

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rubicon Gulch, Lawrence County
09-0103-00
2014

Table 1. Population and Biomass Estimates for Rubicon Gulch

Site Number: 22
Site Midpoint (Latitude, Longitude): 44.40850571, -103.86075411
Survey Completed by: Unknown Consultant Firm for mining
Stream Classification: BK2

Date Sampled: 08/29/2014
Site Length (m): 100
Mean Width (m): 1.6
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
Voltage: 160

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	76	79	84	76	4801	151	790	1944	134.70	1271	136.4	31.4
Brook Trout	>=200mm	4	4	4	4	243	23	40	98	20.78	64	210.8	95.8
Brook Trout	All	80	83	88	80	5044	175	830	2043	156.00	1335	140.2	34.6

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 Rubicon Gulch, 2004-2014

Site 22

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	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	
	Aug 28, 2013	90	89-93	
	Aug 29, 2014	79	76-84	

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
	Aug 29, 2014	4	4-4	BK2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 22

Species: Brook Trout



