

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**False Bottom Creek, Lawrence County**  
**09-0040-00**  
**2016**

Table 1. Population and Biomass Estimates for False Bottom Creek

<b>Site Number:</b> 544	<b>Date Sampled:</b> 06/30/2016	<b>Conductivity (umhos/cm):</b> 225
<b>Site Midpoint (Latitude, Longitude):</b> 44.39822078, -103.80297429	<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> 18.3
<b>Stream Classification:</b> BK2, BR2	<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	65	67	71	65	2064	69	670	836	61.78	1078	128.2	33.5
Brook Trout	>=200mm	6	6	7	6	185	18	60	75	15.93	97	210.5	96.5
Brook Trout	All	71	73	77	71	2249	90	730	911	79.97	1175	135.2	39.8
Brown Trout	<200mm	121	126	133	121	3882	120	1260	1572	107.46	2027	128.7	31.0
Brown Trout	>=200mm	7	7	7	7	216	27	70	87	23.91	113	225.6	124.1
Brown Trout	All	128	133	140	128	4098	149	1330	1660	133.48	2140	134.0	36.5

<b>Site Number:</b> 577	<b>Date Sampled:</b> 06/30/2016	<b>Conductivity (umhos/cm):</b> 216
<b>Site Midpoint (Latitude, Longitude):</b> 44.38067497, -103.81715809	<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> 2.0	<b>Water Temperature (C):</b> 18.9
<b>Stream Classification:</b> BK3, 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	54	54	55	54	2725	85	540	1104	75.93	869	132.8	31.2
Brook Trout	>=200mm	1	1	1	1	50	6	10	20	5.50	16	224.0	122.0
Brook Trout	All	55	55	56	55	2775	92	550	1124	81.92	885	134.4	33.1

Brown Trout	<200mm	49	50	53	49	2523	68	500	1022	60.53	805	118.8	26.9
Brown Trout	>=200mm	1	1	1	1	50	5	10	20	4.73	16	220.0	105.0
Brown Trout	All	50	51	54	50	2573	74	510	1042	66.23	821	120.9	28.8

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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 False Bottom Creek, 2006-2016

**Site 544**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 21, 2015	81	77-87	
	Jul 21, 2015	81	77-87	
	Jun 30, 2016	67	65-71	
Brook Trout >=200mm	Jul 21, 2015	9	9-10	BK2
	Jul 21, 2015	9	9-10	BK2
	Jun 30, 2016	6	6-7	BK2
Brown Trout <200mm	Jul 21, 2015	117	107-128	

Brown Trout <200mm	Jul 21, 2015	117	107-128	
	Jun 30, 2016	126	121-133	
Brown Trout >=200mm	Jul 21, 2015	14	14-16	BR1
	Jul 21, 2015	14	14-16	BR1
	Jun 30, 2016	7	7-7	BR2

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**Site 577**

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<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Brook Trout <200mm	Aug 28, 2008	42	42-44	
	Jun 17, 2014	76	75-79	
	Jun 30, 2016	54	54-55	
Brook Trout >=200mm	Jun 30, 2016	1	1-1	BK3
Brown Trout <200mm	Jun 17, 2014	3	3-3	
	Jun 30, 2016	50	49-53	
Brown Trout >=200mm	Jun 17, 2014	1	1-1	BR3
	Jun 30, 2016	1	1-1	BR3

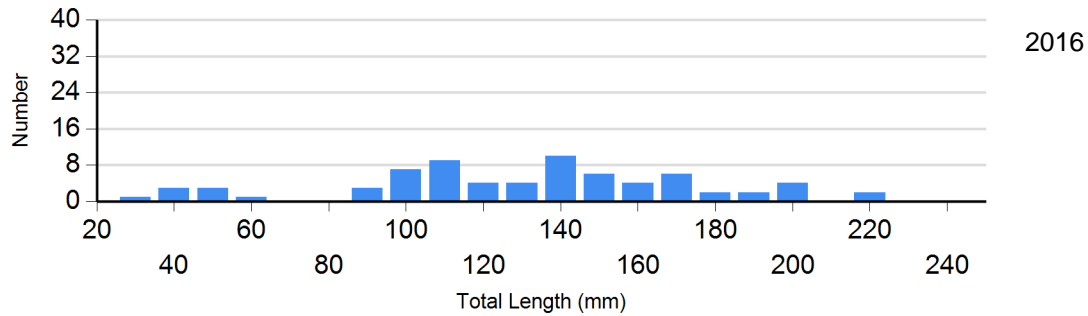
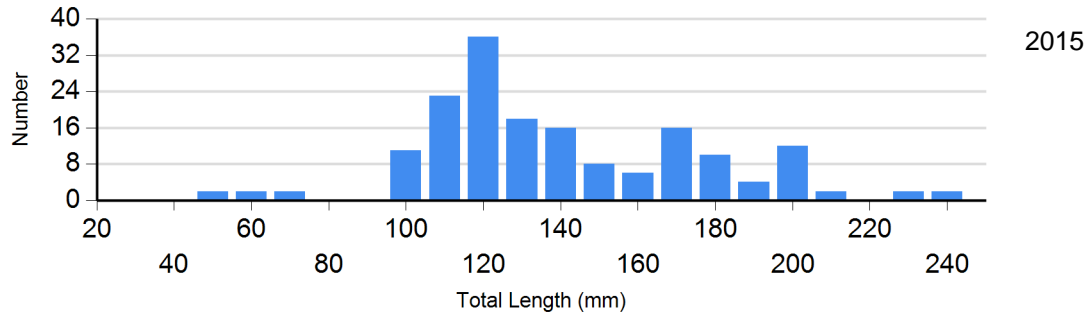
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## Length Frequency Distribution

Length frequency histogram of species sampled by year.

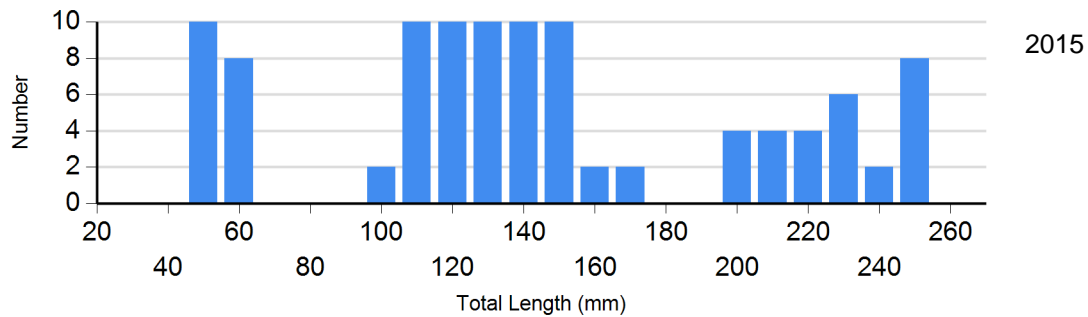
**Site:** 544

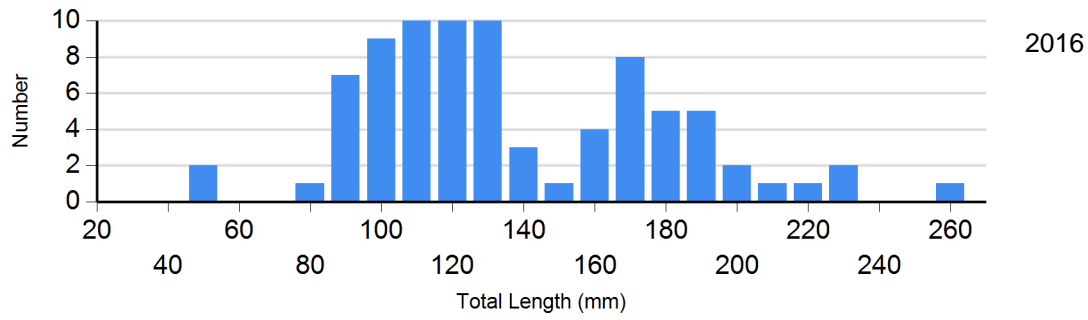
**Species:** Brook Trout



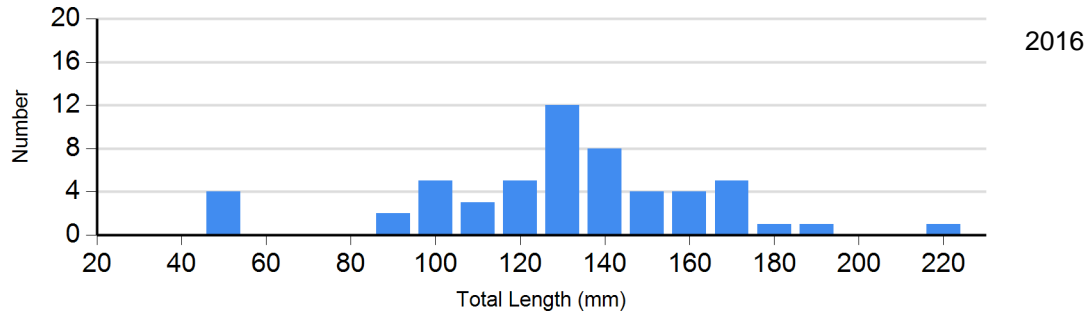
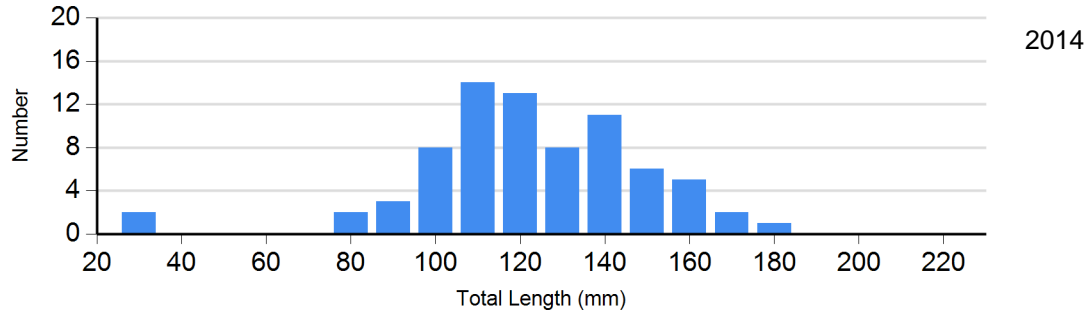
**Site:** 544

**Species:** Brown Trout





Site: 577  
Species: Brook Trout



Site: 577  
Species: Brown Trout

