

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Bear Butte Creek, Meade County
49-0023-00
1994

Table 1. Population and Biomass Estimates for Bear Butte Creek

Site Number: 976
Site Midpoint (Latitude, Longitude): 44.32812906, -103.64456485
Survey Completed by: OEA Research Inc.
Stream Classification: BK3

Date Sampled: 09/20/1994
Site Length (m): 100
Mean Width (m): 0.0
Number of Pass: 2
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	1	1	1	1	0	0	10	0	0.00	16	239.0	135.0
Brook Trout	All	1	1	1	1	0	0	10	0	0.00	16	239.0	135.0

Site Number: 977
Site Midpoint (Latitude, Longitude): 44.32765077, -103.64555220
Survey Completed by: OEA Research Inc.
Stream Classification: RB2

Date Sampled: 09/20/1994
Site Length (m): 100
Mean Width (m): 0.0
Number of Pass: 2
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)
Rainbow Trout	>=200mm	1	1	1	1	0	0	10	0	0.00	16	237.0	133.0
Rainbow Trout	All	1	1	1	1	0	0	10	0	0.00	16	237.0	133.0

Site Number: 988
Site Midpoint (Latitude, Longitude): 44.32359378, -103.65026058
Survey Completed by: OEA Research Inc.
Stream Classification: BK0

Date Sampled: 09/20/1994
Site Length (m): 100
Mean Width (m): 0.0
Number of Pass: 4
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	8	8	10	8	0	0	80	0	0.00	129	114.5	28.8
Brook Trout	All	8	8	10	8	0	0	80	0	0.00	129	114.5	28.8
Longnose Dace	All	127	128	131	127	0	0	1280	0	0.00	2060	59.0	3.7
White Sucker	All	26	26	27	26	0	0	260	0	0.00	418	114.9	15.6

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	
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 Brook Trout 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 Bear Butte Creek, 1984-1994

Site 976

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Apr 16, 1993	2	2-2	
	Jun 10, 1993	6	6-7	
Brook Trout >=200mm	Sep 20, 1994	1	1-1	BK3
Longnose Dace	Apr 16, 1993	323	71-1282	
	Jun 10, 1993	79	59-107	
Rainbow Trout <200mm	Apr 16, 1993	1	1-3	
	Jun 10, 1993	1	1-1	

Rainbow Trout >=200mm	Jun 10, 1993	2	2-2	RB2
White Sucker	Apr 16, 1993	2	2-5	

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Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 10, 1993	8	8-8	
Longnose Dace	Apr 16, 1993	128	66-239	
	Jun 10, 1993	68	44-111	
Rainbow Trout <200mm	Jun 10, 1993	1	1-1	
Rainbow Trout >=200mm	Jun 10, 1993	2	2-2	RB2
	Sep 20, 1994	1	1-1	RB2
White Sucker	Apr 16, 1993	1	1-1	
	Jun 10, 1993	2	2-4	

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Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 10, 1992	14	12-21	
	May 10, 1993	15	15-16	
	Sep 20, 1994	8	8-10	

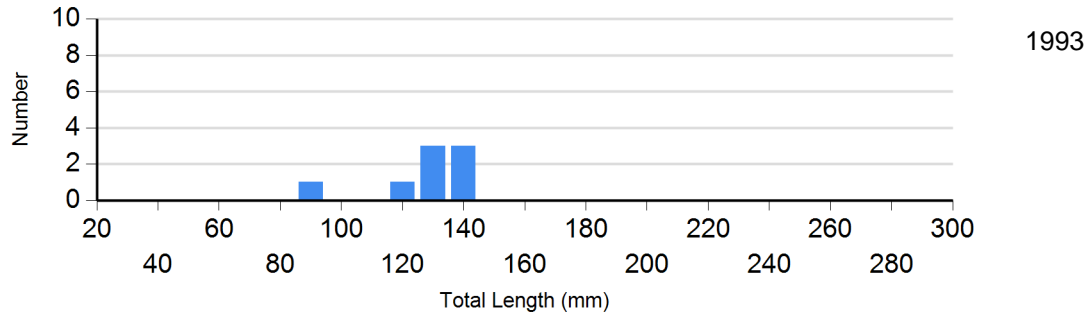
Brook Trout >=200mm	May 10, 1993	1	1-4	BK3
Longnose Dace	May 10, 1993	388	389-420	
	Sep 20, 1994	128	127-131	
Rainbow Trout <200mm	Sep 10, 1992	2	2-2	
	May 10, 1993	1	1-1	
Rainbow Trout >=200mm	May 10, 1993	1	1-1	RB2
White Sucker	Sep 10, 1992	1	1-1	
	May 10, 1993	48	28-97	
	Sep 20, 1994	26	26-27	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

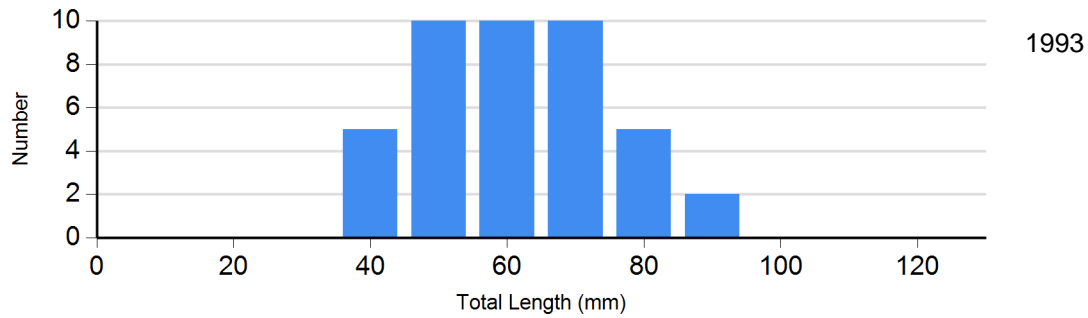
Site: 976

Species: Brook Trout



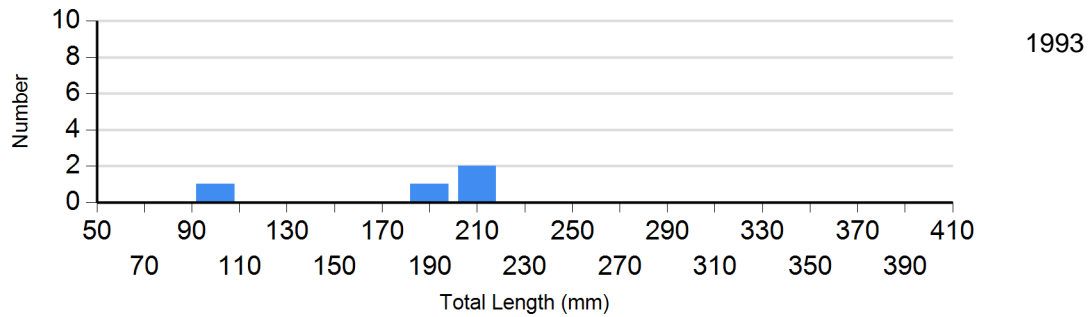
Site: 976

Species: Longnose Dace

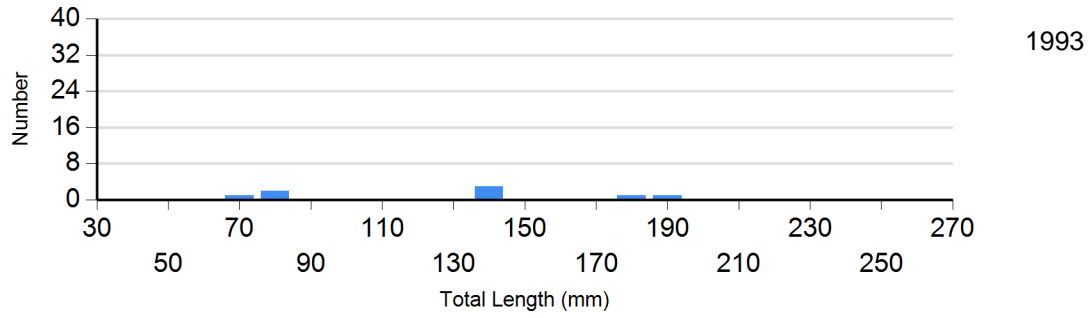


Site: 976

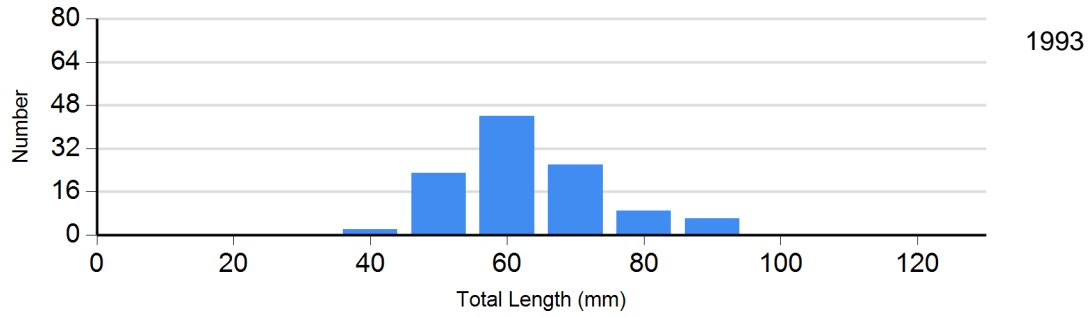
Species: Rainbow Trout



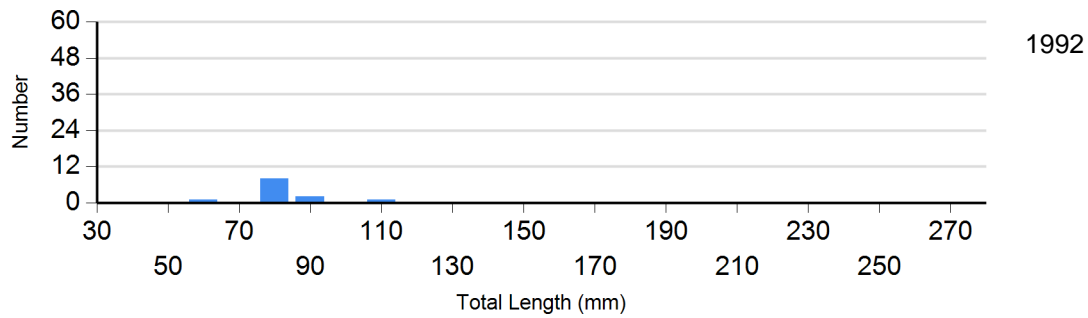
Site: 977
Species: Brook Trout

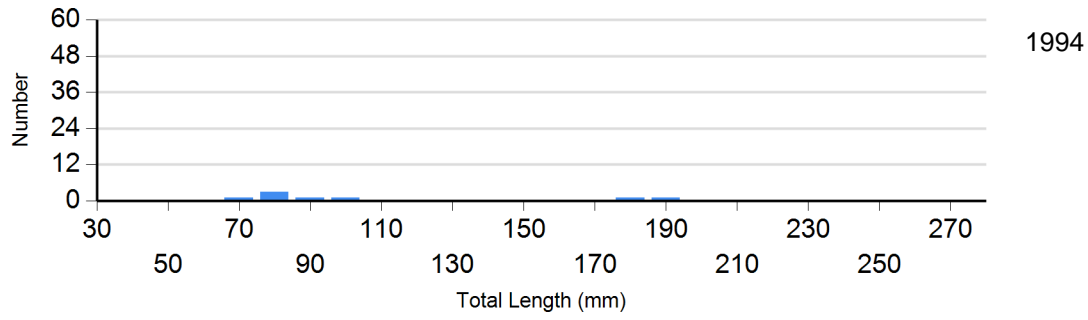
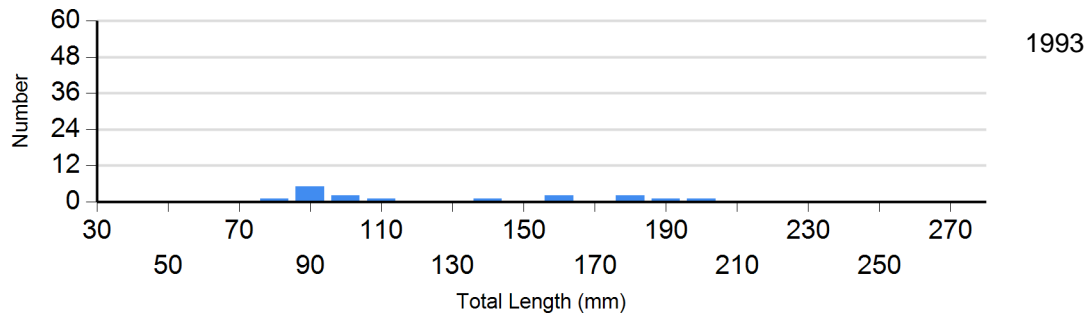


Site: 977
Species: Longnose Dace

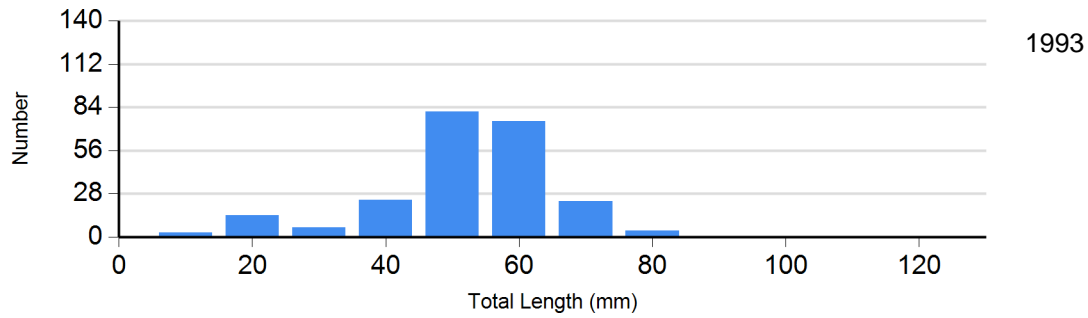
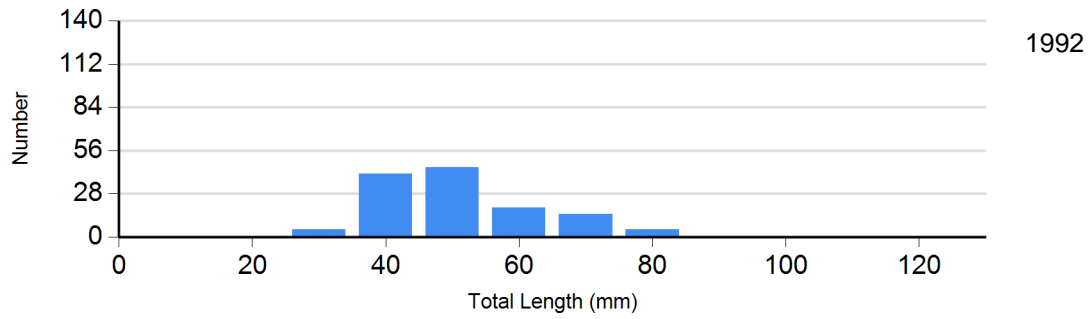


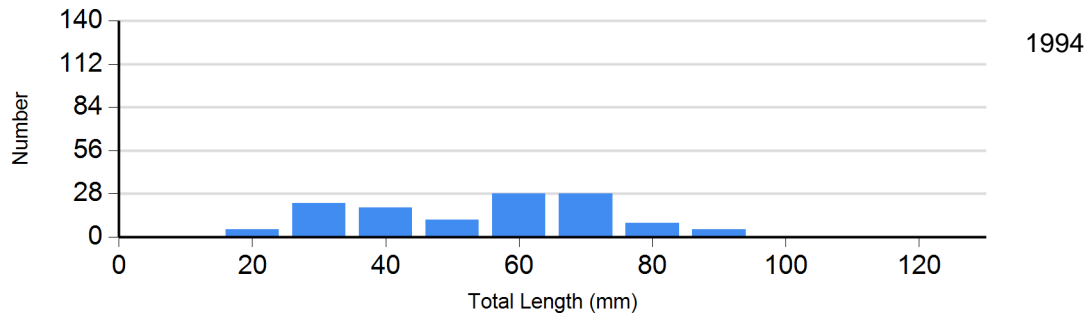
Site: 988
Species: Brook Trout





Site: 988
Species: Longnose Dace





Site: 988
Species: White Sucker

