

Original: Fish Division  
cc: Mr. Ruhl  
Dr. Shetter

INSTITUTE FOR FISHERIES RESEARCH  
DIVISION OF FISHERIES  
MICHIGAN DEPARTMENT OF CONSERVATION  
COOPERATING WITH THE  
UNIVERSITY OF MICHIGAN



ALBERT S. HAZZARD, PH.D.  
DIRECTOR

ADDRESS  
UNIVERSITY MUSEUMS  
ANN ARBOR, MICHIGAN

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REPORT NO. 493

OBSERVATIONS ON HUNT, SAGE  
AND GILCHRIST CREEKS, SEPTEMBER, 1938

In searching for a suitable trout stream or portion of a stream which could be utilized for experimental investigations, Hunt Creek has been somewhat favorably considered, particularly that portion which flows through the E. M. Cumings estate in Sec. 17 of T. 29 N., R. 3 E. The author, at the instruction of Dr. A. S. Hazzard, cruised Hunt and Sage Creeks through the Cumings holdings and also for a short distance above the Cumings property lines on both streams. Gilchrist Creek, which lies  $2\frac{1}{4}$  miles to the east, also a tributary of the Thunder Bay River, was likewise cruised.

The pertinent data for all three streams are to be found on the accompanying stream survey cards. The following remarks will serve to augment the data recorded.

Hunt Creek

Where Hunt Creek flows through the Cumings estate the stream has been heavily improved, but the resulting pools are not as large as might be expected. In many places there is not enough underwater cover. Generally speaking, bank cover is good to excellent.

Public fishing has been rather successfully discouraged by means of signs which infer that the Fish Division does not want the anglers to use the stream through the Cumings estate because of the presence of the rearing station. These signs were posted by Mr. Cumings. Most of the fishing which has been done on this portion of the stream has been done by Mr. Cumings and his guests.

The best catches of brook trout have been made usually from late May to mid-July, according to Russell Robertson, rearing station caretaker, who has been at the Hunt Creek Station for the past two summers. On August 30, 1938, fishing from 10 a.m. to 1 p.m., a catch of two legal brook trout and 30 undersized brook trout (average size 6 inches) was made by D. S. Shetter on a wet fly. Other members of a party of three took approximately the same number of small fish but no legal brook trout. Large brook trout are reported by Mr. Robertson to be taken frequently in the upper headwaters and in the headwater lakes of the Hunt Creek drainage. On the stream outside of the Cumings estate, the fishing intensity is reported to be spread out over the fishable waters fairly evenly, as there are many cottages and accessible roads along its course. However, there are no reliable data available on this point.

#### Sage Creek

This stream is a tributary to Hunt Creek, entering from the west bank about 10 yards below the lower end of the lower rearing pond. It has a clear, cool, pure supply of water which it receives from the drainage of the Sage Lakes and from many small springs along its course where it flows through an almost continuous cedar swamp. The stream over most of its

course has many channels, many of which are lost beneath the floor of the swamp. Within  $\frac{1}{4}$  mile of Hunt Creek the flow is rapid and there is quite a long stretch of gravel bottom which appears to be good spawning territory. The majority of the stream has excellent underwater and aerial cover, but in general is too shallow to carry many trout of legal size. A very few large (7-9 inches) trout were observed, and quite a few fingerlings. Almost no one fishes the stream as it is difficult to wade it comfortably because of the timber.

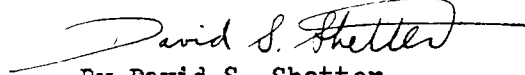
If these two streams were obtained for experimental work, Hunt Creek might be seined fairly readily if some removal of snags and certain stream improvement devices was undertaken. Sage Creek has excessive amounts of down timber at present which would make it unseivable, unless a channel was first cut through the timber. It would be possible to install a weir near the mouth of this stream.

#### Gilchrist Creek

This stream is of much the same general character <sup>as</sup> ~~of~~ Hunt Creek except that more clay<sup>is</sup> exposed on the floor of the stream and that it is more exposed along much of the bank. It appears to have many fine spring tributaries. Both brook and rainbow trout are caught. It has a good reputation, especially for early season fishing. In two hours fishing on September 2, 1938, 5 brook trout between 6 and 7 inches long were caught on wet fly. Numerous rainbow fingerlings of the 1938 hatch were observed.

The stretch of stream where I fished had been improved but not extensively. More cover in the existing pools might aid the productivity of the stream and more pool producing devices should be installed.

INSTITUTE FOR FISHERIES RESEARCH

A handwritten signature in cursive script, reading "David S. Shetter". The signature is written in dark ink and is positioned above the typed name.

By David S. Shetter  
Assistant Aquatic Biologist

DSS:VA

## STREAM SURVEY

 INSTITUTE FOR FISHERIES RESEARCH  
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1. MAIN DRAINAGE	Thunder Bay River	Name of Stream	Gilchrist Creek	Trib. to	Thunder Bay R
2. STREAM SECTION: No.		From	200 yds above Road Bridge at 15-22		
	To	50 yds below road bridge at 14 - 11		Length	1 1/2 mi.
3. County	Montmorency	Township	Loud	T. 29 N R. 3 E	Sec. 14, 15 22
4. Dredged	No	How Recent?			
5. Tributaries—Name Streams and prevailing Fish	Several spring tribs unnamed on map. Brook trout				
6. WATER SUPPLY	Spring tribs., springs, surface		Present level	Normal summer level	
	Degree of flooding	2 feet			
7. POLLUTION	None				
8. DAM—Location	Sec 14	Owner	?	Use	Partial diversion
	Head	1 foot	Effect on level	makes a quiet pool about 150 yds long	Passable for fish? Yes
9. IMMEDIATE SHORE	sedges, grasses, cedar and tag alder				
10. SURROUNDING COUNTRY	alternate cedar swamps and open meadow				
11. USE OF WATER: Ownership	State and private				
12. FISHING: Public fishing	Yes		Easily fished?	Yes	
13. General reputation	Average to Good				
14. History					
15. Use as minnow stream	None				
16. Previous stocking	Brook and rainbow trout				
17. SPECIES OF FISH: Game fish	Brook trout taken, rainbow trout observed (fingerlings)				
18. Coarse fish	Commonsuckers				
19. Obnoxious fish					
20. Forage fish	Semotilus, Rhinichthys				
21. SPAWNING GROUNDS	Good				
22. PREDATORS	None seen		BEAVER	Evidences of old dams	
23. REMARKS	Some good pools have been created by stream improvement, but many of the pools do not have enough cover underwater or along the bank				



24. STATION	Lower	Middle	Upper
Location	from bridge on 14-11	1/2 mi. above and below	
25. AVERAGE WIDTH AND DEPTH	3/8 mi up into 14 18' x 10" to 36"	rd Xing at 15-22 15' x 1' up to 40"	
26. VOLUME	7-10 CFS	7-10 CFS	
27. VELOCITY	moderate to rapid	moderate to rapid	
28. COLOR AND TURBIDITY	lite brown clear	lite grey-brown, clear	
29. AIR TEMPERATURE—Hr. and sky	68 - Noon - clear	65-11AM - clear	
30. WATER TEMPERATURE	53	53	
31. POOLS—Size, Type, Frequency	S3 T2 F2	S3 T3 F2	
32. BOTTOM TYPES: Pools	clay, gravel, sand	sand, gravel clay	
Riffles	gravel and sand	gravel.	
33. SHADE—COVER	30% - 90%	40% - 70%	
34. pH			
35. O <sub>2</sub> ppm.			
36. CO <sub>2</sub> ppm.			
37. M. O. Alkalinity			
38. AQUATIC VEGETATION	chara, pot. sp?, sedges	flags, chara, pot. heterophylus, cattail	
39. Plankton			
40. FISH FOODS PER SQ. FT.			
Mayflies	r	r	
Stoneflies	c	c	
Bettles	r	c	
Caddisflies	c	c to a	
Midges	a	a plus	
Other Diptera			
Miscellaneous			
Others			
Snails	r	r to c	
Food Grade	II - (est)	II (est)	
Vol. in cc. per sq. ft.			

Prepared by

David S. Chatter

Date

Sept 2, 1938



## STREAM SURVEY

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1. MAIN DRAINAGE	Thunder Bay River	Name of Stream	Hunt Creek	Trib. to	Thunder B. Riv	
2. STREAM SECTION: No.		From	200 yds above rd Bridge on 17-			
	To	E.M. Cumings line at 17-16		Length	1 1/2 miles	
3. County	Montmorency	Township	Loud	T. 29N	R. 3 E Sec. 17	
4. Dredged	No	How Recent?				
5. Tributaries—Name Streams and prevailing Fish	Sage, <del>Waisen</del> brook trout					
6. WATER SUPPLY	Lakes, spring trib, springs	Present level	Normal summer level			
	Degree of flooding	1-2 feet				
7. POLLUTION	None					
8. DAM—Location	100 yds above Rearing Sta.	Owner	E.M. Cumings	Use	head dam for Sta.	
	Head	3 feet	Effect on level	backs up 150 yds	Passable for fish?	possibly
9. IMMEDIATE SHORE	Tag alder, birch, cedar, spruce					
10. SURROUNDING COUNTRY	cedar swamps, poplar ridges					
11. USE OF WATER: Ownership	Private		Recreation?			
12. FISHING: Public fishing	Yes, but discouraged by signs		Easily fished?	Yes		
13. General reputation	Good					
14. History						
15. Use as minnow stream	No					
16. Previous stocking	Brook Trout					
17. SPECIES OF FISH: Game fish	Brook trout almost exclusively, rainbow reported taken in 1930					
	Coarse fish	Common Sucker				
19. Obnoxious fish						
20. Forage fish	Semotilus, Notropis cornutus, Rhinichthys					
21. SPAWNING GROUNDS	excellent					
22. PREDATORS	Kingfishers, blue herons		BEAVER	No evidence		
23. REMARKS	Good food-producing riffles, but small pools despite extensive stream improvement thru Cumings property. Rather open, sandy and flat above the bridge.					



24. STATION	Lower	Middle	Upper
Location	Hearing Sta. to lower fence	Road Br. to Raering Sta.	Rd. Bridge to 200 yds above
25. AVERAGE WIDTH AND DEPTH	17' x 18" to 3 $\frac{1}{2}$ '	15' x 8" to 3'	18' x 8" to 2 $\frac{1}{2}$ '
26. VOLUME	7-10-CFS	7-10 CFS	7-10 CFS
27. VELOCITY	rapid	rapid	rapid to sluggish
28. COLOR AND TURBIDITY	l. brown, clear	l. brown, Clear	l. brown, clear
29. AIR TEMPERATURE—Hr. and sky	58 - 10 AM - cloudy	50 - 10AM -clear	50 -9:30AM -clear
30. WATER TEMPERATURE	69	61	60
31. POOLS—Size, Type, Frequency	S3 T2 F2	S3 T2 F2	S3 T2 F3
32. BOTTOM TYPES: Pools	gravel, sand	gravel, sand	sand
Riffles	rubble, gravel	rubble, gravel	sand and gravel
33. SHADE—COVER	50% - 60%	75%-75%	60%-50%
34. pH			
35. O <sub>2</sub> ppm.			
36. CO <sub>2</sub> ppm.			
37. M. O. Alkalinity			
38. AQUATIC VEGETATION	chara, W. water butt- ercup. p. heteroph ylus	same as Lower section	same as others plus sedge, cattail
39. Plankton			
40. FISH FOODS PER SQ. FT.			
Mayflies	r to c	r	r
Stoneflies	r	r to c	r
Bettles	r	r	r
Caddisflies	a	a plus	a
Midges	c to a	a	c
Other Diptera			
Miscellaneous			
Others			
Food Grade	II- (est)	II(Est)	II- (est)
Vol. in cc. per sq. ft.		Frost on the preceding nite	
	August 30, 1938	Sept. 5, 1938	

Prepared by

David S. Shetter

Date

Sept 5, 1938



STREAM SURVEY

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1. MAIN DRAINAGE Thunder Bay River Name of Stream Sage Creek Trib. to Hunt Creek

2. STREAM SECTION: No. \_\_\_\_\_ From East line of Lunden Refuge  
 To Confluence with Hunt Creek Length 2 miles

3. County Montmorency Township Loud T. 29N R. 3 E Sec. 13, 17, 18

4. Dredged No How Recent? \_\_\_\_\_

5. Tributaries—Name Streams and prevailing Fish Unnamed tributaries( spring feeders) at upper end have brook trout. Some water comes from Sage Lakes, which have pike and bluegills

6. WATER SUPPLY Lake drainage, springs, surface Present level normal summer level  
 Degree of flooding possibly 1 foot

7. POLLUTION None

8. DAM—Location None Owner \_\_\_\_\_ Use \_\_\_\_\_  
 Head \_\_\_\_\_ Effect on level \_\_\_\_\_ Passable for fish? \_\_\_\_\_

9. IMMEDIATE SHORE cedar, tagedalder, sedges, cattail

10. SURROUNDING COUNTRY Cedar Swamps

11. USE OF WATER: Ownership E.M.Cummings, State Recreation? \_\_\_\_\_

12. FISHING: Public fishing on parts Easily fished? No

13. General reputation small trout mostly

14. History \_\_\_\_\_

15. Use as minnow stream \_\_\_\_\_

16. Previous stocking Not known

17. SPECIES OF FISH: Game fish Brook trout young, and a few adults observed.

18. Coarse fish \_\_\_\_\_

19. Obnoxious fish } None seen

20. Forage fish }

21. SPAWNING GROUNDS excellent in lower section

22. PREDATORS None seen BEAVER No evidence

23. REMARKS Stream has a good flow, but spreads out of normal channel over most of its length making pools very small. Too many reticulate channels for good legal trout environment.



24. STATION	Lower	Middle	Upper
Location	100 yds above to Hunt Creek sec 17	at rd. bridge near 17-18 line	Lunden Ref. line T29N, R2E, Sec 13
25. AVERAGE WIDTH AND DEPTH	100 x 5" up to 30"	12' x 4" up to 20"	12' x 4" up to 1'
26. VOLUME	50CFS plus or minus	2-4 cfs	2-4 CFS
27. VELOCITY	Rapid	moderate to rapid	moderate to slug.
28. COLOR AND TURBIDITY	1. brown, clear	1. brown, clear	1. brown, clear
29. AIR TEMPERATURE—Hr. and sky	58 - Noon -cloudy	65 -2PM Cloudy	66-3PM bright
30. WATER TEMPERATURE	53	56	54
31. POOLS—Size, Type, Frequency	S3 T2 F3	S3 T2 F2	S3 T3F3
32. BOTTOM TYPES: Pools Riffles	Rubble, Gravel, logs	Gravel and sand Gravel and down logs	Sand, organic detrit timber, detritus
33. SHADE—COVER	90%- 100%	85% - 100%	100%-100%
34. pH	moss, -algae		
35. O <sub>2</sub> ppm.			
36. CO <sub>2</sub> ppm.			
37. M. O. Alkalinity			
38. AQUATIC VEGETATION	moss, algae	burreed, cattail, arrowhead, moss, algae	sedges, burreed algae, moss
39. Plankton			
40. FISH FOODS PER SQ. FT.			
Mayflies	r	r	r
Stoneflies	a	r	r
Bettles		r	r
Caddisflies	a plus	c (stick)	a
Midges	c	c to a	c to a
Other Diptera			
Miscellaneous			
Others			
Food Grade	I- (est)	II- (est)	II - (est)
Vol. in cc. per sq. ft.			

Prepared by

David S. Shetter

Date

Sept 1, 1938