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Sucker removal from Craven Park Pond on Cedar River at Bellaire, Antrim County, Michigan

by W. R. Crowe

On August 21, 1946, while trying to learn something of the success of rainbow trout plantings in Lake Bellaire and Central Lake, Antrim County, discussion with local sportsmen invariably turned to the abundance of suckers in Craven Park Pond on the Cedar River on the outskirts of the city of Bellaire. From the writer's own knowledge trout fishing in this pond has been excellent in past years, but local sportsmen contend that during the 1945 and 1946 seasons the quality of the fishing in the pond had deteriorated in spite of heavy stocking from the State Fish Hatchery at Oden. The poorer fishing for the past couple of seasons was attributed by local fishermen to the greatly increased sucker population.

On September 24, Mr. H. L. Thompson, District Fisheries Supervisor, and the Biologist met with representatives of the Bellaire Sportsmens Club and the village Council. The purpose of this meeting was to determine the practicability of draining the pond and removing the suckers. The Sportsmen's Club voted to proceed with the draining and the Council was in favor since lowering of the pond would enable repairs to the dam to be effected. The District Supervisor and the Biologist agreed to be present.

Since the pond furnishes considerable fishing and is used by a large number of fishermen throughout the season, it was agreed that the Biologist would do some experimental netting before the pond was drained in order to determine something of the suckers abundance while the pond was as yet undisturbed.

Craven Park Pond is formed by a dam on the Cedar River about 1 mile east of the village of Bellaire. The pond is located in T30N, R7W, Section 20. It has an area of about 20 acres (estimate) and an average depth of perhaps 5 feet. Maximum depth is about 10 feet.

Nets were set on October 1. The nets used were commercial traps (so called "small subs") with a 300 foot lead, and with a double winged trap. Mesh in the trap was 1-1/4 inch bar capable of taking suckers down to about 7 inches. Two nets were set, one off the west shore near the dam, and the other nearly mid-way along the south shore. Nets were lifted each morning from the third through the eighth of October, for a total of 6 lifts of 2 nets. During this period 735 suckers, 12 brown trout, and 1 rainbow trout were caught. These 735 suckers had an average length of 11.8 inches and an average weight of 10.9 ounces.

On October 14, lowering of the pond was begun. The District Fisheries Supervisor and the Biologist were present from the time the dam gate was opened until draining was completed on October 16. No fish were observed passing over the spillway, nor were any noticed travelling upstream. When the pond was drained to its fullest extent there remained perhaps 1 to 2 acres of water with an average depth of one or two feet (maximum depth was about 4 feet). No fish could be observed in the water for the bottom had been disturbed, and visibility into the water was practically nil. The only fish seen after the pond was drawn were a few

sucker fingerlings in smaller isolated pockets where the water was reasonably clear. Seining was impossible because of the soft bottom and numerous snags throughout the pond. Consequently, dynamite was used to obtain the fish. Approximately 25 charges of 1/2 stick each were tossed into the water at various locations. In this manner 1,191 suckers and 2 trout (1 brown and 1 rainbow) were picked up. The suckers collected by the use of dynamite had an average length of 7.8 inches and an average weight of 2.6 ounces. All suckers removed (nets and dynamite) had an average length of 9.1 inches and an average weight of 5.4 ounces. Thus, 1,196 suckers represented a total weight of 650 pounds removed, or about 32-1/2 pounds per acre.

Scale samples were taken from 75 suckers and ages were determined as indicated below (Table I).

Table I

Ages of suckers (C. commersonnii) from Craven Park Pond, Cedar River, Antrim County. T 30 N, R 7 W, Sec. 20. Ages determined from sample of 75 suckers collected by nets and dynamite

Number of annuli	Number fish in sample	Average total length (inches)	Range	Average weight (ounces)	Range
0	1	4.7	4.7	1.0	1.0
I	29	6.6	5.4-9.1	1.1	1.0-2.5
II	28	10.0	7.4-14.0	5.3	1.5-17.0
III	15	11.6	7.5-15.7	10.0	1.5-24.0
IV	1	17.7	17.7	33.0	33.0
V	1	17.7	17.7	33.0	33.0

Scale samples from those groups where we have an adequate sample indicate that these suckers are not growing fast, being well behind tentative state average (Institute Report 653 A). However, this average was compiled from lake suckers and suckers from a cold, impounded trout stream might be expected to average smaller.

The most abundant year classes are those spawned in 1944 and 1945, which would agree with the noticeable increase in suckers in the past two or three years.

Probably not all fish were killed or removed, as undoubtedly some went over the spillway, and others moved upstream, but results from dynamiting indicate that suckers were eradicated from the pond. It was noted that the last two or three charges of dynamite brought no suckers to the surface. The majority of the mature suckers were taken in the nets and most of the remaining smaller suckers were killed by the use of the dynamite after the pond was drained.

In the spring of 1947 the Biologist will endeavor to learn if there is any extensive spawning in the pond or a spawning run up the Cedar River. In the past it is reported that most of the suckers spawned along the west shore where suitable gravel is present. Also, local interested sportsmen can assist in determining if the sucker removal has materially affected the quality of the fishing. The pond is to be restocked with marked brown trout this fall. Suckers will reestablish themselves in time but it is to be hoped that this removal will help to maintain a normal balance for some years to come.

No good explanation for the paucity of trout, as indicated by netting and draining the pond, can be offered. Probably some brown trout had already moved upstream to spawn, but it seems probable that the trout population was actually small. There is no question but that the pond is good trout water. It maintains suitable temperatures throughout the summer. Food in the form of burrowing mayflies and muddlers is abundant. The brook lamprey (Entosphenus) was also found abundantly after the pond

was drawn. All of these animals make good trout food. Cover in the form of submerged stumps and logs is also plentiful.

It is hoped that improved fishing will be evident during the next two or three seasons.

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