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EXAMINATION OF THE OUTLET OF LONG LAKE, ALPENA COUNTY

By

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The outlet of Long Lake was examined on July 10, 1947 to determine its suitability for bass spawning with particular reference to the smallmouth. The area examined, in sections 22 and 23 of T32N, R8E, Alpena County, was formerly used as a rearing pond.

The Long Lake Improvement Association had constructed two low dams in the outlet. The upper dam is in Section 22 near the margin of the lake. It has a head of about 18 inches. The lower dam is down-stream near the section line between sections 22 and 23, about 300 yards west of Highway U. S. 23. The lower dam was constructed so that the area between the two dams could be used as a rearing pond for smallmouth bass. The upper dam had been built earlier to regulate the lake water level. With the change in stocking policy recently adopted by the Fish Division of the Michigan Department of Conservation the rearing program in the pond has been suspended. However, it was thought that the area might be a favored location for spawning bass and that it might be valuable as a nursery area.

The distance between the two dams is approximately one-half mile by stream. There is a clear channel 10 to 30 feet wide. Immediately

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below the upper dam, there is a fairly extensive shallow pool, 75 to 100 feet long and of equal width. Above the lower dam is a similiar expanse of open water. However, this pool is considerably deeper. The rest of the area between the dams consists of an open channel winding between marshy margins. The water in the channel averages about 3 feet in depth with a maximum of 7 or 8 feet.

The area is obviously rather productive and decidedly attractive. The bottom of the channel is firm. Limestone slabs, sand, and small amounts of gravel are the principal bottom types. Much of the area is covered with vegetation. There are extensive beds of water milfoil, muskgrass, and white water lily. Pondweeds, bulrushes, yellow water lilies, and scouring rushes are also abundant. The margins are more or less covered with cat-tails. Besides the rather rich growth of vegetation there are numerous stumps, dead-heads, and slabs which help form very desirable pools. The current is very sluggish and the water quiet.

The examination was made in the afternoon. There was no wind and visibility was excellent. The whole area was covered by boat. No bass were seen and no bass spawning beds were observed. Rock bass and long-eared sunfish were noted on their spawning beds. Thirty to 40 small northern pike were observed. They were about 3 to 5 inches in length and presumably were young-of-the year. Young perch were very numerous, and a few small adults were seen. One adult walleye was observed. Carp appear to be rather numerous, as about 30 adults were counted. Common shiners and blunt-nosed minnows were present in fairly large numbers.

The Long Lake Improvement Association has spent about \$500 on the construction of the two dams. The dams function desirably

in maintaining the lake and stream level. However, the Association would naturally like to realize some additional benefit from its investment.

It is suggested that the following management plan be put into effect for the pond between the two dams.

1. There is a spring spawning migration (extent undetermined) of northern pike from Lake Huron up Long Lake Creek. This species apparently spawns in the area between the two dams as evidenced by the young pike observed. It is recommended that the adults be trapped during the spawning run and released above the lower dam. The upper dam probably serves as at least a partial barrier in preventing free movement into Long Lake proper. There will be no loss if the pike do manage to jump the upper dam but it appears desirable to keep the pike between the two dams where they will be more or less concentrated and available to fishermen. Since the fish trap functions with only moderate efficiency at present it is suggested that it be improved. The screen should be set flush with the cement apron of the dam and the funnel widened to more readily lead fish into the trap.

2. Judging by the examination made, the area between the two dams is admirably suited to largemouth bass. This species has been planted in Long Lake with no considerable success, although it is undoubtedly present. However, Long Lake itself is better suited to the smallmouth. It is recommended that about 2,000 largemouth bass fingerlings be introduced into the area between the two dams this fall. It is also suggested that 2,000 bluegills, preferably adults or large fingerlings, be introduced. The association of largemouth bass, bluegill, and northern pike is a desirable one. Suitable spawning grounds are available for the three above mentioned species, and once they are

established no further planting should be required.

3. The area should be open to public fishing. It is readily fishable and will serve a more useful purpose as a fishing area than as a rearing pond. Should bass and bluegills be caught in too great numbers (this is considered very unlikely), certain restrictions could be enforced at a later date.

4. The dams should remain in operation as continuously as possible to prevent escapement of fish from the area.

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