

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Annie Creek, Lawrence County
09-0074-00
2015

Table 1. Population and Biomass Estimates for Annie Creek

Site Number: 2
Site Midpoint (Latitude, Longitude): 44.32728433, -103.89361583
Survey Completed by: GEI
Stream Classification: BK3, BR3

Date Sampled: 08/26/2015
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	95	95	97	95	0	0	922	0	0.00	1484	117.5	21.3
Brook Trout	>=200mm	9	9	9	9	0	0	87	0	0.00	141	218.6	112.6
Brook Trout	All	104	104	106	104	0	0	1010	0	0.00	1625	126.2	29.2
Brown Trout	<200mm	20	20	20	20	0	0	194	0	0.00	312	152.7	43.4
Brown Trout	>=200mm	19	19	19	19	0	0	184	0	0.00	297	227.0	130.6
Brown Trout	All	39	39	39	39	0	0	379	0	0.00	609	188.9	85.9

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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	95	96	99	95	0	0	932	0	0.00	1500	117.4	27.9
Brook Trout	>=200mm	9	9	9	9	0	0	87	0	0.00	141	218.6	112.6
Brook Trout	All	104	105	108	104	0	0	1019	0	0.00	1640	126.2	37.5

Brown Trout	<200mm	20	20	20	20	0	0	194	0	0.00	312	152.7	43.4
Brown Trout	>=200mm	19	19	19	19	0	0	184	0	0.00	297	227.0	130.6
Brown Trout	All	39	39	40	39	0	0	379	0	0.00	609	188.9	85.9

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, 2005-2015

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 31, 2006	91	90-94	
	Aug 29, 2007	118	110-128	
	Aug 27, 2008	114	113-117	
	Aug 26, 2009	125	115-136	
	Aug 24, 2010	130	129-133	
	Aug 24, 2011	113	109-119	
	Aug 24, 2012	162	142-182	

Brook Trout <200mm	May 28, 2014	25	25-26	
	Aug 22, 2014	136	129-144	
	Aug 26, 2015	95	95-97	
	Aug 26, 2015	96	95-99	
Brook Trout >=200mm	Aug 31, 2006	1	1-1	BK3
	Aug 29, 2007	2	2-2	BK3
	Aug 27, 2008	1	1-1	BK3
	Aug 26, 2009	2	2-2	BK3
	Aug 24, 2011	3	3-3	BK2
	Aug 24, 2012	3	3-4	BK2
	May 28, 2014	1	1-1	BK3
	Aug 22, 2014	5	5-5	BK2
	Aug 26, 2015	9	9-9	BK3
	Aug 26, 2015	9	9-9	BK3
Brown Trout <200mm	Aug 31, 2006	5	5-5	
	Aug 29, 2007	17	16-21	

Brown Trout <200mm	Aug 27, 2008	14	15-19	
	Aug 26, 2009	3	3-3	
	Aug 24, 2010	6	6-6	
	Aug 24, 2011	7	7-7	
	Aug 24, 2012	29	29-30	
	May 28, 2014	15	15-17	
	Aug 22, 2014	35	35-36	
	Aug 26, 2015	20	20-20	
	Aug 26, 2015	20	20-20	
Brown Trout >=200mm	Aug 31, 2006	1	1-1	BR3
	Aug 29, 2007	3	3-4	BR3
	Aug 27, 2008	1	1-1	BR3
	Aug 26, 2009	3	3-3	BR3
	Aug 24, 2010	2	2-2	BR2
	Aug 24, 2011	4	4-4	BR2
	Aug 24, 2012	2	2-3	BR2

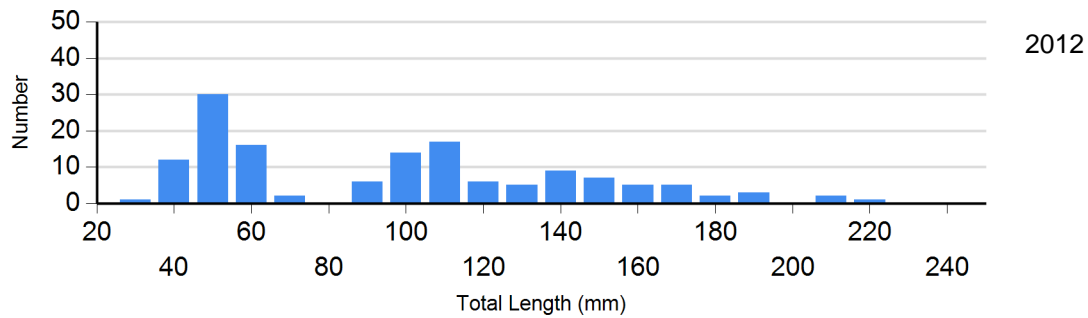
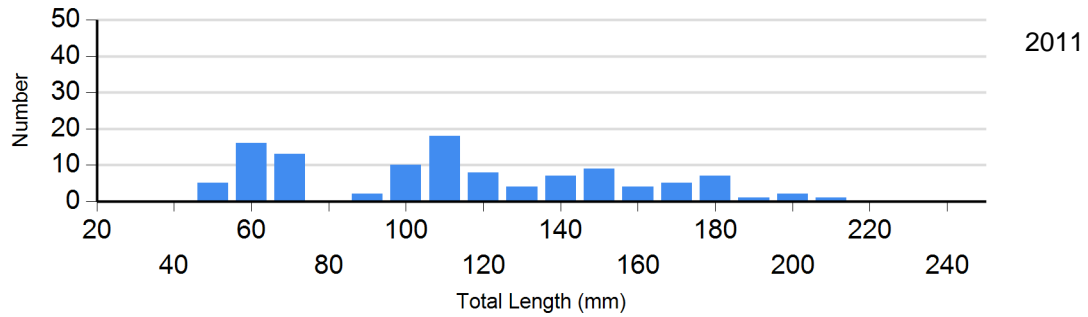
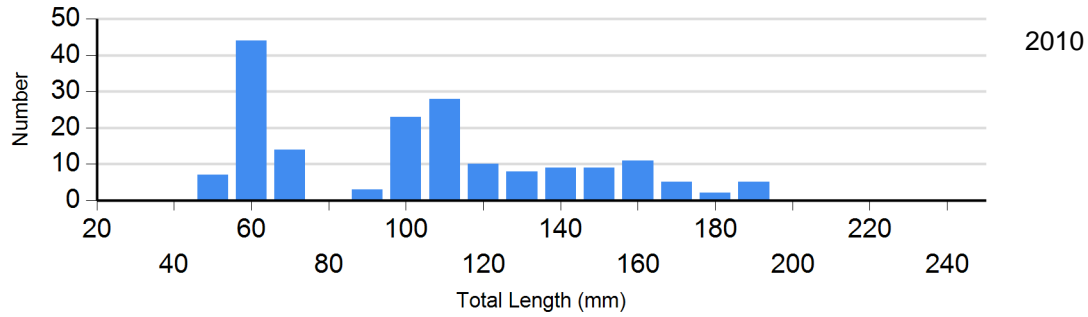
Brown Trout >=200mm	Aug 22, 2014	1	1-1	BR3
	Aug 26, 2015	19	19-19	BR3
	Aug 26, 2015	19	19-19	BR3

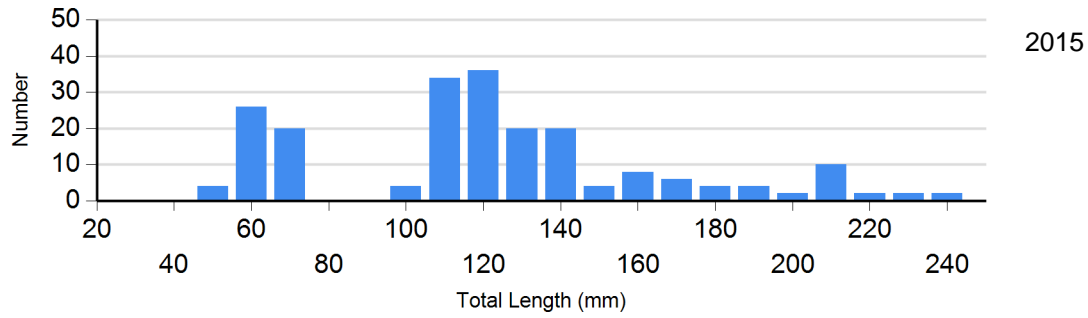
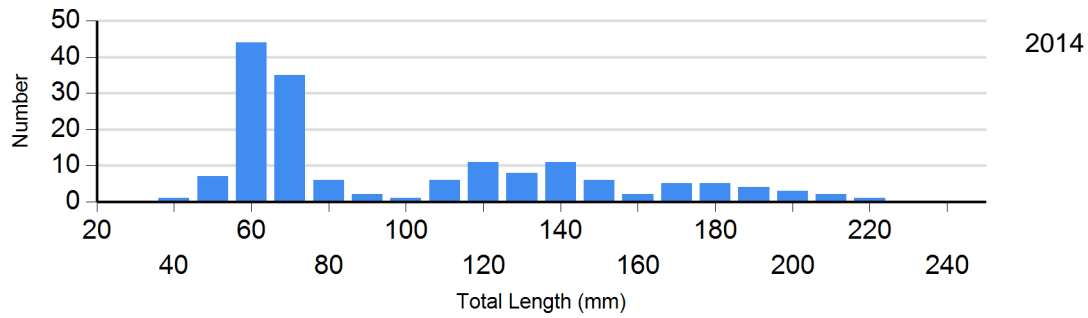
Length Frequency Distribution

Length frequency histogram of species sampled by year.

Site: 2

Species: Brook Trout





Site: 2
Species: Brown Trout

