

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Grizzly Bear Creek, Custer County
21-0016-00
2015

Table 1. Population and Biomass Estimates for Grizzly Bear Creek

Site Number: 10
Site Midpoint (Latitude, Longitude): 43.88879364, -103.42416251
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK1

Date Sampled: 08/19/2015
Site Length (m): 100
Mean Width (m): 3.3
Number of Pass: 3
Conductivity (umhos/cm): 138
pH: 7.6
Water Temperature (C): 12.6
Voltage: 400

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	50	50	51	50	1528	68	500	619	61.01	805	137.2	44.7
Brook Trout	>=200mm	18	18	18	18	550	87	180	223	77.73	290	242.3	158.3
Brook Trout	All	68	68	69	68	2078	172	680	842	153.19	1094	165.0	82.6
Creek Chub	All	59	59	61	59	1803	41	590	730	36.56	949	101.1	22.7
Longnose Dace	All	69	71	76	69	2169	22	710	879	19.85	1142	74.3	10.3
White Sucker	All	68	68	69	68	2078	134	680	842	120.04	1094	158.0	64.7

Site Number: 41
Site Midpoint (Latitude, Longitude): 43.87710125, -103.43943546
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK1

Date Sampled: 08/04/2015
Site Length (m): 100
Mean Width (m): 4.0
Number of Pass: 3
Conductivity (umhos/cm): 113
pH: 7.7
Water Temperature (C): 16.0
Voltage: 400

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	139	139	140	139	3444	109	1390	1395	97.27	2237	103.7	31.6
Brook Trout	>=200mm	17	17	17	17	421	44	170	171	39.37	274	218.5	104.7
Brook Trout	All	157	157	158	157	3890	183	1570	1575	163.79	2526	116.2	47.2
Longnose Dace	All	24	24	24	24	595	7	240	241	6.11	386	72.2	11.5

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 Grizzly Bear Creek, 2005-2015

Site 10

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 19, 2015	50	50-51	
Brook Trout >=200mm	Aug 19, 2015	18	18-18	BK1
Creek Chub	Aug 19, 2015	59	59-61	
Longnose Dace	Aug 19, 2015	71	69-76	
White Sucker	Aug 19, 2015	68	68-69	

Site 41

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 19, 2009	6	6-6	

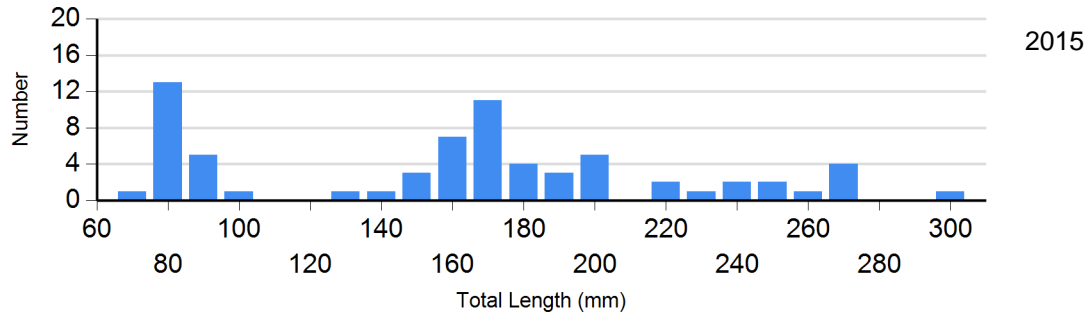
Brook Trout <200mm	Aug 04, 2015	139	139-140	
Brook Trout >=200mm	Aug 04, 2015	17	17-17	BK1
Creek Chub	May 19, 2009	6	6-6	
Longnose Dace	May 19, 2009	16	16-16	
	Aug 04, 2015	24	24-24	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

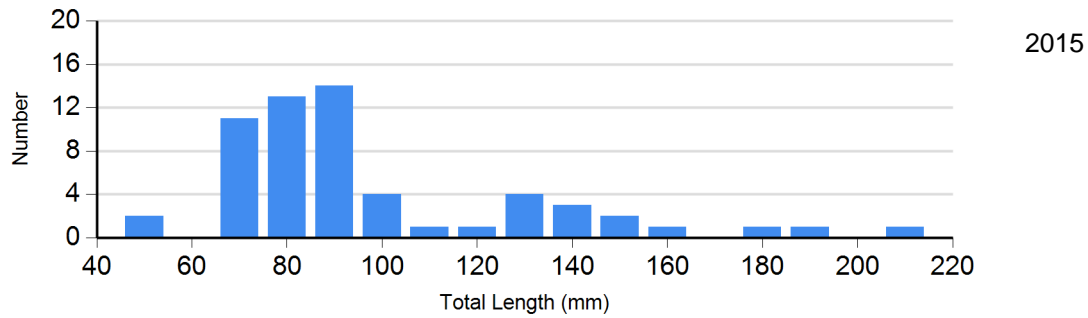
Site: 10

Species: Brook Trout



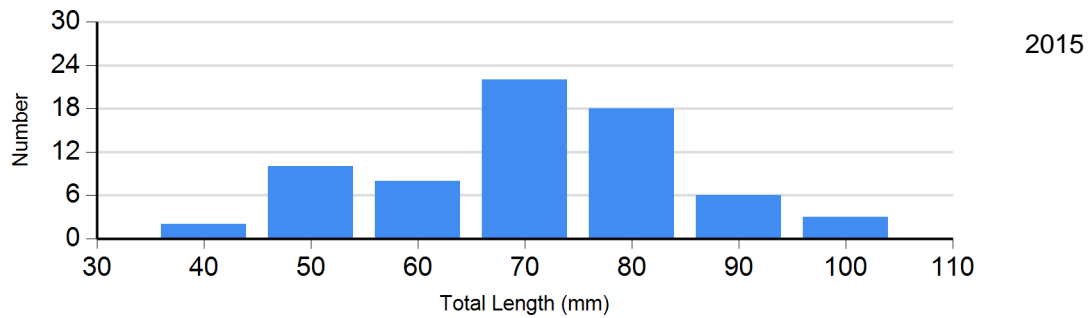
Site: 10

Species: Creek Chub

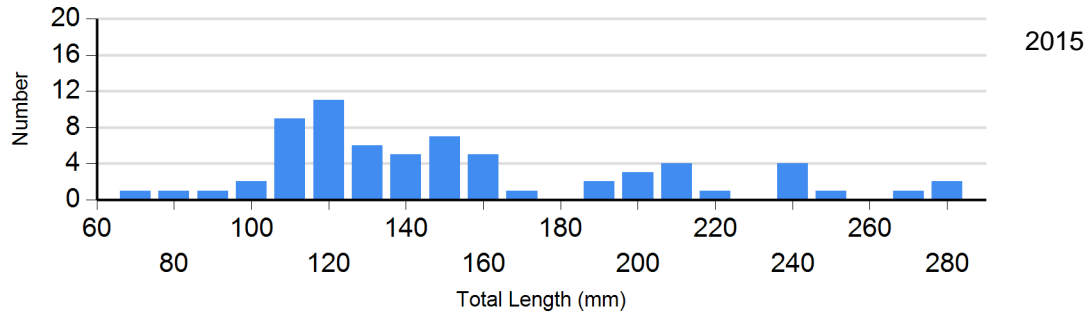


Site: 10

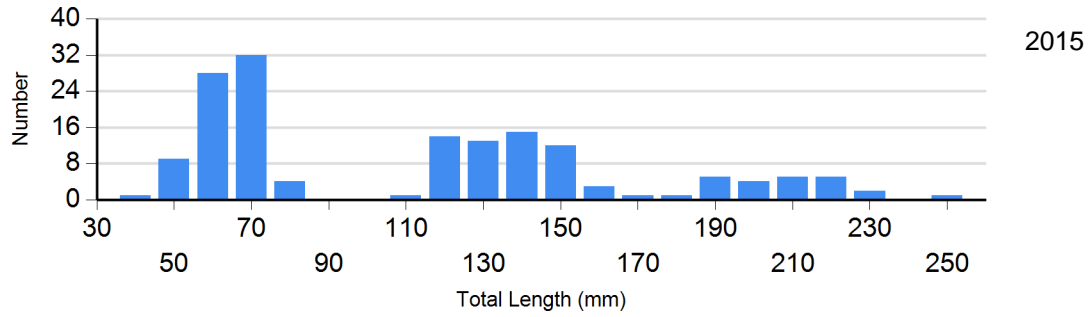
Species: Longnose Dace



Site: 10
Species: White Sucker



Site: 41
Species: Brook Trout



Site: 41
Species: Longnose Dace

