

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rapid Creek - South Fork, Lawrence County
09-0020-00
2018

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

Site Number: 7
Site Midpoint (Latitude, Longitude): 44.12873665, -103.74054709
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR2

Date Sampled: 06/06/2018
Site Length (m): 100
Mean Width (m): 3.5
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C): 14.0
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	21	21	23	21	606	20	210	246	18.04	338	101.9	33.3
Brown Trout	>=200mm	6	6	6	6	173	27	60	70	24.08	97	240.0	155.7
Brown Trout	All	27	27	28	27	780	64	270	316	57.26	434	132.6	82.3
White Sucker	All	4	4	4	4	115	34	40	47	30.11	64	143.3	292.0

Site Number: 119
Site Midpoint (Latitude, Longitude): 44.14883290, -103.83126745
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0, BR2

Date Sampled: 05/24/2018
Site Length (m): 100
Mean Width (m): 4.1
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C): 9.0
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)
Brook Trout	<200mm	2	2	2	2	49	1	20	20	0.66	32	123.5	15.0
Brook Trout	All	2	2	2	2	49	1	20	20	0.66	32	123.5	15.0
Brown Trout	<200mm	135	137	141	135	3364	85	1370	1362	75.58	2204	119.2	25.2
Brown Trout	>=200mm	8	8	8	8	196	20	80	80	17.58	129	220.1	100.3
Brown Trout	All	143	145	149	143	3560	110	1450	1442	98.01	2333	124.8	30.8

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, 2008-2018

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	
	Jun 06, 2018	21	21-23	
Brown Trout >=200mm	Jun 16, 2014	20	20-21	BR1
	May 10, 2017	4	4-4	BR2
	Jun 06, 2018	6	6-6	BR2
White Sucker	Jun 16, 2014	4	4-4	

White Sucker	May 10, 2017	3	3-4
	Jun 06, 2018	4	4-4

Site 119

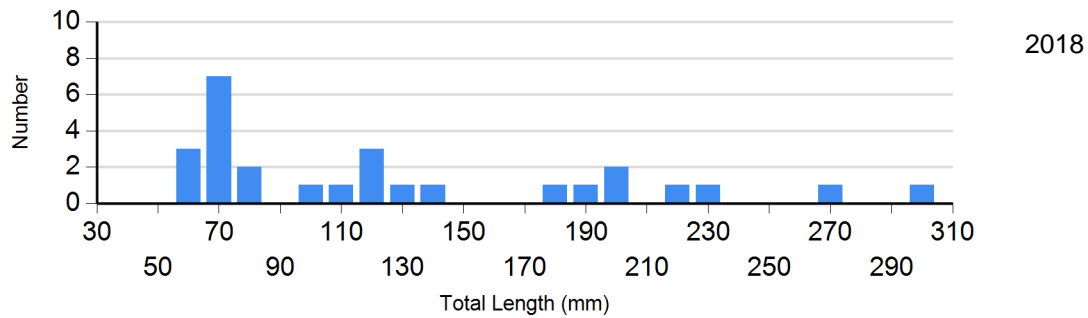
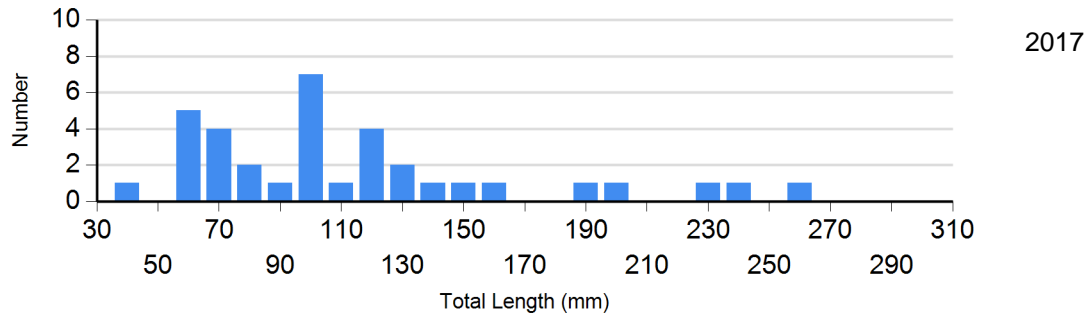
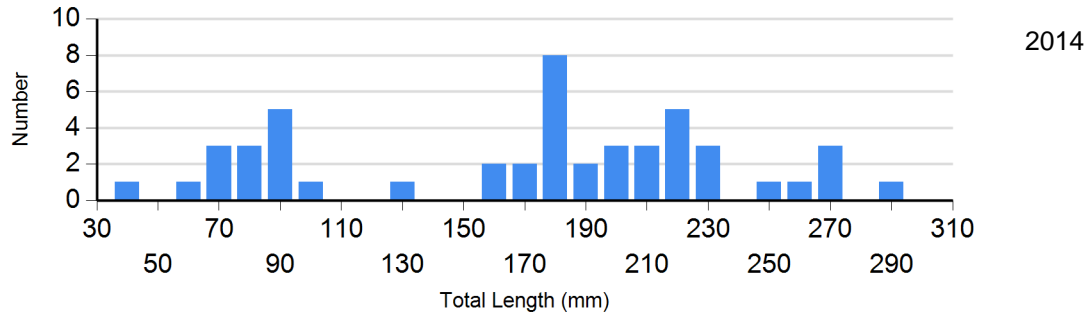
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 24, 2018	2	2-2	
Brown Trout <200mm	Jun 19, 2014	218	205-231	
	May 10, 2017	168	151-185	
	May 24, 2018	137	135-141	
Brown Trout >=200mm	Jun 19, 2014	29	29-31	BR1
	May 10, 2017	11	11-11	BR2
	May 24, 2018	8	8-8	BR2

Length Frequency Distribution

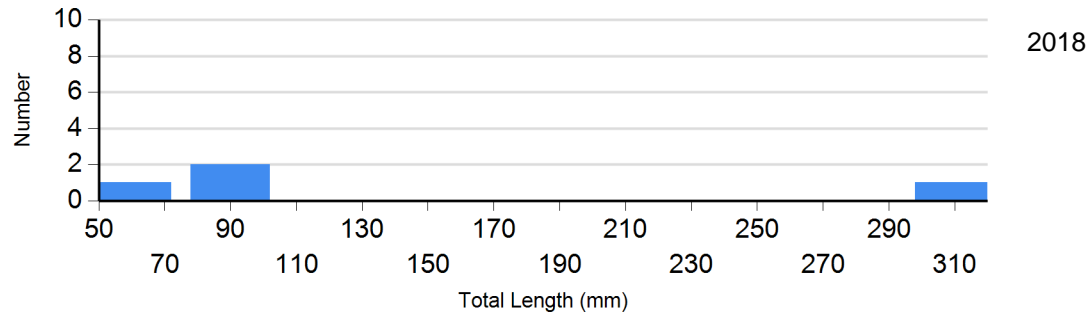
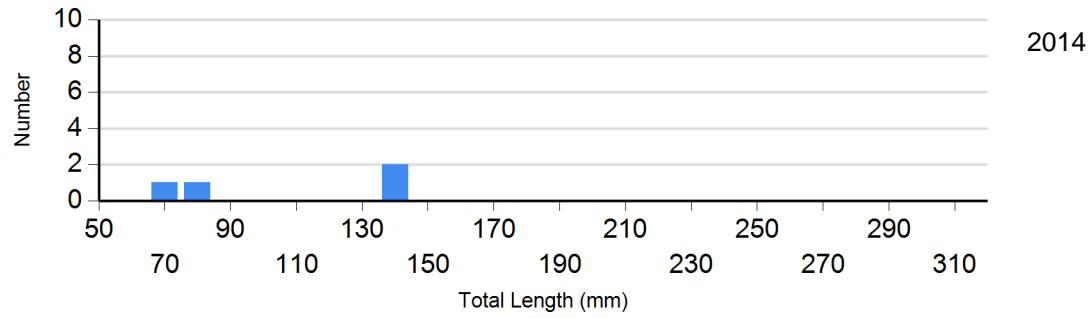
Length frequency histogram of species sampled by year.

Site: 7

Species: Brown Trout



Site: 7
Species: White Sucker



Site: 119
Species: Brown Trout

