

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Little Spearfish Creek, Lawrence County
09-0017-00
2016

Table 1. Population and Biomass Estimates for Little Spearfish Creek

Site Number: 3	Date Sampled: 05/25/2016	Conductivity (umhos/cm): 485
Site Midpoint (Latitude, Longitude): 44.35119883, -103.93106834	Site Length (m): 100	pH: 8.2
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 5.1	Water Temperature (C): 9.2
Stream Classification: BR1	Number of Pass: 3	Voltage: 325

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	119	160	201	119	3160	136	1600	1280	121.53	2574	139.8	43.1
Brown Trout	>=200mm	109	115	123	109	2271	314	1150	920	280.21	1850	242.8	138.2
Brown Trout	All	228	264	290	238	5214	476	2640	2112	424.98	4248	189.0	91.3

Site Number: 89	Date Sampled: 05/26/2016	Conductivity (umhos/cm): 432
Site Midpoint (Latitude, Longitude): 44.32764910, -103.99033378	Site Length (m): 100	pH: 8.3
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.6	Water Temperature (C): 15.2
Stream Classification: BR1	Number of Pass: 3	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)
Brown Trout	<200mm	13	13	14	13	839	24	130	340	21.31	209	134.2	28.5
Brown Trout	>=200mm	13	13	13	13	839	159	130	340	142.23	209	263.4	189.9
Brown Trout	All	28	28	29	28	1806	197	280	732	176.12	451	198.8	109.2

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 Little Spearfish Creek, 2006-2016

Site 3

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	May 25, 2016	160	119-201	
Brown Trout >=200mm	May 25, 2016	115	109-123	BR1

Site 89

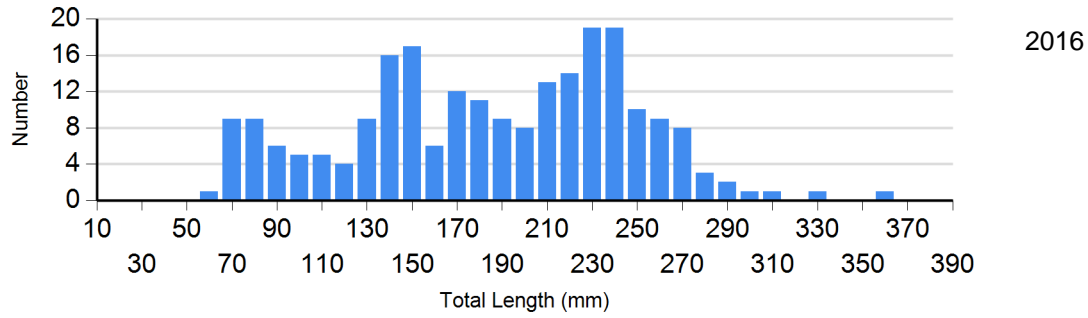
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	May 26, 2016	13	13-14	
Brown Trout >=200mm	May 26, 2016	13	13-13	BR1

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 3

Species: Brown Trout



Site: 89

Species: Brown Trout

