INSTITUTE FOR FISHERIES RESEARCH

DIVISION OF FISHERIES MICHIGAN DEPARTMENT OF CONSERVATION COOPERATING WITH THE UNIVERSITY OF MICHIGAN

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Report No. 1505

REPORT OF THE GENERAL CREEL CENSUS FOR 1955

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This is the twenty-ninth year of the General Creel Census in Michigan. Conservation officers obtained the census records as a part of their regular duties. Creel records from special research projects of the Fish Division are not included.

The purpose of the census is to obtain a sample of the sport fishing in the state. During 1955, the officers obtained records on 62,382 angler trips. The records have been divided into three major categories--trout, non-trout, and Great Lakes waters--and each category has been subdivided into lakes and streams. The numbers of anglers interviewed were as follows: (1) <u>trout waters</u>, 9,056 (15% of all anglers contacted), of whom 992 fished on designated trout lakes and special trout ponds and the remaining 8,064 fished on streams; (2) <u>non-trout waters</u>, 43,730 (70%), of whom 38,007 fished on lakes and 5,723 fished on streams; (3) <u>Great Lakes waters</u>, 9,596 (15%), of whom 5,573 fished in the Great Lakes and 4,023 fished in the connecting waters.

Of the 62,382 anglers interviewed, 7,940 (13%) were non-residents; 10,108 (16%) were women. For comparison with number of officer interviews, total sale of fishing licenses in 1955 was 1,156,369, of which 278,192 (24%)

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were non-resident. Of the non-resident licenses, 134,956 (12% of all fishing licenses sold) were temporary or 15-day licenses. Officers contacted relatively fewer non-residents, probably because (1) the 15-day licensee fishes only a few days, and (2) non-residents cannot fish through the ice in six southern Michigan counties after January 1.

Officers contacted anglers either while an angler was fishing, or at the end of a fishing trip. Thus, the census is a partial record on 62,000 angling days, not a complete record. The record is for angling days, not for 62,000 separate individuals. Only legal-size fish caught by sport fishermen are considered.

Detailed Analysis

The 62,382 anglers contacted by conservation officers during 1955 (11% less than in 1954) had fished 146,556.7 hours and had caught 215,660 fish. The average catch per hour for all fishing was 1.5, the same as in 1954 (Table 1).

Creel records were obtained for angling during 1955 in 79 counties (Table 2). There were no records for Calhoun, Eaton, Jackson and Lenawee; these counties have mainly non-trout waters. The lack of fishing records from four counties and the paucity of records from a few others tend to bias the statewide sample of fishing.

In this report the various types of waters are separated by Conservation Districts (Fig. 1). Data from Alger County (which is in both Districts 3 and 4) have been separated according to the district to which the reporting officer has been assigned.

Fishing in Trout, Non-Trout, and Great

Lakes Waters, by Conservation Districts

The numbers and percentages of anglers interviewed while fishing in the various waters are given in Table 3. Regions I and II furnished 95 percent

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of all the records on trout fishing; here trout fishing was 21 percent of all fishing. Five percent of all trout fishing was in Region III; and trout fishing was 2 percent of all fishing in Region III.

Trout fishing made up the greatest percentage of all fishing in District 1 (45% of 2,565 anglers), District 3 (40% of 1,296 anglers), and District 4 (37% of 3,199 anglers). In contrast, District 11 had 98 percent non-trout anglers (among 5,940 fisherman-days), District 8 had 94 percent (among 6,246 anglers), and District 10 had 92 percent(of 4,621 fisherman-days).

Officers obtained records on Great Lakes sport fishing for 7 of the 11 districts which border on the Great Lakes or their connecting waters. Officers obtain relatively fewer records for the Great Lakes because fishing is restricted somewhat to sheltered bays, island areas, and docking areas; also because anglers are not required to purchase a fishing license to take many kinds of fish sought in the Great Lakes. More than half of the anglers interviewed in District 12 were fishing Great Lakes waters (57% of 11,816 angler-days); District 9 had 31 percent of 6,662 fisherman-days; and District 4 had 11 percent of 3,199 angler-days.

Number of Trout Caught in Trout

Waters, by Conservation Regions

Of the 19,265 trout reported from trout waters, 95 percent were caught in Regions I and II combined.

The brook trout constituted 56 percent; the rainbow trout, 29 percent; and brown trout, 15 percent of the total trout catch (Table 4). In 1954 these percentages were 69, 20, and 11, respectively.

In 1955, of the 10,877 brook trout reported, 6,368 or 59 percent were caught in Region I, 4,040 or 37 percent in Region II, and 469 or 4 percent in Region III.

The 5,546 rainbow trout taken in 1955 were divided by regions as follows: 4,508 or 81 percent in Region II, 780 or 14 percent in Region I, and 258 or 5 percent in Region III.

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The 2,842 brown trout included: 2,507 or 88 percent in Region II, 219 or 8 percent in Region III, and 116 or 4 percent in Region I.

Other Species Caught in Trout Waters

Brook, brown and rainbow trout constituted 97 percent of all fish taken in trout waters. The numbers of each of 13 other kinds of fish reported from trout waters were:

Suckers	1 3 5	Northern pike	16
Yellow perch	110	Largemouth bass	10
Round whitefish	97	Smallmouth bass	7
Bluegill	70	Lake trout	2
Rock bass	59	Black crappie	1
Walleye	29	Carp	1
Bullheads	16	Total	553

Catch per Hour--Trout Waters,

by Conservation Districts

Trout fishermen had the same fishing success (0.8 fish per hour) as they did in 1954. Trout fishing was best in District 4 where the anglers had a catch per hour of 1.1 trout (Table 5). The fishing quality was better for the designated trout lakes and special trout ponds than for trout streams. However, the majority of the trout fishermen (89%) fished the streams. The highest catches per hour for trout lakes (1.4 trout) and trout streams (1.1 trout) were recorded in District 4.

Composition of Catch--Non-trout Waters,

by Conservation Districts and Regions

Officers recorded 29 kinds of fish from non-trout waters. Bluegills and yellow perch together constituted 67 percent of the catch (Table 6). Other important species recorded were: black crappie, pumpkinseed, northern pike, rock bass, rainbow trout, walleye, largemouth bass and smallmouth bass. The

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above ten species comprised 96 percent of the total catch from non-trout waters (Table 7), and at least 85 percent of the catch in every district. The remaining 19 species made up 4 percent. These 19 species and the numbers of fish recorded were:

American smelt	1,173	Lake whitefish	25
Bullheads	1,043	Freshwater drum	11
Carp	90 3	Redhorse	6
Suckers	831	Bowfin	5
Brook trout	494	Warmouth	4
Catfish	133	White bass	4
Sauger	95	Muskellunge	1
Brown trout	93	Sturgeon	1
Shallowwater cisco	67	Shiner	1
Lake trout	3 9	Total	4,923

Brook, brown and rainbow made up 2 percent of the total catch from nontrout waters.

For non-trout waters, species composition by conservation regions is summarized by two methods: the percentage of the total state catch of each species taken in each region (Table 8), and the percentage of the catch in each region made up by each species (Table 9).

For non-trout waters: the bluegill (43,007 caught) out-ranked all other species in the state as a whole. Region III produced the most bluegills, (56% of total for the state), rainbow trout and largemouth bass. Region II produced the most yellow perch (more than half), pumpkinseeds, northern pike, rock bass, walleyes and smallmouth bass. Together Regions II and III produced over nimetenths of all bluegills and almost three-fourths of all yellow perch. Bluegills and yellow perch together made up 67 percent of the total catch in non-trout waters; 73 percent in Region I, 66 percent in Region II, and 67 percent in Region III. The black crappie was the only other species which made up more than 10 percent of the total catch in any one region (14% in Region III and 10% in Region II).

Catch per Hour--Non-trout Waters,

by Conservation Districts

In 1955 the catch from non-trout waters for the entire state was 1.3 fish per hour, which is the same as that recorded in 1954 (Table 10).

The highest catch per hour (1.9) was recorded in Districts 4 and 8. Eight districts had catches of better than 1.0 fish per hour. Fishing in the non-trout lakes was best in District 8 (1.9 fish per hour), followed by Districts 10, 4 and 2 with 1.8, 1.7 and 1.7 fish per hour, respectively. For non-trout streams District 4 yielded the highest catch per hour (3.5 fish), followed by Districts 9, 10 and 2 with 2.0, 1.5 and 1.1 fish per hour, respectively.

Composition of Catch--Great Lakes Waters

Of the 73,670 fish recorded (Table 11), the yellow perch made up 91 percent; the walleye, pumpkinseed, rock bass and smallmouth bass added 7 percent; and the remaining 2 percent was made up of 18 other kinds of fish as follows:

Freshwater drum	405	Shallowwater cisco	17
White bass	254	Muskellunge	10
Black crappie	246	Brook trout	7
Northern pike	177	Suckers	5
Bullheads	172	American smelt	3
Largemouth bass	126	Carp	3

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Catfish	93	Rainbow trout	3
Bluegill	65	Mooneye	1
Gizzard shad	49	Total	1,672
Bowfin	36		

Catch per Hour--Great Lakes Waters,

by Conservation Districts

Based on records for seven districts (Table 12), the average catch per hour for all Great Lakes and connecting waters was 2.8--4.1 for the Great Lakes, and 0.7 for the connecting waters. District 9 had the best catch per hour (5.0). Four of the districts had better than 2.0 fish per hour.

Quality of Fishing--All Waters,

by Conservation Districts and Regions

Districts 9, 12 and 8 had catches per hour of 2.7, 1.8 and 1.8 fish, respectively (Table 1). The high figures for Districts 9 and 12 were due to the large number of yellow perch taken in Great Lakes waters. District 8 had exceptionally good fishing in inland non-trout waters.

Region III led with a catch of 1.6 fish per hour, Region II had 1.4, Region I had 1.2. Of the total 215,660 fish recorded in the census, 97,434 or 45 percent were caught in Region II; 93,495 or 43 percent were taken in Region III; and 24,731 or 12 percent were caught in Region I (Table 1).

Residence of Anglers--All Waters

In the 1955 general creel census, 54,442 anglers (87%) were residents of Michigan and the other 7,940 anglers (13%) were non-residents (Table 13). The greatest number of non-resident anglers (1,622) was contacted in District 11, where they made up 27 percent of the total; in District 2 they made up 26 percent; in other districts, less than 25 percent. As usual, anglers residing in all 83 counties of Michigan were recorded (Table 14). Residents of Wayne County made up 16 percent of all residents; Kent County, 5; Saginaw, 4; Ingham, 4; Genesee, 4; total for these five counties, 33 percent.

Non-resident anglers came from 30 states, District of Columbia, Province of Ontario, and Territory of Hawaii (Table 14a). Ohio contributed 44 percent of all non-residents; Indiana, 35; Illinois, 12; Wisconsin, 5; total for the four states bordering Michigan, 96 percent.

Catch per Hour--Resident and

Non-resident Anglers--All Waters

Resident anglers caught 1.5 fish per hour; non-residents, 1.3 (Table 15). Sex of Anglers

Of 62,382 anglers contacted, 10,108 (16%) were women. The ladies constituted 10 percent of the trout anglers, 17 percent of the non-trout anglers, and 17 percent of fishermen on the Great Lakes (Table 16).

Comparison of 1955 Data

with that of Other Years

Tables 16 to 20 summarize the general creel census for the past 10 years. The catch per hour for all waters has ranged from 1.1 fish in 1945 and 1948 to 1.6 in 1950 (Table 17). For 1955 the catch for all waters was 1.5 fish per hour which is 0.1 fish above the simple average for the 10-year period.

During 1946-1955 the catch per hour of trout in trout waters has ranged from 0.6 to 0.8 trout per hour (Table 18). The high catches during this period were in 1946, 1948, 1954 and 1955, with 0.8 trout per hour, and the low catches were in 1950 and 1953.

For non-trout waters the highest catch per hour was recorded in 1950 with 1.6 fish, and the lowest in 1948 with 1.1 fish per hour (Table 19).

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The 1955 catch for non-trout waters was 1.3 fish per hour which is 0.1 fish below the simple average for the 10-year period.

The catch per hour has been consistently higher for the Great Lakes waters than for trout or non-trout (inland) waters (Table 20). In 1946-1955, anglers fishing the Great Lakes waters have averaged 3.0 fish per hour as compared to an average of 1.4 fish per hour in non-trout waters. In Great Lakes waters the catch per hour has varied from 1.6 in 1946 to 4.8 in 1950. The 1955 catch per hour was 0.2 fish below the average for the 10-year period.

The appendix to this report, in the form of detailed tables, has been omitted as in recent years. The tables are on file at the Institute for Fisheries Research, University Museums Annex.

Acknowledgment

Mr. James C. Hodges and his staff, in Administrative Services, tabulated the data with IBM equipment. Mrs. Grace G. Hubbell assisted in coding and analysis of records.

INSTITUTE FOR FISHERIES RESEARCH

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	Number of male anglers	Number of female anglers	Total anglers	Hours fished	Fish caught	Catch per hour	<u> </u>
District 1	2,278	287	2,565	6,207.6	4,835	0.8	0.9
District 2	881	140	1,021	2,309.5	3,284	1.4	1.5
District 3	1,196	100	1,296	3,599.0	2,074	0.6	0.7
District 4	2,858	341	3,199	9,257.6	14,538	1.6	1.8
Region I	7,213	868	8,081	21,373.7	24,731	1.2	1.3
District 5	5,476	1,282	6,758	16,640.0	13,004	0.8	0.8
District 6	4,477	799	5,276	11,862.3	14,664	1.2	1.4
District 7	5,750	1,232	6,982	15,205.6	14,124	0.9	1.0
District 8	5,163	1,083	6,246	11,608.2	20,695	1.8	1.9
District 9	5,455	1,207	6,662	12,908.7	34,947	2.7	2.8
Region II	26,321	5,603	31,924	68,224.8	97,434	1.4	1.6
District 10	3,915	706	4,621	11,394.1	18,898	1.7	1.7
District 11	5,005	9 3 5	5,940	12,679.0	15,553	1.2	1.3
District 12	9,820	1,996	11,816	32,885.1	59 , 044	1.8	1.6
Region III	18,740	3,637	22,377	56,958.2	93,495	1.6	1.5
State total	52,274	10,108	62,382	146,556.7	215,660	1.5	1.5

Table 1.--Total number of fishermen, hours fished, number of fish taken, and catch per hour for each conservation district and region, all waters, 1955

This symbol in this and subsequent tables denotes the mean catch per hour per angler.

County	1955	1954	County	1955	1954
Alcona	1,124	1,037	Lake	1,622	1,228
Alger	640	1,268	Lapeer	202	144
Allegan	387	1,131	Leelanau	625	625
Alpena	1,252	2,248	Lenawee		1,442
Antrim	571	427	Livingston	1,174	1,530
Arenac	1,685	1,549	Luce	1,179	847
Baraga	251	211	Mackinac	461	618
Barry	393	1,388	Macomb	3,173	2,825
Bay	1,668	145	Manistee	1,034	1,303
Benzie	583	644	Marquette	812	1,105
Berrien	280	236	Mason	138	646
Branch	1,841	1,655	Mecosta	606	1,117
Calhoun		1,275	Menominee	77	160
Cass	449	1,118	Midland	710	714
Charlevoix	957	941	Missaukee	956	865
Cheboygan	1,411	1,369	Monroe	1,647	691
Chippewa	471	850	Montcalm	721	1,062
Clare	1,514	764	Montmorency	986	1,690
Clinton	271	210	Muskegon	1,172	1,307
Crawford	795	449	Newaygo	1,326	1,278
Delta	96	27	Oakland	2,320	1,287
Dickinson	600	801	Oceana	800	735
Eaton	•••	1,044	Ogemaw	855	364
Emmet	555	386	Ontonagon	790	333
Genesee	181		Osceola	582	594
Gladwin	584	538	Oscoda	1,154	1,163
Gogebic	676	583	Otsego	370	295
Grand Traverse	753	847	Ottawa	905	303
Gratiot	356	814	Presque Isle	656	652
Hillsdale	169	848	Roscommon	2,165	2,010
Houghton	669	345	Saginaw	121	237
Huron	778	1,292	St. Clair	208	
Ingham	683	724	St. Joseph	363	529
Ionia	212	125	Sanilac	1,994	2,282
Iosco	889	954	Schoolcraft	836	998
Iron	344	1,680	Shiawassee	149	311
Isabella	501	627	Tuscola	107	
Jackson		221	Van Buren	171	565
Kalamazoo	210	1,277	Washtenaw	1,176	1,459
Kalkaska	679	695	Wayne	1,206	520
Kent	530	758	Wexford	646	660
Keweenaw	179	114			
			Total	62,382	70,109

Table 2.--Number of anglers interviewed by conservation officers during 1955 and 1954, by counties

		t waters		out waters	Great]	Total number	
	Number	Percentage	Number	Percentage	Number	Percentage	of anglers
District 1	1,166	45	1,399	55		•••	2,565
District 2	256	25	765	75	•••	•••	1,021
District 3	516	40	689	53	91	7	1,296
District 4	1,188	37	1,669	52	342	11	3,199
Region I	3,126	39	4,522	56	433	5	8,081
District 5	1,090	16	5,617	83	51	1	6,758
District 6	1,589	30	3,518	67	169	3	5,276
District 7	2,041	29	4,764	68	177	3	6,982
District 8	383	6	5,863	94	•••	•••	6,246
District 9	350	5	4,245	64	2,067	31	6,662
Region II	5,453	17	24,007	75	2,464	8	31,924
District 10	3 49	8	4,272	92	•••	•••	4,621
District 11	102	2	5,838	98	• • •	•••	5,940
District 12	26	Ψ ₀	5,091	43	6,699	57	11,816
Region III	477	2	15,201	. 68	6,699	30	22,377
State total	9,056	15	43,730	70	9,596	15	62,382

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Table 3.--Number and percentage of fishermen interviewed on trout, non-trout, and Great Lakes waters, by conservation districts and regions, 1955

 $V_{Less than 0.5.}$

	Broo	k trout	Brow	n trout	Rain	bow trout	Total number
	Number	Percentage	Number	Percentage	Number	Percentage	of trout
District 1	1,693	72	33	1	640	27	2,366
District 2	542	100	• • •		2	\bigvee_0	544
District 3	575	83	29	4	90	13	694
District 4	3,558	97	54	2	48	1	3,660
Region I	6 ,3 68	88	116	1	780	11	7,264
District 5	1 ,33 6	43	2 3 0	7	1,566	50	3,132
District 6	1,008	29	527	15	1,916	56	3, 451
District 7	1,170	36	1,230	37	886	27	3, 286
District 8	469	63	214	28	65	9	748
District 9	57	13	3 06	70	75	17	438
Region II	4,040	36	2,507	23	4,508	41	11,055
District 10	3 08	41	207	28	227	31	742
District ll	120	75	12	7	28	18	160
District 12	41	93	•••	•••	3	7	44
Region III	469	50	219	23	258	27	946
State total	10,877	56	2,842	15	5,546	29	19,265

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Table 4.--Number and percentage of total trout catch made up by each of the three species of trout--all trout waters, by conservation districts and regions, 1955

 $V_{\text{Less than 0.5.}}$

			Trout 1	and the second						Trout	stream	S			All trout waters						
	Number of anglers	Hours fished	Total fish caught	Catch per hour	Total trout caught	catch	<u>X</u> N	Number of anglers	Hours fished	Tot a l fish caught	Catch per hour	Total trout caught	Trout catch per hour	$\frac{\sum x}{N}$	Number of anglers	Hours fished	Total fish caught	Catch per hour	Total trout caught	Trout catch per hour	-
District 1	65	122.0	74	0.6	74	0.6	0.7	1,101	2,747.0	2,319	0.8	2,292	0.8	0.9	1,166	2,869.0	2,393	0.8	2,366	0.8	0.9
District 2	13	33.0	36	1.1	36	1.1	0.9	243	605.5	52 5	0.9	508	0.8	0.8	256	638.5	561	0.9	544	0.9	0.8
District 3	126	216.0	245	1.1	243	1.1	1.2	3 90	1,033.0	451	0.4	451	0.4	0.5	516	1,249.0	696	0.6	694	0.6	0.7
District 4	311	604.5	864	1.4	833	1.4	2.4	877	2,633.6	3,065	1.2	2,827	1.1	1.4	1,188	3,238.1	3,929	1.2	3,660	1.1	1.6
Region I	515	975.5	1,219	1.2	1,186	1.2	1.9	2,611	7,019.1	6,360	0,9	6,078	0.9	1.0	3,126	7,994.6	7,579	0.9	7,264	0.9	1.1
District 5	205	3 85.0	320	0.8	304	0.8	0.9	885	3,491.0	2,837	0.8	2,828	0.8	0.9	1,090	3,876.0	3,157	0.8	3,132	0.8	0.9
District 6	134	399.0	288	0.7	288	0.7	0.8	1,455	3,570.5	3,222	0.9	3,163	0.9	1.0	1,589	3,969.5	3,510	0.9	3,451	0.9	1.0
District 7	79	182.0	103	0.6	103	0.6	0.5	1,962	5,284.3	3,296	0.6	3,183	0.6	0.6	2,041	5,466.3	3,3 99	0.6	3,286	0.6	0.6
District 8	•••	•••	•••	• • •	•••	•••	•••	383	988.0	748	0.8	748	0.8	0.7	383	988.0	748	0.8	748	0.8	0.7
District 9	•••	•••	•••	• • •	• • •	•••	•••	350	82 7. 5	456	0.6	4 3 8	0.5	0.5	3 50	827.5	456	0.6	438	0.5	0.5
Region II	418	966.0	711	0.7	695	0.7	0.8	5,035	14,161.3	10,559	0.7	10,360	0.7	0.8	5,453	15,127.3	11,270	0.7	11,055	0.7	0.8
District 10	• • •	• • •	• • •	•••	• • •	•••	•••	349	1,000.3	764	0.8	742	0.7	0.7	349	1,000.3	764	0.8	742	0.7	0.7
District 11	59	148.0	50	0.3	50	0.3	0.3	43	132.5	110	0.8	110	0.8	1.0	102	280.5	160	0.6	160	0.6	0.6
District 12	•••	•••	•••	•••	•••	•••	•••	26	58.0	45	0.8	44	0.8	0.9	26	58.0	45	0.8	44	0.8	0.9
Region III	59	148.0	50	0.3	50	0.3	0.3	418	1,190.8	919	0.8	896	0.8	0.8	477	1,338.8	969	0.7	946	0.7	0.7
State total	992	2,089.5	1,980	0.9	1,931	0.9	1.3	8,064	22,371.2	17,838	0.8	17,334	0.8	0.8	9,056	24,460.7	19,818	0.8	19,265	0.8	0.9

Table 5.--General creel census data for trout lakes, trout streams, and all trout waters, by conservation districts and regions, 1955

Species	1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955
Bluegill	27	30	45	48	44	42	40	43	37	35	39
Yellow perch	54	40	23	24	29	34	33	27	31	32	33
Black crappie	4	7	10	9	8	6	8	9	8	11	8
Pumpkinseed	3	3	4	4	4	4	5	5	5	4	4
Northern pike	3	3	4	5	3	3	3	4	5	4	4
Rock bass	2	2	4	3	3	3	4	4	3	3	3
Rainbow trout	V ₀	0	0	0	0	0	0	0	2	2	0
Walleye	1	1	2	1	1	2	2	1	1	2	1
Largemouth bass	1	1	2	2	1	2	2	2	2	2	2
Smallmouth bass	1	1	2	1	1	1	1	1	1	1	1
Total	96	88	96	97	94	97	98	96	95	96	95

Table 6.--Percentage of the total catch composed by the 10 species taken most frequently in non-trout waters, 1946-1955

Less than 0.5.

	Bluegill	Yellow perch	Black crappie	Pumpkin- seed	Northern pike	Rock bass	Rainbow trout	Walleye	Largemouth bass	Smallmouth bass	Total fish	
District 1	15	42	2	1	8	1	2	18	2	3	2,442	
District 2	17	58	9	1	4	1	1	7	Vo	1	2,723	
District 3	7	43	1	•••	23	•••	18	3	3	1	1,186	
District 4	7	73	0	2	6	4	2	3	0	1	9,667	
Region I	10	63	2	2	7	3	3	6	1	1	16,018	
District 5	18	34	1	6	21	6	2	3	2	2	9,657	- 16
District 6	23	41	2	2	5	6	2	2	1	2	10,393	ı
District 7	34	36	2	9	7	7	0	1	2	2	9,655	
District 8	36	36	16	3	1	3	0	2	2	1	19,947	
District 9	21	44	20	4	2	2	1	•••	1	0	12,933	
Region II	28	38	10	4	6	5	1	2	1	1	62,585	
District 10	66	9	13	4	1	1	3	0	1	1	18,134	
District 11	5 6	12	16	7	1	2	1	0	3	1	15 ,3 93	
District 12	34	17	15	6	1	5	2	0	2	3	10,042	
Region III	56	12	14	6	1	2	2	0	2	1	43,569	
State total	35	32	11	4	4	3	2	2	2	1	122,172	

Table 7.--Percentage of the total catch composed by the 10 species taken most frequently in non-trout waters, by conservation districts and regions, 1955

Less than 0.5.

	REG	ION I	RE	GION II	RE	GION III	
Species	Number	Percentage	Number	Percentage	Number	Percentage	Total
Bluegill	1,575	4	17,326	40	24,106	56	43,007
Yellow perch	10,144	26	23,877	61	5,1 3 4	13	3 9,155
Black crappie	318	2	6,304	49	6,2 3 9	49	12,861
Pumpkinseed	238	4	2,702	51	2,396	45	5,336
Northern pike	1,140	22	3,744	70	444	8	5 ,3 28
Rock bass	529	13	2,738	66	901	21	4,168
Rainbow trout	452	22	601	29	99 3	49	2,046
Walleye	959	47	1,047	51	30	2	2,036
Largemouth bass	118	6	860	47	866	47	1,844
Smallmouth bass	151	10	782	53	535	37	1,468
Totals or percentages	15,624	13	59,981	51	41,644	36	117,249

Table 8.--Numbers caught and percentage of the total state catch composed by the 10 species taken most frequently in non-trout waters, by conservation regions, 1955

Species		GION I Percentage		GION II Percentage		ION III Percentage
Bluegill	1,575	10	17,326	28	24,106	56
Yellow perch	10,144	63	23,877	38	5,134	12
Black crappie	318	2	6,304	10	6,239	14
Pumpkinseed	2 3 8	2	2,702	4	2 ,3 96	6
Northern pike	1,140	7	3,744	6	444	1
Rock bass	529	3	2,738	5	901	2
Rainbow trout	452	3	601	1	993	2
Walleye	959	6	1,047	2	30	\mathbb{V}_0
Largemouth bass	118	1	860	1	866	2
Smallmouth bass	151	1	782	1	535	1
Total or percentages	15,624	98	59,981	96	41,644	96

Table 9.--Numbers caught and percentage of the catch in each region composed by the 10 species taken most frequently in non-trout waters, 1955

Less than 0.5.

	N	ON-TROUT L	AKES			N	ON-TROUT ST	TREAMS			•	ALL NON-T	ROUT WATE	RS	
	Number of anglers	Hours fished	Fish caught	Catch per hour	Σx N	Number of anglers	Hours fished	Fish caught	Catch per hour	Σx N	Number of anglers	Hours fished	Fish caught	Catch per hour	<u>X</u> X N
District 1	1,316	3,174.6	2,301	0.7	0.9	83	164.0	141	0.9	0.8	1,399	3,338.6	2,442	0.7	0.8
District 2	650	1,486.0	2,515	1.7	1.9	115	185.0	208	1.1	1.1	765	1,671.0	2,723	1.6	1.7
District 3	5 7 8	1,693.5	1,069	0.6	0.9	111	320.5	117	0.4	0.4	689	2,014.0	1,186	0.6	0.8
District 4	1,518	4,653.5	7,989	1.7	1.9	151	483.0	1,678	3.5	3.6	1,669	5,136.5	9,667	1.9	2.0
Region I	4,062	11,007.6	13,874	1.3	1.4	460	1,152.5	2,144	1.9	1.7	4,522	12,160.1	16,018	1.3	1.4
District 5	5,188	11,992.0	9,180	0.8	0.8	429	669.0	477	0.7	0.8	5,617	12,661.0	9,657	0.8	0.8
District 6	3,362	7,263.8	10,062	1.4	1.5	156	314.0	331	1.1	1.0	3,518	7,577.8	10,393	1.4	1.5
District 7	4,699	9,318.3	9,502	1.0	1.1	65	172.0	153	0.9	1.0	4,764	9,490.3	9,655	1.0	1.1
District 8	5,646	10,115.7	19,689	1.9	2.1	217	504,5	258	0.5	0.5	5,863	10,620.2	19,947	1.9	2.0
District 9	2,418	4,288.6	5,946	1.4	1.6	1,827	3,445.9	6,987	2.0	2.0	4,245	7,734.5	12,933	1.7	1.8
- Region II	21,313	42,978.4	54 , 37 9	1.3	1.4	2,694	5,105.4	8,206	1.6	1.6	24,007	48,083.8	62,585	1.3	1.4
District 10	3,916	9,540.8	16,856	1.8	1.8	356	853.0	1,278	1.5	1.5	4,272	10,393.8	18,134	1.7	1.8
District 11	5,593	11,695.0	15,257	1.3	1.4	245	703.5	136	0.2	0.2	5,838	12,398.5	15,393	1.2	1.3
District 12	3,123	8,419.2	7,184	0.9	0.9	1,968	4,496.5	2,858	0.6	0.6	5,091	12,915.7	10,042	0.8	0.8
Region III	12,632	29,655.0	39,297	1.3	1.4	2,569	6,053.0	4,272	0.7	0.7	15,201	35,708.0	43,569	1.2	1.3
State total	38,007	83,641.0	107,550	1.3	1.4	5,723	12,310.9	14,622	1.2	1.2	43,730	95,951.9	122,172	1.3	1.4

Table 10.--General creel census data for non-trout lakes, non-trout streams, and all non-trout waters combined, by conservation districts and regions, 1955

Species	1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955	
Yellow perch	66	83	86	91	96	94	84	85	90	91	87	
Walleye	8	8	5	4	1	1	4	1	1	2	3	
Pumpkinseed	$\sqrt{\frac{1}{0}}$	0	1	1	. 0	0	0	2	1	2	1	*-
Rock bass	3	1	2	0	0	1	6	4	2	2	2	
Smallmouth bass	3	1	1	0	1	1	2	1	1	1	1	
Total	80	93	95	96	98	97	96	93	95	98	94	

Table 11.--Percentage of the total catch composed by the five species taken most frequently in Great Lakes waters, 1946-1955

 $V_{\text{Less than 0.5.}}^1$

		GR	EAT LAKE	S			CONN	ECTING N	WATERS			LL GREAT I			
	Number of anglers	Hours fished	Fish caught	Catch per hour	<u>Σx</u> N	Number of anglers	Hours	Fish caught	Catch	<u>Ex</u> N	Number of anglers	Hours fished	Fish caught	Catch per hour	<u>Σ</u> Σ Ν
District 3	91	336.0	192	0.6	0.7	• • •	•••	•••	•••	•••	91	336.0	192	0.6	0.7
District 4	143	413.0	429	1.0	1.4	199	470.0	513	1.1	1.0	342	883.0	942	1.1	1.1
- Region I	234	749.0	621	0.8	1.1	199	470.0	513	1.1	1.0	433	1,219.0	1,134	0.9	1.0
District 5	51	103.0	190	1.8	2.0	• • •	•••	• • •	•••	• • •	51	103.0	190	1.8	2.0
District 6	169	3 15.0	761	2.4	2.1		• • •	•••	•••	•••	169	315.0	761	2.4	2.1
District 7	177	249.0	1,070	4.3	3.9	•••	•••	•••	•••	• • •	177	249.0	1,070	4.3	3.9
District 9	2,067	4,346.7	21,558	5.0	5.2	• • •	•••	•••	•••	•••	2,067	4,346.7	21,558	5.0	5.2
— Region II	2,464	5,013.7	23,579	4.7	4.9	•••	•••	•••	• • •	• • •	2,464	5,013.7	23,579	4.7	4.8
District 12	2,875	10,212.4	41,958	4.1	4.1	3,824	9,699.0	6,999	0.7	0.7	6,699	19,911.4	48,957	2.5	2.
Region III	2,875	10,212.4	41,958	4.1	4.1	3, 824	9,699.0	6,999	0.7	0.7	6,699	19,911.4	48,957	2.5	2.3
State total	5,573	15,975.1	66,158	4.1	4.3	4,023	10,169.0	7,512	0.7	0.7	9,596	26,144.1	73,670	2.8	2.

Table 12.--General creel census data for Great Lakes and connecting waters, by conservation districts and regions, 1955

	Total anglers	Resident anglers	Non-resident anglers	Percentage non-resident
District 1	2,565	2,066	499	19
District 2	1,021	754	267	26
District 3	1,296	1,123	173	13
District 4	3,199	2,752	447	14
Region 1	8,081	6,695	1,386	17
District 5	6,758	5,638	1,120	17
District 6	5,276	4, 448	828	16
District 7	6,982	6,411	571	8
District 8	6,246	5,257	989	16
District 9	6,662	6,541	121	2
Region II	31,924	28,295	3,629	11
District 10	4,621	3,536	1,085	23
District 11	5,940	4,318	1,622	27
District 12	11,816	11,598	218	2
Region III	22,377	19,452	2,925	13
State total	62,382	54,442	7,940	13

Table 13.--Number of resident and non-resident fishermen, and percentage of non-resident fishermen in each conservation district, all waters, 1955

Alcona Alger Allegan Alpena Antrim Arenac Baraga Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford Delta				residence	of males	of females	
Allegan Alpena Antrim Arenac Baraga Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	170	21	191	Lapeer	133	28	161
Alpena Antrim Arenac Baraga Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	3 99	12	411	Leelanau	255	33	288
Antrim Arenac Baraga Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	135	23	158	Lenawee	113	34	147
Arenac Baraga Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	424	80	504	Livingston	220	44	264
Baraga Barry Bay : Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	197	46	243	Luce	1,102	82	1,184
Barry Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	288	45	333	Mackinac	101	15	116
Bay Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	154	3	157	Macomb	1,484	274	1,758
Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	109	27	136	Manistee	423	35	458
Benzie Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	1,542	315	1,857	Marquette	577	39	616
Berrien Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	287	22	3 09	Mason	129	25	154
Branch Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	342	46	388	Mecosta	321	72	393
Calhoun Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	231	36	267	Menominee	69	4	73
Cass Charlevoix Cheboygan Chippewa Clare Clinton Crawford	241	83	324	Midland	827	163	990
Charlevoix Cheboygan Chippewa Clare Clinton Crawford	106	25	131	Missaukee	327	30	357
Cheboygan Chippewa Clare Clinton Crawford	259	35	294	Monroe	320	60	380
Chippewa Clare Clinton Crawford	220	24	244	Montcalm	494	82	576
Clare Clinton Crawford	206	16	222	Montmorency	240	.52	292
Clinton Crawford	623	92	715	Muskegon	1,112	154	1,266
Crawford	340	66	406	Newaygo	282	32	314
	184	10	194	Oakland	1,205	261	1,466
	55	2	57	Oceana	273	30	303
Dickinson	504	50	554	Ogemaw	238	13	251
Eaton	156	49	205	Ontonagon	409	56	465
Emmet	263	32	295	Osceola	222	29	251
	1,733	458	2,191	Oscoda	90	22	112
Gladwin	213	18	231	Otsego	228	42	270
Gogebic	477	27	504	Ottawa	430	55	485
Grand Traverse	554	59	613	Presque Isle	348	47	395
Gratiot	454	102	556	Roscommon	155	30	185
Hillsdale	188	4	192	Saginaw	1,992	484	2,476
Houghton	441	64	505	St. Clair	282	40	322
Huron	297	59	356	St. Joseph	84	19	103
	1,795	3 99	2,194	Sanilac	461	100	561
Ionia	208	50	258	Schoolcraft	393	26	419
Iosco	205	26	231	Shiawassee	235	50	285
Iron	216	33	249	Tuscola	172	46	218
Isabella	450	75	525	Van Buren	83	15	98
Jackson	285	68	353	Washtenaw	692	140	832
Kalamazoo	583	117	700	Wayne	8,329	1,960	10,289
Kalkaska	86	117	104	Wexford	446	1,900 62	508
	2,456	512	2,968	MEVIOLO	-++0	02	200
	2,4 56 66	1	67	Total	43,553	8,057	51,610
Keweenaw Lake	115	22	137	IOCAL	45,555	0,007	51,010

Table 14.--Residence of Michigan fishermen interviewed in the general creel census, 1955marksimed

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The residence of 2,410 males and 422 females was not recorded; therefore, they are not included in Tables 14 and 14a.

State, Province or Territory of	Number of	Number of	Total
residence	males	females	
Alabama	4	•••	4
Arizona	2	2	4
Arkansas	5	1	6
California	6	•••	6
Colorado	6	•••	6
Florida	18	5	23
Georgia	4	2	6
Illinois	750	198	948
Indiana	2,203	578	2,781
Iowa	10	4	14
Kansas	9	• • •	9
Kentucky	34	10	44
Minnesota	19	2	21
Mississippi	1	• • •	1
Missouri	25	3	28
Nebraska	4	2	6
New Jersey	2	• • •	2
New Mexico	3	1	4
New York	16	4	20
North Carolina	3	• • •	3
North Dakota	6	• • •	6
Ohio	2,756	756	3,512
Oklahoma	2	1	3
Pennsylvania	34	6	40
Tennessee	2	1	3
Texas	15	7	22
Virginia	6	2	8
Washington	2	• • •	2
West Virginia	16	2	18
Wisconsin	336	37	373
Washington D. C.	2	• • •	2
Ontario	9	5	14
Hawaii	1	• • •	1
Total	6,311	1,629	7,940

Table 14a.--Residence of out-of-state fishermen interviewed in the general creel census, 1955

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		Resident	anglers			N	on-reside	nt angle	ers	
	Number of anglers	Hours fished	Fish caught	Catch per hour	Σx N	Number of anglers	Hours	Fish caught	Catch per hour	∑X N
District 1	2,066	5,026.6	4,074	0.8	0.9	499	1,181.0	761	0.6	0.8
District 2	754	1,706.5	2,499	1.5	1.6	267	603.0	785	1.3	1.3
District 3	1,123	3,114.0	1,690	0.5	0.7	173	485.0	3 84	0.8	1.0
District 4	2,752	7,927.6	12,928	1.6	1.9	447	1,330.0	1,610	1.2	1.2
Region I	6,695	17,774.7	21,191	1.2	1.3	1,386	3,599.0	3,540	1.0	1.1
District 5	5,638	14,481.0	11,484	0.8	0.9	1,120	2,159.0	1,520	0.7	0.6
District 6	4,448	10,216.0	12,924	1.3	1.4	828	1,646.3	1,740	1.1	1.0
District 7	6,411	13,909.6	12,928	0.9	1.0	571	1,296.0	1,196	0.9	1.0
District 8	5,257	10,107.3	17,600	1.7	1.9	989	1,500.9	3,095	2.1	2.1
District 9	6,541	12,683.2	34,670	2.7	2.8	121	225.5	277	1.2	1.4
Region II	28,295	61,397.1	89,606	1.5	1.6	3,629	6,827.7	7,828	1.1	1.2
District 10) 3,536	8,928.3	15,669	1.8	1.8	1,085	2,465.8	3,229	1.3	1.4
District 1	L 4 ,3 18	10,234.5	11,610	1.1	1.2	1,622	2,444.5	3,943	1.6	1.7
District 12	2 11,598	32,301.6	57,565	1.8	1.5	218	583.5	1,479	2.5	2.0
Region III	19,452	51,464.4	84,844	1.6	1.5	2,925	5,493.8	8,651	1.6	1.6
State tota	L 54,442	130,636.2	195,641	1.5	1.6	7,940	15,920.5	20,019	1.3	1.3

Table 15.--Number of resident and non-resident anglers, number of hours fished, number of fish caught, and the catch per hour for each group--all waters, by conservation districts, 1955

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Table 16.--Comparison of data from the general creel census, 1946-1955

CATCH PER HOUR: All waters 1.3 1.4 1.1 1.3 1.6 1.4 1.4 1.3 1.5 1.5 1.4 Resident 1.4 1.5 1.2 1.3 1.7 1.4 1.4 1.3 1.5 1.5 1.4 Non-resident 0.8 1.1 1.1 1.1 1.1 1.0 1.1 1.0 1.0 1.3 1.1 Trout waters 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.8 0.7 Resident 0.7 0.6 0.7 0.8 0.6 0.7 0.7 0.8 0.8 0.8 0.7 Non-resident 0.8 1.1 1.1 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Resident 1.4 1.5 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1 1.1 1.1 1.1 Great Lakes waters 1.6 2.7 2.9 3.1 4.8 3.2 2.6 3.0 3.3 2.7 3.0 Resident 1.6 2.7 3.1 3.2 4.9 3.4 2.6 3.1 3.3 2.7 3.1 Non-resident 0.6 1.9 1.6 1.2 2.7 1.3 2.8 1.3 2.3 2.1 1.8 PERCENTAGE OF ALL ANGLERS REPRESENTED BY: Non-residents 11 10 16 10 10 11 10 15 14 13 12 Females 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 PERCENTAGE OF GREAT LAKES ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 13 11 10 16 12 11 10 10 10 10 10 10 10 10 10 10 10 10		1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955
Resident 1.4 1.5 1.2 1.3 1.7 1.4 1.4 1.3 1.5 1.4 Non-resident 0.8 1.1 1.1 1.1 1.0 1.1 1.0 1.0 1.3 1.1 Trout waters 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.8 0.7 Non-resident 0.7 0.6 0.8 0.7 0.7 0.6 0.8 0.8 0.7 Non-resident 1.4 1.4 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 1.4 1.4 1.4 1.3 1.4 1.4 1.4 1.3 1.4 1.4 1.4 1.3 <t< td=""><td>CATCH PER HOUR:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	CATCH PER HOUR:											
Non-resident 0.8 1.1 1.1 1.1 1.0 1.1 1.0 1.0 1.3 1.1 Trout waters 0.8 0.8 0.8 0.7 0.6 0.8 0.8 0.8 0.7 0.6 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.8 0.8 0.7 0.6 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.7 0.8 0.8 0.8 0.7 0.7 0.8 0.8 0.7 Non-resident 0.7 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-resident 0.6 0.7 0.8 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-resident 0.8 1.1 1.1 1.2 1.3 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	All waters				•						•	•
Trout waters 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.8 0.7 Resident 0.8 0.8 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.7 0.6 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.7 Non-resident 0.7 0.6 0.7 0.8 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-resident 1.4 1.4 1.2 1.3 1.7 1.6 1.5 1.4 1.4 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1 <t< td=""><td>Resident</td><td>1.4</td><td>1.5</td><td>1.2</td><td>1.3</td><td>1.7</td><td>1.4</td><td>1.4</td><td>1.3</td><td>1.5</td><td>1.5</td><td></td></t<>	Resident	1.4	1.5	1.2	1.3	1.7	1.4	1.4	1.3	1.5	1.5	
Resident 0.8 0.8 0.7 0.6 0.8 0.7 0.7 0.8 0.8 0.7 Non-resident 0.7 0.6 0.7 0.8 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-resident 0.7 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-trout waters 1.4 1.4 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Resident 1.4 1.5 1.2 1.3 1.7 1.6 1.5 1.4 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1	Non-resident	0.8	1.1	1.1								
Non-resident 0.7 0.6 0.7 0.7 0.6 0.8 0.8 0.7 Non-trout waters 1.4 1.4 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Resident 1.4 1.5 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1	Trout waters	0.8	0.8	0.8	0.7	0.6	0.8	0.7	0.6	0.8	0.8	-
Non-trout waters 1.4 1.4 1.2 1.3 1.6 1.5 1.4 1.4 1.3 1.4 Resident 1.4 1.5 1.2 1.3 1.7 1.6 1.5 1.4 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1 1.2 1.3	Resident	0.8	0.8	0.8	0.7	0.6	0.8	0.7	0.7	0.8	0.8	0.8
Resident 1.4 1.5 1.2 1.3 1.7 1.6 1.5 1.4 1.3 1.3 1.4 Non-resident 0.8 1.1 1.1 1.2 1.2 1.0 1.1 <td>Non-resident</td> <td>0.7</td> <td>0.6</td> <td>0.7</td> <td>0.8</td> <td>0.6</td> <td>0.7</td> <td>0.7</td> <td>0.6</td> <td>0.8</td> <td>0.8</td> <td>0.7</td>	Non-resident	0.7	0.6	0.7	0.8	0.6	0.7	0.7	0.6	0.8	0.8	0.7
Non-resident 0.8 1.1 1.1 1.2 1.0 1.1	Non-trout waters	1.4	1.4	1.2	1.3	1.6	1.5	1.4	1.4	1.4	1.3	1.4
Great Lakes waters 1.6 2.7 2.9 3.1 4.8 3.2 2.6 3.0 3.3 2.7 3.0 Resident 1.6 2.7 3.1 3.2 4.9 3.4 2.6 3.1 3.3 2.7 3.1 Non-resident 0.6 1.9 1.6 1.2 2.7 1.3 2.8 1.3 2.3 2.1 1.8 PERCENTAGE OF ALL ANGLERS REPRESENTED BY: Non-residents 11 10 16 10 11 10 15 14 13 12 Females 19 14 19 17 16 17 16 16 16 16 17 PERCENTAGE OF TROUT ANGLERS REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 PERCENTAGE OF NON-TROUT ANGLERS 7 9 10 12 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11	Resident	1.4	1.5	1.2	1.3	1.7	1.6	1.5	1.4	1.3	1.3	1.4
Great Lakes waters 1.6 2.7 2.9 3.1 4.8 3.2 2.6 3.0 3.3 2.7 3.0 Resident 1.6 2.7 3.1 3.2 4.9 3.4 2.6 3.1 3.3 2.7 3.1 Non-resident 0.6 1.9 1.6 1.2 2.7 1.3 2.8 1.3 2.3 2.1 1.8 PERCENTAGE OF ALL ANGLERS REPRESENTED BY: Non-residents 11 10 16 10 11 10 15 14 13 12 Females 19 14 19 17 16 17 16 16 16 16 17 PERCENTAGE OF TROUT ANGLERS REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 PERCENTAGE OF NON-TROUT ANGLERS 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13	Non-resident	0.8	1.1	1.1	1.2	1.2	1.0	1.1	1.1	1.1	1.1	1.1
Resident 1.6 2.7 3.1 3.2 4.9 3.4 2.6 3.1 3.3 2.7 3.1 Non-resident 0.6 1.9 1.6 1.2 2.7 1.3 2.8 1.3 2.3 2.1 1.8 PERCENTAGE OF ALL ANGLERS REPRESENTED BY: Non-residents 11 10 16 10 11 10 15 14 13 12 Females 19 14 19 17 16 17 16 16 16 16 16 17 PERCENTAGE OF TROUT ANGLERS REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 Females 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 <td>Great Lakes waters</td> <td></td> <td>2.7</td> <td>2.9</td> <td>3.1</td> <td>4.8</td> <td>3.2</td> <td>2.6</td> <td>3.0</td> <td>3.3</td> <td>2.7</td> <td>3.0</td>	Great Lakes waters		2.7	2.9	3.1	4.8	3.2	2.6	3.0	3.3	2.7	3.0
PERCENTAGE OF ALL ANGLERS REPRESENTED BY: Non-residents 11 10 16 10 11 10 15 14 13 12 Females 19 14 19 17 16 17 16 16 16 16 16 16 16 16 17 PERCENTAGE OF TROUT ANGLERS REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 Females 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 18 18 19 18 17 17 18	Resident	1.6	2.7	3.1	3.2	4.9	3.4	2.6	3.1	3.3	2.7	3.1
REPRESENTED BY: Non-residents 11 10 16 10 11 10 15 14 13 12 Females 19 14 19 17 16 17 16 16 16 16 16 16 16 16 16 16 16 16 16 17 PERCENTAGE OF TROUT ANGLERS REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 Females 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 14 14 16 14 14 14 16 14 14 16 14 14 16 14 16 14 14 16 14 16 14 16 14 16 14 16 14 16	Non-resident	0.6	1.9	1.6	1.2				1.3	2.3	2.1	1.8
REPRESENTED BY: Non-residents 8 7 6 6 7 6 5 8 6 8 7 Females 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 18 18 19 18 18 17 17 18 PERCENTAGE OF GREAT LAKES	Non-residents											
Non residents 7 9 10 12 10 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 18 18 19 18 18 17 17 18 PERCENTAGE OF GREAT LAKES PERCENTAGE OF GREAT LAKES PERCENTAGE OF GREAT LAKES PERCENTAGE OF GREAT LAKES		ANGLER	S									
Females 7 9 10 12 10 10 9 8 10 10 PERCENTAGE OF NON-TROUT ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 18 18 19 18 18 17 17 18 PERCENTAGE OF GREAT LAKES		8	7	6	6	7	6	5	8	6	8	7
ANGLERS REPRESENTED BY: Non-residents 13 11 19 11 12 13 12 17 16 16 14 Females 22 16 21 18 18 19 18 18 17 17 18 PERCENTAGE OF GREAT LAKES				10	12	10	10	10	9	8	10	10
Non-residences 10 11 15 11 13 <th13< th=""> 13 13<td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th13<>												
PERCENTAGE OF GREAT LAKES	Non-residents	13	11									- ·
	Females	22	16	21	18	18	19	18	18	17	17	18
ANGLEKS KEPKESENTED BI:												
Non-residents 6 3 13 6 4 8 5 5 4 4 6			2	12	6		Q	5	5	1.	4	6
Non-residents 6 3 13 6 4 8 5 5 4 4 6 Females 18 10 17 16 13 18 14 16 15 17 15	····											

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	1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955
District 1	0.7	0.6	0.8	0.8	0.9	0.8	0.8	0.8	1.0	0.8	0.8
District 2	0.7	0.5	0.9	0.7	1.1	0.7	0.9	1.0	0.9	1.4	0.9
District 3	0.9	0.9	1.1	0.9	0.7	0.9	0.9	0.8	0.5	0.6	0.8
District 4	0.8	1.0	1.3	1.5	1.6	1.4	1.4	1.1	1.3	1.6	1.3
Region I	0.8	0.8	1.0	0.9	1.1	1.0	1.1	1.0	1.0	1.2	1.0
District 5	0.8	1.1	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.8
District 6	1.0	1.5	1.1	1.2	1.9	1.3	1.2	1.5	1.4	1.2	1.3
District 7	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.9	0.8
District 8	1.4	1.6	1.3	1.4	1.9	1.8	2.1	1.8	1.5	1.8	1.7
District 9	2.9	3.0	1.2	1.9	2.6	3.3	2.8	2.8	2.9	2.7	2.6
Region II	1.5	1.5	1.0	1.1	1.5	1.4	1.3	1.3	1.3	1.4	1.3
District 10	1.2	1.6	1.6	1.8	2.0	1.8	2.0	1.4	1.3	1.7	1.6
District 11	1.2	1.0	1.1	1.4	1.7	1.8	1.3	1.4	1.6	1.2	1.4
District 12	1.6	2.5	2.2	1.9	2.4	1.4	1.7	1.9	2.8	1.8	2.0
Region III	1.4	1.7	1.6	1.7	2.1	1.6	1.7	1.4	1.9	1.6	1.7
Entire state	1.3	1.4	1.1	1,3	1.6	1.4	1.4	1.3	1.5	1.5	1.4

Table 17.--Catch per hour for all waters, by conservation districts and regions, 1946-1955

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	and regions, 1946-1955													
	1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955			
District 1	0.8	0.7	0.7	0.6	0.9	0.7	0.7	0.7	1.1	0.8	0.8			
District 2	0.6	0.5	0.7	0.8	0.8	0.7	1.0	1.9	1.1	0.9	0.9			
District 3	0.8	0.8	1.1	1.0	0.6	1.1	0.5	0.5	0.4	0.6	0.7			
District 4	1.0	1.0	1.2	1.0	1.1	1.3	1.0	0.7	1.0	1.1	1.0			
Region I	0.8	0.7	0.9	0.8	0.8	1.0	U.8	0.7	1.0	0.9	0.8			
District 5	0.8	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.8	0.7			
District 6	0.6	1.0	0.9	0.9	0.7	0.7	0.9	0.6	0.7	0.9	0.8			
District 7	0.7	0.7	0.7	0.5	0.4	0.5	0.5	0.4	0.5	0.6	0.6			
District 8	1.0	0.8	0.6	0.7	0.6	0 .7	0.7	0.7	0.7	0.8	0.7			
District 9	0.6	0.6	0.5	0.4	0.1	0.3	0.3	0.5	0.5	0.5	0.4			
Region II	0.7	0.8	0.7	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.7			
District 10	0.6	0.5	0.5	0.4	0.6	0.5	0,5	0.7	0.7	0.7	0.6			
District 11	0.5	• • •	0.5	0.4	0.6	0.4	0.5	0.5	0.8	0.6	0.5			
District 12	0.4	0.6	•••	0.6	0.6	0.3	0.5	0.8	1.3	0.8	0.6			
Region III	0.6	0.5	0.5	0.5	0.6	0.4	0.5	0.6	0.8	0.7	0.6			
Entire state	0.8	0.7	0.8	0.7	0.6	0.7	0.7	0.6	0.8	0.8	0.7			

Table 18.--Catch of trout per hour for trout waters, by conservation districts and regions, 1946-1955

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	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	Mean, 1946-1955
District 1	0.8	0.4	0.8	0.9	1.0	0.9	0.8	0.9	0.9	0.7	0.8
District 2	0.6	0.5	0.9	0.7	1.1	0.7	0.8	0.9	0.9	1.6	0.9
District 3	0.9	0.6	1.2	0.8	0.9	0.8	1.0	0.8	0.5	0.6	0.8
District 4	0.7	0.8	1.4	1.7	1.8	1.5	1.6	2.1	1.8	1.9	1.5
Region I	0.7	0.6	1.0	0.9	1.2	0.9	1.2	1.2	1.0	1.3	1.0
District 5	0.7	1.2	0.7	0.7	0.9	0.6	0.7	0.7	0.7	0.8	0.8
District 6	0.8	1.4	1.2	1.5	2.4	1.5	1.3	1.7	1.4	1.4	1.5
District 7	0.6	0.6	0.8	0.9	1.2	1.1	1.1	1.0	0.9	1.0	0.9
District 8	1.4	1.8	1.5	1.5	2.1	2.0	2.3	1.9	1.6	1.9	1.8
District 9	3.2	3.5	1.0	1.8	2.3	3.3	2.4	2.4	2.1	1.7	2.4
Region II	1.6	1.7	1.0	1.1	1.7	1.5	1.4	1.4	1.2	1.3	1.4
District 10	1.2	1.6	1.7	1.8	2.1	1.9	2.0	1.4	1.3	1.7	1.7
District 11	1.2	1.0	1.1	1.4	1.7	1.8	1.3	1.4	1.6	1.2	1.4
District 12	1.1	1.3	1.4	1.2	1.1	1.3	1.3	1.2	1.6	0.8	1.2
Region III	1.2	1.4	1.4	1.5	1.7	1.7	1.5	1.4	1.5	1.2	1.5
Entire state	1.4	1.4	1.1	1.3	1.6	1.5	1.4	1.4	1.3	1.3	1.4

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	1946	1947	1948	1949	1950	1951	1952	195 3	1954	1955	Mean, 1946-1955
District 1	0.1	0.5	0.9	0.3	•••		0.9	•••		•••	0.3
District 2	3.4	1.8	2.9	4.8	•••	•••	•••	•••	•••	•••	1.3
District 3	1.2	1.0	1.0	0.9	2.5	0.4	2.0	1.6	2.3	0.6	1.4
District 4	0.7	1.1	1.1	2.9	4.9	1.6	2.8	1.2	0.6	1.1	1.8
Region I	0.6	1.0	1.1	1.1	4.2	0.9	2.3	1.3	0.7	0.9	1.4
District 5	1.0	4.2	1.7	0.4	0.5	0.7	0.5	2.1	0.5	1.8	1.3
District 6	4.6	8.2	12.2	3.6	2.9	5.0	4.3	7.0	11.1	2.4	6.1
District 7		0.9	0.3	5.9	•••	5.0	•••	0.5	•••	4.3	1.7
District 8	•••	•••	•••	•••	2.8	•••	•••	•••	•••	•••	0.3
District 9	2.0	5.7	5.8	5.4	5.7	4.9	4.4	5.4	6.8	5.0	5.1
Region II	2.4	7.1	5.5	4.9	5.1	4.7	3.7	4.9	6.9	4.7	5.0
District 10	2.8		•••	6.4	6.6	•••	10.2	4.0	•••	•••	3.0
District 12	2.0	4.0	3.9	3.3	4.7	2.3	2.2	2.9	3.2	2.5	3.1
Region III	2.0	4.0	3.9	3.4	4.8	2.3	2.4	2.9	3.2	2.5	3.1
Entire state	1.6	2.7	2.9	3.1	4.8	3.2	2.6	3.0	3.3	2.8	3.0

Table 20.--Catch per hour for Great Lakes waters, by conservation districts and regions, 1946-1955

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	Thousands	Catch per hour							
Year	of hours	A11	Trout	Non-trout	Great Lakes				
	reported	waters	waters	waters	waters♥				
1928	48	1.1	1.2	1.1					
19 2 9	52	1.0	1.2	0.9					
1930	74	0.9	0.9	0.9					
1931	63	0.9	1.0	0.9					
1932	38	1.3	1.1	1.3					
1933	47	1.0	0.7	1.3					
1934	53	1.7	0.8	1.8					
1935	59	1.6	0.8	1.9					
1936	67	1.4	0.8	1.7	•••				
1937	62	1.5	0.8	1.7	• • •				
19 3 8	82	1.3	0.9	1.4	• • •				
19 3 9	109	1.1	0.8	1.1	• • •				
1940	98	1.0	0.8	1.0	• • •				
1941	118	1.0	0.8	1.1	• • •				
1942	151	1.1	0.9	1.1	1.7				
1943	103	1.2	0.9	1.2	1.6				
1944	152	1.2	0.8	1.1	1.8				
1945	144	1.1	0.8	1.1	2,2				
1946	145	1.3	0.8	1.4	1.6				
194 7	96	1.4	0.8	1.4	2.7				
1948	161	1.1	0.8	1.2	2.9				
1949	168	1.3	0.7	1.3	3.1				
1950	130	1.6	0.6	1.6	4.8				
1951	123	1.4	0.8	1.5	3.2				
1952	123	1.4	0.7	1.4	2.6				
1953	148	1.3	0.6	1.4	3.0				
1954	169	1.5	0.8	1.3	3.3				
1955	147	1.5	0.8	1.3	2.8				
Unweig	hted								
mea		1.3	0.8	1.3	2.7				

Table 21.--Total fishing time reported (thousands of hours) and catch per hour for various waters, 1928-1955

Data for the Great Lakes were included with "non-trout waters" prior to 1942.