

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Tillson Creek, Lawrence County
09-0081-00
2008

Table 1. Population and Biomass Estimates for Tillson Creek

Site Number: 23
Site Midpoint (Latitude, Longitude): 44.17794910, -103.77710190
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0, BR0

Date Sampled: 06/17/2008 **Conductivity (umhos/cm):** 145
Site Length (m): 100
Mean Width (m): 1.9 **pH:** 7.8
Number of Pass: 1 **Water Temperature (C):** 15.7
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	5	5	5	5	267	4	50	108	4.00	80	110.4	16.8
Brook Trout	All	5	5	5	5	267	4	50	108	4.00	80	110.4	16.8
Brown Trout	<200mm	2	2	2	2	107	2	20	43	1.86	32	120.0	19.5
Brown Trout	All	2	2	2	2	107	2	20	43	1.86	32	120.0	19.5
Longnose Dace	All	14	14	14	14	748	13	140	303	11.35	225	83.3	17.0
Mountain Sucker	All	1	1	1	1	53	3	10	22	2.91	16	185.0	61.0

Site Number: 98
Site Midpoint (Latitude, Longitude): 44.18987337, -103.82576437
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0

Date Sampled: 06/17/2008 **Conductivity (umhos/cm):** 373
Site Length (m): 100
Mean Width (m): 0.9 **pH:** 5.1
Number of Pass: 1 **Water Temperature (C):** 12.7
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	15	15	15	15	1650	43	150	668	38.70	241	122.9	26.3
Brook Trout	All	15	15	15	15	1650	43	150	668	38.70	241	122.9	26.3

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 Tillson Creek, 1998-2008

Site 23

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 02, 2006	103	103-104	
	Jun 17, 2008	5	5-5	
Brook Trout >=200mm	Aug 02, 2006	2	2-2	BK2
Brown Trout <200mm	Jun 17, 2008	2	2-2	
Longnose Dace	Aug 02, 2006	93	88-100	
	Jun 17, 2008	14	14-14	
Mountain Sucker	Jun 17, 2008	1	1-1	

Site 98

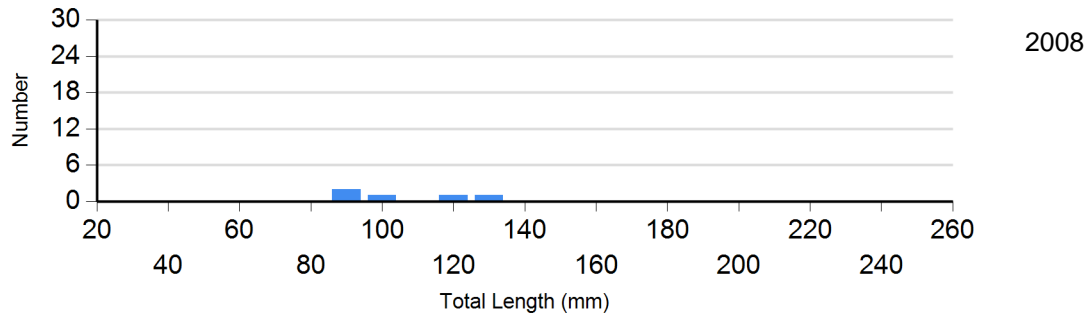
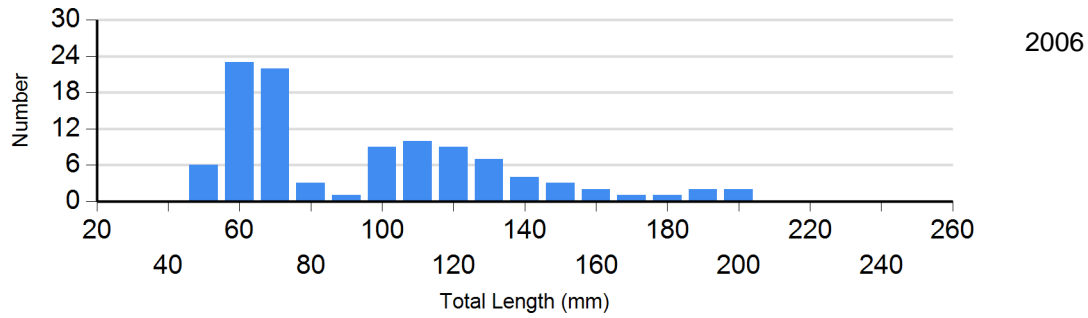
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 17, 2008	15	15-15	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

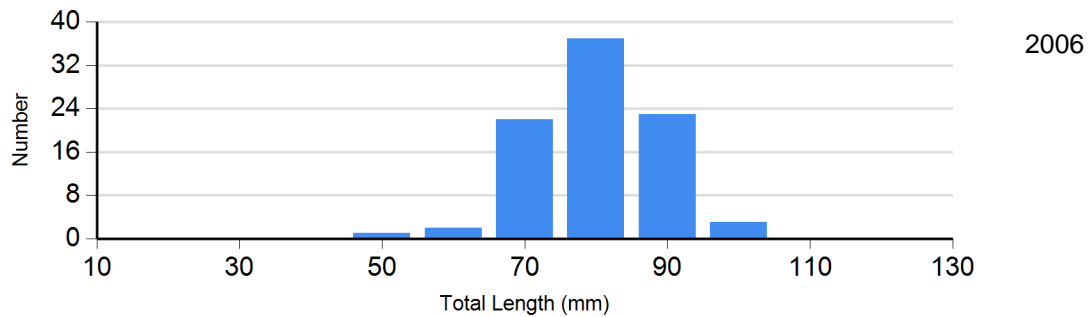
Site: 23

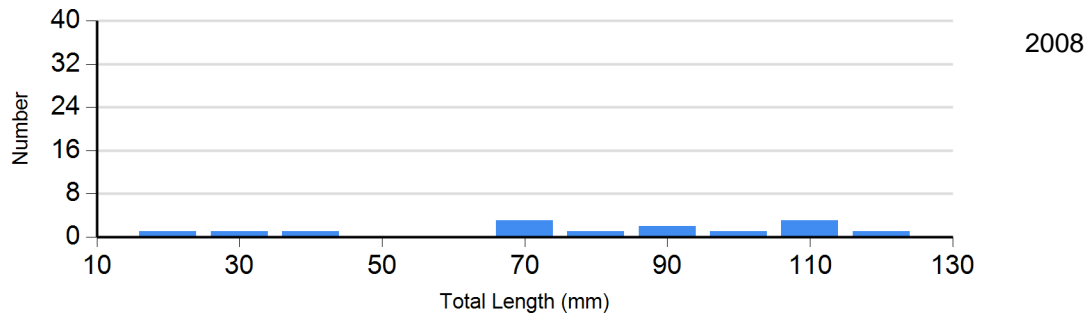
Species: Brook Trout



Site: 23

Species: Longnose Dace





Site: 98
Species: Brook Trout

