

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Horse Creek, Pennington County**  
**02-9219-00**  
**2015**

Table 1. Population and Biomass Estimates for Horse Creek

<b>Site Number:</b> 29	<b>Date Sampled:</b> 08/24/2015	<b>Conductivity (umhos/cm):</b> 288
<b>Site Midpoint (Latitude, Longitude):</b> 43.98308260, -103.48559370	<b>Site Length (m):</b> 100	<b>pH:</b> 8.2
<b>Survey Completed by:</b>	<b>Mean Width (m):</b> 2.4	<b>Water Temperature (C):</b> 13.0
<b>Stream Classification:</b> RB1	<b>Number of Pass:</b> 3	<b>Voltage:</b> 275

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)
Creek Chub	All	1	1	1	1	41	3	10	17	2.71	16	190.0	74.0
Longnose Dace	All	27	33	46	27	1354	14	330	549	12.80	531	92.1	10.6
Rainbow Trout	>=200mm	6	6	6	6	246	180	60	100	161.14	97	413.5	732.8
Rainbow Trout	All	6	6	6	6	246	180	60	100	161.14	97	413.5	732.8
Rock Bass	All	11	11	11	11	451	21	110	183	18.32	177	126.3	45.5

<b>Site Number:</b> 86	<b>Date Sampled:</b> 06/17/2015	<b>Conductivity (umhos/cm):</b> 208
<b>Site Midpoint (Latitude, Longitude):</b> 44.00196617, -103.52188575	<b>Site Length (m):</b> 100	<b>pH:</b> 8.6
<b>Survey Completed by:</b> South Dakota Game, Fish and Parks	<b>Mean Width (m):</b> 2.7	<b>Water Temperature (C):</b> 18.0
<b>Stream Classification:</b> None	<b>Number of Pass:</b> 3	<b>Voltage:</b> 350

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)
Longnose Dace	All	8	32	285	8	1173	9	320	475	7.60	515	89.1	7.3
Mountain Sucker	All	3	3	4	3	110	4	30	45	3.99	48	155.0	40.7

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 Horse Creek, 2005-2015

**Site 29**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	Aug 24, 2015	1	1-1	
Longnose Dace	May 13, 2009	22	22-22	
	Aug 24, 2015	33	27-46	
Rainbow Trout >=200mm	Aug 24, 2015	6	6-6	RB1
Rock Bass	Aug 24, 2015	11	11-11	

**Site 86**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Longnose Dace	May 13, 2009	4	4-4	

Longnose Dace	Jun 17, 2015	32	8-285
Mountain Sucker	Jun 17, 2015	3	3-4

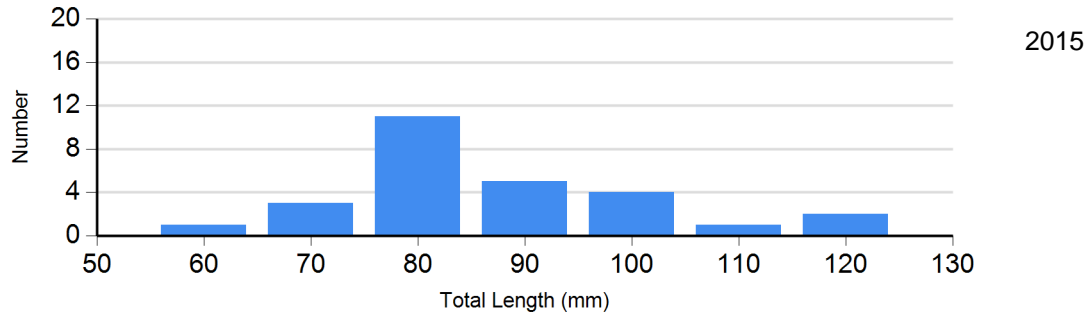
---

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

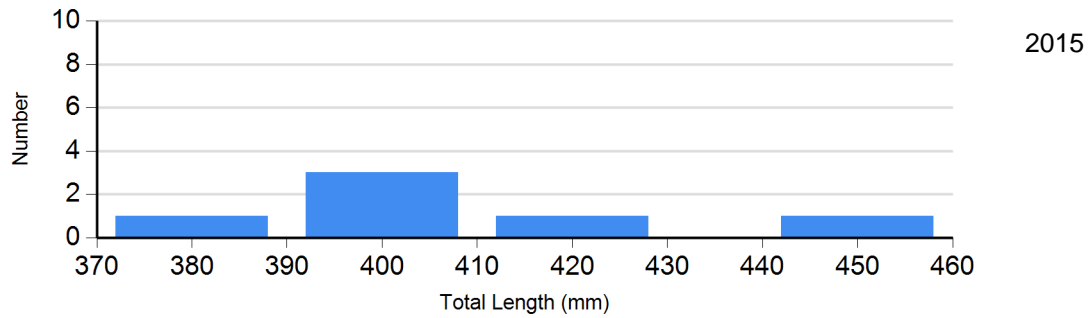
**Site:** 29

**Species:** Longnose Dace



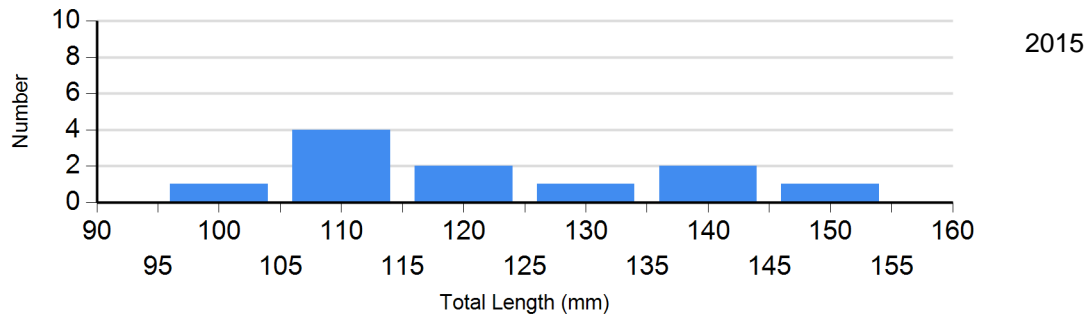
**Site:** 29

**Species:** Rainbow Trout



**Site:** 29

**Species:** Rock Bass



Site: 86  
Species: Longnose Dace

