

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rubicon Gulch, Lawrence County
09-0103-00
1997

Table 1. Population and Biomass Estimates for Rubicon Gulch

Site Number: 22	Date Sampled: 09/03/1997	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.40850571, -103.86075411	Site Length (m): 100	pH:
Survey Completed by: OEA Research Inc.	Mean Width (m): 1.3	Water Temperature (C): 16.0
Stream Classification: BK2	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	94	99	106	94	7734	162	990	3132	145.02	1593	112.7	21.0
Brook Trout	>=200mm	3	3	3	3	234	57	30	95	50.71	48	260.0	242.3
Brook Trout	All	97	102	109	97	7969	222	1020	3227	198.12	1641	117.2	27.8

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, 1987-1997

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	
Brook Trout >=200mm	Sep 14, 1993	2	2-4	BK3
	Sep 15, 1994	1	1-2	BK3
	Sep 20, 1996	3	3-3	BK3

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 22

Species: Brook Trout



