

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rapid Creek, Pennington County
02-0062-00
2014

Table 1. Population and Biomass Estimates for Rapid Creek

Site Number: 2100
Site Midpoint (Latitude, Longitude): 44.10587489, -103.65265070
Survey Completed by:
Stream Classification: BR2

Date Sampled: 07/30/2014
Site Length (m): 100
Mean Width (m): 5.4
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
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	50	53	59	50	983	33	530	398	29.20	853	122.4	33.3
Brown Trout	>=200mm	14	14	14	14	260	33	140	105	29.05	225	235.1	125.3
Brown Trout	All	64	66	70	64	1224	71	660	496	63.44	1062	147.0	58.0
Mountain Sucker	All	1	1	1	1	19	0	10	8	0.17	16	93.0	10.0

Site Number: 2133
Site Midpoint (Latitude, Longitude): 44.11041555, -103.67253220
Survey Completed by:
Stream Classification: BR2

Date Sampled: 07/30/2014
Site Length (m): 100
Mean Width (m): 4.7
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
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	13	13	14	13	279	9	130	113	8.07	209	127.1	32.4
Brown Trout	>=200mm	9	9	11	9	193	23	90	78	20.74	145	235.2	120.1
Brown Trout	All	22	22	24	22	473	34	220	191	30.32	354	171.3	71.9

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 Rapid Creek, 2004-2014

Site 2100

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 02, 2006	40	40-41	
	Jul 13, 2012	68	65-74	
	Aug 01, 2013	68	64-75	
	Jul 30, 2014	53	50-59	
Brown Trout >=200mm	Aug 02, 2006	4	4-4	BR2
	Jul 13, 2012	13	13-13	BR2
	Aug 01, 2013	23	23-24	BR1

Brown Trout >=200mm	Jul 30, 2014	14	14-14	BR2
Mountain Sucker	Jul 13, 2012	2	3-4	
	Jul 30, 2014	1	1-1	

Site 2133

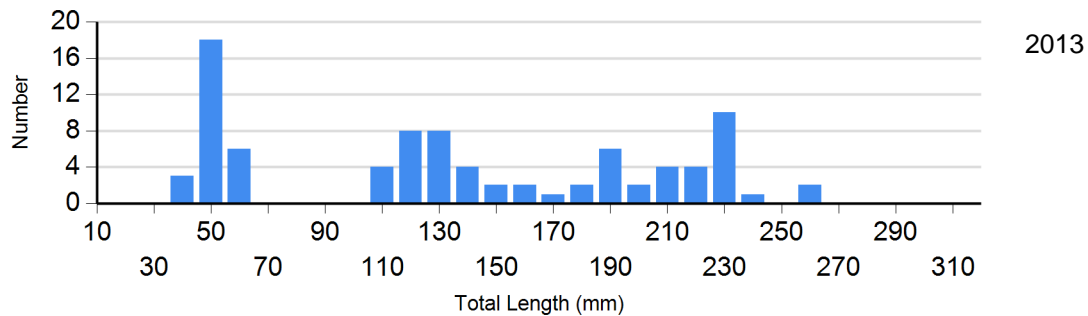
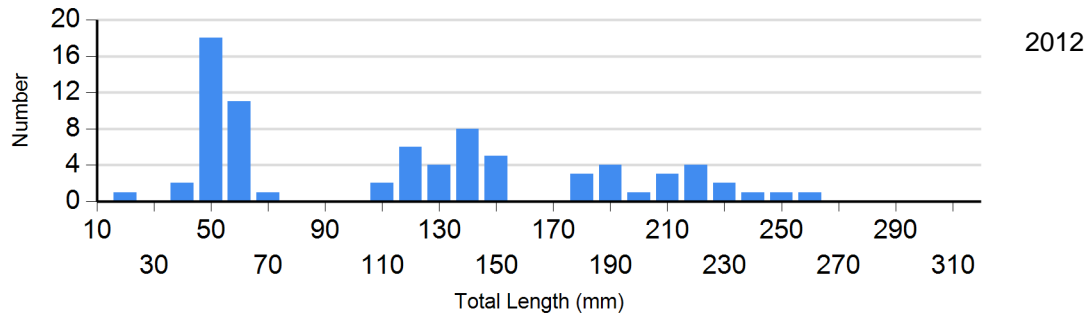
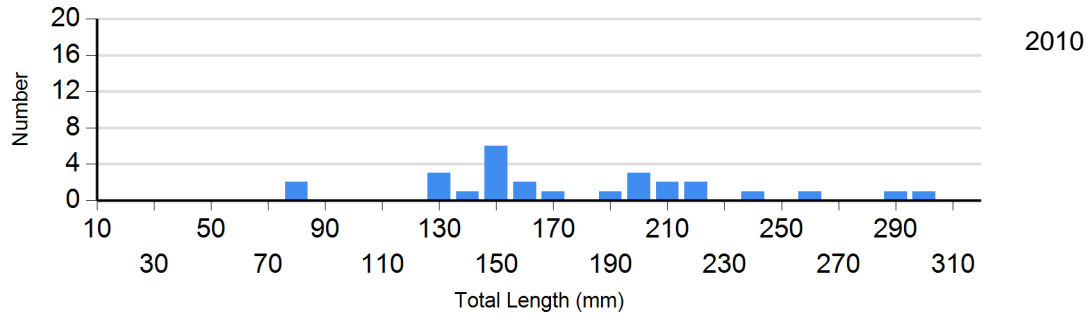
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 21, 2012	60	51-74	
	Jul 30, 2014	13	13-14	
Brown Trout >=200mm	Aug 21, 2012	17	17-19	BR2
	Jul 30, 2014	9	9-11	BR2
Mountain Sucker	Aug 21, 2012	2	2-3	

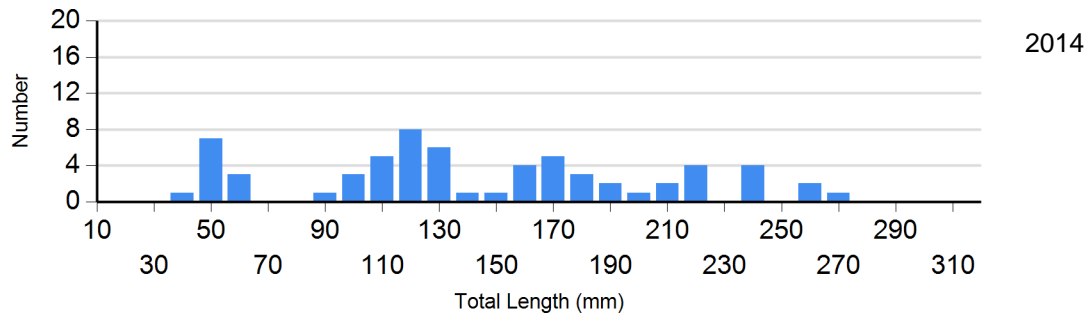
Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 2100

Species: Brown Trout





Site: 2133
Species: Brown Trout

