

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Rapid Creek - South Fork, Lawrence County**  
**09-0020-00**  
**1994**

Table 1. Population and Biomass Estimates for Rapid Creek - South Fork

**Site Number:** 7  
**Site Midpoint (Latitude, Longitude):** 44.12873665, -103.74054709  
**Survey Completed by:** South Dakota Game, Fish and Parks  
**Stream Classification:** BR2

**Date Sampled:** 07/28/1994      **Conductivity (umhos/cm):** 299  
**Site Length (m):** 100  
**Mean Width (m):** 2.8      **pH:** 8.6  
**Number of Pass:** 3      **Water Temperature (C):** 11.0  
**Voltage:** 250

Species	Size Class	Total Number Captured	Est. # in site	Upper 95% CI	Lower 95% CI	# per Hectacre	Kg per Hectacre	# per Km	# per Acre	lb. per Acre	# per Mile	Mean Length (mm)	Mean Weight (grams)
Brown Trout	<200mm	83	122	172	83	4357	110	1220	1765	98.20	1963	125.9	25.2
Brown Trout	>=200mm	6	6	6	6	214	25	60	87	22.54	97	230.3	117.8
Brown Trout	All	89	118	152	89	4214	130	1180	1707	115.71	1899	133.0	30.8
Hatchery Brown Trout	>=200mm	3	3	3	3	107	16	30	43	13.90	48	255.3	145.3
Hatchery Brown Trout	All	3	3	3	3	107	16	30	43	13.90	48	255.3	145.3
White Sucker	All	6	6	8	6	214	11	60	87	10.27	97	167.0	53.7

**Site Number:** 119  
**Site Midpoint (Latitude, Longitude):** 44.14883290, -103.83126745  
**Survey Completed by:** South Dakota Game, Fish and Parks  
**Stream Classification:** BR1

**Date Sampled:** 07/28/1994      **Conductivity (umhos/cm):** 302  
**Site Length (m):** 102  
**Mean Width (m):** 3.2      **pH:** 8.6  
**Number of Pass:** 3      **Water Temperature (C):** 10.0  
**Voltage:** 250

Species	Size Class	Total Number Captured	Est. # in site	Upper 95% CI	Lower 95% CI	# per Hectacre	Kg per Hectacre	# per Km	# per Acre	lb. per Acre	# per Mile	Mean Length (mm)	Mean Weight (grams)
Brown Trout	<200mm	146	149	154	146	4686	120	1461	1898	106.80	2350	132.6	25.5
Brown Trout	>=200mm	15	15	17	15	472	46	147	191	41.30	237	219.1	98.1
Brown Trout	All	161	164	169	161	5157	167	1608	2089	149.46	2587	140.7	32.5

Stream sites are classified based on the estimates of adult trout over eight inches that exist within the site. Estimates are derived from 3-pass backpack electrofishing surveys at 100-meter sites within streams. While all fish in the site are collected and measured, only trout species are used for classifications. Sites are numbered in accordance for the distance (m) from the stream confluence of a higher order stream/river.

Based on number of trout in excess of eight inches	
<b>Class BR1</b>	Number of wild Brown Trout exceeds 150 per acre
<b>Class BR2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BR3</b>	Number of wild Brown Trout is less than 25 per acre
<b>Class BK1</b>	Number of wild Brook Trout exceeds 150 per acre
<b>Class BK2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BK3</b>	Number of wild Brook Trout is less than 25 per acre
<b>Class RB1</b>	Number of wild Rainbow Trout exceeds 25 per acre
<b>Class RB2</b>	Number of wild Rainbow Trout is less than 25 per acre

Table 2. Species composition and population estimates on Rapid Creek - South Fork, 1984-1994

**Site 7**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jul 28, 1994	122	83-172	
Brown Trout >=200mm	Jul 28, 1994	6	6-6	BR2
Hatchery Brown Trout >=200mm	Jul 28, 1994	3	3-3	
White Sucker	Jul 28, 1994	6	6-8	

**Site 119**

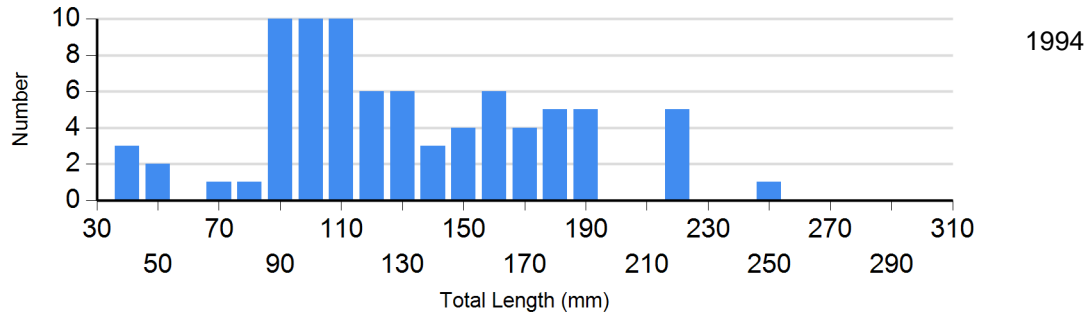
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jul 28, 1994	149	146-154	
Brown Trout >=200mm	Jul 28, 1994	15	15-17	BR1

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

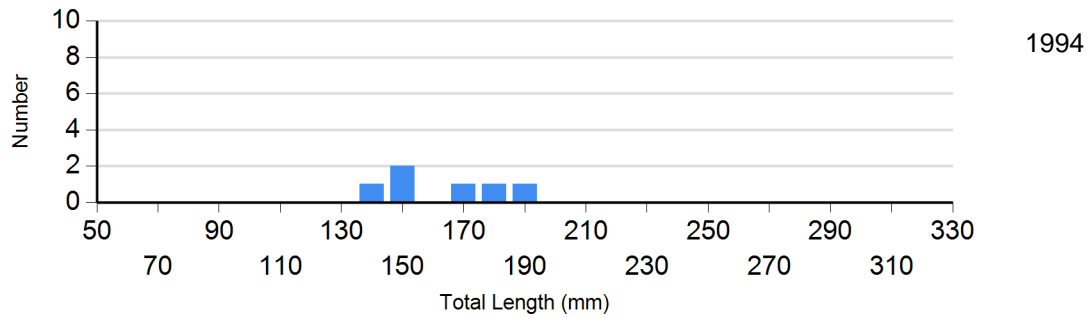
**Site: 7**

**Species: Brown Trout**



**Site: 7**

**Species: White Sucker**



**Site: 119**

**Species: Brown Trout**

