

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Deadwood Creek, Lawrence County
09-0060-00
2015

Table 1. Population and Biomass Estimates for Deadwood Creek

Site Number: 8	Date Sampled: 09/02/2015	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.37166357, -103.73844669	Site Length (m): 100	pH:
Survey Completed by: GEI	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3	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	185	193	201	185	0	0	1930	0	0.00	3105	129.8	25.8
Brook Trout	>=200mm	3	3	3	3	0	0	30	0	0.00	48	214.0	98.0
Brook Trout	All	188	195	203	188	0	0	1950	0	0.00	3138	131.2	26.9

Site Number: 9	Date Sampled: 09/01/2015	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.37126918, -103.73941917	Site Length (m): 100	pH:
Survey Completed by: GEI	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3	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	380	393	403	383	0	0	3930	0	0.00	6323	111.1	18.8
Brook Trout	>=200mm	17	17	18	17	0	0	170	0	0.00	274	227.5	125.8
Brook Trout	All	397	410	420	400	0	0	4100	0	0.00	6597	116.1	23.4

Site Number: 11	Date Sampled: 09/01/2015	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.36995592, -103.74076877	Site Length (m): 100	pH:

Survey Completed by: GEI

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: BK3

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	362	364	368	362	0	0	3640	0	0.00	5857	138.3	31.0
Brook Trout	>=200mm	21	21	21	21	0	0	210	0	0.00	338	231.4	119.4
Brook Trout	All	383	385	388	383	0	0	3850	0	0.00	6195	143.4	35.9

Site Number: 15

Date Sampled: 06/09/2015

Conductivity (umhos/cm): 441

Site Midpoint (Latitude, Longitude): 44.37074701, -103.74538988

Site Length (m): 100

pH: 6.9

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 4.1

Water Temperature (C): 13.6

Stream Classification: BK2

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	122	144	166	122	3481	107	1440	1410	95.34	2317	136.2	30.7
Brook Trout	>=200mm	3	3	3	3	73	18	30	29	16.28	48	279.3	251.3
Brook Trout	All	125	145	165	125	3505	127	1450	1420	112.99	2333	139.7	36.1

Site Number: 72

Date Sampled: 08/27/2015

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.35884420, -103.80543515

Site Length (m): 117

pH:

Survey Completed by: GEI

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: BK3

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	145	146	148	145	0	0	1248	0	0.00	2008	106.2	15.1
Brook Trout	>=200mm	2	2	3	2	0	0	17	0	0.00	28	213.0	92.0

Brook Trout	All	147	148	150	147	0	0	1265	0	0.00	2035	107.6	16.1
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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, 2005-2015

Site 8

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 30, 2005	159	151-168	
	Aug 29, 2006	114	107-123	
	Sep 09, 2008	41	41-42	
	Sep 01, 2009	109	103-117	
	Aug 31, 2010	1	1-1	
	Aug 28, 2012	126	123-131	
	Aug 27, 2014	343	335-351	

Brook Trout <200mm	Sep 02, 2015	193	185-201	
Brook Trout >=200mm	Aug 30, 2005	5	5-5	BK3
	Aug 29, 2006	1	1-1	BK3
	Sep 09, 2008	5	5-5	BK3
	Sep 01, 2009	5	5-5	BK3
	Aug 28, 2012	1	1-1	BK3
	Aug 27, 2014	8	8-8	BK1
	Sep 02, 2015	3	3-3	BK3

Site 9

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 30, 2005	265	250-280	
	Aug 29, 2006	124	120-130	
	Sep 09, 2008	39	39-40	
	Sep 01, 2009	112	111-115	
	Aug 28, 2012	81	77-87	
	Aug 26, 2014	441	424-458	

Brook Trout <200mm	Sep 01, 2015	393	383-403	
Brook Trout >=200mm	Aug 30, 2005	2	2-2	BK3
	Aug 29, 2006	1	1-1	BK3
	Sep 09, 2008	4	4-4	BK3
	Sep 01, 2009	2	2-2	BK3
	Aug 28, 2012	3	3-3	BK3
	Aug 26, 2014	11	11-11	BK2
	Sep 01, 2015	17	17-18	BK3

Site 11

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 01, 2009	68	68-69	
	Aug 26, 2014	279	265-293	
	Sep 01, 2015	364	362-368	
Brook Trout >=200mm	Sep 01, 2009	2	2-2	BK3
	Aug 26, 2014	6	6-7	BK2
	Sep 01, 2015	21	21-21	BK3

Site 15

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 30, 2005	181	176-187	
	Jul 16, 2008	2	2-2	
	Sep 09, 2008	43	41-48	
	Jun 09, 2015	144	122-166	
Brook Trout >=200mm	Aug 30, 2005	3	3-3	BK3
	Jul 16, 2008	5	5-5	BK2
	Sep 09, 2008	1	1-1	BK3
	Jun 09, 2015	3	3-3	BK2

Site 72

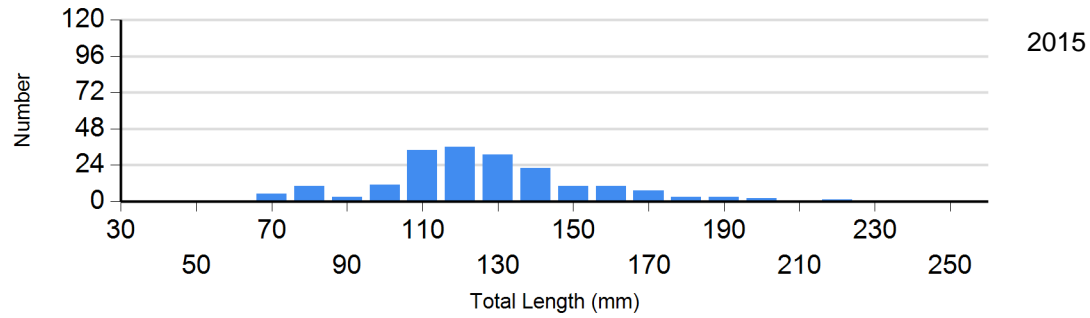
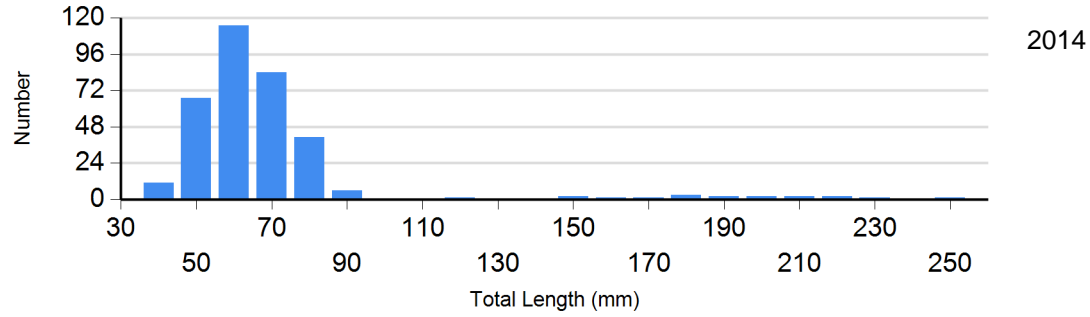
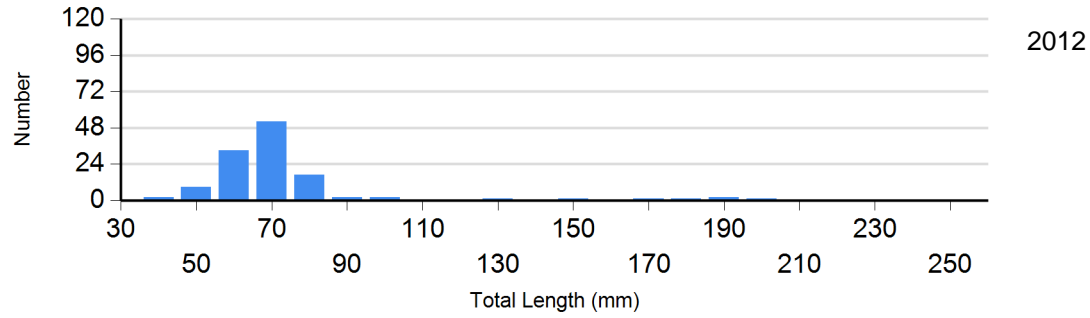
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 25, 2005	15	15-15	
	Aug 25, 2011	138	135-143	
	Aug 22, 2012	117	114-122	
	Aug 21, 2014	170	167-175	
	Aug 27, 2015	146	145-148	

Length Frequency Distribution

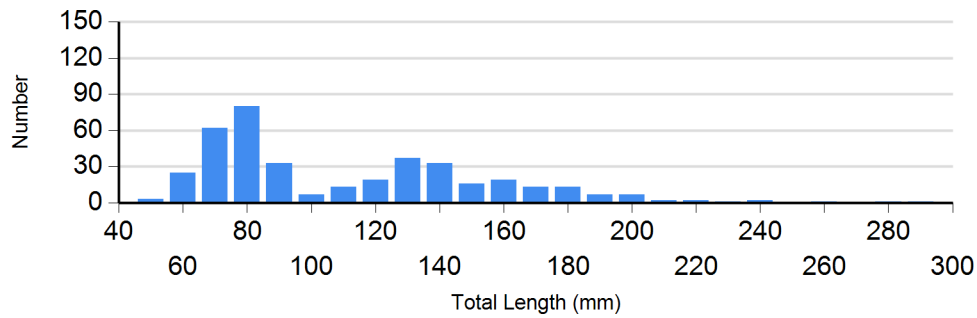
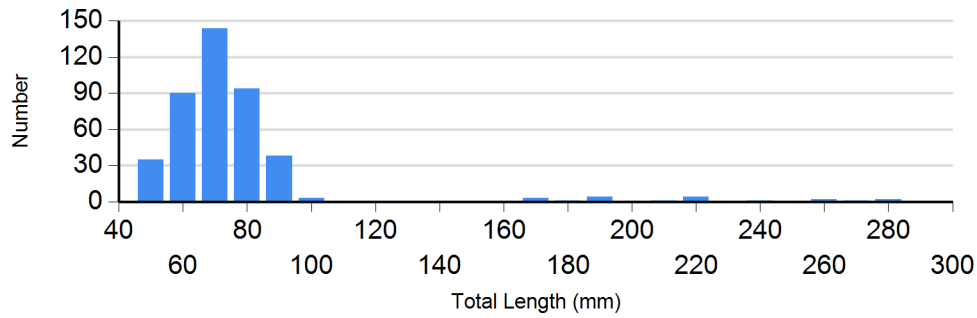
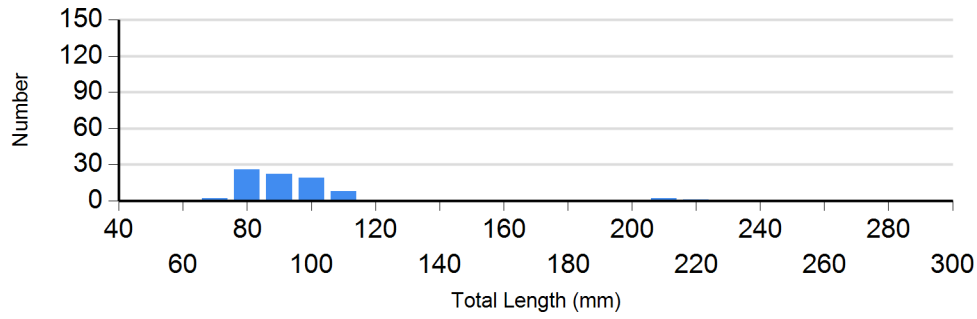
Length frequency histogram of species sampled by year.

Site: 8

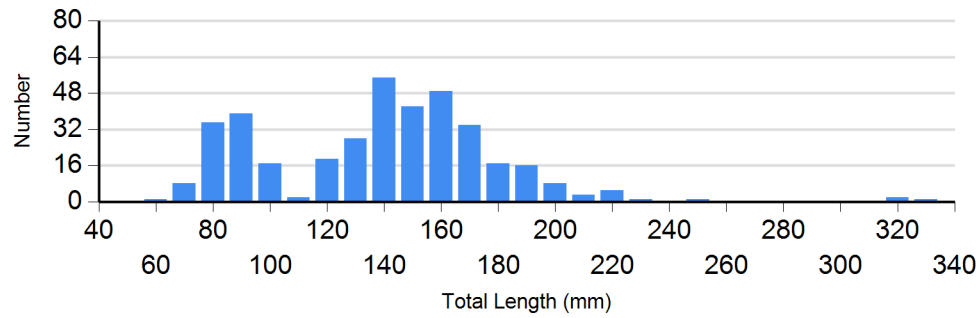
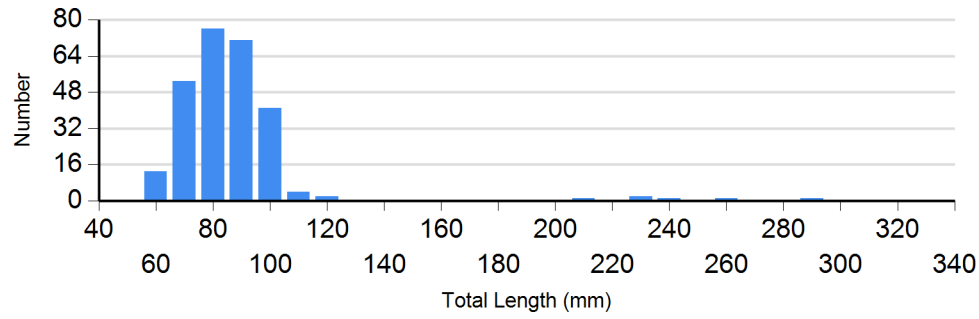
Species: Brook Trout



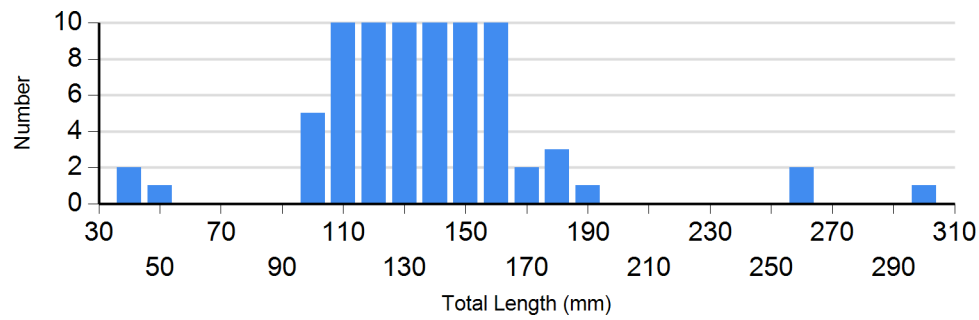
Site: 9
Species: Brook Trout



Site: 11
Species: Brook Trout



Site: 15
Species: Brook Trout



Site: 72
Species: Brook Trout

