

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Elk Creek, Meade County
09-0015-00
2015

Table 1. Population and Biomass Estimates for Elk Creek

Site Number: 2460
Site Midpoint (Latitude, Longitude): 44.27675204, -103.69560209
Survey Completed by: GEI
Stream Classification: BK3

Date Sampled: 09/04/2015
Site Length (m): 100
Mean Width (m): 0.0
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
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)
Brook Trout	<200mm	71	72	75	71	0	0	720	0	0.00	1158	133.1	46.1
Brook Trout	>=200mm	22	22	22	22	0	0	220	0	0.00	354	227.0	126.9
Brook Trout	All	93	93	95	93	0	0	930	0	0.00	1496	155.3	73.0
Green Sunfish	All	1	1	1	1	0	0	10	0	0.00	16	106.0	20.0
Longnose Dace	All	7	7	9	7	0	0	70	0	0.00	113	92.6	14.0
Mountain Sucker	All	4	8	42	4	0	0	80	0	0.00	129	123.3	12.3

Site Number: 2537
Site Midpoint (Latitude, Longitude): 44.25638126, -103.75581378
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK1

Date Sampled: 09/24/2015
Site Length (m): 100
Mean Width (m): 1.4
Number of Pass: 3
Conductivity (umhos/cm): 231
pH: 7.7
Water Temperature (C): 9.2
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)
Brook Trout	<200mm	22	22	24	22	1613	75	220	653	67.03	354	133.0	46.5
Brook Trout	>=200mm	6	6	7	6	440	60	60	178	53.76	97	226.8	136.8
Brook Trout	All	28	28	30	28	2053	149	280	832	132.61	451	153.1	72.3

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 Elk Creek, 2005-2015

Site 2460

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 04, 2015	72	71-75	
Brook Trout >=200mm	Sep 04, 2015	22	22-22	BK3
Green Sunfish	Sep 04, 2015	1	1-1	
Longnose Dace	Sep 04, 2015	7	7-9	
Mountain Sucker	Sep 04, 2015	8	4-42	

Site 2537

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 01, 2008	61	61-61	

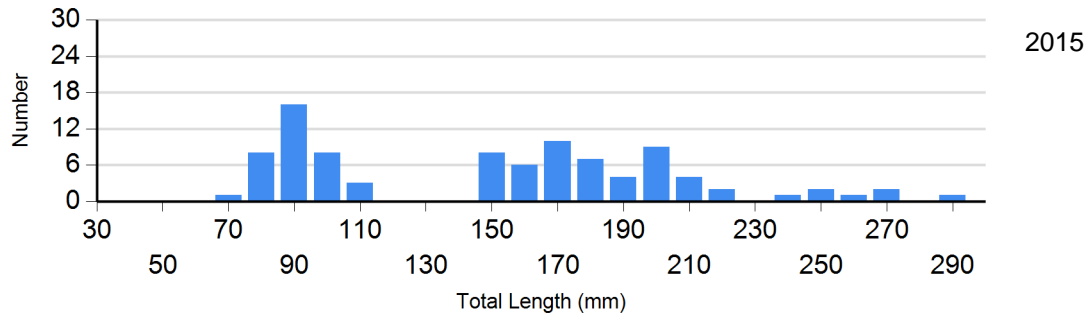
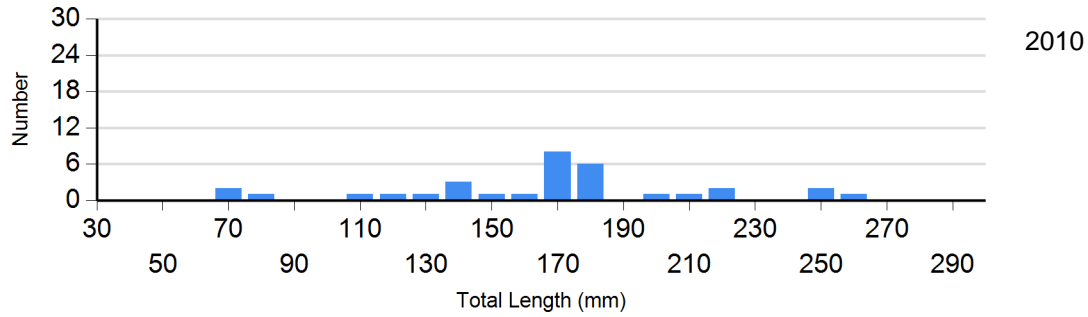
Brook Trout <200mm	Sep 24, 2015	22	22-24	
Brook Trout >=200mm	Sep 24, 2015	6	6-7	BK1

Length Frequency Distribution

Length frequency histogram of species sampled by year.

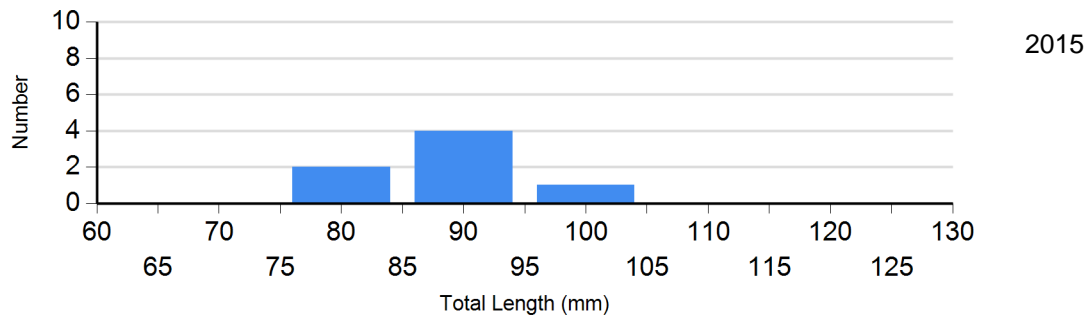
Site: 2460

Species: Brook Trout

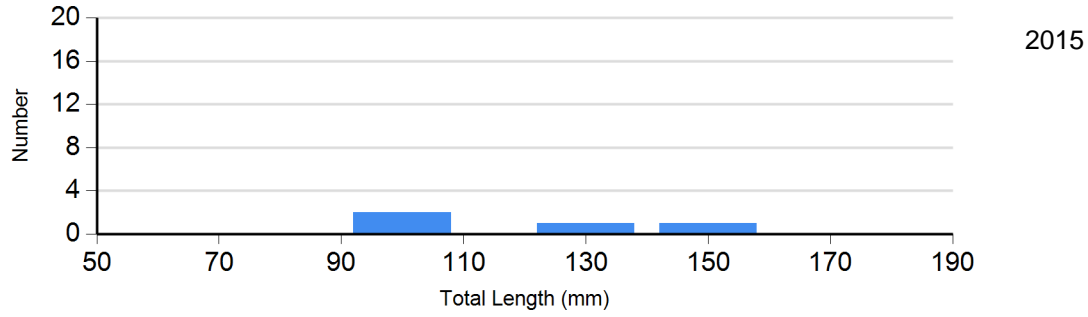
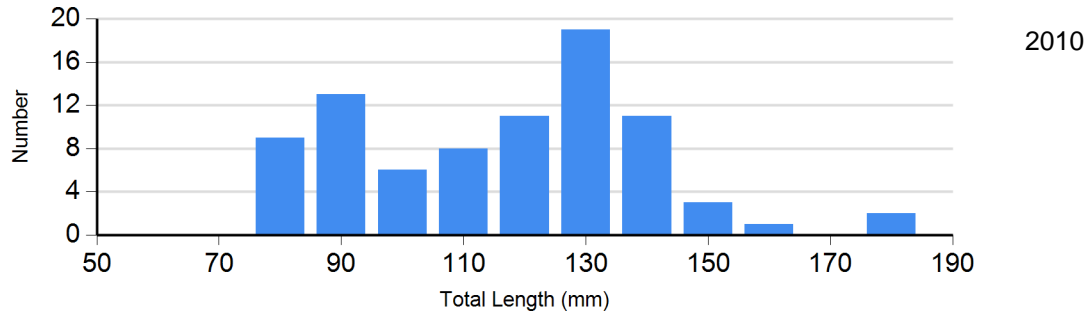


Site: 2460

Species: Longnose Dace



Site: 2460
Species: Mountain Sucker



Site: 2537
Species: Brook Trout

