

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rubicon Gulch, Lawrence County
09-0103-00
2002

Table 1. Population and Biomass Estimates for Rubicon Gulch

Site Number: 22	Date Sampled: 10/04/2002	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.40850571, -103.86075411	Site Length (m): 100	pH:
Survey Completed by: KNK Aquatic Ecology	Mean Width (m): 1.4	Water Temperature (C): 6.1
Stream Classification: BK2	Number of Pass: 3	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	91	91	91	91	6296	80	910	2550	71.84	1464	99.8	12.8
Brook Trout	>=200mm	1	1	1	1	69	6	10	28	5.74	16	212.0	93.0
Brook Trout	All	92	92	92	92	6365	87	920	2578	77.58	1480	101.0	13.7

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, 1992-2002

Site 22

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 14, 1993	12	12-14	
	Sep 15, 1994	3	3-4	
	Sep 20, 1996	48	48-50	
	Sep 03, 1997	99	94-106	
	Sep 17, 1998	103	103-105	
	Sep 16, 2000	88	88-90	
	Oct 04, 2002	91	91-91	

Brook Trout >=200mm	Sep 14, 1993	2	2-4	BK3
	Sep 15, 1994	1	1-2	BK3
	Sep 20, 1996	3	3-3	BK3
	Sep 03, 1997	3	3-3	BK2
	Sep 17, 1998	1	1-1	BK2
	Sep 16, 2000	2	2-4	BK2
	Oct 04, 2002	1	1-1	BK2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 22

Species: Brook Trout



