



Minnesota Department of Natural Resources
 Section of Fisheries
 Stream Population Assessment

2001
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ORIGINAL

Region 5	Area Lake City (510)	Stream Name Little Cannon River	Tributary No. M-48-12	Length (mi) 26.6
County Goodhue, Rice		Watershed Name, No. Cannon River, 39	Source (T-R-S) 110N 19W 14	Mouth (T-R-S) 112N 17W 08

Date(s) of Assessment: 4/26/01, 8/21/01, 8/28/01
Assessment Purpose: Reconnaissance to assess current stream conditions and trout populations.

Station	Similar Reach	Stream Mile	Length (ft)	Mean Width (ft)	Acres
4.0 (1a)	1	4.0	1145	37	0.97
12.1 (2b)	2	12.1	980	25	0.56
20.3 (3)	3	20.3	600	15	0.20

Summary:

The Little Cannon River supports a low-density, put-and-take fishery of brown trout and rainbow trout through stocking. Although there are many deep pools, bank erosion is severe in places and the stream is generally too warm for trout.

Streambanks should be sloped, stabilized, and seeded where necessary and the trout stocking program should be reevaluated.

Stream Little Cannon River Date: 8-28-01

Tributary Number M-48-12

Fishery Characteristics - Population Estimates

Station	4.0	12.1	20.3	
Date	8/21/01	8/21/01	8/28/01	
Gear	SS- 2 electrodes	SS- 2 electrodes	BP-1	
Method	2-run depletion	2-run depletion	2-run depletion	
Distance (ft)	1145	980	600	

Population Estimate, Age 1+

*SS = stream shocker, BP = backpack shocker, MB = mini-boom shocker

Species	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)
Brown trout	4	1.9	2	3.1				
Rainbow trout	2	1.1						
Total	6	3.0	2	3.1				

Population Estimate, Young-of-Year

Species	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)
Brown trout								
Rainbow trout								
Total								

Population Estimate, Total

Species	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)	Number	Wt. (Lb)
Brown trout	4	1.9	2	3.1				
Rainbow trout	2	1.1						
Total	6	3.0	2	3.1				

Population Estimate Summary

Species	No./mi.	Lb/acre	No./mi.	Lb/acre	No./mi.	Lb/acre	No./mi.	Lb/acre
BROWN TROUT								
Age 1+	18	25.0	11	40.8				
≥12 inches			5					
Fingerlings (YOY)								
BROOK TROUT								
Age 1+								
≥10 inches								
Fingerlings (YOY)								
RAINBOW TROUT								
Age 1+	9	14.5						
≥12 inches	5							
Fingerlings								
ALL SPECIES								
Age 1+	27	39.5	11	40.8				
Fingerlings (YOY)								
Total	27	39.5	11	40.8				

Age and Growth

Stream Little Cannon River Date: 8-28-01

Tributary Number M-48-12

a) Length Class Distributions

Species	Brown trout	Rainbow trout	Brown trout			
Station	4.0	4.0	12.1			
Date	8/21/01	8/21/01	8/21/01			
Length Class						
0.0 - 2.4						
2.5 - 2.9						
3.0 - 3.4						
3.5 - 3.9						
4.0 - 4.4						
4.5 - 4.9						
5.0 - 5.4						
5.5 - 5.9						
6.0 - 6.4						
6.5 - 6.9						
7.0 - 7.4						
7.5 - 7.9						
8.0 - 8.4						
8.5 - 8.9						
9.0 - 9.4						
9.5 - 9.9			1			
10.0 - 10.4	2					
10.5 - 10.9		1				
11.0 - 11.4	1					
11.5 - 11.9	1					
12.0 - 12.4		1				
12.5 - 12.9						
13.0 - 13.4						
13.5 - 13.9						
14.0 - 14.9						
15.0 - 15.9						
16.0 - 16.9						
17.0 - 17.9						
18.0 - 18.9						
19.0 - 19.9			1			
20.0 - 20.9						
21.0 - 21.9						
22.0 - 22.9						
23.0 - 23.9						
24.0 - 24.9						
25.0 - 25.9						
26.0 - 26.9						
27.0 - 27.9						
28.0 +						
Estimated Total						
Sample Size	4	2	2			

Stream Little Cannon River Date: 8-28-01

Tributary Number M-48-12

DISCUSSION OF FISHERY

Habitat:

The entire stream was walked with field notes taken of observations. The data sheets in the stream file describe physical characteristics of the stream in sections. Pool depth was generally very good in this large stream, providing usable habitat for larger game species. Woody debris and rock cover were lacking in most sections, though, and summer temperatures are believed to be around the upper limit for trout. In addition, severe bank erosion was noted in many sections of the stream. Watershed land use and tiling have probably exacerbated this erosion by causing more flashy hydrology, but riparian devegetation by grazing and row cropping is certainly also a factor. Sloping, stabilizing, and seeding the eroding banks with appropriate riparian vegetation would be very worthwhile.



Fishery:

The Little Cannon River supports a low-density put-and-take fishery of brown trout and rainbow trout through stocking. Size structure was good, possibly due to faster growth in these warm, low-density, high-forage conditions. The trout stocking program should be reevaluated in light of the very low density during this assessment.

No fish were sampled in Station 20.3 during electrofishing efforts.

Station 4.0 GPS (UTM): downstream end 505437 4924494; upstream end 505229 4924197
 Station 12.1: downstream end 505477 4916221; upstream end 505406 4916033
 Station 20.3: downstream end 501753 4909679; upstream end 501669 4909829

Credits and Signatures

Field Crew: Eric Merten, Dan Dieterman, Randy Binder, Al Schmidt		
Report Completed by:		
Name: Eric Merten	Title: NR Specialist	Date: 4-23-02
Approved by:		
Area Fisheries Supervisor  4-23-02	Regional Fisheries Manager's Signature  (acting)	Date 5/6/02

Cannon River, Little

M-48-12

Date: April 4, 2002

Map For: Stream Reconnaissance

Prepared By: Eric Merten

Fisheries Office: Lake City

Mouth TRS: 112-17-18

Source TRS: 110-18-7

Counties: Goodhue, Rice

Reach Code			
	1		3A
	1A		3B
	1B		4
	1C		5
	2		6
	2A		7
	2B		8
	3		



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Division of Fisheries



0 1 2 3 Miles

EF Station 4, 12.1, and 20.3 aka 1A, 2B, and 3

