

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Whitetail Creek, Lawrence County**  
**09-0059-00**  
**1993**

Table 1. Population and Biomass Estimates for Whitetail Creek

<b>Site Number:</b> 2	<b>Date Sampled:</b> 07/15/1993	<b>Conductivity (umhos/cm):</b> 285
<b>Site Midpoint (Latitude, Longitude):</b> 44.34320234, -103.75974705	<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> 3.5	<b>Water Temperature (C):</b> 13.0
<b>Stream Classification:</b> BK2, BR0	<b>Number of Pass:</b> 3	<b>Voltage:</b> 250

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	73	75	80	73	2143	45	750	868	40.47	1207	128.1	21.2
Brook Trout	>=200mm	5	5	5	5	143	18	50	58	15.97	80	226.2	125.2
Brook Trout	All	78	80	84	78	2286	64	800	926	56.78	1287	134.4	27.8
Brown Trout	<200mm	10	10	12	10	286	13	100	116	11.84	161	163.8	46.4
Brown Trout	All	10	10	12	10	286	13	100	116	11.84	161	163.8	46.4
Unidentified YOY Trout	<200mm	19	19	20	19	543	1	190	220	0.65	306	56.7	1.3
Unidentified YOY Trout	All	19	19	20	19	543	1	190	220	0.65	306	56.7	1.3

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 Whitetail Creek, 1983-1993

**Site 2**

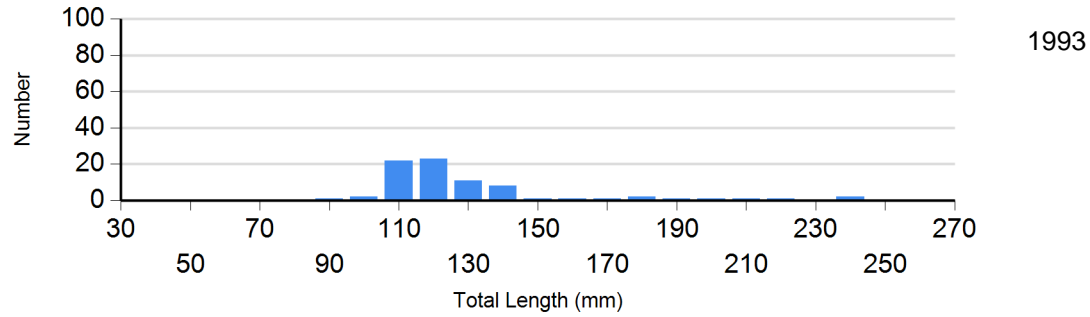
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 15, 1993	75	73-80	
Brook Trout >=200mm	Jul 15, 1993	5	5-5	BK2
Brown Trout <200mm	Jul 15, 1993	10	10-12	

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

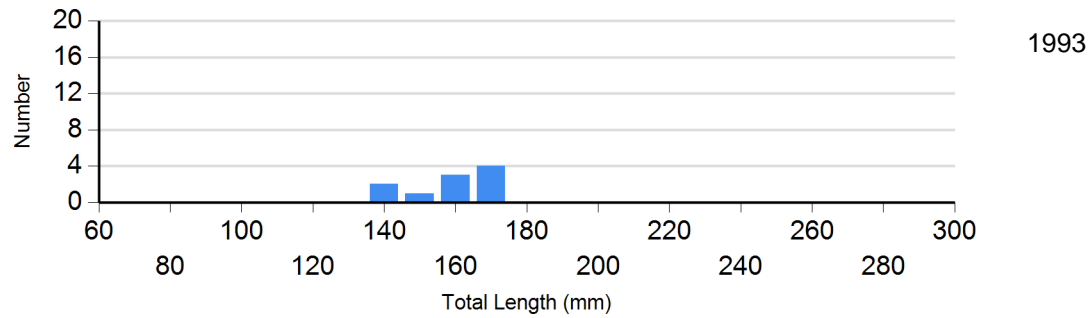
**Site: 2**

**Species: Brook Trout**



**Site: 2**

**Species: Brown Trout**



**Site: 2**

**Species: Unidentified YOY Trout**

