

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Redwater River, Butte County
15-0005-00
1997

Table 1. Population and Biomass Estimates for Redwater River

Site Number: 576	Date Sampled: 09/24/1997	Conductivity (umhos/cm): 1499
Site Midpoint (Latitude, Longitude): 44.58037911, -104.01654235	Site Length (m): 100	pH: 7.1
Survey Completed by:	Mean Width (m): 8.6	Water Temperature (C): 11.0
Stream Classification: BR2	Number of Pass: 4	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)
Brown Trout	<200mm	35	37	42	35	432	5	370	175	4.46	595	106.3	11.6
Brown Trout	>=200mm	12	13	17	12	152	36	130	61	32.44	209	286.1	239.5
Brown Trout	All	47	51	58	47	595	39	510	241	35.12	821	152.2	66.1
Hatchery Brown Trout	<200mm	1	1	1	1	12	1	10	5	0.68	16	190.0	65.0
Hatchery Brown Trout	>=200mm	1	1	1	1	12	2	10	5	2.06	16	263.0	198.0
Hatchery Brown Trout	All	2	2	2	2	23	3	20	9	2.74	32	226.5	131.5
Longnose Dace	All	235	506	780	235	5907	14	5060	2392	12.43	8142	67.3	2.4
Longnose Sucker	All	44	47	53	44	549	44	470	222	39.14	756	171.8	79.9
White Sucker	All	167	189	207	171	2206	188	1890	894	168.25	3041	150.9	85.4

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 Redwater River, 1987-1997

Site 576

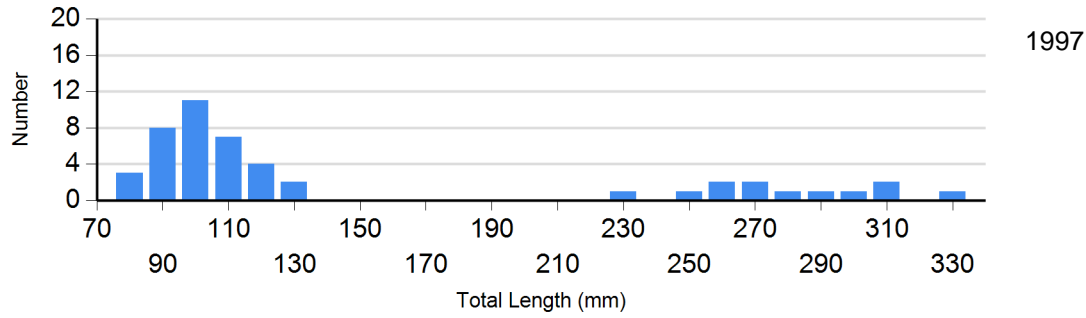
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Sep 24, 1997	37	35-42	
Brown Trout >=200mm	Sep 24, 1997	13	12-17	BR2
Hatchery Brown Trout <200mm	Sep 24, 1997	1	1-1	
Hatchery Brown Trout >=200mm	Sep 24, 1997	1	1-1	
Longnose Dace	Sep 24, 1997	506	235-780	
Longnose Sucker	Sep 24, 1997	47	44-53	
White Sucker	Sep 24, 1997	189	171-207	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

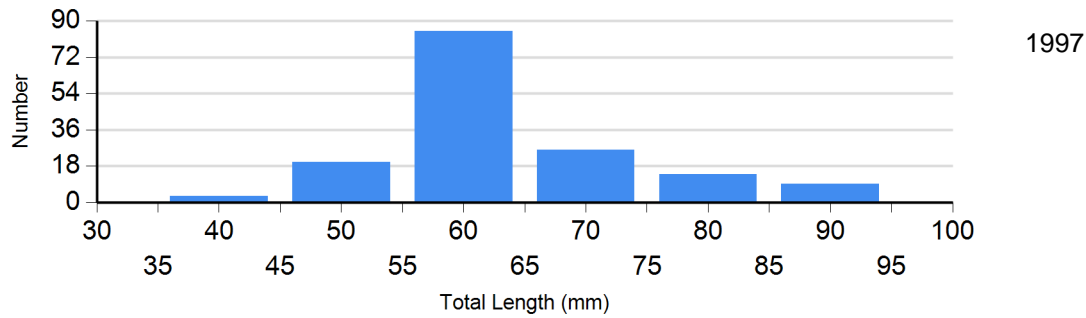
Site: 576

Species: Brown Trout



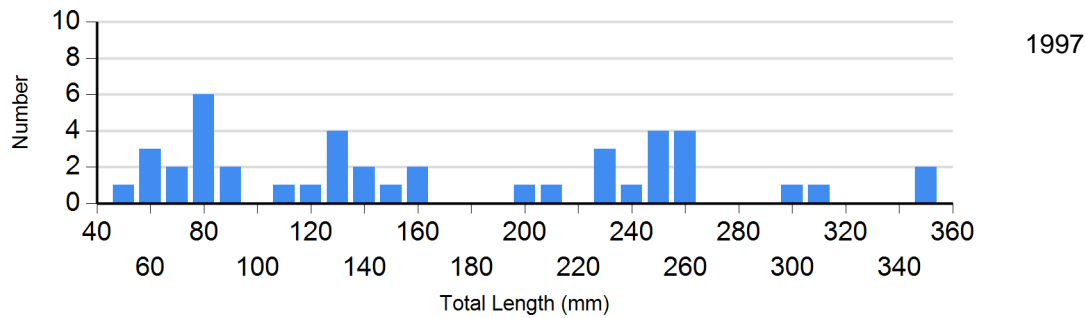
Site: 576

Species: Longnose Dace



Site: 576

Species: Longnose Sucker



Site: 576
Species: White Sucker

