

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Deadwood Creek, Lawrence County**  
**09-0060-00**  
**2012**

Table 1. Population and Biomass Estimates for Deadwood Creek

**Site Number:** 8  
**Site Midpoint (Latitude, Longitude):** 44.37166357, -103.73844669  
**Survey Completed by:** Unknown Consultant Firm for mining  
**Stream Classification:** BK3

**Date Sampled:** 08/28/2012  
**Site Length (m):** 96  
**Mean Width (m):** 0.0  
**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)
Brook Trout	<200mm	123	126	131	123	0	0	1313	0	0.00	2112	77.2	6.5
Brook Trout	>=200mm	1	1	1	1	0	0	10	0	0.00	17	203.0	84.0
Brook Trout	All	124	127	132	124	0	0	1323	0	0.00	2129	78.2	7.1

**Site Number:** 9  
**Site Midpoint (Latitude, Longitude):** 44.37126918, -103.73941917  
**Survey Completed by:** Unknown Consultant Firm for mining  
**Stream Classification:** BK3

**Date Sampled:** 08/28/2012  
**Site Length (m):** 103  
**Mean Width (m):** 0.0  
**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)
Brook Trout	<200mm	77	81	87	77	0	0	786	0	0.00	1265	94.7	7.8
Brook Trout	>=200mm	3	3	3	3	0	0	29	0	0.00	47	215.7	99.7
Brook Trout	All	81	84	89	81	0	0	816	0	0.00	1312	99.3	11.2

**Site Number:** 49  
**Site Midpoint (Latitude, Longitude):** 44.36269958, -103.78234679

**Date Sampled:** 08/29/2012  
**Site Length (m):** 98

**Conductivity (umhos/cm):**  
**pH:**

Survey Completed by: Unknown Consultant Firm for mining

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: BK0

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	124	129	136	124	0	0	1316	0	0.00	2118	80.8	7.5
Brook Trout	All	125	130	137	125	0	0	1327	0	0.00	2134	80.8	7.5

Site Number: 72

Date Sampled: 08/22/2012

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.35884420, -103.80543515

Site Length (m): 100

pH:

Survey Completed by: GEI

Mean Width (m): 1.5

Water Temperature (C):

Stream Classification: BK0

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	114	117	122	114	7896	50	1170	3198	44.44	1883	73.7	6.3
Brook Trout	All	114	117	122	114	7896	50	1170	3198	44.44	1883	73.7	6.3

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 Deadwood Creek, 2002-2012

**Site 8**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 25, 2004	60	59-63	
	Aug 30, 2005	159	151-168	
	Aug 29, 2006	114	107-123	
	Sep 09, 2008	41	41-42	
	Sep 01, 2009	109	103-117	
	Aug 31, 2010	1	1-1	
	Aug 28, 2012	126	123-131	

Brook Trout >=200mm	Aug 25, 2004	2	2-2	BK2
	Aug 30, 2005	5	5-5	BK3
	Aug 29, 2006	1	1-1	BK3
	Sep 09, 2008	5	5-5	BK3
	Sep 01, 2009	5	5-5	BK3
	Aug 28, 2012	1	1-1	BK3

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**Site 9**

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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 25, 2004	43	43-44	
	Aug 30, 2005	265	250-280	
	Aug 29, 2006	124	120-130	
	Sep 09, 2008	39	39-40	
	Sep 01, 2009	112	111-115	
	Aug 28, 2012	81	77-87	
Brook Trout >=200mm	Aug 25, 2004	1	1-1	BK3
	Aug 30, 2005	2	2-2	BK3

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Brook Trout >=200mm	Aug 29, 2006	1	1-1	BK3
	Sep 09, 2008	4	4-4	BK3
	Sep 01, 2009	2	2-2	BK3
	Aug 28, 2012	3	3-3	BK3

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**Site 49**

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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 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	
	Aug 29, 2012	129	124-136	
Brook Trout >=200mm	Aug 25, 2004	4	4-4	BK2
	Aug 29, 2005	3	3-3	BK3
	Aug 29, 2006	5	5-5	BK3

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Brook Trout >=200mm	Sep 02, 2009	8	8-8	BK3
	Aug 30, 2011	1	1-1	BK3

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**Site 72**

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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, 2003	31	31-32	
	Sep 03, 2004	30	30-32	
	Aug 25, 2005	15	15-15	
	Aug 25, 2011	138	135-143	
	Aug 22, 2012	117	114-122	

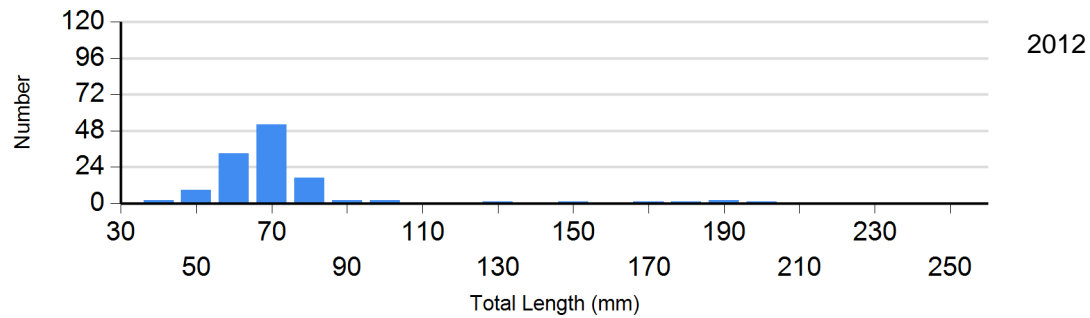
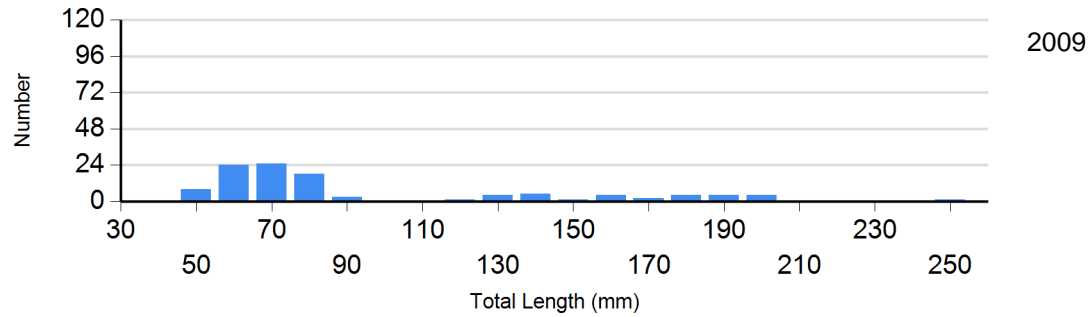
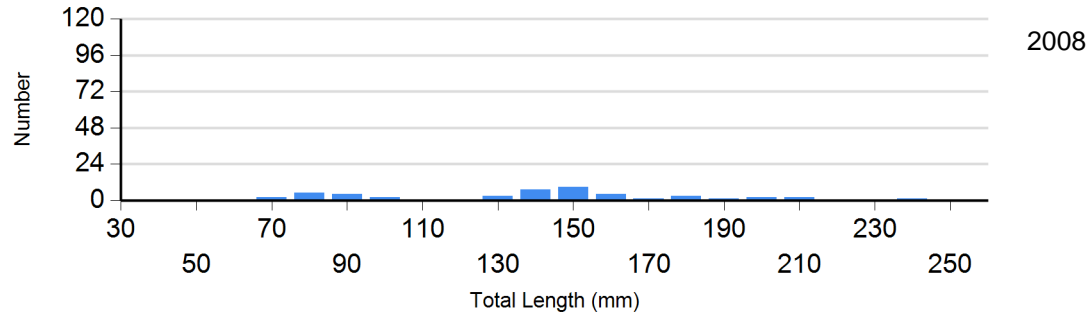
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## Length Frequency Distribution

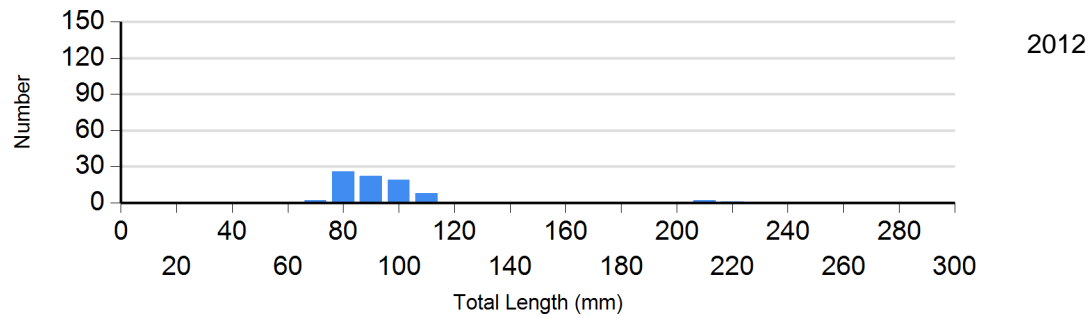
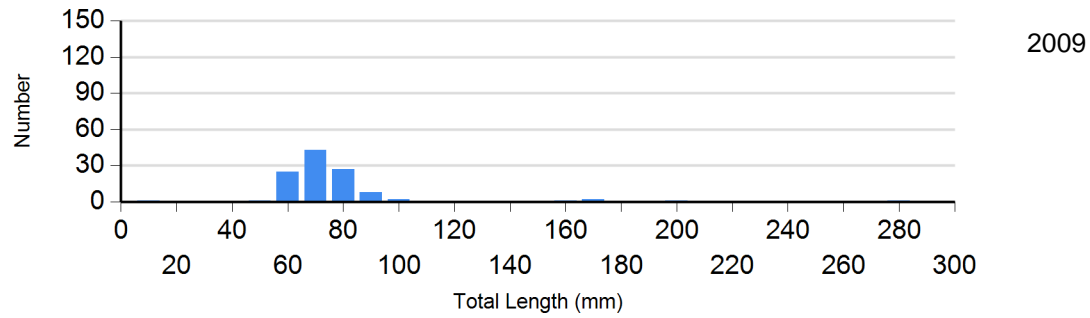
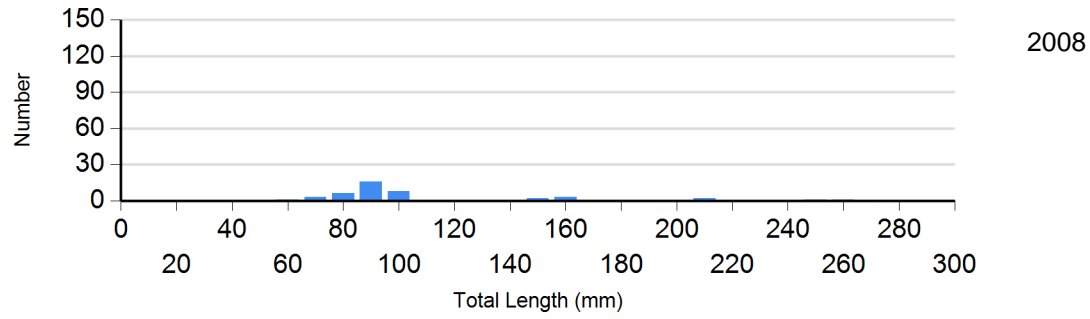
Length frequency histogram of species sampled by year.

**Site:** 8

**Species:** Brook Trout

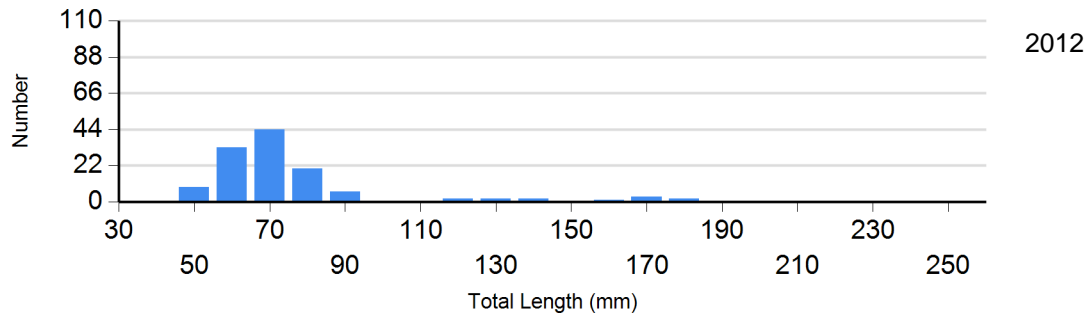
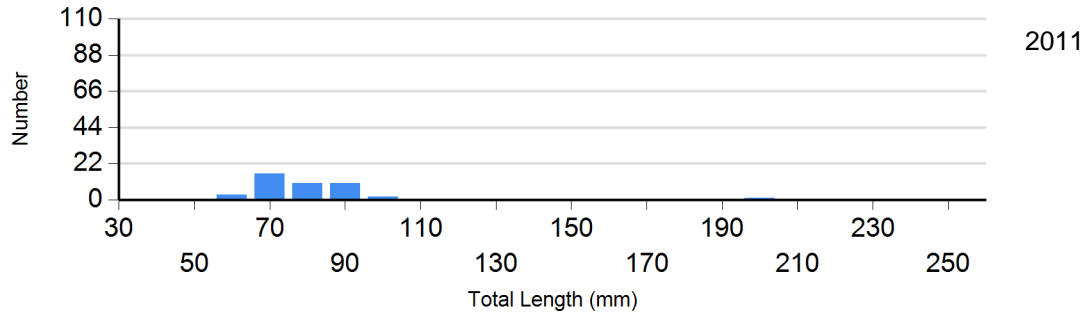
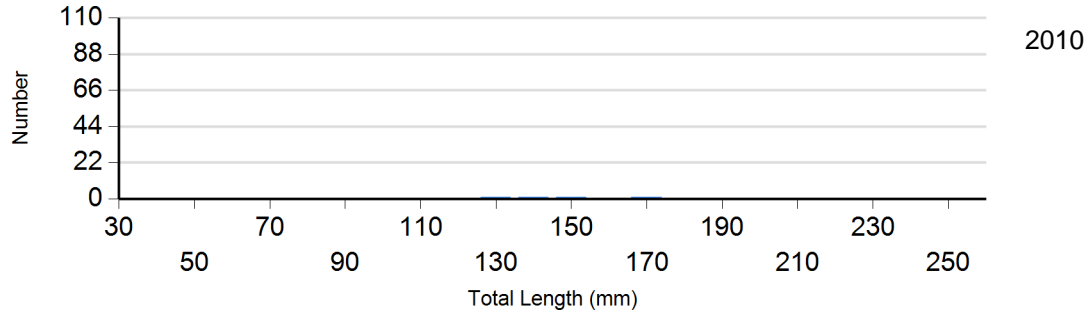
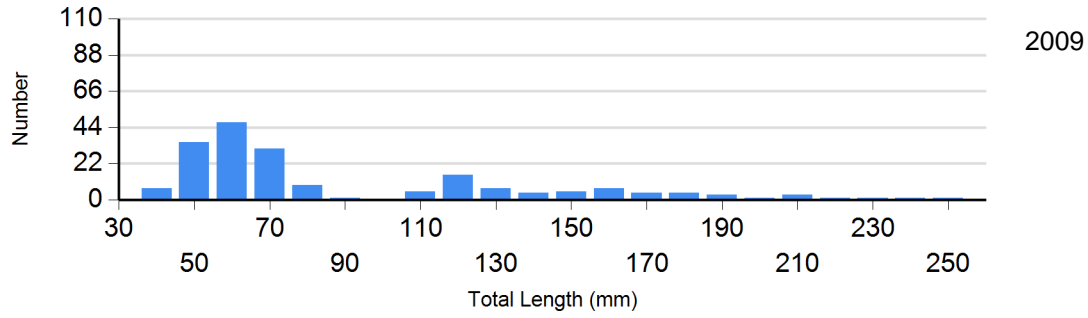


**Site: 9**  
**Species: Brook Trout**





Site: 49  
Species: Brook Trout



Site: 72  
Species: Brook Trout

