

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Horse Creek, Pennington County
02-9219-00
1998

Table 1. Population and Biomass Estimates for Horse Creek

Site Number: 29	Date Sampled: 06/11/1998	Conductivity (umhos/cm): 24
Site Midpoint (Latitude, Longitude): 43.98308260, -103.48559370	Site Length (m): 100	pH: 9.1
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.5	Water Temperature (C): 11.4
Stream Classification: BK2, RB0	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	32	32	34	32	2133	111	320	864	99.05	515	165.4	52.0
Brook Trout	>=200mm	3	3	4	3	200	26	30	81	23.57	48	237.0	132.0
Brook Trout	All	35	36	39	35	2400	141	360	972	126.12	579	171.5	58.9
Fathead Minnow	All	2	2	2	2	133	1	20	54	0.71	32	76.0	6.0
Longnose Dace	All	134	164	192	136	10933	47	1640	4428	41.64	2639	76.3	4.3
Mountain Sucker	All	21	24	32	21	1600	20	240	648	17.62	386	108.4	12.3
Rainbow Trout	<200mm	4	4	4	4	267	12	40	108	10.60	64	163.8	44.5
Rainbow Trout	All	4	4	4	4	267	12	40	108	10.60	64	163.8	44.5

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 Horse Creek, 1988-1998

Site 29

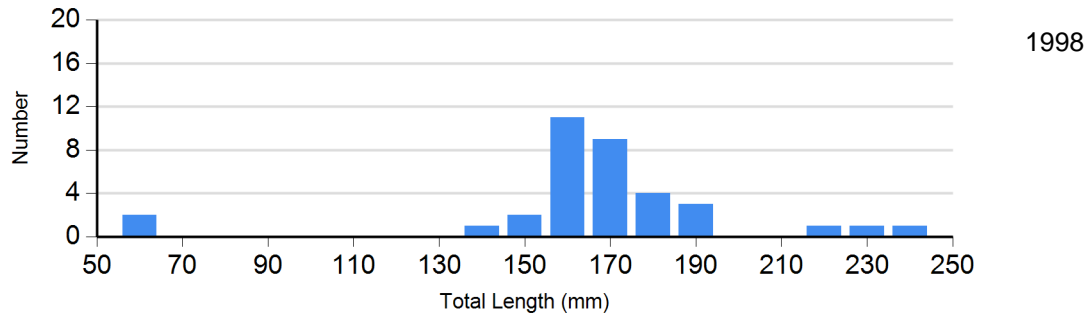
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 11, 1998	32	32-34	
Brook Trout >=200mm	Jun 11, 1998	3	3-4	BK2
Fathead Minnow	Jun 11, 1998	2	2-2	
Longnose Dace	Jun 11, 1998	164	136-192	
Mountain Sucker	Jun 11, 1998	24	21-32	
Rainbow Trout <200mm	Jun 11, 1998	4	4-4	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

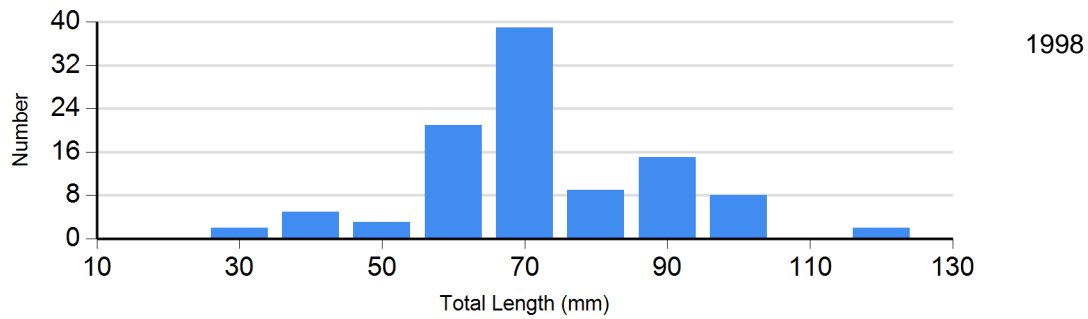
Site: 29

Species: Brook Trout



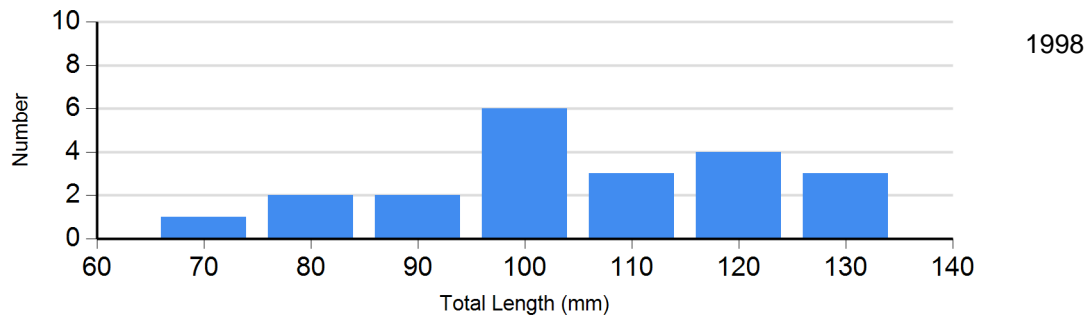
Site: 29

Species: Longnose Dace



Site: 29

Species: Mountain Sucker



Site: 29
Species: Rainbow Trout

