

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Cleopatra Creek, Lawrence County
09-0055-00
2003

Table 1. Population and Biomass Estimates for Cleopatra Creek

Site Number: 55	Date Sampled: 08/27/2003	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.37280607, -103.85650460	Site Length (m): 110	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 1.2	Water Temperature (C): 13.0
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	250	250	252	250	20370	421	2273	8250	376.20	3657	123.8	20.7
Brook Trout	>=200mm	2	2	2	2	163	13	18	66	11.49	29	200.5	79.0
Brook Trout	All	252	252	254	252	20533	434	2291	8316	387.70	3686	124.4	21.1

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 Cleopatra Creek, 1993-2003

Site 55

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 21, 2001	404	397-411	
	Aug 27, 2003	250	250-252	
Brook Trout >=200mm	Aug 27, 2003	2	2-2	BK2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 55

Species: Brook Trout

