

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Estes Creek, Lawrence County**  
**09-0068-00**  
**2016**

Table 1. Population and Biomass Estimates for Estes Creek

<b>Site Number:</b> 56	<b>Date Sampled:</b> 07/07/2016	<b>Conductivity (umhos/cm):</b> 215
<b>Site Midpoint (Latitude, Longitude):</b> 44.16913772, -103.53501782	<b>Site Length (m):</b> 100	<b>pH:</b> 7.4
<b>Survey Completed by:</b> South Dakota Game, Fish and Parks	<b>Mean Width (m):</b> 2.3	<b>Water Temperature (C):</b> 16.9
<b>Stream Classification:</b> BK3	<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	307	316	324	308	13849	306	3160	5609	272.86	5084	58.7	22.1
Brook Trout	>=200mm	1	1	1	1	44	4	10	18	3.33	16	214.0	85.0
Brook Trout	All	308	317	325	309	13892	361	3170	5626	322.51	5101	59.2	26.0

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 Estes Creek, 2006-2016

**Site 56**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 10, 2014	135	120-150	
	Jul 07, 2016	316	308-324	
Brook Trout >=200mm	Jun 10, 2014	1	1-1	BK3
	Jul 07, 2016	1	1-1	BK3

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

**Site:** 56

**Species:** Brook Trout

