

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rapid Creek - South Fork, Lawrence County
09-0020-00
2017

Table 1. Population and Biomass Estimates for Rapid Creek - South Fork

Site Number: 7	Date Sampled: 05/10/2017	Conductivity (umhos/cm): 444
Site Midpoint (Latitude, Longitude): 44.12873665, -103.74054709	Site Length (m): 100	pH:
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 3.4	Water Temperature (C): 13.4
Stream Classification: BR2	Number of Pass: 3	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	31	50	93	31	1486	46	500	602	41.29	805	103.2	31.1
Brown Trout	>=200mm	4	4	4	4	119	15	40	48	13.06	64	235.8	123.0
Brown Trout	All	35	48	73	35	1427	68	480	578	60.93	772	118.4	47.8
White Sucker	All	3	3	4	3	89	2	30	36	2.07	48	102.3	26.0

Site Number: 119	Date Sampled: 05/10/2017	Conductivity (umhos/cm): 437
Site Midpoint (Latitude, Longitude): 44.14883290, -103.83126745	Site Length (m): 100	pH:
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 4.0	Water Temperature (C): 12.7
Stream Classification: BR2	Number of Pass: 3	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	150	168	185	151	4239	139	1680	1717	123.84	2703	128.0	32.7
Brown Trout	>=200mm	11	11	11	11	278	32	110	112	28.63	177	230.1	115.5
Brown Trout	All	161	177	192	162	4466	179	1770	1809	160.01	2848	135.0	40.1

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 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 - South Fork, 2007-2017

Site 7

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 16, 2014	29	29-29	
	May 10, 2017	50	31-93	
Brown Trout >=200mm	Jun 16, 2014	20	20-21	BR1
	May 10, 2017	4	4-4	BR2
White Sucker	Jun 16, 2014	4	4-4	
	May 10, 2017	3	3-4	

Site 119

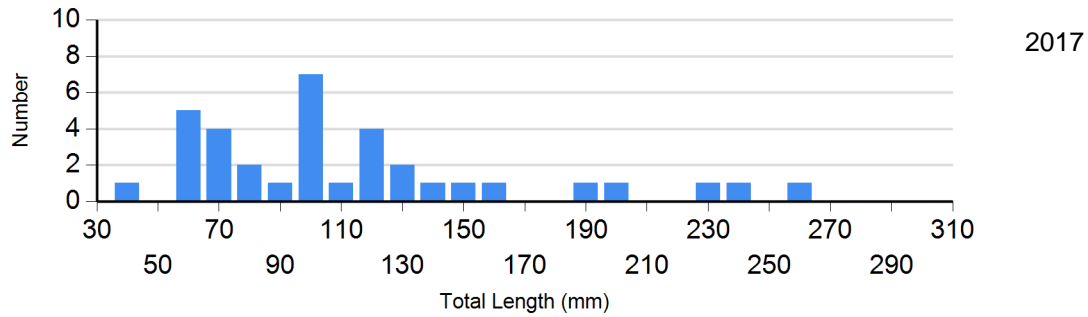
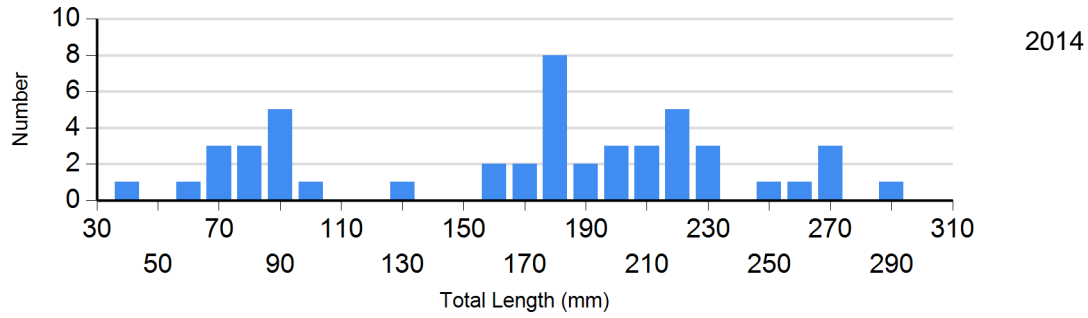
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 19, 2014	218	205-231	
	May 10, 2017	168	151-185	
Brown Trout >=200mm	Jun 19, 2014	29	29-31	BR1
	May 10, 2017	11	11-11	BR2

Length Frequency Distribution

Length frequency histogram of species sampled by year.

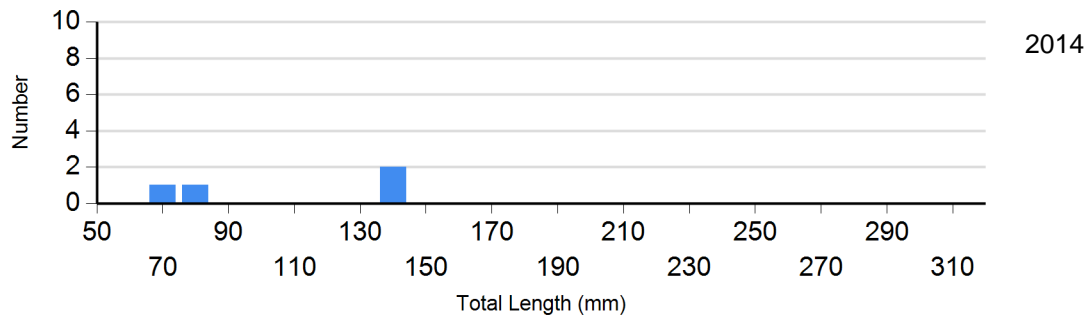
Site: 7

Species: Brown Trout



Site: 7

Species: White Sucker



Site: 119
Species: Brown Trout

