

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Annie Creek, Lawrence County
09-0074-00
2004

Table 1. Population and Biomass Estimates for Annie Creek

Site Number: 2
Site Midpoint (Latitude, Longitude): 44.32728433, -103.89361583
Survey Completed by: Chadwick Ecological Services
Stream Classification: BK2, BR2

Date Sampled: 09/01/2004
Site Length (m): 104
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	41	42	41	2250	18	394	911	16.39	634	81.9	8.2
Brook Trout	>=200mm	2	2	2	2	110	12	19	44	10.78	31	229.0	110.0
Brook Trout	All	43	43	44	43	2360	30	413	956	27.17	665	88.7	12.9
Brown Trout	<200mm	8	8	10	8	439	7	77	178	5.86	124	90.4	15.0
Brown Trout	>=200mm	2	2	2	2	110	10	19	44	9.31	31	220.5	95.0
Brown Trout	All	10	10	11	10	549	17	96	222	15.17	155	116.4	31.0

Site Number: 16
Site Midpoint (Latitude, Longitude): 44.33009788, -103.87749203
Survey Completed by: Chadwick Ecological Services
Stream Classification: None

Date Sampled: 09/01/2004
Site Length (m): 105
Mean Width (m): 1.2
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)
Mountain Sucker	All	9	9	10	9	783	16	86	317	14.29	138	121.9	20.4

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 Annie Creek, 1994-2004

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 29, 1995	48	48-50	
	Aug 30, 2001	52	52-54	
	Aug 27, 2002	55	55-57	
	Aug 26, 2003	31	31-31	
	Sep 01, 2004	41	41-42	
Brook Trout >=200mm	Aug 29, 1995	5	5-5	BK2
	Aug 30, 2001	2	2-2	BK2

Brook Trout >=200mm	Aug 27, 2002	1	1-1	BK3
	Aug 26, 2003	3	3-3	BK2
	Sep 01, 2004	2	2-2	BK2
Brown Trout <200mm	Aug 30, 2001	94	93-97	
	Aug 27, 2002	33	33-34	
	Aug 26, 2003	13	13-13	
	Sep 01, 2004	8	8-10	
Brown Trout >=200mm	Aug 30, 2001	1	1-1	BR3
	Aug 27, 2002	4	4-4	BR2
	Aug 26, 2003	8	8-8	BR2
	Sep 01, 2004	2	2-2	BR2
Mountain Sucker	Aug 29, 1995	33	25-51	

Site 16

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Mountain Sucker	Aug 28, 1995	3	3-4	
	Aug 27, 2002	19	19-19	

Mountain Sucker

Aug 26, 2003

10

10-10

Sep 01, 2004

9

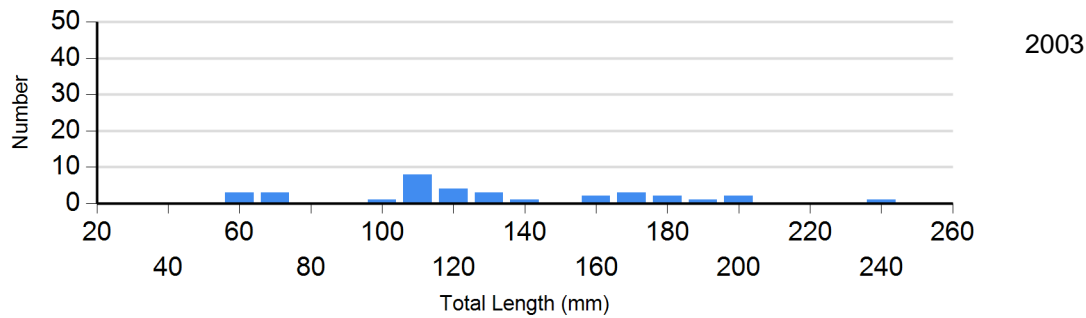
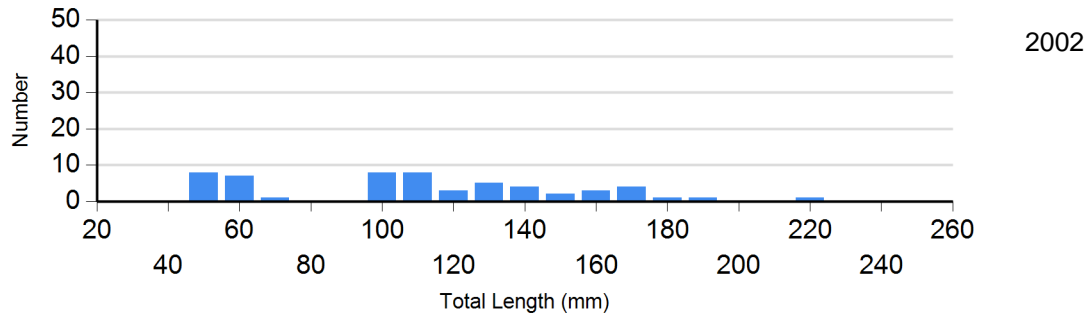
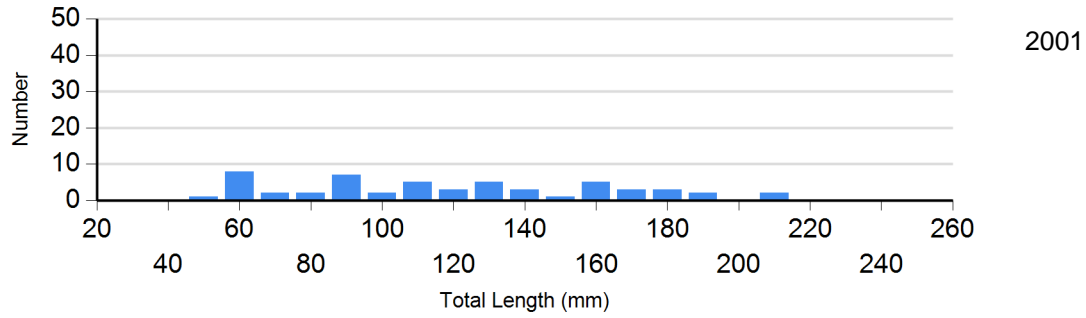
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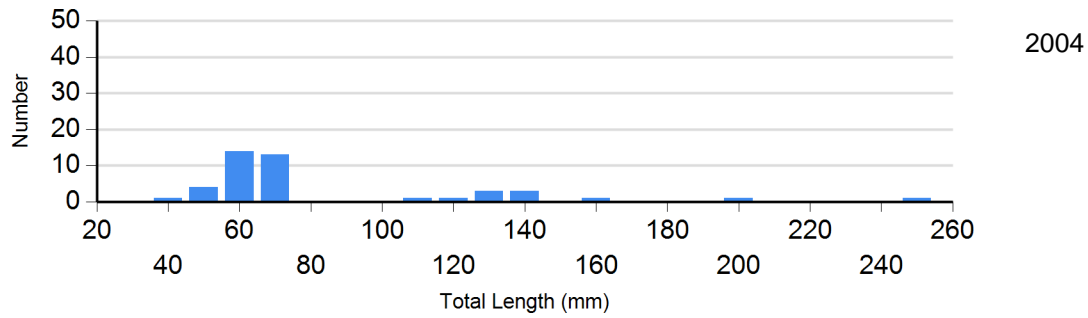
Length Frequency Distribution

Length frequency histogram of species sampled by year.

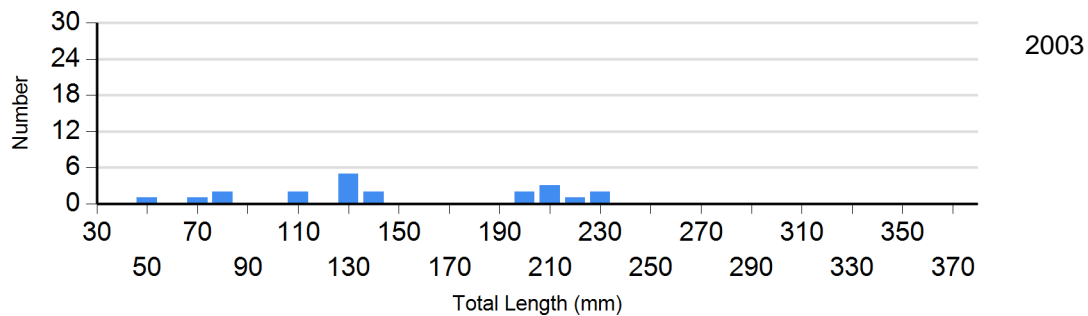
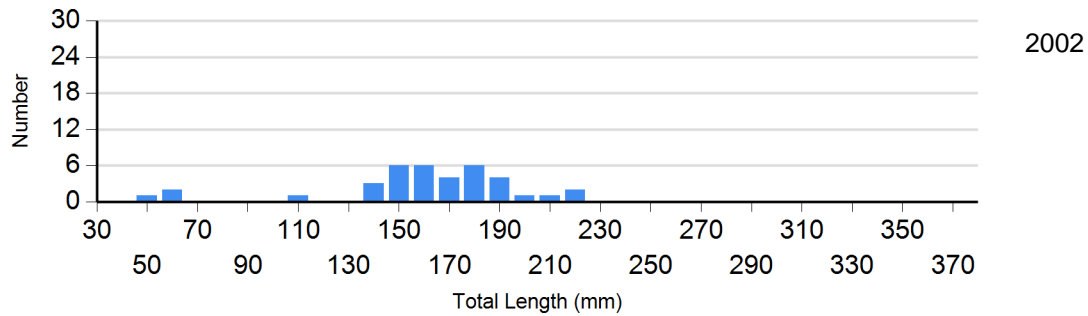
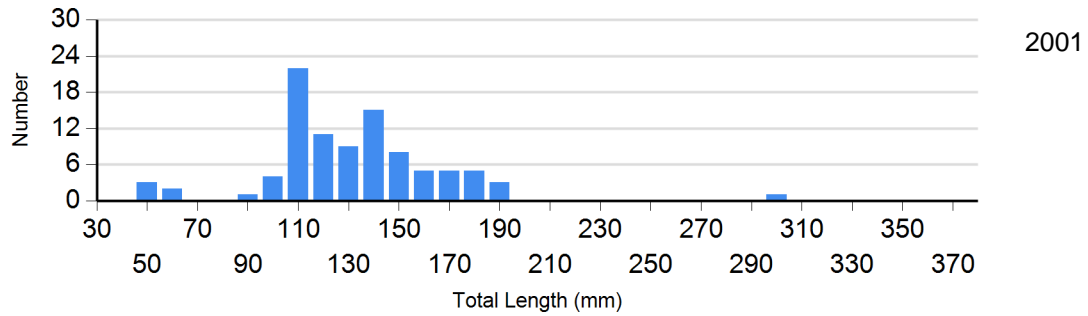
Site: 2

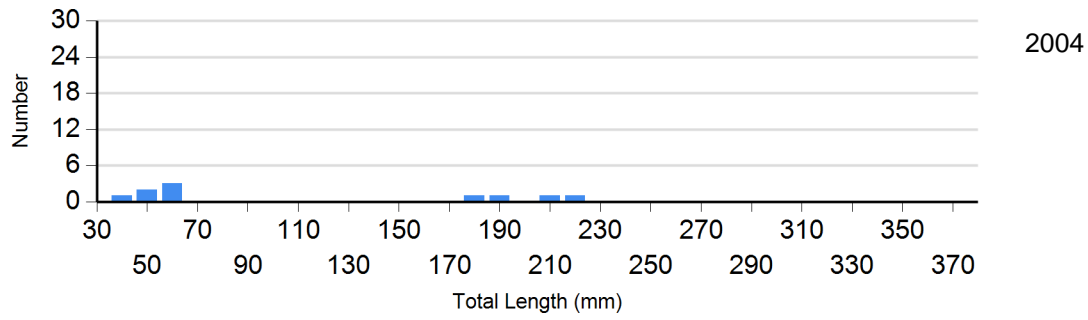
Species: Brook Trout





Site: 2
Species: Brown Trout





Site: 16
Species: Mountain Sucker

