

Original: Fish Division

cc: Education-Game

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February 16, 1944

REPORT NO. 932

CREEL CENSUS OF KINNE CREEK, WINGLETON CLUB
FOR THE 1943 TROUT SEASON

by

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This report summarizes the results of the trout fishing on Kinne Creek during the 1943 trout season and is based on the catch records as listed in the ice-house record books by club members and their guests. This is the sixth consecutive season for which detailed catch records on the stream are available.

As in 1942, a planting of moderate numbers of hatchery-reared trout was made. This planting consisted of the following: 250 rainbow trout, 200 brown trout, and 50 brook trout. These fish were purchased from and delivered by the Lindahl Brothers Hatchery of Iron River, Michigan in May. At that time the fish were eight inches long or longer. All were stocked in Sections A and B (below the railroad dam).

The total catch (as recorded in the ice-house record books) for the 1943 season in Sections A, B, and C of Kinne Creek was 373 trout, divided as follows: 75 brook trout, 153 brown trout, and 145 rainbow trout. The catch by sections was as follows: Section A, 113 trout; Section B, 229 trout; and Section C, 31 trout. Section B showed considerable improvement over 1942, while Section A and C yielded less than 1/2 and 1/3 respectively of their 1942 catches (Table 1).

Table 1. Trout catch in the various sections of Kinne Creek, 1943 trout season, by monthly periods, as recorded in the ice-house record book

Month	Brook			Brown		Rainbow		Total by sections			Grand Totals
	A	B	C	A	B	A	B	A	B	C	
May	...	4	2	11	15	19	32	30	51	2	83
June	5	15	12	11	24	14	46	30	85	12	127
July	2	8	7	16	31	6	18	24	57	7	88
August	1	8	7	12	18	8	1	21	27	7	55
September	1	...	3	7	8	...	1	8	9	3	20
Section Totals, '43	9	35	31	57	96	47	98	113	229	31	373
Species Totals, '43		75		153		115			373		
Section Totals, '42	1	32	110	130	99	107	37	238	168	110	516
Species Totals, '42		143		229		144			516		

Brook Trout Catch (Table 1)

Section B yielded the most brook trout of any of the three sections (35 fish), followed closely by Section C (31 fish), and by Section A (9 fish). Section C has not been planted with hatchery trout since the spring of 1941, and as these fish were marked, all unmarked fish in the catch since then can be assumed to be the result of natural reproduction. The 1943 catch of Section C was made up of 30 wild fish and one tagged hatchery fish, the latter a survivor of the 1941 planting. This particular fish, No. 28633, was one of 50 tagged brook trout planted in Section C on June 20, 1941 and was 7 1/4 inches long. It was recovered on June 8, 1943 at a size of 12 inches, having grown 4 3/4 inches in 24 1/2 months. In other words, 1 of 31 or 3.3 per cent of the total catch of Section C consisted of hatchery reared fish and 96.7 per cent of naturally reared stock.

In Section A and B a total of 50 brook trout were planted in 1943. In all probability the 1943 catch of 35 fish in Section B and 9 fish in Section A consisted largely of these recently-introduced fish since results from marking experiments on Kinne Creek in past years have indicated that

from 23 to 53 per cent of the total catch is made up of introduced, hatchery-reared brook trout.

One of the 35 brook trout taken in Section B also was a tagged fish, No. 28607. This fish was a survivor of the 1941 release of 50 fish tagged and placed in Section C on June 20 of that year. It was 7 1/4 inches at the time of tagging and release. It was caught on May 8, 1943 at a size of 10 1/2 inches, so it grew 3 1/4 inches in approximately 23 months. If the location of capture was correctly recorded, it would indicate that some fish pass downstream through either the turbines of the power plant or when the gates are opened to flush the pond.

The drop in the brook trout catch between 1942 (143 fish, of which 110 were taken in Section C) and 1943 occurred entirely in Section C. Whether there was an actual decline in the quality of fishing in Section C or whether it was not fished enough to produce the maximum yield cannot be ascertained definitely in the absence of data on the amount of angling prosecuted there.

The size of the brook trout taken in 1943 varied between 7 and 12 inches. The average size of brook trout was approximately the same for all sections. The average length of brook trout taken in the various months of the season varied between 8.01 inches in August to 9.61 inches in September. The average size of all brook trout taken was slightly less than 8.5 inches, or 0.4 inches larger than the average brook trout caught in 1942 (Table 2).

Table 2. The average length of trout taken during the 1943 trout season in Kinne Creek.

(Lengths are given in inches)

Section	Brook Trout		Brown Trout		Rainbow Trout	
	Number	Average length	Number	Average length	Number	Average length
A	9	8.4	56	10.5	47	10.2
B	35	8.4	96	9.5	98	8.9
C	31	8.5
Total, 1943	75	8.5	152	9.8	145	9.3
Total, 1942	134	8.1	222	9.4	136	9.4

Brown Trout Catch (Table 1)

The total catch of brown trout also dropped in 1943 in comparison to the 1942 data (153 fish in 1943, 229 in 1942). Almost all of this drop in the brown trout catch was in Section A, where only 57 fish were removed in 1943, as compared with 130 fish in 1942. Section B yielded approximately the same results in both years (99 in 1942, 96 in 1943).

The size of brown trout captured by anglers varied during the 1943 season from 8 to 20 inches, and about 14 specimens larger than 12 inches were creeled. The average size of brown trout from Section A was 10.5 inches; from Section B, 9.5 inches. The average size of fish taken in the various months ranged from 9.5 inches in August and September to 10.1 inches in May. The average size of all the brown trout taken in 1943 was 9.8 inches, which is greater than all previous years of census, with the exception of 1940 (when the average size of 96 fish was 10.4 inches) (Table 2).

Rainbow Trout Catch (Table 1)

The 1943 catch of rainbow trout in Kinne Creek amounted to 145 fish, or one more fish than was captured in 1942. It is interesting to note, however, that the proportions of the catch contributed by Sections A and B were reversed. In 1942 anglers removed 107 specimens from Section A and 37 from Section B. In 1943 the totals for these sections were as follows: Section A, 47 fish; Section B, 98 fish. As with the brown and brook trout catches of 1943, the question arises as to whether this reversal is the result of decreased fishing pressure in Section A or possible non-use of this section by the fish. Were data on angling pressure available, we would be able to hazard a more definite opinion.

The size of the rainbow trout captured by Kinne Creek anglers varied from 8 to 14 inches. Those taken in Section A were of an average size of 10.9 inches, while rainbow trout caught in Section B were of an average length of 8.9 inches. The average size of the fish was greatest during August, when 18 fish averaged 10.7 inches in size and least in May when 51 fish averaged 8.9 inches in length. The average size of all rainbow trout captured during 1943 was 9.3 inches, only 0.1 inches less than in 1942 (Table 2).

General Comments

While the 1943 catch was 28 per cent lower than the 1942 catch under the same program of stocking, the author is inclined to attribute this drop to the general decline in angling pressure on trout streams which was noted in 1943 all over the state. It is to be regretted that we have no data on the hours spent in fishing the various sections of Kinne Creek so that we could evaluate accurately the fluctuations that occur from season to season under the various management procedures. Data on the hours of angling in the various sections could be obtained through the cooperation

of individual anglers if everyone who fishes would record the time spent in the various sections, as well as his catch from the respective sections. This information could be obtained by a slight change in the method of recording catches in the ice-house record books. A sample page will be found attached to this report.

Further evidence, furnished by the recovery of two tagged brook trout from the 1941 plantings, indicates that there is a small carryover from releases of previous seasons. These two fish were 2 of 302 fish originally planted, or 0.7 per cent of the total planting. This places considerable emphasis on our contention brought out in previous reports that in order to benefit to the highest degree from any stocking, the fish released must be removed during the season of planting, as those which remain in the stream at the close of the season do not survive to succeeding seasons in numbers large enough to make up any appreciable percentage of the total catch of succeeding seasons.

Stocking Suggestions for 1944

In view of the fact that brown trout appear to be spawning successfully and growing well in the stream, it is suggested that this species not be planted in 1944. Since the rainbow trout have given good fishing ever since their introduction, stocking with this species should be continued, and 200 fish (8 inches or larger) should be planted below the railroad grade. In order to compensate somewhat for the elimination of hatchery brown trout from the catch, it is suggested that the number of brook trout to be stocked be increased to 200 fish (7 inches or larger) in 1944. All stocking should be done below the railroad grade. Both brook trout and rainbow trout should be scattered well between the railroad grade and the revolving screen.

No stocking is recommended for the portion of the stream above the railroad grade (Section C) since this is at present what might be termed "pure" brook trout water, where natural reproduction has given fairly adequate fishing. While some fish might be added to the season's total by limited stocking in Section C, there is the possibility that gill lice might be established along with such fish because of the favorable habitat conditions which prevail. Improvement of the fishing in this section will be best accomplished by improving the habitat conditions for brook trout, which has been brought about to a certain degree already.

Acknowledgments

We wish to thank the Wingleton Club members for their continued cooperation in recording their catches and making their records available to us. We hope that they will continue to do so. If the hours fished in each section and the catch in each section can be recorded separately as suggested, the data will be of increased value in determining the results from stocking and stream improvement.

INSTITUTE FOR FISHERIES RESEARCH

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Report approved by A. S. Hazzard

Report typed by V. M. Andres

SECTION A - 1944

Angler's Name	Date	Species Caught	Number	Size of Fish	Hours Fished
John Smith	June 1	Brown	3	8, 9 1/4, 10 1/2	2 1/2 hours
		Rainbow	2	11, 12 3/4	
Tom Jones (guest)	June 1	Brown	2	11 1/2, 10 1/4	2 hrs.
John Doe	June 2	---	0	---	1 hr.

Sample page showing suggested headings and method of recording data for 1944 and future. Fishermen should register even though they catch no fish so that we may know the total time expended on any section in a season. Fishing time in any section should be recorded to the nearest half-hour. One book might be utilized for the recording of data from all sections.