SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY

Palmer Gulch, Pennington County

02-9211-00

2009

Table 1. Population and Biomass Estimates for Palmer Gulch

Site Number: 102

Site Midpoint (Latitude, Longitude): 43.89857213, -103.53613880

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: None

Date Sampled: 05/13/2009

Site Length (m): 100

Mean Width (m): 1.7

Number of Pass: 1

Conductivity (umhos/cm): 51

pH: 7.6

Water Temperature (C): 6.3

Voltage: 300

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)
White Sucker	All	14	14	14	14	815	41	140	330	36.45	225	129.6	50.1

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 BrookTrout 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 Palmer Gulch, 1999-2009

Site 102

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
White Sucker	May 13, 2009	14	14-14	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 102
Species: White Sucker