

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Rubicon Gulch, Lawrence County**  
**09-0103-00**  
**2012**

Table 1. Population and Biomass Estimates for Rubicon Gulch

**Site Number:** 22

**Date Sampled:** 08/29/2012

**Conductivity (umhos/cm):**

**Site Midpoint (Latitude, Longitude):** 44.40850571, -103.86075411

**Site Length (m):** 118

**pH:**

**Survey Completed by:** GEI

**Mean Width (m):** 4.1

**Water Temperature (C):**

**Stream Classification:** BK3

**Number of Pass:** 3

**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	100	100	102	100	2454	58	847	994	51.46	1364	125.3	23.5
Brook Trout	>=200mm	2	2	2	2	49	5	17	20	4.23	27	215.0	96.5
Brook Trout	All	102	102	104	102	2503	62	864	1014	55.72	1391	127.0	24.9

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, 2002-2012

**Site 22**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Oct 04, 2002	91	91-91	
	Sep 22, 2004	26	26-27	
	Aug 28, 2005	28	28-30	
	Sep 12, 2008	143	139-149	
	Sep 01, 2011	144	143-147	
	Aug 29, 2012	100	100-102	
Brook Trout >=200mm	Oct 04, 2002	1	1-1	BK2

Brook Trout >=200mm	Aug 28, 2005	4	4-4	BK2
	Sep 12, 2008	1	1-1	BK3
	Sep 01, 2011	2	2-3	BK2
	Aug 29, 2012	2	2-2	BK3

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## Length Frequency Distribution

Length frequency histogram of species sampled by year.

**Site:** 22

**Species:** Brook Trout

