

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Elk Creek, Meade County
09-0015-00
2008

Table 1. Population and Biomass Estimates for Elk Creek

Site Number: 2391	Date Sampled: 07/22/2008	Conductivity (umhos/cm): 333
Site Midpoint (Latitude, Longitude): 44.27990648, -103.63443148	Site Length (m): 100	pH: 9.0
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 5.1	Water Temperature (C): 19.9
Stream Classification: BK3	Number of Pass: 1	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	12	12	12	12	234	11	120	95	9.84	193	136.8	47.1
Brook Trout	>=200mm	2	2	2	2	39	5	20	16	4.25	32	220.5	122.0
Brook Trout	All	14	14	14	14	273	17	140	111	14.81	225	148.7	60.7
Mountain Sucker	All	40	40	40	40	780	17	400	316	14.75	644	122.1	21.2

Site Number: 2537	Date Sampled: 07/01/2008	Conductivity (umhos/cm): 399
Site Midpoint (Latitude, Longitude): 44.25638126, -103.75581378	Site Length (m): 100	pH: 8.5
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 2.9	Water Temperature (C): 13.1
Stream Classification: BK0	Number of Pass: 1	Voltage: 325

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	61	61	61	61	2130	50	610	863	45.09	981	121.1	23.7
Brook Trout	All	61	61	61	61	2130	50	610	863	45.09	981	121.1	23.7

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 Elk Creek, 1998-2008

Site 2391

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 22, 2008	12	12-12	
Brook Trout >=200mm	Jul 22, 2008	2	2-2	BK3
Mountain Sucker	Jul 22, 2008	40	40-40	

Site 2537

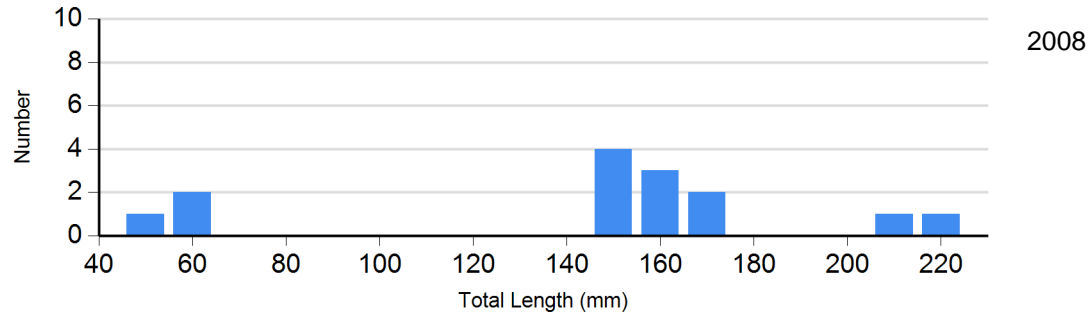
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 01, 2008	61	61-61	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

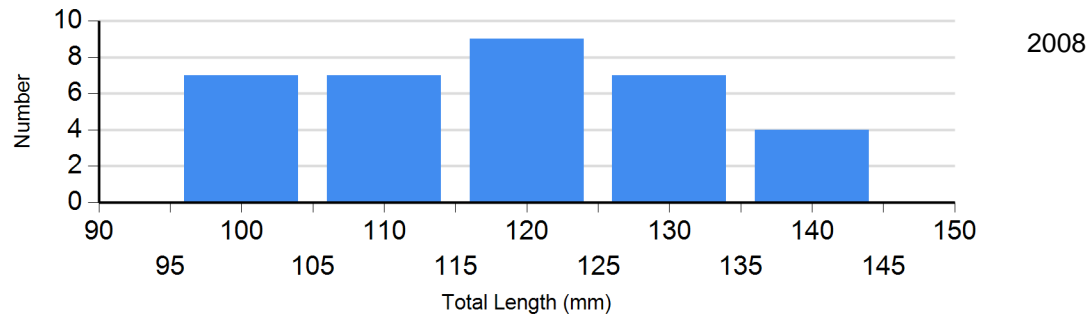
Site: 2391

Species: Brook Trout



Site: 2391

Species: Mountain Sucker



Site: 2537

Species: Brook Trout

