

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Beaver Creek (Penn. Co.), Pennington County**  
**10120107000855**  
**2014**

Table 1. Population and Biomass Estimates for Beaver Creek (Penn. Co.)

<b>Site Number:</b> 35	<b>Date Sampled:</b> 07/08/2014	<b>Conductivity (umhos/cm):</b> 391
<b>Site Midpoint (Latitude, Longitude):</b> 44.07634200, -104.05080433	<b>Site Length (m):</b> 100	<b>pH:</b> 8.4
<b>Survey Completed by:</b> South Dakota Game, Fish and Parks	<b>Mean Width (m):</b> 3.2	<b>Water Temperature (C):</b> 8.0
<b>Stream Classification:</b> BK2	<b>Number of Pass:</b> 3	<b>Voltage:</b> 285

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	449	517	552	482	16110	337	5170	6525	301.05	8319	109.2	20.9
Brook Trout	>=200mm	5	5	7	5	156	15	50	63	13.10	80	206.4	94.2
Brook Trout	All	454	523	558	488	16297	357	5230	6600	318.46	8415	110.3	21.9

<b>Site Number:</b> 69	<b>Date Sampled:</b> 06/26/2014	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.06725657, -104.02501870	<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> 2.8	<b>Water Temperature (C):</b>
<b>Stream Classification:</b> BK1	<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	56	61	69	56	2215	81	610	897	72.76	981	143.0	36.8
Brook Trout	>=200mm	11	11	12	11	399	40	110	162	36.08	177	214.5	101.2
Brook Trout	All	67	72	80	67	2614	124	720	1059	110.93	1158	154.8	47.5

<b>Site Number:</b> 69	<b>Date Sampled:</b> 07/07/2014	<b>Conductivity (umhos/cm):</b> 406
<b>Site Midpoint (Latitude, Longitude):</b> 44.06725657, -104.02501870	<b>Site Length (m):</b> 100	<b>pH:</b> 7.6

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 2.3

Water Temperature (C): 8.0

Stream Classification: BK2

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	43	44	47	43	1891	72	440	766	63.95	708	146.6	37.9
Brook Trout	>=200mm	8	8	10	8	344	35	80	139	31.31	129	211.5	102.0
Brook Trout	All	51	52	56	51	2234	107	520	905	95.64	837	156.8	47.9

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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 Beaver Creek (Penn. Co.), 2004-2014

**Site 35**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 08, 2014	517	482-552	
Brook Trout >=200mm	Jul 08, 2014	5	5-7	BK2

**Site 69**

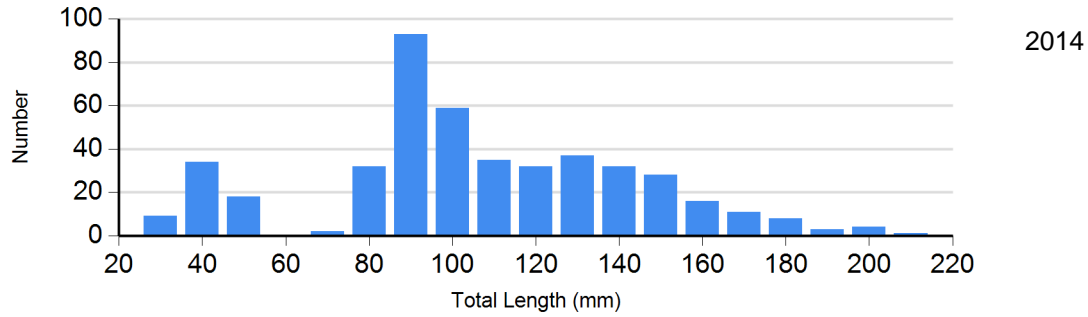
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 26, 2014	61	56-69	
	Jul 07, 2014	44	43-47	
Brook Trout >=200mm	Jun 26, 2014	11	11-12	BK1
	Jul 07, 2014	8	8-10	BK2

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

**Site:** 35

**Species:** Brook Trout



**Site:** 69

**Species:** Brook Trout

