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DIVISION OF FISHERIES  
MICHIGAN DEPARTMENT OF CONSERVATION  
COOPERATING WITH THE  
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**THE NINETEENTH ANNUAL INTENSIVE CREEL CENSUS, HUNT CREEK  
TROUT RESEARCH STATION, 1957**

by

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Hunt Creek is located mostly in Montmorency County; it flows from Harders Lake in Oscoda County northeastward for approximately 10 miles to its confluence with the Thunder Bay River. The experimental waters (Fig. 1) are located in a four-square-mile area on the upper reaches of Hunt Creek.

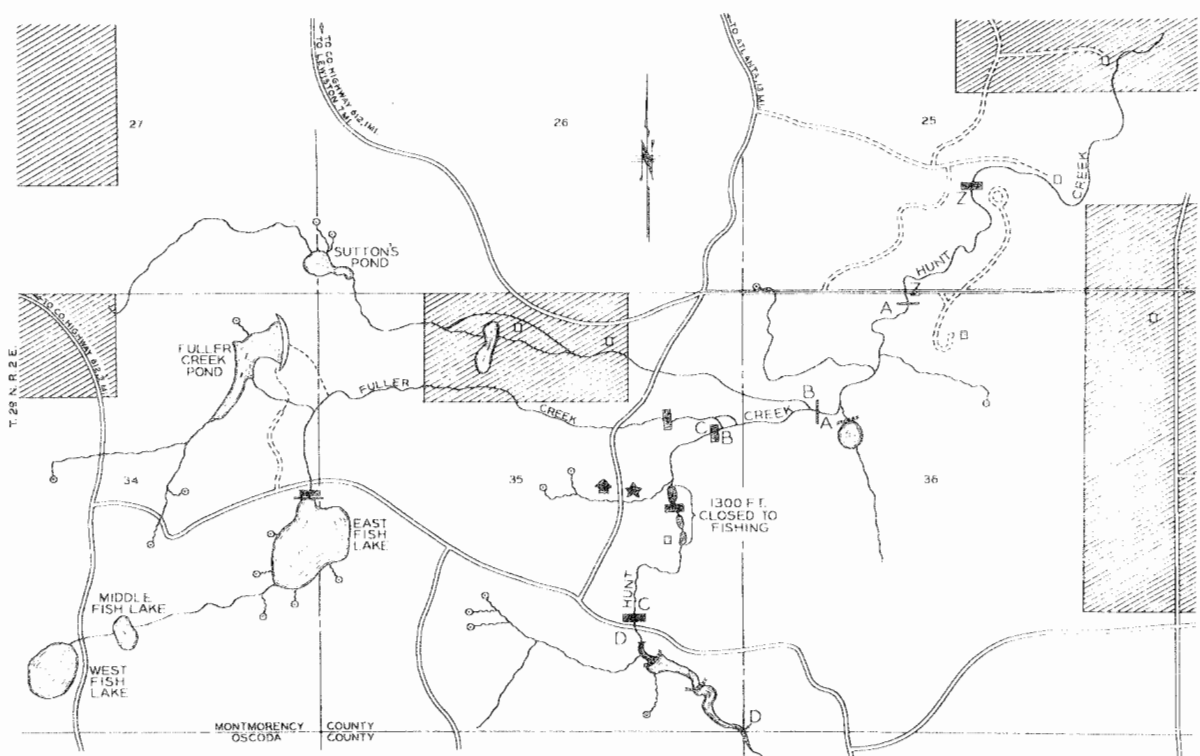
Angling was censused intensively in 1957 for the nineteenth consecutive year. Experimental waters included in the census were Hunt Creek, Fuller Creek, and East Fish Lake. Fuller Creek Pond was drawn down during 1956 and was left dry throughout the 1957 season. The morphometry of these waters and the fishing regulations for 1957 are summarized in Table 1.

**Fishing permits**

Anglers fishing the experimental waters were required to obtain a daily permit from a centrally located checking station, and to check out at the station at the conclusion of the fishing trip. A single permit allowed anglers to fish in all waters open to fishing; however, their fishing in each area (Sections Z, A, B, C and D of Hunt Creek, Fuller Creek, and East Fish Lake) was tabulated as a separate trip.



MICHIGAN DEPARTMENT OF CONSERVATION  
 FISH DIVISION  
**HUNT CREEK FISHERIES EXPERIMENTAL AREA**  
 MONTMORENCY COUNTY



- LEGEND**
- ⌘ - LABORATORY-RESIDENCE
  - ★ - CREEL CENSUS STATION
  - - STATE CABIN
  - ▢ - PRIVATE CABIN
  - ⊙ - FISH TRAP-SCREEN
  - - ROUGH TRAIL
  - ▨ - PRIVATE LAND
  - ||||| - BEAVER DAM
  - A,B,ETC - STREAM SECTION BOUNDARIES
  - ⊙ - SPRING



3/8/50

Table 1.--Morphometry (mileage in parentheses) of experimental waters of Hunt Creek drainage, with angling regulations for 1957

Experimental water Section of Hunt Creek:	Dimensions			1957 Regulations		
	Length (feet)	Average width (feet)	Area (acres)	Lure	Minimum length (inches)	Daily creel limit
Z	2,397 (0.45)	20.3	1.12	Flies only	7	10
A	2,577 (0.49)	24.3	1.44	Flies only	7	10
B	1,605 (0.30)	17.5	0.64	Any	7	10
C <sup>1</sup>	2,700 (0.51)	11.8	0.71	Any	7	10
D	2,896 (0.55)	100.0	6.65	Any	7	10
<hr/>						
Total, Hunt Creek	12,175 (2.30)	37.8	10.56			
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Fuller Creek	9,875 (1.87)	15.7	3.57	Any	7	10
Fuller Creek Pond <sup>2</sup>	...	...	14.58	No live fish	10	5
East Fish Lake	...	...	16.0	No minnows	10	5

<sup>1</sup>Excludes 1,270 feet of Section C which are experimental diversions closed to fishing.

<sup>2</sup>Pond drained; no fishing during 1957.

During the season 840 permits representing 1,097 trips were issued to anglers. Male licensees made 78 percent of the trips, female licensees 1 percent, wives 7 percent, male minors 12 percent, and female minors 2 percent.

#### Recovery of stocked trout

A total of 415 hatchery brook trout from plantings made since 1954 were caught in experimental waters at the Hunt Creek Station in 1957 (Table 2).

Twelve brook trout from the October, 1954, planting of PRS<sup>1</sup> fingerlings were creeled in 1957 from Hunt and Fuller creeks. Six of these were trained trout and six were controls.

In April, 1957, 282 sublegal brook trout were stocked in Fuller Creek; 23 (8 percent) of these fish were caught during 1957. Also, in April of 1957, 150 legal-size brook trout were stocked in Fuller Creek; 97 (65 percent) of these fish were caught during 1957.

East Fish Lake was treated with rotenone to remove all fish during the fall of 1956. In April, 1957, 350 legal-size brook trout were planted, of which anglers creeled 283 (80 percent) during the 1957 season. Most were taken during the first 10 days of the season; thereafter fishing was poor.

#### Angling results

Hunt Creek.--Results for the individual stream sections (Z, A, B, C and D) are reported separately. These data are summarized in Table 3 along with the combined totals for all experimental waters.

Section Z, the lowermost of the stream sections, is accessible to fishermen from many points, because a trail parallels this section for its entire length. Since 1955, Section Z has been under a "flies-only" regulation to determine

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<sup>1</sup>These trout were stocked as part of experiments conducted by the Department of Conservation and Psychological Research Services, Inc. For creel returns through 1956 on PRS plantings of trout, see I. F. R. Report No. 1510.

Table 2.--Brook trout planted in the experimental waters of Hunt Creek  
and anglers' harvest, 1954-1957

Area, and date of planting	Number planted	Total length <sup>↓</sup> when planted (inches)	Number creeled, 1957	Total legal fish creeled to date	
				Number	Percentage
Hunt and Fuller creeks October, 1954	5,997	4.3	12	124	2.1
Fuller Creek April, 1957	282	5-6	23	23	8.2
April, 1957	150	7-9	97	97	64.7
East Fish Lake April, 1957	350	10-12	283	283	80.1

<sup>↓</sup>Average length (1954) or range in length (1957).

Table 3.--Summary of angling data, experimental waters of Hunt Creek drainage, 1957

Experimental water	Total fishing		Total catch			Catch per hour <sup>2</sup>		Average size		
	Trips <sup>1</sup>	Hours	Species of trout	Origin	Number	Pounds	Number	Pounds	Total length (inches)	Weight (pounds)
Section of Hunt Creek:										
Z	113 (54)	218.0	Brook	Wild	127	22.03	0.59	0.10	7.9	0.173
			Brook	Hatchery	3	0.92	0.01	tr	9.3	0.307
			Rainbow	Wild	5	1.79	0.02	0.01	9.7	0.358
			All	...	135	24.74	0.63	0.11	8.0	0.183
A	107 (53)	218.5	Brook	Wild	155	26.97	0.71	0.12	7.9	0.174
			Brook	Hatchery	1	0.27	tr	tr	9.1	0.265
			Rainbow	Wild	3	0.76	0.01	tr	8.9	0.253
			All	...	159	27.99	0.73	0.13	7.9	0.176
B	89 (37)	161.5	Brook	Wild	88	14.64	0.54	0.09	7.8	0.166
			Brook	Hatchery	2	0.45	0.01	tr	8.7	0.225
			Rainbow	Wild	3	0.84	0.02	tr	8.9	0.279
			All	...	93	15.93	0.58	0.10	7.9	0.171
C	209 (65)	398.5	Brook	Wild	112	18.34	0.28	0.05	7.8	0.164
			Brook	Hatchery	1	0.24	tr	tr	8.3	0.235
			Rainbow	Wild <sup>3</sup>	16	3.99	0.04	0.01	8.3	0.249
			All	...	129	22.57	0.32	0.06	7.8	0.174
D	263 (92)	528.5	Brook	Wild	275	63.17	0.52	0.12	8.4	0.230
			Brook	Hatchery	3	1.36	0.01	tr	10.0	0.453
			Rainbow	Wild	2	0.52	tr	tr	8.9	0.260
			All	...	280	65.05	0.53	0.12	8.4	0.230
Hunt Creek Total or average	781(301)	1,525.0	Brook	Wild	757	145.15	0.50	0.10	8.0	0.192
			Brook	Hatchery	10	3.24	0.01	tr	9.3	0.324
			Rainbow	Wild	29	7.90	0.02	tr	8.7	0.270
			All	...	796	156.28	0.52	0.10	8.1	0.196
Fuller Creek	179 (75)	376.5	Brook	Wild	76	11.71	0.20	0.03	7.6	0.154
			Brook	Hatchery	122	24.41	0.32	0.06	8.3	0.200
			Rainbow	Wild	1	0.17	tr	tr	7.8	0.170
			All	...	199	36.29	0.53	0.10	8.0	0.182
East Fish Lake	137 (79)	436.5	Brook	Hatchery	283	124.02	0.65	0.28	10.6	0.438
All waters	1,097(455)	2,338.0	Brook	Wild	833	156.86	0.36	0.07	8.0	0.188
			Brook	Hatchery	415	151.67	0.18	0.06	9.9	0.365
			Rainbow	Wild	30	8.07	0.01	tr	8.6	0.266
			All	...	1,278	316.59	0.55	0.14	8.6	0.248

<sup>1</sup>Number of successful fishing trips in parentheses.

<sup>2</sup>Tr. indicates a value less than 0.005.

<sup>3</sup>Includes one hatchery-reared fish (survivor of 1952 planting).

whether protection given to sublegal trout against bait-hooking mortalities would result in an increased yield to fishermen. This section is waded easily and until recently was well suited for fly fishing because meadow and low-brush types of vegetation prevailed along its banks. However, the vegetation is growing up and is making fly fishing more difficult. This may eventually result in a substantial shift in the fishing pressure from Section Z to the more open Section A. In 1957 the number of fishing trips decreased 36 percent (from the number in 1956) in Section Z but only 9 percent in Section A.

In 1957 anglers on Section Z creeled 135 legal trout (25 pounds) in 113 trips, at an average rate of 0.63 trout per hour. The fish averaged 8.0 inches in length. Forty-eight percent of the trips were successful (one or more trout caught). In addition, 4 sublegal brook trout were creeled and fishermen reported catching and releasing 585 sublegal trout during the season.

A population study<sup>2</sup> in October 1957, indicated that approximately 67 legal and 1,527 sublegal native brook trout remained in Section Z at the close of the fishing season. Computations as outlined by Cooper (1952) indicated an exploitation rate of 65 percent for native brook trout.

Section A, immediately upstream from Section Z, is typified by meadow-type vegetation along its banks, and is well suited for fly fishing. However, as in Section Z, alder and tamarack are encroaching to the water's edge, and in time will make fly fishing more difficult if the natural succession of vegetation is undisturbed.

The reason for discussing the vegetative successions along sections Z and A is the possible influence of these changes upon the fishing pressure, catch per hour, and harvest of trout. The creel census is a tool for the

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<sup>2</sup>Hunt Creek population estimates were made during October, 1957 by a modification of the Petersen mark-and-recovery method. The fish were captured by electrofishing.

evaluation of the "flies-only" regulation, and such physical factors as vegetation can have a profound effect upon the fishery statistics, thus making evaluation more difficult.

Anglers creeled 159 trout (28 pounds) in 107 trips to Section A. The average catch per hour was 0.73 trout; the average fish was 7.9 inches long. Anglers were successful on 51 percent of their fishing trips. Two sublegal brook trout were creeled, and 605 were reported released by fishermen.

An estimated 68 legal and 3,015 sublegal native brook trout remained in Section A at the close of the fishing season. The rate of exploitation of native brook trout was 70 percent.

Section B, immediately upstream from Section A, flows through a cedar swamp. In this section ordinary Michigan trout fishing rules apply. Anglers creeled 93 trout (average length, 7.9 inches; total weight, 16 pounds) in 89 trips, at an average rate of 0.58 per hour. Forty-two percent of the trips were successful. One sublegal trout was creeled and 480 were released. Following the 1957 fishing season an estimated 35 legal and 1,257 sublegal native brook trout remained in Section B. The exploitation rate of native brook trout was 72 percent.

The cover along the banks of Section C is varied. The lower portion is bordered by cedar swamp, whereas the upstream portion flows through an aspen-white birch association, with alder and conifers adjacent to the stream edge. This section is fished under the regular state-wide regulations. A 1,270-foot stretch of stream near the center of Section C is closed to all fishing.

Anglers harvested 129 trout (23 pounds) in 209 trips to Section C. The average catch per hour was 0.32 trout; the legal fish taken averaged 7.8 inches in length. Fishermen were successful on 31 percent of their trips. Four sub-



legal trout were creeled, and 846 were reported released. In October, 31 legal and 2,632 sublegal native brook trout were estimated to be present in the portion of Section C that had been open to fishing during the season. Native brook trout were exploited at a rate of 78 percent during the 1957 season.

Section D, the uppermost experimental section on Hunt Creek, is a beaver pond, except for the lower 200 yards which is similar to Section C. In 263 fishing trips to Section D, anglers caught 280 trout which averaged 8.4 inches in length and weighed a total of 65 pounds. The average catch per hour was 0.53 trout. Anglers were successful on 36 percent of the trips. Five sublegal trout were creeled and 481 were caught and released. Post-season population estimates were not conducted in Section D.

Twenty-nine rainbow trout were caught in Hunt Creek in 1957. One 12-inch fish was a survivor from the original introduction of this species made in 1952, and 28 were survivors from natural spawning since 1953. Rainbow trout were creeled from all sections of Hunt Creek but more than half were taken from Section C. Apparently the exploitation of this species in Hunt Creek is very high because only 2 were taken (in waters that were open to fishing) during the fall population studies. These were captured in the lower part of Section C, immediately downstream from the closed waters of Section C. About 40 5- to 10-inch rainbow trout remained in Hunt Creek (almost all in the closed water) at the end of the season. No young of the year were collected during the 1957 population studies. The existence of a population of rainbow trout in Hunt Creek presently depends on the few fish remaining in the closed water.

The total catch of trout from Hunt Creek was down 103 fish (11 percent) from 1956. The catch of wild brook trout was down only 25 fish (3 percent); however, the fewer native fish weighed about 8.5 pounds more than the catch

last season. Considered separately, the total catches from Section Z, A, B and C were down 22 to 45 percent, whereas the catch from Section D was better than double the 1956 total.

Biweekly results of angling for native brook trout caught from all sections of Hunt Creek are summarized in Table 4. The best angling (catch per hour) apparently was during the period of July 6-19, and from mid-August to the close of the season in September. A similar trend in angling success was observed in 1956. However, it was quite different in seasons prior to 1956, when the best angling was during the first month of the season. The average catch per hour for the entire 1957 season was 0.50 fish or about the same as in 1956.

The biweekly success of anglers has been highly variable over the years, probably because a few trips made by proficient anglers can determine whether the particular period in question is "good" or "bad." Some fishermen consistently made good catches throughout the season (see below).

Fuller Creek and East Fish Lake Outlet.--Fuller Creek heads about one-half mile west of Fuller Pond (Fig. 1). From the pond it flows about 800 feet to the southeast, where it is joined by the outlet stream from East Fish Lake. Fuller Creek then flows eastward for 3/4 mile to its confluence with Hunt Creek in the upper part of Section B. Its course is almost entirely through dense cedar swamp which forms a canopy over the stream; consequently bait fishing is the popular method of angling.

Anglers creeled 199 trout weighing 36 pounds in 179 trips. The average length for wild trout was 7.6 inches; for hatchery trout, 8.3 inches. Forty-two percent of the angling trips were successful. Hatchery-reared trout contributed 62 percent of the catch in this stream. Fuller Creek was partially poisoned during the fall of 1956. Seepage from East Fish Lake into Fuller

Table 4.--Biweekly angling statistics for wild brook trout, Sections Z, A, B, C, and D  
of Hunt Creek (combined), 1957

Dates	Total fishing		Native trout		Catch per hour		Average size	
	Trips <sup>↓</sup>	Hours	Number	Pounds	Number	Pounds	Total length (inches)	Weight (pounds)
April 27 - May 10	133 (40)	269.0	96	15.85	0.35	0.06	7.8	0.165
May 11 - May 24	64 (30)	111.5	60	12.76	0.54	0.11	8.3	0.213
May 25 - June 7	106 (41)	224.0	102	19.82	0.46	0.09	8.1	0.194
June 8 - June 21	69 (27)	145.0	72	13.53	0.50	0.09	8.0	0.188
June 22 - July 5	103 (30)	172.0	72	15.77	0.42	0.09	8.3	0.219
July 6 - July 19	53 (31)	89.0	71	13.20	0.80	0.15	8.0	0.186
July 20 - Aug. 2	70 (27)	158.0	70	13.20	0.44	0.08	8.0	0.189
Aug. 3 - Aug. 16	76 (20)	150.5	52	10.72	0.35	0.07	8.1	0.206
Aug. 17 - Aug. 30	60 (31)	109.5	103	20.60	0.94	0.19	8.2	0.200
Aug. 31 - Sept. 8	47 (24)	96.5	59	9.71	0.61	0.10	7.8	0.165
Total or average	781(301)	1,525.0	757	145.16	0.50	0.10	8.0	0.192

<sup>↓</sup>Number of successful fishing trips in parentheses.

Creek (after the treatment of the lake with rotenone) killed in excess of 500 brook trout ranging from 2 to 9 inches in length. It was postulated that fishing success for wild fish would be poor in 1957, thus the hatchery brook trout were planted. However, the catch of wild trout was better than the catch in 1954 or 1955 seasons. It was not so good as in the 1956 season, but the abnormally high catch in 1956 may have been due to the liberation of wild fish into Fuller Creek from Fuller Creek Pond when the Pond was drained mid-way through the 1956 season.

Fuller Creek Pond.--As has been mentioned, this impoundment was drained and treated with rotenone in 1956. It was left dry during the 1957 season. Any fish creeled in 1957 from the channel flowing through the pond are included as Fuller Creek trout.

East Fish Lake.--This lake has a surface area of 16 acres, an average depth of nearly 20 feet, and is a designated trout lake. East Fish Lake was treated with rotenone during the fall of 1956 in an attempt to kill the entire fish population. Trout were replanted during the spring of 1957. Although only planted brook trout were creeled during 1957, five sublegal native brook trout and one stickleback have been observed since the treatment.

In April, 1957, 350 legal-size hatchery brook trout were stocked in the lake. Anglers creeled 283 trout, weighing 124 pounds, from this planting. Most of the fish were captured during the first two weekends of the fishing season; thereafter fishing pressure decreased because the anglers' chances of catching the few surviving fish were poor.

A second planting of 2,000 sublegal brook trout was made in June, 1957. None of these were creeled during 1957.

All Waters.--From all experimental waters of the area, anglers creeled 1,278 trout (total weight, 317 pounds) in 1,097 fishing trips and 2,338 hours.

The tabulation of fishing trips to streams and to East Fish Lake in relation to the number of fish caught showed that no fish were taken on 61 percent of the stream trips and on 42 percent of the lake trips (Table 5). Five or more trout were taken on only 5.8 percent of the angler trips on streams where the creel limit was 10 fish. Limit catches of 5 trout were taken on 30 percent of the trips to the lake. However, all of the lake fish were newly stocked brook trout of legal size, whereas most stream fish were wild trout.

#### Fishing methods

Comparison of fishing methods.--No elaborate analysis for comparing the various fishing methods used at Hunt Creek has been attempted. However, the records show that, in general, it is not the lure or the equipment used by the angler that determines success or failure at Hunt Creek; rather, it is the proficiency of individual anglers that counts. On Sections Z and A (flies only) five fly fishermen creeled 68 percent of the total trout caught in these sections, while making only 36 percent of the total trips, and spending only 31 percent of the total fishing hours on these waters. Results were similar on Sections B and C (any lure) where five anglers creeled 47 percent of the total catch, while making 17 percent of the total trips and spending only 14 percent of the total hours fished in these sections.

Popularity of lures.--Table 6 summarizes the catch according to lures used during 1957. Waters of the area have been grouped into three categories according to regulations and type of habitat. In Sections B and C of Hunt Creek and in Fuller Creek, which were under regular state-wide trout fishing

Table 5.--Number and percentage of fishing trips on which different numbers of trout were caught, Hunt Creek Trout Research Station, 1957

Number of trout caught per trip <sup>1</sup>	Streams		East Fish Lake	
	Number of trips	Percentage of total trips	Number of trips	Percentage of total trips
0	584	60.8	58	42.3
1	153	15.9	16	11.7
2	75	7.8	12	8.8
3	53	5.5	2	1.5
4	40	4.2	8	5.8
5	17	1.9	41	29.9
6	16	1.7	..	...
7	7	0.7	..	...
8	4	0.4	..	...
9	5	0.5	..	...
10	6	0.6	..	...
Total ....	960	100.0	137	100.0

<sup>1</sup>Legal daily limit was 10 trout from streams, 5 trout from East Fish Lake.

Table 6.--A comparison of different fishing lures in terms of frequency of use, numbers of trout caught, and catch per hour, Hunt Creek Trout Research Station, 1957

Water	Lure	Number of angler trips	Percentage of total trips	Number of trout caught	Percentage of total catch	Number of hours fished	Average catch per hour
Stream (Sections B, C and Fuller Creek)	Worms	349	73.2	266	63.2	719.5	0.37
	Worms and spinners	42	8.8	76	18.1	91.0	0.84
	Flies	18	3.8	11	2.6	30.0	0.37
	Minnows	20	4.2	21	5.0	27.0	0.78
	Insects	14	2.9	16	3.8	18.5	0.87
	Artificial lure	7	1.5	0	0.0	9.5	0.00
	Natural lure	4	0.8	0	0.0	6.0	0.00
	Combination	23	4.8	31	7.4	35.0	0.89
	Total	477	100.0	421	100.0	936.5	0.45
Stream (Sections Z and A)	Flies	220	100.0	294	100.0	436.5	0.67
Pond (Section D and East Fish Lake)	Worms	275	68.8	338	60.1	706.5	0.48
	Worms and spinners	26	6.5	63	11.2	78.5	0.80
	Flies	35	8.8	48	8.5	57.5	0.84
	Minnows	4	1.0	6	1.1	5.0	1.20
	Insects	6	1.5	14	2.5	13.5	1.04
	Artificial lure	19	4.7	18	3.2	26.5	0.68
	Natural lure	1	0.2	0	0.0	0.5	0.00
	Combination	33	8.3	76	13.5	75.5	1.01
	Unknown	1	0.2	0	0.0	1.5	0.00
	Total	400	100.0	563	100.0	965.0	0.58

regulations, anglers used worms or worms and spinner on 82 percent of the trips, and these lures accounted for 81 percent of the catch. The catch per hour of fishermen using worm and spinner, minnows, insects, or a combination of methods was considerably higher than for anglers using worms only. However, this difference was due largely to the proficiency of certain individual fishermen in the use of these lures, whereas most inexperienced anglers used worms only.

Worm fishing took 71 percent of the catch in pond waters (East Fish Lake and the beaver pond in Section D), and was the method chosen on 75 percent of the trips. Fishermen using other types of lures caught more fish per hour, although again this can be attributed to the proficiency of a few anglers.

Fly fishermen caught 0.84 fish per hour on pond waters, 0.67 fish per hour on the "flies-only" sections of Hunt Creek, and 0.37 fish per hour on the other stream sections. Physical obstacles to fly fishing (bank brush, trees, etc.) probably contributed to these differences in success. Fishermen on the lake and beaver pond were quite free from such obstacles, and the flies-only section of Hunt Creek is more open than other sections of the stream.

#### Age composition of wild trout

Table 7 gives the age composition of the wild brook and rainbow trout in the anglers' catch from Hunt Creek. Separate tabulations have been made for wild brook trout creel from the "flies-only" sections (Z and A), the "any-lure" stream sections (B and C), and the "any-lure" pond waters of Section D.

About 70 percent of the trout taken in the stream sections (Z, A, B, and C) were in age-group II (third summer of growth). In Sections Z and A, age-group I



Table 7.--The age distribution of native trout caught by anglers in Hunt Creek, 1957

Species	Stream section	Age group	Number of fish <sup>1</sup>	Average length (inches)	Percentage of total catch
Brook	Z and A	I	47	7.2	18.9
		II	176	7.8	70.7
		III	26	8.6	10.4
Brook	B and C	I	21	7.4	11.8
		II	117	7.6	65.7
		III	36	8.3	20.3
		IV	4	8.9	2.2
Brook	D	I	151	7.9	53.6
		II	96	8.6	34.2
		III	32	9.5	11.4
		IV	1	9.4	0.4
		V	1	13.6	0.4
Rainbow	Z, A, B, C and D	I	11	8.2	39.3
		II	17	9.3	60.7

<sup>1</sup>The ages of 49 brook trout and 1 rainbow trout were not determined; their scale samples either included only regenerated scales or else the scales were unreadable.

made up about 20 percent of the catch and age-group III comprised 10 percent. In Sections B and C, age-group I made up only 10 percent of the catch and age-group III comprised about 20 percent. A few IV-group fish were taken in Sections B and C, but Sections Z and A yielded none. However, fall population studies in Sections Z and A showed that age-groups IV and V were present in fair numbers. Possibly fly fishermen had greater difficulty than bait fishermen in capturing the older fish.

The age composition of the catch from Section D, which is mostly pond habitat, was quite different from that of the stream. Age-group I made up better than 54 percent of the catch, age-group II about 34 percent, age-group III about 11 percent, and age-groups IV and V about 1 percent. Apparently faster growth in the beaver pond, than in stream habitat, resulted in more fish reaching legal size in their second summer.

Wild rainbow trout caught in Hunt Creek were represented by two age groups. Age-group I comprised 40 percent of the catch and age-group II 60 percent.

#### Residence of anglers

The majority of anglers using the Hunt Creek Area came from the southeastern counties of the Lower Peninsula (Table 8). Local counties supplied the second largest group, while other areas contributed few anglers. Ohioans made 66 of 80 fishing trips by non-residents.

#### Acknowledgments

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Table 8.--Residence of anglers fishing experimental waters of the  
Hunt Creek Trout Research Station, 1957

Residence (County)	Number of trips		Residence (County or State)	Number of trips	
	Streams	East Fish Lake		Streams	East Fish Lake
Montmorency	204	11	Arenac	2	2
Wayne	157	36	Crawford	2	...
Oakland	109	11	Isabella	2	...
Ingham	86	4	Shiawassee	2	...
Genesee	53	10	Alger	1	...
Midland	38	...	Branch	1	...
Macomb	36	5	Muskegon	1	...
Lenawee	27	...	Otsego	1	...
Bay	26	26	Oceana	...	3
Saginaw	24	10	Gratiot	...	1
St. Clair	23	...	Total resident	882	135
Jackson	19	3			
Oscoda	16	5	Ohio	64	2
Washtenaw	10	7	Pennsylvania	5	...
Livingston	7	...	California	3	...
Tuscola	6	...	New Jersey	2	...
Lapeer	6	...	Indiana	2	...
Calhoun	5	...	Minnesota	1	...
Ionia	5	1	Missouri	1	...
Clinton	4	...	Total non-resident	78	2
Eaton	4	...			
Sanilac	3	...	Grand total	960	137
Alpena	2	...			

Literature cited

Cooper, Edwin L.

1952. Rate of exploitation of wild eastern brook trout and brown trout populations in the Pigeon River, Otsego County, Michigan. Trans. Am. Fish. Soc., 81 (1951): 224-234.

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