

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Grace Coolidge Creek, Custer County
21-0012-00
2009

Table 1. Population and Biomass Estimates for Grace Coolidge Creek

Site Number: 317
Site Midpoint (Latitude, Longitude): 43.77635824, -103.39855114
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK2

Date Sampled: 05/19/2009
Site Length (m): 100
Mean Width (m): 5.1
Number of Pass: 1
Conductivity (umhos/cm): 174
pH: 8.5
Water Temperature (C): 17.4
Voltage: 275

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	11	11	11	11	218	7	110	88	6.06	177	139.5	31.2
Brook Trout	>=200mm	5	5	5	5	99	13	50	40	11.59	80	225.8	131.2
Brook Trout	All	16	16	16	16	317	20	160	128	17.65	257	166.4	62.4
Creek Chub	All	65	65	65	65	1286	34	650	521	30.02	1046	98.2	26.1
Longnose Dace	All	93	93	93	93	1840	24	930	745	21.36	1496	74.0	13.0
White Sucker	All	20	20	20	20	396	31	200	160	27.54	322	183.9	78.0

Site Number: 408
Site Midpoint (Latitude, Longitude): 43.80052356, -103.44637540
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0, RB1

Date Sampled: 05/20/2009
Site Length (m): 100
Mean Width (m): 3.4
Number of Pass: 1
Conductivity (umhos/cm): 64
pH: 7.9
Water Temperature (C): 12.0
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	19	19	19	19	557	9	190	226	8.33	306	119.7	16.7
Brook Trout	All	19	19	19	19	557	9	190	226	8.33	306	119.7	16.7
Rainbow Trout	<200mm	1	1	1	1	29	1	10	12	0.79	16	148.0	30.0
Rainbow Trout	>=200mm	4	4	4	4	117	16	40	48	14.69	64	247.8	140.3
Rainbow Trout	All	5	5	5	5	147	17	50	59	15.48	80	227.8	118.2

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 Grace Coolidge Creek, 1999-2009

Site 317

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 19, 2009	11	11-11	
Brook Trout >=200mm	May 19, 2009	5	5-5	BK2
Creek Chub	May 19, 2009	65	65-65	
Longnose Dace	May 19, 2009	93	93-93	
White Sucker	May 19, 2009	20	20-20	

Site 408

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 20, 2009	19	19-19	

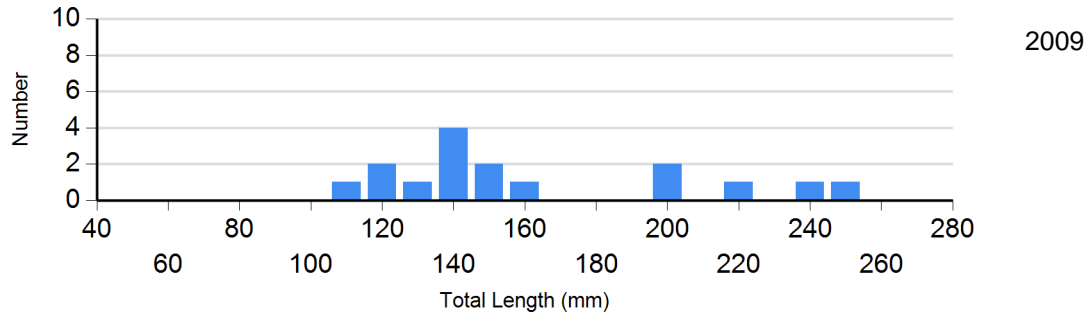
Rainbow Trout <200mm	May 20, 2009	1	1-1	
Rainbow Trout >=200mm	May 20, 2009	4	4-4	RB1

Length Frequency Distribution

Length frequency histogram of species sampled by year.

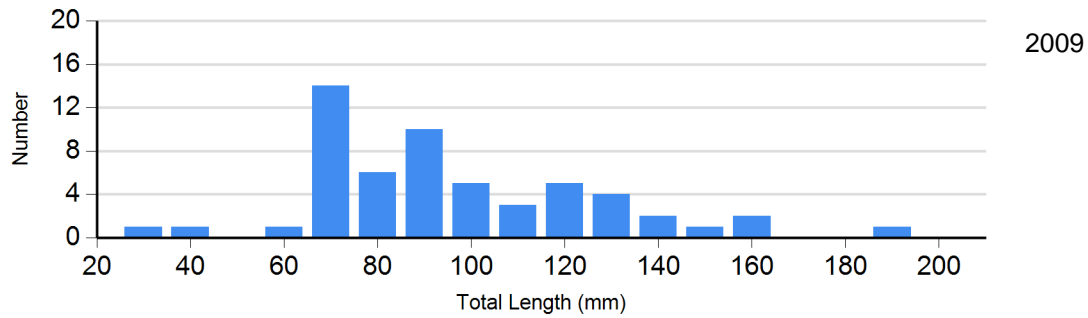
Site: 317

Species: Brook Trout



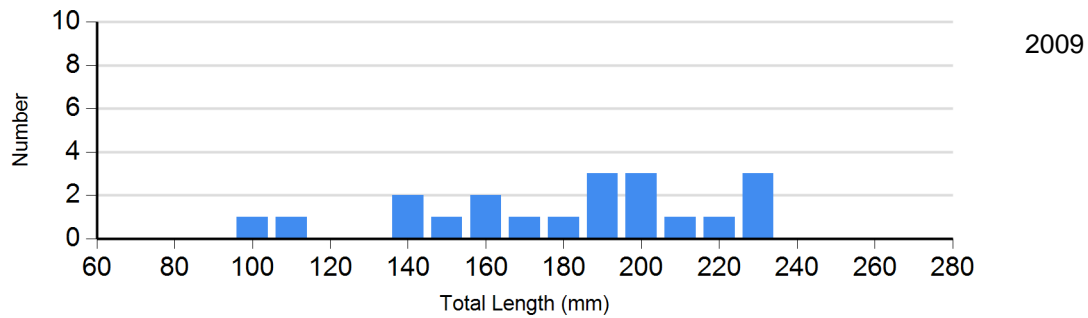
Site: 317

Species: Creek Chub

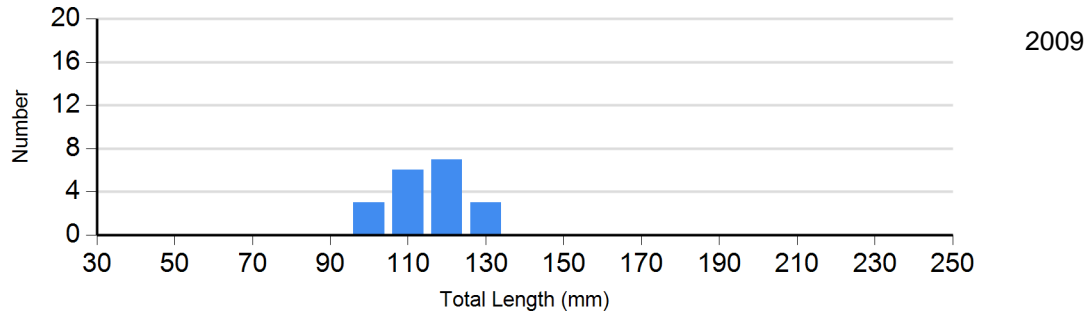


Site: 317

Species: White Sucker



Site: 408
Species: Brook Trout



Site: 408
Species: Rainbow Trout

