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Special Regulation Trout Ponds

by

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Southern Michigan trout streams are few and small because large springs are rare in this part of the state and the water warms up quickly in flowing through cleared, agricultural land. Trout must have cold water, preferably below 70° F. in order to thrive.

To at least partially meet the need for some trout fishing close to the large centers of population, especially during war-time restrictions on travel, the Conservation Department established a number of "special regulation trout ponds."

The idea originated following the investigation of a twelve-acre rearing pond built near the headwaters of Portage Creek in the Waterloo State Recreation Area during the initial development there by the National Parks Service. No longer needed for raising bass and bluegills the question of its future use was answered following a survey by the Institute for Fisheries Research during the summer of 1943. Two small streams and a number of springs feed the pond, and although the surface

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water was found to exceed 80° F., the bottom layer remained in the sixties and proved to be highly suitable for trout in every way. An initial planting of 300 each of brook, brown and rainbow trout was made that fall and the lake was opened to fishing during the 1944 season.

Realizing that such a pond would soon be fished out under the usual regulations and having in mind Pennsylvania's experience with the "Fishermans Paradise," special restrictions were adopted for this pond by order of the Conservation Commission. These were: artificial flies only, no boats or rafts permitted, fishing only from one hour before sunrise to one hour after sunset, size limit 8 inches, daily creel limit 2 trout.

In 1944, based upon creel census reports filled out by anglers and dropped in a box at the pond, a total of 1,247 hours of fishing resulted in a catch of 74 brook trout, 164 brown trout and 152 rainbow trout with a catch per fisherman-hour of 0.31 legal trout. These figures, estimated as about 80 percent complete, proved that the project was successful. Good returns were secured from the planted trout and as usual when stocked in ponds the fish had grown several inches by early summer. Little objection was raised to the added restrictions and there was no evidence of law violations.

In 1945, the Wilder Creek Association of Marshall agreed to the use of their former rearing pond for further experiment. Bates Pond near the Hastings fish hatchery was also added to the list. Records of the catch made compulsory on all of these ponds that year showed a total of 3,217 fishing hours with an average catch per hour per angler ranging from 0.35 to 0.46. Browns and rainbows again dominated the yield

in Portage Pond, but in Bates and Wilder brook trout gave the best returns.

By this time sportsmen were becoming enthusiastic over the trout pond program and the Conservation Department was convinced that the ponds were practicable and filled a real need. Cook Pond, also near the Hastings hatchery, and another former rearing pond at the Hillsdale hatchery were added to the growing list in 1946. That year also saw the operation of two additional impoundments, the Sylvan Ponds, in the Waterloo Area built solely to provide trout fishing. That year showed a total of 4,963 hours of fishing.

Last year a second pond at the Hillsdale station was opened to fishing and construction was started on two new units--one in the Bald Mountain State Recreation Area was completed in time for the last few weeks of the season; the other at Summerville will be finished this spring. Total fishing hours recorded for the nine ponds in use in 1947 were 5,754 with angling quality ranging from 0.21 to 0.55 legal trout per fisherman hour.

Restricting the catch was also tried out last year in the northern part of the lower peninsula. Provemont and Solon ponds in Leelanau County and Martisee Pond in Manistee County were placed under similar orders, except that the daily limit was set at five trout. The Harrisville millpond carried only this lower daily limit with no restrictions as to methods and hours. Creel census reports were not very reliable for these northern waters, but considerable use was made of them.

Providing trout fishing in an area lacking large, cold streams is a difficult problem for any Conservation Department. Landowners object to trespass, especially in urban or highly developed agricultural regions.

Legal-sized trout usually cannot be scattered in planting such small streams and fishermen concentrate near road crossings to their mutual disadvantage. Such planted trout are mostly caught out within a few days.

Trout ponds can be built on streams too small to warrant stocking. A flow of about 200 gallons per minute will create an acre of trout pond. Keep in mind that one acre of lake surface is equal in area to a mile of stream 8-1/4 feet in average width. Such a pond will accommodate quite a few fly fishermen without crowding. Not all of the ponds are at the immediate source of spring water; in some the temperatures of the inflowing streams may approach 70° F. on the hottest summer days. Being colder (and therefore heavier) than the pond surface at this time of year, the water from inlets flows out into the pond and forms a cool layer on the bottom. Providing the springs are high in oxygen (most running streams are well supplied) an ideal hot-weather retreat is available for trout. Midge larvae and other choice food items live in or near the pond bottoms so that trout need not venture into the warm surface waters where they would soon perish. This of course accounts for the drop in fishing characteristic of such trout ponds in mid-summer. Trout are too deep to be taken except by the few patient and skillful anglers who sink their lures near the entrance of the spring water. Other knowing anglers watch the weather closely and visit the ponds with good success after the first cold nights or cool, rainy days late in the season. Trout are quick to respond to lower temperatures and begin to feed at the surface when the water cools.

Springs originating in or near a suitable depression can be dammed at relatively low cost since floodwaters are usually not a problem and

high structures are not essential. Dams on existing trout ponds vary from about six to ten feet in height. Such ponds should be completely drainable to check on the population occasionally and to remove undesirable fish which may get in.

Some natural reproduction has been noted, but suitable spawning streams are usually so limited that regular stocking is probably necessary to maintain a maximum trout supply. Planting in the southern ponds has been done each fall, usually with trout from six to eight inches in length and in numbers sufficient to restore the population to about 75 legal trout per acre. Certain ponds have been drained at the end of each fishing season to determine the natural mortality and the size and condition of the fish which were left. At the Hillsdale Station all fish caught are checked in and these ponds can be completely emptied. The figures for 1946 for Pond #2 at this station show that of 70 brown trout planted the previous year 32 were removed by angling and 33 were left--a loss of 5 fish. Of 70 rainbow stocked, anglers took 43 and 20 were accounted for upon drainage--a loss of 7 fish. The same number of brook trout planted resulted in a catch of 68, but 162 were found in the pond at the end of the season! Natural spawning in the stream above supplied the extra fish and only browns and rainbows were planted here in the fall of 1946. The 1947 season showed a catch of 91 brook, 72 brown (of which 15 were from the 1945 planting) and 83 rainbow trout (12 from 1945). These figures demonstrate that there is a sizeable carryover of fish to the second season, and that natural spawning of brook trout is maintaining the catch of that species in this pond.

The accompanying table summarizes the average annual use of the trout ponds for the period during which they have been operated. It will be noted that the fishing pressure varies greatly. Proximity to sizeable towns, ease of fishing (some ponds are pleasanter to wade than others) and fishing quality determine the popularity of the different waters.

The length of the fishing day varies from a little over an hour to slightly more than two. The Hillsdale ponds with the shortest average fishing period are used for short periods before and after work by enthusiasts from the nearby city. By contrast the Sylvan ponds with the longest fishing period are visited more by those who plan at least half a day's outing. In general the heaviest use of the ponds is local, drawing largely from the nearest cities, but since the war anglers have come from increasingly greater distances and quite a few non-resident anglers are now recorded.

The number of trout removed by fishermen has averaged about 40 percent of the plantings, but since creel census records are not complete, except at Hillsdale, the total return is probably closer to 50 percent. It is interesting to note that anglers released from 14 to 37 percent of all legal trout taken. Some of these were fish in excess of the daily limit of two and some were trout barely legal returned in hopes that larger ones would be taken later in the day, but a small but growing number of anglers fish only for the sport and release all of the trout they catch except for an occasional fine specimen.

The catch of legal trout per fisherman hour in the trout ponds (0.23 to 0.50) compares quite favorably with that on a number of the northern streams such as the Little Manistee, Pigeon, Pine, North Branch

of the Au Sable and Hunt Creek where creel censuses conducted in past years have shown a range from 0.21 to 0.77. Considering the average size of the trout caught and the special restrictions, the quality of angling in these southern ponds is remarkable. Nor should one be discouraged by the percentage of anglers taking no legal fish. This figure averages only slightly higher than on most northern streams, but this may be at least partially explained by the shorter "fishing day" on these ponds.

Brook trout better than a pound each and brown trout up to four pounds have been taken in some of the special regulations ponds and the average size of the fish caught on all has been close to ten inches. The trout are generally in good condition, well colored and full of fight. They are difficult to catch, however, except on certain days in the spring when almost every fish seems to be feeding and to be not too particular as to the size or pattern of the fly. After the weather has warmed up and food is more plentiful the fish are of course fewer in number and seem to be more wary. Then the smaller flies (16's and 18's) on long, fine leaders produce the best results and greater skill is required.

The regulations this season will be simpler. The eight-inch size limit has been dropped so that a seven-inch trout will be legal here as elsewhere in the state, and no creel census record will be required except at the Hillsdale ponds. Since so many trout are returned even though eight inches or larger, the special size restriction does not appear to be needed. Sufficient creel census records have now been accumulated to demonstrate the relative value of planting different

species, the percentage of plantings caught and carryover, the extent of use and quality of angling. The ponds at Hillsdale where fishing is regulated by permit will be used for further experiments to determine the best rate of stocking, the proper size of the fish to be planted and other information requiring accurate records of the catch. Marking of all fish stocked will be continued at these ponds and the returns over a period of years will be helpful in the management of the other waters of this type.

Following are some of the comments of anglers written on the backs of the creel census slips filled out at the ponds:

"I am very much in favor of the pond and will enjoy the privilege of fishing in it. I have never fly fished and this setup gives me a good chance to practice."

"This is a swell idea. Gives us a chance to fly fish during gas rationing."

"This has been a very enjoyable p.m. Great Sport!"

"No fish but had a good time will try again."

"This is a step in the right direction--with proper cooperation from fishermen more of these spots should be possible."

"I think it's swell to have a place to fish so close to town, also it improves your fly casting."

The records of use and the generally favorable reaction of anglers suggest that special regulation trout ponds are filling a real need, at least in southern Michigan. Whether they would be as popular in the better trout country of the north is more questionable, but continued experience there should determine this. It has been observed that the southern ponds are used not alone by anglers, but are also popular with

the entire family as picnic sites. Tables and stoves have been provided at some ponds and wells and other facilities may be supplied in the future. Dad often finds it easier to take the car for a fishing trip if the wife and children can go along for an outing.

The ponds provide a chance for urban fishermen to "warm up" their fly rods in preparation for weekend trips and vacations which most of the enthusiasts will still wish to spend in the north country. The use of artificial flies and light tackle is encouraged by such opportunities close at hand and the idea of fishing for sport, not meat, is the keynote of such a project. Better use is made of the products of the hatcheries than by continuous planting of legal-sized trout for "put and take" fishing. Skill is encouraged and the fish hog has no place in the picture. Special regulation trout ponds qualify as a true conservation project.

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Typed by: S. E. Putman

Average Annual Use of Special Regulation Ponds, 1944 - 1947. (Number of years operated shown following the name of the pond).

	Portage Creek Pond ↓	Bates Pond ↓	Wilder Creek Pond ↓	Cook Pond ↓	Hillsdale Pond #2 ↓	Sylvan Ponds ↓	Hillsdale Pond #1 ↓	
Number of fishermen	655	182	452	185	795	234	181	
Number fishermen per acre	69.6	121.5	95.0	50.0	59.8	112.5	204	
Number hours fished	1,658	311	1,093	331	1,280	537	219	
Number trout kept	384	91	371	133	206	118	40	
Percentage legal trout released	37.4	16.5	31.5	14.2	29.9	22.9	20.0	
Catch per hour	0.37	0.35	0.50	0.47	0.23	0.28	0.23	
Percentage anglers taking no legal fish	60.9	64.8	47.8	52.4	77.1	65.8	79.6	
Number trout planted	877	486	1,425	300	239	225	102	
Average percent of trout caught	44	19	26	44	86	52	39	Simple average 44