

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Boxelder - South Fork, Lawrence County
09-0071-00
1993

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

Site Number: 9	Date Sampled: 05/13/1993	Conductivity (umhos/cm): 120
Site Midpoint (Latitude, Longitude): 44.19754215, -103.54239372	Site Length (m): 100	pH: 7.3
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 5.9	Water Temperature (C): 14.0
Stream Classification: BK2, BR3	Number of Pass: 3	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	55	64	78	55	1085	30	640	439	26.80	1030	137.6	27.7
Brook Trout	>=200mm	4	4	7	4	68	5	40	27	4.66	64	206.8	77.0
Brook Trout	All	59	71	88	59	1203	37	710	487	33.33	1142	142.3	31.0
Brown Trout	<200mm	4	8	42	4	136	1	80	55	1.33	129	111.0	11.0
Brown Trout	>=200mm	1	1	2	1	17	3	10	7	2.80	16	271.0	185.0
Brown Trout	All	5	13	87	5	220	10	130	89	9.01	209	143.0	45.8
Hatchery Brown Trout	<200mm	4	4	4	4	68	4	40	27	3.65	64	186.0	60.3
Hatchery Brown Trout	>=200mm	17	18	22	17	305	39	180	124	35.06	290	238.5	128.7
Hatchery Brown Trout	All	21	22	26	21	373	43	220	151	38.51	354	228.5	115.7
Longnose Dace	All	39	52	75	39	881	4	520	357	3.19	837	72.8	4.1

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 - South Fork, 1983-1993

Site 9

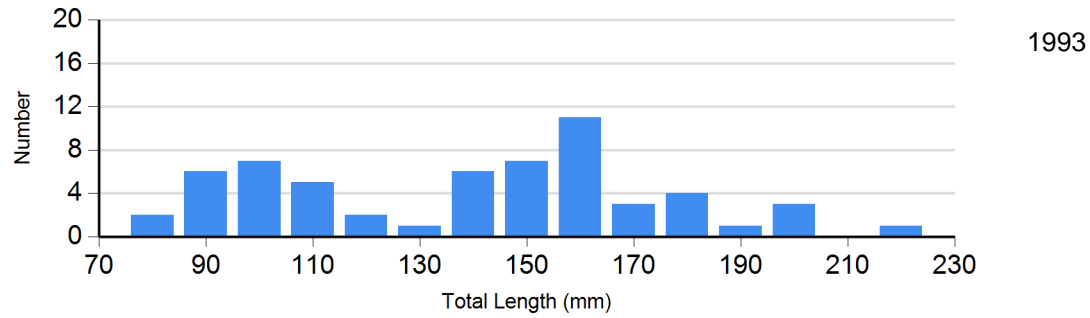
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	May 13, 1993	64	55-78	
Brook Trout >=200mm	May 13, 1993	4	4-7	BK2
Brown Trout <200mm	May 13, 1993	8	4-42	
Brown Trout >=200mm	May 13, 1993	1	1-2	BR3
Hatchery Brown Trout <200mm	May 13, 1993	4	4-4	
Hatchery Brown Trout >=200mm	May 13, 1993	18	17-22	
Longnose Dace	May 13, 1993	52	39-75	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

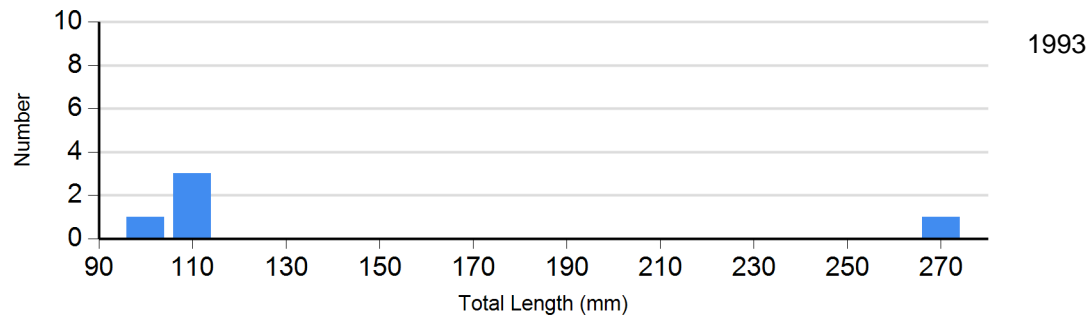
Site: 9

Species: Brook Trout



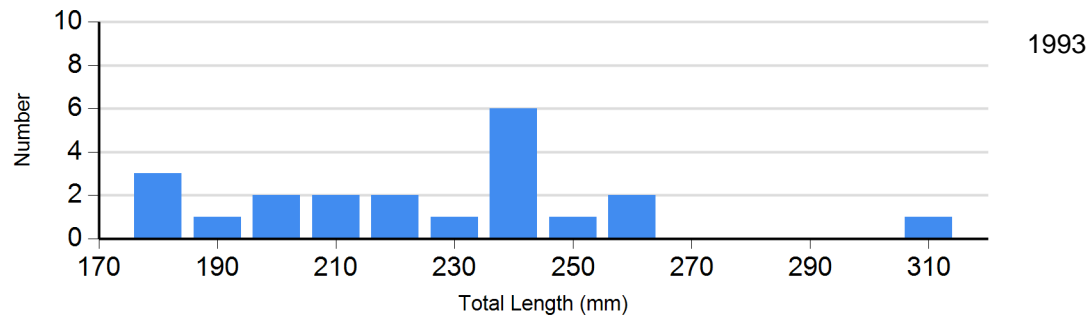
Site: 9

Species: Brown Trout



Site: 9

Species: Hatchery Brown Trout



Site: 9
Species: Longnose Dace

