

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Little Elk Creek, Lawrence County
09-0027-00
2008

Table 1. Population and Biomass Estimates for Little Elk Creek

Site Number: 43	Date Sampled: 07/31/2008	Conductivity (umhos/cm): 450
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): 4.1	Water Temperature (C): 18.3
Stream Classification: BK3	Number of Pass: 1	Voltage: 350

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	7	7	7	7	170	11	70	69	10.19	113	178.3	67.1
Brook Trout	>=200mm	1	1	1	1	24	3	10	10	2.86	16	218.0	132.0
Brook Trout	All	19	19	19	19	461	35	190	187	31.00	306	183.3	75.3

Site Number: 94	Date Sampled: 06/24/2008	Conductivity (umhos/cm): 429
Site Midpoint (Latitude, Longitude): 44.23117161, -103.47195732	Site Length (m): 100	pH: 8.5
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 3.9	Water Temperature (C): 16.5
Stream Classification: BK2	Number of Pass: 1	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)
Brook Trout	<200mm	41	41	41	41	1059	34	410	429	30.67	660	131.7	32.4
Brook Trout	>=200mm	3	3	3	3	77	9	30	31	8.32	48	215.3	120.3
Brook Trout	All	44	44	44	44	1136	45	440	460	39.77	708	137.4	39.2

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 Elk Creek, 1998-2008

Site 43

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 31, 2008	7	7-7	
Brook Trout >=200mm	Jul 31, 2008	1	1-1	BK3

Site 94

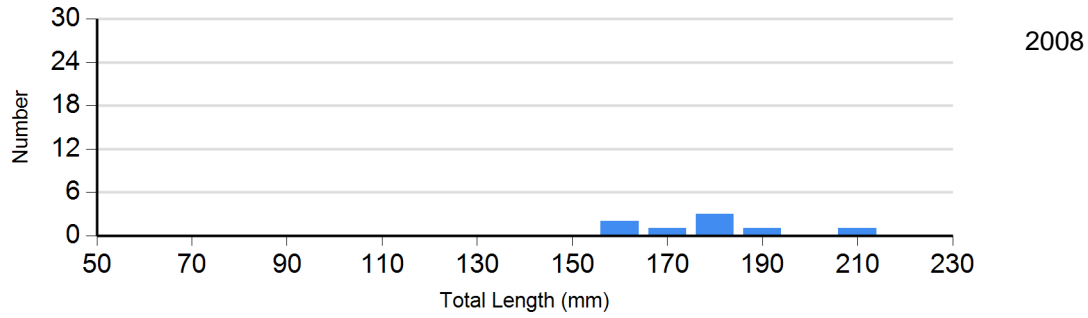
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 24, 2008	41	41-41	
Brook Trout >=200mm	Jun 24, 2008	3	3-3	BK2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 43

Species: Brook Trout



Site: 94

Species: Brook Trout

