

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**Deadwood Creek, Lawrence County**  
**09-0060-00**  
**2001**

Table 1. Population and Biomass Estimates for Deadwood Creek

<b>Site Number:</b> 46	<b>Date Sampled:</b> 10/17/2001	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.36428734, -103.77938126	<b>Site Length (m):</b> 100	<b>pH:</b>
<b>Survey Completed by:</b> KNK Aquatic Ecology	<b>Mean Width (m):</b> 1.9	<b>Water Temperature (C):</b> 8.9
<b>Stream Classification:</b> BK3	<b>Number of Pass:</b> 3	<b>Voltage:</b> 300

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	197	204	211	197	10968	102	2040	4442	91.37	3282	95.1	9.3
Brook Trout	>=200mm	1	1	2	1	54	6	10	22	5.04	16	225.0	105.0
Brook Trout	All	198	205	213	198	11022	108	2050	4464	96.57	3298	95.7	9.8

<b>Site Number:</b> 49	<b>Date Sampled:</b> 10/17/2001	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.36269958, -103.78234679	<b>Site Length (m):</b> 50	<b>pH:</b>
<b>Survey Completed by:</b> KNK Aquatic Ecology	<b>Mean Width (m):</b> 2.2	<b>Water Temperature (C):</b>
<b>Stream Classification:</b> BK0	<b>Number of Pass:</b> 4	<b>Voltage:</b> 300

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	211	216	222	211	9730	89	4320	3941	79.71	6951	90.0	9.2
Brook Trout	All	211	216	222	211	9730	89	4320	3941	79.71	6951	90.0	9.2

<b>Site Number:</b> 72	<b>Date Sampled:</b> 08/31/2001	<b>Conductivity (umhos/cm):</b>
<b>Site Midpoint (Latitude, Longitude):</b> 44.35884420, -103.80543515	<b>Site Length (m):</b> 101	<b>pH:</b>
<b>Survey Completed by:</b> Chadwick Ecological Services	<b>Mean Width (m):</b> 1.5	<b>Water Temperature (C):</b>
<b>Stream Classification:</b> 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	82	82	83	82	5369	59	812	2174	52.32	1306	102.9	10.9
Brook Trout	All	82	82	83	82	5369	59	812	2174	52.32	1306	102.9	10.9

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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 Deadwood Creek, 1991-2001

**Site 46**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 20, 1992	191	188-196	
	Aug 20, 1992	285	277-293	
	Oct 13, 1994	31	30-34	
	Sep 25, 1996	70	70-72	
	Sep 11, 1997	104	104-105	
	Oct 17, 2001	204	197-211	
Brook Trout >=200mm	Aug 20, 1992	10	10-10	BK1

Brook Trout >=200mm	Oct 13, 1994	10	9-15	BK3
	Sep 25, 1996	25	25-26	BK3
	Sep 11, 1997	16	16-16	BK1
	Oct 17, 2001	1	1-2	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 20, 1992	316	311-322	
	Oct 13, 1994	90	75-108	
	Sep 25, 1996	156	149-164	
	Sep 11, 1997	200	197-205	
	Sep 11, 1998	334	331-338	
	Oct 17, 2001	216	211-222	
Brook Trout >=200mm	Aug 20, 1992	1	1-1	BK2
	Oct 13, 1994	8	8-9	BK3
	Sep 25, 1996	28	28-29	BK3
	Sep 11, 1997	16	16-16	BK1

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Brook Trout >=200mm

Sep 11, 1998

3

3-4

BK2

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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 31, 2001	82	82-83	

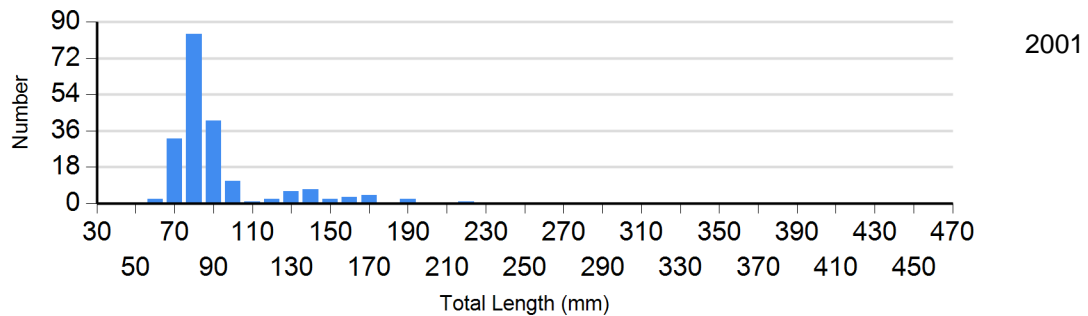
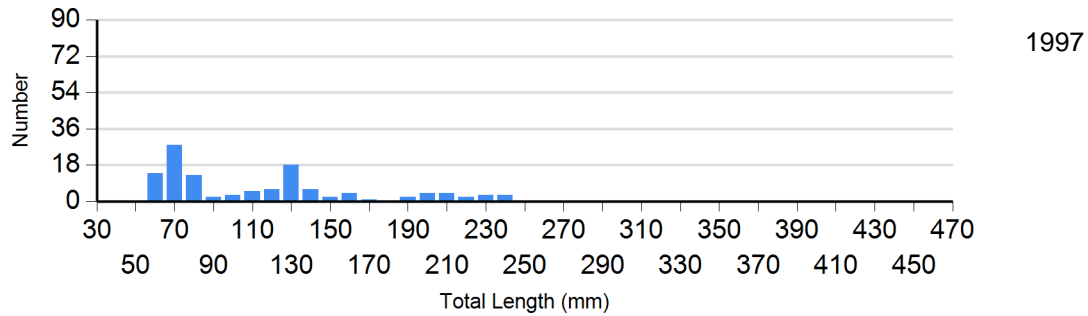
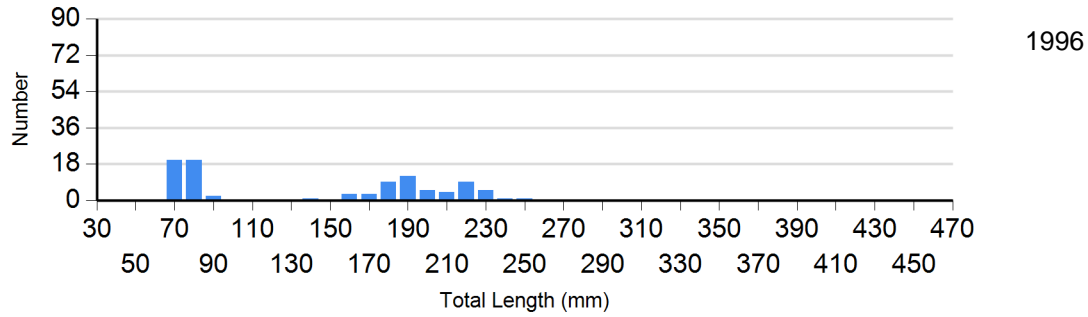
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## Length Frequency Distribution

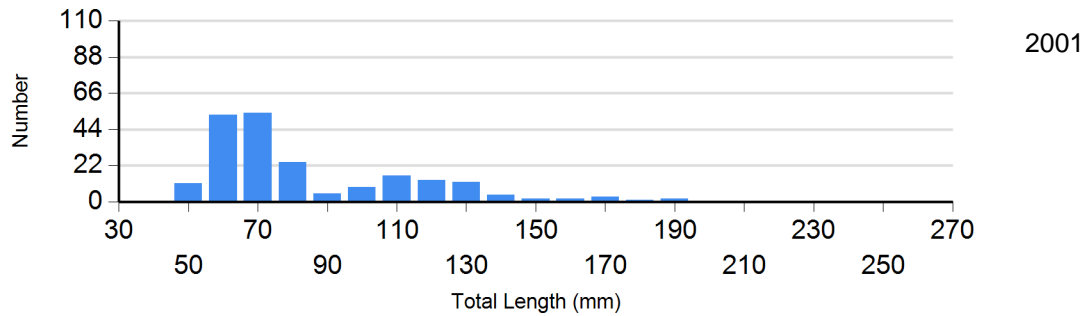
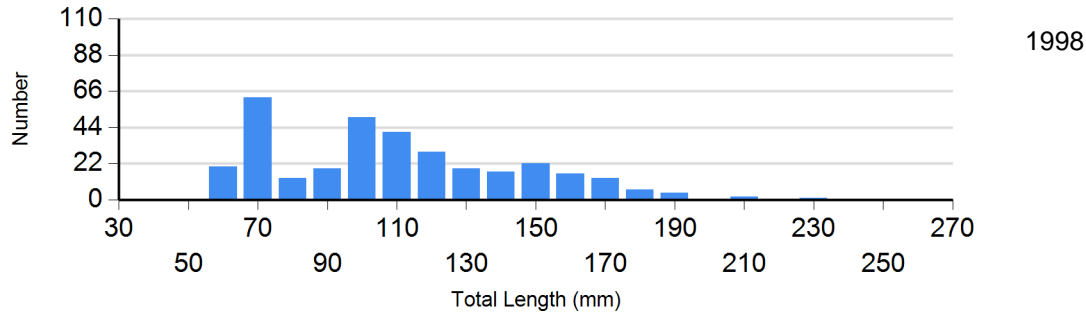
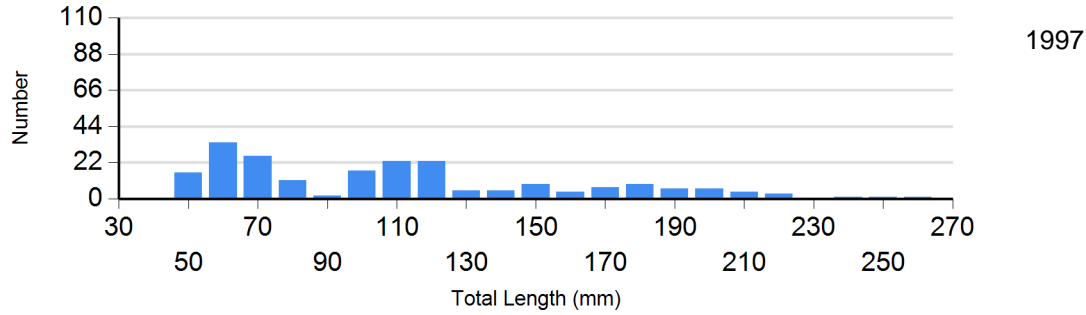
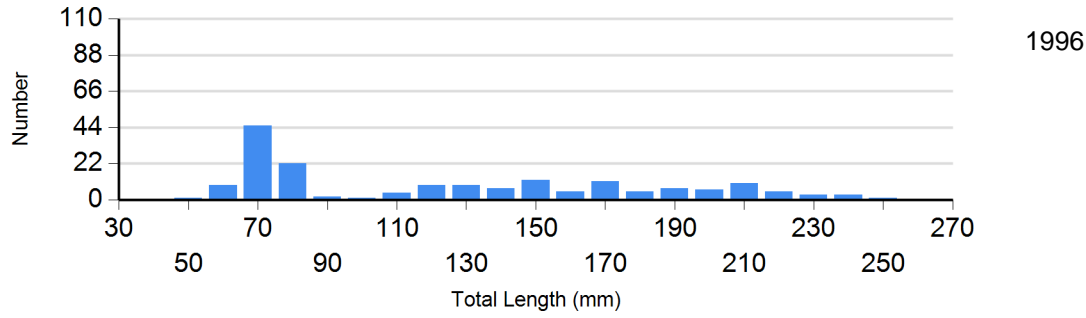
Length frequency histogram of species sampled by year.

Site: 46

Species: Brook Trout



Site: 49  
Species: Brook Trout



Site: 72  
Species: Brook Trout

