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REPORT NO. 928

OBSERVATIONS ON THE CISCO AND CISCO SEINING IN AVALON LAKE, MONTMORENCY
COUNTY, MICHIGAN

by

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Observations on the cisco at spawning time on a small portion of the east shore of Avalon Lake were made by Institute personnel on December 1, 1942 and December 2, 1943. Large numbers were seen upon both occasions and a total of 230 were collected by gill net and seine. These ciscoes averaged seven inches in length and two ounces in weight. A study of the scales revealed that most of the fish were in their third year of life (showed only two annuli); only a very few were in the fourth year (showed three annuli). No other age groups were present. Occasionally a small-mouth bass or perch fingerling, and in 1943 recently-planted rainbow trout, would be taken in the seine with the ciscoes, but the catch usually consisted of ciscoes entirely.

Spawning occurs during three to four weeks just prior to the formation of ice on the lake. At night the fish come into shallow water from three to 12 inches deep all around the lake and the spawning act is accompanied by a splashing and "skittering" that can be heard nearly 200 feet from the lake on calm, quiet nights. At this time they can be caught with ease by a short common-sense seine, and make very tasty eating. The fishermen claim that light scares the spawning cisco out into the deeper waters of the lake, so they use flashlights and lanterns sparingly and only on completion of a seine haul. A ten-foot common-sense minnow

seine appeared to be the favorite gear because of ease of manipulation around the numerous snags, although when the "run" is at its height the ciscoes may be dipped with ease with a smelt dip net from any stump or boat dock.

According to Conservation Officer William Cronk of Hillman, ciscoes were first seined from Avalon Lake about 15 years ago by a local fisherman but it was not until the past five years that much seining was done, although illegal. Conservation Officer Cronk reported that five or six local families take part in the seining and make good use of the fish for food. Recently one group from Rodgers City has also operated here. Including the last group, about 25 fishermen seined for cisco this year.

It is reported that, because both the "runs" of cisco and the weather are variable, good catches are made on only about five nights during the season. In some years ice has formed early and cut the season short. It is estimated that each person will take about 25 pounds of fish on a good night. Many more fish could be taken but this quantity apparently satisfies the fishermen. Estimating the maximum number of fishermen at 25 and supposing that they all fished every one of the five good nights, they would catch a total of 3,125 pounds of cisco, or 25,000 fish. Considering that the spawning grounds extend the entire distance around the lake, approximately 3 miles, the number of fish being removed at the present time is probably but a small portion of the entire population of ciscoes. Possibly more of these fish could be harvested without seriously affecting the population in the lake.

However, experimental plantings of legal rainbow trout are being made in Avalon Lake in an attempt to build up good fishing and nothing should be done that might retard the experiment. The ciscoes should be valuable as food for the rainbow trout because they are of small size and prefer the same habitat as do trout. A serious reduction of the cisco

population in Avalon Lake would be undesirable at this time.

It was suggested that a report of these observations be made as they suggest a method which might be legalized for the taking of ciscoes in many lakes. (Seining is legal in Wisconsin and very effective on certain lakes according to Dr. Edward Schneberger.) Few if any game fish and probably no trout (if short seines were used) would be taken and if caught could be returned with little harm. Other changes in the regulations for taking cisco will be suggested in subsequent reports. (A.S.H.)

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