

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Tillson Creek, Lawrence County
09-0081-00
2018

Table 1. Population and Biomass Estimates for Tillson Creek

Site Number: 101
Site Midpoint (Latitude, Longitude): 44.19035870, -103.82889726
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0

Date Sampled: 05/17/2018
Site Length (m): 100
Mean Width (m): 2.0
Number of Pass: 3
Conductivity (umhos/cm):
pH:
Water Temperature (C): 15.0
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	58	58	59	58	2861	82	580	1159	73.62	933	117.0	28.8
Brook Trout	All	58	58	59	58	2861	82	580	1159	73.62	933	117.0	28.8

Site Number: 101
Site Midpoint (Latitude, Longitude): 44.19035870, -103.82889726
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0, BR2

Date Sampled: 06/06/2018
Site Length (m): 100
Mean Width (m): 3.1
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	38	40	45	38	1279	36	400	518	32.49	644	121.4	28.4
Brook Trout	All	38	40	45	38	1279	36	400	518	32.49	644	121.4	28.4
Brown Trout	<200mm	21	21	22	21	672	21	210	272	18.42	338	122.3	30.7
Brown Trout	>=200mm	3	3	4	3	96	12	30	39	10.74	48	226.3	125.3
Brown Trout	All	24	24	25	24	767	34	240	311	30.31	386	135.3	44.2
Longnose Dace	All	24	97	537	24	3102	45	970	1256	40.62	1561	89.5	14.7
White Sucker	All	3	3	3	3	96	10	30	39	9.19	48	176.7	107.3

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, 2008-2018

Site 101

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 30, 2014	82	82-83	
	May 25, 2016	68	68-69	
	May 17, 2018	58	58-59	
	Jun 06, 2018	40	38-45	
Brook Trout >=200mm	Jun 30, 2014	1	1-1	BK3
Brown Trout <200mm	May 25, 2016	2	2-2	
	Jun 06, 2018	21	21-22	

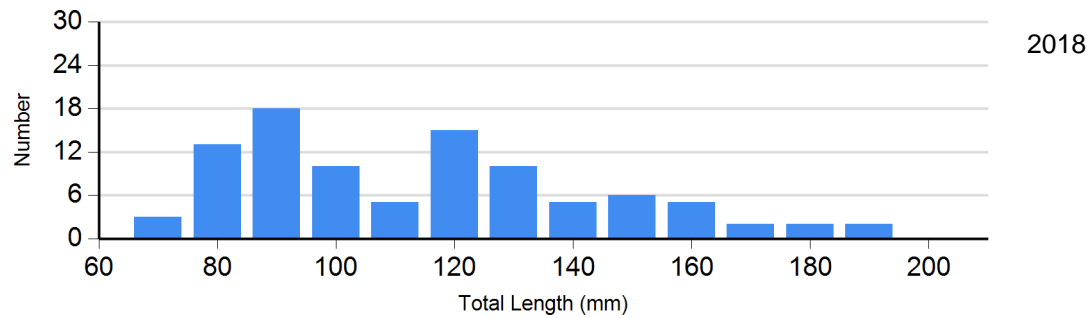
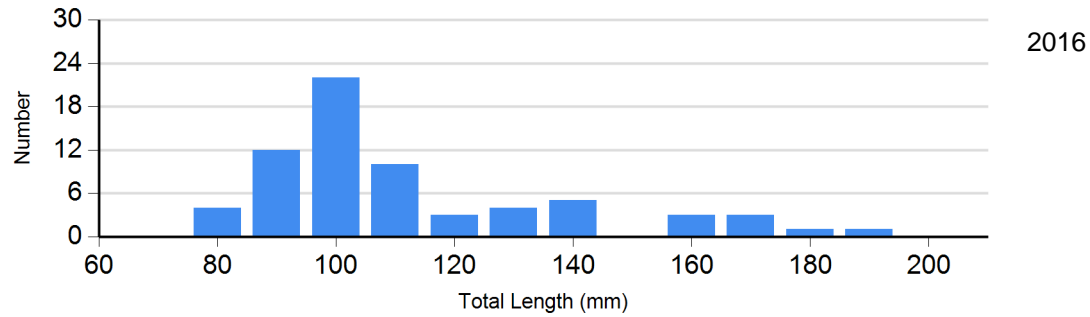
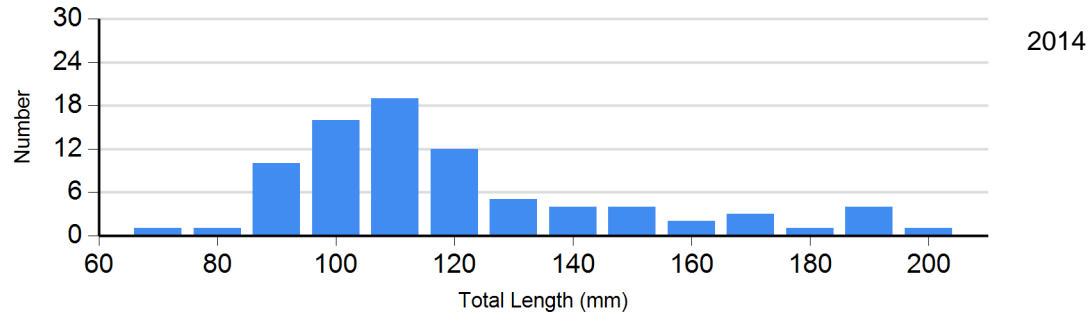
Brown Trout >=200mm	Jun 06, 2018	3	3-4	BR2
Longnose Dace	Jun 06, 2018	97	24-537	
White Sucker	Jun 06, 2018	3	3-3	

Length Frequency Distribution

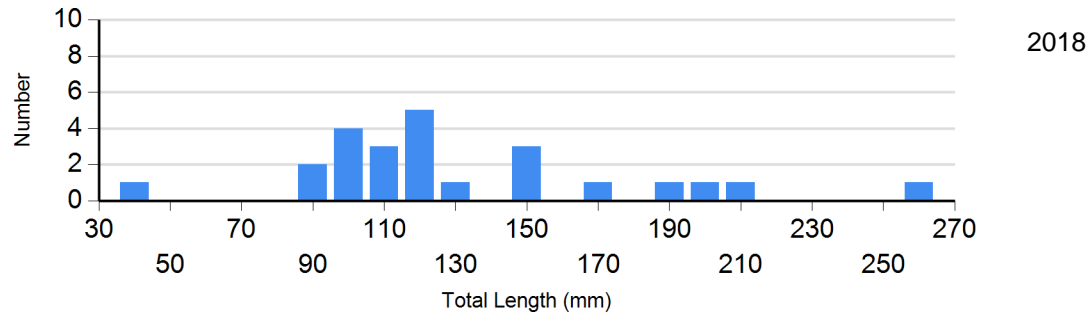
Length frequency histogram of species sampled by year.

Site: 101

Species: Brook Trout



Site: 101
Species: Brown Trout



Site: 101
Species: Longnose Dace

