

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
French Creek, Custer County
21-0017-00
2009

Table 1. Population and Biomass Estimates for French Creek

Site Number: 875	Date Sampled: 05/28/2009	Conductivity (umhos/cm): 291
Site Midpoint (Latitude, Longitude): 43.71839672, -103.36797411	Site Length (m): 100	pH: 8.6
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 10.6	Water Temperature (C): 18.0
Stream Classification: BR3, RB2	Number of Pass: 1	Voltage: 225

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	12	12	12	12	113	4	120	46	3.47	193	147.0	34.4
Brown Trout	>=200mm	2	2	2	2	19	3	20	8	2.95	32	252.5	175.5
Brown Trout	All	14	14	14	14	132	7	140	53	6.42	225	162.1	54.6
Rainbow Trout	>=200mm	1	1	1	1	9	1	10	4	1.24	16	262.0	148.0
Rainbow Trout	All	1	1	1	1	9	1	10	4	1.24	16	262.0	148.0
Smallmouth Bass	All	1	1	1	1	9	1	10	4	0.55	16	170.0	66.0
White Sucker	All	2	2	2	2	19	2	20	8	1.42	32	200.5	84.5

Site Number: 995	Date Sampled: 06/08/2009	Conductivity (umhos/cm): 311
Site Midpoint (Latitude, Longitude): 43.72722249, -103.43860513	Site Length (m): 100	pH: 8.6
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 7.1	Water Temperature (C): 12.5
Stream Classification: BR0	Number of Pass: 1	Voltage: 350

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	1	1	1	1	14	0	10	6	0.01	16	63.0	1.0

Brown Trout	All	1	1	1	1	14	0	10	6	0.01	16	63.0	1.0
Smallmouth Bass	All	1	1	1	1	14	0	10	6	0.01	16	70.0	1.0

Site Number: 1062
Site Midpoint (Latitude, Longitude): 43.70983667, -103.46744341
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR0

Date Sampled: 06/22/2009
Site Length (m): 100
Mean Width (m): 7.5
Number of Pass: 1
Conductivity (umhos/cm): 319
pH: 8.5
Water Temperature (C): 19.7
Voltage: 350

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	1	1	1	1	13	0	10	5	0.12	16	101.0	10.0
Brown Trout	All	1	1	1	1	13	0	10	5	0.12	16	101.0	10.0
Creek Chub	All	215	215	215	215	2860	143	2150	1158	127.88	3459	157.5	50.1
White Sucker	All	57	57	57	57	758	49	570	307	43.71	917	165.3	64.6

Site Number: 1175
Site Midpoint (Latitude, Longitude): 43.72893468, -103.50268003
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR3

Date Sampled: 06/03/2009
Site Length (m): 100
Mean Width (m): 5.4
Number of Pass: 1
Conductivity (umhos/cm): 330
pH: 7.4
Water Temperature (C): 11.3
Voltage: 350

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	2	2	2	2	37	1	20	15	0.73	32	85.0	22.0
Brown Trout	>=200mm	1	1	1	1	18	2	10	7	1.54	16	202.0	93.0
Brown Trout	All	3	3	3	3	55	3	30	22	2.26	48	124.0	45.7

Site Number: 1225
Site Midpoint (Latitude, Longitude): 43.74858053, -103.52075333

Date Sampled: 06/03/2009
Site Length (m): 100
Conductivity (umhos/cm): 340
pH: 7.3

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 4.8

Water Temperature (C): 12.5

Stream Classification: None

Number of Pass: 1

Voltage: 350

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)
Creek Chub	All	139	139	139	139	2924	282	1390	1184	251.90	2237	203.5	96.5
White Sucker	All	21	21	21	21	442	14	210	179	12.23	338	140.5	31.0

Site Number: 1245

Date Sampled: 06/15/2009

Conductivity (umhos/cm): 310

Site Midpoint (Latitude, Longitude): 43.76014673, -103.51526140

Site Length (m): 100

pH: 8.4

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 6.3

Water Temperature (C): 17.7

Stream Classification: None

Number of Pass: 1

Voltage: 375

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)
Yellow Perch	All	1	1	1	1	16	1	10	6	0.47	16	145.0	33.0

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 French Creek, 1999-2009

Site 875

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	May 28, 2009	12	12-12	
Brown Trout >=200mm	May 28, 2009	2	2-2	BR3
Rainbow Trout >=200mm	May 28, 2009	1	1-1	RB2
Smallmouth Bass	May 28, 2009	1	1-1	
White Sucker	May 28, 2009	2	2-2	

Site 995

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 08, 2009	1	1-1	

Smallmouth Bass

Jun 08, 2009

1

1-1

Site 1062

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 22, 2009	1	1-1	
Creek Chub	Jun 22, 2009	215	215-215	
White Sucker	Jun 22, 2009	57	57-57	

Site 1175

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 03, 2009	2	2-2	
Brown Trout >=200mm	Jun 03, 2009	1	1-1	BR3

Site 1225

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	Jun 03, 2009	139	139-139	
White Sucker	Jun 03, 2009	21	21-21	

Site 1245

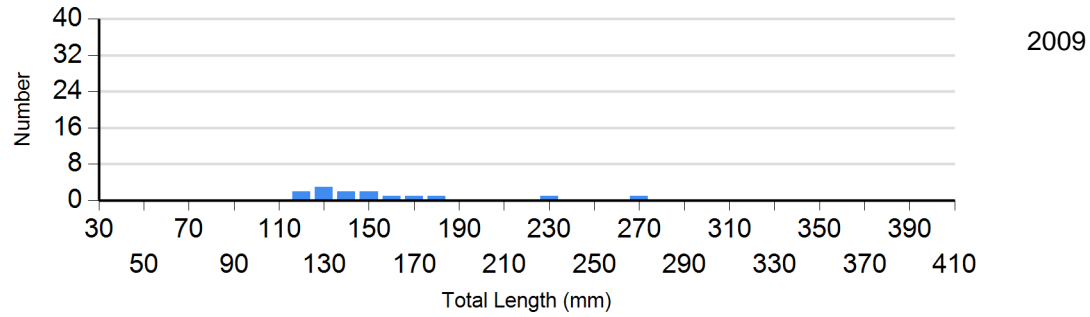
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Yellow Perch	Jun 15, 2009	1	1-1	

Length Frequency Distribution

Length frequency histogram of species sampled by year.

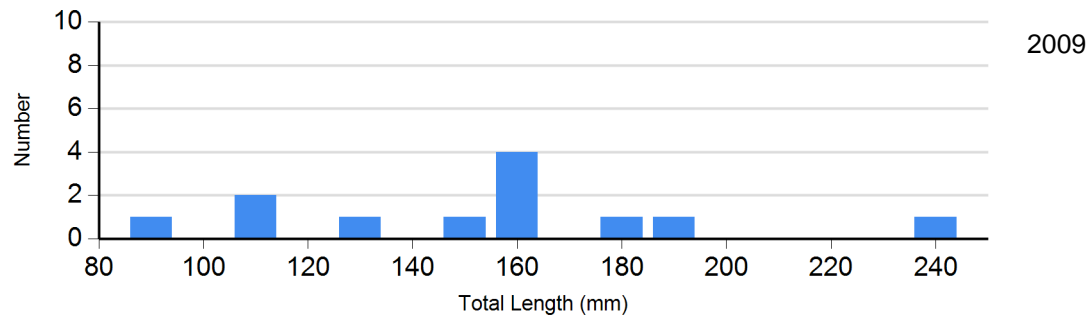
Site: 875

Species: Brown Trout



Site: 1062

Species: Creek Chub



Site: 1062

Species: White Sucker

