

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Slate Creek, Pennington County**  
**02-0074-00**  
**2018**

Table 1. Population and Biomass Estimates for Slate Creek

<b>Site Number:</b> 135	<b>Date Sampled:</b> 05/31/2018	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.03212241, -103.63386714	<b>Site Length (m):</b> 100	<b>pH:</b>
<b>Survey Completed by:</b> South Dakota Game, Fish and Parks	<b>Mean Width (m):</b> 3.2	<b>Water Temperature (C):</b> 14.0
<b>Stream Classification:</b> BK2, BR3	<b>Number of Pass:</b> 3	<b>Voltage:</b>

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	62	15	20	25	13.22	32	259.5	239.0
Brook Trout	All	2	2	2	2	62	15	20	25	13.22	32	259.5	239.0
Brown Trout	>=200mm	1	1	5	1	31	8	10	13	7.36	16	265.0	266.0
Brown Trout	All	1	1	5	1	31	8	10	13	7.36	16	265.0	266.0
Creek Chub	All	35	36	39	35	1115	36	360	452	32.43	579	101.7	32.6
White Sucker	All	4	8	42	4	248	5	80	100	4.76	129	92.3	21.5

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	
<b>Class BR1</b>	Number of wild Brown Trout exceeds 150 per acre
<b>Class BR2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BR3</b>	Number of wild Brown Trout is less than 25 per acre
<b>Class BK1</b>	Number of wild Brook Trout exceeds 150 per acre
<b>Class BK2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BK3</b>	Number of wild Brook Trout is less than 25 per acre
<b>Class RB1</b>	Number of wild Rainbow Trout exceeds 25 per acre
<b>Class RB2</b>	Number of wild Rainbow Trout is less than 25 per acre

Table 2. Species composition and population estimates on Slate Creek, 2008-2018

**Site 135**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 13, 2017	3	3-3	
Brook Trout >=200mm	Jun 13, 2017	4	4-4	BK2
	May 31, 2018	2	2-2	BK2
Brown Trout <200mm	Jun 15, 2016	5	5-6	
	Jun 13, 2017	3	3-4	
Brown Trout >=200mm	May 31, 2018	1	1-5	BR3
Creek Chub	Jun 15, 2016	123	120-128	

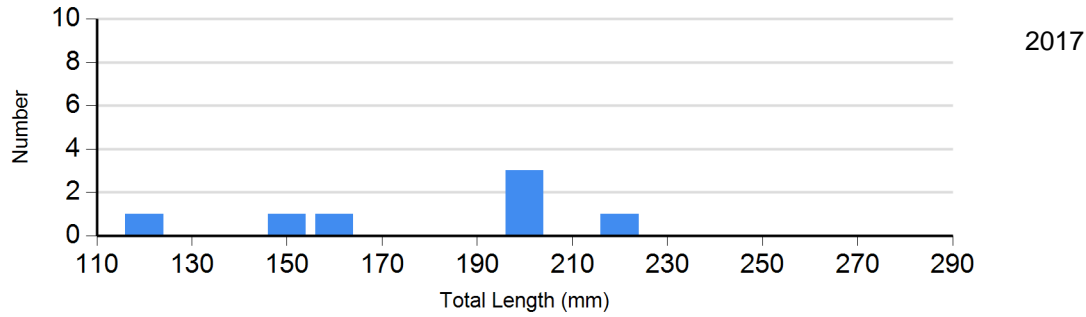
Creek Chub	Jun 13, 2017	51	49-56
	May 31, 2018	36	35-39
Longnose Dace	Jun 15, 2016	240	226-254
White Sucker	Jun 15, 2016	7	7-9
	Jun 13, 2017	11	11-11
	May 31, 2018	8	4-42

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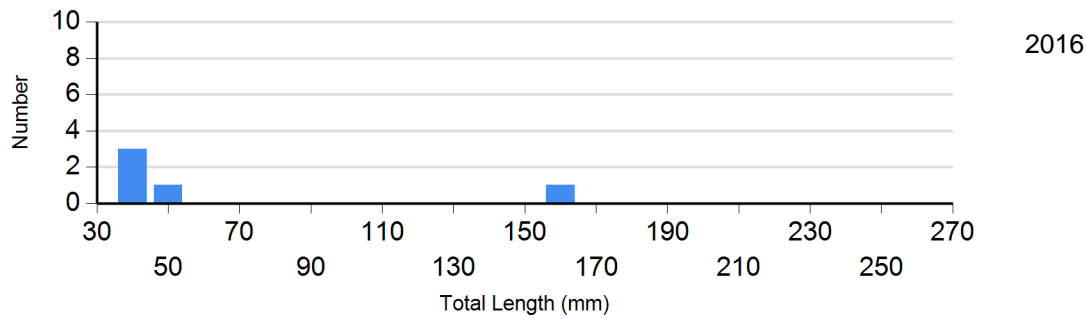
## Length Frequency Distribution

Length frequency histogram of species sampled by year.

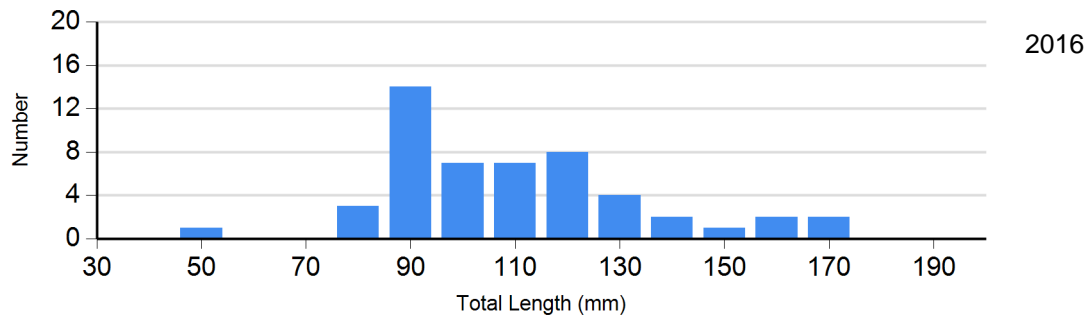
**Site:** 135  
**Species:** Brook Trout

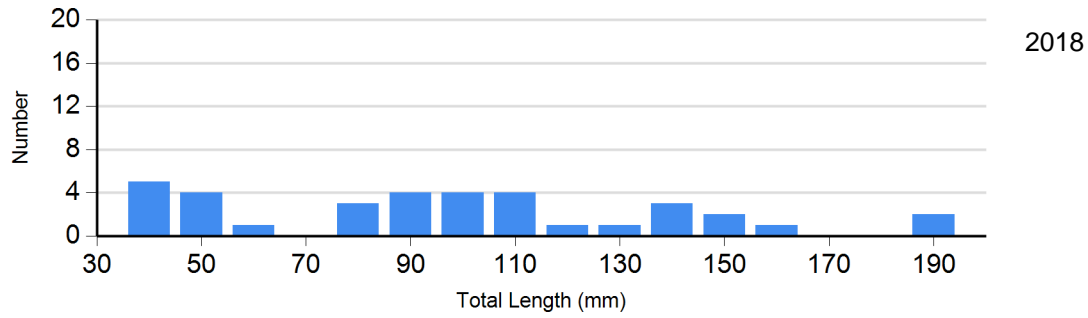
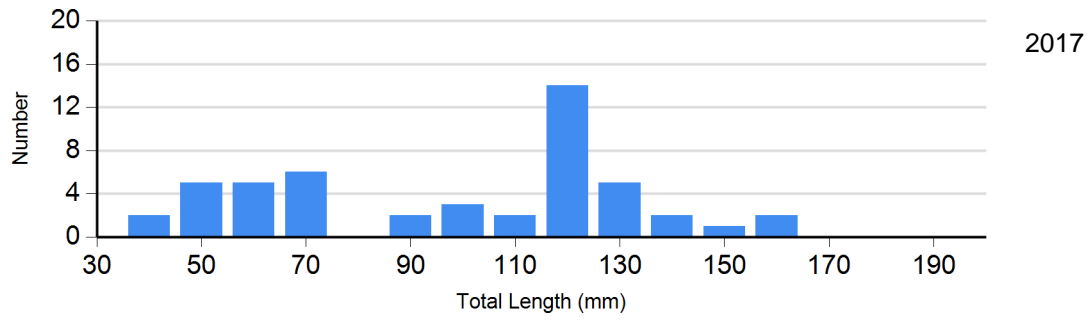


**Site:** 135  
**Species:** Brown Trout

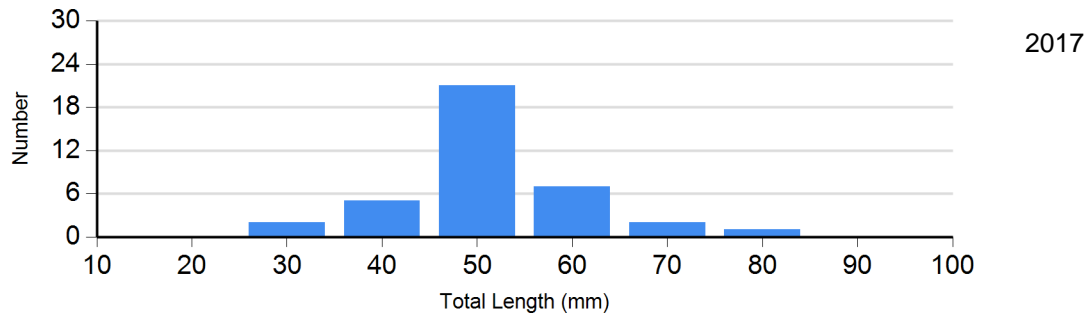
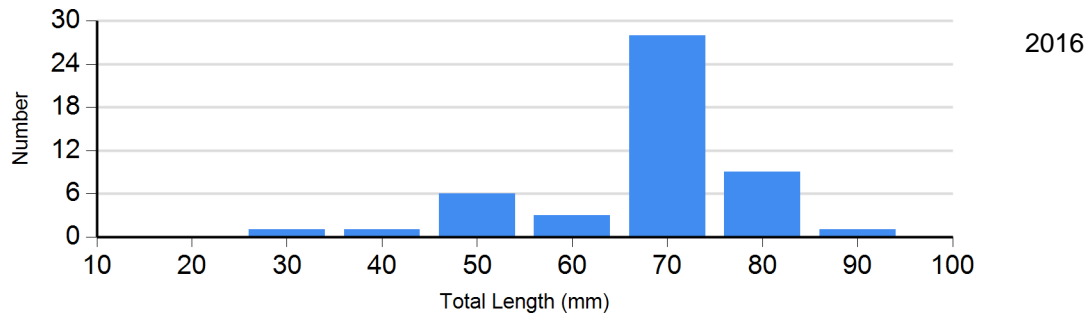


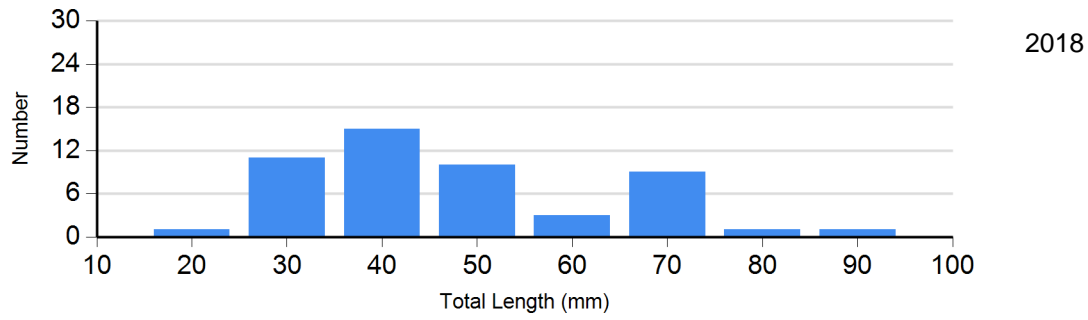
**Site:** 135  
**Species:** Creek Chub





**Site:** 135  
**Species:** Longnose Dace





**Site:** 135  
**Species:** White Sucker

