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ANGLING RESULTS ON KINNE CREEK, WINGLETON CLUB

1947 TROUT SEASON

by

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This report will describe the angling results on Kinne Creek for the 1947 trout season. Kinne Creek is a trout stream approximately three miles in length, tributary to the Pere Marquette River, and entirely surrounded by land owned by the Wingleton Club. It is located in Lake County about 8 miles west of the town of Baldwin. The 1947 records listed in the ice-house record book comprise the data for the 10th consecutive year in which accurate tallies of the Kinne Creek trout catch were kept by the club members.

Angling Results (Table 1)

Following the success of the 1946 planting of rainbow trout secured from Wm. E. Levis' Castalia (Ohio) Farm, a planting of 400 trout was recommended. These trout were delivered to Kinne Creek on May 10 and 15, 1947. Two hundred (200) rainbow trout ranging in size from 8 to 11 inches were purchased from the Castalia Farm and 200 brown



Table 1.--Angling results, Kinne Creek, 1947 trout season. (The average sizes of the various species of trout are given in parentheses).

Month	Number of anglers	Total hours of angling	Legal trout caught			Total catch	Catch per hour	Catch per angler
			Brook	Brown	Rainbow			
April	8	26.0	8 (9.1)	2 (9.8)	8 (12.3)	18 (10.6)	0.69	2.25
May	42	128.5 <sup>✓</sup>	25 (9.2)	26 (10.0)	55 (10.9)	106 (10.3)	0.82	2.52
June	13	38.5 <sup>✓</sup>	9 (7.8)	15 (9.3)	25 (11.7)	49 (10.3)	1.27	3.77
July	23	85.0 <sup>✓</sup>	7 (8.2)	74 (9.3)	23 (11.2)	104 (9.6)	1.22	4.52
August	23	83.0 <sup>✓</sup>	20 (8.6)	72 (9.1)	19 (10.9)	111 (9.3)	1.34	4.83
September	1	2.0	...	2 (8.5)	...	2 (8.5)	1.00	2.00
Totals, averages	110	363.0 <sup>✓</sup>	69 (8.7)	191 (9.3)	130 (11.2)	390 (9.8)	1.07	3.54

✓ Number in caret indicates numbers of angling days for which no hours were given. Total hours were calculated by assigning the average time fished to such individuals computed from the anglers who did list their fishing hours.

trout were bought from the Crystal Springs Hatchery of Iron River, Michigan. The latter species varied from 8 to 9 inches in size at the time of delivery.

Although there was only a slight increase in the number of angling days in 1947 compared with 1946, the total number of angling hours spent on the stream in 1947 increased 31 percent (from 277.25 hours in 1946 to 363.00 hours in 1947). A little over  $1/3$  of the total hours of fishing were spent on the stream in May, and slightly less than  $1/4$  of the fishing was done in July and August. The most fish were taken in those months also (July, 104; May, 106; August, 111). The total catch, as determined from the ice-house record book was as follows: 69 brook trout, 191 brown trout, and 130 rainbow trout, or 390 trout of all species. The catch per hour of legal trout was 1.07 fish, which was 13.7 percent below the 1946 quality figure of 1.24 fish per hour.

Brook trout fishing was slightly better in August than in any other month, followed closely by May brook trout fishing. However, the most brook trout (25) and brook trout of the greatest average size (9.2 inches) were taken in May. The average size of the season's catch of 69 brook trout was 8.7 inches, and they ranged from 7 to 11 inches in total length. Almost half (32) of the brook trout catch came from that portion of the stream which lies above the railroad grade as the result of 19.5 hours of fishing (or 1.64 legal brook trout per hour of angling).

There was little to choose between the July and August brown trout fishing, as the pressure and the catch were almost identical (July, 85.0 hours, 74 brown trout; August, 83.0 hours, 72 fish). In other <sup>the</sup>

months, the brown trout catch varied between 2 and 26 fish. The May brown trout catch of 26 fish averaged 10.0 inches in length and this was the greatest average size for the species during any month of the season. Individual brown trout during 1947 ranged in size from 7.5 to 15.0 inches, and the season's catch of 191 brown trout were of an average total length of 9.3 inches.

Rainbow trout fishing was best during May when 55 fish were taken by club anglers. After May the rainbow trout catch was always less than half that figure. The eight rainbow trout captured during April (which were either all wild fish or partly wild fish and partly survivors from previous plantings) averaged 12.3 inches in size. In other months the average length of the rainbow trout varied from 10.9 to 11.7 inches, and for the entire season the average total length of this species was 11.2 inches. The largest trout captured in Kinne Creek during 1947 was a 19.0-inch rainbow trout, and they ranged from that size down to 7.0 inches.

From the creel census records accumulated during the past ten years (Table 2) it can be observed that in years when no rainbow trout have been stocked the removal of rainbow trout has varied between two and thirteen fish. Inspection of the catch records for 1947 indicates that probably not more than 12 fish (as determined from the planting date and the average size of the 1947-planted fish) were native fish or "carry-overs" from previous plantings. Therefore 118 out of the 130 fish caught were originated from the 1947 planting of 200 fish, constituting a recovery of 59.0 percent, and comprising 90.7 percent of the season's catch of rainbow trout.

Table 2.--Summary of stocking and angling results, 1938-1947.

Year	Angling days	Number of legal trout stocked			Number of legal trout caught			Total catch	Catch per angling day
		Brook	Brown	Rainbow	Brook	Brown	Rainbow		
1938	251	1,500	...	...	346	370	4	720	2.86
1939	...	...	994	2	92	279	3	374	...
1940	...	167	...	250	92	96	88	276	...
1941	100	302	201	203	162	145	82	394 <sup>↓</sup>	3.94
1942	...	50	200	250	143	229	144	516	...
1943	...	50	200	250	75	153	145	373	...
1944	89	...	...	...	62	120	7	189	2.12
1945	44	...	...	...	33	69	13	115	2.38
1946	102	...	...	500	71	90	182	343	3.36
1947	110	...	200	200	69	191	130	390	3.54

↓ Five (5) trout unidentified as to species added to obvious total by species.

Further inspection of Table 2 indicates that in the years that brown trout were not stocked (1940, 1944, 1945, 1946) the average catch of brown trout was 94 fish (ranging from 69 to 120 brown trout in those years). If 94 individuals of the 1947 brown trout catch were native fish, the remaining 97 fish came from the May, 1947 planting and constitute a recovery of 48.5 percent of the planting of 200 fish. The latter group of fish made up 50.7 percent of the 1947 brown trout catch. In the one other year that brown trout were not stocked (1938) it is possible that the very large brown trout catch reported in that year was brought about by the opening up of formerly inaccessible pools and by other stream improvement.

A comparison of the numbers of trout stocked and the total catch recorded for the various years reveals that in the majority of years when 400 to 500 trout were planted, almost as many or more trout were harvested than in those years when from 700 to 1,500 trout were planted (except for the 1938 stocking of 1,500 brook trout). It is more than likely that the species composition of the planted fish and the varying angling pressures of the last few years have altered the percentage of return to the club anglers to some unknown degree.

#### Recommendations for 1948

Assuming that angling pressure will be somewhere between 100 and 125 angler-days, the following management is recommended for 1948:

1. Carry out the stream improvement recommended for Kinne Creek as labor and material become available. It is of first consideration to develop the maximum natural fishing and fish-producing possibilities of any stream under intensive management.

2. Plant 250 legal rainbow trout. This species has yielded the most sport per dollar invested in stocked fish when from 200 to 250 fish have been released.

3. Plant 200 brown trout. The same reason applies to this species.

Legal-sized brook trout are not recommended for planting as there is no known source of disease and parasite-free trout of this species in the Mid-west.

If the Creek Committee decides it can afford the extra transportation charges, half of the recommended plantings should be mad during the first week of May, and the other half during the third week in June.

It is urged that the club membership continue to record their catches and their fishing time in a manner similar to that in vogue during the past few years. An accurate record of the catch and the time expended in making it is necessary if the Creek Committee is to plan the stocking so that the membership will receive the most fishing for the money invested. This tabulation increases in value as the years pass, and its continuity should not be broken.

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