

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Cleopatra Creek, Lawrence County
09-0055-00
2007

Table 1. Population and Biomass Estimates for Cleopatra Creek

Site Number: 2	Date Sampled: 09/18/2007	Conductivity (umhos/cm): 332
Site Midpoint (Latitude, Longitude): 44.40059662, -103.89317768	Site Length (m): 100	pH: 8.7
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 3.6	Water Temperature (C): 12.1
Stream Classification: BK2, BR0, RB2	Number of Pass: 3	Voltage: 250

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	72	73	76	72	2048	64	730	830	57.00	1175	138.8	31.2
Brook Trout	>=200mm	3	3	4	3	84	9	30	34	8.17	48	214.3	108.7
Brook Trout	All	254	271	284	258	7605	261	2710	3080	232.67	4360	141.8	34.3
Brown Trout	<200mm	4	4	4	4	112	3	40	45	3.01	64	134.5	30.0
Brown Trout	All	4	4	4	4	112	3	40	45	3.01	64	134.5	30.0
Rainbow Trout	<200mm	56	56	56	56	1571	25	560	636	22.12	901	107.0	15.8
Rainbow Trout	>=200mm	1	1	2	1	28	3	10	11	2.31	16	209.0	92.0
Rainbow Trout	All	125	125	126	125	3508	60	1250	1421	53.57	2011	108.8	17.1

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, 1997-2007

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 10, 1997	341	318-364	
	Sep 18, 2007	73	72-76	
Brook Trout >=200mm	Sep 10, 1997	16	16-16	BK1
	Sep 18, 2007	3	3-4	BK2
Brown Trout <200mm	Sep 10, 1997	19	19-21	
	Sep 18, 2007	4	4-4	
Rainbow Trout <200mm	Sep 10, 1997	457	430-484	

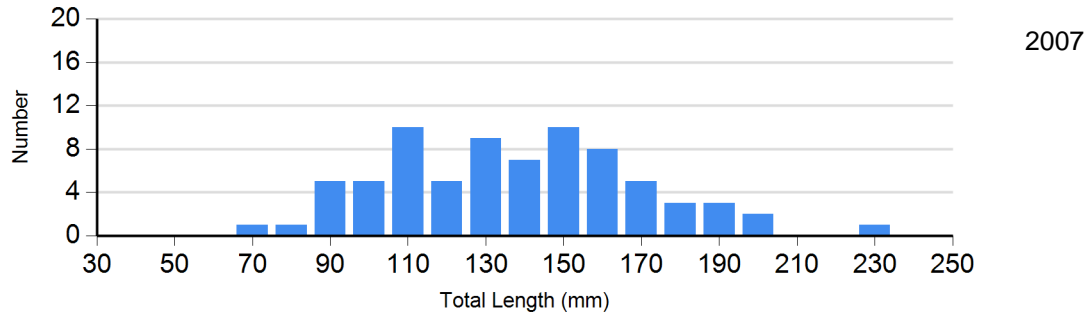
Rainbow Trout <200mm	Sep 18, 2007	56	56-56	
Rainbow Trout >=200mm	Sep 10, 1997	1	1-1	RB2
	Sep 18, 2007	1	1-2	RB2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

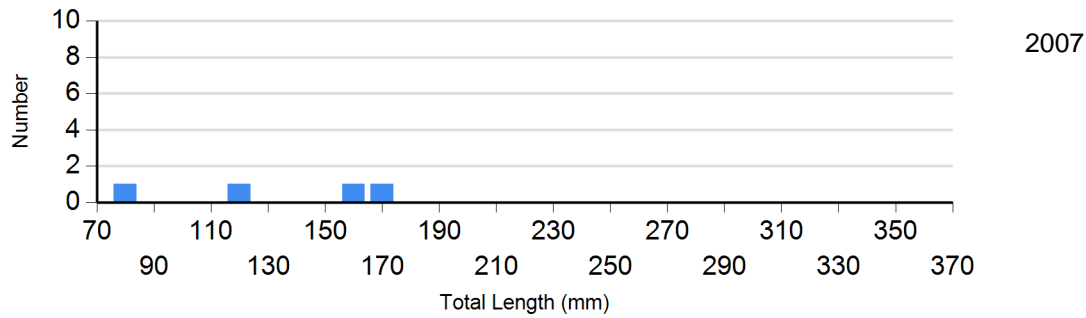
Site: 2

Species: Brook Trout



Site: 2

Species: Brown Trout



Site: 2

Species: Rainbow Trout

