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DIVISION OF FISHERIES
MICHIGAN DEPARTMENT OF CONSERVATION
COOPERATING WITH THE
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A FISHERY INVESTIGATION OF LAKES
ON THE CAMP DEARBORN AREA, OAKLAND COUNTY

FISH DIVISION

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Camp Dearborn is a 522-acre recreational area owned, maintained, and used by residents of Dearborn. It is located about a mile west of Milford in Oakland County. Recreational facilities include three lakes, referred to as No. 1, No. 2, and No. 3, the areas of which have been reported to be 26, 24, and 16 acres, respectively. Lake No. 1 is said to be of natural origin, but has been altered somewhat by dredging. Lake No. 2 was developed from a swampy area about four years ago, and No. 3 is also man-made, the dredging of which was completed within the past year. Lake No. 1 is intensively used for boating and bathing, whereas fishing would appear to be of secondary importance. Use of Lake No. 2 appears to be primarily for fishing. Newly developed Lake No. 3 was not yet being utilized for recreation by mid-May of 1953; fishing is one of the activities planned for this body of water.

City officials of Dearborn had requested fish from the Department of Conservation for stocking the lakes. The Institute for Fisheries Research deemed some study advisable before making recommendations on management of these waters. Hence on May 18 and 19, 1953, fish collections were taken on lakes No. 1 and No. 2, and general observations were made on all three

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lakes. The writer worked with District Fisheries Supervisor William E. Mason on May 19; camp maintenance personnel assisted at seining and setting nets on May 18.

Maximum depths of the three lakes are reported to be around 20 feet. However, the areas with this depth are small, and the major share of each lake is less than 15 feet deep. The predominant bottom soil in lakes No. 1 and No. 2 is pulpy peat; sand occurs in some near-shore areas where fills have been made.

The water of this area is quite hard. A methyl orange alkalinity test made on Lake No. 1 gave a value of 182 parts per million of mineral salts (mainly lime). Water of at least moderate hardness is regarded as more productive of fish than is soft water.

Over-night sets of four gill nets took the following fish from Lake No. 1 (size range, total length in inches, in parentheses): 6 yellow perch (9.0 - 10.8), 1 largemouth bass (9.6), 6 bluegill (5.0 - 7.0), 5 pumpkinseed (5.4 - 6.1), 1 black crappie (6.6), 23 lake chubsucker (7.9 - 9.6), 13 yellow bullhead (7.7 - 11.3), 1 bowfin (dogfish) (26.0), and 1 golden shiner (8.0). Seining produced young perch, largemouth bass, bluegill, pumpkinseed, and green sunfish; also collected with seine were blacknose and blackchin shiners, bluntnose minnow, and one specimen each of creek chub and emerald shiner. It is highly probable that the last two minnows were liberated by bait fishermen, for the creek chub is a stream form and the emerald shiner in Michigan is known to occur naturally only in the Great Lakes and inland waters directly connected with the Great Lakes. Hook-and-line fishing with artificial fly from the boat dock on the west shore took a large number of bluegills and a couple of pumpkinseeds.

Two gill nets set over night in Lake No. 2 captured: 1 largemouth bass (12.2), 5 bluegill (4.0 - 4.4), 2 black crappie (7.8 - 11.0), 45 white sucker

(8.3 - 14.8), 26 lake chubsucker (5.0 - 7.3), 14 black bullhead (5.1 - 9.5), and 3 golden shiner (6.0 - 6.1).

Scale samples were saved from game species, and these have been examined to determine ages and growth rates. Growth of fish from Camp Dearborn lakes have been compared to state-wide averages. Though the number of samples obtained was rather small for giving reliable data, it is thought that bluegills collected from lakes No. 1 and No. 2 and pumpkinseeds and perch from Lake No. 1 were sufficient to show the general growth trend of these species.

Following is the comparison of growth (average total lengths in inches) of bluegills from Lake No. 1 with state average growth (state figures in parentheses): one-year-old fish, 1.8 (3.1); two-year-old, 2.7 (4.3); four-year-old, 4.8 (6.6); five-year-old, 5.8 (7.3); six-year-old, 7.17 (6.5). Two-year-old bluegills from Lake No. 2 (the only age-class of bluegills collected here) averaged 4.1 inches, which represents average growth.

The picture for pumpkinseed sunfish from Lake No. 1 is similar to that for the bluegills: two-year-old, 2.9 (4.1); five-year-old, 6.2 (5.6); six-year-old, 6.1 (6.8). No pumpkinseeds were gotten from Lake No. 2.

Samples of largemouth bass and crappie were far too few to afford dependable information on growth rates; only single fish of various year-classes were obtained. However, it is of interest to note that a two- and a four-year-old bass from Lake No. 1 had respective lengths of 4.9 and 9.6 inches, whereas a two-year-old bass from Lake No. 2 measured 12.2 inches. One crappie from Lake No. 1 and two from No. 2 were above average.

Perch were collected only from Lake No. 1. Three 4-year-old fish averaged 9.6 inches and two 5-year-olds, 10.7 inches; state averages for these respective age-classes are 7.5 and 8.5 inches.

The usual cause for slow growth in fish is excess in number over the amount of food available. Hence it would appear that Lake No. 1 is over-

populated, at least with bluegills and pumpkinseeds.

Management Recommendations

Lakes No. 1 and No. 2 show no need for artificial stocking. Natural reproduction in Lake No. 1 of bluegills and pumpkinseeds, and possibly also of largemouth bass, has succeeded to the extent of over-populating the lake with these species. While there apparently is not an excessive population of game fish in Lake No. 2, there would be no point in introducing additional numbers of the species that are now resident.

Lake No. 3 presently is not populated with fish. Experience to date has indicated that a combination of bluegills and largemouth gives the best results in lakes of the type of this one. Recommended for this body of water are 1600 fingerling largemouth bass and 160 adult bluegills. This stocking recommendation, then, involves a ratio of 10:1, with the area of the lake assumed to be 16 acres. Possibly the largemouth bass can be obtained from the U. S. Fish and Wildlife Service. The bluegills could be gotten from Lake No. 1 by hook-and-line fishing. If introduced soon, some of the bluegills might spawn yet in 1953.

It is emphasized any other species of fish should not be introduced into Lake No. 3--at least until the bass-bluegill combination has been given a fair chance to prove whether it is adequate to provide satisfactory fishing.

A major contribution to make fishing more interesting in Lake No. 1 would be to encourage better growth in the bluegills. However, no very convenient means of achieving this objective is apparent. Eliminating a part of the population with chemical holds good possibilities, but even if desired results were obtained they likely would be only temporary. If the management of Camp Dearborn is interested in exploring the field of

population control by this means, the Department of Conservation's Institute for Fisheries Research would lend all possible assistance in carrying out the work. The chemical used exerts its effect over a relatively short period of time, does not kill many aquatic insects, and is not toxic to humans, dogs or livestock.

It is understood that fishing on Lake No. 1 is limited to youths up to 17 years of age. Our opinion is that besides being capable of withstanding greater fishing pressure, this water would benefit from increased harvest of over-abundant species--especially the bluegill. We would suggest that adults also be permitted to fish this lake.

Fishing for perch and bullheads in Lake No. 1 might be encouraged to help satisfy anglers. It is strongly suspected that these species are not cropped so intensively as they might be, and they are of a size which arouses the pride of the successful fisherman. As for angling methods, fishing from boat with minnows as bait is suggested for perch, while still-fishing with worms at night, of course, is the accepted procedure for bullheads.

INSTITUTE FOR FISHERIES RESEARCH

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