

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Iron Creek (South), Pennington County
02-0082-00
1998

Table 1. Population and Biomass Estimates for Iron Creek (South)

Site Number: 138	Date Sampled: 08/28/1998	Conductivity (umhos/cm): 82
Site Midpoint (Latitude, Longitude): 43.84047487, -103.42803933	Site Length (m): 100	pH: 7.6
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 4.4	Water Temperature (C): 19.7
Stream Classification: BK0, BR3, RB0	Number of Pass: 3	Voltage: 400

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	381	395	406	384	8977	154	3950	3636	137.93	6356	120.1	17.2
Brook Trout	All	438	461	475	447	10477	180	4610	4243	160.97	7417	120.1	17.2
Brown Trout	<200mm	2	2	2	2	45	2	20	18	1.62	32	155.5	40.0
Brown Trout	>=200mm	1	1	1	1	23	41	10	9	36.20	16	537.0	1784.0
Brown Trout	All	3	3	3	3	68	42	30	28	37.83	48	282.7	621.3
Rainbow Trout	<200mm	7	7	7	7	159	3	70	64	2.92	113	129.6	20.6
Rainbow Trout	All	7	7	7	7	159	3	70	64	2.92	113	129.6	20.6

Site Number: 193	Date Sampled: 08/28/1998	Conductivity (umhos/cm): 83
Site Midpoint (Latitude, Longitude): 43.82768749, -103.46039550	Site Length (m): 104	pH: 6.7
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 3.2	Water Temperature (C): 11.8
Stream Classification: BK2	Number of Pass: 3	Voltage: 400

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	193	203	213	193	6265	129	1952	2538	114.78	3141	125.6	20.5
Brook Trout	>=200mm	3	3	4	3	93	7	29	38	6.67	46	204.7	80.7

Brook Trout	All	291	321	341	301	9907	212	3087	4013	189.65	4966	126.8	21.4
Hatchery Brown Trout	>=200mm	5	5	5	5	154	27	48	63	24.06	77	267.0	174.6
Hatchery Brown Trout	All	5	5	5	5	154	27	48	63	24.06	77	267.0	174.6

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 Iron Creek (South), 1988-1998

Site 138

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 08, 1993	147	140-155	
	Aug 28, 1998	395	384-406	
Brook Trout >=200mm	Jul 08, 1993	1	1-1	BK3
Brown Trout <200mm	Aug 28, 1998	2	2-2	
Brown Trout >=200mm	Aug 28, 1998	1	1-1	BR3
Rainbow Trout <200mm	Jul 08, 1993	5	5-5	
	Aug 28, 1998	7	7-7	

Rainbow Trout >=200mm

Jul 08, 1993

1

1-1

RB2

Site 193

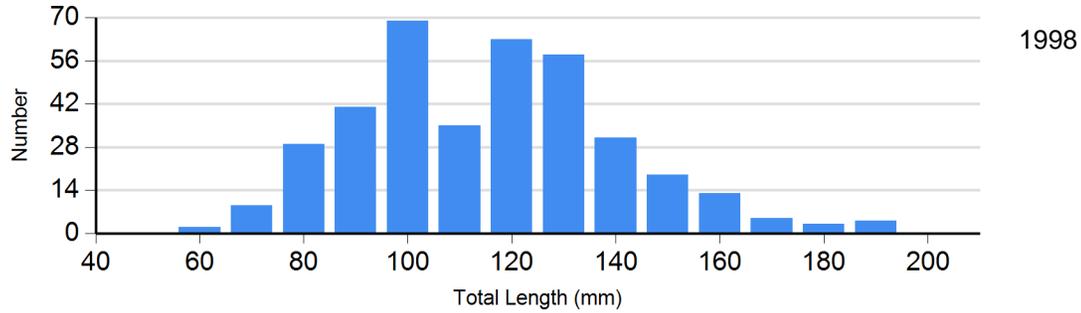
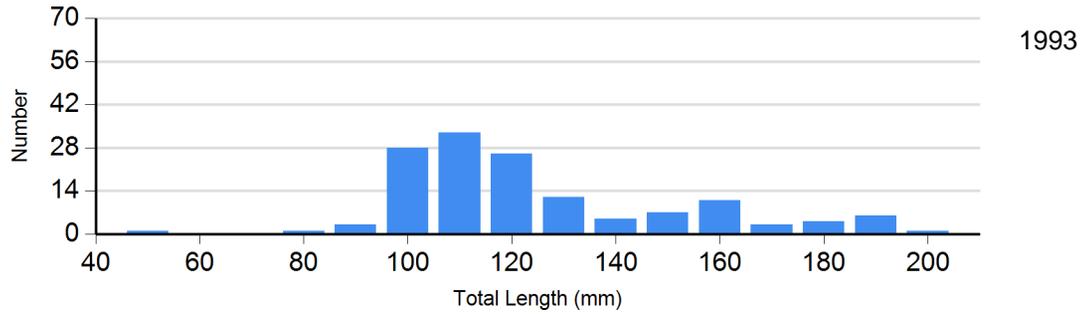
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 26, 1992	205	200-211	
	Jul 07, 1993	139	136-144	
	Jul 20, 1994	412	408-417	
	Aug 28, 1998	203	193-213	
Brook Trout >=200mm	Aug 28, 1998	3	3-4	BK2
Brown Trout <200mm	Jun 26, 1992	1	1-1	
	Jul 07, 1993	1	1-1	
Hatchery Brown Trout >=200mm	Aug 28, 1998	5	5-5	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

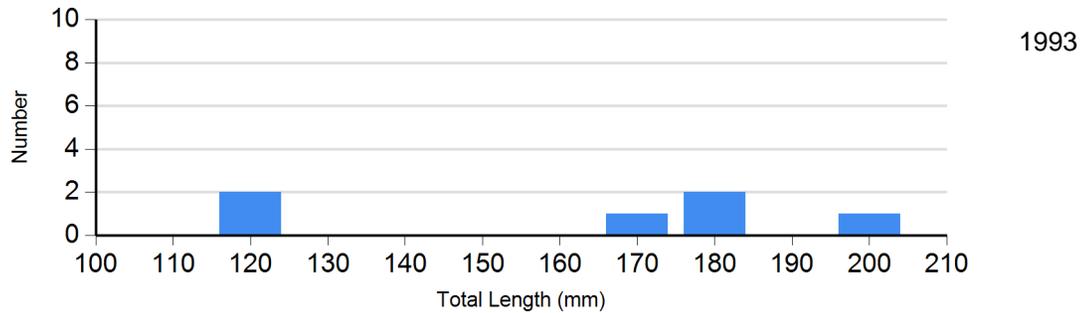
Site: 138

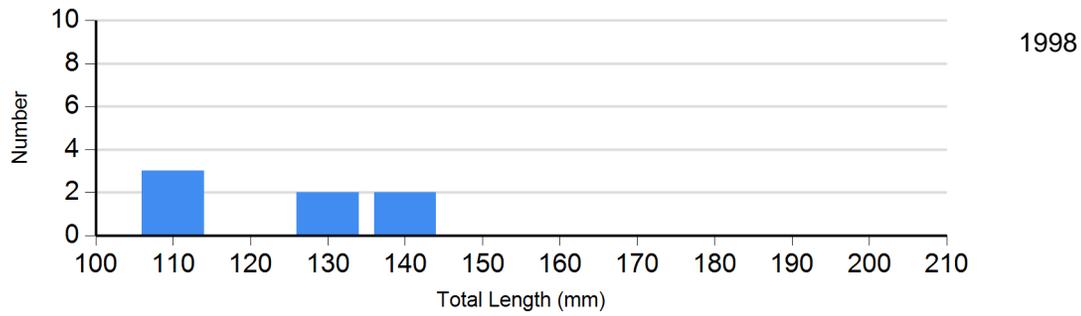
Species: Brook Trout



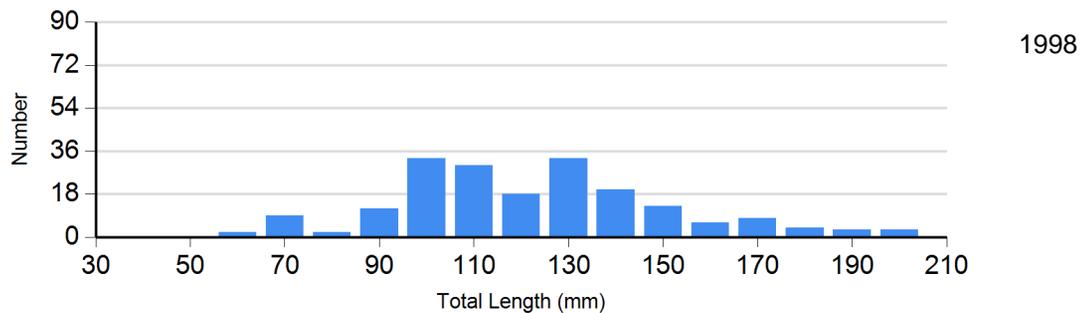
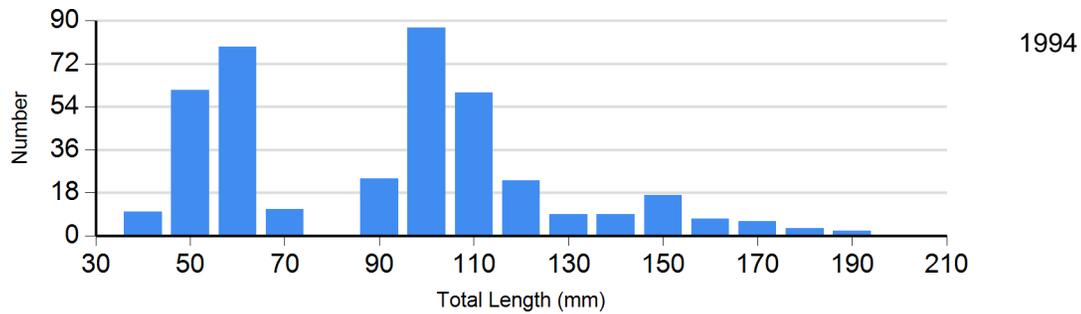
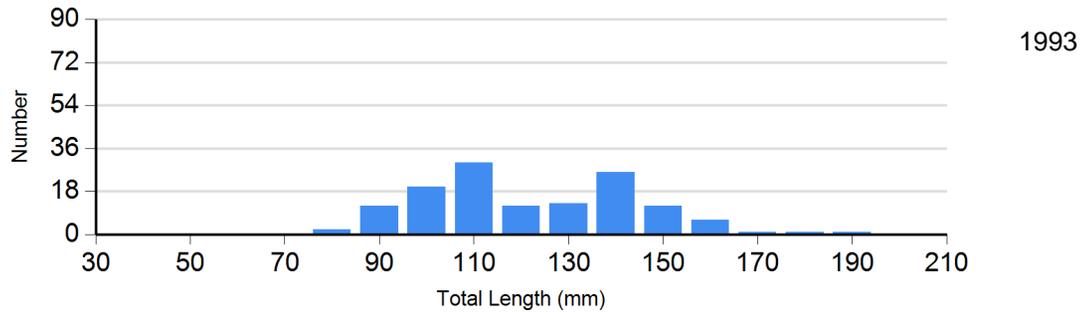
Site: 138

Species: Rainbow Trout





Site: 193
Species: Brook Trout



Site: 193
Species: Hatchery Brown Trout

