

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Battle Creek (Trib of Cheyenne River), Pennington County
21-0023-00
2009

Table 1. Population and Biomass Estimates for Battle Creek (Trib of Cheyenne River)

Site Number: 149	Date Sampled: 06/25/2009	Conductivity (umhos/cm): 194
Site Midpoint (Latitude, Longitude): 43.89872697, -103.40164588	Site Length (m): 100	pH: 8.3
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 6.2	Water Temperature (C): 19.0
Stream Classification: BK0	Number of Pass: 1	Voltage: 300

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)
Brook Trout	<200mm	2	2	2	2	32	3	20	13	2.25	32	184.5	77.5
Brook Trout	All	2	2	2	2	32	3	20	13	2.25	32	184.5	77.5
White Sucker	All	7	7	7	7	114	4	70	46	3.77	113	113.3	37.1

Site Number: 269	Date Sampled: 06/26/2009	Conductivity (umhos/cm): 353
Site Midpoint (Latitude, Longitude): 43.86317184, -103.33327401	Site Length (m): 100	pH: 8.5
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 4.8	Water Temperature (C): 22.7
Stream Classification: BR3	Number of Pass: 1	Voltage: 450

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	2	2	2	2	42	0	20	17	0.04	32	67.5	1.0
Brown Trout	>=200mm	1	1	1	1	21	7	10	9	6.69	16	485.0	357.0
Brown Trout	All	3	3	3	3	63	8	30	26	6.73	48	206.7	119.7

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	
Class BR1	Number of wild Brown Trout exceeds 150 per acre
Class BR2	Number of wild Brook Trout ranges from 25 to 150 per acre
Class BR3	Number of wild Brown Trout is less than 25 per acre
Class BK1	Number of wild Brook Trout exceeds 150 per acre
Class BK2	Number of wild Brook Trout ranges from 25 to 150 per acre
Class BK3	Number of wild Brook Trout is less than 25 per acre
Class RB1	Number of wild Rainbow Trout exceeds 25 per acre
Class RB2	Number of wild Rainbow Trout is less than 25 per acre

Table 2. Species composition and population estimates on Battle Creek (Trib of Cheyenne River), 1999-2009

Site 149

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 25, 2009	2	2-2	
White Sucker	Jun 25, 2009	7	7-7	

Site 269

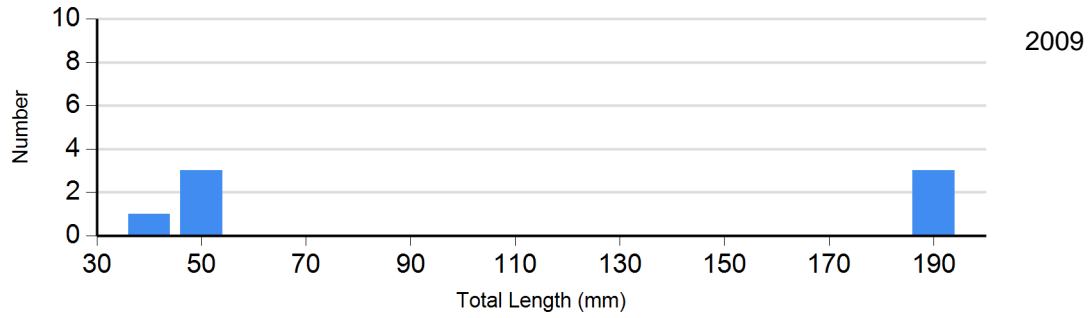
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 26, 2009	2	2-2	
Brown Trout >=200mm	Jun 26, 2009	1	1-1	BR3

Length Frequency Distribution

Length frequency histogram of species sampled by year.

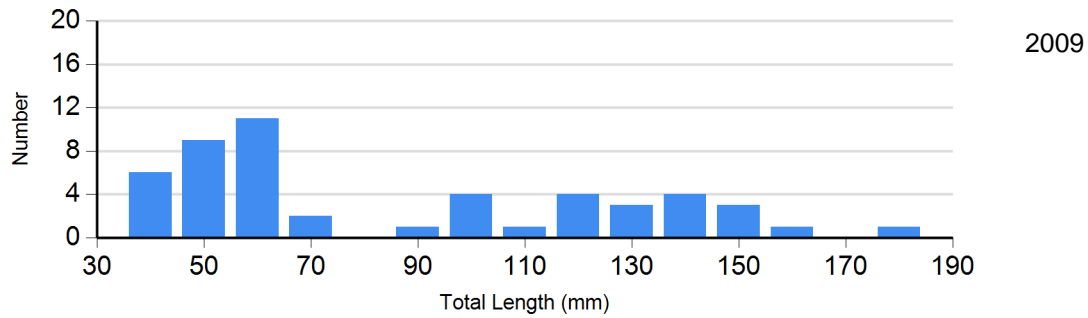
Site: 149

Species: White Sucker



Site: 242

Species: Creek Chub



Site: 242

Species: White Sucker

