

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Tillson Creek, Lawrence County
09-0081-00
2006

Table 1. Population and Biomass Estimates for Tillson Creek

Site Number: 23	Date Sampled: 08/02/2006	Conductivity (umhos/cm): 175
Site Midpoint (Latitude, Longitude): 44.17794910, -103.77710190	Site Length (m): 100	pH:
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 1.6	Water Temperature (C): 13.0
Stream Classification: BK2	Number of Pass: 3	Voltage: 275

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	103	103	104	103	6626	94	1030	2683	84.20	1657	98.3	14.2
Brook Trout	>=200mm	2	2	2	2	129	11	20	52	9.42	32	201.0	82.0
Brook Trout	All	152	152	153	152	9778	152	1520	3960	135.53	2446	100.2	15.5
Longnose Dace	All	88	93	100	88	5982	34	930	2423	29.96	1496	84.7	5.6
White Sucker	All	10	10	11	10	643	12	100	261	10.51	161	122.0	18.3

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, 1996-2006

Site 23

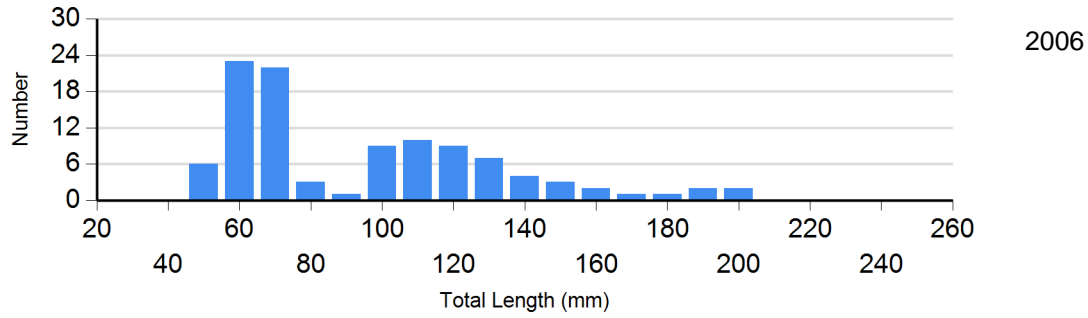
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Aug 02, 2006	103	103-104	
Brook Trout >=200mm	Aug 02, 2006	2	2-2	BK2
Longnose Dace	Aug 02, 2006	93	88-100	
White Sucker	Aug 02, 2006	10	10-11	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

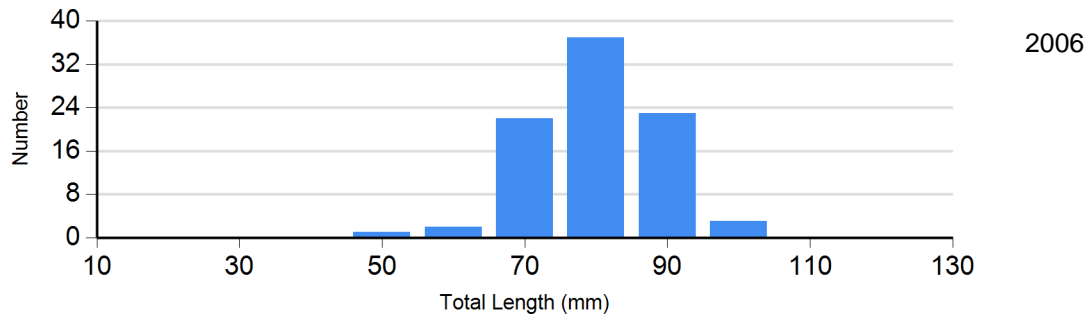
Site: 23

Species: Brook Trout



Site: 23

Species: Longnose Dace



Site: 23

Species: White Sucker

