WITH RECOMMENDATION FOR IMPROVING THE FISHING

Description

<u>Size and location</u>	Ford Lake is located about 3 miles due east of Fountain. It has an area of 208 acres. Maximum length is a little less than a mile. The greatest width is slightly over one half mile.
<u>Inlets and outlets</u>	An inlet enters at the north end and an intermittent inlet enters the lake at the southwest end. The larger inlet maintains a flow of water but is not large. The lake drains into the North Branch of the Lincoln River. The outlet, located at the extreme southern end of the lake, carries distinctly more water than the inlet, indicating that the lake receives a considerable amount of spring water.
<u>Water</u>	The water is clear and has a slight greenish color. It is quite clean and there is no evidence of pollution.
<u>Use of water</u>	One boat livery and a limited number of cottages are located on the lake. Resort development is not extensive. Some boating is carried on and bathing is good where the sand bottom occurs. The lake is used chiefly for fishing.
<u>Temperature</u>	The water is moderately warm to a depth of about 20 feet. The layer between 25 feet and the bottom (about 76 feet) is quite cold. Definite stratification of water occurs. Even the water in the upper layer is colder than it is in many lakes.
<u>Oxygen</u>	Oxygen was high at all depths. This is rather unusual for a lake having a depth of over 50 feet. Temperature and oxygen conditions are favorable for cold water fish.
<u>Other chemical conditions</u>	A limited amount of carbon-dioxide was found in the lower half of the lake. None occurred, in the upper half. The water is moderate in hardness and alkalinity.

- Depth In the small and relatively shallow south arm, a maximum depth of slightly over 25 feet was found. The larger portion of the lake reaches a maximum depth of about 78 feet. The shoal is fairly broad along most of the lake, extending to the rather steep slope. A large portion of the lake is more than 30 feet deep.
- Bottom A margin of sand occurs around most of the lake. Fibrous peat margins several of the bays. Marl intervenes between the sand and the dropoff. The bottom below the shelf is of pulpy peat.
- Vegetation Vegetation is abundant on the shoal and slope in the small part of the lake and is moderate on the shoal and slope in the major portion of the lake. Pondweeds, lilies and muskgrass predominate on the shoal. Vegetation on the slope consists chiefly of pondweeds. No weeds are found in the deeper part of the lake.
- Natural food Grayfish and clams are abundant. Minnows are present in limited numbers. Food is fairly abundant but hardly plentiful.
- Productivity The lake is fairly productive. Much of the water is quite deep, however, and the lake is not nearly so productive as some other lakes in the county.
- Spawning grounds A limited number of spawning beds were seen. Some gravel is present on the shoal at several places.
- Species of fish present Game fish - Northern pike, bluegills, rock bass, crappie (calico bass) and perch were taken. The crappies do exceptionally well in this lake, reaching a weight of 1-1/2 pounds. Largemouth and smallmouth bass are reported. The muskellunge is also reported to occur, but its presence is open to question. It is stated that bass are becoming fewer and that northern pike are becoming more numerous. Fish in general do not appear to be very abundant.
- Coarse fish - Brown and yellow bullheads are present in limited numbers. No other coarse fish were seen or reported. Some suckers may be present.
- Obnoxious fish - Dogfish were seen. They are reported to be present in limited numbers. No gar or other obnoxious species were seen or reported.

Forage fish - Some minnows are present. Skipjacks were found to be quite common. Blunt-nosed minnows were also found here.

Cover Protection for young fish is limited. The vegetation provides practically the only shelter available. During the winter the fishes have almost no protection.

Laws and regulations Bass have predominated in the past according to local residents. At present northern pike are as abundant, as the bass. The lake is designated as a bass lake.

Acknowledgments Boats were provided for the investigation by Mr. Rockwell.

Recommendations

Stocking Annual stocking with 1000 smallmouth bass, 500 largemouth bass, 1500 bluegills, 2000 perch, and if available, 1000 black crappie (calico bass), all fingerlings, is recommended. Experimental plantings for 3 years with 500 trout fingerlings or 500 lake trout fry is also recommended.

A large portion of the lake, the entire cold water area, is suited to cold water fish and is of little importance to the warmwater species. The inlet to Ford Lake is warm water and is small and cannot be used for trout spawning. The outlet dries up at times, according to reports. Some local residents have expressed fear in the possibility of lake trout (should they be planted) eating the young of other fish. This would not be true in summer and would presumably not be the cause of very serious loss in winter, especially if the brush shelters as recommended are installed.

Brush shelter Increased protection for the young fish is very desirable. The construction of 35 brush shelters, such as the one shown in the general report, or a proportionally larger number of smaller shelters is recommended. About half should be placed in fairly shallow water just inside the dropoff. The other half should be "hung" over the drop, especially to protect the young lake trout, or to shelter the young bass or bluegills from the trout in winter.

Food increase Food is more or less limited. The construction of slab devices to facilitate spawning of certain minnows is considered very desirable. Slabs are available at Gun Lake if none can be found in the vicinity of Ford Lake. Forty such devices are recommended. Directions are given in the general report.

Vegetation and
fertility increase

be made.

Weeds are fairly abundant and the lake is quite rich. The brush shelters may allow weed beds to become established in the sheltered part of the shelter. Special efforts to increase vegetation and fertility need not, in our opinion,

Spawning bed
improvement

This should be placed on fairly firm bottom as near the dropoff as possible. The bottom at the dropoff is of soft marl. Gravel should be placed on the sand in-shore from the point where the soft bottom begins.

Some improvement of spawning conditions is desirable. A limited amount of gravel is present and part of this is now being used by the fish. More is needed. The placing of 30 cubic yards of gravel on the shoal is recommended.

Water level

dry at times. Probably a dam in the outlet is not needed at present.

A constant water level is desirable. The lake was almost at normal level when examined. It appears that little fluctuation now occurs, although the outlet is said to run

Predator control

would be helpful.

Very few undesirable predators occur here. Predator control is considered unnecessary. Seining out schools of dogfish in early summer, should such schools be seen,