

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Blacktail Gulch BLT, Lawrence County**  
**10120202007284**  
**2014**

Table 1. Population and Biomass Estimates for Blacktail Gulch BLT

**Site Number:** 11  
**Site Midpoint (Latitude, Longitude):** 44.37511634, -103.76757570  
**Survey Completed by:** Unknown Consultant Firm for mining  
**Stream Classification:** BK2

**Date Sampled:** 08/25/2014  
**Site Length (m):** 90  
**Mean Width (m):** 1.9  
**Number of Pass:** 3  
**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**Voltage:** 200

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	93	93	95	93	4794	36	1033	1941	32.36	1663	80.5	7.6
Brook Trout	>=200mm	4	4	4	4	206	27	44	84	23.79	72	232.3	129.3
Brook Trout	All	97	97	99	97	5000	63	1078	2025	56.15	1734	86.7	12.6

**Site Number:** 15  
**Site Midpoint (Latitude, Longitude):** 44.37696088, -103.77134400  
**Survey Completed by:** South Dakota Game, Fish and Parks  
**Stream Classification:** BK2

**Date Sampled:** 09/03/2014  
**Site Length (m):** 100  
**Mean Width (m):** 1.9  
**Number of Pass:** 3  
**Conductivity (umhos/cm):** 272  
**pH:**  
**Water Temperature (C):** 14.0  
**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	110	116	124	110	5991	77	1160	2426	68.51	1866	81.6	12.8
Brook Trout	>=200mm	4	4	4	4	207	41	40	84	36.24	64	252.8	196.5
Brook Trout	All	165	167	171	165	8624	322	1670	3493	287.23	2687	87.6	37.3

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	
<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 Blacktail Gulch BLT, 2004-2014

**Site 11**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 26, 2004	20	20-20	
	Aug 31, 2005	18	18-18	
	Aug 29, 2006	51	51-52	
	Sep 08, 2008	29	29-30	
	Sep 02, 2009	260	253-267	
	Aug 30, 2010	11	11-11	
	Aug 30, 2010	11	11-11	

Brook Trout <200mm	Aug 29, 2011	11	11-11	
	Aug 27, 2012	107	105-111	
	Aug 25, 2014	93	93-95	
Brook Trout >=200mm	Aug 26, 2004	13	13-13	BK1
	Aug 29, 2006	1	1-1	BK3
	Sep 08, 2008	10	10-10	BK3
	Sep 02, 2009	6	6-7	BK3
	Aug 29, 2011	1	1-1	BK3
	Aug 25, 2014	4	4-4	BK2

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**Site 15**

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<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Brook Trout <200mm	Sep 03, 2014	116	110-124	
Brook Trout >=200mm	Sep 03, 2014	4	4-4	BK2

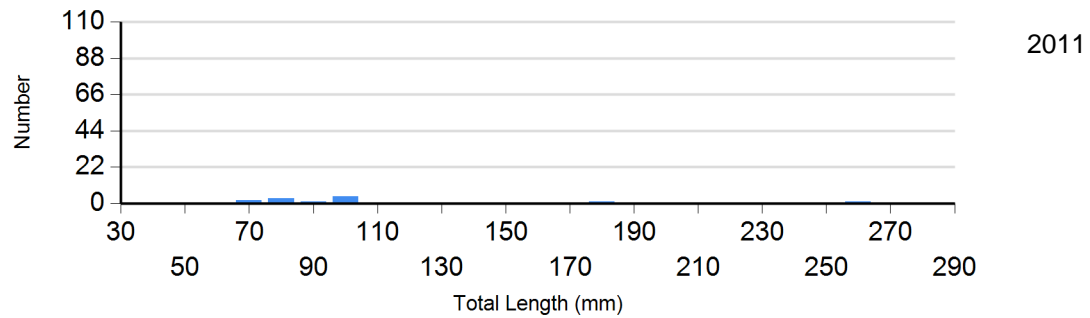
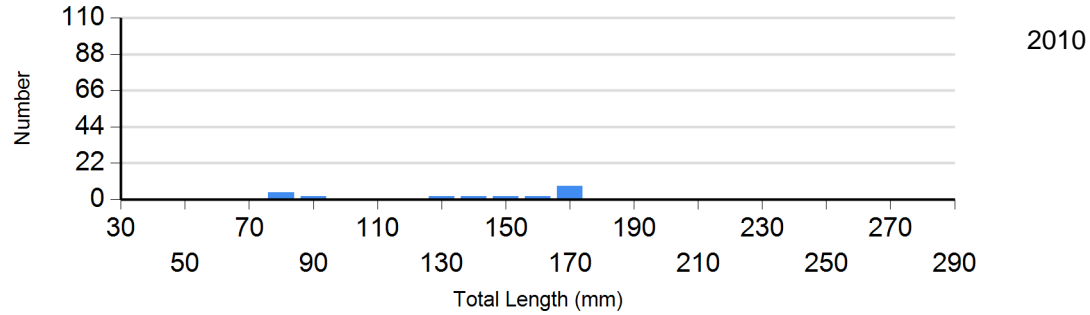
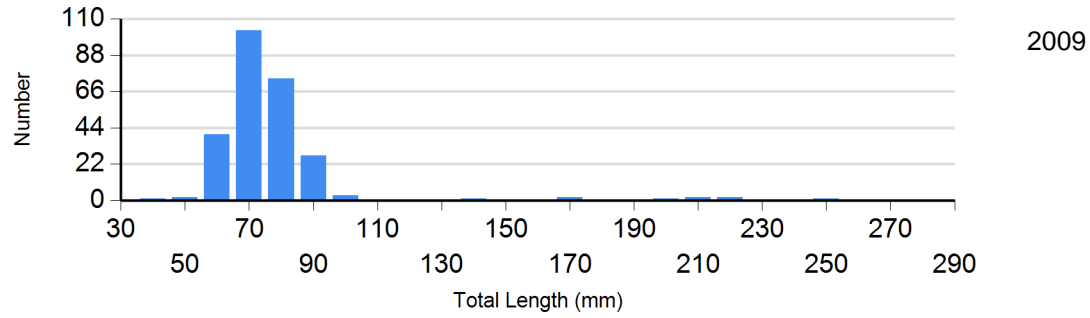
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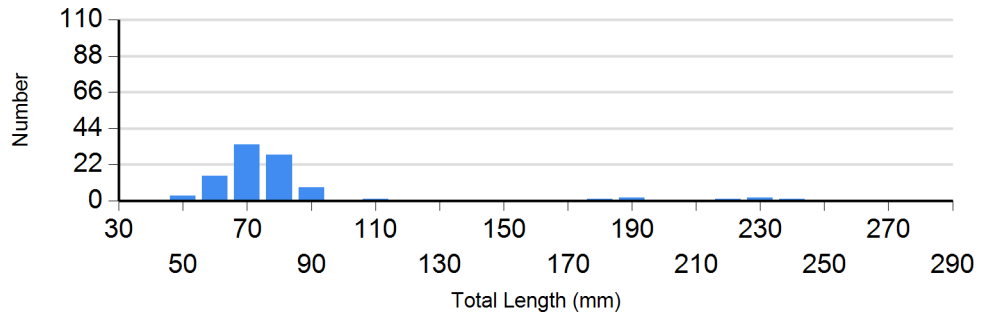
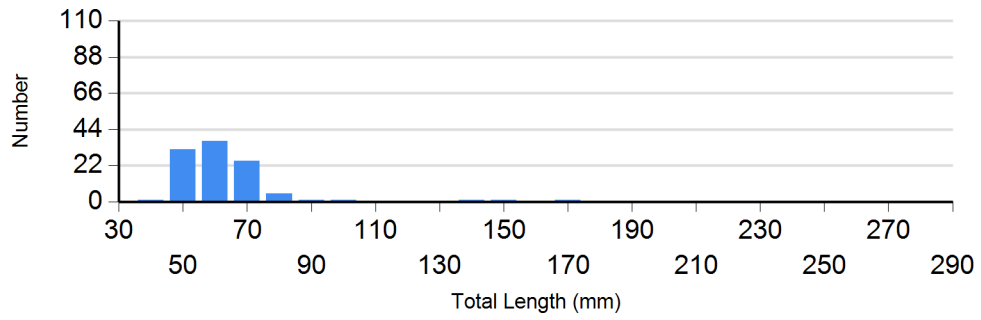
## Length Frequency Distribution

Length frequency histogram of species sampled by year.

**Site:** 11

**Species:** Brook Trout





**Site: 15**  
**Species: Brook Trout**

