

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY

Annie Creek, Lawrence County

09-0074-00

1992

Table 1. Population and Biomass Estimates for Annie Creek

Site Number: 2	Date Sampled: 06/24/1992	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.32728433, -103.89361583	Site Length (m): 99	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BR0	Number of Pass: 2	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)
Brown Trout	<200mm	19	19	20	19	0	0	192	0	0.00	309	139.6	31.9
Brown Trout	All	19	19	20	19	0	0	192	0	0.00	309	139.6	31.9

Site Number: 2	Date Sampled: 10/27/1992	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.32728433, -103.89361583	Site Length (m): 99	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: BK3	Number of Pass: 1	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	11	11	11	11	0	0	111	0	0.00	179	146.5	35.4
Brook Trout	>=200mm	3	3	3	3	0	0	30	0	0.00	49	222.3	105.3
Brook Trout	All	14	14	14	14	0	0	141	0	0.00	228	162.7	50.4

Site Number: 9	Date Sampled: 06/24/1992	Conductivity (umhos/cm):
Site Midpoint (Latitude, Longitude): 44.32782599, -103.88547485	Site Length (m): 99	pH:
Survey Completed by: Chadwick Ecological Services	Mean Width (m): 0.0	Water Temperature (C):
Stream Classification: None		

Number of Pass: 1

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)
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Mountain Sucker	All	90	90	90	90	0	0	909	0	0.00	1463	68.0	5.4
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Site Number: 10

Date Sampled: 06/24/1992

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.32814875, -103.88431068

Site Length (m): 99

pH:

Survey Completed by: Chadwick Ecological Services

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: None

Number of Pass: 2

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)
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Mountain Sucker	All	5	5	5	5	0	0	51	0	0.00	81	116.6	19.8
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Site Number: 15

Date Sampled: 06/24/1992

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.32976316, -103.87855899

Site Length (m): 99

pH:

Survey Completed by: Chadwick Ecological Services

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: None

Number of Pass: 1

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)
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Mountain Sucker	All	37	37	37	37	0	0	374	0	0.00	601	61.8	5.1
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Site Number: 15

Date Sampled: 10/22/1992

Conductivity (umhos/cm):

Site Midpoint (Latitude, Longitude): 44.32976316, -103.87855899

Site Length (m): 99

pH:

Survey Completed by: Chadwick Ecological Services

Mean Width (m): 0.0

Water Temperature (C):

Stream Classification: None

Number of Pass: 1

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)
Mountain Sucker	All	108	108	108	108	0	0	1091	0	0.00	1755	79.1	6.2

Site Number: 16
Site Midpoint (Latitude, Longitude): 44.33009788, -103.87749203
Survey Completed by: Chadwick Ecological Services
Stream Classification: None

Date Sampled: 06/24/1992
Site Length (m): 99
Mean Width (m): 0.0
Number of Pass: 1
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)
Mountain Sucker	All	2	2	2	2	0	0	20	0	0.00	33	80.5	5.2

Site Number: 16
Site Midpoint (Latitude, Longitude): 44.33009788, -103.87749203
Survey Completed by: Chadwick Ecological Services
Stream Classification: None

Date Sampled: 10/28/1992
Site Length (m): 99
Mean Width (m): 0.0
Number of Pass: 2
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)
Mountain Sucker	All	2	2	2	2	0	0	20	0	0.00	33	60.0	2.0

Site Number: 16
Site Midpoint (Latitude, Longitude): 44.33009788, -103.87749203
Survey Completed by:
Stream Classification: None

Date Sampled: 10/28/1992
Site Length (m): 99
Mean Width (m): 0.0
Number of Pass: 2
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)
Mountain Sucker	All	2	2	4	2	0	0	20	0	0.00	33	60.0	2.0

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 Annie Creek, 1982-1992

Site 2

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Oct 27, 1992	11	11-11	
Brook Trout >=200mm	Oct 27, 1992	3	3-3	BK3
Brown Trout <200mm	Jun 24, 1992	19	19-20	

Site 9

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Mountain Sucker	Jun 24, 1992	90	90-90	

Site 10

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Mountain Sucker	Jun 24, 1992	5	5-5	

Site 15

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Mountain Sucker	Jun 24, 1992	37	37-37	
	Oct 22, 1992	108	108-108	

Site 16

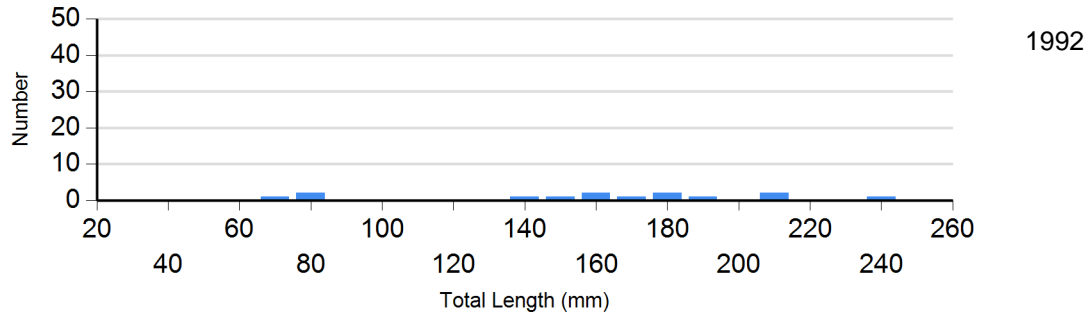
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Mountain Sucker	Jun 24, 1992	2	2-2	
	Oct 28, 1992	2	2-4	
	Oct 28, 1992	2	2-2	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

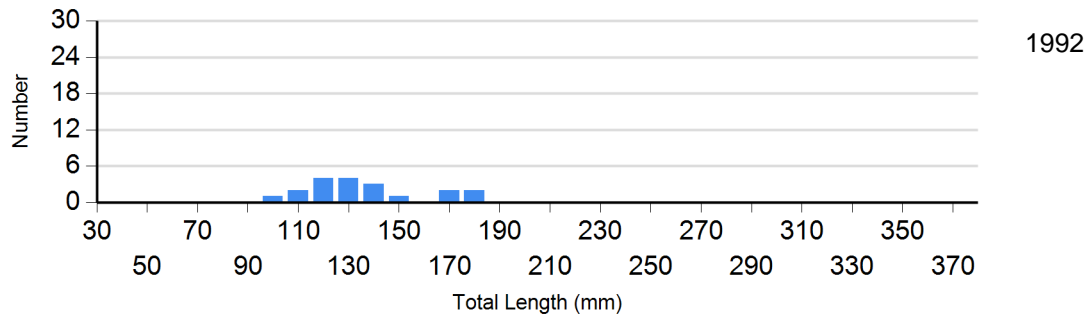
Site: 2

Species: Brook Trout



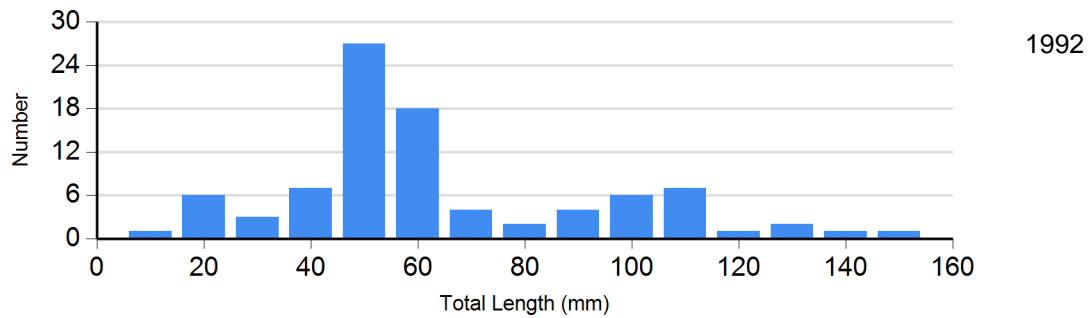
Site: 2

Species: Brown Trout

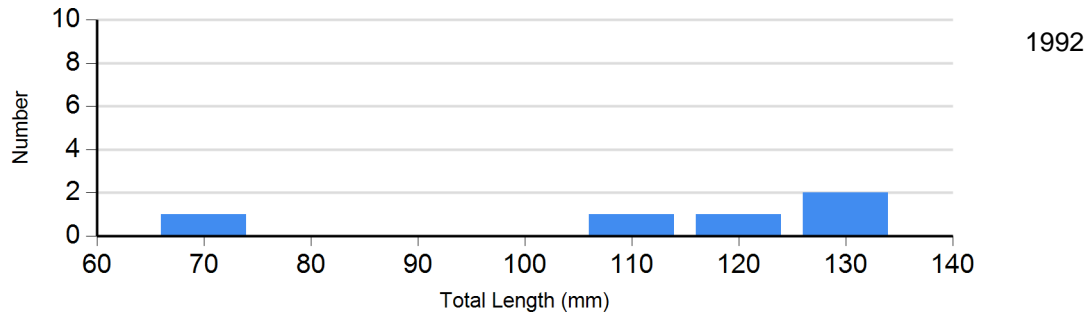


Site: 9

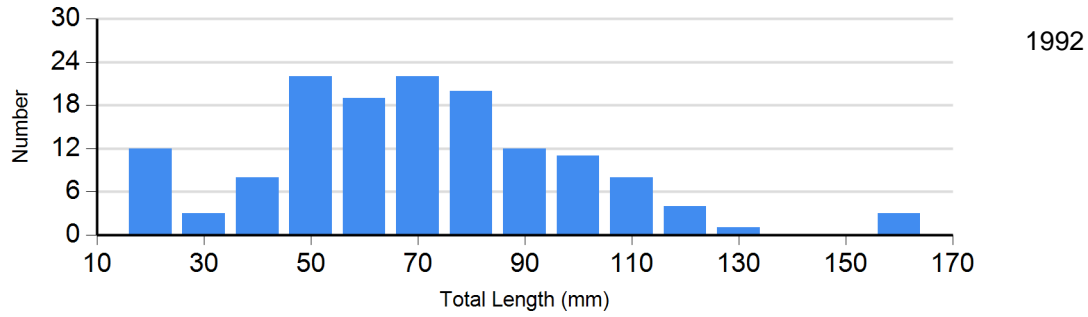
Species: Mountain Sucker



Site: 10
Species: Mountain Sucker



Site: 15
Species: Mountain Sucker



Site: 16
Species: Mountain Sucker

