

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Deadwood Creek, Lawrence County
09-0060-00
2005

Table 1. Population and Biomass Estimates for Deadwood Creek

Site Number: 8	Date Sampled: 08/30/2005	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.37166357, -103.73844669	Site Length (m): 100	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3	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	151	159	168	151	0	0	1590	0	0.00	2558	76.0	5.6
Brook Trout	>=200mm	5	5	5	5	0	0	50	0	0.00	80	222.0	109.0
Brook Trout	All	156	163	171	156	0	0	1630	0	0.00	2623	80.7	9.0

Site Number: 9	Date Sampled: 08/30/2005	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.37126918, -103.73941917	Site Length (m): 102	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3, BR0	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	245	265	280	250	0	0	2598	0	0.00	4180	76.4	5.6
Brook Trout	>=200mm	2	2	2	2	0	0	20	0	0.00	32	219.0	105.0
Brook Trout	All	247	267	282	252	0	0	2618	0	0.00	4212	77.5	6.4
Brown Trout	<200mm	55	55	57	55	0	0	539	0	0.00	868	85.2	7.1
Brown Trout	All	55	55	57	55	0	0	539	0	0.00	868	85.2	7.1

Site Number: 15
Site Midpoint (Latitude, Longitude): 44.37074701, -103.74538988
Survey Completed by: Chadwick Ecological Services
Stream Classification: BK3, BR3

Date Sampled: 08/30/2005
Site Length (m): 103
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	176	181	187	176	0	0	1757	0	0.00	2827	81.0	5.8
Brook Trout	>=200mm	3	3	3	3	0	0	29	0	0.00	47	266.0	198.0
Brook Trout	All	179	184	190	179	0	0	1786	0	0.00	2874	84.1	9.0
Brown Trout	<200mm	22	24	30	22	0	0	233	0	0.00	375	81.2	6.1
Brown Trout	>=200mm	2	2	2	2	0	0	19	0	0.00	31	351.5	479.5
Brown Trout	All	24	25	29	24	0	0	243	0	0.00	391	103.8	45.5

Site Number: 49
Site Midpoint (Latitude, Longitude): 44.36269958, -103.78234679
Survey Completed by: Chadwick Ecological Services
Stream Classification: BK3

Date Sampled: 08/29/2005
Site Length (m): 102
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	66	68	72	66	0	0	667	0	0.00	1073	102.7	13.7
Brook Trout	>=200mm	3	3	3	3	0	0	29	0	0.00	47	222.7	119.0
Brook Trout	All	69	70	73	69	0	0	686	0	0.00	1104	107.9	18.3

Site Number: 72
Site Midpoint (Latitude, Longitude): 44.35884420, -103.80543515
Survey Completed by: Chadwick Ecological Services
Stream Classification: BK0

Date Sampled: 08/25/2005
Site Length (m): 94
Mean Width (m): 0.0
Conductivity (umhos/cm):
pH:
Water Temperature (C):

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	15	15	15	15	0	0	160	0	0.00	257	115.2	17.5
Brook Trout	All	15	15	15	15	0	0	160	0	0.00	257	115.2	17.5

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 Deadwood Creek, 1995-2005

Site 8

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 25, 2004	60	59-63	
	Aug 30, 2005	159	151-168	
Brook Trout >=200mm	Aug 25, 2004	2	2-2	BK2
	Aug 30, 2005	5	5-5	BK3

Site 9

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 25, 2004	43	43-44	
	Aug 30, 2005	265	250-280	

Brook Trout >=200mm	Aug 25, 2004	1	1-1	BK3
	Aug 30, 2005	2	2-2	BK3
Brown Trout <200mm	Aug 25, 2004	1	1-1	
	Aug 30, 2005	55	55-57	

Site 15

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 12, 1998	33	33-35	
	Aug 26, 2004	48	48-49	
	Aug 30, 2005	181	176-187	
Brook Trout >=200mm	Sep 12, 1998	5	5-5	BK2
	Aug 26, 2004	7	7-7	BK2
	Aug 30, 2005	3	3-3	BK3
Brown Trout <200mm	Aug 26, 2004	2	2-2	
	Aug 30, 2005	24	22-30	
Brown Trout >=200mm	Aug 26, 2004	6	6-6	BR2
	Aug 30, 2005	2	2-2	BR3

Site 49

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 25, 1996	156	149-164	
	Sep 11, 1997	200	197-205	
	Sep 11, 1998	334	331-338	
	Oct 17, 2001	216	211-222	
	Aug 25, 2004	89	86-94	
	Aug 29, 2005	68	66-72	
Brook Trout >=200mm	Sep 25, 1996	28	28-29	BK3
	Sep 11, 1997	16	16-16	BK1
	Sep 11, 1998	3	3-4	BK2
	Aug 25, 2004	4	4-4	BK2
	Aug 29, 2005	3	3-3	BK3

Site 72

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 31, 2001	82	82-83	
	Aug 28, 2003	31	31-32	

Brook Trout <200mm

Sep 03, 2004

30

30-32

Aug 25, 2005

15

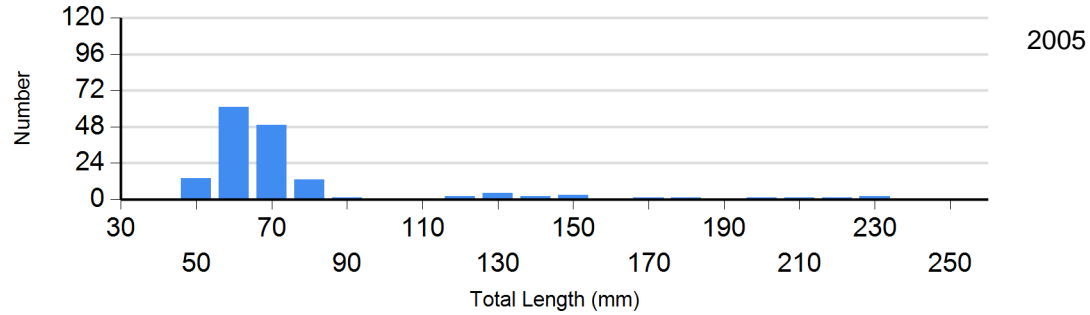
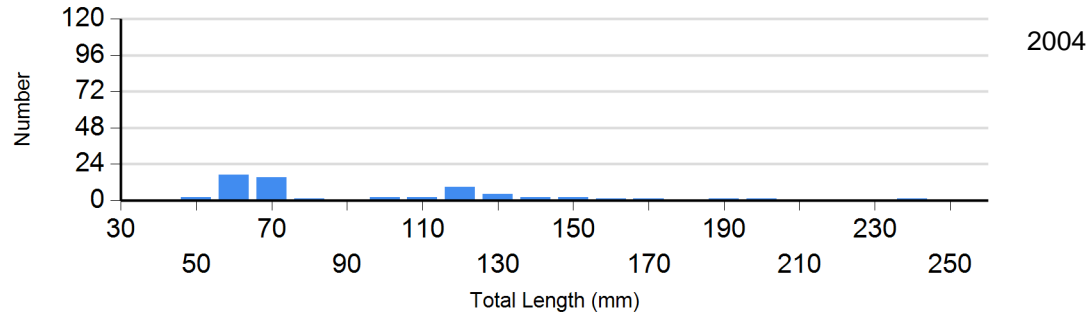
15-15

Length Frequency Distribution

Length frequency histogram of species sampled by year.

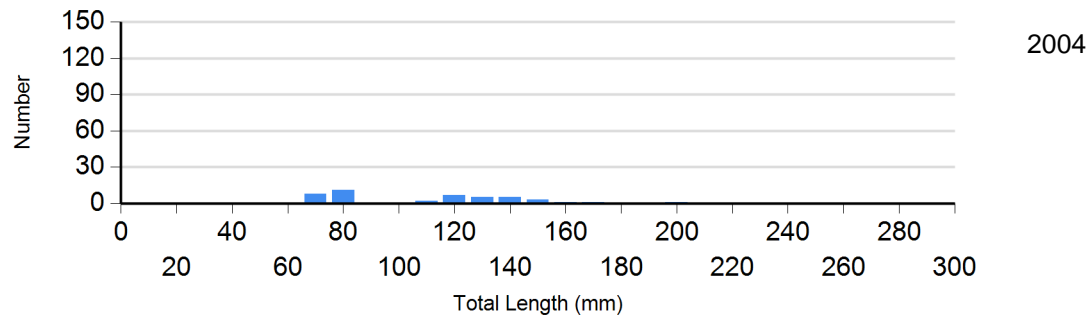
Site: 8

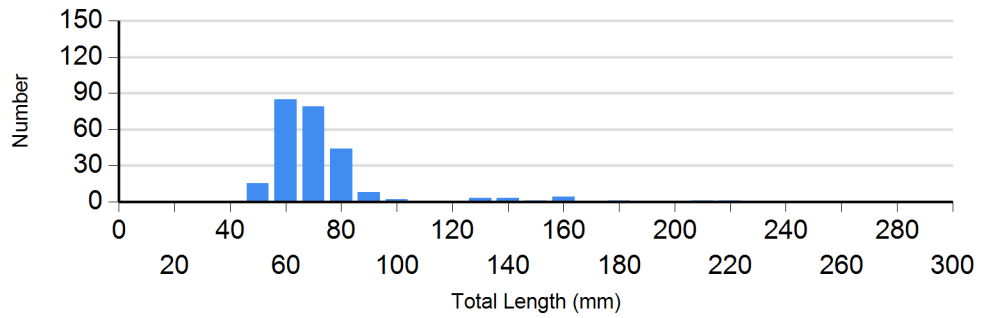
Species: Brook Trout



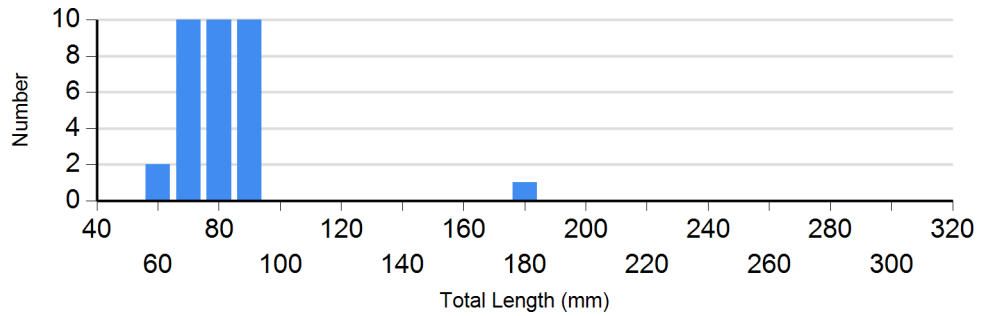
Site: 9

Species: Brook Trout

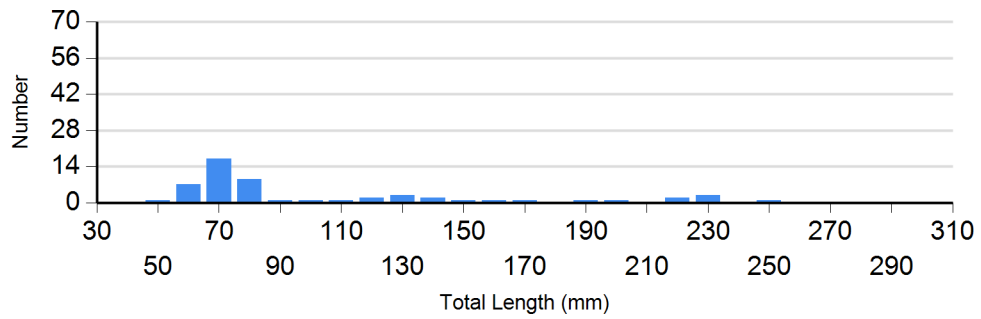


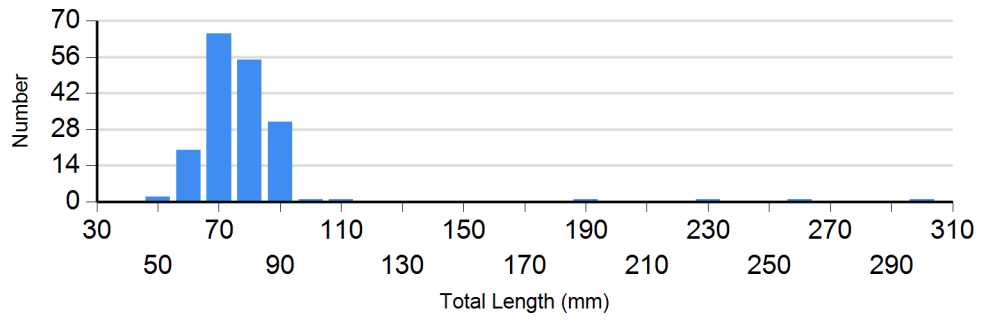


Site: 9
Species: Brown Trout

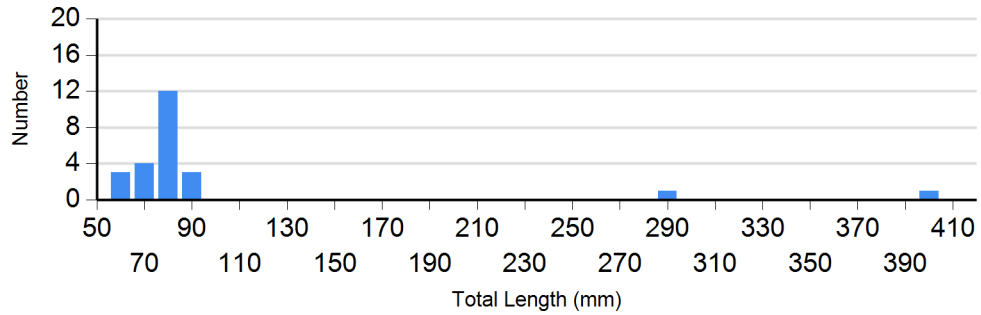
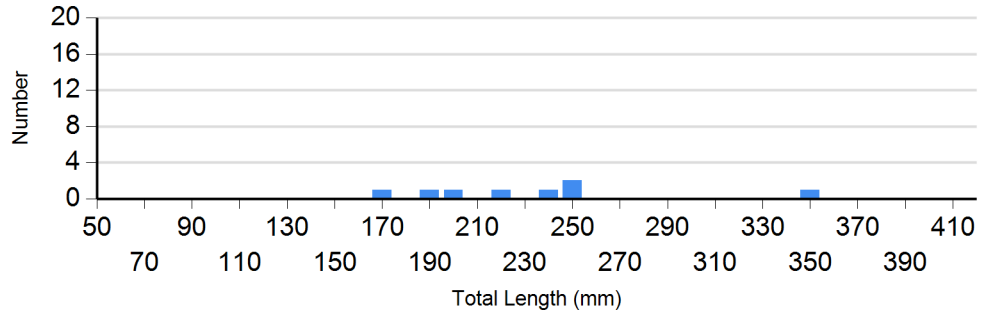


Site: 15
Species: Brook Trout

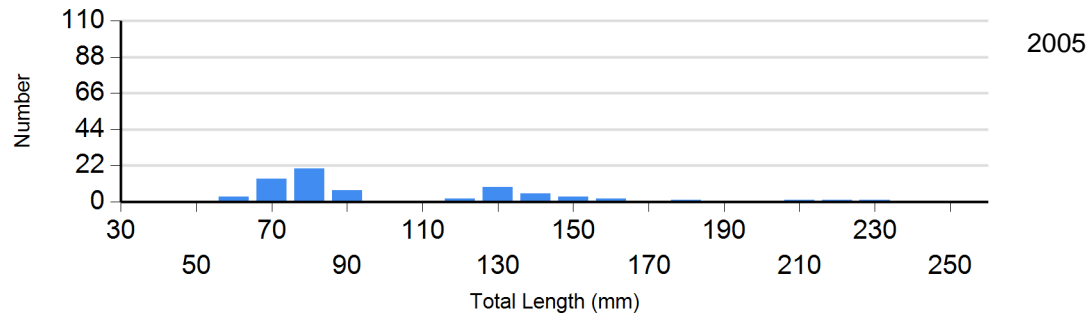
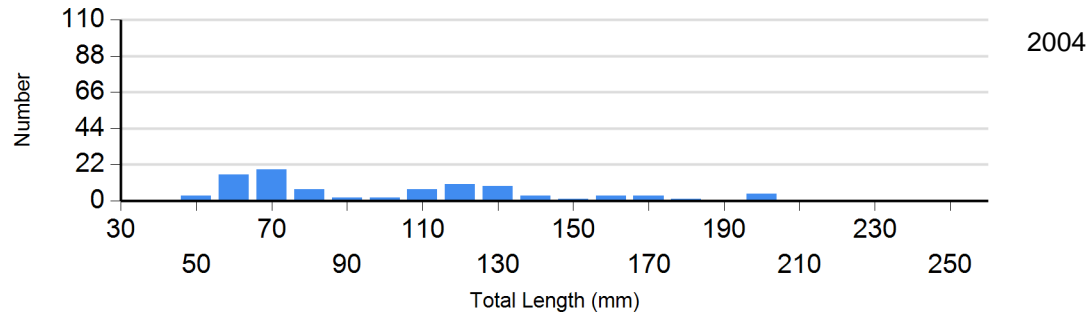
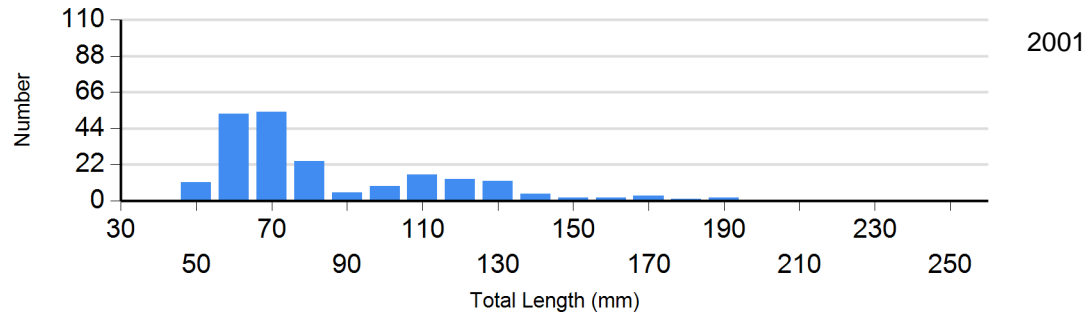




Site: 15
Species: Brown Trout



Site: 49
Species: Brook Trout



Site: 72
Species: Brook Trout

