

Original: Fish Division

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INSTITUTE FOR FISHERIES RESEARCH

DIVISION OF FISHERIES

MICHIGAN DEPARTMENT OF CONSERVATION

COOPERATING WITH THE  
UNIVERSITY OF MICHIGAN

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October 25, 1939

REPORT NO. 556

TROUT IN THE HURON RIVER SYSTEM

by

James W. Moffett

Waters of the Huron River drainage are, in most instances, too warm for successful maintenance of trout. There are several weeks during mid-summer in which the temperature of waters otherwise suitable for trout rises beyond the toleration limit of these fish. This period of high temperature is just as important in the yearly history of a stream as a constantly high water temperature would be. The period represents a time when trout can no longer bear conditions and must migrate or die. Most of the streams in the drainage show this temperature change and are not good risks when the successful support of trout is considered. A few streams on the borderline might be all right except for unusual spells of hot weather which occur during one summer but not another.

Many other factors, not as important as temperature can condition the degree of fitness of a stream for trout. Some of these factors are:

1. Bottom composition, important because certain stream bottoms, such as gravel, produce more food per unit of area than others such as sand. Bottom composition is also important in determining the abundance of spawning areas. In almost all cases trout seek out gravel beds in which to spawn.
2. The amount of cover and shelter is important.
3. The ratio of pools to riffles determines to a certain extent the food conditions.

4. Type of pools. Whether they are narrow, open and shallow, in other words poor or eddying, deep and shaded with undercut banks, generally regarded as good, determines to some degree the size to which trout may grow. 5. Chemical conditions. Among other things, there must be plenty of oxygen dissolved in the water. 6. Size and permanence of the stream flow are important. Streams which are too small or which might go dry in late summer or early fall are not considered worth stocking even though all other factors are ideal. 7. Fish already in the stream may determine the success or failure of trout stocking by competition for food or actually preying upon the trout.

Most of the trout streams in the Huron River drainage are privately owned and are therefore available to the public only if permission to trespass is granted by the owner.

According to information taken from our survey records, the following list of streams represents possible trout water. The approximate location, size and condition are given for each stream. Stocking records are included if, according to our records, the stream has ever been stocked. The order of their listing is not an attempt to show relative suitability.

Brass Creek, a spring-fed tributary to the Huron River, is located in Webster Township of Washtenaw County. It is  $3/4$  mile long, flows about 0.25 cubic feet per second and has a temperature which might be suitable for trout ( $58^{\circ}\text{F.}$  at an air temperature of  $68^{\circ}\text{F.}$ ). There is sufficient gravel in the bottom. Shade and cover are adequate but pools are infrequent and very small. The stream is privately owned and the owner intends improving it to make brown trout water. Its size makes it hardly worth stocking.

Mann Creek, located in Milford and Brighton Townships of Oakland and Livingston Counties, is fed by springs, seepage and by overflow from Honeywell Lake. It flows about 3.5 cubic feet per second. The stream

might support brown trout in its lower stretches (72°F. at an air temperature of 88°F. in one place and 69°F. at an air temperature of 80°F. at another) but it is too warm where it emerges from Honeywell Lake. No pools occur throughout the entire section according to the survey data. There is very little gravel in the stream. Shade and cover appear to be ample for trout needs. The stream was stocked with 400 yearling brook trout in 1936. Some of these trout have been caught. About 1/2 the length of the stream is posted but the rest is open to the public at present.

Foote Stream, a spring-fed tributary to Woodruff Creek in Brighton Township, Livingston County, is a designated trout stream. It flows about 2 cubic feet per second. At an air temperature of 86°F. the water was 71°F. Gravel is very scarce, the stream bottom consisting mainly of sand, silt and clay. The pools are considered average in size and frequency. This stream was stocked with 320 yearling and 500 9-month old brook trout in 1933. No reports are available which indicate the success of the planting. The stream is private property and is now posted.

First Creek, in Highland Township of Oakland County, is spring-fed and flows about 1 cubic foot per second. Gravel is present in the upper end of the stream but gives way to muck lower down. The water had a temperature of 72°F. when the air was 79°F. The water temperature might rise above the toleration limit for trout with increase in air temperature. Some trout have been taken from this stream and it is surmized that they escaped from privately operated ponds on the stream. The stream was not posted at the time of survey. Green sunfish, large-mouthed bass and bluegills are abundant in the stream and might compete with trout for food. The presence of bass would make fingerling trout stocking inadvisable.

Sherwood Creek, located in Milford Township, Oakland County, is fed by a small lake and springs. It flows about 1.4 cubic feet per second and

had a temperature of 59°F. when the air was 78°F. Gravel is present in the stream in ample quantities and the pools are deep, covered but somewhat small and infrequent. The stream is posted and considered private. Three brook trout were taken from this creek by the survey party, although records show no stocking for the past five years. This fact is definite indication that the stream is suited to brook trout.

Carpenter Creek, called Benham Creek in Conservation Department records, is located in Genoa and Hamburg townships of Livingston County. It is posted as a trout stream and has been stocked with 500 9-month old brook trout in 1933; 200 7-month old brook trout in 1934, and 200 yearling brook trout in 1936. No trout catches have been reported from this stream, although the public has access to it. Survey data indicate that water temperatures rise too high for brook trout and that pools and cover are very poor. This stream is not recommended for further stocking with brook trout. It is populated with large-mouthed bass, green sunfish and mud pickerel which would compete with trout for food and even prey upon them.

Woodruff Creek, located in Brighton and Green Oak townships in Livingston County, is spring-fed and flows about 7 cubic feet per second. Gravel is plentiful in the stream bottom. Pools are scarce. Water temperature records show that this stream is trout water although in some places it may become too warm. Some trout catches are reported from this stream and it is evident that it will support these fish. Conservation Department stocking records show no trout planted in this stream for the past five years.

Definitely submarginal as trout water are: County Drain in Milford Township, Oakland County; Pettibone Creek in Highland Township, Oakland County and Middle Creek flowing into Nichwagh Lake in Lyon and Green Oak townships of Oakland and Livingston Counties. These and other flowing

waters of the Huron River drainage are entirely unsuited for trout.

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November 21, 1939

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SUPPLEMENT TO REPORT NO. 556

Precise locations of the streams referred to in this report are given below:

Brass Creek - T1S, R5E, Sec. 31-32.

Mann Creek - T2N, R7E, Sec. 5; T2N, R6E, Sec. 28.

Foote Stream - T2N, R6E, Sec. 25, 36, 35.

First Creek - T3N, R7E, Sec. 22, 27.

Sherwood Creek - T2N, R7E, Sec. 4, 9.

Carpenter Creek - Origin T2N, R5E, Sec. 28; Mouth T1N, R5E, Sec. 21.

Woodruff Creek - Origin T2N, R6E, Sec. 9; Mouth T1N, R6E, Sec. 3.

County Drain - T2N, R7E, Sec. 27, 28, 34.

Pettibone Creek - T3N, R7E, Sec. 14, 15, 23, 27, 34.

Middle Creek - T1N, R6 and 7E, Sec. 29, 31, 32, 36.

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