

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Boxelder - North Fork, Lawrence County
09-0069-00
2014

Table 1. Population and Biomass Estimates for Boxelder - North Fork

Site Number: 16
Site Midpoint (Latitude, Longitude): 44.22182453, -103.62086571
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK2

Date Sampled: 07/09/2014
Site Length (m): 100
Mean Width (m): 1.9
Number of Pass: 3
Conductivity (umhos/cm): 222
pH: 8.3
Water Temperature (C): 15.5
Voltage: 350

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	73	66	3649	116	680	1478	103.70	1094	109.5	31.8
Brook Trout	>=200mm	5	5	5	5	268	28	50	109	25.01	80	208.4	104.4
Brook Trout	All	71	73	77	71	3917	156	730	1586	138.91	1175	116.5	39.7
Longnose Dace	All	75	87	102	75	4668	43	870	1891	38.21	1400	60.5	9.2
Mountain Sucker	All	4	4	4	4	215	3	40	87	2.73	64	106.3	14.3

Site Number: 112
Site Midpoint (Latitude, Longitude): 44.22303907, -103.69113208
Survey Completed by:
Stream Classification: BK3

Date Sampled: 06/11/2014
Site Length (m): 100
Mean Width (m): 1.7
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C):
Voltage: 300

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	30	31	34	30	1776	65	310	719	58.39	499	119.5	36.8
Brook Trout	>=200mm	1	1	1	1	57	9	10	23	7.88	16	249.0	154.0
Brook Trout	All	31	32	35	31	1833	77	320	743	68.61	515	123.7	41.9
Longnose Dace	All	13	16	26	13	917	9	160	371	8.18	257	80.5	10.0

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 Boxelder - North Fork, 2004-2014

Site 16

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 09, 2014	68	66-73	
Brook Trout >=200mm	Jul 09, 2014	5	5-5	BK2
Longnose Dace	Jul 09, 2014	87	75-102	
Mountain Sucker	Jul 09, 2014	4	4-4	

Site 112

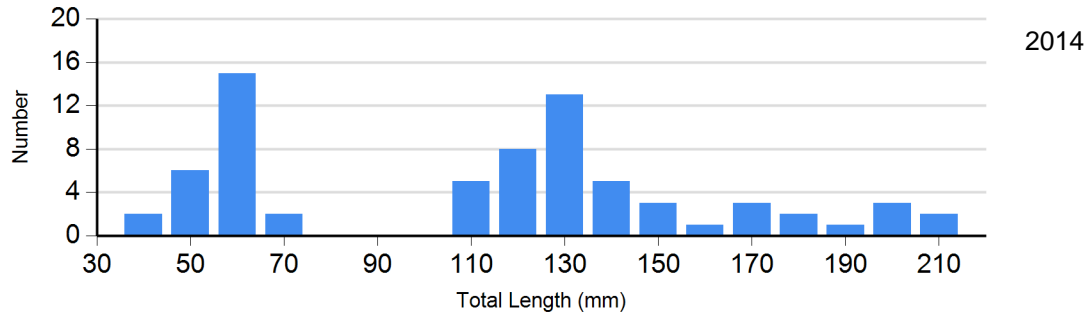
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 11, 2014	31	30-34	
Brook Trout >=200mm	Jun 11, 2014	1	1-1	BK3

Length Frequency Distribution

Length frequency histogram of species sampled by year.

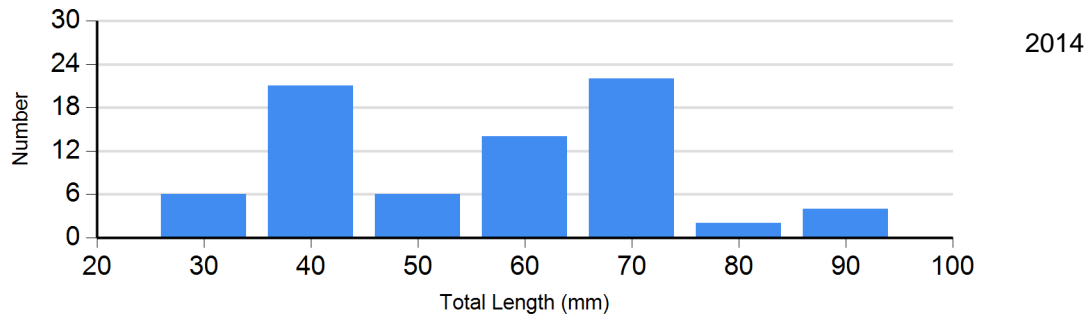
Site: 16

Species: Brook Trout



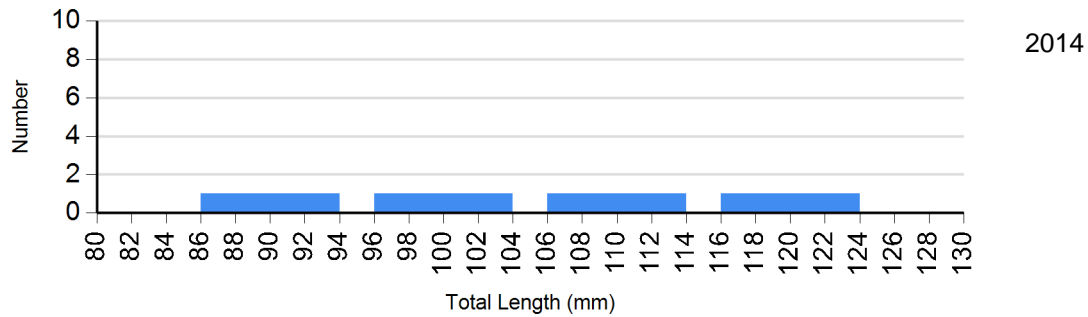
Site: 16

Species: Longnose Dace

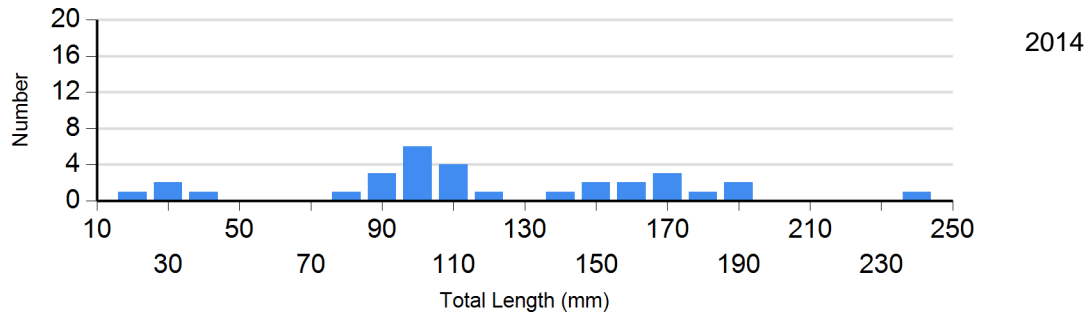
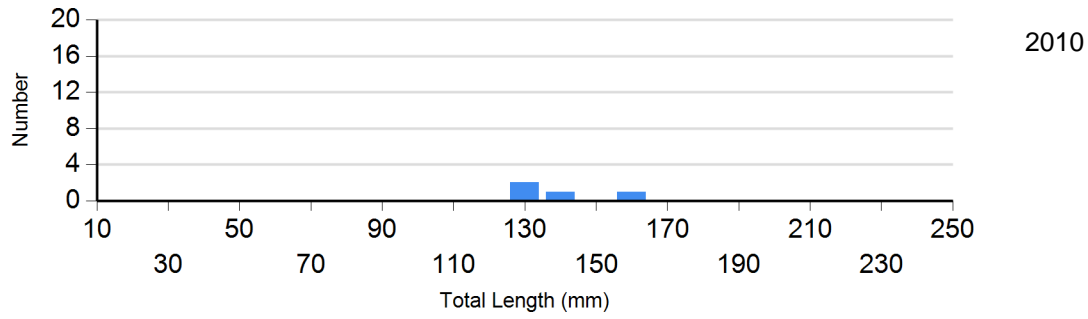


Site: 16

Species: Mountain Sucker



Site: 112
Species: Brook Trout



Site: 112
Species: Longnose Dace

