

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Spring Creek (Trib. of Cheyenne), Pennington County**  
**02-0061-00**  
**2014**

Table 1. Population and Biomass Estimates for Spring Creek (Trib. of Cheyenne)

**Site Number:** 1840  
**Site Midpoint (Latitude, Longitude):** 43.99009910, -103.40772820  
**Survey Completed by:**  
**Stream Classification:** None

**Date Sampled:** 08/08/2014  
**Site Length (m):** 100  
**Mean Width (m):** 9.9  
**Number of Pass:** 1  
**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**Voltage:** 300

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)
Black Crappie	All	1	1	1	1	10	1	10	4	0.51	16	162.0	57.0
Creek Chub	All	75	75	75	75	756	22	750	306	19.41	1207	124.6	28.7
Largemouth Bass	All	1	1	1	1	10	1	10	4	0.78	16	190.0	87.0
Longnose Dace	All	1	1	1	1	10	0	10	4	0.17	16	121.0	19.0
Rock Bass	All	27	27	27	27	272	11	270	110	9.70	434	126.0	39.9
White Sucker	All	23	23	23	23	232	35	230	94	30.94	370	221.5	149.4

**Site Number:** 1864  
**Site Midpoint (Latitude, Longitude):** 43.98424529, -103.42856922  
**Survey Completed by:** South Dakota Game, Fish and Parks  
**Stream Classification:** RB2

**Date Sampled:** 08/04/2014  
**Site Length (m):** 100  
**Mean Width (m):** 10.2  
**Number of Pass:** 3  
**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**Voltage:** 300

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	335	500	605	395	4889	101	5000	1980	89.99	8045	106.0	20.6
Rainbow Trout >=200mm		2	2	2	2	20	5	20	8	4.31	32	300.0	247.0

Rainbow Trout	All	2	2	2	2	20	5	20	8	4.31	32	300.0	247.0
Rock Bass	All	18	18	20	18	176	9	180	71	7.65	290	133.8	48.7
White Sucker	All	51	53	57	51	518	33	530	210	29.17	853	175.4	63.0

Site Number: 2439

Site Midpoint (Latitude, Longitude): 43.90537261, -103.74603404

Survey Completed by:

Stream Classification: BK2

Date Sampled: 06/23/2014

Site Length (m): 100

Mean Width (m): 1.6

Number of Pass: 3

Conductivity (umhos/cm):

pH:

Water Temperature (C):

Voltage: 300

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	25	25	25	25	1590	54	250	644	47.86	402	122.4	33.7
Brook Trout	>=200mm	1	1	1	1	64	8	10	26	7.10	16	236.0	125.0
Brook Trout	All	26	26	26	26	1653	64	260	670	56.87	418	126.8	38.5

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 Spring Creek (Trib. of Cheyenne), 2004-2014

**Site 1840**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Black Crappie	Aug 08, 2014	1	1-1	
Creek Chub	Aug 08, 2014	75	75-75	
Largemouth Bass	Aug 08, 2014	1	1-1	
Longnose Dace	Aug 08, 2014	1	1-1	
Rock Bass	Aug 08, 2014	27	27-27	
White Sucker	Aug 08, 2014	23	23-23	

**Site 1864**

<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Creek Chub	Aug 04, 2014	500	395-605	
Rainbow Trout <200mm	Aug 15, 2011	4	4-5	
Rainbow Trout >=200mm	Aug 04, 2014	2	2-2	RB2
Rock Bass	Aug 04, 2014	18	18-20	
White Sucker	Aug 13, 2009	8	8-8	
	Aug 15, 2011	14	14-14	
	Aug 04, 2014	53	51-57	

**Site 2439**

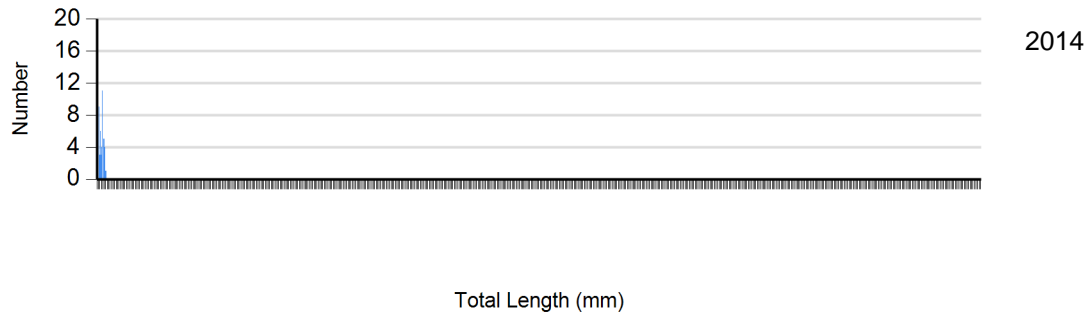
<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Brook Trout <200mm	Jul 31, 2006	9	9-9	
	Jul 27, 2009	7	7-7	
	Jun 23, 2014	25	25-25	
Brook Trout >=200mm	Jun 23, 2014	1	1-1	BK2

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

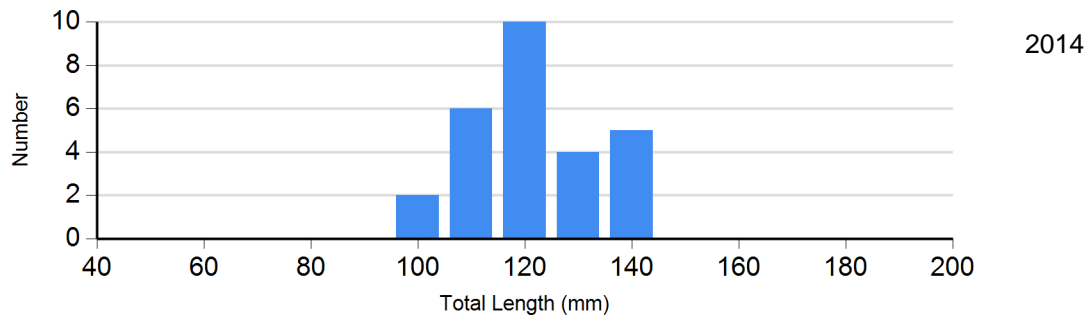
**Site:** 1840

**Species:** Creek Chub



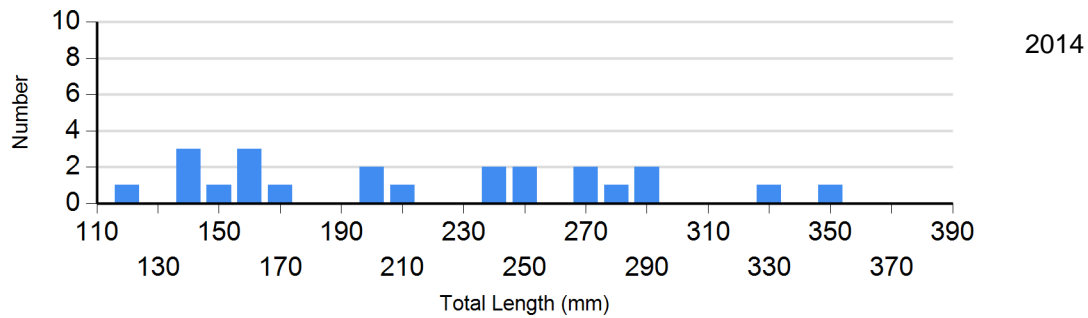
**Site:** 1840

**Species:** Rock Bass

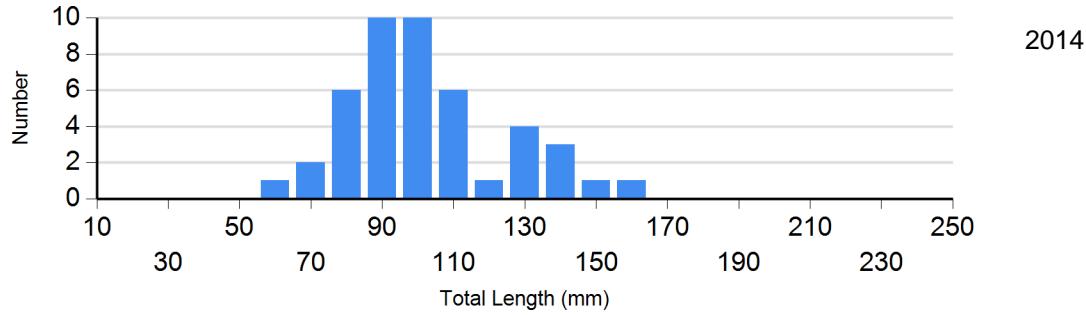
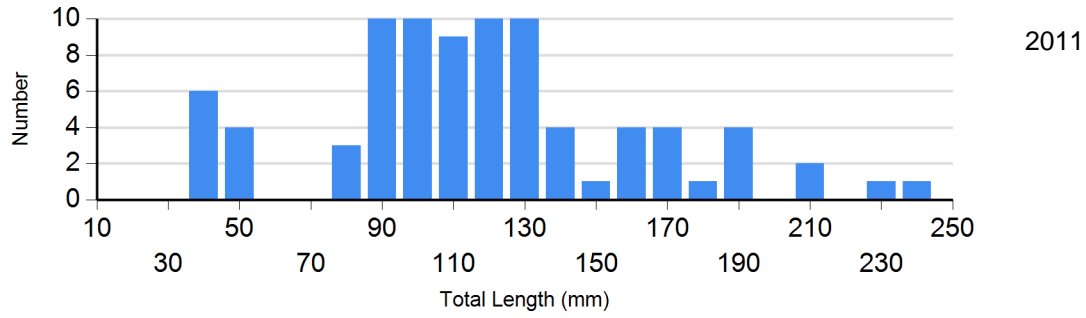


**Site:** 1840

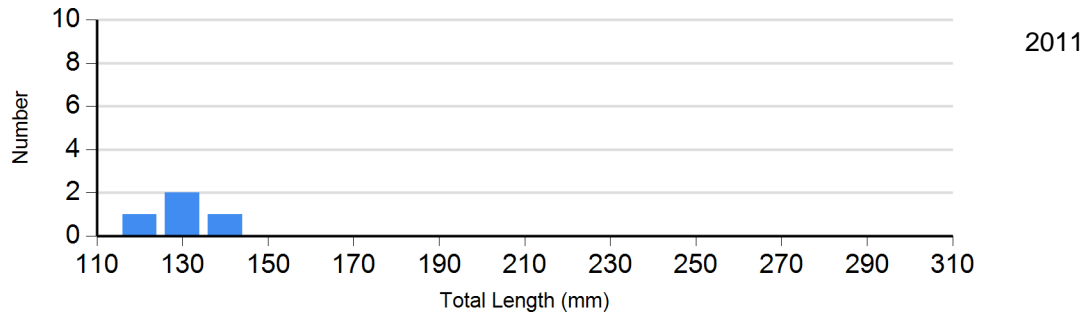
**Species:** White Sucker



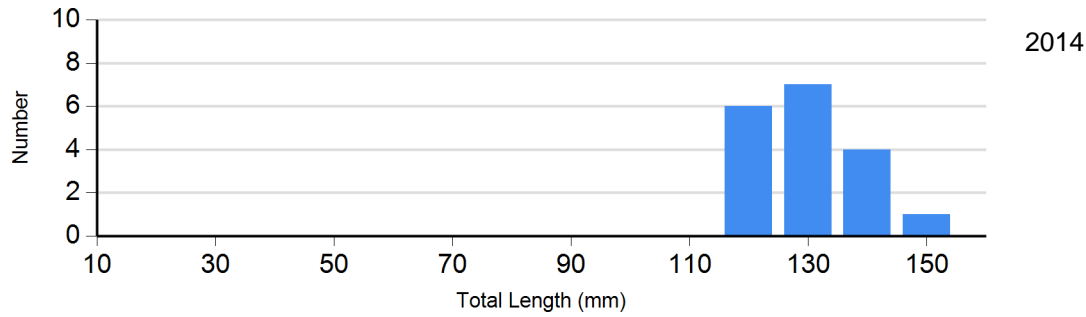
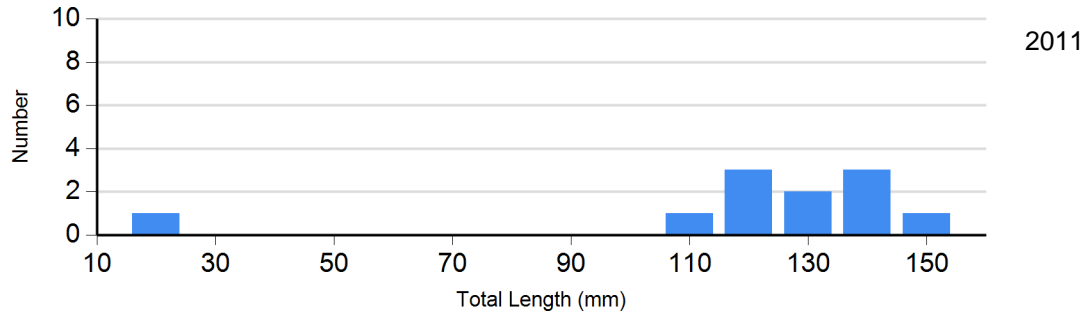
**Site:** 1864  
**Species:** Creek Chub



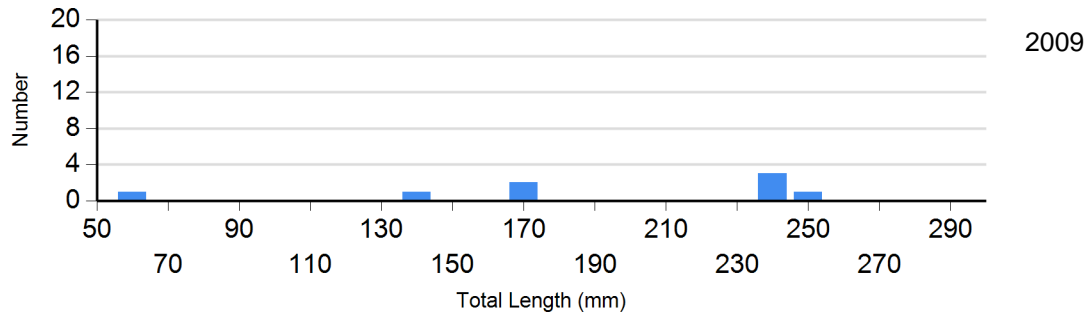
**Site:** 1864  
**Species:** Rainbow Trout

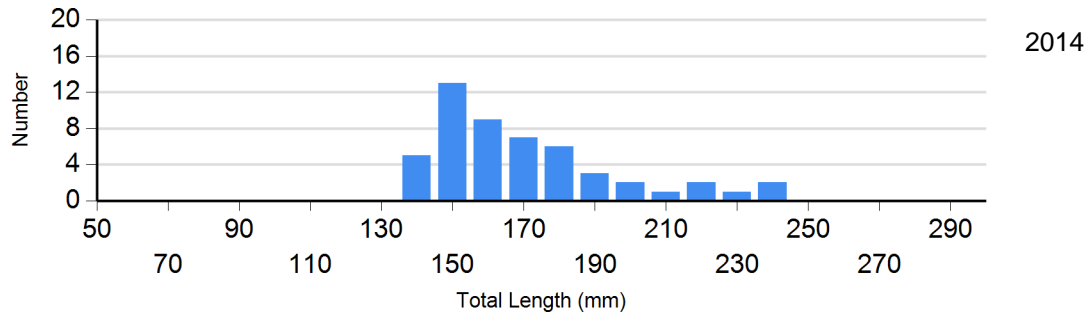
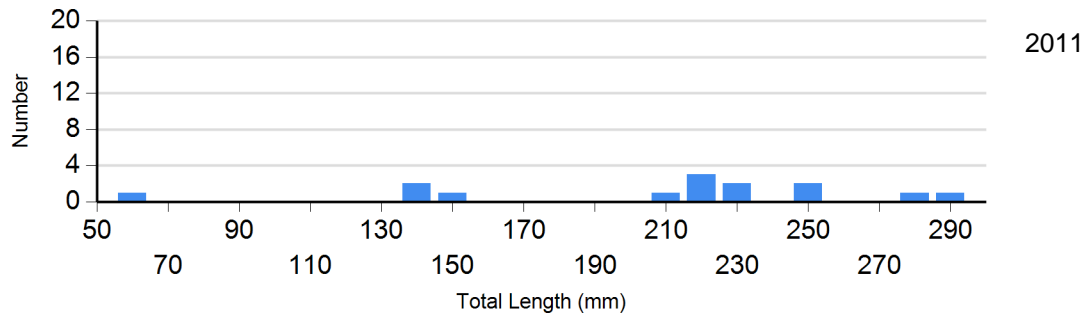


**Site:** 1864  
**Species:** Rock Bass



**Site:** 1864  
**Species:** White Sucker





**Site:** 2439  
**Species:** Brook Trout

