

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Rubicon Gulch, Lawrence County**  
**09-0103-00**  
**2017**

Table 1. Population and Biomass Estimates for Rubicon Gulch

<b>Site Number:</b> 22	<b>Date Sampled:</b> 08/31/2017	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.40850571, -103.86075411	<b>Site Length (m):</b> 100	<b>pH:</b>
<b>Survey Completed by:</b> GEI	<b>Mean Width (m):</b> 1.7	<b>Water Temperature (C):</b>
<b>Stream Classification:</b> BK0	<b>Number of Pass:</b> 3	<b>Voltage:</b>

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	75	76	79	75	4406	109	760	1784	97.66	1223	133.3	24.8
Brook Trout	All	75	76	79	75	4406	109	760	1784	97.66	1223	133.3	24.8

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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 Rubicon Gulch, 2007-2017

**Site 22**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 12, 2008	143	139-149	
	Sep 01, 2011	144	143-147	
	Aug 29, 2012	100	100-102	
	Aug 28, 2013	90	89-93	
	Aug 29, 2014	79	76-84	
	Aug 31, 2017	76	75-79	
Brook Trout >=200mm	Sep 12, 2008	1	1-1	BK3
	Sep 01, 2011	2	2-3	BK2
	Aug 29, 2012	2	2-2	BK3



## Length Frequency Distribution

Length frequency histogram of species sampled by year.

**Site:** 22

**Species:** Brook Trout



