TR 73-15

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L I B R A R Y INSTITUTE FOR FISHERIES RESEARCH University Museums Annex Ann Arbor, Michigan 48104

MICHIGAN DEPARTMENT OF NATURAL RESOURCES Fisheries Division Technical Report: 73-15 October, 1973

SERIES: THE TROUT STREAMS OF MICHIGAN

NO. 4 THE JORDAN RIVER

William McClay, Fisheries Biologist Jack Bowman, Conservation Officer



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The Jordan River has a wealth of history associated with it, dating back to the lumbering era when it was used principally as a log driving stream. Then, as now, it was an excellent trout stream. Part of its fame today is due to the paucity of development along its entire length. This, combined with the abundant spring and ground water supply, has given the Jordan the reputation as being the least polluted and having the best water quality of any stream in Lower Michigan.

The Jordan River is located primarily in northeastern Antrim County and its watershed includes a drainage area of about 127 square miles. Although a relatively short system (only 22 miles long), the Jordan flows through a steep valley and develops rapidly into a sizeable river before entering the South Arm of Lake Charlevoix. Originating in upland hardwoods, it flows primarily through spruce and cedar swamp, interspersed with abandoned farms.

Upper Jordan--Headwaters to Green River

From the headwaters to its confluence with the Green River, one mile above Graves Crossing, the Jordan River flows for 13 miles exclusively through state land. By the time it reaches the Green River, the Jordan is 40 feet wide and one to three feet deep. It is characterized by its low, brushy undercut banks and a stream channel with many stumps and cedar slash and tops, all of which provide excellent fish cover but make the upper river virtually uncanoeable. Wading is also difficult.

This area is a bait fisherman's paradise, primarily for brook trout. Access points are numerous, principally off the Pinny Bridge Road which parallels most of this portion of the river.

The upper Jordan, though primarily a brook trout water, holds some native browns and rainbows in the transition zone between the mouth of Green River and Graves Crossing. Seven to 12 inch brookies are the mainstay of the trout fishery but occasional 14 to 16 inch brookies and some late spawning lake-run rainbows may be taken in the old beaver ponds. Fair hatches occur from Graves Crossing upstream and pleasant fly fishing is available in the old beaver floodings.

Upper Jordan--Tributaries

The upper Jordan is fed by many small, swift, cold tributaries. A good bait fishery does develop in the spring, but access is difficult. Low water temperatures and few holes combined with light fishing pressure result in poor growth and most brookies are sub- legal.

Green River, the only major tributary to the upper Jordan, arises from a series of springs and private ponds and flows 6.4 miles to its confluence with the Jordan. It is very similar to the upper Jordan, being a generally fast and shallow brook trout stream with occasional holes. Access is limited to the bridges and the fishery is primarily with bait during the summer by locals who fish a few pet spots. As in the smaller tributaries, trout growth is poor and most brookies are small.

Lower Jordan--Green River to South Arm, Lake Charlevoix

The physical features of the Jordan change drastically below the mouth of the Green River. Many log jams and right angle turns have created deep holes and undercut banks, and these, together with overhanging brush and sunken logs, provide excellent fish cover. Although floatable from here to the mouth, the many jams and turns, together with the fast current, make canoeing difficult for the novice and wading a challenge to the expert.

Much of the lower Jordan flows through private land, however the six public sites in this nine miles makes access easy. Public ownership is increasing under a vigorous acquisition program. The lower Jordan averages about 60 feet wide, two and one-half feet deep, but with many holes four to six feet deep. The bottom is composed mostly of sand and gravel, except in the holes where sand, silt and mud prevail. There are many good gravel riffles which provide excellent spawning sites for browns and steelhead. Although it rarely freezes over, shelf and anchor ice do develop in the lower portion. This ice, together with the swift current causes some flooding during spring breakup on an otherwise extremely stable stream. The only major tributary to the lower river is Deer Creek, a second quality trout stream which enters the Jordan one and onehalf miles above Lake Charlevoix.

Just above its confluence with Deer Creek, the Jordan loses most of its gradient and becomes relatively slow moving, wide (100 to 200 feet) and deep (three to six feet). The river bottom here is heavily silted, but good trout fishing is still available. From Deer Creek to the South Arm of Lake Charlevoix, the Jordan is boatable, however the use of motors has been prohibited.

Although not well documented, there are indications that there have been major changes in the species composition of the Jordan River since the 1930's. Originally native rainbow trout were well distributed throughout the river and some large brook trout (up to three or four pounds) were found the whole length. At this time browns were present, but scarce, in the lower portion. Some steelhead ran the river to spawn. In the early 1940's there was a decline in both native and lake run rainbows, coincident with the declines of these species in Lake Michigan. During this period, brown trout populations remained relatively low in the Jordan, however by the late 1940's and early 1950's, good populations existed in Deer Creek. By the late 1950's, browns and brown trout fishing was on the increase. Since 1966, the resident brown trout fishery has apparently stabilized at a somewhat lower level, and a good lake run fishery has developed. Since 1968, the rainbow and steelhead fishery has expanded somewhat.

The Jordan River fishery begins when the early spring season opens on the lower river. Steelhead, which had begun their spawning run in September, are now spawning and returning to the lake and providing an excellent fishery from April through May, chiefly with spawn sacs, night crawlers, and artificial lures. Many six to eight pounders are regularly taken and 10 pounders are not uncommon. As the steelhead move out, the fishery shifts to native rainbows and browns from late May through June, mostly between Websters and Rodgers Bridges. However, some 16 to 18 inchers may be taken as far upstream as Graves Crossing.

With the start of the "Michigan caddisfly" (giant mayfly) hatch (about mid-June), big lake browns begin moving up from Lake Charlevoix. The hatch begins near the mouth and progresses upstream, fading out near Graves Crossing after about six weeks. During the hatch, lake run browns may be taken either on artificial flies or streamers, lending credence to the theory that this is a food rather than a spawning run. Night fishing between Websters and Rodgers Bridges usually produces the best success, with many seven, occasional 10 to 11, and a few 13 pounders being caught. The brown trout fishery peaks about the first week of July and ends by August when a bait fishery for natives again predominates.

By early September, steelhead begin to enter the river and by late September they are present in about equal numbers with the lake-run browns which are starting their spawning run. Spawn sacs, worms, and artificial lures are the most effective baits for both species at this time. The extended fall season again permits a fishery on the lower river until the end of December.