

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Annie Creek, Lawrence County
09-0074-00
2006

Table 1. Population and Biomass Estimates for Annie Creek

Site Number: 2	Date Sampled: 08/31/2006	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.32728433, -103.89361583	Site Length (m): 99	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3, BR3	Number of Pass: 3	Voltage: 200

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	90	91	94	90	0	0	919	0	0.00	1479	100.0	13.3
Brook Trout	>=200mm	1	1	1	1	0	0	10	0	0.00	16	201.0	86.0
Brook Trout	All	91	92	95	91	0	0	929	0	0.00	1495	101.2	14.1
Brown Trout	<200mm	5	5	5	5	0	0	51	0	0.00	81	179.2	53.4
Brown Trout	>=200mm	1	1	1	1	0	0	10	0	0.00	16	254.0	152.0
Brown Trout	All	6	6	6	6	0	0	61	0	0.00	98	191.7	69.8

Site Number: 16	Date Sampled: 08/30/2006	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.33009788, -103.87749203	Site Length (m): 99	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: None	Number of Pass: 3	Voltage: 200

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	8	8	8	8	0	0	81	0	0.00	130	135.3	29.0

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 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, 1996-2006

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 30, 2001	52	52-54	
	Aug 27, 2002	55	55-57	
	Aug 26, 2003	31	31-31	
	Sep 01, 2004	41	41-42	
	Aug 31, 2006	91	90-94	
Brook Trout >=200mm	Aug 30, 2001	2	2-2	BK2
	Aug 27, 2002	1	1-1	BK3

Brook Trout >=200mm	Aug 26, 2003	3	3-3	BK2
	Sep 01, 2004	2	2-2	BK2
	Aug 31, 2006	1	1-1	BK3
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	
	Aug 31, 2006	5	5-5	
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
	Aug 31, 2006	1	1-1	BR3

Site 16

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

Mountain Sucker

Aug 26, 2003

10

10-10

Sep 01, 2004

9

9-10

Aug 30, 2006

8

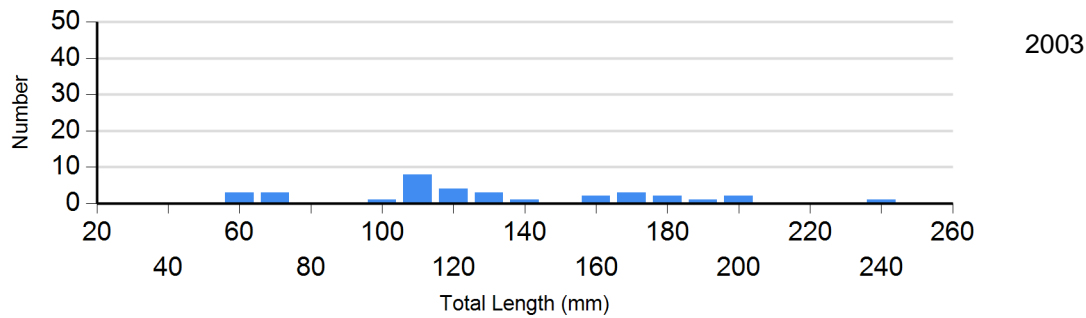
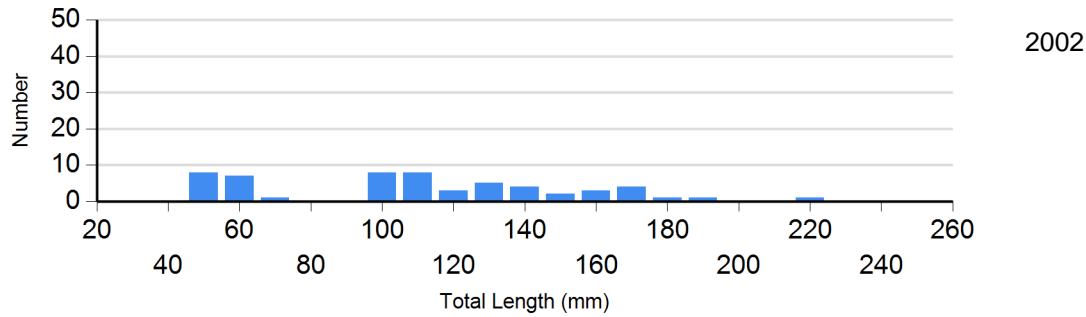
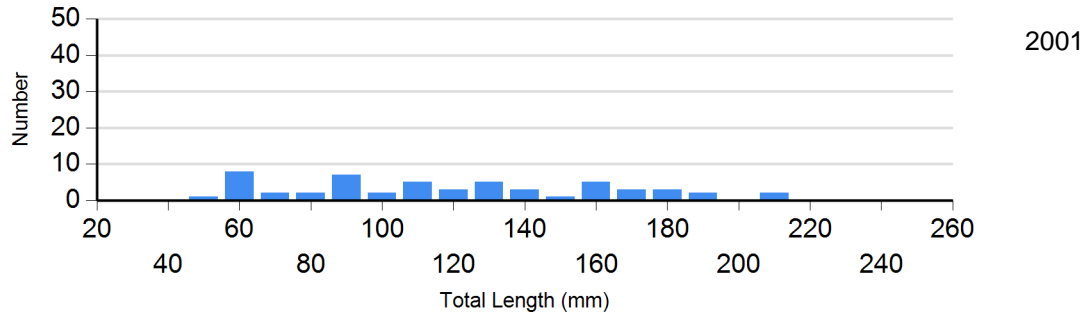
8-8

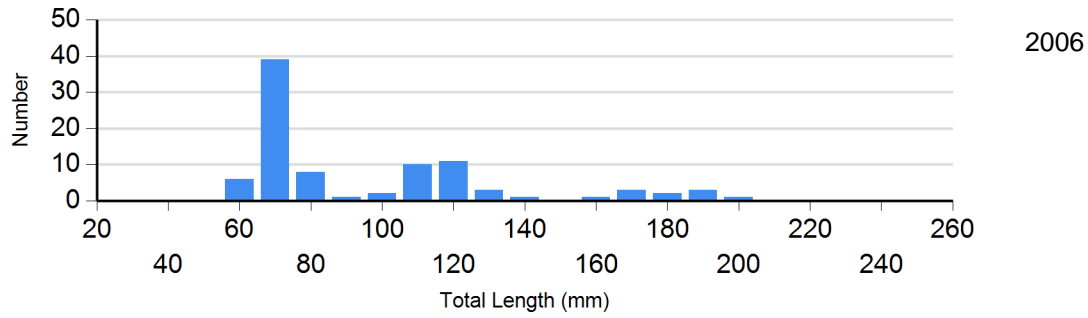
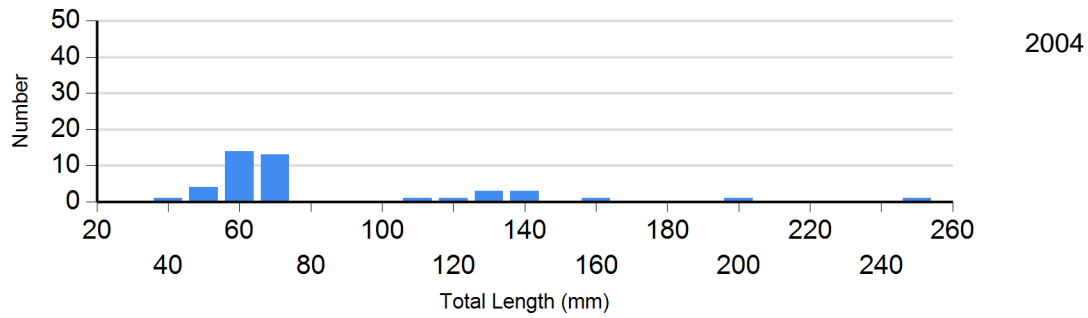
Length Frequency Distribution

Length frequency histogram of species sampled by year.

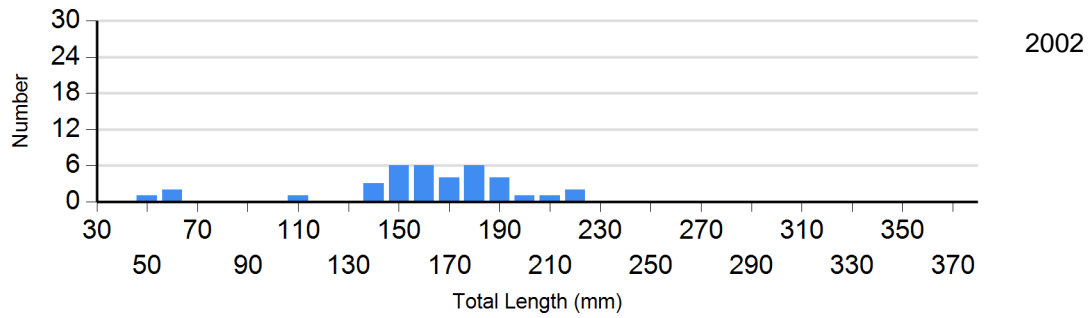
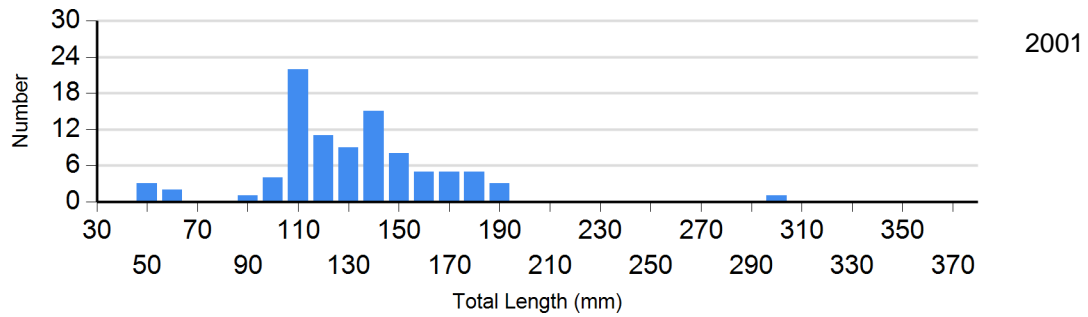
Site: 2

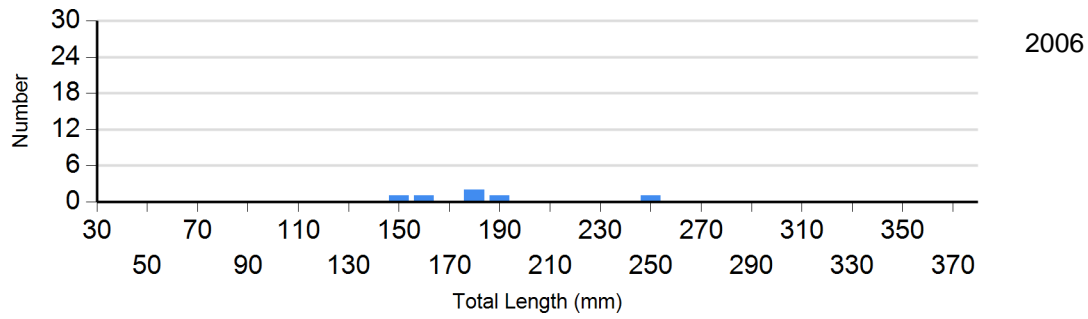
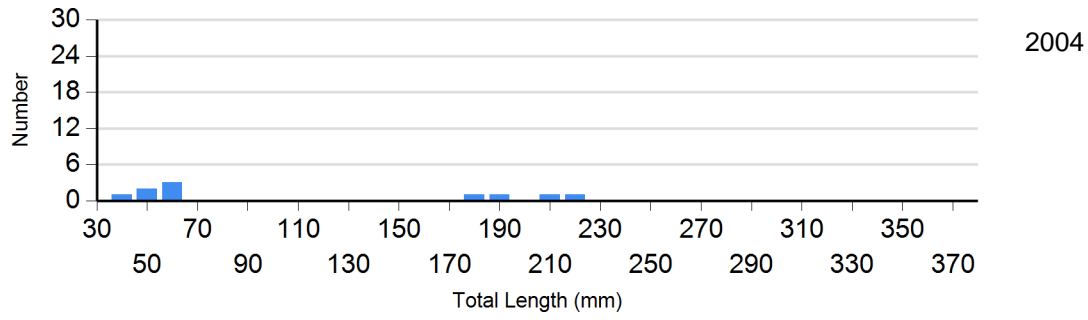
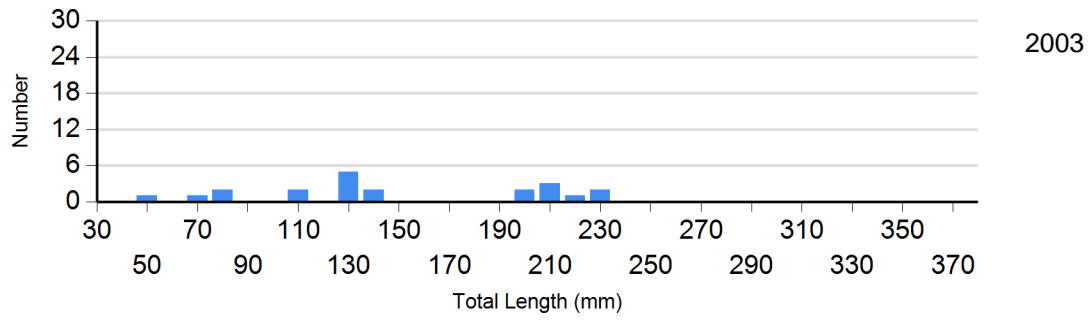
Species: Brook Trout





Site: 2
Species: Brown Trout





Site: 16
Species: Mountain Sucker

