

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Boomer Gulch, Lawrence County
09-0102-00
2003

Table 1. Population and Biomass Estimates for Boomer Gulch

Site Number: 1	Date Sampled: 09/17/2003	Conductivity (umhos/cm): 195
Site Midpoint (Latitude, Longitude): 44.32319378, -103.65676722	Site Length (m): 60	pH: 8.4
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.3	Water Temperature (C): 9.0
Stream Classification: BK2	Number of Pass: 3	Voltage: 400

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	14	14	14	14	1091	29	233	442	25.88	375	137.0	26.6
Brook Trout	>=200mm	1	1	1	1	78	5	17	32	4.87	27	206.0	70.0
Brook Trout	All	15	15	15	15	1169	34	250	473	30.75	402	141.6	29.5

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 Boomer Gulch, 1993-2003

Site 1

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 20, 2000	10	10-11	
	Sep 20, 2000	38	38-40	
	Sep 10, 2002	38	38-40	
	Sep 17, 2003	14	14-14	
Brook Trout >=200mm	Sep 10, 2002	1	1-5	BK2
	Sep 17, 2003	1	1-1	BK2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 1

Species: Brook Trout

