

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Sunday Gulch, Pennington County
02-9204-00
1997

Table 1. Population and Biomass Estimates for Sunday Gulch

Site Number: 40
Site Midpoint (Latitude, Longitude): 43.87169717, -103.57990418
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK3

Date Sampled: 10/06/1997
Site Length (m): 99
Mean Width (m): 1.8
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
Voltage: 450

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	180	184	189	180	10110	156	1859	4095	138.91	2990	113.1	15.4
Brook Trout	>=200mm	1	1	1	1	55	5	10	22	4.37	16	217.0	89.0
Brook Trout	All	182	186	191	182	10220	161	1879	4139	144.13	3023	113.6	15.8
Longnose Dace	All	3	3	4	3	165	1	30	67	1.08	49	91.7	7.3

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 Sunday Gulch, 1987-1997

Site 40

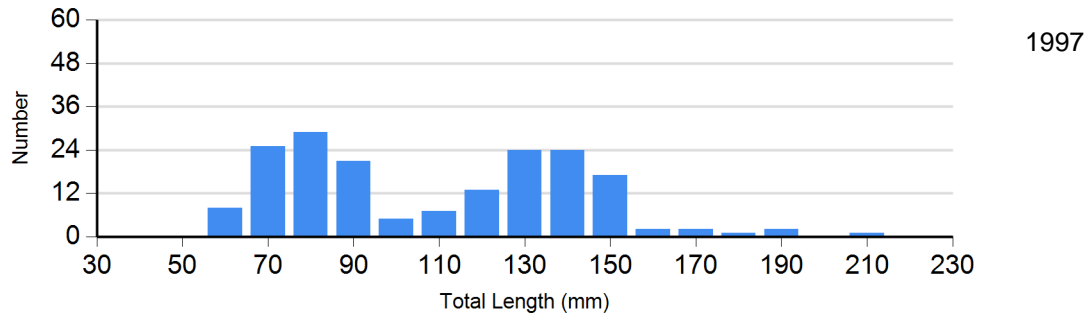
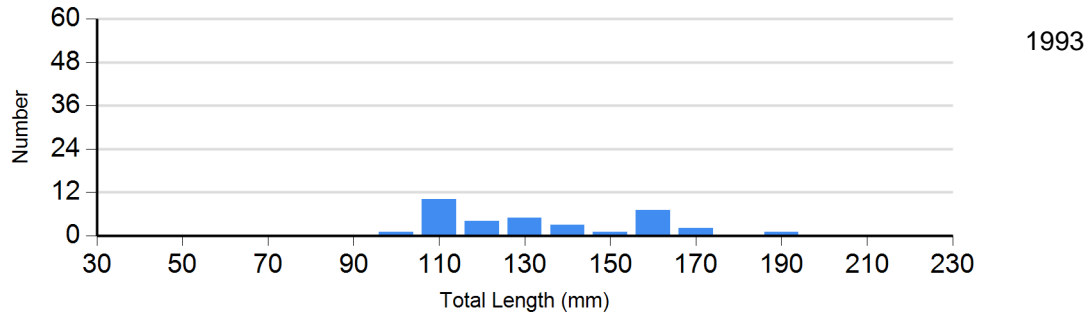
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 16, 1993	55	34-105	BK3
	Oct 06, 1997	184	180-189	
Brook Trout >=200mm	Oct 06, 1997	1	1-1	
Longnose Dace	Jun 16, 1993	22	20-29	
	Oct 06, 1997	3	3-4	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 40

Species: Brook Trout



Site: 40

Species: Longnose Dace

