

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Bear Butte Creek, Meade County**  
**49-0023-00**  
**2014**

Table 1. Population and Biomass Estimates for Bear Butte Creek

**Site Number:** 1006  
**Site Midpoint (Latitude, Longitude):** 44.31490370, -103.65143002  
**Survey Completed by:** South Dakota Game, Fish and Parks  
**Stream Classification:** BK2

**Date Sampled:** 07/09/2014  
**Site Length (m):** 100  
**Mean Width (m):** 3.1  
**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	10	12	20	10	388	17	120	157	15.54	193	119.1	44.8
Brook Trout	>=200mm	2	2	2	2	65	7	20	26	6.15	32	213.5	106.5
Brook Trout	All	12	13	18	12	421	25	130	170	22.63	209	134.8	60.3
Mountain Sucker	All	9	9	10	9	291	4	90	118	3.50	145	103.9	13.4

**Site Number:** 1029  
**Site Midpoint (Latitude, Longitude):** 44.30725097, -103.66899350  
**Survey Completed by:**  
**Stream Classification:** BK2

**Date Sampled:** 07/09/2014  
**Site Length (m):** 100  
**Mean Width (m):** 4.2  
**Number of Pass:** 3  
**Conductivity (umhos/cm):** 152  
**pH:** 8.2  
**Water Temperature (C):** 19.5  
**Voltage:** 300

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	10	10	11	10	237	13	100	96	11.41	161	108.4	54.0
Brook Trout	>=200mm	3	3	3	3	71	15	30	29	13.54	48	258.3	213.7
Brook Trout	All	13	13	14	13	308	35	130	125	31.27	209	143.0	113.9
Largemouth Bass	All	1	1	1	1	24	0	10	10	0.44	16	120.0	21.0
Mountain Sucker	All	18	18	19	18	426	9	180	172	8.30	290	99.3	21.8
White Sucker	All	31	33	38	31	781	48	330	316	43.22	531	58.7	62.0

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	
<b>Class BR1</b>	Number of wild Brown Trout exceeds 150 per acre
<b>Class BR2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BR3</b>	Number of wild Brown Trout is less than 25 per acre
<b>Class BK1</b>	Number of wild Brook Trout exceeds 150 per acre
<b>Class BK2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BK3</b>	Number of wild Brook Trout is less than 25 per acre
<b>Class RB1</b>	Number of wild Rainbow Trout exceeds 25 per acre
<b>Class RB2</b>	Number of wild Rainbow Trout is less than 25 per acre

Table 2. Species composition and population estimates on Bear Butte Creek, 2004-2014

**Site 1006**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 09, 2014	12	10-20	
Brook Trout >=200mm	Jul 09, 2014	2	2-2	BK2
Mountain Sucker	Jul 09, 2014	9	9-10	

**Site 1029**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 13, 2010	8	8-8	
	Jul 09, 2014	10	10-11	
Brook Trout >=200mm	Jul 13, 2010	2	2-2	BK3

Brook Trout >=200mm	Jul 09, 2014	3	3-3	BK2
Largemouth Bass	Jul 09, 2014	1	1-1	
Mountain Sucker	Jul 13, 2010	1	1-1	
	Jul 09, 2014	18	18-19	
White Sucker	Jul 09, 2014	33	31-38	

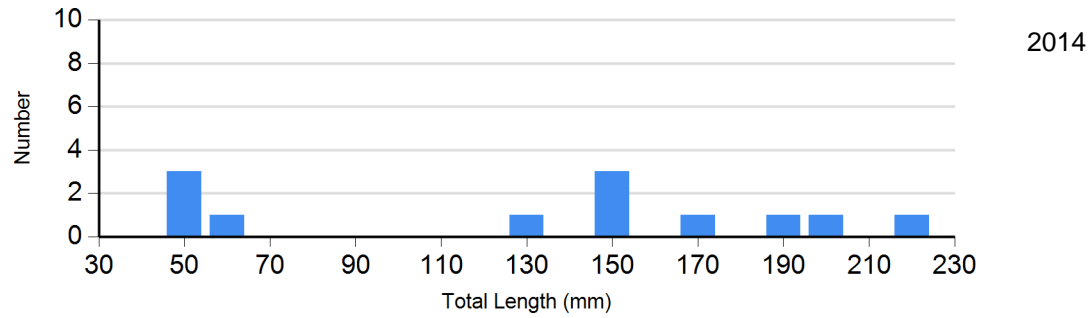
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## Length Frequency Distribution

Length frequency histogram of species sampled by year.

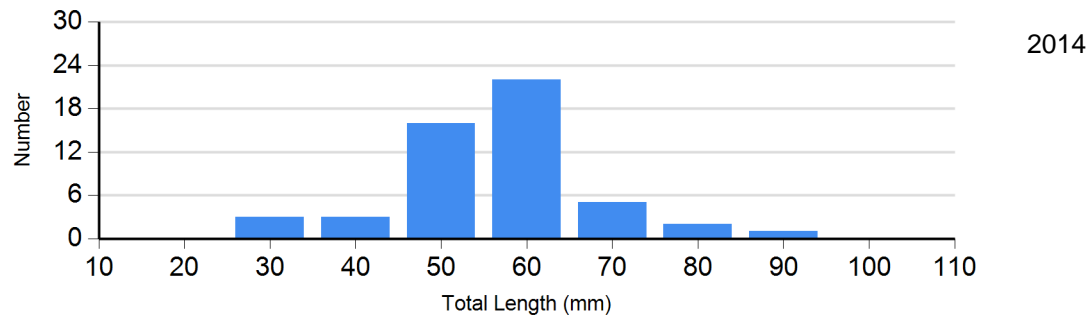
**Site:** 1006

**Species:** Brook Trout



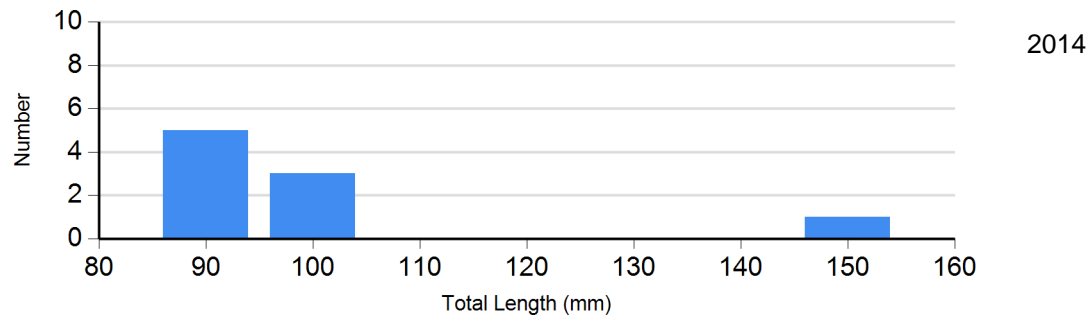
**Site:** 1006

**Species:** Longnose Dace

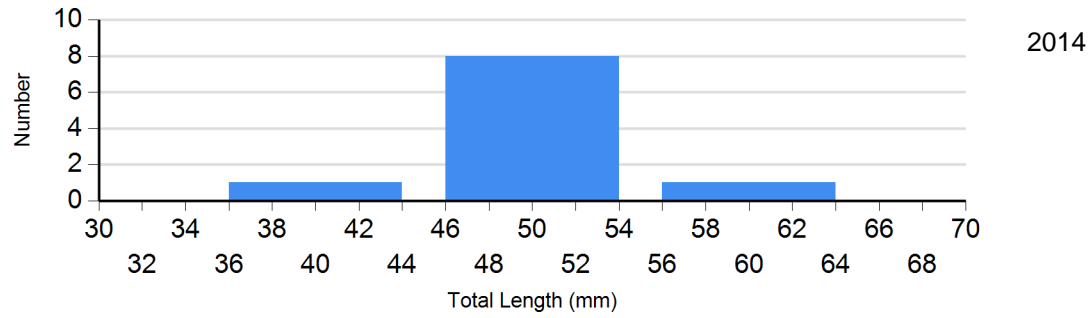


**Site:** 1006

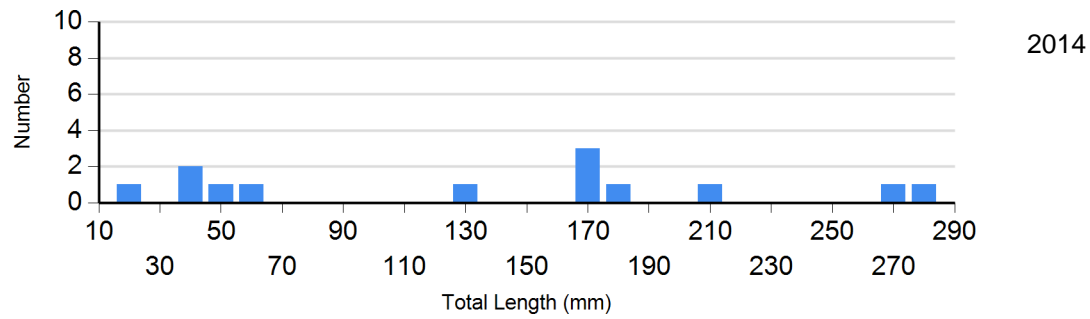
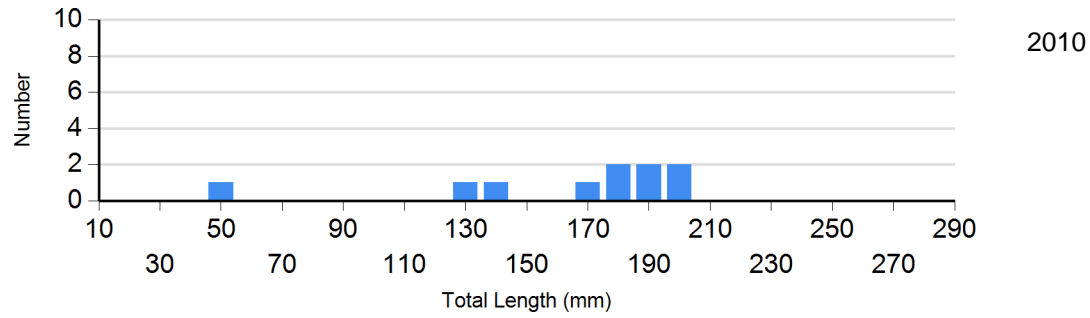
**Species:** Mountain Sucker



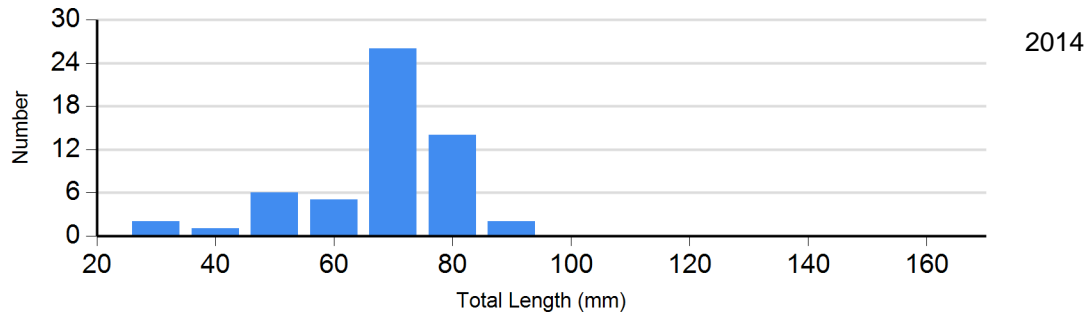
Site: 1029  
Species: Brook Stickleback



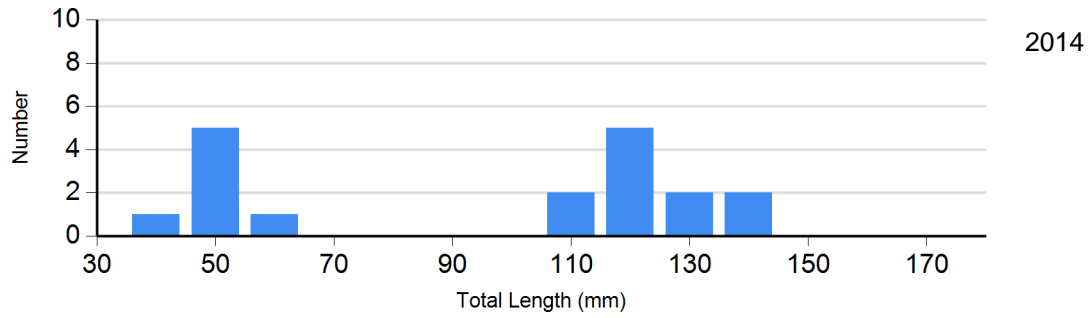
Site: 1029  
Species: Brook Trout



**Site:** 1029  
**Species:** Longnose Dace



**Site:** 1029  
**Species:** Mountain Sucker



**Site:** 1029  
**Species:** White Sucker

