

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Little Elk Creek, Lawrence County
09-0027-00
2014

Table 1. Population and Biomass Estimates for Little Elk Creek

Site Number: 43	Date Sampled: 08/12/2014	Conductivity (umhos/cm): 182
Site Midpoint (Latitude, Longitude): 44.24540951, -103.43100115	Site Length (m): 100	pH: 8.6
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 4.7	Water Temperature (C): 17.0
Stream Classification: BK2	Number of Pass: 3	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)
Brook Trout	<200mm	59	60	63	59	1277	26	600	517	23.07	965	100.2	20.2
Brook Trout	>=200mm	5	5	5	5	106	12	50	43	10.39	80	211.2	109.4
Brook Trout	All	64	65	68	64	1383	40	650	560	35.79	1046	108.8	29.0

Site Number: 94	Date Sampled: 07/30/2014	Conductivity (umhos/cm): 191
Site Midpoint (Latitude, Longitude): 44.23117161, -103.47195732	Site Length (m): 100	pH: 8.4
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 3.7	Water Temperature (C): 15.5
Stream Classification: BK2, RB2	Number of Pass: 3	Voltage: 285

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	65	69	76	65	1843	82	690	746	73.45	1110	150.8	44.6
Brook Trout	>=200mm	3	3	4	3	80	8	30	32	7.58	48	210.0	106.0
Brook Trout	All	68	72	79	68	1923	91	720	779	81.36	1158	153.4	47.4
Rainbow Trout	>=200mm	1	1	1	1	27	11	10	11	9.92	16	330.0	416.0
Rainbow Trout	All	1	1	1	1	27	11	10	11	9.92	16	330.0	416.0

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 Elk Creek, 2004-2014

Site 43

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 31, 2008	7	7-7	
	Aug 12, 2014	60	59-63	
Brook Trout >=200mm	Jul 31, 2008	1	1-1	BK3
	Aug 12, 2014	5	5-5	BK2

Site 94

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 24, 2008	41	41-41	
	Jul 30, 2014	69	65-76	

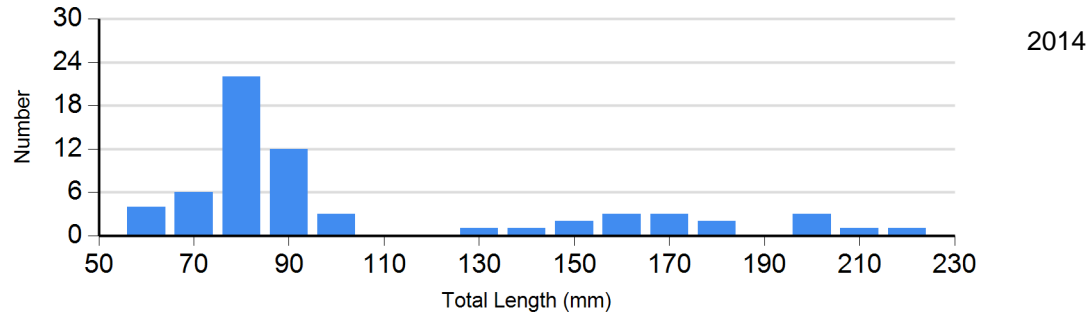
Brook Trout >=200mm	Jun 24, 2008	3	3-3	BK2
	Jul 30, 2014	3	3-4	BK2
Rainbow Trout >=200mm	Jul 30, 2014	1	1-1	RB2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 43

Species: Brook Trout



Site: 94

Species: Brook Trout

