

July 26, 1932

Report 165

SURVEY OF GUN LAKE, MASON COUNTY,
WITH RECOMMENDATIONS FOR IMPROVING THE FISHING

Description

Size and location

Gun Lake is located two miles north of Fountain. It has a maximum length of about seven-eighths of a mile and a maximum width of a little less than three-fourths mile. The area is 242 acres.

Inlets and outlets

The lake is completely landlocked. It has no outlet and no permanent inlet. An intermittent inlet enters the south shore. When flowing, it drains a swamp south of the lake.

Water

The water in Gun Lake is very clear. There is no evident pollution.

Water level

Water level was below normal when the lake was examined.

Use of water

There is a moderate amount of resort development along the east and north shores. Numerous camping sites are available. Several boat liveries and a dance hall is located here. The lake is used chiefly for fishing and most of the boating is carried on in connection with angling.

Temperature

Temperatures were found to be high at all depths. The surface temperature reading was 74 degrees (air temperature 74^o), and at the bottom temperature was 68^o. The lake is suited only for warmwater fishes.

Oxygen

Oxygen was found to be fairly high at all depths. A fairly large amount was found even at the bottom.

Chemical conditions

Water was found to be quite soft. It was decidedly alkaline at all depths. A very small amount of carbon-dioxide was found at the bottom. Chemically the lake appears to be well suited for fish life.

Depth Maximum depth is about 30 feet (9.3 meters). Average depth is about 15 feet. The shoal area is comparatively large. The bay at the west end is quite shallow. There is an abrupt dropoff along the south and east shore.

Bottom A wide margin of sand occurs around most of the lake, and a fairly large sandy area surrounds the island, and extends eastward as a long bar. The bottom below the dropoff is of pulpy peat. Considerable gravel is found at depths suitable for bass spawning.

Vegetation Some vegetation is found over the entire bottom. This is quite limited, however, on much of the shoal area. The west bay contains quite an abundance of vegetation. Considerable is also present along the slope.

Natural food Minnows are found to be unusually abundant in this lake. Crayfish, frogs, and aquatic insects are common. Most of the minnows found here were blunt-nosed minnows. Their unusual abundance is very likely due to the presence of many slabs on the shoal along the point near the old slab dock.

Productivity The lake contains a fair abundance of food, and is capable of supporting a relatively large fish population. The entire bottom is fairly shallow and is productive.

Spawning grounds Spawning beds were found to be exceptionally good. Many bass beds were found. A large number of these beds were on gravel. This lake apparently contained more and better beds, proportionally, than any of the other lakes which were investigated in this county.

Species of fish present Game fish. Bluegills, largemouth bass, smallmouth bass, perch, and northern pike were taken. Bluegills and largemouth bass predominate. Largemouth bass are apparently now about four times as numerous as smallmouth bass. Walleyes, though they have been planted, were not found, and only one or two are reported to have been taken over the last six of seven years. Perch, in this lake, reach a fair size. Game fish as a whole are fairly abundant.

Coarse fish. No coarse fish were taken.

Obnoxious fish. None found.

Forage fish. The minnows will be identified in the laboratory in the fall. An unusual number of blunt-nosed minnows occur in the lake, as mentioned above.

Predators Snapping turtles are fairly abundant. A few fish-eating birds were seen. No undesirable predatory species of fish were found. In general, predators are not very abundant.

Cover Very little cover lexcept that provided by weeds is present. Much of the shoal has no protection for young fish. More cover is desirable.

Laws and regulations This is listed as an unclassified (bass) lake. Pike are very few. Bluegills and bass predominate. Some evidence of a considerable amount of illegal netting in this lake was secured in the past and the local officer is making an effort to apprehend any further violators.

Acknowledgments Boats were obtained from Mr. Tracy.

Recommendations

Stocking For holding up the fishing in this lake we recommend the annual stocking of 3000 smallmouth bass, 2000 largemouth bass, and 5000 perch. Bluegill stocking appears unnecessary, for this species now abounds throughout the lake. The failure of walleyes to take a real hold argues against further planting of this species. Conditions seem good enough for smallmouth bass to warrant the stocking recommended.

Brush shelter To increase the shelter for small fish and to benefit the fishing we suggest the installation of 50 brush shelters of about the size of those shown in the accompanying blueprint, or a proportionally larger number of smaller ones. On this lake the construction could be economically made from slabs and orchard trimmings, since both are available here.

Food increase The abundance of blunt-nosed minnows in this lake is due, we believe, to the slabs on the shoal water of the point near the old slab pile. The material is so conveniently available, however, that we recommend spreading 200 more slabs on the shoal elsewhere around the lake. These are preferably to be arranged as shown in the blueprint attached. These slab devices will also serve finely as shelter for small bass.

Vegetation and
fertility increase

Not recommended at present time.

Spawning bed
improvement

Spawning beds appear good and widespread in this lake, so no increases are recommended.

Water level

Not controllable, as there is no outlet.

Predator control

No recommendations are offered. There are no obnoxious fishes.

INSTITUTE FOR FISHERIES RESEARCH