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RESULTS OF THE 1943 FISHING SEASON ON LITTLE LONG LAKE
ON BUCKHORN RANCH, A PRIVATE LAKE IN OSCEOLA COUNTY

by

David S. Shetter and Pat Galvin

Once again at the request of the owner, Mr. Paul Travis, and the Institute for Fisheries Research, the cooperation of the anglers using Little Long Lake (34.5 acres) was enlisted in recording all fish caught from the lake, their average length, and weight by species, as well as the time spent in fishing. An explanatory sign was posted at the boat landing, and sample pages were filled out in the front of the creel census book left in the tool room. Catch records were filled in by the anglers.

In the pages to follow, a discussion of the fishing results during the 1943 season on this private body of water will be submitted. Tables giving the fishing results by monthly periods and a comparison with the fishing in past seasons will be found at the back.

In 1943 Little Long Lake was visited by 150 anglers, only 9 of whom failed to catch a legal fish. The total number of anglers represents a decrease of 32 fishermen over 1942, when more fishermen frequented the lake than in any other season of census. These same fishermen spent 442 angling hours, catching a total of 1,400 legal fish (1,061 bluegills, 56 largemouth bass, 270 yellow perch, and 13 bullheads) for a catch per hour of 3.16 legal fish (Table 1). Angling pressure in 1943 was 12.8 hours per acre for the season.

The quality of the fishing in 1943 (measured by the number of legal fish caught per hour) was slightly better than the five-year average of 2.94 legal fish per hour (Table 2). Only 2 fishermen recorded their fishing results during the months of April and May; not enough information is available to evaluate the quality of the fishing at that time. However, after June 25th more fishermen frequented the lake and a better picture of fishing trends is portrayed. In June fishing was very good; the average catch was 4.04 legal fish per hour. The quality of the fishing dropped in July, when it was at the low for the season--2.71 fish per hour. In August and September fishing picked up again, and in September (when the average catch was 3.94 legal fish per hour) it was nearly back to its early season level.

The size of the various species of fish (as determined from the available data recorded by the anglers for 1943) taken from the lake was slightly lower than the average size of the same species caught in previous years. There has been a gradual decrease in size with the advent of increased fishing pressure (Table 2) during the past two seasons.

The average size of bluegills caught in 1943 was 7.3 inches, or 1/2 inch shorter than the average bluegill caught over a five-year period. It is possible that with increased fishing pressure, younger, and hence smaller, bluegills (age groups III and IV) are being drawn upon to fill the anglers' catch. In 1940 the average bluegill taken was 7.8 inches long; in 1941, the average bluegill was 8.2 inches in size. In 1940 scales from some of these fish were aged. It was found at that time that the average bluegill taken was in its sixth summer of life. Such fish have probably spawned at least twice and possibly three times. On the other hand, the average bluegill in 1943 has likely spent only four winters in the lake, has spawned but once or possibly twice in its lifetime. It

is doubtful if at the present fishing pressure, or at even slightly higher pressures, the removal of such numbers of bluegills as have been taken in the past two seasons would affect the population seriously. However, if the fishing pressure increases greatly and large numbers of bluegills in their fifth summer of life continue to be removed, the quality of the bluegill fishing might suffer. The catch per hour would probably stay the same but the average size might be much less.

Bass fishing was either comparatively poor in 1943 or else the anglers using the lake did not fish for bass as much as in previous years; only 56 largemouth bass were taken. The fact that the average size (11.2 inches) was the lowest for any year of census lends weight to the first supposition. No smallmouth bass were reported this year. Apparently both the fingerling and yearling plantings failed to establish this species.

It is interesting to note that the yield of yellow perch (270 fish) was the highest for any year of the census. Their average size has remained fairly constant, varying between 7.9 and 8.3 inches. Until the last two years this species has not been utilized by the anglers as fully as it should be, and the perch population present should be capable of yielding at least 500 fish yearly to the anglers without disturbing the breeding stock of the species.

More bullheads could be removed also, as this species is present in fair numbers but has never been fished for except by a very few anglers.

Due to the failure of a considerable number of the 1943 anglers to weigh their fish, it is impossible to give an accurate estimate of the pounds of fish removed by angling during 1943. Approximately half of the anglers using Little Long Lake did not weigh their catches or record the time spent in fishing. During war time when there is food shortage, it would seem that the acquisition of a few fish to supplement war time dishes

would be an incentive to cooperate fully in an effort to keep the privilege of fishing on a lake where the number and size of legal fish caught per unit of effort is better than that of the average public lake in that region.

* * * * *

An interesting observation was made at Little Long Lake on October 21 when Dr. A. S. Hazzard and Louis Krumholz called for the completed creel census book. A dead northern pike was seen floating near the boat landing and was hauled to shore and examined. It was about 38 inches in length but very thin. This substantiates the report made by some local people that Little Long Lake contained a few northern pike. None have been reported in the catch or taken in collections during the period the Institute has been studying the lake. Preferred spawning grounds for pike are lacking in this lake, especially during periods of low water. It is likely that this fish represented the sole survivor of a limited pike population present in the lake in earlier years.

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Management Suggestions for 1944

1. Continue to carry on the creel census but insist on better angler cooperation. If more complete records cannot be obtained voluntarily, it is questionable if the census should be continued. This is in no way critical of Mr. Smith's efforts. We fully realize how acute the farm help problem has become. His friendly cooperation has been all that could be desired, but apparently some of the people who fish the lake cannot be counted upon to do their part in furthering this investigation.

2. Another set of scale samples from a random series of all sizes from fish of each of the species in the catch should be obtained in 1944. This will be done by the Institute if our depleted staff can possibly accomplish it.

INSTITUTE FOR FISHERIES RESEARCH

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Report approved by A. S. Hazzard

Report typed by V. M. Andres

Table 1. Tabular summary of the angling
on Little Long Lake, Buckhorn Ranch, Osceola County
for the 1943 fishing season

Time period	Total anglers	Total hours of fishing	Legal fish caught				Total fish caught	Catch per hour	Anglers taking no fish
			Bluegill	L.M. Bass	Yellow perch	Bullhead			
April	1	1	0	0	0	0	0	0.00	1
May	1	1	2	0	0	0	2	2.00	0
June	8	26	84	5	16	0	105	4.04	0
July	63	189	362	37	106	8	513	2.71	5
August	51	158	426	8	78	4	516	3.26	2
September	26	67	187	6	70	1	264	3.94	1
Totals, averages	150	442	1,061	56	270	13	1,400	3.16	9

Table 2. Tabular summary of angling results during the
1938, 1940, 1941, 1942 and 1943 seasons at
Little Long Lake, Buckhorn Ranch.

(Figures in parentheses indicate number of
specimens on which length data were given in 1943)

Item	1938	1940	1941	1942	1943	
Total anglers	39	72	96	182	150	
Anglers taking no fish	2	10	7	1	9	
Total hours	90.50	231.00	284.75	612.75	442.00	
Total fish	338	409	953	1,668	1,400	
Bluegill	296	233	814	1,327	1,061	
Average length	8.2	7.8	8.2	7.6	7.3	(823)
Largemouth bass	41	126	95	100	56	
Average length	12.0	12.2	12.2	12.7	11.2	(43)
Yellow perch	1	50	44	235	270	
Average length	12.0	8.3	8.1	8.0	7.9	(174)
Bullhead	...	...	...	6	13	(12)
Average length	...	...	...	...	8.33	
Catch per hour, all fish	3.73	1.77	3.35	2.72	3.16	
Pounds of fish removed per acre by angling	Not known	6.27	13.21	16.49	Not known	