

Original: Fish Division
cc: Manistee Purchase Unit
Mr. Ruhl
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see supplement attached

INSTITUTE FOR FISHERIES RESEARCH
DIVISION OF FISHERIES
MICHIGAN DEPARTMENT OF CONSERVATION
COOPERATING WITH THE
UNIVERSITY OF MICHIGAN

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REPORT NO. 449

CREEL CENSUS ON A SHORT STRETCH OF
THE LITTLE MANISTEE RIVER,
TROUT SEASON OF 1937

The data for this report have been kindly furnished by the Manistee Purchase Unit of the U. S. Forest Service, and were collected by enrollees of Camp Irons, a U. S. Forest Service camp. the project was directed by Mr. Eugene Kuhne, formerly Wildlife Technician on the Walhalla Ranger District.

Three creel census stations were maintained each day during the 1937 trout season at vantage points on the Little Manistee River. Their locations are shown on the appended map. The stream mileage between the upper and lower stations is approximately 3.6 miles, as determined from a copy of Conservation Department aerial photographs.

The usual creel census blanks were used in collecting the data. The enrollees were instructed by the wildlife technician to stop all cars leaving the area past stations 1 and 2 (indicated on map) and obtain the necessary information. It was hoped that scale samples, measurements and weights could be obtained by the census takers, but it was soon found that the fishermen did not care to spend the extra time needed for the collection of such data when starting on their homeward journeys. Therefore only the usual data on species, number caught, estimated lengths, hours fished, etc. were obtained.

The tabulations and computations of the returns from this intensively censused portion of the Little Manistee River reveal that a total of 659 fishermen used the 3.6 miles of water during the 1937 trout season. Of this number, 598 were Michigan residents, 57 were non-residents, and 4 were not determinable. As on the Pine River, Kent County anglers led the fishing parade, 268 listing Kent County as their home. Muskegon County with 48, and Wayne County with 41, were second and third respectively. Outstate anglers were represented by Indiana (28), Illinois (18), Ohio (9), and Minnesota (2). (Table 2, Chart.)

The 659 fishermen angled a total of 2583.75 hours and removed 1036 legal trout from this intensively censused portion of the Little Manistee, an average of 1.6 fish per angler. However, 351, or 53% of the fishermen took no fish. (Table 1).

The total catch (1036 trout) was made up as follows: 155 brook trout of an average size of 8.3 inches, 468 rainbow trout of an average size of 8.5 inches, and 413 brown trout of an average size of 8.7 inches. The average size of all fish caught was 8.6 inches. The number of undersized trout recorded as caught and released was 1048, composed as follows: 126 brook trout of an average size of 5.7 inches, 530 rainbow trout of an average size of 5.4 inches, and 392 brown trout of an average size of 5.4 inches. The average of all undersized fish was 5.4 inches.

The catch per hour of legal fish (7 inches) for the entire season was 0.4 trout per hour. This varied from a low of 0.20 fish per hour in April to 0.79 fish per hour in July. The total catch per hour was made up as follows:

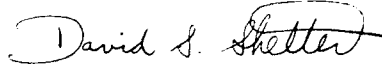
| | |
|-------------------------|--------------------|
| Brook Trout | 0.06 fish per hour |
| Rainbow Trout | 0.18 " " " |
| Brown Trout | 0.16 " " " |

The average number of hours fished varied from 3.3 in April to 4.1 in June, the average for the season being 3.9.

The yield, in legal fish per mile, may be roughly calculated, if it is assumed that as many anglers caught fish outside of the census area and reported them as anglers who caught fish in the census area but completed their fishing at points outside the intensively censused portion of the stream, thus avoiding the census clerks. On the basis of the above assumption, the yield per mile of stream in the censused area during the 1937 trout season was 288 legal trout per mile divided as follows: 43 legal brook trout per mile, 130 legal rainbow trout per mile and 115 legal brown trout per mile.

From the total catch per hour (Table 1), it will be seen that fishing started out rather poorly, but became successively better each month, reaching a peak in July and then falling off gradually. From the total numbers of browns and rainbows recorded, one may conclude that brown trout fishing in the Little Manistee is almost as good as the rainbow fishing, for which the stream has long been justly famous.

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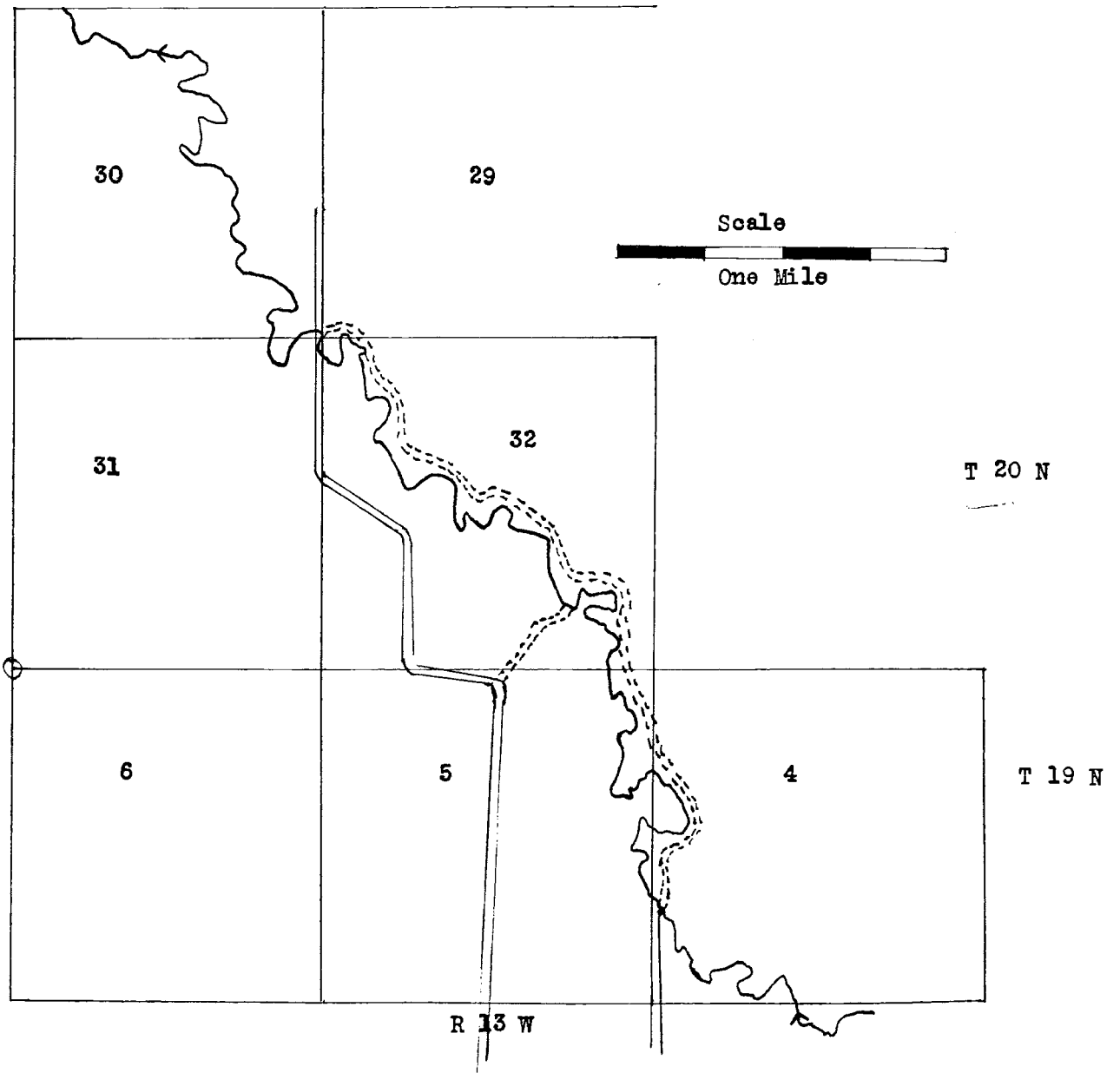


By David S. Shetter
Assistant Aquatic Biologist

LITTLE MANISTEE RIVER

CREEL CENSUS

Checking Stations



Distance from to - 3.6 miles--Determined by D. S. Shetter, 11/20/37

Table 1

Little Manistee River, Lake County, Summer, 1937

| Month | No. of Fishermen | Fishermen taking No Fish | | No. Of Hours Fished | No. Legal Fish Caught | No. Fish Per Angler | Number of Fish Per Hour | | | | Ave. Size All Fish Caught | No. Under-sized Fish Caught | No. Hours Per Fisherman Day |
|---------------|------------------|--------------------------|----|---------------------|-----------------------|---------------------|-------------------------|---------|-------|-------|---------------------------|-----------------------------|-----------------------------|
| | | No. | % | | | | Brook | Rainbow | Brown | Total | | | |
| April 24-30 | 93 | 69 | 74 | 307.75 | 68 | 0.7 | 0.02 | 0.08 | 0.1 | 0.2 | 9.1 | 1 | 3.3 |
| May 1-31 | 300 | 163 | 54 | 1209.00 | 346 | 1.2 | 0.03 | 0.11 | 0.14 | 0.28 | 8.8 | 601 | 4.0 |
| June 1-30 | 85 | 45 | 53 | 347.25 | 122 | 1.4 | 0.06 | 0.17 | 0.13 | 0.35 | 8.3 | 387 | 4.1 |
| July 1-31 | 79 | 27 | 34 | 317.25 | 252 | 3.2 | 0.14 | 0.35 | 0.30 | 0.79 | 8.5 | 46 | 4.0 |
| Aug. 1-31 | 69 | 29 | 42 | 270.75 | 189 | 2.7 | 0.14 | 0.40 | 0.16 | 0.69 | 8.2 | 10 | 3.9 |
| Sept. 1-6 | 33 | 18 | 55 | 131.75 | 59 | 1.8 | 0.06 | 0.25 | 0.14 | 0.45 | 8.4 | 3 | 4.0 |
| Total or Ave. | 659 | 351 | 53 | 2583.75 | 1036 | 1.6 | 0.06 | 0.18 | 0.16 | 0.4 | 8.6 | 1048 | 3.9 |

Catch By Species--Legal Sized Fish

| Month | Brook | | Rainbow | | Brown | | Total | |
|---------------|-------|-----------|---------|-----------|-------|-----------|-------|-----------|
| | No. | Ave. Size | No. | Ave. Size | No. | Ave. Size | No. | Ave. Size |
| April 24-30 | 7 | 8.1 | 24 | 9.3 | 37 | 9.1 | 68 | 9.1 |
| May 1-31 | 38 | 8.6 | 134 | 8.9 | 174 | 8.8 | 346 | 8.8 |
| June 1-30 | 20 | 8.4 | 58 | 8.3 | 44 | 8.5 | 122 | 8.5 |
| July 1-31 | 44 | 8.1 | 111 | 8.6 | 97 | 8.6 | 252 | 8.5 |
| Aug. 1-31 | 38 | 8.1 | 108 | 8.2 | 43 | 8.4 | 189 | 8.2 |
| Sept. 1-6 | 8 | 8.5 | 33 | 8.1 | 18 | 8.9 | 59 | 8.4 |
| Total or Ave. | 155 | 8.3 | 468 | 8.5 | 413 | 8.7 | 1036 | 8.6 |

Catch By Species--Undersized Fish

| Month | Brook | | Rainbow | | Brown | | Total | |
|--------------|-------|-----------|---------|-----------|-------|-----------|-------|-----------|
| | No. | Ave. Size | No. | Ave. Size | No. | Ave. Size | No. | Ave. Size |
| April 24-30 | | | | | 1 | 4.0 | 1 | 4.0 |
| May 1-31 | 92 | 5.7 | 279 | 5.3 | 230 | 5.2 | 601 | 5.3 |
| June 1-30 | 21 | 5.3 | 208 | 5.5 | 158 | 5.6 | 387 | 5.5 |
| July 1-31 | 10 | 6.3 | 34 | 6.0 | 2 | 6.5 | 46 | 6.1 |
| Aug. 1-31 | | | 9 | 5.1 | 1 | 6.0 | 10 | 5.2 |
| Sept. 1-6 | 3 | 6.0 | | | | | 3 | 6.0 |
| Total & Ave. | 126 | 5.7 | 530 | 5.4 | 392 | 5.4 | 1048 | 5.4 |

Table 2

Residence of Anglers by County and State

| County | April | May | June | July | August | September | Total |
|------------|-------|-----|------|------|--------|-----------|-------|
| Allegan | | 3 | | | | | 3 |
| Arenac | | | 1 | | | | 1 |
| Barry | | 3 | | | | | 3 |
| Bay | 2 | | | | | | 2 |
| Berrien | | 5 | | | | | 5 |
| Branch | | 4 | 2 | | | | 6 |
| Calhoun | 1 | 8 | | 1 | 1 | 1 | 12 |
| Clinton | | 1 | | | | | 1 |
| Eaton | | | | 2 | | | 2 |
| Genesee | 1 | 12 | | 2 | 9 | 1 | 25 |
| Ingham | 6 | 5 | | 2 | 3 | | 16 |
| Ionia | | 8 | | | | | 8 |
| Isabella | | 4 | | | | | 4 |
| Jackson | | 2 | | 1 | | | 3 |
| Kalamazoo | 2 | 11 | 2 | 4 | 2 | 1 | 22 |
| Kent | 45 | 127 | 40 | 20 | 23 | 13 | 268 |
| Lake | | 6 | 7 | 4 | 3 | 2 | 22 |
| Manistee | 1 | | | 1 | 1 | | 3 |
| Mason | 1 | 3 | | | | | 4 |
| Mecosta | | 1 | | 4 | 1 | | 6 |
| Montcalm | 3 | 3 | | 1 | | | 7 |
| Muskegon | 15 | 13 | 7 | 1 | 3 | 9 | 48 |
| Newaygo | 2 | 6 | 1 | 2 | 5 | | 16 |
| Oakland | | 2 | 6 | | | | 8 |
| Oceana | 1 | 2 | 1 | | | | 4 |
| Ottawa | | 7 | 5 | | 4 | | 16 |
| Osceola | 1 | 2 | | | | | 3 |
| Saginaw | | 4 | 3 | 5 | | | 12 |
| St. Joseph | 7 | 8 | | 2 | 2 | 2 | 21 |
| Shiawassee | | | | | 1 | | 1 |
| Tuscola | 1 | | | | | | 1 |
| Van Buren | | | | | 1 | | 1 |
| Washtenaw | | 2 | | | | | 2 |
| Wayne | 2 | 20 | 6 | 5 | 7 | 1 | 41 |
| Wexford | | 1 | | | | | 1 |
| Total | 91 | 273 | 81 | 57 | 66 | 30 | 598 |
| Unknown | | | 1 | 1 | | 2 | 4 |
| State | | | | | | | |
| Illinois | | 15 | | 3 | | | 18 |
| Indiana | 2 | 5 | 2 | 16 | 3 | | 28 |
| Minnesota | | 1 | 1 | | | | 2 |
| Ohio | | 6 | | 2 | | 1 | 9 |
| Total | 2 | 27 | 3 | 21 | 3 | 1 | 57 |

Chart 1

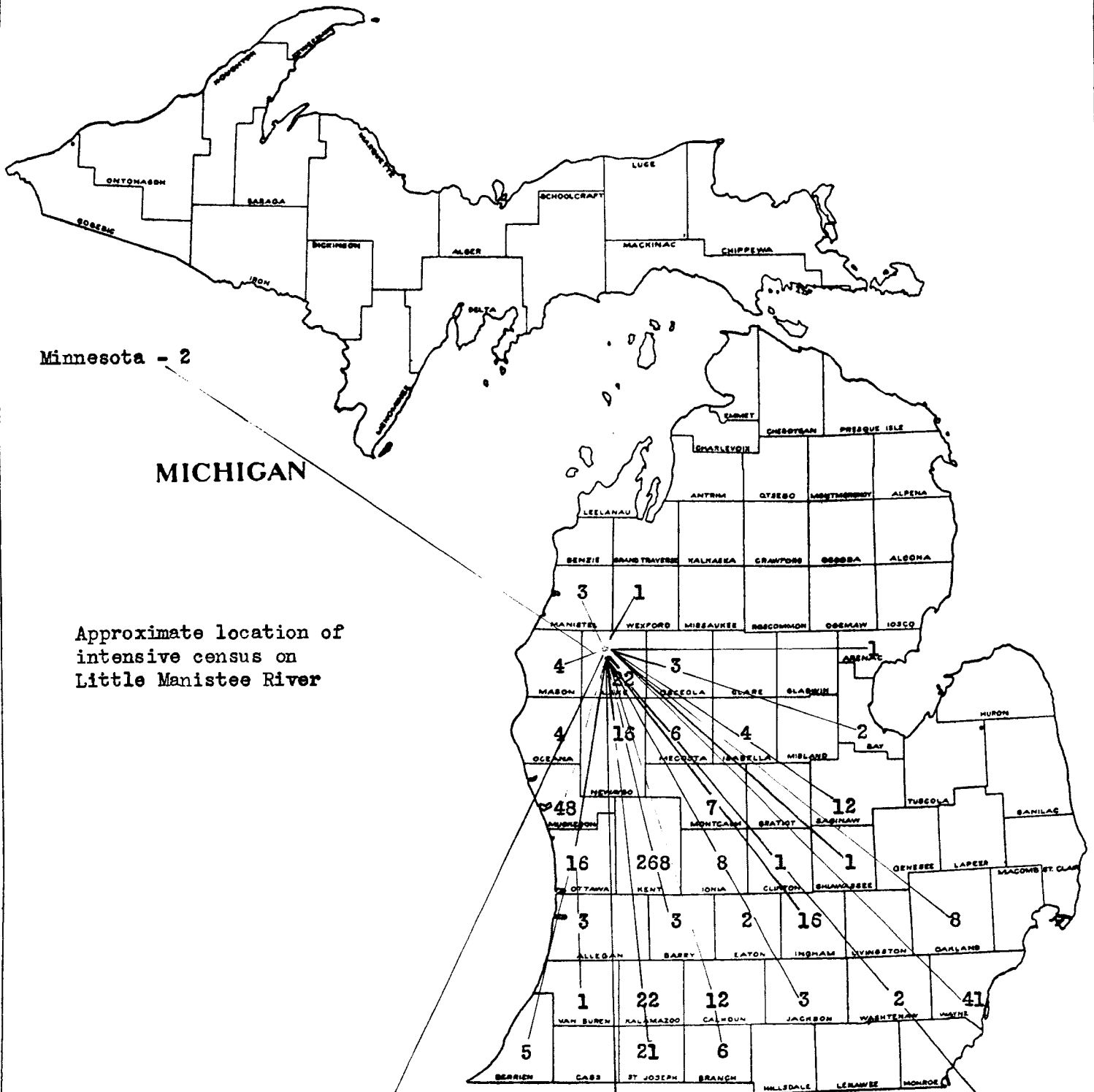


Chart showing residence and number of resident and non-resident anglers fishing the intensively censused section of the Little Manistee River, 1937.

Original: Fish Division
 cc: Mr. Ruhl
 Miss Mary Cadley, Evanston, Ill.

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October 20, 1938

SUPPLEMENT TO REPORTS 435 AND 449

DISTRIBUTION OF NON-RESIDENT ANGLERS ON SIX MICHIGAN TROUT STREAMS BY STATES.

(Data From Intensive Creel Censuses on Pine, Little Manistee,
 South Branch of the Pine, North Branch of the Au Sable,
 Canada Creek and Pigeon Rivers, 1937.)

| <u>State</u> | <u>Number of Fishermen</u> | <u>Per Cent of Total</u> |
|----------------------|----------------------------|--------------------------|
| Ohio | 401 | 5.8 |
| Indiana | 85 | 1.2 |
| Illinois | 81 | 1.2 |
| Pennsylvania | 22 | 0.31 |
| Texas | 1 | 0.01 |
| West Virginia | 1 | 0.01 |
| Florida | 6 | 0.08 |
| Kentucky | 1 | 0.01 |
| Oklahoma | 3 | 0.04 |
| New York | 7 | 0.10 |
| District of Columbia | 1 | 0.01 |
| Wisconsin | 3 | 0.04 |
| Missouri | 3 | 0.04 |
| Arkansas | 2 | 0.02 |
| Connecticut | 1 | 0.01 |
| Minnesota | 2 | 0.02 |
| Canada | 2 | 0.02 |
| Total | 622 | 8.92 |

Total Resident Anglers 6,237
 Total Non-resident Anglers 622
 Total Anglers 6,909

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