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Sucker Removal and Demonstration Netting on Certain Larger Lakes in Michigan, Winter of 1947

by

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In recent years the Fish Division of the Michigan Department of Conservation has received frequent requests for suckers to be removed from certain inland lakes. Generally these requests indicated that the suckers had increased disproportionately to the game species present, and perhaps at the expense of the game species. Consequently, the Institute for Fisheries Research has conducted a long term investigation of this problem on a lake where the common sucker (C. commersonnii) was extremely abundant (Big Bear Lake, Otsego County). This investigation, while not as yet complete, has adequately demonstrated that the suckers can be profitably harvested with no ill effects on the game fish crop present. In fact, all evidence to date indicates that the removal of the suckers from this lake has been beneficial to the game species, and has brought about a more favorable balance. In inland lakes suckers do not form a significant item in the diet of the game species, and compete

more or less directly with the young of game species for food. Also, the cropping of suckers in most of the larger lakes is very limited. The sucker is able to spawn very successfully in lakes having suitable gravel shoals. Since suckers are harvested to only a limited extent it appears quite probable that they would increase enough in time to upset the natural balance between species in the lakes. Also, since the sucker has considerable commercial value, it seems worthwhile to harvest them, under supervision.

In the spring of 1947 certain larger lakes were chosen for sucker and coarse fish removal. Two of the lakes were chosen because local people had requested the program, and the other two were selected because they were known to have large sucker populations. A second purpose of the netting program was to demonstrate the presence of adult game species. Probably as much benefit was derived from the demonstration as from the sucker removal. The presence of adult game species in any appreciable number had been questioned by certain fishermen in all lakes selected.

The lakes chosen were: Burt Lake, Cheboygan County; Carp (Paradise) Lake, Cheboygan and Emmet Counties; Hubbard Lake, Alcona County; Mullet Lake, Cheboygan County.

All of these lakes are of at least moderate size, and three of them are among the largest in the state. In general their reputation as fishing lakes is only fair. All are fished heavily each summer, and undoubtedly large numbers of fish are caught each season. However, unless the angler is well acquainted with the waters, or goes out fishing with a competent guide he can scarcely expect as many fish per unit of effort on the larger lakes as he can on smaller, shallower lakes which he can cover much more

thoroughly. To the experienced fisherman who is well acquainted with the lakes the larger lakes do furnish excellent sport.

Results of the netting on the lakes listed are given in the accompanying tables (Tables I, II, III, and IV).

Table I.--Sucker removal and demonstration netting in Burt Lake, Cheboygan County, Michigan, March 21 to May 13, 1947. Results compiled from 55 trap net lifts.

Species	Total catch	Catch per lift	Percent	
Sucker	7,367	134	82.6	
Walleye	1,121	20	12.6	
Largemouth	164	3	1.8	
Northern pike	78	1	1.0	
Rock bass	70	1	1.0	
Smallmouth	53	1	0.5	169 % game species
Dogfish	22			
Rainbow	18			26 game fish per lift
Lawyer	16			
Pumpkinseed	3	1	0.5	
Sturgeon	2			
Perch	1			
Mullet	1			
Herring	1			
Total	8,917	161	100.0	

Table II.--Sucker removal and demonstration netting in Carp (Paradise) Lake, Emmet County, Michigan, April 7 to May 23, 1947. Results compiled from 74 trap net lifts.

Species	Total catch	Catch per lift	Percent	
Sucker (C. commersonnii)	8,991	122	65.1	
Bluegill (L. macrochirus)	1,268	17	9.4	
Largemouth (H. salmoides)	1,096	15	7.9	
Walleye (S. vitreum)	1,056	14	7.7	34.9%
Bullhead (A. nebulosus)	514	7	3.7	game species
Rock bass (A. rupestris)	357	5	2.6	
Northern pike (E. lucius)	252	3	1.8	64 game fish per lift.
Pumpkinseed (L. gibbosus)[1]	184	2	1.3	
Smallmouth (M. dolomieu)	77	1	0.5	
Perch (P. flavescens)	6	...	...	
Total	13,801	186	100.0	

[1] Includes bluegill x pumpkinseed hybrids

Table III.--Sucker removal and demonstration netting in Hubbard Lake, Alcona County, Michigan, April 18 to May 22, 1947. Results compiled from 48 trap net lifts.

Species	Total Catch	Catch per lift	Percent	
Sucker	5,468	114	89.3	
Perch	311	7	5.1	
Northern pike	90	2	1.5	
Walleye	66	1	1.1	
Bullhead	55	1	1.0	
Rock bass	52	1	1.0	10.7 % game species
Whitefish	50	1	1.0	
Smallmouth	17	1	...	14 game fish per lift
Rainbow	9		...	
Pumpkinseed	2		...	
Brook trout	1		...	
Catfish	1		...	
Gar	1		...	
Total	6,123	128	100.0	

Table IV.--Sucker removal and demonstration netting in Mullet Lake, Cheboygan County, Michigan, March 28 to May 13, 1947. Results compiled from 18 trap net lifts.

Species	Total catch	Catch per lift	Percent	
Walleye	1,925	107	69.8	
Sucker	675	38	24.5	
Northern pike	80	4	2.9	
Perch	25	2	1.0	
Mullet[1]	12	1	0.4	
Dogfish	12	1	0.4	74.7% game species
Smallmouth	9	1	0.3	
Rock bass	9		0.3	115 game fish per lift.
Bullhead	8			
Herring	3	1	0.4	
Sturgeon	1			
Total	2,759	155	100.0	

[1] Includes 11 m. anisarum and 1 m. rubreques.

In all cases the nets used were commercial trap nets (so called small "subs") with the dimensions of the crib or trap being 4 ft. x 6-8 ft. x 8-10 ft. and with 300 ft. leads. The mesh in the trap was 2-1/2" stretch measure. Nets were lifted on an average of once every three days, occasionally being in as long as a week. Mortality caused by the netting was very low (less than 3/10 of 1 percent); the largest number (less than 75 fish) being killed at Carp Lake. The insignificant mortality was caused by a few fish becoming gilled in the leads or hearts.

Before further comment on the results of the netting it should be repeated that in all instances the fishermen were primarily interested in catching suckers and that the capture of game species was incidental. (The Department issued permits to certain interested fishermen who were allowed to take suckers and other coarse fish and sell them on the open market). Also no attempt was made to move nets about the lakes so that nets would be set in all habitats, so that more representative samples of the population would be captured. Only at Carp Lake were enough nets set in enough different places to catch what is considered to be a representative sample of the population present. In Mullet Lake the nets were set near the mouth of the Cheboygan River (outlet from the lake) and caught a large run of walleyes. The nets in Burt Lake were set in one small bay between the mouths of the Sturgeon River, and the Indian River. At Hubbard Lake the nets were all set in the vicinity of stream mouths.

While the netting operations were in progress the local residents and other interested parties were encouraged to come and watch the lifts. Many expressed surprise at the numbers of fish captured. Results were satisfactory both from a demonstrational viewpoint, and in respect to the

sucker harvest. At Burt Lake the numbers of game fish in each lift was increasing when the operation was discontinued. The same was true at Hubbard. Also at Hubbard Lake the netting revealed the presence of extremely large walleyes--the largest ever recorded in the state. Whitefish were also taken consistently in this lake. It is of interest to note that in both Burt and Mullet Lakes more walleyes were captured in a like period with similar nets than were caught below the dam at Cheboygan for transfer over the inland waterway.

The sucker harvest amounted to about 28-29 tons, and had a commercial value of not less than $2800-2900 to the fishermen, or about $700 each. In connection with the sucker removal there was one point of considerable interest. Suckers were removed from Carp Lake a few years ago. At that time the suckers in the lake were so numerous as to be somewhat stunted, and were termed "razor-backs" by the fishermen. However, in 1939-40 the cropping was close enough to enable the suckers which have matured since that time to reach a very good size, and attain excellent condition. This time the suckers from Carp Lake averaged about 2-1/2 pounds each, while in 1939 the average was just about one pound, with many under that figure. Suckers from all four lakes averaged very large, and we have scales from a 5# 10 oz. specimen from Mullet Lake.

It is expected that in July or August the Fish Division will conduct another demonstration on these lakes, and perhaps certain other lakes. Nets would be set for a period of about ten days, and the summer visitors and local people would be invited to come and witness the operations. The project would be given ample publicity beforehand, so that interested parties could be present. Experience at Burt and Carp Lakes this spring

showed that fishermen were much better satisfied if they could see for themselves that numbers of desirable fish were present.

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