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ANGLING RESULTS ON EAST FISH LAKE, MONTMORENCY COUNTY, IN 1944 AND 1945, AS DETERMINED BY INTENSIVE CREEL CENSUS

by

David S. Shetter

Since the 1940 trout season, intensive creel census records have been obtained each year from the angling on this 16-acre trout lake. The changes which have occurred here since the poisoning of the lake in August, 1941, and the re-stocking with adult brook trout, and the increase in the size of the brook trout taken despite increased angling pressure are of wide-spread interest. In this report, the angling results for the 1944 and 1945 angling seasons will be presented, also data on growth obtained from recoveries of tagged brook trout will be discussed. For more detailed information on the past history of this lake, the reader is referred to Institute for Fisheries Research Reports 555, 644, 848, and 943.

1944 Angling Results

Records were obtained from 311 of 315 days of angling known to have been spent by 150 individuals on East Fish Lake in 1944. (See Table 1.) These fishermen, of whom 238, or 76.5 per cent, were unsuccessful, spent

a total of 651.00 hours[1] catching 108 legal brook trout which weighed 79.05 pounds. The quality of the fishing, as measured in terms of number caught per hour, was 0.17 legal brook trout; in terms of pounds of legal brook trout removed per hour of angling it was 0.121. The average total length of the brook trout removed (105) was 11.2 inches, and their average weight was 12.0 ounces (0.75 lb.). A total of 29 undersized brook trout were returned to the water.

The quality of the fishing varied considerably throughout the season. During the period April 29 - May 12, it was of average proportions (0.22 fish per hour, 0.165 pounds of fish per hour), chiefly because the size of the fish taken was above average. From May 13 to June 9, fishing was poor, and only two legal trout were taken in over 77 hours of angling effort. The peak of the season, as far as quality was concerned, came between June 10 and June 23, when the catch per hour was 0.57 and the pounds of fish removed per hour was slightly over one-half pound. During this period the average size of the fish taken was 11.8 inches and 14.8 ounces. In other periods, the quality varied from 0.11 to 0.18 fish per hour, and from 0.044 to 0.125 pounds of fish per hour.

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[1] If the average time spent fishing is assigned to the four anglers not contacted during the two-week periods when they were noted, it may be estimated that 315 anglers (made up of 145 different individuals) spent 660.50 hours on the lake. From the high percentage of unsuccessful anglers recorded, it appears doubtful if the uncontacted anglers took any legal trout. The corrected catch per hour and pounds per hour index figures would then be changed to 0.16 and 0.120 respectively.

Angling pressure was heaviest during the last 16 days of the season (164.75 hours). This pressure was partly the result of the capture of a 2-pound, 6-ounce fish by a tourist-angler from Lewiston. Other peaks of angling pressure occurred during June 24 to July 7 (142.00 hours), and the opening two weeks (86.50 hours). In the other periods the pressures ranged between 24.75 to 55.50 hours.

It should be mentioned here that of the 108 fish caught in 1944, four fish of two pounds or larger were taken and 31 fish of one pound or larger were removed. The average size of the trout taken in the two-week periods varied between 7.3 inches and 0.38 pound, and 12.3 inches and one pound.

Translating the 1944 results to a per acre basis, it can be demonstrated that a pressure of 40.7 man-hours of fishing per/per season resulted in the capture of 6.75 legal brook trout per acre. The weight of legal fish removed per acre amounted to 4.94 pounds.

1945 Angling Results (Table 2)

The number of recorded angling days in 1945 increased to 436 (expended by 189 individuals), and 78.1 per cent were unsuccessful. These fishermen spent a total of 927.75 hours on East Fish Lake during the trout season. Their total catch amounted to 169 legal brook trout, of which 11 were returned to the water alive. The weight of the legal catch removed (158 fish) amounted to 130.62 pounds, an increase of 51.57 pounds of fish removed compared with the previous year. A total of 36 sublegal fish were reported returned to the water.

For the entire season, the quality of the angling may be determined to be 0.18 legal fish per hour or 0.141 pounds of fish per hour.[1] Angling quality in 1945 might be said to be from 6 to 16 per cent better on East Fish Lake than it was in 1944, depending on which criterion is used, number or pounds caught per hour.

The angling quality did not have the extreme variation noticed in 1944, as there were no periods when anglers were completely blanked. The catch per hour varied between 0.13 legal trout (April 28 - May 11) and 0.25 legal trout (May 26 - June 8). There was a somewhat wider range in quality if you judge it by the pounds per hour removed--from 0.057 pounds (July 7-20) to 0.283 pounds (May 12-25).

Angling pressures were highest during the periods May 26 - June 8 (186.00 hours), and June 9-22 (184.00 hours). In all other periods, angling pressures ranged from 48.00 to 145.75 hours.

In 1945 the average size of the trout removed from East Fish Lake was 11.9 inches and 0.83 pounds. In the various two-week periods, the average sizes ranged from 9.3 inches and 0.36 pounds (July 7-20) to 16 inches and 1.94 pounds (May 12-25). The longest fish taken was an 18-inch fish which weighed 2 pounds, 9 1/2 ounces. The heaviest fish weighed 2 pounds, 10 3/4 ounces and was 17.7 inches long. Of the 158 fish removed, 11 were 2 pounds or over in weight and 38 were 1 pound or over in weight.

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[1] Again, making use of the average time spent fishing during the respective two-week periods when one uncontacted angler fished, the total fishing effort may be estimated to be approximately 930 hours. It appears unlikely, because of the high percentage of unsuccessful anglers, that the uncontacted fisherman caught any trout. The catch per hour and pounds per hour indices of quality are not affected.

Origin of Brook Trout in East Fish Lake Catches During 1944 and 1945

No hatchery-reared trout have been planted in East Fish Lake since the spring of 1942. As might be expected, a large percentage (about 91 per cent) of the 1942 catch on the lake consisted of marked hatchery trout (all legal trout released in the lake were either tagged or fin-clipped). The 1943, 1944, and 1945 catches consisted entirely of wild brook trout. These fish were spawned either in the confines of the lake itself, in the main inlet or one of the inlet springs, or in the outlet between the fish-trap and the retaining dam. Other brook trout were added to the lake population as they were trapped in the outlet and inlet weirs on their way to the lake.

A two-way fish trap (or weir) was installed in the outlet stream below the retaining dam as soon as the structure was completed in August 1941. This has been in operation continually since that time. In September, 1944, a weir was placed on the inlet stream. By marking all fish as they move into the lake with either numbered tags or with a distinctive fin combination, we hope eventually to determine whether spawning takes place in the lake. Since February 29, 1944, all fish passing through the weirs have been marked either by fin-clipping or tagging. Previously only brook trout over 4 inches were tagged. If we get a high proportion of unmarked fish in the anglers' catches in 1946 and 1947 it will indicate strongly that spawning takes place elsewhere than in the streams connected with the lake, most likely in the lake itself.

An analysis of the 1944 and 1945 catch records reveals the following facts. In 1944, recoveries of marked fish put into the lake over the

outlet weir constituted 21.9 per cent of the total catch (23 of 105 fish). A further breakdown shows that one of the tagged fish was a survivor from fish moved over the weir in 1942, ten were tagged fish placed in the lake during the period between May and December of 1943, while nine tagged fish originated from transferals made between January and May of 1944. Three fin-clipped fish (right pelvic clip) were recovered as legal fish during 1944. These latter recoveries indicate a rapid growth rate during the period March and July or August, since only fish of less than 100 mm. (approximately 4 inches) are marked in this manner. This means that fish bearing such marks grew three or more inches between March and July or August.

In the 1945 catch, 47 of the 158 fish (or 29.7 per cent) removed were either tagged or fin-clipped indicating that they had been transferred from the inlet or outlet streams on their way to the lake. Of this 47, four tagged fish were released into the lake between October and December 1943, twenty-four were put into the lake between January and November 1944, while nine other fish were tagged and released during March and April of 1945, making a total of 37 tagged brook trout recovered. In addition, 10 fin-clipped fish entered the legal catch, but their date of entry into the lake cannot be estimated with certainty. The marked fish in the 1945 catch were separable as to stream of origin as follows: from the outlet, 20 tagged fish, 9 fin-clipped fish; from the inlet, 17 tagged fish, 1 fin-clipped fish. From this we may conclude that were the inlet and outlet unobstructed by the weirs, approximately 1/3 of the legal catch of the lake might be expected to originate in the inlet and outlet, with the outlet furnishing the majority of such migrants.

Growth of the East Fish Lake Brook Trout as Determined from Recoveries of Tagged Fish

In the course of the weir operations and transferal of all trout entering the traps to the lake (at the outlet all trout entering the upstream trap are presumed to have a desire to reach the lake, and at the inlet all entering the downstream trap are supposedly attempting to move down into the lake), all brook trout are measured. If a fish is less than 4 inches, it is marked by removing a distinctive fin or fin combination used at that particular weir, or if over 4 inches it is jaw-tagged with a tag of appropriate size and the number recorded. When and if the fish is recovered at a later date by angling or other means, comparison of the measurements taken at the time of tagging and recovery provides an accurate means of determining the growth between the two dates.

The rapid growth of the East Fish Lake brook trout has been mentioned before (Report 943), but the results obtained during 1944 and 1945 are presented here to give further evidence of this growth. The data are summarized in Table 3 which outlines the time of tagging and recovery, the number of specimens taken, the average length of time between tagging and recovery, the average total length at tagging, and the average percentage increase in size per day of freedom, both for 1944 and 1945. Both angling and weir recoveries have been used in assembling the averages.

In sorting the data, it appeared necessary to sort the recoveries by time of release into the lake and time of recovery later, but if one followed this plan strictly, numerous groups with relatively few individuals in each group resulted. The best solution seemed to be to separate the data by the three-month periods of tagging and three-month periods of recovery, beginning

with January 1 of each year. The data for such groups was then averaged. The average percentage increase per day of freedom provides a good index as to the time of year when growth is most rapid, since in the sorting of the data in the manner described above, season, as well as length of time free, have been taken into account.

A study of Table 3 indicates the following facts:

1. An average daily percentage increase in length of 0.30 to 0.37 per cent may be expected where the fish are free through two successive winters and part of one summer.

2. Where the fish were in East Fish Lake through one calendar year or a part of it, the average daily percentage increase ranged from 0.14 to 0.48 per cent. Those fish which were tagged in the spring or summer of one year and recovered in the spring or summer of the following year made the best growth (average daily percentage increases in length ranging from 0.32 to 0.48 per cent). Fish which were tagged in the fall quarter and recovered during the following year showed average daily percentage increases in length varying 0.14 to 0.39 per cent.

3. Fish tagged in the first or second quarter of the year and subsequently recovered in the second, third or fourth quarter of the same year showed average daily percentage increases in length which varied 0.35 to 0.97 per cent. The best growth, as determined from the table, took place in fish marked during the spring and recovered either during the spring or summer. Growth during the fall months appears to be somewhat greater than during the winter as the average percentage increase per day was higher for that period than for fish recovered during the winter. Inspection of individual recoveries indicates the period of maximum growth to be between April and September, when some fish have shown increases in total length slightly in excess of 1 millimeter per day of freedom.

Because it can be noted in Table 3 that there is some relationship between the size at tagging and the later growth of the fish in East Fish Lake, the recoveries were sorted by size groups of approximately one inch, starting with slightly less than 4 inches, and these size groups were further broken down into categories of recoveries which had been free for varying lengths of time without considering season. For each size group and time period, the number of specimens, the average number of days free, and the average percentage increase in total length per day free was calculated (Table 4).

A study of Table 4 leads to the following conclusion:

1. Using the average percentage increase in total length per day of freedom as a criterion, in general, the rapidity of growth in total length decreases with an increase in size at the time of tagging regardless of the length of time between tagging and recovery.

Some deviation from this statement will be noted in the fish above 203 millimeters, possibly because an adequate number of fish was not recovered in those size ranges. However, in the size ranges between 100 and 177 millimeters the data supports the conclusion strongly.

As indicated previously the period of fastest growth probably is between the time the ice leaves in late March or early April to the last insect hatches in the fall, usually in late September. The East Fish Lake brook trout were observed feeding on the surface as early as March 22, 1945, just as soon as the ice left (in 1944 with half the ice gone, they fed on the surface in the open waters on April 18). During the past two years, considerable surface feeding has been observed as late as the opening day of duck season (September 20).

Numbers of Anglers Taking Various Numbers of Trout

(Table 5)

In both 1944 and 1945, slightly more than three-quarters of the angling days were unsuccessful. In 1944, 15.8 per cent caught one fish; in 1945 only 12.6 per cent. In both years, two fish were caught during slightly more than 5 per cent of the total angling days, and three fish were removed on slightly more than 2 per cent of the days. Four fish creels were recorded for less than 1 per cent of the angling days in both years. No anglers took more than 4 fish in any angling day in 1944, and only 5 angling days resulted in creels with 5 or more fish in 1945. Four anglers took creels of 5 each (0.9 per cent), and one angler caught 9 trout one evening (0.2 per cent).

Residence of East Fish Lake Anglers, 1944 and 1945

(Table 6)

In 1944, residents from 19 Michigan counties and 14 Ohio anglers fished on East Fish Lake. In 1945, anglers came from 22 Michigan counties, as well as "trouters" from Illinois, Ohio and Pennsylvania. Residence was not obtained on two records in 1944 and seven in 1945. In both years, all Michigan residents were from the Lower Peninsula.

Montmorency County anglers were most numerous in both years, followed by Wayne County. In 1944, Oakland County was third on the list; in 1945 Washtenaw was third. Outstate anglers, as usual, were most numerous from Ohio, followed by Pennsylvania and Illinois.

Summary of the Angling Trends on East Fish Lake

The items of major interest from the creel census data collected for the past seven seasons at East Fish Lake are summarized in Table 7. Since 1939, the area of the lake has been increased from 13.5 acres to 16.0 acres through the installation of the dam in 1941, and the addition of an extra slash-board in 1943. Angling pressure has varied from 9.3 hours per acre per season to 58.0 hours per acre per season. The heaviest angling pressures were recorded in 1944 and 1945 despite war-time travel difficulties.

The legal catch has varied from 51 fish/in 1939 to 367 fish in 1942. In 1940, 1941, and 1942 legal-sized, hatchery-reared brook trout made up 74, 72 and 91 per cent of the total catches in those years under a stocking policy that called for releasing not more than 500 marked legal fish for any one season.

Since 1942, no fish have been released in East Fish Lake, and the catch in 1943, 1944 and 1945 has consisted entirely of naturally-spawned brook trout. While the catch has not approached the numerical peaks of 1941 and 1942, the average size of the trout taken during the past three seasons has more than compensated for the lower catches. From a low of an average size of 8.0 inches and 0.18 pounds in 1940, the average size of the anglers' catch has increased steadily each year to a high of an average size of 11.9 inches and 0.83 pounds in 1945. This increase in the average size of the catch gave the highest poundage yield recorded for the lake during 1945, higher even than any year in which hatchery brook trout were planted, even though the numerical total was much less than in 1941 or 1942.

The angling quality has varied from 0.096 pounds in 1940 per hour to 0.336 pounds per hour in 1942; the latter high figure was recorded in 1942 when 500 hatchery-reared trout were available. The quality has probably been influenced considerably by the increased angling pressure during the past two years. Despite the increased pressure, quality has maintained itself fairly well during the last three years without aid from the hatcheries.

If the present trend is continued, we may expect some increase in the total catch and possibly the average size during the coming season. Judging from anglers' experiences during 1944, someone should take a brook trout of 3 pounds weight or larger. If the brook trout population in East Fish Lake is of the approximate magnitude in number and average size of that during the previous year, and angling pressure does not increase past 1,000 hours of fishing, the quality of the fishing should remain at approximately the 1945 level.

INSTITUTE FOR FISHERIES RESEARCH

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TABLE 1

ANGLING RESULTS, EAST FISH LAKE, 1944 TROUT SEASON

1944 Period	Number of anglers	Anglers taking no fish		Total hours of angling	Legal brook trout		Sublegal trout returned	Pounds per hour of legal trout removed	Average size of legal trout removed	
		Number	Percentage		Number caught	Catch/hr.			t.l. (in.)	wt. (lbs.)
Apr. 29-May 12	42	31	73.8	86.50	19	0.22	5	0.165	11.5	0.75
May 13-26	20	18	90.0	24.75	2	0.08	1	0.081	12.3	1.00
May 27-June 9	27	27	100.0	53.00	0	0.00	1	0.000	...	...
June 10-23	20	8	40.0	36.75	21 (2)	0.57	7	0.504	11.9	0.93
June 24-July 7	67	51	76.1	142.00	25	0.18	12	0.095	10.2	0.54 (3)
July 8-21	18	15	83.2	42.75	5	0.12	0	0.044	7.4	0.38
July 22-Aug. 4	23	18	78.3	45.00	5 (1)	0.11	2	0.049	8.2	0.44
Aug. 5-18	21	14	66.7	55.50	8	0.14	0	0.109	11.6	0.75
Aug. 19-Sept. 4	73	56	76.7	164.75	23	0.14	1	0.125	11.9	0.88
Totals, averages	311	238	76.5	651.00	108 (3)	0.17	29	0.121	11.2	0.75 (3)

(n) Number in caret indicates number of legal trout caught and returned to water.

(n) Number in circle indicates number of curve weights used in obtaining period averages and total weight of fish removed.

TABLE 2

ANGLING RESULTS, EAST FISH LAKE, 1945 TROUT SEASON

1945 Period	Number of anglers	Anglers taking no fish		Total hours of angling	Legal brook trout		Sublegal trout returned	Pounds per hour of legal trout removed	Average size of legal trout removed	
		Number	Percentage		Number caught	Catch/hr.			t.l.(in.)	wt.(lbs.)
Apr. 28-May 11	41	36	87.8	83.25	11	0.13	3	0.065	10.5	0.48
May 12-25	29	25	86.2	48.00	7	0.15	0	0.283	16.0	1.94
May 26-June 8	76	52	68.4	186.00	47	0.25	9	0.235	12.5	0.97 (4)
June 9-22	76	61	80.3	184.00	34	0.18	5	0.137	12.0	0.86 (4)
June 23-July 6	71	59	83.1	145.75	21 (5)	0.14	12	0.076	11.3	0.69
July 7-20	51	42	82.4	95.25	15	0.16	6	0.057	9.3	0.36
July 21-Aug. 3	23	15	65.2	55.25	10 (1)	0.18	1	0.102	11.0	0.62
Aug. 4-Aug. 17	39	32	82.1	63.00	9	0.14	0	0.104	12.1	0.82
Aug. 18-Sept. 3	30	19	60.7	67.25	15 (1)	0.23	0	0.176	11.5	0.78
Totals, averages	436	341	78.1	927.75	169 (11)	0.18	36	0.141	11.9	0.83 (8)

(✓) - Number in caret indicates numbers of legal trout caught and returned to water.

(O) - Number in circle indicates number of curve weights (1944 East Fish Lake curve) used in obtaining average weights, as a few fish were dressed before weighing.

TABLE 3

COMPARISON OF GROWTH OF TAGGED BROOK TROUT RECOVERED FROM EAST FISH LAKE IN 1944 AND 1945 BY ANGLING AND WEIRS, ARRANGED BY THREE MONTH PERIODS IN THE TWO YEARS

(Measurements are given in millimeters.)

Quarter and year of tagging	Quarter and year of recovery	1944				1945			
		Number	Average days free	Average total length at tagging	Average percentage increase per day free	Number	Average days free	Average total length at tagging	Average percentage increase per day free
4th - 42 or 43	2nd - 44 or 45	1	563	121	0.37	4	579	133	0.30
1st - 43 or 44	2nd - 44 or 45	...	...	...	...	1	539	123	0.26
2nd - 43 or 44	2nd - 44 or 45	3	373	114	0.40	2	376	112	0.38
3rd - 43 or 44	2nd - 44 or 45	1	227	143	0.32	4	256	112	0.41
3rd - 43 or 44	3rd - 44 or 45	1	317	117	0.48	2	317	150	0.34
4th - 43 or 44	2nd - 44 or 45	5	196	141	0.37	11	209	230	0.14
4th - 43 or 44	3rd - 44 or 45	...	...	...	...	6	269	173	0.20
4th - 43 or 44	4th - 44 or 45	2	343	124	0.36	1	378	101	0.39
1st - 44 or 45	2nd - 44 or 45	2	87	149	0.35	4	65	194	0.48
1st - 44 or 45	3rd - 44 or 45	1	191	137	0.45	1	98	134	0.73
1st - 44 or 45	4th - 44 or 45	4	264	152	0.36	2	218	147	0.36
2nd - 44 or 45	2nd - 44 or 45	2	73	133	0.85	3	70	158	0.51
2nd - 44 or 45	3rd - 44 or 45	4	83	115	0.94	1	92	103	0.97
2nd - 44 or 45	4th - 44 or 45	8	171	114	0.57	...	...	...	...

THE AVERAGE PERCENTAGE INCREASE IN LENGTH PER DAY OF BROOK TROUT OF VARIOUS SIZES

Size ranges are given in

Size range at tagging	Free 0 - 99 days		Free 100 - 199 days		Free 200 - 299 days	
	Number and average days free	Average percentage increase per day	Number and average days free	Average percentage increase per day	Number and average days free	Average percentage increase per day
100 - 127 (3.9-5.0)	6 - 82	0.92	8 - 171	0.56	9 - 247	0.44
128 - 152 (5.0-6.0)	7 - 82	0.68	2 - 186	0.44	4 - 227	0.34
153 - 177 (6.0-7.0)	1 - 77	0.34	.....	....	4 - 289	0.33
178 - 202 (7.0-8.0)	.....	....	.....	....	.....	....
203 - 228 (8.0-9.0)	1 - 60	0.40	1 - 140	0.11	2 - 214	0.12
229 - 254 (9.0-10.0)	1 - 33	0.24	.....	....	3 - 220	0.09
255 - 279 (10.0-11.0)	1 - 76	0.33	2 - 195	0.13	2 - 223	0.12
280 - 305 (11.0-12.0)	.....	....	1 - 196	0.08	.....	....
306 - 330 (12.0-13.0)	.....	....	1 - 195	0.08	.....	....

TABLE 4

AFTER RELEASE IN EAST FISH LAKE IN 1942, 1943, 1944 AND 1945, AND RECOVERY IN 1944 AND 1945.

millimeters (and inches in parentheses).

Free 300 - 399 days		Free 400 - 499 days		Free 500 - 599 days		Free 600 - 699 days	
Number and average days free	Average percentage increase per day	Number and average days free	Average percentage increase per day	Number and average days free	Average percentage increase per day	Number and average days free	Average percentage increase per day
9 - 340	0.43	2 - 403	0.38	3 - 557	0.31	1 - 608	0.36
1 - 336	0.32	.....	....	.....	....	1 - 613	0.32
1 - 318	0.24	.....	....	1 - 528	0.20	.....	....
.....	....	.....	....	.....	....	.....	....
.....	....	.....	....	.....	....	.....	....
.....	....	.....	....	.....	....	.....	....
.....	....	.....	....	.....	....	.....	....
.....	....	.....	....	.....	....	.....	....
.....	....	.....	....	.....	....	.....	....

TABLE 5

NUMBER AND PERCENTAGE OF ANGLERS TAKING VARIOUS NUMBERS OF BROOK TROUT FROM EAST FISH LAKE IN 1944 AND 1945

Year	Number (and percentage) of anglers taking numbers of trout											Totals
	0	1	2	3	4	5	6	7	8	9	10	
1944	238 (76.5)	49 (15.8)	16 (5.1)	7 (2.3)	1 (0.3)	...	...	...	...	...	...	311 (100.0)
1945	341 (78.1)	55 (12.6)	23 (5.4)	9 (2.1)	3 (0.7)	4 (0.9)	...	...	...	1 (0.2)	...	436 (100.0)

TABLE 6

RESIDENCE OF EAST FISH LAKE ANGLERS,

1944 AND 1945 TROUT SEASONS

County or State	Angling days 1944	Angling days 1945
Bay	..	3
Berrien	..	3
Calhoun	1	2
Cheboygan	2	..
Clinton	..	1
Genesee	10	24
Gratiot	2	..
Hillsdale	3	..
Ingham	5	8
Jackson	14	4
Kent	..	5
Kalamazoo	..	3
Lapeer	..	1
Macomb	7	4
Midland	..	1
Monroe	1	4
Montmorency	134	211
Montcalm	1	..
Muskegon	..	2
Oakland	15	7
Ogemaw	..	1
Oscoda	8	8
Otsego	9	..
Saginaw	7	9
Shiawasee	..	..
St. Clair	7	8
Tuscola	1	..
Washtenaw	13	31
Wayne	55	62
Subtotal	295	402
Illinois	..	5
Ohio	14	15
Pennsylvania	..	7
Subtotal	14	27
Unknown	2	7
Totals	311	436

TABLE 7

SUMMARY OF PERTINENT CREEL CENSUS STATISTICS FOR EAST FISH LAKE, 1939 - 1945

Year	Area	Hours of angling	Legal trout caught	Pounds of trout taken	Pressure[1] per acre	Legal trout caught per acre	Pounds per acre removed	Average size: total length (in.)	Average size: weight (lb.)	Pounds per hour
1939	13.5	125.50	51	not known	9.3	3.8	not known.....			
1940	13.5	308.00	172	29.72	22.8	12.7	2.07	8.0	0.18	0.096
1941	13.5	385.50	244	47.23	28.5	17.9	3.50	8.5	0.20	0.122
1942	15.9	289.25	367	97.06	18.2	27.1	6.10	9.0	0.26	0.336
1943	16.0	199.50	69	26.04	12.4	4.2	1.63	9.3	0.37	0.131
1944	16.0	651.00	108[3]	79.05	40.7	6.8	4.94	11.2	0.75	0.121
1945	16.0	927.75	169[11]	130.62	58.0	10.5	8.00	11.9	0.83	0.141

[3], [11] - Indicates numbers of legal brook trout returned to the water.

[1] - Man-hours per acre per season.