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OBSERVATIONS ON THE USE OF GLASS MINNOW TRAPS IN MARGINAL  
TROUT STREAMS IN OAKLAND AND MACOMB COUNTIES

by

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In my memorandum of July 20, 1943 (no number) on the equipment and methods of the minnow dealer Mr. Harry Yates of Rochester, mention was made of the fact that Mr. Yates had never taken a trout in a glass trap in all of the years that he had been trapping minnows. He was of the opinion that many trout streams, especially marginal streams, which have a large minnow population, should be opened to the taking of minnows by glass traps. Mr. Yates expressed his willingness to spend a few days on any stream to prove that trout will not trap. It was suggested by Dr. Hazzard that several streams in Oakland County, especially Paint Creek above Goodison, be worked first. Later on, depending upon the outcome of the experiment in Oakland County, two streams farther north could be worked. The North Branch of the Au Sable and the Rifle River were suggested for these later tests.

On August 22, while in Mt. Clemens working on creel census, Mr. Earl Goff, Conservation Officer in Macomb County, made arrangements with Mr. Yates to spend August 23 and 24 in trapping minnows using his regular equipment.

On August 23, Mr. Goff and the writer met Mr. Yates at Rochester and proceeded to Goodison with Mr. Yates. The first place trapped was just north of Goodison a short distance (R. 11 E., T. 4 N., Sec. 28). Dr. Hazzard had suggested that we trap this particular stretch of water. After looking the stream over, Mr. Yates said that there were not many places suitable for trapping but that he would be glad to try it. The first trap was set at 9:00 a.m., and a total of 12 were used. The water temperature was 67°F. and the air temperature 77°F. At 10:30 a.m. all traps were removed from the stream and we moved upstream farther. The following bait minnows (all chubs and shiners over 3 inches long) were taken between 9:00 and 10:30 a.m.:

62 in 6 traps

45 in 1 trap - trap was in stream for one-half hour and was lifted once during this period.

166 in 5 traps - one of these traps reset two more times and the others were reset one more time

          
Total of 273 minnows in 1 1/2 hours

The number of minnows per trap varied from 7 to 23 in this series of trap sets.

The next station on Paint Creek that was trapped was about two miles upstream from Goodison (R. 11 E., T. 4 N., Sec. 20). A total of 12 glass traps was used. These traps were fished continuously from 11:30 a.m. until 2:00 p.m. At 1:30 p.m. it started to rain and the creek raised about 4 inches within a half hour. The stream became so muddy that it was impossible to see the traps. Three traps were dislodged and subsequently lost when masses of moss, algae and aquatic plants collected on the float lines. Because of the rain and high water, trapping ceased. The water temperature in this particular section of stream varied between 64° and 67°F. while the air temperature was 79°F. A total of 346 chubs and shiners was taken during this 2 1/2 hour period of trapping. Six of the 12 traps

were each reset once during this period. The largest number of minnows taken in one trap in one set was 43.

A total of 619 (51+ dozen) chubs and shiners was taken in 4 hours of trapping. These minnows (all bass and pike size) would be worth about \$30.00 to a bait dealer.

Mr. Goff and the writer fished with artificial flies and worms during part of the day. The following species were taken: chubs, shiners, bluegills, pumpkinseeds and one hybrid bluegill-pumpkinseed. We also seined (total of 7 hauls) in several likely-looking spots. The following species were taken: common suckers, chubs, shiners, stoneroller minnow, hog molly or hog sucker, northern pike (fingerling). One largemouth bass was captured in one of the glass traps. At no time during the day did we see a trout. We talked to several people in Goodison who told us that trout fishing had been extremely poor this year. Some thought this was due in part to the extremely high water during the spring, which reached flood proportions at times.

Mr. Harold Hughes informed me that two plantings of rainbow trout had been made in Paint Creek in 1943, on April 20 (500 fish) and August 12 (300 fish).

On August 24 we decided to attempt to trap minnows on the South Branch of Stony (Farmer) Creek, T. 4 N., R. 12 E., Sec. 7 in Macomb County. Mr. Goff had caught seven trout here in July. The South Branch of Stony Creek is a small marsh-meadow stream with numerous undercut banks and with thick willows and alders hiding the stream in places. Numerous small springs enter the stream at intervals. There were no well-worn paths along the banks of this stream and the marsh grass was waist high in places. (Seven rattlesnakes were encountered along 1/2 mile of this stream, three of these were killed.) The water temperature was 62°F. and the air

temperature was 78°F.

Only six glass traps were used in this stream because of the scarcity of good trapping sites. In a two and a half hour period a total of 147 chubs and shiners and one small northern pike were captured in the glass traps. Countless chubs and shiners were observed in the main branch of Stony Creek but trapping was not attempted.

Hook and line fishing with worms and flies (the fishing consisted mainly of dangling a worm on the end of a short rod) produced only chubs and shiners. One trout was hooked but escaped when pulling it out of the water. Several trout were observed but refused to take the bait offered.

A total of 9 trout were taken in several seine hauls. Besides the trout, 3 northern pike fingerlings and many chubs and shiners were caught. The following trout were taken: 2 brook trout (9.0 and 9.1 inches), 1 rainbow trout (8.3 inches), 5 brown trout (6.7 to 8.1 inches), and 1 brook x brown trout (7.1 inches).

No plantings of trout were made in Stony Creek between 1934 and 1942. According to Mr. Harold Hughes, a total of 647 legal brown trout were planted during June and July of 1943. Unless these plantings were of mixed fish, the presence of brook and rainbow trout must have resulted from natural reproduction. Natural reproduction could occur in the South Branch of Stony Creek, which is spring-fed and has some gravel riffles. Since water temperatures appear to be suitable throughout the year, a limited number of legal brook trout might be planted in the South Branch of Stony Creek each year (T. 4 N., R. 12 E., Sec. 7).

The hybrid trout was probably planted along with the brown trout because the browns came from the Harrietta Hatchery where I understand some hybrids were raised. Several of the brown trout were in extremely poor condition and could have been planted fish, not thoroughly adapted to conditions in a natural stream.

Trout were not taken in any of the glass traps set in the two streams mentioned above. It is my opinion that further work should be done along this line next year. No small trout were observed in either of the two streams and it is possible that the trout population in these streams is maintained by stocking. Therefore, if trapping is tested again, it should be conducted on streams known to contain large populations of trout and minnows of all sizes. The North Branch of the Au Sable and the Rifle River would be ideal for this work.

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