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REPORT ON THE GENERAL CREEL CENSUS, 1937*

GENERAL SUMMARY

The general creel census has been conducted in Michigan for eleven years. Over this period, the Conservation Officers annually have contacted fishermen and reported their catch on special blanks that have been provided for that purpose by the Fish Division of the Michigan Conservation Department. These records represent catches from all sections of the state exclusive of the Great Lakes and their connecting waters. This census may be considered a method of random sampling in which all types of inland lake and stream fishing are represented by the records of good fishermen and poor, male and female, trout fishermen and bluegill anglers, resident and non-resident fishermen, experts and tyros. In all, 19,510 records secured in 1937 were forwarded to the Institute for Fisheries Research

* A large proportion of the value of this type of report lies in the opportunity it affords of direct comparison of analagous figures from previous years. For this reason, in the compilation of this report the material with minor exceptions is presented in the order and form of the 1936 report of the general creel census.

of the Michigan Department of Conservation for tabulation and analysis. The methods used in the compilation and analysis are the same as those used in previous reports of the general creel census.

From these records it was found that the 19,510 fishermen fished 61,642 hours and caught 89,880 fish at the rate of 1 1/2 fish per hour.

The average catch per hour for all waters has remained nearly constant for the past three years, being 1.5 in 1935, 1.4 in 1936, and 1.5 in 1937. Only legal-sized fish are considered in these and subsequent catch per hour figures.

The catch per hour for trout waters is identical over the same three year period, being 0.8 fish per hour.

The catch per hour for non-trout waters was 1.9 in 1935, 1.7 in 1936, and 1.7 in 1937.

The average size for fish taken in the state was 8.5 inches.

For the three year period, the non-resident fisherman was less successful than his resident competitor in all types of fishing except in 1935, when the non-resident trout fisherman exceeded the resident catch by 0.3 of a fish per hour. The non-resident represented 23% of the anglers in 1935, 28 1/2% in 1936, and 27% in 1937.

Women anglers were almost as successful in their fishing of the non-trout waters as were the men, having taken 1.4 fish per hour against the men's 1.5 fish per hour. They were not as successful on trout streams, averaging 0.5 compared with the 0.8 of the men. The women anglers represented 7.5% of all the fishermen.

DETAILED ANALYSIS

Number of Reports

Reports were submitted for 19,510 fisherman-days, covering 61,642 hours of fishing, and a catch of 89,880 legal-sized fish. This number of records represents a decrease of 1,033 over the previous year.

By hatchery districts the number of returns, together with the number of hours and number of fish represented, were as given in Table 1.

Table 1

Number of fishermen, hours fished, and number of legal-sized fish caught for each hatchery district (see map in appendix)

District No.	No. of fishermen	Hours fished	No. of legal-sized fish caught
1	1,931	6,251.25	4,784
2	1,655	6,698.00	7,499
3	894	3,662.00	2,822
4	3,120	8,210.50	11,436
5	3,249	8,592.25	12,234
6	254	819.25	732
7	3,522	10,036.00	13,791
8	1,479	5,505.00	10,292
9	1,302	4,477.25	11,903
10	986	3,359.25	6,219
11	1,118	3,931.50	8,168
Total	19,510	61,542.25	89,880

The number of records submitted from each county are given in the Appendix, Table I. There were no records from 14 counties, and fewer than 100 from each of 25 counties. The figures given in this report refer to the number of fishermen, not to the number of sheets. The number of counties are given in Table 2.

Table 2

Number of records submitted, by counties

No. of records	Number of counties
0	14
1 - 100	25
100 - 200	13
200 - 300	3
300 - 400	6
400 - 500	4
500 - 600	10
600 - 700	3
700 - 800	2
800 - 900	1
900 - 1000	1
1100 - 1200	1

Records for intensive census taken by the CCC are not included. With very few exceptions, all data submitted were taken by the Conservation Officers in connection with their regular patrol duties.

In 1937, the counties yielding the most records were, in order: Roscommon, Benzie, Wexford, and Kent. It is to be noted that Roscommon in 1937 again heads the list as it did in 1935.

Catch Per Hour -- All Waters

In the 1936 report a summation was made by geographical districts and also by hatchery districts. In the present report it was considered unnecessary to continue this method because of the close parallelism of the hatchery to the geographical districts, and the summation is made by hatchery districts alone.

By hatchery districts the catch per hour is given in Table 3.

Table 3

Catch Per Hour -- All Waters, By Hatchery Districts

District	Catch per hour
1	0.8
2	1.1
3	0.8
4	1.4
5	1.4
6	0.9
7	1.4
8	1.9
9	2.7
10	1.9
11	2.1
Average for state	1.5

Catch Per Hour -- Trout Waters

Over most of the state trout records were obtained from stream anglers and non-trout records from the lake fishermen. For this reason this report for convenience has arbitrarily designated the stream records as trout records and lake records as non-trout records.

Classifying of lakes into trout and non-trout waters is not especially difficult as a rule, but the matter becomes decidedly complicated in streams which are trout waters in some localities and non-trout waters in others. Such streams are classed as one or the other in any one county, but may be considered the opposite in another county. Some discrepancy undoubtedly arises from this method, but in general the error is probably not great.

The proportion of trout and non-trout fishing by hatchery districts was:

Table 4

Per cent of returns for trout and non-trout waters, by hatchery districts

District No.	No. of records for trout waters	% of returns	No. of records for non-trout waters	% of returns
1	672	34.8	1,259	65.2
2	621	37.5	1,034	62.5
3	698	78.1	196	21.9
4	508	16.3	2,612	83.7
5	365	11.2	2,884	88.8
6	99	39.0	155	61.0
7	1,229	34.9	2,293	65.1
8	58	3.9	1,421	96.1
9	3	0.2	1,299	99.8
10	4	0.4	982	99.6
11	...	...	1,118	100.0
Total	4,257	21.8	15,253	78.2

By hatchery districts, for trout waters and non-trout waters, the catch per hour in 1937 was:

Table 5

Catch per hour by hatchery districts

District No.	Trout waters		Non-trout waters	
	1936	1937	1936	1937
1	1.2	1.1	0.9	0.6
2	1.2	0.9	1.1	1.2
3	0.8	0.7	1.1	1.3
4	0.7	0.7	1.5	1.6
5	0.6	0.4	1.2	1.6
6	1.3	0.7	1.3	1.0
7	0.6	0.8	2.2	1.7
8	0.2	0.4	1.8	1.9
9	0.3	0.5	2.5	2.7
10	1.9	0.8	1.3	1.9
11	1.5	...	2.4	2.1
Average	0.8	0.8	1.7	1.7

Catch Per Hour Comparisons

A comparison of the catch per hour figures of the general census for 1937, with the average catch per hour for several intensive censuses conducted under the supervision of the Institute for Fisheries Research, indicates that the general census figure approximately doubles that of the intensive censuses.

For non-trout waters, the general census figure is 1.7 legal fish per hour.

For the intensive censuses on 30 lakes* for the years 1933 through 1937, the catch per hour figure was 0.9.

On trout waters the general census indicated a catch per hour of 0.8.

On seven trout streams,** six of them for two year periods, 1937-38, on which intensive censuses were conducted, the catch per hour was 0.48.

A suggested cause for the higher figure in the general census may be the natural tendency of the Conservation Officers to record fewer no-catches than does the recorder in the intensive censuses, where he attempts to contact and record the catches of every fisherman. Also,

* The thirty lakes: Muskallonge and W. Twin in Montmorency County; Hess Lake, Newaygo County; Round, Wampplers, Clear, Mud, Portage, Waterloo Mill Pond, in Jackson County; Crescent Lake, Oakland County; Houghton and Higgins lakes in Roscommon County; Lower Hamlin Lake, Mason County; Hubbard in Alcona County; Grand, Long, and Ocqueoc lakes in Presque Isle County; Cassidy, Cedar, Crooked, Doyle, Green, Mill, Mirror, Sugar Loaf, and Walsh lakes in Washtenaw County; Manistee and Pickerel lakes in Kalkaska County; Margrethe Lake in Crawford County; N. Manistique Lake in Luce County; and Independence Lake in Marquette County.

** Trout streams: The Little Manistee; White River; Canada Creek; the South Branch of the Pine; the Pine; the Pigeon; the North Branch of the Au Sable.

officers naturally concentrate their patrol efforts on the better trout streams and fishing lakes.

Number and Size of Trout -- Trout Waters

The distribution of species of trout in the catch and the average length of the trout, by hatchery districts, for trout waters are shown in Table 6.

Table 6

Distribution of species of trout in the catch, and average length of the trout by hatchery districts, by trout waters

Species	1		2		3		4		5		6		7		8	
	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size
Brook trout	2032	8.7	1650	8.9	571	8.7	445	8.3	234	8.3	86	8.1	1357	8.4	50	8.1
Rainbow trout	152	10.6	21	14.7	1344	10.4	394	9.6	57	10.7	23	9.9	618	8.8	3	9.0
Brown trout	21	10.5	8	11.8	129	9.4	163	9.9	81	11.0	17	9.6	770	10.0	12	11.0

Species	9		10		11		Total No. fish	Total Average size	Average size
	No. fish	Ave. size	No. fish	Ave. size	No. fish	Ave. size			
Brook trout	3	8.0	8	8.3	...	...	6436	83.8	8.3
Rainbow trout	...	...	...	...	...	...	2612	83.8	10.5
Brown trout	...	...	3	11.3	...	...	1204	94.5	10.5

If the records are representative, the catch of trout in Michigan in 1937 was predominantly brook trout, followed in order by rainbow and brown trout. The greatest number of brook trout caught, as shown by the

above records, was in hatchery district 1, the western half of the Upper Peninsula, followed by district 2, the eastern half of the Upper Peninsula. Ranking third for brook trout is hatchery district 7, comprising the following counties: Mason, Lake, Osceola, Clare, Oceana, Newaygo, Mecosta, and Isabella. This district, however, ranked first in the total number of all trout recorded.

The greatest number of records for rainbow trout were reported from hatchery district 3, comprising the following counties: Emmet, Cheboygan, Charlevoix, Antrim, and Otsego.

The greatest number of records for brown trout came from hatchery district 7.

The greatest average length of brook trout, 8.9 inches, was reported by hatchery district 2.

The rainbow trout of greatest average length, 14.7 inches, also was recorded for hatchery district 2.

The largest average size of brown trout, 11.8 inches, likewise came from hatchery district 2, although the number reported (8) probably was too small to be representative.

For the state as a whole, the average size of the brook trout was 8.3 inches in length and that of rainbow and brown trout was identical (10.5 inches).

The percentage of the several species in the trout catch by hatchery districts is given in Table 7.

Table 7

Percentage of species of the trout catch, by hatchery districts

District No.	Total No. of trout	% Brook trout	% Rainbow trout	% Brown trout
1	2,205	92	7	1
2	1,679	98	1	1
3	2,044	28	66	6
4	1,002	45	39	16
5	372	63	15	22
6	126	68	18	14
7	2,745	49	23	28
8	65	77	5	18
9	3	100	...	...
10	11	73	...	27
11	...	...	...	...
Total	10,252	63	25	12

Of the 10,252 trout recorded by the Conservation Officers, 63% were brook trout, 25% rainbow trout, and 12% brown trout.

In hatchery districts 1 and 2 practically the entire take as shown by the records was brook trout. Sixty-six per cent of the trout catch in hatchery district 3 was rainbow trout. The greatest number of brown trout was taken in hatchery districts 7 and 10, where these species represented 28 and 27% of the trout catch respectively. Only in hatchery district 11 were no trout recorded.

Data from some of the districts are too few to be reliable.

The data give some information regarding the fish associated with the trout or found in the streams below, where they are primarily trout waters. For the entire state the fish taken along with trout or in waters regarded as trout waters were:

Small-mouthed bass	57
Suckers	234
Rock bass	242
Walleyes	102
Perch	92
Northern pike	120
Large-mouthed bass	2
Sunfish	21
Bullheads	12
Cisco	45
Calico bass	25
Menominee whitefish	2

The figures are for fish actually caught. The relative abundance of non-trout species present in trout waters is probably quite different from the relative abundance shown. Suckers, for instance, would not be caught nearly as readily as would the game fish. If trout fishing were chiefly in lakes, lake trout would probably be much more prominent in the catch. Due to lack of records from district 8, a comparison cannot be made with the report for 1936. For 1937, the largest number of species caught in trout waters was taken from Oscoda and Delta counties.

The catch by species for trout waters by counties is shown in Table 8.

Table 8

Number of each species of fish caught in each county for trout waters

County	Brook trout	Rainbow trout	Brown trout	LM. Bass	SM. Bass	Yellow Perch	Northern pike	Walleyed pike	Rock bass	Suckers	Chubs	Shiners	Pilot fish or Menominee whitefish	Bull- heads	Calico bass	Sunfish
Alcona	19	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Alger	58	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Allegan	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alpena	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Antrim	193	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arenac	44	10	2	...	1	8	15	...	27	4	...	...	...	...	...	...
Barry	8	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Baraga	561	77	17	1	...	...	6	2	...	...	9	...	...	...	...	...
Bay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Benzie	80	138	6	...	...	...	...	...	15	4	...	...	...	...	...	...
Berrien	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Branch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calhoun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cass	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charlevoix	23	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cheboygan	109	1290	125	1	7	...	2	12	2	12	...	...	...	...	...	...
Chippewa	96	7	1	...	...	...	4	5	...	...	...	...	...	...	...	...
Clare	14	20	22	...	...	...	2	...	4	...	...	...	...	...	...	...
Clinton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Crawford	5	15	28	...	...	...	...	...	...	...	...	...	1	...	...	...
Delta	375	8	4	...	37	32	27	7	75	...	...	...	...	12	...	...
Dickinson	237	1	...	...	...	...	3	2	...	...	...	...	...	...	...	...
Eaton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Emmet	94	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Genesee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gladwin	50	3	5	...	...	1	1	...	...	...	6	...	...	...	...	...
Gogebic	185	1	4	...	...	...	...	...	...	1	...	...	...	...	...	...
Grd. Traverse	13	12	128	...	...	...	...	...	...	141	...	...	...	...	...	...
Gratiot	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hillsdale	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Houghton	614	56	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Huron	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ingham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Iosco	23	13	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Ionia	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Iron	329	4	...	...	3	...	3	15	...	21	...	28	...	...	...	...
Isabella	32	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Jackson	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalamazoo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalkaska	9	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kent	37	3	12	...	...	...	...	...	...	3	...	...	...	...	...	...
Keweenaw	125	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lake	236	324	474	...	...	...	...	...	1	1	...	...	...	...	...	...
Iapeer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Leelanau	58	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Lenawee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Livingston	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Luce	328	...	...	...	...	...	2	1	...	9	2	...	...	...	...	...
Mackinac	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Macomb	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manistee	202	175	18	...	...	...	2	6	...	...	...	...	...	...	...	...
Marquette	264	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Mason	141	...	12	...	...	...	1	...	...	...	...	...	...	...	...	...
Mecosta	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Menominee	59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Midland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Missaukee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monroe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Montcalm	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Montmorency	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Muskegon	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Newaygo	359	46	131	...	4	...	6	48	...	5	...	...	...	...	25	...
Oakland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oceana	137	11	83	...	...	...	...	...	...	...	...	...	...	...	...	...
Ogemaw	133	23	27	...	...	...	...	...	...	...	...	...	...	...	...	...
Oshtemo	218	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otsego	152	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Ottawa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Osceola	421	217	45	...	...	...	...	...	...	...	...	...	...	...	...	...
Oscoda	27	16	21	...	4	24	30	4	118	27	...	...	1	...	...	17
Presque Isle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Roscommon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saginaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Clair	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Joseph	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sanilac	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Schoolcraft	207	...	1	...	1	27	16	...	...	...	...	...	...	...	...	...
Shiawassee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuscola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Van Buren	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Washtenaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wayne	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wexford	83	67	9	...	...	...	...	...	...	6	...	...	...	...	...	4
Total	6436	2612	1204	2	57	92	120	102	242	234	17	28	2	12	25	21

Number and Size of Fish -- Non-trout Waters

Non-trout waters are considered those waters in which trout, if present at all, are relatively not abundant compared with the other fish present. A few trout naturally are recorded. The more important species of warm-water fish are discussed below.

Black Bass: Bass constituted 4.8% of the whole catch in non-trout waters. For the state as a whole, both were about equal average size-- large-mouthed 13 inches, and small-mouthed 12.7 inches.

The percentage of each of the species of bass in the bass catch by hatchery districts is given in table 9.

Table 9

The percentage of each species of bass in the catch, by hatchery districts

District No.	Total No. of bass	% of large-mouth	% of smallmouth
1	464	30	70
2	342	32	68
3	130	58	42
4	640	35	65
5	251	58	42
6	173	28	72
7	597	79	21
8	300	83	17
9	234	93	7
10	258	73	27
11	232	83	17
Total or average	3,621	57	43

The small-mouthed bass predominated over the large-mouthed bass in hatchery districts 1, 2, 4, and 6. It will be noted that these districts are all in the northern part of the state.

Bluegills and perch: Bluegills were decidedly the most abundant in southern hatchery districts 6, 7, 8, 9, 10, and 11. The change northward is shown by the comparison below where, for each hatchery district the percentage of the bluegills and the percentage of the perch are given in Table 10.

Table 10
Percentage of bluegill and perch catch, by hatchery districts

District No.	Total no. of bluegills and perch	% Bluegills	% Perch
1	410	17	83
2	3,764	7	93
3	257	36	64
4	5,569	32	68
5	5,004	21	79
6	168	78	22
7	8,769	74	26
8	8,822	87	13
9	10,345	94	6
10	4,714	94	6
11	4,581	71	29
Total or average	52,403	67	33

Over the entire state bluegills apparently rank first and perch second so far as the number caught is concerned.

Walleyes and northern pike: The catch over the entire state shows walleyes and northern pike to amount to 5% of the total catch. The data show that in hatchery district 1, the western half of the Upper Peninsula, walleyes predominated over northern pike by almost two to one. In the eastern half, or hatchery district 2, almost the exact reverse was true. The walleye catch in district 4, comprising Leelanau, Benzie, Manistee, Grand Traverse, Wexford, Kalkaska, and Missaukee counties, was somewhat greater than the northern pike catch. In the balance of the state the northern pike catch greatly exceeded the walleye catch. For the state as

a whole, 3,755 walleyes and northern pike were tabulated, of which 57% were northern pike, and 43% were walleyes. This represents 5% of the total catch of fish in non-trout waters for the entire state. Table 11 gives the percentage of walleyes and the percentage of northern pike.

Table 11

Percentage of walleyes and northern pike, by hatchery districts

District No.	Total No. of walleyes and northern pike	% Walleyes	% Northern pike
1	1,236	63	37
2	726	36	64
3	120	29	71
4	316	57	43
5	650	32	68
6	115	37	63
7	279	31	69
8	98	4	96
9	33	3	97
10	46	22	78
11	136	1	99
Total or average	3,755	43	57

Other species: The relative abundance of other species is shown in Table 12, which gives the catch by species by hatchery districts. The average size for fish taken in the state was 8.5 inches. The average size increased northward as other fish tended more and more to replace the bluegills in the catch.

The catch by species for non-trout waters by counties is given in Table 13.

Table 12

Catch by species and average length of fish,
non-trout waters, by hatchery districts

Species	1		2		3		4		5		6		7		8		9		10		11		Totals	
	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. Fish	Ave. Size	No. of fish	Average size
Largemouth bass	139	13.7	108	13.4	75	12.6	221	13.2	145	13.0	49	13.2	470	12.8	249	12.9	218	13.5	188	13.1	193	12.1	2,055	13.0
Smallmouth bass	325	12.9	234	12.8	55	12.3	419	12.8	106	13.9	124	13.1	127	12.4	51	11.7	16	10.5	70	11.3	39	12.3	1,566	12.7
Bluegills	68	8.04	263	7.05	92	7.02	1798	7.5	1074	7.6	131	7.6	6452	7.5	7708	7.8	9706	7.6	4443	7.4	3262	7.3	34,997	7.5
Sunfish	11	7.0	89	7.2	65	6.9	337	7.4	1959	7.1	62	7.2	416	7.0	155	7.8	330	7.0	582	6.6	732	6.9	4,738	7.0
Yellow perch	342	8.5	3501	8.6	165	9.0	3771	8.2	3930	9.6	37	9.4	2317	7.8	1114	8.3	639	8.2	271	7.6	1319	8.04	17,406	8.2
Walleyes	784	17.8	258	17.2	35	17.8	181	17.0	205	17.5	43	17.8	87	19.8	4	21.0	1	22.0	10	18.6	2	18.0	1,610	17.7
Northern pike	452	19.7	468	21.4	85	18.7	135	21.9	445	20.1	72	20.2	192	19.9	94	23.3	32	21.5	36	15.8	134	23.6	2,145	20.6
Rock bass	8	7.0	344	7.3	163	7.9	1207	7.7	2009	7.2	9	8.9	393	7.4	52	7.2	110	7.6	173	7.04	99	8.5	4,567	7.4
Calico bass	68	8.6	3	8.2	...	...	...	...	1437	7.5	19	7.2	472	8.7	621	8.3	465	9.5	243	8.5	1272	8.0	4,600	8.2
Dogfish	...	...	...	...	...	...	...	...	1	16.0	...	...	1	20.0	6	20.5	6	17.2	4	16.0	28	20.1	46	19.3
Suckers	262	12.7	29	15.8	2	13.5	335	13.9	13	17.5	...	...	5	15.0	134	10.9	117	12.0	26	12.0	46	12.5	969	12.9
Bullheads	...	...	236	10.3	1	11.0	10	11.1	169	9.0	1	10.0	9	12.9	21	10.5	22	10.6	121	7.2	180	7.5	770	8.9
Brook trout	29	9.6	...	...	...	...	2	8.0	33	8.9	...	...	...	...	...	...	...	...	3	7.7	...	...	67	9.1
Rainbow trout	...	...	2	21.3	3	19.5	12	9.8	1	12.0	...	...	...	...	...	...	...	...	...	...	6	8.5	24	11.7
Brown trout	...	...	...	...	...	...	9	8.1	5	9.4	1	18.0	...	...	...	...	...	...	...	...	...	...	15	9.2
Smelt	...	...	21	7.5	...	...	1796	9.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,817	9.7
Redhorse	...	...	...	...	...	...	2	20.5	...	...	2	19.0	2	15.0	...	...	...	...	...	...	...	...	6	18.2
Warmouth bass	...	...	...	...	...	...	10	7.4	2	15.5	...	...	...	...	...	...	1	7.0	17	7.0	1	6.5	31	7.7
Carp	...	...	...	...	...	...	...	1	24.0	...	...	...	...	3	16.0	207	12.3	13	21.5	855	11.2	1,079	11.6	
Herring	...	...	2	12.0	...	...	2	11.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	11.5
White bass	...	...	...	...	...	...	...	...	...	...	...	...	1	10.0	...	...	...	...	...	...	...	...	1	10.0
Garpike	...	...	...	...	...	...	...	...	...	...	...	...	1	24.0	...	...	...	...	...	...	...	...	1	24.0
Sheepshead	...	...	...	...	...	...	...	...	...	...	...	...	2	20.0	...	...	...	...	...	...	...	...	2	20.0
Whitefish	...	...	...	...	1	23.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	23.0
Lake trout	2	27.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	27.0
Other species	...	...	...	...	...	...	9	9.3	87	3.0	...	...	...	...	30	7.2	8	5.0	...	...	...	...	134	4.5
Total	2490	14.8	5558	10.2	742	10.5	10256	9.1	11622	8.4	550	11.9	10947	8.2	10212	8.2	11900	8.0	6208	7.7	8163	8.4	78,653*	8.7-weighted average

* This total plus 21, which is number of fish with no given size, equals 78,674.
This group includes shiners, chubs and cisco.

Comparison of Resident and Non-resident Anglers

Data on the relative take by residents and non-residents were compiled by hatchery districts and are recorded in Table 14. The records indicate that residents were slightly the better so far as catching numbers of fish is concerned.

Table 14

Comparison of resident and non-resident anglers for all waters

District No.	No. of fishermen		No. or hours		No. of fish caught		Catch per hour	
	Resident	Non-resident	Resident	Non-resident	Resident	Non-resident	Resident	Non-resident
1	1,657	274	5,138.75	1,112.50	4,158	626	0.8	0.6
2	1,292	363	4,817.50	1,580.50	6,063	1,436	1.3	0.8
3	758	136	3,100.00	562.00	2,483	339	0.8	0.6
4	2,289	831	6,177.75	2,032.75	9,307	2,129	1.5	1.0
5	2,517	732	6,663.75	1,928.00	9,343	2,891	1.4	1.5
6	239	15	752.50	66.75	670	62	0.9	0.9
7	3,016	506	8,902.25	1,133.75	12,243	1,548	1.4	1.4
8	1,361	118	4,956.25	549.25	9,495	797	1.9	1.5
9	993	309	3,328.75	1,148.50	9,924	1,979	3.0	1.7
10	948	38	3,254.75	104.50	6,040	179	1.9	1.7
11	1,061	37	3,828.00	103.50	8,016	152	2.1	1.5
Total	16,151	3,359	50,920.25	10,622	77,742	12,138	Weighted 1.5 Simple 1.5	1.1 1.2

The percentage of fishing by non-residents is shown by hatchery districts in Table 15.

Table 15

The percentage of fishing by non-residents

District	Per cent of anglers who were non-residents
1	14
2	22
3	15
4	27
5	23
6	6
7	14
8	8
9	24
10	
11	4
Total	17

From the data obtained, it can be seen that the greatest percentage of non-resident fishermen tested their skill in hatchery district 4, followed in order in the number of non-resident fishermen by districts 9, 5 and 2. Non-resident fishermen represented 17% of the anglers for the state as a whole. This figure is identical with that for 1936 (Table 15).

Of the records for trout waters, 7% were for non-residents. On non-trout waters 20% were for non-residents. Lake fishing apparently was more attractive to the visitors than trout fishing. Compared with the residents, the non-residents were relatively more successful on lakes than on trout streams. The catch per hour of residents and non-residents on non-trout waters was 1.8 and 1.2 respectively; on trout waters 0.8 and 0.6 respectively.

Comparison of Males and Females as Anglers

Table 16 shows the comparison of male and female anglers for all waters by hatchery districts.

Table 16

Comparison of male and female anglers for all waters by hatchery districts

District No.	No. of fishermen		No. of hours		No. of fish caught		Catch per hour	
	Male	Female	Male	Female	Male	Female	Male	Female
1	1,834	97	5,934.00	317.25	4,578	206	0.8	0.6
2	1,507	148	5,913.00	785.00	7,033	466	1.2	0.6
3	842	52	3,466.00	196.00	2,723	99	0.8	0.5
4	2,758	362	7,424.00	786.50	10,418	1,018	1.4	1.3
5	3,026	223	8,087.25	505.00	11,531	703	1.4	1.4
6	239	15	769.75	49.50	654	78	0.8	1.6
7	3,257	265	9,341.00	695.00	12,737	1,054	1.4	1.5
8	1,397	82	5,177.00	328.00	9,751	541	1.9	1.6
9	1,228	74	4,217.75	259.50	11,120	763	2.6	3.0
10	937	49	3,225.00	134.25	5,972	247	1.9	1.8
11	1,022	96	3,604.75	326.75	7,556	612	2.1	1.9
Total	18,047	1,463	57,159.50	4,382.75	84,073	5,807	Weighted 1.5	1.3
							Simple 1.5	1.3

Assuming the data to be representative, 7.5% of the anglers are females. The catch per hour on all waters was for women 1.3, and the catch per hour for men 1.5.

On the lakes, women averaged 1.4 fish per hour, and the men averaged 1.7 fish per hour.

On streams the women averaged 0.5 fish per hour against the men's average of 0.8 fish per hour.

The women showed a preference for lake fishing. On non-trout waters the women represented 9% of the anglers. It is interesting to note that the percentage of women anglers on the lakes has increased 1% each year since 1935, being 7% in 1935, 8% in 1936, and 9% in 1937.

The percentage of women on trout waters was 4% in 1937. This percentage of women on trout waters has remained almost constant over this same three year period, being 4.5 % in 1935, 4% in 1936, and 4% in 1937.

Comparison of the Fishing for the Three Year Period--
1935 - 1936 - 1937

Table 17 gives the comparative data for these three years. The data for 1935 were compiled by lakes and streams; those for 1936 and 1937 by trout and non-trout waters. With relatively few exceptions, however, the two are comparable, streams and trout waters being almost identical.

Table 17

Comparison of the Fishing, 1935, 1936 and 1937

	1935	1936	1937
Catch per hour--all waters	1.5	1.4	1.5
Catch per hour--resident, all waters	1.6	1.4	1.5
Catch per hour--non-resident, all waters	1.4	1.2	1.1
Catch per hour--male anglers, all waters	1.5	1.4	1.5
Catch per hour--female anglers, all waters	1.4	1.4	1.3
Catch per hour--trout waters	0.8	0.8	0.8
Catch per hour--resident, trout waters	0.8	0.8	0.8
Catch per hour--non-resident, trout waters	1.1	0.5	0.6
Catch per hour--male anglers, trout waters	0.9	0.8	0.8
Catch per hour--female anglers, trout waters	0.5	0.5	0.5
Catch per hour--non-trout waters	1.9	1.7	1.7
Catch per hour--residents, non-trout waters	2.0	1.7	1.8
Catch per hour--non-residents, non-trout waters	1.4	1.4	1.2
Catch per hour--male anglers, non-trout waters	1.9	1.7	1.7
Catch per hour--female anglers, non-trout waters	1.7	1.6	1.4
Per cent of trout fishermen represented by non-residents	9.0	8.5	7.0
Per cent of non-trout fishermen, non-residents	14	20	20
Percentage of all fishermen represented by female anglers	6	7	7.5
Percentage of trout fishermen represented by female anglers	4.5	4	4
Percentage of non-trout fishermen represented by female anglers	7	8	9
Average size of fish caught (inches):			
All fish	8.7	8.4	8.8
Brock Trout	8.6*	8.6**	8.3**
Rainbow Trout	12.1	9.7	10.5
Brown Trout	10.0	10.4	10.5
Northern Pike	21.4	19.7	20.6
Large-mouthed Bass	14.0	13.2	13.0
Small-mouthed Bass	13.0	13.0	12.7
Bluegills	7.4	7.4	7.5
Perch	8.1	8.0	8.2

* Unweighted

** Weighted

With a few exceptions, the data for the three years are very much alike, suggesting that the data are relatively dependable, and that fishing was equally good in 1935, 1936, and 1937.

INSTITUTE FOR FISHERIES RESEARCH

By O. H. Clark

APPENDIX TO REPORT ON GENERAL CREEEL CENSUS, 1937

Tables 1 through 7 - Data listed by counties.

Some of the data listed by counties are obviously not reliable because of the small number of returns.

Table 8 - Residence of all anglers.

Table 9 - Non-trout waters and trout waters.

Table 10 - Hatchery district map.

TABLE I

Number of Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, By Counties

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	3	24	12.00	2.0
Alger	91	347	309.00	1.1
Allegan	86	657	256.00	2.6
Alpena	...	...	...	...
Antrim	68	323	309.75	1.0
Arenac	81	111	206.50	0.5
Barry	117	1332	429.00	3.1
Baraga	231	789	781.00	1.0
Bay	...	...	...	...
Benzie	935	3680	2552.50	1.4
Berrien	...	...	...	...
Branch	586	7991	1730.25	4.6
Calhoun	49	751	225.00	3.3
Cass	40	408	116.00	3.5
Charlevoix	37	182	109.25	1.7
Cheboygan	670	1776	2760.00	0.6
Chippewa	370	1943	1469.00	1.3
Clare	144	256	429.50	0.6
Clinton	55	200	171.25	1.2
Crawford	10	49	63.00	0.8
Delta	504	1817	1539.50	1.2
Dickinson	92	250	296.00	0.8
Eaton	200	684	728.00	0.9
Emmet	74	380	273.25	1.4
Genesee	40	364	139.50	2.6
Gladwin	513	750	1179.25	0.6
Gogebic	597	1227	2200.75	0.6
Grand Traverse	299	1291	859.25	1.5
Gratiot	...	...	...	...
Hillsdale	369	1216	1506.50	0.8
Houghton	152	715	435.25	1.6
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	170	597	600.75	0.99
Ionia	142	499	384.75	1.3
Iron	398	1321	1387.50	0.95
Isabella	306	1416	1285.50	1.1
Jackson	620	3452	1977.25	1.7
Kalamazoo	46	440	195.50	2.3
Kalkaska	3	11	6.50	1.7
Kent	757	4461	2612.00	1.7
Keweenaw	38	126	221.50	0.6
Lake	706	2297	2039.00	1.1
Lapeer	154	2279	714.75	3.2
Leelanau	546	2308	1128.25	2.0
Lenawee	...	...	...	...
Livingston	120	1420	512.25	2.8
Luce	118	623	545.25	1.1
Mackinac	103	818	487.00	1.7

TABLE I (Continued)

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Macomb	...	...	...	...
Manistee	413	2250	1257.00	1.8
Marquette	190	639	1227.00	0.5
Mason	550	1360	1181.25	1.2
Mecosta	3	17	12.00	1.4
Menominee	87	441	454.00	0.97
Midland	296	952	514.00	1.9
Missaukee	46	33	138.75	0.2
Monroe	...	...	...	...
Montcalm	115	479	435.00	1.1
Montmorency	516	3245	1372.00	2.4
Muskegon	410	4653	1902.00	2.4
Newaygo	557	2848	1460.50	1.95
Oakland	4	...	20.50	...
Oceana	700	2982	2054.50	1.5
Ogemaw	411	1905	1533.00	1.2
Ontonagon	515	606	1225.25	0.5
Otsego	45	161	209.75	0.8
Ottawa	...	...	...	...
Osceola	556	2615	1573.75	1.7
Oscoda	327	675	1306.50	0.5
Presque Isle	...	...	...	...
Roscommon	1176	4658	2624.50	1.8
Saginaw	4	...	2.00	...
St. Clair	...	...	...	...
St. Joseph	43	144	180.50	0.8
Sanilac	...	...	...	...
Schoolcraft	100	621	371.25	1.7
Shiawassee	21	190	83.00	2.3
Tuscola	...	...	...	...
Van Buren	132	1047	492.50	2.1
Washtenaw	435	2649	1293.75	2.0
Wayne	340	1266	1165.75	1.1
Wexford	878	1863	2268.25	0.8
Total	19,510	89,830	61,542.25	1.5

TABLE II

Number of Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, For All Fishermen, Trout Waters, By Counties

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	2	21	11.0	1.9
Alger	32	59	95.0	0.6
Allegan	3	3	6.0	0.5
Alpena	...	...	...	...
Antrim	38	209	223.25	0.9
Arenac	81	111	206.50	0.5
Barry	4	11	13.0	0.8
Baraga	190	673	636.25	1.1
Bay	...	...	...	...
Benzie	148	243	504.50	0.5
Berrien	...	...	...	...
Branch	...	...	...	...
Calhoun	...	...	...	...
Cass	...	...	...	...
Charlevoix	9	51	39.25	1.3
Cheboygan	584	1560	2514.75	0.6
Chippewa	73	113	233.00	0.5
Clare	63	62	259.75	0.2
Clinton	...	...	...	...
Crawford	10	49	63.00	0.8
Delta	263	577	810.25	0.7
Dickinson	82	243	271.50	0.9
Eaton	...	...	...	...
Emmet	22	99	84.75	1.2
Genesee	...	...	...	...
Gladwin	76	66	291.25	0.2
Gogebic	80	191	288.00	0.7
Grand Traverse	96	294	306.50	0.96
Gratiot	...	...	...	...
Hillsdale	...	...	...	...
Houghton	144	670	415.25	1.6
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	16	49	54.00	0.9
Ionia	7	3	14.00	0.2
Iron	161	403	391.00	1.0
Isabella	6	35	26.00	1.3
Jackson	...	...	...	...
Kalamazoo	...	...	...	...
Kalkaska	3	11	6.50	1.7
Kent	48	55	154.75	0.4
Keweenaw	38	126	221.50	0.6
Lake	434	1036	1343.00	0.8
Lapeer	...	...	...	...
Leelanau	38	60	101.00	0.6
Lenawee	...	...	...	...
Livingston	...	...	...	...
Luce	69	342	318.50	1.1
Mackinaw	2	26	12.00	2.2
Macomb	...	...	...	...

TABLE II (Continued)

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	109	403	346.00	1.2
Marquette	36	270	157.00	1.7
Mason	86	154	251.50	0.6
Mecosta	3	17	12.00	1.4
Menominee	19	59	71.00	0.8
Midland	...	...	...	...
Missaukee	...	...	...	...
Monroe	...	...	...	...
Montcalm	...	...	...	...
Montmorency	9	19	37.00	0.5
Muskegon	3	10	9.00	1.1
Newaygo	287	624	690.25	0.9
Oakland	...	...	...	...
Oceana	63	231	280.25	0.8
Ogemaw	36	183	148.50	1.2
Ontonagon	59	231	153.50	1.5
Otsego	45	161	209.75	0.8
Ottawa	...	...	...	...
Osceola	287	683	915.50	0.7
Oscoda	234	289	921.00	0.3
Presque Isle	...	...	...	...
Roscommon	...	...	...	...
Saginaw	...	...	...	...
St. Clair	...	...	...	...
St. Joseph	...	...	...	...
Sanilac	...	...	...	...
Schoolcraft	45	252	156.25	1.6
Shiawassee	...	...	...	...
Tuscola	...	...	...	...
Van Buren	...	...	...	...
Washtenaw	...	...	...	...
Wayne	...	...	...	...
Wexford	114	169	381.25	0.4
Total	4257	11,206	14,654.75	0.8

TABLE III

Number of Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, Non-trout Waters, By Counties

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	1	3	1.0	3.0
Alger	59	288	214.0	1.3
Allegan	83	654	250.0	2.6
Alpena	...	...	...	...
Antrim	30	114	86.5	1.3
Arenac	...	...	...	...
Barry	113	1321	416.0	3.2
Baraga	41	116	144.75	0.8
Bay	...	...	...	...
Benzie	787	3437	2048.0	1.7
Berrien	...	...	...	...
Branch	586	7991	1730.25	4.6
Calhoun	49	751	225.0	3.3
Cass	40	408	116.0	3.5
Charlevoix	28	131	70.0	1.9
Cheboygan	86	216	245.25	0.9
Chippewa	297	1830	1236.00	1.5
Clare	81	194	169.75	1.1
Clinton	55	200	171.25	1.2
Crawford	...	...	...	...
Delta	241	1240	729.25	1.7
Dickinson	10	7	24.50	0.3
Eaton	200	684	728.0	0.9
Emmet	52	281	188.5	1.5
Genesee	40	364	139.50	2.6
Gladwin	437	684	888.0	0.8
Gogebic	517	1036	1912.75	0.5
Grand Traverse	203	997	552.75	1.8
Gratiot	...	...	...	...
Hillsdale	369	1216	1506.50	0.8
Houghton	8	45	20.00	2.3
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	154	548	546.75	1.0
Ionia	135	496	370.75	1.3
Iron	237	918	996.50	0.9
Isabella	300	1381	1259.50	1.1
Jackson	620	3452	1977.25	1.7
Kalamazoo	46	440	195.50	2.3
Kalkaska	...	...	...	...
Kent	709	4406	2457.25	1.8
Keweenaw	...	...	...	...
Lake	272	1261	696.00	1.8
Lapeer	154	2279	714.75	3.2
Leelanau	508	2248	1027.25	2.2
Lenawee	...	...	...	...
Livingston	120	1420	512.25	2.8
Luce	49	281	226.75	1.2
Mackinac	101	792	475.00	1.7
Macomb	...	...	...	...

TABLE III (Continued)

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	304	1847	911.00	2.0
Marquette	154	369	1070.00	0.3
Mason	464	1206	929.75	1.3
Mecosta	...	...	...	...
Menominee	68	382	383.00	1.0
Midland	296	952	514.00	1.9
Missaukee	46	33	138.75	0.2
Monroe	...	...	...	...
Montcalm	115	479	435.00	1.1
Montmorency	507	3226	1335.00	2.4
Muskegon	407	4643	1893.00	2.5
Newaygo	270	2224	770.25	2.9
Oakland	4	...	20.50	...
Oceana	637	2751	1774.25	1.6
Ogemaw	375	1722	1384.50	1.2
Ontonagon	456	375	1071.75	0.3
Otsego	...	...	...	...
Ottawa	...	...	...	...
Osceola	269	1932	658.25	2.9
Oscoda	93	386	385.50	1.0
Presque Isle	...	...	...	...
Roscommon	1176	4658	2624.50	1.8
Saginaw	4	...	2.00	...
St. Clair	...	...	...	...
St. Joseph	43	144	180.50	0.8
Sanilac	...	...	...	...
Schoolcraft	55	369	215.00	1.7
Shiawassee	21	190	83.00	2.3
Tuscola	...	...	...	...
Van Buren	132	1047	492.50	2.1
Washtenaw	435	2649	1293.75	2.0
Wayne	340	1266	1165.75	1.1
Wexford	764	1694	1387.00	0.9
Total	15,253	78,674	46,887.50	1.7

TABLE IV

Number of Resident Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, Non-trout Waters, By Counties

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	1	3	1.0	3.0
Alger	37	131	119.0	1.1
Allegan	71	592	201.0	2.9
Alpena	...	...	...	...
Antrim	28	100	80.5	1.2
Arenac	...	...	...	...
Barry	109	1286	406.0	3.2
Baraga	33	77	112.75	0.7
Bay	...	...	...	...
Benzie	400	2708	1196.0	2.3
Berrien	...	...	...	...
Branch	461	6704	1373.25	4.9
Calhoun	49	751	225.0	3.3
Cass	27	303	74.0	4.1
Charlevoix	20	111	49.0	2.3
Cheboygan	53	167	136.25	1.2
Chippewa	211	1457	981.0	1.5
Clare	56	144	125.75	1.1
Clinton	55	200	171.25	1.2
Crawford	...	...	...	...
Delta	215	1173	655.25	1.8
Dickinson	10	7	24.50	0.3
Eaton	197	632	712.0	0.9
Emmet	44	227	151.0	1.5
Genesee	40	364	139.5	2.6
Gladwin	429	647	870.0	0.7
Gogebic	328	756	1153.25	0.7
Grand Traverse	126	687	328.75	2.1
Gratiot	...	...	...	...
Hillsdale	283	1060	1108.50	0.96
Houghton	8	48	20.00	2.3
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	140	487	482.75	1.0
Ionia	135	496	370.75	1.3
Iron	176	651	722.00	0.9
Isabella	288	1313	1209.5	1.1
Jackson	589	3360	1898.75	1.8
Kalamazoo	46	440	195.50	2.3
Kalkaska	...	...	...	...
Kent	606 696	4315	2412.0	1.8
Keweenaw	...	...	...	...
Lake	193	1049	534.75	2.0
Lapeer	154	2279	714.75	3.2
Leelanau	391	1960	800.00	2.5
Lenawee	...	...	...	...
Livingston	119	1408	509.25	2.8
Luce	32	172	138.25	1.2
Mackinaw	85	629	347.00	1.8
Macomb	...	...	...	...

TABLE IV (Continued)

County	Number of anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	194	1340	614.25	2.2
Marquette	19	90	74.50	1.2
Mason	301	786	599.75	1.3
Mecosta	...	...	...	...
Menominee	65	357	369.00	0.97
Midland	295	952	512.50	1.9
Missaukee	44	24	134.75	0.2
Monroe	...	...	...	...
Montcalm	115	479	435.00	1.1
Montmorency	405	2684	1056.25	2.5
Muskegon	302	3937	1389.00	2.8
Newaygo	253	2164	719.75	3.0
Oakland	4	...	20.50	...
Oceana	509	2363	1467.00	1.6
Ogemaw	257	1295	957.00	1.4
Ontonagon	453	373	1065.75	0.3
Otsego	...	...	...	...
Ottawa	...	...	...	...
Osceola	243	1660	583.75	2.8
Oscoda	61	171	219.00	0.8
Presque Isle	...	...	...	...
Roscommon	726	3033	1666.75	1.8
Saginaw	4	...	2.00	...
St. Clair	...	...	...	...
St. Joseph	3	7	5.50	1.3
Sanilac	...	...	...	...
Schoolcraft	40	264	154.50	1.7
Shiawassee	19	164	74.00	2.2
Tuscola	...	...	...	...
Van Buren	99	815	365.00	2.2
Washtenaw	401	2535	1202.25	2.1
Wayne	340	1266	1165.75	1.1
Wexford	713	1555	1745.00	0.9
Total	12,200	67,205	37,348.25	1.8

TABLE V

Number of Non-resident Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, Non--trout Waters, By Counties

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	...	...	...	...
Alger	22	157	95.0	1.7
Allegan	12	62	49.0	1.3
Alpena	...	...	...	...
Antrim	2	14	6.0	2.3
Arenac	...	...	...	...
Barry	4	35	10.0	3.5
Baraga	8	39	32.0	1.2
Bay	...	...	...	...
Benzie	387	729	852.0	0.9
Berrien	...	...	...	...
Branch	125	1287	357.0	3.6
Calhoun	...	...	...	...
Cass	13	105	42.0	2.5
Charlevoix	8	20	21.0	0.95
Cheboygan	33	49	109.0	0.4
Chippewa	86	373	255.0	1.5
Clare	25	50	44.0	1.1
Clinton	...	...	...	...
Crawford	...	...	...	...
Delta	26	67	74.00	0.9
Dickinson	...	...	...	...
Eaton	3	52	16.0	3.3
Emmet	8	54	37.5	1.4
Genesee	...	...	...	...
Gladwin	8	37	18.0	2.1
Gogebic	189	280	759.5	0.4
Grand Traverse	77	310	224.0	1.4
Gratiot	...	...	...	...
Hillsdale	86	156	398.0	0.4
Houghton	...	...	...	...
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	14	61	64.0	0.95
Ionia	...	...	...	...
Iron	61	267	274.50	0.97
Isabella	12	68	50.0	1.4
Jackson	31	92	78.5	1.2
Kalamazoo	...	...	...	...
Kalkaska	...	...	...	...
Kent	13	91	45.25	2.0
Keweenaw	...	...	...	...
Lake	79	212	161.25	1.3
Lapeer	...	...	...	...
Leelanau	117	288	227.25	1.3
Lenawee	...	...	...	...
Livingston	1	12	3.00	4.0
Luce	17	109	88.5	1.2
Mackinaw	16	163	128.0	1.3
Macomb	...	...	...	...

TABLE V (Continued)

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	110	507	296.75	1.7
Marquette	135	279	995.50	0.3
Mason	163	420	330.0	1.3
Mecosta	...	...	...	...
Menominee	3	25	14.0	1.8
Midland	1	0	1.5	...
Missaukee	2	9	4.0	2.3
Monroe	...	...	...	...
Montcalm	...	...	...	...
Montmorency	102	542	278.75	1.9
Muskegon	105	706	504.0	1.4
Newaygo	17	60	50.5	1.2
Oakland	...	...	...	...
Oceana	128	388	307.25	1.3
Ogemaw	118	427	427.5	1.0 or 0.99
Ontonagon	3	2	6.0	0.3
Otsego	...	...	...	...
Ottawa	...	...	...	...
Osceola	26	272	74.5	3.7
Oscoda	32	215	166.5	1.3
Presque Isle	...	...	...	...
Roscommon	450	1625	957.75	1.7
Saginaw	...	...	...	...
St. Clair	...	...	...	...
St. Joseph	40	137	175.0	0.8
Sanilac	...	...	...	...
Schoolcraft	15	105	60.5	1.7
Shiawasee	2	26	9.0	2.9
Tuscola	...	...	...	...
Van Buren	33	232	127.5	1.8
Washtenaw	34	114	91.5	1.2
Wayne	...	...	...	...
Wexford	51	139	142.0	0.98
Total	3,053	11,469	9,539.25	1.2

TABLE VI

Number of Resident Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, Trout Waters, By Counties

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	2	21	11.0	1.9
Alger	32	59	95.0	0.6
Allegan	3	3	6.0	0.5
Alpena	...	...	...	...
Antrim	38	209	223.25	0.9
Arenac	80	110	203.75	0.5
Barry	4	11	13.0	0.8
Baraga	186	660	623.75	1.1
Bay	...	...	...	...
Benzie	125	220	446.5	0.5
Berrien	...	...	...	...
Branch	...	...	...	...
Calhoun	...	...	...	...
Cass	...	...	...	...
Charlevoix	9	51	39.25	1.3
Cheboygan	501	1363	2134.25	0.6
Chippewa	73	113	233.0	0.5
Clare	63	62	259.75	0.2
Clinton	...	...	...	...
Crawford	10	49	63.0	0.8
Delta	250	569	762.75	0.7
Dickinson	73	238	238.5	1.0
Eaton	...	...	...	...
Emmet	20	94	76.75	1.2
Genesee	...	...	...	...
Gladwin	76	66	291.25	0.2
Gogebic	75	168	271.0	0.6
Grand Traverse	58	225	154.0	1.5
Gratiot	...	...	...	...
Hillsdale	...	...	...	...
Houghton	144	670	415.25	1.6
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	16	49	54.0	0.9
Ionia	7	3	14.0	0.2
Iron	159	403	384.0	1.0
Isabella	6	35	26.0	1.3
Jackson	...	...	...	...
Kalamazoo	...	...	...	...
Kalkaska	3	11	6.5	1.7
Kent	48	55	154.75	0.4
Keweenaw	38	126	221.5	0.6
Lake	408	999	1287.75	0.8
Lapeer	...	...	...	...
Leelanau	38	60	101.00	0.6
Lenawee	...	...	...	...
Livingston	...	...	...	...
Luce	66	319	303.5	1.1
Mackinac	2	26	12.0	2.2
Macomb	...	...	...	...

TABLE VI (Continued)

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	93	379	308.0	1.2
Marquette	28	238	114.0	2.1
Mason	83	149	239.5	0.6
Mecosta	3	17	12.0	1.4
Menominee	17	50	63.0	0.8
Midland	...	...	...	...
Missaukee	...	...	...	...
Monroe	...	...	...	...
Montcalm	...	...	...	...
Montmorency	9	19	37.0	0.5
Muskegon	3	10	9.0	1.1
Newaygo	271	605	670.25	0.9
Oakland	...	...	...	...
Oceana	56	216	260.25	0.8
Ogemaw	35	170	140.5	1.2
Ontonagon	57	229	149.5	1.5
Otsego	45	161	209.75	0.8
Ottawa	...	...	...	...
Osceola	283	681	906.5	0.8
Oscoda	214	257	851.0	0.3
Presque Isle	...	...	...	...
Roscommon	...	...	...	...
Saginaw	...	...	...	...
St. Clair	...	...	...	...
St. Joseph	...	...	...	...
Sanilac	...	...	...	...
Schoolcraft	37	171	132.75	1.3
Shiawassee	...	...	...	...
Tuscola	...	...	...	...
Van Buren	...	...	...	...
Washtenaw	...	...	...	...
Wayne	...	...	...	...
Wexford	104	138	343.0	0.4
Total	3,951	10,537	13,572.0	0.8

TABLE VII

Number of Non-resident Fishermen Contacted, Hours Fished, Number of Legal-sized Fish Caught, and Catch Per Hour, Trout Waters, By Counties

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Alcona	...	...	...	...
Alger	...	...	...	...
Allegan	...	...	...	...
Alpena	...	...	...	...
Antrim	...	...	...	...
Arenac	1	1	2.75	0.4
Barry	...	...	...	...
Baraga	4	13	12.5	1.0
Bay	...	...	...	...
Benzie	23	23	58.0	0.4
Berrien	...	...	...	...
Branch	...	...	...	...
Calhoun	...	...	...	...
Cass	...	...	...	...
Charlevoix	...	...	...	...
Cheboygan	83	197	380.5	0.5
Chippewa	...	...	...	...
Clare	...	...	...	...
Clinton	...	...	...	...
Crawford	...	...	...	...
Delta	13	8	47.5	0.2
Dickinson	9	5	33.0	0.2
Eaton	...	...	...	...
Emmet	2	5	8.0	0.6
Genesee	...	...	...	...
Gladwin	...	...	...	...
Gogebic	5	23	17.0	1.4
Grand Traverse	38	69	152.5	0.5
Gratiot	...	...	...	...
Hillsdale	...	...	...	...
Houghton	...	...	...	...
Huron	...	...	...	...
Ingham	...	...	...	...
Iosco	...	...	...	...
Ionia	...	...	...	...
Iron	2	...	7.0	...
Isabella	...	...	...	...
Jackson	...	...	...	...
Kalamazoo	...	...	...	...
Kalkaska	...	...	...	...
Kent	...	...	...	...
Keweenaw	...	...	...	...
Lake	26	37	55.25	0.7
Lapeer	...	...	...	...
Leelanau	...	...	...	...
Lenawee	...	...	...	...
Livingston	...	...	...	...
Luce	3	23	15.0	1.5
Mackinaw	...	...	...	...
Macomb	...	...	...	...

TABLE VII (Continued)

County	Number of Anglers	Number of fish (legal)	Number of hours fished	Catch per hour
Manistee	16	24	38.0	0.6
Marquette	8	32	43.0	0.7
Mason	3	5	12.0	0.4
Mecosta	...	...	...	...
Menominee	2	9	8.0	1.1
Midland	...	...	...	...
Missaukee	...	...	...	...
Monroe	...	...	...	...
Montcalm	...	...	...	...
Montmorency	...	...	...	...
Miskégon	...	...	...	...
Newaygo	16	19	20.0	0.95
Oakland	...	...	...	...
Oceana	7	15	20.0	0.8
Ogemaw	1	13	8.0	1.6
Ontonagon	2	2	4.0	0.5
Otsego	...	...	...	...
Ottawa	...	...	...	...
Osceola	4	2	9.0	0.2
Oscoda	20	32	70.0	0.5
Presque Isle	...	...	...	...
Roscommon	...	...	...	...
Saginaw	...	...	...	...
St. Clair	...	...	...	...
St. Joseph	...	...	...	...
Sanilac	...	...	...	...
Schoolcraft	8	81	23.5	3.4
Shiawassee	...	...	...	...
Tuscola	...	...	...	...
Van Buren	...	...	...	...
Washtenaw	...	...	...	...
Wayne	...	...	...	...
Wexford	10	31	38.25	0.8
Total	306	669	1,082.75	0.6

TABLE VIII
Residence of All Anglers

Resident Anglers		Non-resident Anglers	
County	No.	County	No.
Alcona	5	Manistee	279
Alger	51	Marquette	69
Allegan	70	Mason	260
Alpena	5	Mecosta	78
Antrim	25	Menominee	69
Arenac	41	Midland	244
Barry	119	Missaukee	42
Baraga	143	Monroe	29
Bay	120	Montcalm	240
Benzie	191	Montmorency	117
Berrien	90	Muskegon	441
Branch	332	Newaygo	287
Calhoun	238	Oakland	260
Cass	32	Oceana	190
Charlevoix	24	Ogemaw	59
Cheboygan	254	Ontonagon	317
Chippewa	154	Otsego	29
Clare	55	Ottawa	60
Clinton	42	Osceola	290
Crawford	6	Oscoda	14
Delta	411	Presque Isle	8
Dickinson	133	Roscommon	84
Eaton	112	Saginaw	407
Emmet	63	St. Clair	7
Genesee	633	St. Joseph	19
Gladwin	120	Sanilac	13
Gogebic	485	Schoolcraft	59
Grand Traverse	264	Shiawassee	50
Gratiot	120	Tuscola	22
Hillsdale	282	Van Buren	40
Houghton	209	Washtenaw	250
Huron	17	Wayne	1847
Ingham	549	Wexford	501
Iosco	12		
Ionia	190	Total	16,151
Iron	389		
Isabella	238		
Jackson	687		
Kalamazoo	254		
Kalkaska	4		
Kent	1496		
Keweenaw	32		
Lake	156		
Lapeer	67		
Leelanau	233		
Lenawee	43		
Livingston	52		
Luce	83		
Mackinaw	87		
Macomb	52		

States	No.
Arkansas	4
California	6
Colorado	1
Connecticut	2
Delaware	1
Florida	6
Illinois	628
Indiana	662
Iowa	3
Kansas	5
Kentucky	16
Maryland	2
Massachusetts	2
Minnesota	3
Mississippi	2
Missouri	30
Nebraska	2
New Jersey	4
New York	21
Ohio	1764
Oklahoma	2
Pennsylvania	35
Texas	2
Virginia	3
Washington	1
Washington, D. C.	3
West Virginia	18
Wisconsin	129
	<u>3357</u>

<u>Foreign Nations</u>	
Canada	1
Sweden	1
	<u>2</u>

TABLE IX

Hatchery Districts - Non-Trout Waters

District Number	Number of Fish	Number of Hours	Catch per Hour
1	2,490	4,145.75	0.6
2	5,558	4,573.50	1.2
3	742	590.25	1.3
4	10,256	6,564.75	1.6
5	11,628	7,131.50	1.6
6	551	547.75	1.0
7	10,949	6,257.75	1.7
8	10,224	5,327.25	1.9
9	11,900	4,471.25	2.7
10	6,208	3,346.25	1.9
11	8,168	3,931.50	2.1
Total	78,674	46,887.50	1.7

Hatchery Districts - Trout Waters

District Number	Number of Fish	Number of Hours	Catch per Hour
1	2,294	2,105.50	1.1
2	1,941	2,124.50	0.9
3	2,080	3,071.75	0.7
4	1,180	1,645.75	0.7
5	606	1,460.75	0.4
6	181	271.50	0.7
7	2,842	3,778.25	0.8
8	68	177.75	0.4
9	3	6.00	0.5
10	11	13.00	0.8
11
Total	11,206	14,654.75	0.8



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