

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Little Spearfish Creek, Lawrence County
09-0017-00
2006

Table 1. Population and Biomass Estimates for Little Spearfish Creek

Site Number: 52	Date Sampled: 08/31/2006	Conductivity (umhos/cm): 290
Site Midpoint (Latitude, Longitude): 44.33809498, -103.95962125	Site Length (m): 100	pH:
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 2.0	Water Temperature (C): 10.5
Stream Classification: BR1	Number of Pass: 3	Voltage:

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	9	9	10	9	454	24	90	184	21.22	145	167.0	52.3
Brown Trout	>=200mm	26	27	31	26	1362	196	270	552	174.56	434	236.0	143.5
Brown Trout	All	35	36	40	35	1817	218	360	736	194.72	579	218.3	120.1

Site Number: 92	Date Sampled: 08/31/2006	Conductivity (umhos/cm): 325
Site Midpoint (Latitude, Longitude): 44.32643606, -103.99361284	Site Length (m): 95	pH:
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.3	Water Temperature (C): 12.0
Stream Classification: BR1	Number of Pass: 3	Voltage:

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	5	6	13	5	471	27	63	191	23.99	102	174.0	57.0
Brown Trout	>=200mm	16	16	18	16	1257	180	168	509	161.14	271	236.3	143.6
Brown Trout	All	21	22	26	21	1729	213	232	700	189.76	373	221.5	123.0

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, 1996-2006

Site 52

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 22, 1998	28	25-36	
	Aug 31, 2006	9	9-10	
Brown Trout >=200mm	Jun 22, 1998	6	6-8	BR2
	Aug 31, 2006	27	26-31	BR1

Site 92

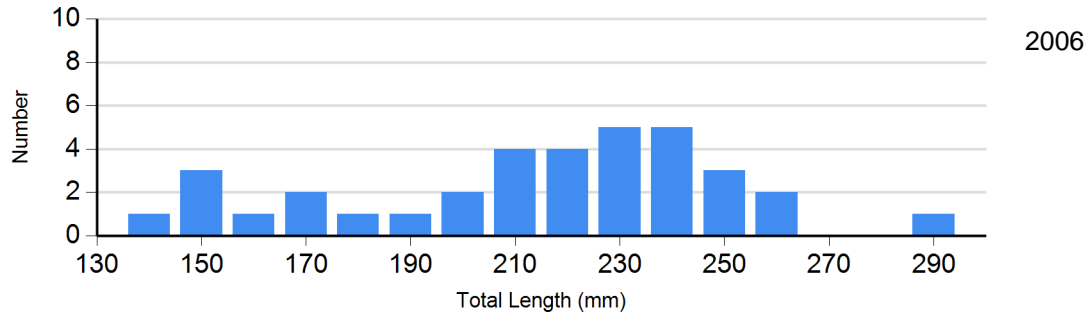
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 31, 2006	6	5-13	
Brown Trout >=200mm	Aug 31, 2006	16	16-18	BR1

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 52

Species: Brown Trout



Site: 92

Species: Brown Trout

