

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Deadwood Creek, Lawrence County**  
**09-0060-00**  
**2011**

Table 1. Population and Biomass Estimates for Deadwood Creek

**Site Number:** 11  
**Site Midpoint (Latitude, Longitude):** 44.36995592, -103.74076877  
**Survey Completed by:** Unknown Consultant Firm for mining  
**Stream Classification:** BR3

**Date Sampled:** 08/30/2011  
**Site Length (m):** 100  
**Mean Width (m):** 4.0  
**Number of Pass:** 3  
**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**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)
Brown Trout	>=200mm	1	1	1	1	25	5	10	10	4.08	16	231.0	182.0
Brown Trout	All	1	1	1	1	25	5	10	10	4.08	16	231.0	182.0
Fathead Minnow	All	1	1	1	1	25	0	10	10	0.07	16	57.0	3.0

**Site Number:** 49  
**Site Midpoint (Latitude, Longitude):** 44.36269958, -103.78234679  
**Survey Completed by:**  
**Stream Classification:** BK3, BR3

**Date Sampled:** 08/30/2011  
**Site Length (m):** 100  
**Mean Width (m):** 1.8  
**Number of Pass:** 3  
**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**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	41	45	53	41	2483	25	450	1006	22.06	724	82.9	10.0
Brook Trout	>=200mm	1	1	1	1	55	5	10	22	4.34	16	200.0	88.0
Brook Trout	All	42	46	53	42	2538	30	460	1028	26.86	740	85.7	11.9
Brown Trout	>=200mm	1	1	1	1	55	9	10	22	8.37	16	250.0	170.0
Brown Trout	All	1	1	1	1	55	9	10	22	8.37	16	250.0	170.0

**Site Number:** 72  
**Site Midpoint (Latitude, Longitude):** 44.35884420, -103.80543515  
**Survey Completed by:** GEI  
**Stream Classification:** BK0

**Date Sampled:** 08/25/2011  
**Site Length (m):** 110  
**Mean Width (m):** 1.6  
**Number of Pass:** 3

**Conductivity (umhos/cm):**  
**pH:**  
**Water Temperature (C):**  
**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	135	138	143	135	8877	112	1255	3595	99.99	2019	98.2	12.6
Brook Trout	All	135	138	143	135	8877	112	1255	3595	99.99	2019	98.2	12.6

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 Deadwood Creek, 2001-2011

**Site 11**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 01, 2009	68	68-69	
Brook Trout >=200mm	Sep 01, 2009	2	2-2	BK3
Brown Trout <200mm	Sep 01, 2009	46	45-49	
Brown Trout >=200mm	Sep 01, 2009	12	12-12	BR3
	Aug 30, 2011	1	1-1	BR3
Fathead Minnow	Aug 30, 2011	1	1-1	

**Site 49**

<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Brook Trout <200mm	Oct 17, 2001	216	211-222	
	Aug 25, 2004	89	86-94	
	Aug 29, 2005	68	66-72	
	Aug 29, 2006	43	42-46	
	Sep 02, 2009	191	184-199	
	Aug 31, 2010	4	4-4	
	Aug 30, 2011	45	41-53	
Brook Trout >=200mm	Aug 25, 2004	4	4-4	BK2
	Aug 29, 2005	3	3-3	BK3
	Aug 29, 2006	5	5-5	BK3
	Sep 02, 2009	8	8-8	BK3
	Aug 30, 2011	1	1-1	BK3
Brown Trout <200mm	Sep 02, 2009	148	137-159	
	Aug 31, 2010	1	1-1	
Brown Trout >=200mm	Aug 30, 2011	1	1-1	BR3

---

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 31, 2001	82	82-83	
	Aug 28, 2003	31	31-32	
	Sep 03, 2004	30	30-32	
	Aug 25, 2005	15	15-15	
	Aug 25, 2011	138	135-143	

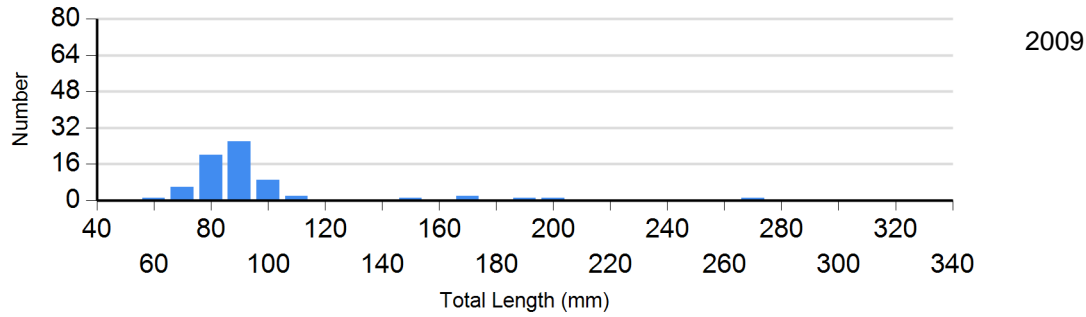
---

## Length Frequency Distribution

Length frequency histogram of species sampled by year.

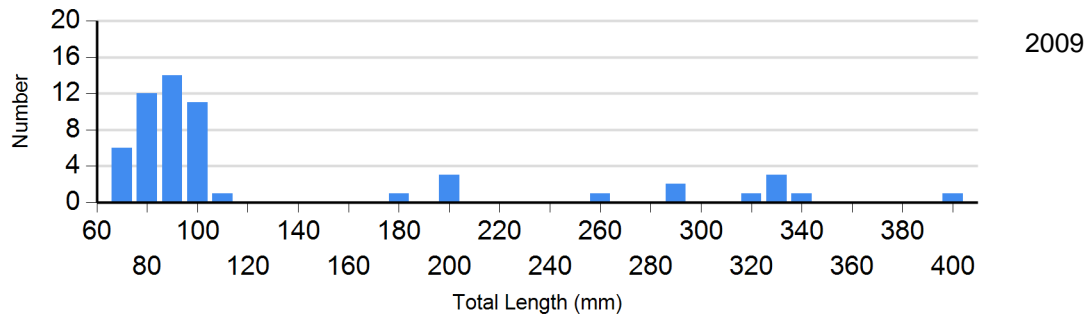
**Site: 11**

**Species: Brook Trout**



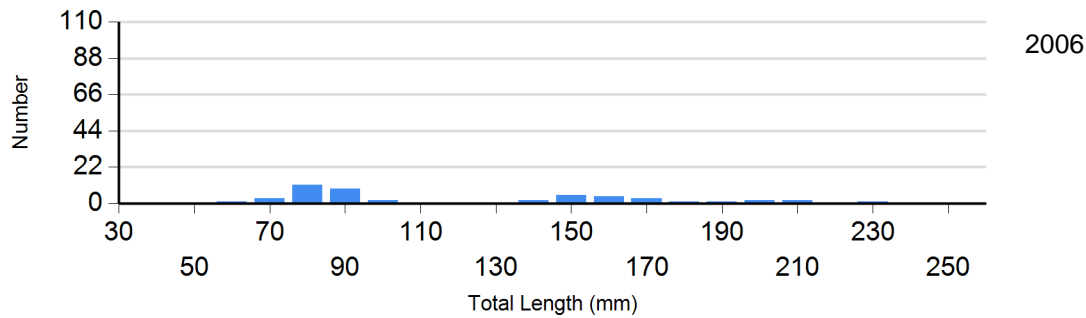
**Site: 11**

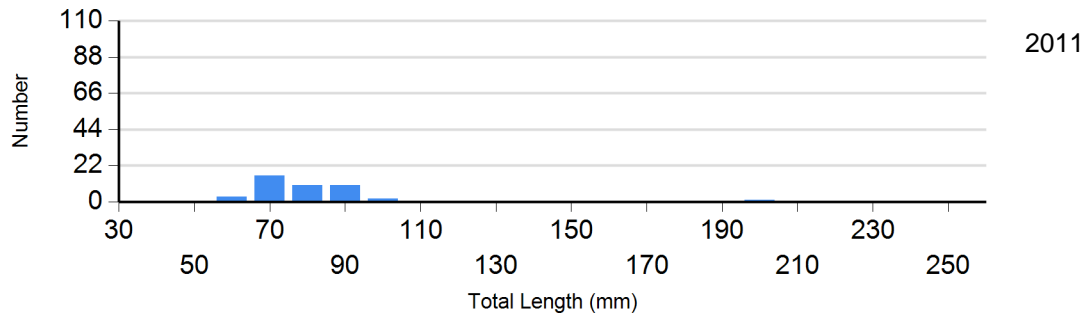
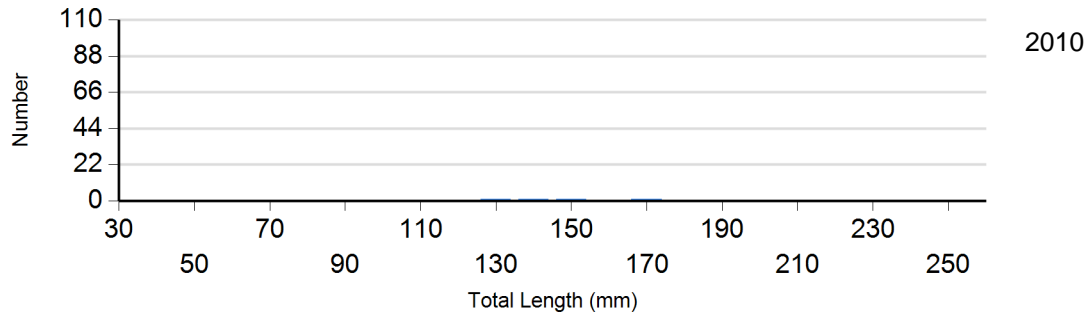
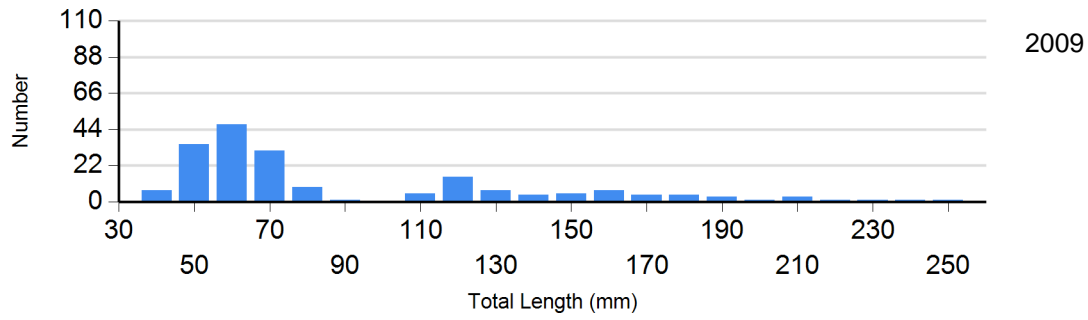
**Species: Brown Trout**



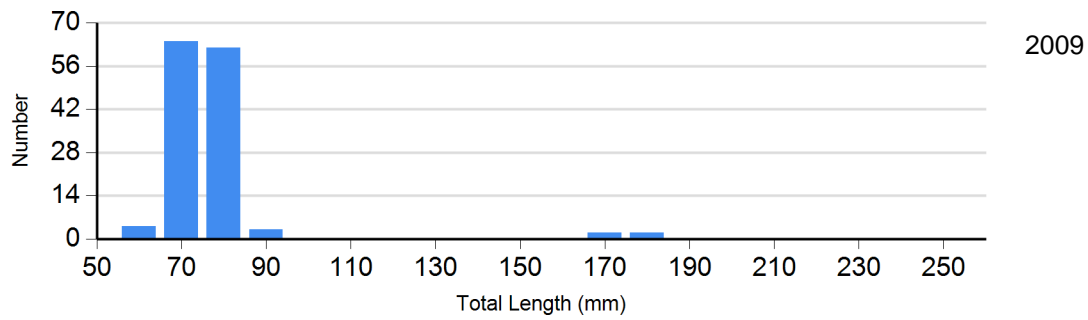
**Site: 49**

**Species: Brook Trout**





Site: 49  
Species: Brown Trout



Site: 72  
Species: Brook Trout

