

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Prairie Creek, Pennington County
02-9210-00
2014

Table 1. Population and Biomass Estimates for Prairie Creek

Site Number: 2	Date Sampled: 08/26/2014	Conductivity (umhos/cm): 148
Site Midpoint (Latitude, Longitude): 44.03643261, -103.39072603	Site Length (m): 100	pH: 8.2
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 4.3	Water Temperature (C): 12.0
Stream Classification: BR2	Number of Pass: 3	Voltage: 375

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	69	72	77	69	1671	83	720	677	73.94	1158	103.1	49.6
Brown Trout	>=200mm	10	10	11	10	232	35	100	94	30.92	161	226.1	149.2
Brown Trout	All	79	82	87	79	1903	148	820	771	132.58	1319	118.6	78.0

Site Number: 100	Date Sampled: 05/28/2014	Conductivity (umhos/cm): 341
Site Midpoint (Latitude, Longitude): 44.05078508, -103.45413447	Site Length (m): 100	pH: 7.8
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 2.0	Water Temperature (C): 12.5
Stream Classification: BK0	Number of Pass: 1	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)
Brook Trout	<200mm	20	20	20	20	991	41	200	401	36.81	322	91.7	41.6
Brook Trout	All	20	20	20	20	991	41	200	401	36.81	322	91.7	41.6

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 Prairie Creek, 2004-2014

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 26, 2014	72	69-77	
Brown Trout >=200mm	Aug 26, 2014	10	10-11	BR2

Site 100

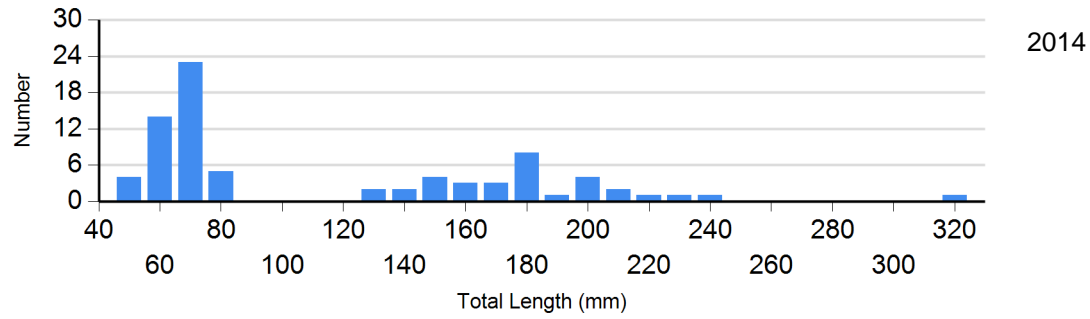
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 28, 2008	21	21-21	
	May 28, 2014	20	20-20	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 2

Species: Brown Trout



Site: 100

Species: Brook Trout

