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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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CREEL CENSUS ON THE HUNT CREEK FISHERIES EXPERIMENTAL AREA, 1939 TROUT SEASON

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This report presents the results of the creel census operated on the Hunt Creek Fisheries Experimental Area during the 1939 trout season, and includes the summary of the season's fishing on the intensively censused portion of Hunt Creek and Fuller Creek Beaver Dam. Incomplete data (which will be usable in general census totals) on East Fish Lake, Sutton's Pond, and miscellaneous portions of Hunt and Fuller Creek are also included.

The Hunt Creek Fisheries Experimental Area lies almost entirely in south-central Montmorency County (T. 29 N., R. 2 E.), except for a small part of the Hunt Creek headwaters which rise directly to the south just over the Oscoda County line. Besides Hunt Creek proper there are eight tributaries of varying sizes, two trout lakes (East Fish, Sutton's Pond), and two other lakes (West Fish, Middle Fish) of no angling value at present.

Methods

The course of Hunt Creek and its intersection with the roads in the area are shown in Figure 1. Creel census clerks were stationed as follows: one man was located at the lower end of Section A; another was camped at the junction of Sections C and D. Most of the fishermen using the stream entered at these two points, since these locations offered the best parking space for cars. Some fishermen entered Section C in the middle of its course. The latter anglers were contacted by members of the Institute staff, whose permanent summer camp was close by.

All efforts were directed toward obtaining as complete a record as possible on Hunt Creek above Section A bridge. It is to the credit of the census clerks that only 2 out of 147 fishermen who used Section C were not contacted. All fishermen angling in Sections A. B, and D were contacted. Creel census clerks for the 1939 season were Frank Wilson of Coldwater, Michigan, and Orville Moore of Linwood, Michigan. Both were selected from Civil Service lists.

The methods employed to obtain the data from the fishermen were similar to census methods used in previous years, with the exception of a more detailed inspection of the actual catch, which included individual length and weight measurements on the fish removed. A new creel census blank which provided for recording of individual fish made this tabulation quite simple. The fish were measured on millimeter rules and weighed on gram balances. A large number of the fish taken by the anglers were scale-sampled for age studies and stomachs were preserved for food analysis.

Before the trout season opened the intensively censused area of Hunt Creek was divided into the four sections (A, B, C, and D) which represent four different types of trout stream habitat (See Figure 1, Table 1). The fisherman's catch during the season was recorded by sections, depending on which section or sections had been fished. If an angler fished an hour in Section A and two hours in Section B, two

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blanks were filled out, showing the time fished in each piece of water, and the resulting catch. By tabulating the catch in this manner, we should learn which type of water is the most productive for the angler. Signs were placed at the upper and lower end of each section asking the anglers not to clean their fish until their catches had been checked by the clerks. The fishermen cooperated wholeheartedly in all respects. The results of the 1939 trout season on the censused portion of Hunt Creek will be found in Tables 2, 3, 4 and 5, which summarize by two-week periods the statistics for Sections A, B, C, and D. Table 6 gives the results for the combined sections together.

Results -- Hunt Creek Proper

More anglers fished in Section D (155) than in any other part of the censused area. Almost as many (145) went into Section C for their sport. Section A was fished by 105 fishermen, while Section B was hardly fished at all, only 23 fishermen utilizing this piece of water during the entire season despite the relatively short distance to Section B from the bridge at the lower end of A (2577 feet). It was interesting to note that only a very small percentage of fishermen fished more than a half-mile from their cars.

The number of hours of angling was almost identical in Sections D and C (263.25 to 262.75), but the total catch of legal brook trout in Section D was approximately twice that taken in Section C (220 to 112). Section A received 199.00 hours of fishing and yielded 143 legal brook trout, and Section B was last with 33.50 hours of angling effort with a yield of 15 legal brook trout. The catch per hour for the entire season for each section was as follows: Section A, 0.72; Section B, 0.45; Section C, 0.43; Section D, 0.84; all sections combined, 0.65.

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• •• ** ** In order to study the trends of the fishing through the season, a graph of the catch per hour curves for each section has been plotted. These curves are found in Figure 2.

From these curves it can be noted that the quality of fishing on the censused area of Hunt Creek (with the exception of Section D) started out below the season's average, and stayed below average during the month of May, although the catch per hour of all sections combined progressively increased through the fourth two-week period because of the continued above-average catch per hour in Section D. An early season peak was reached during the middle of June, when the catch per hour in Sections A and D were well above the average catch per hour for the stream as a whole.

A slight drop in the quality of the fishing occurred during the fifth two-week period (June 24-July 7), but from that time on to the last two-week period (August 19-September 1) fishing became progressively better, reaching the highest point of the season during the period August 5-18, when the combined average catch per hour was 1.11 fish.

Results -- Other Waters on the Area

The creel census clerks and members of the Institute staff took as many fishing records as possible from other waters in the Hunt Creek drainage not shown on the map. A large number of fishermen were contacted who fished in that part of Hunt Creek directly below Section A and in a short piece of Fuller Creek. Since it was possible for an unknown number of fishermen to enter and leave either of these streams from points where they would not be observed, this data is regarded as incomplete. Also, the area covered by these records is unknown. Fishing trends and the average size of the fish are quite similar to the other sections. Data from these two areas, adjacent to the intensively censused part of Hunt

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Creek, have been combined in Table 7.

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A total of 204 fishermen tried their skill in Hunt Creek directly below Section A and in Fuller Creek below the beaver dam, expending 462 hours of time in angling. They caught a total of 238 legal brook trout, 1 legal rainbow trout, and 1,954 undersized brook trout. The catch per hour of legal brook trout was 0.52. Incomplete records on the total weight of fish removed by the anglers indicate that this part of Hunt Creek yielded more than 30.3 pounds of brook trout. The percentage of fishermen taking no fish was 54.4.

Incomplete records were also obtained from the two trout lakes on the area. The location of these lakes with respect to the creel census stations made a complete check on the total number of anglers using the lakes an impossibility.

East Fish Lake (23 acres) was fished by 76 anglers. Records were obtained from 63 fishermen, who fished a total of 125.50 hours for a total catch of 51 legal brook trout and 204 legal perch. Seventy-eight per cent of the anglers recorded caught no fish. The best catch of brook trout was taken on the opening Sunday of the season, when two anglers took 14 and 15 trout respectively. Perch fishing was best in late June and in early July. The catch per hour for the entire season for trout was 0.41, for perch, 1.63 (Table 8).

Sutton's Pond, a small pothole of about 3 acres, furnished good angling to those who were not afraid to walk. About 30 fishermen spent between 40 and 50 hours on this body of water and removed a total of 42 legal brook trout, or approximately 1 fish per hour (Table 9).

The most interesting area under census was the Fuller Creek Beaver Dam, which lies just to the west of the confluence of Fuller Creek and the East Fish Lake outlet. This dam is a live beaver dam approximately

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five years old which floods from 10 to 50 acres of land. It varies in depth from 1 to 8 feet, but its greater depths are found only in the narrow channel where the old stream bed was located. Since the flooded land is almost entirely cedar and tamarack swamp, much good trout cover is present. A heavy growth of Chara, Lemma, and other aquatic plants have taken hold in this pond.

As this beaver pond was at least one-half mile from any road, not many fishermen knew of its location, with the exception of a few local residents. There was no fishing on the pond until the 10th of June. Despite the late date at which angling commenced on this body of water, the trend in the catch per hour curve was very similar to that for the censused portion of Hunt Creek. The quality of the angling on this naturally impounded water must, however, be regarded as about three times as good as the best section of Hunt Creek (Section D) because of the size of the trout taken. Although not advantageously located, special efforts were made to keep a complete check on all fishing on this beaver dam, as it is felt that this pond presents an excellent chance to observe how rapidly a stock of large brook trout might be depleted under increasing angling pressure. There will also be opportunity to observe periodically any physical-chemical changes which may occur here as a result of beaver activity or non-activity.

The statistics (Table 10) on the Fuller Creek beaver pond are as follows: number of fishermen: 112; number taking no fish 51; total hours fished 249.50; number of legal trout taken 164; number of illegal trout returned, 28; total weight of legal trout removed, 88 pounds; catch per hour of legal fish, 0.66. The record fish for the pond was a male brook trout of 2 pounds 3 1/4 ounces.

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Average Size of Fish Taken by the Anglers

The average total length and the average weight of the brook trout taken by the anglers have been calculated by two-week periods (the same as for the angling), and these averages will be found in Tables 11 and 12. About 90 per cent of the total catch record were both weighed and measured and almost all were measured.

The average total length of brook trout taken in Hunt Creek proper varied in the several two-week periods from 187 mm. (7.4 inches) to 194 mm. (7.7 inches). The largest trout recorded from Sections A, B, C, or D was 11.25 inches (Table 11). The average weight of the fish varied between 60 and 75 grams, or 2.1 to 2.65 ounces.

The average size of the fish was greatest in the Fuller Creek beaver pond. Here the average total length of legal brook trout taken was 276 mm. (10.9 inches) and the average weight was 261 grams (9 1/4 ounces) (See Table 12).

The average size of fish taken below Section A and in Fuller Creek were of the same general measurements as those taken in Sections A, B, C, D, although during the month of July the average size of the fish from below A exceeded any of the sections above.

Of the brook trout taken from the trout lakes, Sutton's Pond produced fish of greater average size than those measured from East Fish Lake (Table 12). The relatively few fish measured from either lake should not be considered as indicative of the maximum sizes attained.

Yield to the Fishermen in Pounds of Brook Trout Per Acre

The recorded weights of fish taken by the anglers from a measured portion of Hunt Creek make possible a calculation of the pounds per acre yield of the censused area of this stream for the 1939 trout season.

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ta General de la The yield, in terms of pounds of brook trout per acre and in number of legal trout per acre are presented in Table 13. From this table it will be seen that Section A has the largest water area, followed in order by Sections D, C, and B, although Section C has the greatest length. Section D yielded the most pounds of trout of any of the sections (29.90), the greatest number of pounds per acre (25.3), and the largest number of legal fish per acre (186). Section C was next in pounds of brook trout removed per acre (14.9), followed by Section A (13.9) and Section B (1.7). From all sections combined, (a total water acreage of μ .33) a total of 66.98 pounds of trout were removed by the anglers, or an average of 15.4 pounds per acre.

It will be noted by the reader that the total poundage of trout removed from the Fuller Creek Beaver Dam (88 pounds) exceeded the total weight of the anglers' catch from Sections A, B, C, and D combined (66.98). However, it is improbable that the per acre yield of the Fuller Creek Beaver Dam will prove to be as high as that computed for Hunt Creek. Fuller Creek has not yet been surveyed, so no estimate of the per acre yield has been made for the Fuller Creek beaver pond.

Weight of Fish Taken Per Hour as a More Precise Indicator

Of the Quality of the Fishing?

In previous creel censuses throughout the country, weights of fish taken by anglers have been recorded by a small percentage of fisheries workers (Elkins 1937, Tarzwell 1938). In no published report, however, have these workers considered the <u>weight of fish taken per hour of</u> <u>fishing</u> to be of any worth in evaluating the quality of the angling. It appears that the pounds of fish per hour of fishing may possibly be a more precise indicator than the now widely accepted number of fish taken per hour. For example, the catch per hour for the entire season in

Section D on Hunt Creek was 0.84 fish, while on the Fuller Creek Beaver Dam the catch per hour was 0.66 fish. One might conclude, therefore, that Section D provided better fishing. However, although fewer fish were taken in Fuller Creek pond than in Section D, the fish taken in Fuller Creek Beaver Dam were much heavier, and the pounds of fish caught per hour (entire season) averaged 0.35, while in Section D the pounds of fish caught per hour averaged only 0.11. The ratio between the two latter values represents the difference in the quality of the angling, at least according to the author's conception of angling qualities.

Literature Cited

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INSTITUTE FOR FISHERIES RESEARCH

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Dimensions and general description of intensively consused sections of Hunt Creek in the Fisheries Experimental Area.

Stream section	Length (feet)	l VAverage width (feet)	Area (acres)	grade	Dominant bottom type	Immediate shore
A	2,577	24.3	1.44	S ₁ T ₂ F ₂	Sand	Open beaver meadow
В	1,605	17•5	0.64	^S 2 ^T 3 ^F 3	Gravel	Cedar swamp
C	3,970	11.8	1.07	^S 2 ^T 2 ^F 3	Gravel	Cedar swamp, poplars in narrow valley
D	2,386	21.5	1.18	s ₁ t ₂ f ₂	Muck	Dense alder, open beaver meadow, cedar swamp
Totals or average	10,538	17•9	4•33	^S 1 ^T 2 ^F 3	•••	••• •••

Determined by use of a map measurer on maps now in preparation. Average widths were determined from 154 random measurements.

²/After Hoover (1937). $S_1T_1F_1$ is the highest grade a stream could receive. This grade would mean that pools would be wider or longer than the average stream width, that there is abundant bank and submerged shelter and usually water more than 2 feet deep, and that approximately one-half of the stream is composed of pools and onehalf of riffles.

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Table 2

Results of Hunt Creek creel census, Section A, for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

			Legal		Illega	1	2		
		Mumber	March	brook t	rout	brook tr	out	Weight	30
	Number of	toldra	Number	Mumbow	Caten	Number	Caten	OI local	VGrams
Week	fishermen	no fish	fished	taken	hour	returned	hour	trout	hour
Apr. 29-May 12	23	16	32.00	12	0•38	U ₁ 2	4.14	720	22.5 (0.05)
May 13 -26	9	7	18.25	2	0.11	30	1.64	103	5.6
May 27-June 9	4	3	7.00	1	0 .1 4	21	3.00	88	(0.01) 12.1 (0.03)
June 10-23	7	5	13.00	J 11	0.85	75	5•77	279	21.5
June 24-July 7	16	6	37.00	30	0.81	321	8.66	2,296	(0.05) 62.1
July 8-21	1/4	5	25.00	J31	1•2 <u>4</u>	120	4.80	1,826	(0,14) 73•0 (0,16)
July 22-Aug. 4	7	1	15.00	317	1.13	66	Ц• Ц0	915	(0.10) 61.0 (0.12)
Aug. 5-18	5	1	8.75	ป.	1.60	62	7.08	966	110 <u>.4</u>
Aug. 19-Sept. 1	15	5	35.00	23	0•66	223	6.37	1,775	50•7 (0 11)
Sept. 2-Sept. 4	5	4	8.00	2	0.25	11	1.38	112	(0.11) 14.0 (0.03)
Total o f average	105	53	199 .0 0	143	0•72	1,071	5•38	9,080	45•6 (0•10)

 $\stackrel{1}{\checkmark}$ 8 legal trout caught and released.

2/ 3 legal trout caught and released.

 $\sqrt[3]{}$ Weight exclusive of legal trout caught and released.

Table 3

Results of Hunt Creek creel census, Section B, for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

		 - - - - - - - - - - - - - - - - - - - - - - -		Legal Illeg brock trout brock		Illega		Weight	
		Number	Total	DICCK	Catch		Catch	of	Grams
Week	Number of fishermen	taking no fish	hou rs fished	Number taken	per hour	Number returned	per hour	legal trout	pe r hou r
Apr. 29-May 12	6	5	6.25	2	0,32	60	9.60	No we	eigh ts
May 13-26	•••	•••	•••	•••	•••	•••	•••	•••	•••
May 27-June 9	l	1	2.50	0	0.00	13	5.20	•••	•••
June 10-23	6	4	8175	√ 8	0.91	89	10 .20	128	14.6
June 24-July 7	3	1	3•75	2	0.53	8	2.13	134	35-7
July 8-21	2	1	1.75	1	0 •57	13	7•43	114	(0.08) 65.1
July 22-Aug. 4	3	3	6.25	0	0.00	26	4.16	•••	(0.1/µ) •••
Aug. 5-18	•••	• • •	•••	•••	•••	•••	•••	•••	•••
Aug. 19-Sept. 1	2	1	4.25	2	0• <u>1</u> ;7	30	7.06	116	27.3
Sept. 2-4	•••	•••	•••	•••	•••	•••	* * •	• • •	•••
Total or average	23	16	33•50	15	0.45	239	7.13	492	山•7 (0•03)



Results of Hunt Creek creel census, Section C, for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

	<u> </u>			legal		Illega	[
				brook	trout	brook t	rout	Weight	_
	N 1 . A	Number	Number		Catch		Catch	of	Grams
Wools	Number of	taking	or hours	Number	per	Number	per	legal	per
Meek	11 shermen	<u>no 115n</u>	11 Sheq	taken	nour	returned	nour	trout	nour
Apr. 29-May 12	32	25	61.75	18	0 .29	318	5.15	1,081	17•5 (0-04)
May 13-May 26	7	7	7•25	0	0.00	104	14•34	•••	0.00
May 27-June 9	8	5	12.25	3	0.24	74	6.04	165	13.5
June 10-23	27	16	43.00	\$29	0.67	272	6.33	1,874	43.6
June 24-July 7	12	10	29.50	5	0.17	65	2.20	352	(0.10) 11.9
July 8-21	24	1jt	50•75	25	0.49	239	4•71	1,777	(0.03) 35.0
July 22-Aug. 4	16	7	27 •7 5	¥19	0.68	134	4.83	1,149	(0.08) 41.4
Aug. 5-18	8	3	14.00	8	0•57	5 7	4.07	494	(0.09) 35-3
Aug. 19-Sept. 1	5	3	9 •7 5	3	0.31	5 3	5-44	190	19.5
Sept. 2-4	6	5	6.75	2	0,30	16	2•37	161	(0.04) 23.9 (0.05)
Total or average	145	95	262.75	112	0.43	1,332	5.07	7,243	27.6 (0.06)

 $\frac{1}{2}$ 2 legal trout released. $\frac{2}{4}$ 4 legal trout released.

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Results of Hunt Creek creel census, Section D, for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

	Number			Lega trou	1 t	Illega trout	1	Weight	
Two-week	Number of	taking no legal	Number of hours	Number	Catch per	Number	Catch per	of legal	Grams per
period	fishermen	trout	fished	taken	hour	returned	hour	trout	hour
Apr. 29-May 12	30	18	40.75	24	0.59	102	2.50	1,605	39•4 (0•09)
May 13-26	21	11	38•75	36	0.93	131	3.38	2,158	55•7 (0•12)
May 27-June 9	23	10	38.25	33	0.86	116	3.03	1,810	47.3
June 10-23	16	9	24+50	V 17	0.69	92	3•76	1,016	41.5 (0.09)
June 24-July 7	14	6	21.50	$\sqrt[2]{\eta_{+}}$	0.65	100	4.65	800	37 •2 (0 • 08)
July 8-21	9	4	19•50	15	0•77	67	3•44	1,086	55•7 (0•12)
July 22-Aug. 4	11	5	19.25	16	0.83	80	4.16	847	山山。0 (0.10)
Aug. 5-18	14	4	23.25	29	1.25	30	1.29	1,879	80 .8 (0.18)
Aug. 19-Sept. 1	15	6	32.50	36	1.11	124	3.82	2,362	72•7 (0•16)
Sept. 2-4	2	2	5.00	0	0.00	17	3.40	•••	•••
Total or averages	155	75	263.25	220	0.84	859	3.26 1	13,563	51.5 (0.11)

 $\sqrt[1]{4}$ 4 legal trout returned.

 $\sqrt{2}$ 5 legal trout returned.

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Results of Hunt Creek creel census (Sections A, B, C, D combined) for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

19 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -				Legal	,	Illegal		<u>د ا</u>	****
		Number		brook t	rout	brook tr	out	Weight	
		taking	Number		Catch	L	Catcl	ı of	Grams
Woole	Number or	no legal	or hours	Number	per	Number	per	legal	per
Meek	11 shermen	crout	11 Shed	taken	nour	returned	nour	trout	nour
Apr. 29-May 12	91	64	140.75	56	0.40	622	4.42	3,406	24.2 (0.05)
May 13-26	37	25	64.25	38	0.59	265	4.12	2,261	35.2
May 27-June 9	<u>Ц</u> б	20	82.00	3 39	o . 48	25 7	3.13	2,063	(0.08) 25.2
June 10-23	56	34	89.25	65	0.73	528	5•92	3,297	(0.06) 36.9 (0.08)
June 24-July 7	45	23	91.75	51	0.56	494	5•38	3,582	(0.08) 39.0 (0.00)
July 8-21	49	24	97.00	3/12	0.74	439	4•53	4,803	49.5
July 22-Aug. 4	37	16	68.25	452	0.76	306	4 . 48	2,911	(0.11) 42.7 (0.00)
Aug. 5-18	27	8	46.00	51	1.11	149	3.24	3,339	(0.09) 72.6 (0.16)
Aug. 19-Sept. 1	37	15	81.50	64	0•79	430	5.28	4,44;3	54.5 (0.12)
Sept. 2-4	13	11	19•75	4	0,20	44	0.22	273	13.8 (0.03)
Tot als or averag es	Ц 38	2 <u>1</u> 0	780.50	492	0.63	3,534	4•53	30,378	38•9 (0•09)

✓ 10 additional fishermen, 22 additional hours, 2 legal trout, and 33 illegal trout added from split tickets not previously included.

 $\sqrt{2}$ 16 legal trout released.

3 8 legal trout released.

4 7 legal trout released.

 $\frac{5}{5}$ Total weight exclusive of fish listed in $\frac{1}{5}$, $\frac{3}{5}$, $\frac{1}{5}$, 2 trout from Section B,

and 3 trout from Section D.

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Results of Fuller Creek and below Section A (Hunt Creek) creel census for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

				Legal		Illegal			
		Number taking	Number	brook t	Catch	brook t	Catch	Weight	Grame
Two-week	Number of	no legal	of hours	Number	Der	Number	per	legal	per
period	fi shermen	trout	fished	taken	hour	returned	hour	trout	hour
Apr. 29-May 12	25	18	61.75	22	0.36	269	4•36	1,131 (19)	18.3
May 13-26	28	18	59 •75	13	0,22	321	5•37	953 (10)	15•9 (0•03)
May 27-June 9	22	1/4	55.50	17	0.31	210	3•78	95 <u>4</u> (16)	17•2 (0•04)
June 10-23	21	11	49 •75	22	0•14	194	3•90	1,375 (17)	27.6 (0.06)
June 24-July 7	32	19	76.50	41	0.54	329	4•30	2,321 (30)	30•3 (0•07)
July 8-21	24	10	51.50	32	0.62	165	3.20	2,159 (24)	山.9 (0.09)
July 21-Aug. 4	19	6	41.75	46	1.10	189	4•53	2,318 (31)	55•5 (0•12)
Aug. 5-18	12	5	26.25	20	0.76	79 = (3.01	956 (12)	36.4 (0.08)
Aug. 19-Sept. 1	10	4	23.00	10	0.43	76	3.30	610 (10)	26.5 (0.06)
Sept. 2-4	11	6	16.25	15	0.92	122	7•51	984 (15)	(0.13)
Totals o r averages	204	111	462.00	238	0.52	1,954	4.23 :	13,761 (184)	29 .8 (0.07)

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Results of East Fish Lake creel census for the 1939

trout season.

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				Legal		Illega	.1		
Two-week	Number of	Numb er taking	Number of hours	brook Number	trout Catch	brook tr	Catch per	Perch Number	Catch
period	fishermen	no fish	fished	taken	hour	returned	hour	taken	hour
Apr. 29-May 12	13	7	26.75	39	1.46	2	0.07	2	0.07
May 13-26	6	4	15 •50	2	0.13	50	3.23	0	0.00
May 27-June 9	5	4	7•50	1	0.13	2	0.27	1	0.13
June 10-23	21	18	39.00	4	0.10	14	0•36	121	3.10
June 24-July 7	12	8	17.50	5	0.29	• • •	0.00	58	3.31
July 8-21	2	2	2.00	•••	0.00	•••	0.00	•••	0.00
July 22-Aug. 4	0	•••	•••	•••	•••	•••	•••	•••	•••
Aug. 5-18	4	4	8.75	• • •	0.00	•••	0.00	• • •	0.00
Aug. 19-Sept. 1	3	3	8.50	•••	0.00	•••	0.00	22	2.59
Sept. 2-4	0	•••	•••	•••	•••	•••	•••	•••	•••
Totals or averages	J⁄63	49	125.50	51	0.41	68	0.54	204	1.63

 $\sqrt[1]{}$ A total of 78 fishermen were known to have used this lake.

Results of Sutton's Pond creel census for the

1939 trout season.

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 				Leg brook	al trout	Illegal brook tr	out
 Two-week period	Number of fishermen	Number taking no fish	Number of hours fished	Numbe: taken	Catch r per hour	Number returned	Catch per hour
Apr. 29-May 12) May 13-26) May 27-June 9)	J11;	?	J⁄28	J/20	0.72	•••	•••
June 10-23	l	0	1	3	3.00	2	2.00
June 24-July 7	2	1	3	2	0.67	0	•••
July 8-21	0		•••	•••	•••	•••	•••
July 22-Aug. 4	2	0	5	4	0.80	0	•••
Aug. 5-18	0	•••	•••	•••	•••	•••	•••
Aug. 19-Sept. 1	5	2	17.5	13	0•74	l	0.07
Sept. 2-4	0	•••	•••	•••	• • •	•••	•••
Totals or averages	2l;	3	54.5	42	0.77	3	•••

 $\frac{1}{\sqrt{2}}$ This data is based on 7 trips to Sutton's Pond by Jack Marshall and wife who stated that they took out 20 fish during the first six weeks of the season.

Results of Fuller Creek Beaver Dam creel census for the 1939 trout season. Weights are given in grams. Figures given in parenthesis under "Grams per hour" are in pounds.

				Legal		Illegal			والمكومي والباري والمتعالي والمتكوم والمتكوم والمراجع والمعار
		Number		brook t	rout	brook tr	out	Weight	
		taking	Number	_	Catch		Catch	of	Grams
Two-week	Number of	no legal	of hours	Number	per	Number	per	legal	per
period	fishermen	trout	fished	taken	hour	returned	hour	trout	hour
Apr. 29-May 12	0	•••	• • •	•••	• • •	•••	•••	•••	•••
May 13-26	0	•••	•••	•••	•••	•••	•••	•••	•••
May 27-June 9	0	•••	•••	• • •	•••	•••	•••	•••	•••
June 10-23	14	2	27.50	Ц6	1.67	2	0.07	10,737	390.4
June 24-July 7	14	6	28.00	11	0.39	6	0.21	2,271	81.1 (0.18)
July 8-21	2	2	4.50	0	0.00	0	0.00	•••	•••
July 22-Aug. 4	3	3	4.50	0	0.00	0	0.00	•••	•••
Aug. 5-18	31	8	70.25	60	0.85	14	0,20	14,270	203.1
Aug. 19-Sept. 1	32	17	81.25	341	0.50	2	0.02	11,356	139.7
Sept. 2-4	16	12	33.50	6	0.18	4	0.12	1,299	38.7 (0.9)
Total or average	112	51	249.50	164	0.66	28	0.11	39 ,933 (88 15.	160.0) (0.35)

 \checkmark Weight of 45 fish; one fish lost from creel.

 \checkmark 9 fish released after capture.

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Average total length (millimeters) and average weight (grams) of legal brook trout taken by anglers from Hunt Creek creel census area, 1939 season. (Figures in parentheses indicate number of specimens in sample)

	Conti	~~ ^	Soatio		Soati	o n (1	Seatio	- D	Al	1
	Average		Average		Averere		Average		America and	
Two-week	total	Average	total	Average	total	Average	total	Average	total	s Ave. veight
period	length	weight	length	weight	length	weight	length	weight	length	
Apr. 29-May 12	189	64 (12)	• • •	•••	189	60 (18)	197	64 (2))	193	63
May 13-26	183	52	•••		• • •	•••	192	(36)	192	61
May 27-June 9	212	88	• • •	• • •	181	55 (3)	187	60	187	60
June 10 -23	213	93	185	64 (2)	195	69 (27)	188	60	193	67
June 24-July 7	189	66 (30)	187	67	192	70 (5)	204	89	192	71
July 8-21	201	(23)	220	114	194	(25)	194	$\frac{74}{13}$	197	75
July 22-Aug. 4	190	65	•••	• • •	197	(-2) 77 (15)	195	65 (13)	194	69
Aug. 5-18	193	69	• • •	•••	188	62 (8)	192	(29)	192	66
Aug. 19-Sept. 1	194	(14) 71 (20)	180	58 (2)	190	(8) (3)	193	68 (34)	193	68
Sept. 2-4	181	56 (2)	•••	•••	197	81 (2)	• • •	•••	189	68

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Average total length (millimeters) and average weight (grams) of brook trout taken from Fuller Creek Beaver Dam, Below Section A and Tributary #4, East Fish Lake, and Sutton's Pond by fishermen, 1939 trout season. (Figures in parentheses indicate number of specimens.)

	Fuller	Creek	Below A and Tributary #1					
	Beaver	Dam	Tribute	ary #4	East F	sh Lake	Sutton	's Pond
Two-week period	Average total length	Average weight	Average total length	Average weight	Average total length	Averag e weight	Average total length	Average weight
Apr. 29-May 12	• • •	•••	188	59 (19)	228	113 (4)	•••	•••
May 13-26	• • •	• • •	1 99	85 (10)	•••	• • •	• • •	•••
May 27-June 9		•••	188	`60´ (15)	178	50 (1)	•••	•••
June 10-23	263	239 (45)	201	81 (17)	• • •	• • •	210	96 (3)
June 24-July 7	266	252 (9)	183	79 (28)	189	57 (5)	•••	• • •
July 8-21	•••	•••	209) 94 (24)	•••	•••	•••	•••
July 22-Aug. 4	••*	•••	199	77 (30)	• • •	•••	218	105 (4)
Aug. 5-18	271	239 (60)	201	80 (12)	•••	• • •	• • •	
Aug. 19-Sept. 1	307	350 (32)	188	61 (10)	•••	•••	223	115 (7)
Sept. 2-4	260	217 (6)	191	`66 (15)	•••	• • •	•••	•••

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Dimensions of Hunt Creek census area sections, number of legal trout, and pounds of trout removed by fishermen during the 1939 trout season.

Stream section	Length (in feet)	Average width (feet)	Area (acres)	Pool grade	Pounds of brook trout removed,1939	Pounds per acre, 1939	Legal fish per acre, 1939	
A	2,577	24•3	1.44	$s_1 T_2 F_2$	20.02	13.9	99	
В	1,605	17•5	0.64	^S 2 ^T 3 ^F 3	1.09	1.7	23	
C	3,970	11.8	1.07	S2T2F3	15.97	14+9	105	
D	12,386	21•5	1.18	S ₁ T ₂ F ₂	29.90	25•3	186	
Total or average	√ 10,538	17.9	4•33	s ₁ T ₂ F ₃	66.98	15.4	112	

Section D is over 3,000 feet longer, but for all practical purposes and for computation of acreage fished, the length as given here represents the length of Section D which was used by 95% of the anglers during the 1939 trout season, as the stream above this point is in an extremely dense cedar swamp.

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• • • Figure 1. Map of Hunt Creek census area.



