## SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY

## Deadwood Creek, Lawrence County 09-0060-00 1996

Table 1. Population and Biomass Estimates for Deadwood Creek

Site Number: 46

Site Midpoint (Latitude, Longitude): 44.36428734, -103.77938126

Survey Completed by: OEA Research Inc.

Stream Classification: BK3

**Date Sampled:** 09/25/1996

Site Length (m): 100

Mean Width (m): 0.0

Number of Pass: 3

Conductivity (umhos/cm):

pH:

Water Temperature (C): 2.0

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	70	70	72	70	0	0	700	0	0.00	1126	122.9	34.1
Brook Trout	>=200mm	25	25	26	25	0	0	250	0	0.00	402	222.4	129.7
Brook Trout	All	95	95	97	95	0	0	950	0	0.00	1529	149.1	59.5

Site Number: 49

Site Midpoint (Latitude, Longitude): 44.36269958, -103.78234679

Survey Completed by: OEA Research Inc.

Stream Classification: BK3

**Date Sampled:** 09/25/1996

Site Length (m): 100

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	149	156	164	149	0	0	1560	0	0.00	2510	113.3	22.3
Brook Trout	>=200mm	28	28	29	28	0	0	280	0	0.00	451	220.8	117.5
Brook Trout	All	177	183	190	177	0	0	1830	0	0.00	2944	130.3	37.4
Longnose Dace	All	2	2	4	2	0	0	20	0	0.00	32	104.5	17.0

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					
Class BR1	Number of wild Brown Trout exceeds 150 per acre				
Class BR2	Number of wild Brook Trout ranges from 25 to 150 per acre				
Class BR3	Number of wild Brown Trout is less than 25 per acre				
Class BK1	Number of wild Brook Trout exceeds 150 per acre				
Class BK2	Number of wild Brook Trout ranges from 25 to 150 per acre				
Class BK3	Number of wild BrookTrout is less than 25 per acre				
Class RB1	Number of wild Rainbow Trout exceeds 25 per acre				
Class RB2	Number of wild Rainbow Trout is less than 25 per acre				

Table 2. Species composition and population estimates on Deadwood Creek, 1986-1996

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	
Brook Trout >=200mm	Aug 20, 1992	10	10-10	BK1
	Oct 13, 1994	10	9-15	ВК3
	Sep 25, 1996	25	25-26	ВК3

Longnose Dace Aug 20, 1992 1 1-1

Site	49
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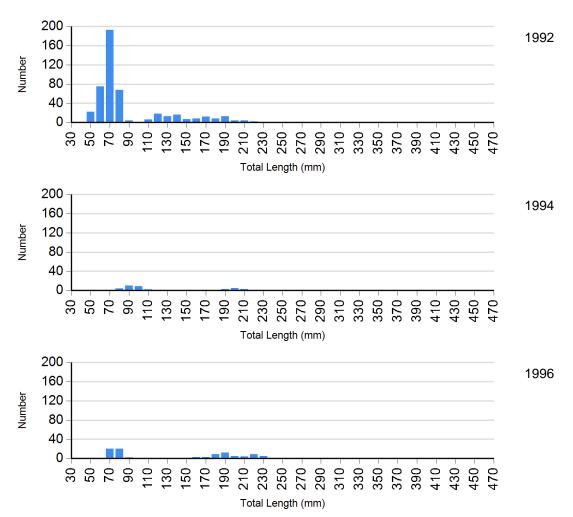
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification		
Brook Trout <200mm	Aug 20, 1992	316	311-322			
	Oct 13, 1994	90	75-108			
	Sep 25, 1996	156	149-164			
Brook Trout >=200mm	Aug 20, 1992	1	1-1	BK2		
	Oct 13, 1994	8	8-9	ВК3		
	Sep 25, 1996	28	28-29	BK3		
Longnose Dace	Sep 25, 1996	2	2-4			

## **Length Frequency Distribution**

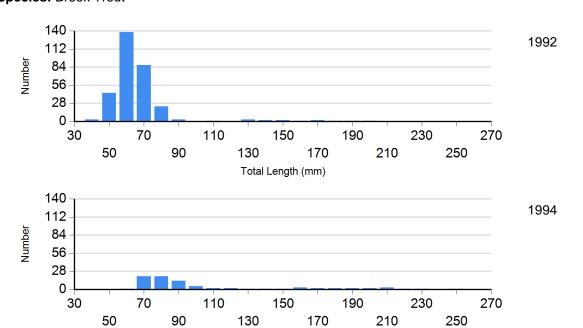
Length frequency histogram of species sampled by year.

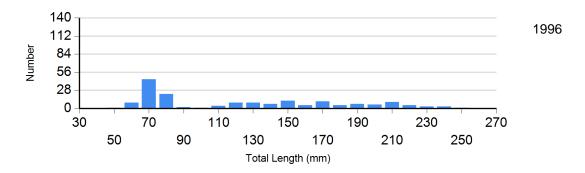
**Site:** 46

Species: Brook Trout



Site: 49 Species: Brook Trout





Total Length (mm)