

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Iron Creek (South), Pennington County
02-0082-00
1992

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

Site Number: 152 **Date Sampled:** 06/25/1992
Site Midpoint (Latitude, Longitude): 43.83688225, -103.43574684 **Conductivity (umhos/cm):** 65
Survey Completed by: South Dakota Game, Fish and Parks **pH:**
Stream Classification: BK3, BR3, RB0 **Water Temperature (C):** 15.0
Number of Pass: 3
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	219	233	245	221	0	0	2330	0	0.00	3749	127.9	24.1
Brook Trout	>=200mm	1	1	1	1	0	0	10	0	0.00	16	205.0	101.0
Brook Trout	All	220	234	246	222	0	0	2340	0	0.00	3765	128.3	24.4
Brown Trout	<200mm	3	3	4	3	0	0	30	0	0.00	48	159.7	49.7
Brown Trout	>=200mm	4	4	6	4	0	0	40	0	0.00	64	215.5	93.8
Brown Trout	All	7	7	9	7	0	0	70	0	0.00	113	191.6	74.9
Hatchery Brown Trout	<200mm	2	2	2	2	0	0	20	0	0.00	32	194.5	75.0
Hatchery Brown Trout	>=200mm	15	15	15	15	0	0	150	0	0.00	241	247.5	166.3
Hatchery Brown Trout	All	17	17	17	17	0	0	170	0	0.00	274	241.2	155.6
Longnose Dace	All	52	51	60	52	0	0	510	0	0.00	821	78.9	6.7
Rainbow Trout	<200mm	6	6	8	6	0	0	60	0	0.00	97	129.8	26.8
Rainbow Trout	All	6	6	8	6	0	0	60	0	0.00	97	129.8	26.8

Site Number: 176
Site Midpoint (Latitude, Longitude): 43.83582547, -103.45186014

Date Sampled: 06/25/1992 **Conductivity (umhos/cm):**
Site Length (m): 100 **pH:**

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: BK0, BR3

Number of Pass: 3

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	108	110	114	108	0	0	1100	0	0.00	1770	124.4	22.3
Brook Trout	All	108	110	114	108	0	0	1100	0	0.00	1770	124.4	22.3
Brown Trout	<200mm	1	1	1	1	0	0	10	0	0.00	16	132.0	24.0
Brown Trout	>=200mm	7	7	7	7	0	0	70	0	0.00	113	255.0	177.0
Brown Trout	All	8	8	8	8	0	0	80	0	0.00	129	239.6	157.9
Longnose Dace	All	21	29	50	21	0	0	290	0	0.00	467	85.8	8.1
Unidentified YOY Trout	<200mm	2	2	4	2	0	0	20	0	0.00	32	64.0	3.5
Unidentified YOY Trout	All	2	2	4	2	0	0	20	0	0.00	32	64.0	3.5

Site Number: 193

Date Sampled: 06/26/1992

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 43.82768749, -103.46039550

Site Length (m): 100

pH:

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: BK0, BR0

Number of Pass: 3

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	200	205	211	200	0	0	2050	0	0.00	3298	118.9	19.6
Brook Trout	All	200	205	211	200	0	0	2050	0	0.00	3298	118.9	19.6
Brown Trout	<200mm	1	1	1	1	0	0	10	0	0.00	16	197.0	77.0
Brown Trout	All	1	1	1	1	0	0	10	0	0.00	16	197.0	77.0

Site Number: 195

Date Sampled: 07/06/1992

Site Midpoint (Latitude, Longitude): 43.82834180, -103.46252843

Site Length (m): 100

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BK2

Mean Width (m): 2.9

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	177	206	230	182	7203	131	2060	2917	117.22	3315	120.0	18.2
Brook Trout	>=200mm	2	2	3	2	70	13	20	28	11.43	32	263.0	183.0
Brook Trout	All	179	208	231	185	7273	146	2080	2945	130.38	3347	121.6	20.1
Hatchery Brown Trout	<200mm	1	1	1	1	35	1	10	14	0.75	16	140.0	24.0
Hatchery Brown Trout	>=200mm	1	1	1	1	35	9	10	14	8.12	16	292.0	260.0
Hatchery Brown Trout	All	2	2	2	2	70	10	20	28	8.87	32	216.0	142.0

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), 1982-1992

Site 152

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 25, 1992	233	221-245	
Brook Trout >=200mm	Jun 25, 1992	1	1-1	BK3
Brown Trout <200mm	Jun 25, 1992	3	3-4	
Brown Trout >=200mm	Jun 25, 1992	4	4-6	BR3
Hatchery Brown Trout <200mm	Jun 25, 1992	2	2-2	
Hatchery Brown Trout >=200mm	Jun 25, 1992	15	15-15	
Longnose Dace	Jun 25, 1992	51	52-60	

Rainbow Trout <200mm

Jun 25, 1992

6

6-8

Site 176

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 25, 1992	110	108-114	
Brown Trout <200mm	Jun 25, 1992	1	1-1	
Brown Trout >=200mm	Jun 25, 1992	7	7-7	BR3
Longnose Dace	Jun 25, 1992	29	21-50	

Site 193

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jun 26, 1992	205	200-211	
Brown Trout <200mm	Jun 26, 1992	1	1-1	

Site 195

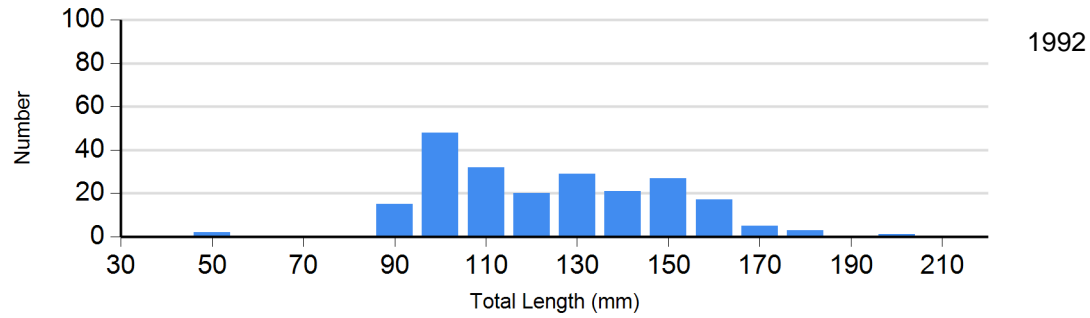
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 06, 1992	206	182-230	
Brook Trout >=200mm	Jul 06, 1992	2	2-3	BK2
Hatchery Brown Trout <200mm	Jul 06, 1992	1	1-1	
Hatchery Brown Trout >=200mm	Jul 06, 1992	1	1-1	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

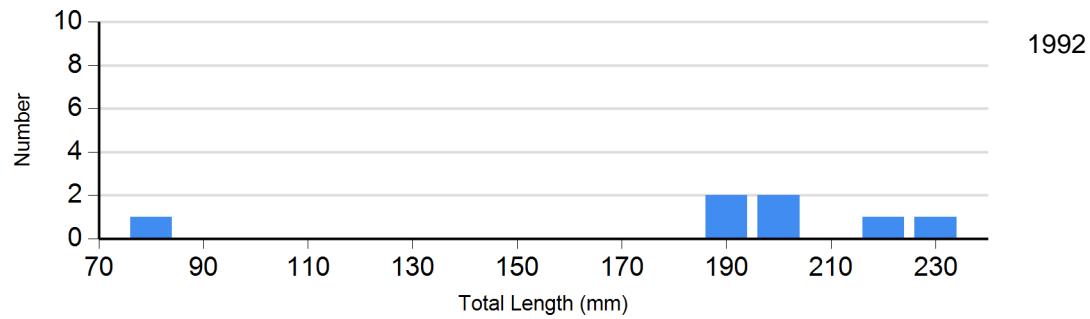
Site: 152

Species: Brook Trout



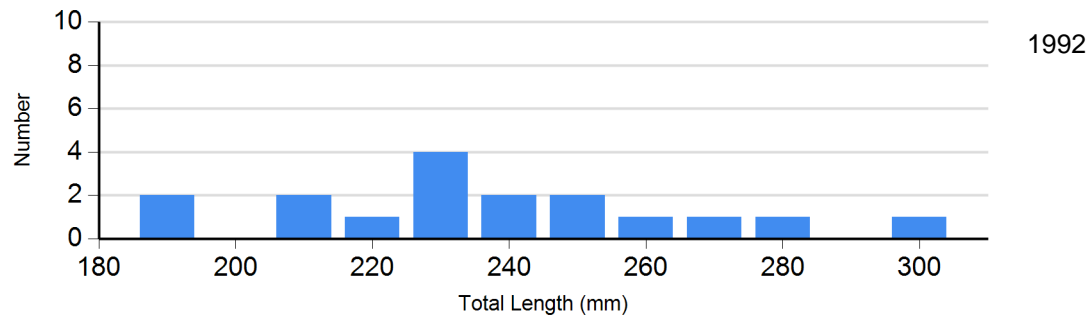
Site: 152

Species: Brown Trout

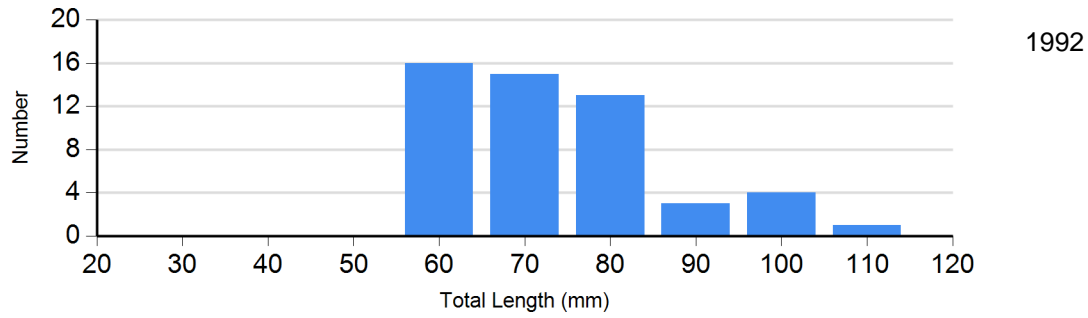


Site: 152

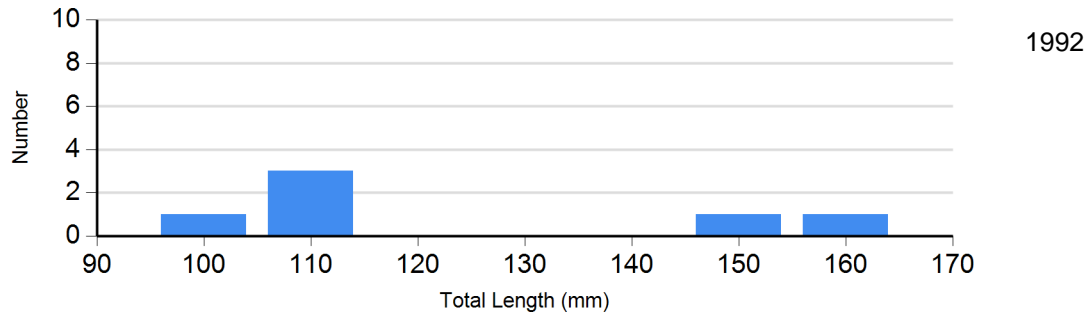
Species: Hatchery Brown Trout



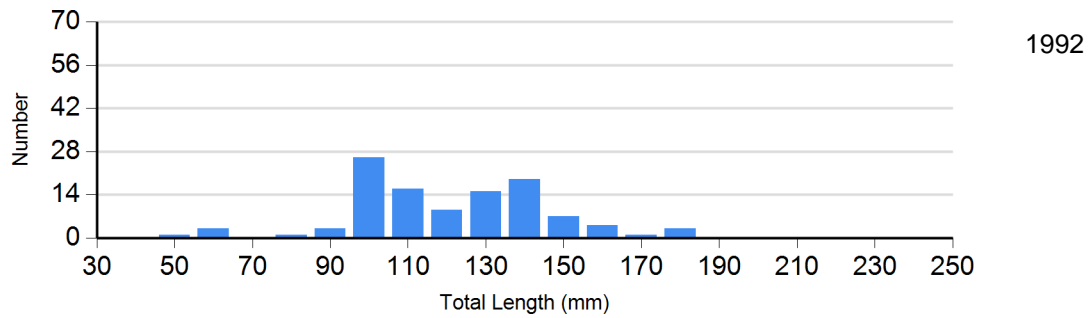
Site: 152
Species: Longnose Dace



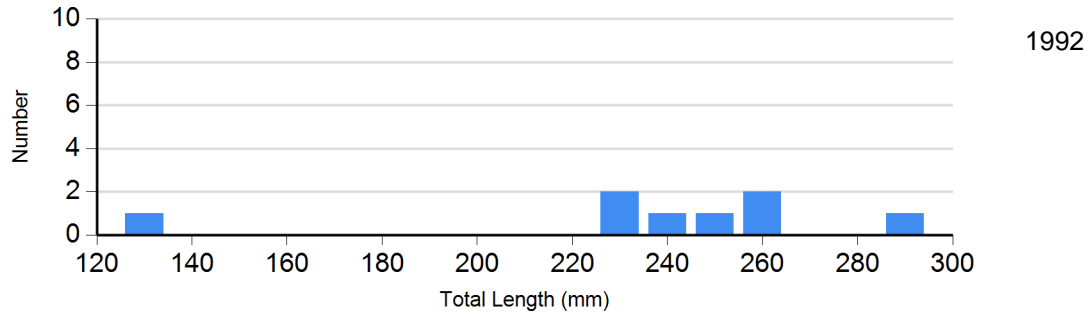
Site: 152
Species: Rainbow Trout



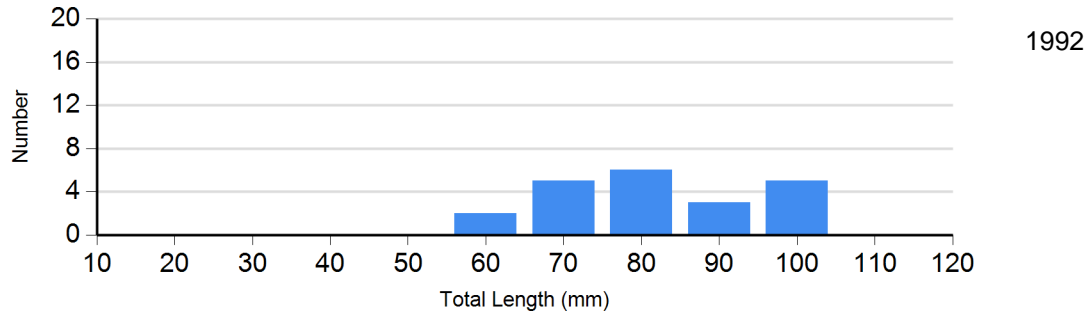
Site: 176
Species: Brook Trout



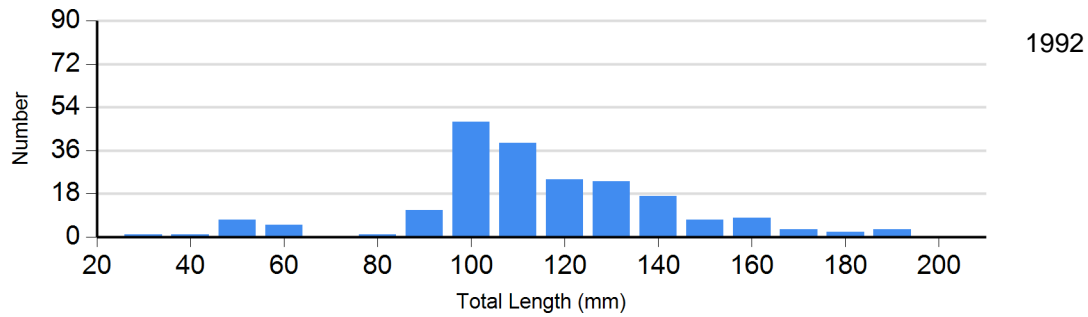
Site: 176
Species: Brown Trout



Site: 176
Species: Longnose Dace



Site: 193
Species: Brook Trout



Site: 195
Species: Brook Trout

