

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rapid Creek - North Fork, Pennington County
02-0075-00
2015

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

Site Number: 119

Date Sampled: 09/08/2015

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.19752923, -103.76147540

Site Length (m): 100

pH:

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 2.8

Water Temperature (C):

Stream Classification: BK2, 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)
Brook Trout	<200mm	20	20	20	20	703	42	200	285	37.23	322	160.7	59.3
Brook Trout	>=200mm	4	4	4	4	141	13	40	57	11.42	64	206.0	91.0
Brook Trout	All	24	24	24	24	843	55	240	342	48.82	386	168.3	64.8
Brown Trout	<200mm	37	37	38	37	1300	54	370	527	48.15	595	122.1	41.5
Brown Trout	>=200mm	8	8	8	8	281	39	80	114	34.99	129	237.8	139.4
Brown Trout	All	45	45	46	45	1581	111	450	640	99.52	724	142.6	70.5
Longnose Dace	All	40	56	85	40	1968	30	560	797	26.48	901	89.8	15.1
Mountain Sucker	All	11	14	25	11	492	31	140	199	28.00	225	165.4	63.7
White Sucker	All	1	1	1	1	35	2	10	14	1.54	16	163.0	49.0

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 - North Fork, 2005-2015

Site 119

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 18, 2014	6	6-9	
	Sep 08, 2015	20	20-20	
Brook Trout >=200mm	Jun 18, 2014	5	5-5	BK2
	Sep 08, 2015	4	4-4	BK2
Brown Trout <200mm	Jun 18, 2014	7	7-9	
	Sep 08, 2015	37	37-38	
Brown Trout >=200mm	Jun 18, 2014	9	9-10	BR2

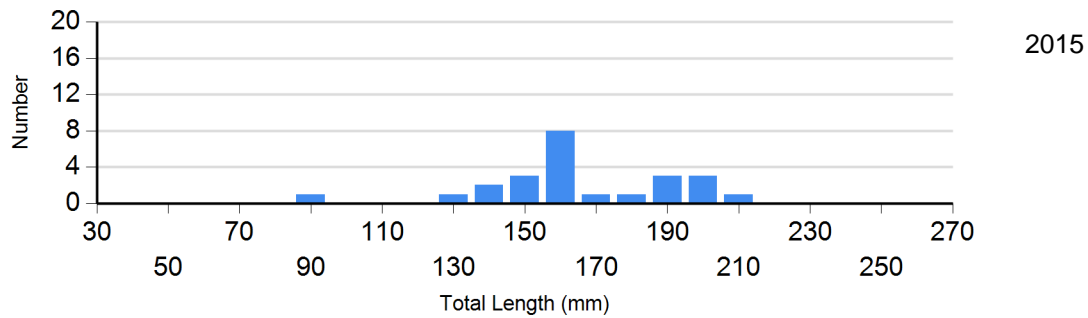
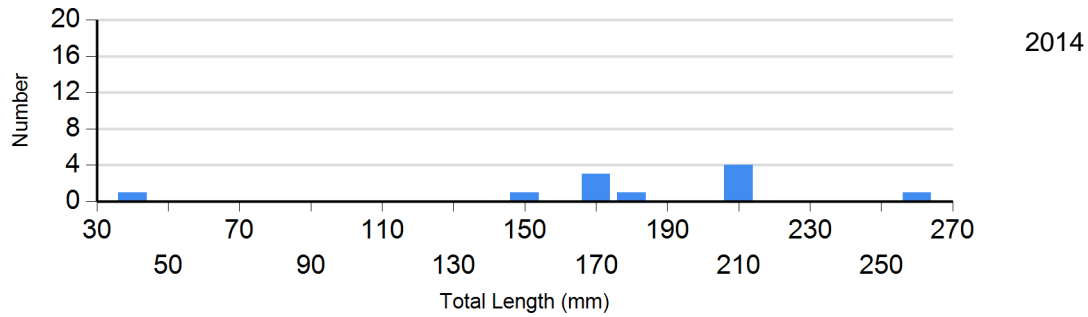
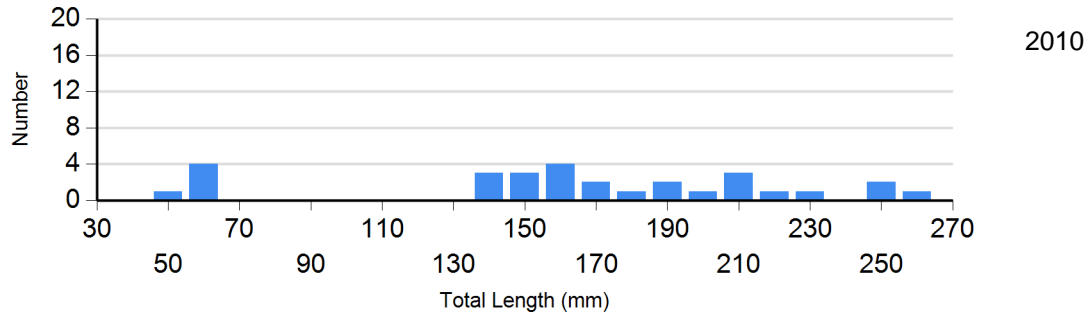
Brown Trout >=200mm	Sep 08, 2015	8	8-8	BR2
Longnose Dace	Jun 18, 2014	99	88-112	
	Sep 08, 2015	56	40-85	
Mountain Sucker	Jun 18, 2014	62	44-93	
	Sep 08, 2015	14	11-25	
White Sucker	Jun 18, 2014	121	115-129	
	Sep 08, 2015	1	1-1	

Length Frequency Distribution

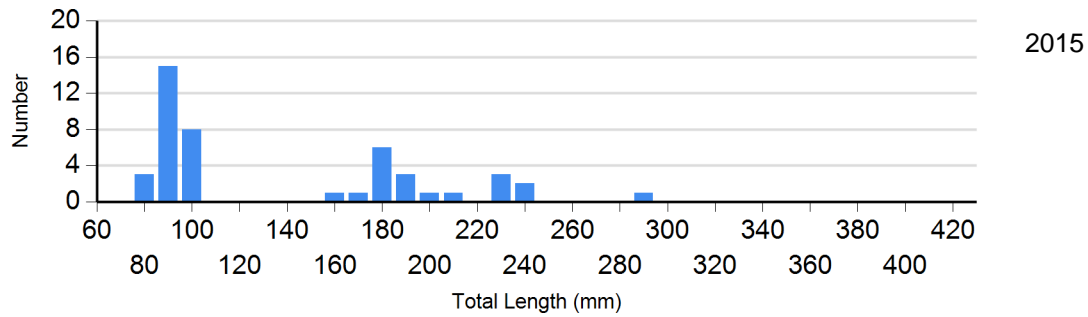
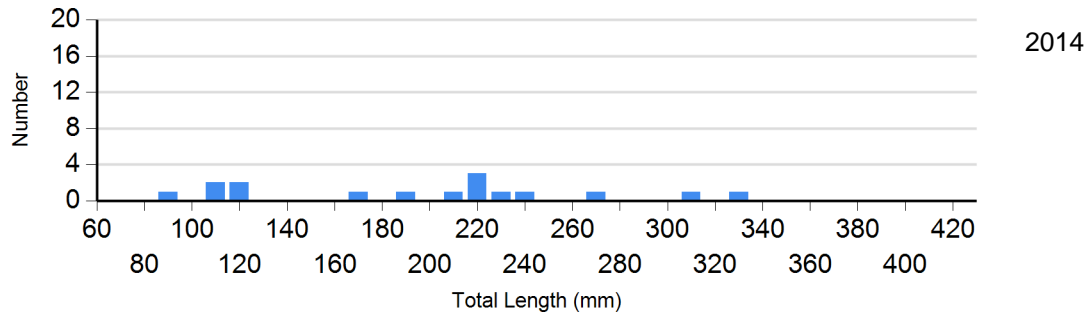
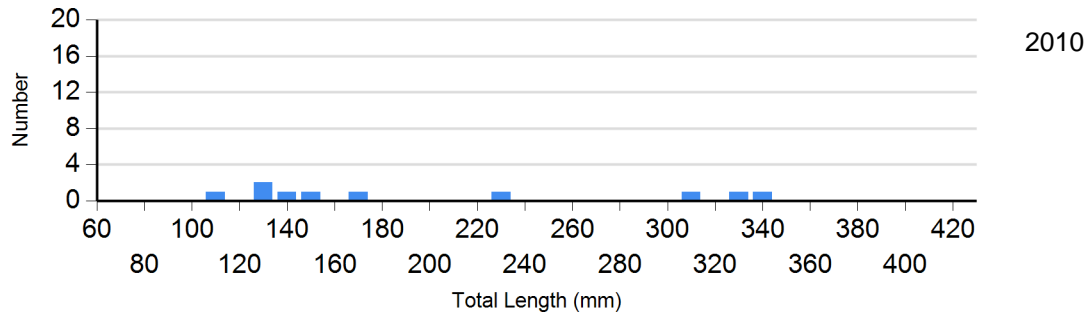
Length frequency histogram of species sampled by year.

Site: 119

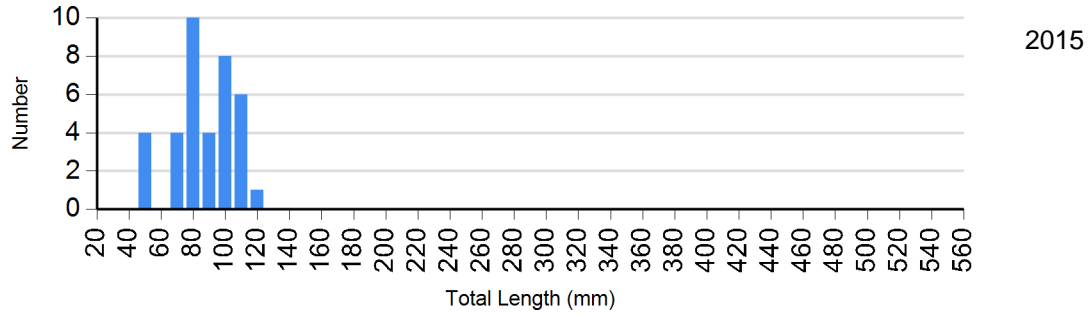
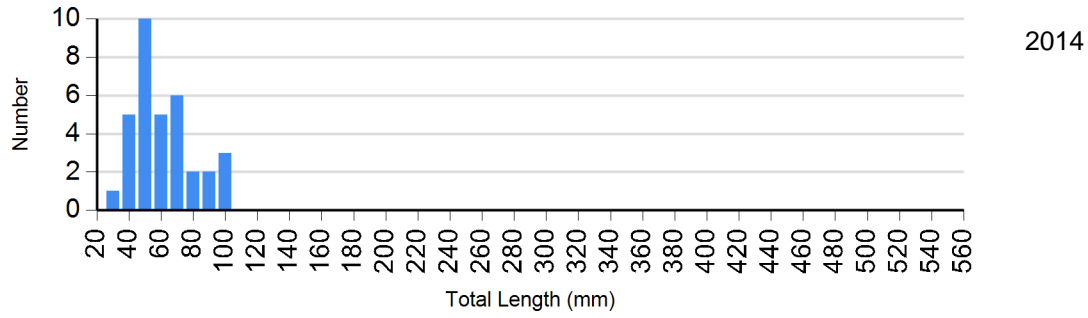
Species: Brook Trout



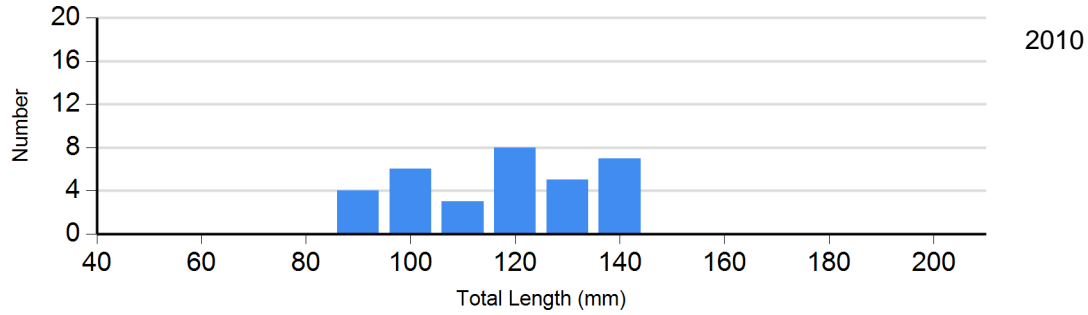
Site: 119
Species: Brown Trout

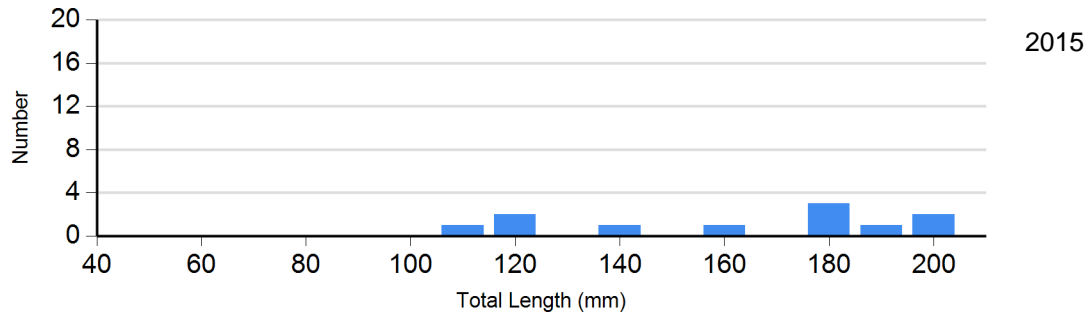
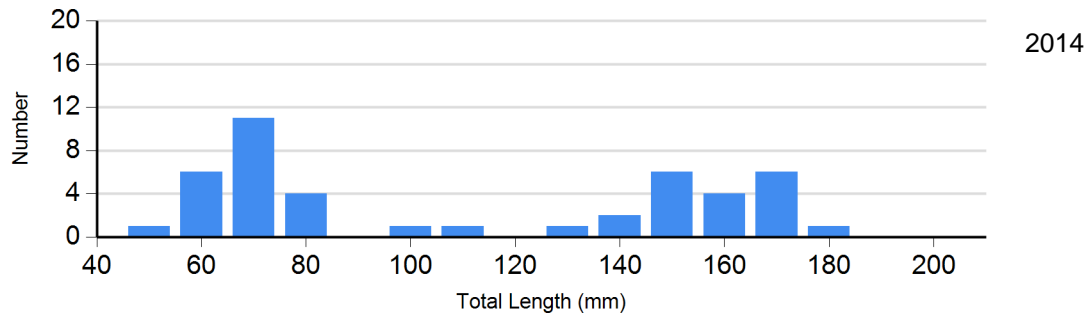


Site: 119
Species: Longnose Dace



Site: 119
Species: Mountain Sucker





Site: 119
Species: White Sucker

