## UNIVERSITY MUSEUMS UNIVERSITY OF MICHIGAN

## Report 327

November 29, 1935

CREEL CENSUS FOR ONE YEAR ON CLEAR LAKE, MONTMORENCY COUNTY

This report covers fishing on Clear Lake for the period of July 10, 1934 to July 9, 1935 (inclusive). A report on the winter fishing for the winter of 1933-'34 was submitted as part of Report 271.

The census on Clear Lake was carried on by the Presque Isle C.C.C. camp, located on the shore of the lake. The actual percentage of all fishing for the year covered by this census cannot be ascertained. Unfortunately this census does not cover all fishing on Clear Lake for the period indicated; it is believed, however, that the data represent over 50% of the fishing on this lake for the one year period.

The summer census was started on July 10th. To complete the record of a full year a portion of the records for the following season was added. The census terminated on July 12, 1935, a few days after the year's census had been completed.

The data are listed in Table I for each month except the four winter months when almost no fishing was reported.

According to reports, Clear Lake provided poor fishing in past years. Fishing in the lake is still slightly below average but there is reason to believe that it is now much better than it was a few years ago. The general census (1927-1932) indicates that the average catch in non-trout watersin Montmorency County for the period mentioned was .86 fish per hour. Returns from this county were so few however, that this figure is entirely unreliable. The water is clear and relatively cold and the fish which are caught appear to be of fine quality.

Table I.	Analysis	of fishi	ng, Jul	y 10,	1934	to	July	9,	1935,	Clear	Lake,
Montmorency County											

	July 10 <b>-</b> 31	August	Septem- ber	Octo- ber	Noven- ber	Winter 34-35	June 25-30	July 1-9	Total Ave.
	10-01					01 00			
Number of fishermen	50	71	41	25	6	6	44	37	280
No. getting no fish	22	29	17	7	2	3	21	22	123
Number of hours fished	127	213.5	123.25	48	8.5	15.5	117.5	93.5	746.75
Number of legal sized fish caught	147	167	120	53	11	2	73	98	671
Fish per fisherman <sup>1</sup>	2.9	2.4	2.9	2.1	1.8	•3	1.7	2.6	2.4
Fish per hourl	1.2	<b>₀</b> 78	<b>.</b> 79	1.1	1.3	•19	•62	1.05	•9
Average size of legal fish	9.0	9.4	9.3	10.5	9.5	8.0	9.4	8.9	9 <sub>•</sub> 3
Number of undersized fish <sup>2</sup>	183	195	149	83	5	8	106	134	870
Small-mouth Bass									
Number <sup>1</sup>	69	96	32	26	6	-	18	13	260
Average sizel	10.9	10.5	10.8	10.9	11.0	-	12.7	12.5	10.9
Number undersized	59	96	51	39	5	-	62	68	380
Sunfish									
Number	3	3	0	0	-	-	-	-	6
Average size	6	6	0	0	-	-	-	-	6
Number undersized	6	1	0	0	-	-	-	-	7
Rock Bass									
Number	21	34	39	13	1	-	-	2	110
Average size	7.1	7•4	7.8	8.0	7.0	-	-	7.0	7.5
Number undersized	32	17	28	5	-	-	7	0	89
Perch									
Number	49	29	30	13	4	2	47	80	254
Average size	7.6	7.7	9.0	9.5	8.0	8.0	7.7	8.2	8.0
Number undersized	83	81	70	49	-	8	37	66	394
Suckers									
Number	5	5	19	1	-	-	3	-	33
Average size	7	12.4	10.3	10	-	-	12.3	-	10.3
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Brook Trout <sup>3</sup>	-	-	-	-	-	-	5	<b>2</b> 12.0	<b>7</b>
Number Average size	-	-	-	-	-	-	11• <del>4</del>	12.0	11.6
TAGLER STRA									

1 Undermized fish are not included in these calculations.

<sup>2</sup> It is assumed that these were all returned to the lake.

Two rainbow trout (1-11 inches; 1 - 6 inches), 2 undersized bluegills and 3 minnows, were also caught.

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Table I shows several interesting conditions with reference to the catch: 1. An unusually large number of undersized fish.

2. An unusually large percentage of bass.

3. Presence of trout.

It appears to be more or less common in lakes of this type (see also census for Clear Lake, Ogemaw County) to catch a relatively large number of undersized fish. Food in these lakes apparently is the limiting factor in the production of fish, consequently the fish grow more or less slowly and perhaps bite more readily than they do in lakes containing a greater food supply.

A study of some of the brush shelters which had been placed in the lake indicated that the small bass used the shelters while the perch showed preference for the open water. To what extent the shelters are responsible for the unusual proportion of bass and perch in the catch, both legal and undersized, cannot be determined. It is believed, however, that the shelters may have been a very significant factor. Continued census will tend to indicate whether the shelters have merely concentrated the bass or whether the number of bass is actually increasing.

Brook trout (adults) were planted in this lake late in 1934 by the Grayling Hatchery. Seven were taken during the 1935 fishing season (before July 10). It is reported that a large number of these trout were seen daily, at some seasons, near the diving board at the C.C.C. camp and that they were fed there. It is also reported that some good catches of trout were taken here during the closed season (several arrests were made). It appears that the conditions are suitable for trout and that a considerable percentage of the trout which were planted survived. Since food for warm water fish is quite limited, the production of bass and other warm water fish cannot be expected to become high unless the fertility is increased. It is possible, however, that the lake will support a fair population of trout and it is believed that

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the trout population might well be increased by further stocking. Since predators other than perch appear to be relatively few in the colder portion of the lake, stocking with fingerlings or yearlings might show satisfactory results.

It is considered desirable that a creel census on this lake be resumed, especially to aid in a study of the fluctuation of the population and in a study on the effect of stocking the lake with trout.

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