

**SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY**  
**French Creek, Custer County**  
**21-0017-00**  
**2017**

Table 1. Population and Biomass Estimates for French Creek

**Site Number:** 875

**Date Sampled:** 09/13/2017

**Conductivity (umhos/cm):**

**Site Midpoint (Latitude, Longitude):** 43.71839672, -103.36797411

**Site Length (m):** 100

**pH:**

**Survey Completed by:** South Dakota Game, Fish and Parks

**Mean Width (m):** 5.6

**Water Temperature (C):**

**Stream Classification:** BR2

**Number of Pass:** 2

**Voltage:** 250

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	26	36	61	26	648	35	360	262	31.03	579	177.4	53.6
Brown Trout	>=200mm	4	4	5	4	72	9	40	29	8.34	64	250.3	129.8
Brown Trout	All	30	39	59	30	702	45	390	284	39.98	628	187.1	63.8
Creek Chub	All	79	85	94	79	1530	39	850	620	34.57	1368	93.1	25.3
Longnose Dace	All	107	108	111	107	1944	23	1080	787	20.45	1738	70.9	11.8
White Sucker	All	37	41	50	37	738	14	410	299	12.30	660	72.6	18.7

**Site Number:** 996

**Date Sampled:** 10/04/2017

**Conductivity (umhos/cm):**

**Site Midpoint (Latitude, Longitude):** 43.72794426, -103.43937761

**Site Length (m):** 100

**pH:**

**Survey Completed by:** South Dakota Game, Fish and Parks

**Mean Width (m):** 8.1

**Water Temperature (C):**

**Stream Classification:** BR2

**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)
Brown Trout	<200mm	180	183	187	180	2254	72	1830	913	64.52	2944	103.9	32.1
Brown Trout	>=200mm	18	18	18	18	222	34	180	90	29.97	290	251.7	151.4

Brown Trout	All	198	200	204	198	2464	152	2000	998	136.14	3218	117.3	61.9
Creek Chub	All	55	55	55	55	677	14	550	274	12.84	885	65.9	21.2
Longnose Dace	All	27	27	28	27	333	4	270	135	3.56	434	56.4	12.0
White Sucker	All	22	22	23	22	271	10	220	110	9.30	354	103.0	38.5

**Site Number:** 1130

**Site Midpoint (Latitude, Longitude):** 43.71860787, -103.48972931

**Survey Completed by:** South Dakota Game, Fish and Parks

**Stream Classification:** BR2

**Date Sampled:** 06/02/2017

**Site Length (m):** 100

**Mean Width (m):** 5.9

**Number of Pass:** 3

**Conductivity (umhos/cm):**

**pH:**

**Water Temperature (C):** 16.0

**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	11	11	13	11	186	9	110	75	8.48	177	136.9	51.0
Brown Trout	>=200mm	5	5	5	5	85	14	50	34	12.42	80	245.8	164.4
Brown Trout	All	16	16	17	16	271	26	160	110	22.87	257	170.9	94.6
Creek Chub	All	29	30	34	29	508	12	300	206	10.54	483	74.6	23.3
Mountain Sucker	All	7	8	14	7	135	6	80	55	5.80	129	132.7	48.0
White Sucker	All	76	82	91	76	1388	109	820	562	97.74	1319	103.5	78.9

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	
<b>Class BR1</b>	Number of wild Brown Trout exceeds 150 per acre
<b>Class BR2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BR3</b>	Number of wild Brown Trout is less than 25 per acre
<b>Class BK1</b>	Number of wild Brook Trout exceeds 150 per acre
<b>Class BK2</b>	Number of wild Brook Trout ranges from 25 to 150 per acre
<b>Class BK3</b>	Number of wild Brook Trout is less than 25 per acre
<b>Class RB1</b>	Number of wild Rainbow Trout exceeds 25 per acre
<b>Class RB2</b>	Number of wild Rainbow Trout is less than 25 per acre

Table 2. Species composition and population estimates on French Creek, 2007-2017

**Site 875**

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	May 28, 2009	12	12-12	
	Jul 02, 2013	49	49-51	
	Sep 11, 2015	19	19-19	
	Jun 28, 2016	102	102-103	
	Sep 13, 2017	36	26-61	
Brown Trout >=200mm	May 28, 2009	2	2-2	BR3
	Jul 02, 2013	11	11-12	BR2

Brown Trout >=200mm	Sep 11, 2015	16	16-16	BR2
	Jun 28, 2016	39	39-39	BR1
	Sep 13, 2017	4	4-5	BR2
Creek Chub	Sep 11, 2015	12	12-12	
	Jun 28, 2016	44	44-44	
	Sep 13, 2017	85	79-94	
Longnose Dace	Sep 11, 2015	21	21-21	
	Sep 13, 2017	108	107-111	
Smallmouth Bass	May 28, 2009	1	1-1	
White Sucker	May 28, 2009	2	2-2	
	Jul 02, 2013	11	11-11	
	Sep 11, 2015	2	2-2	
	Jun 28, 2016	11	11-11	
	Sep 13, 2017	41	37-50	

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Jun 26, 2013	2	2-4	
	Aug 11, 2015	14	14-14	
	Oct 04, 2017	183	180-187	
Brown Trout >=200mm	Jun 26, 2013	5	5-5	BR2
	Aug 11, 2015	13	13-13	BR2
	Oct 04, 2017	18	18-18	BR2
Creek Chub	Jun 26, 2013	79	77-83	
	Aug 11, 2015	15	15-16	
	Oct 04, 2017	55	55-55	
Longnose Dace	Oct 04, 2017	27	27-28	
Smallmouth Bass	Aug 11, 2015	4	4-4	
White Sucker	Jun 26, 2013	70	38-143	
	Aug 11, 2015	79	79-80	
	Oct 04, 2017	22	22-23	

Site 1130

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<b>Species/Size</b>	<b>Date</b>	<b>Pop Est.</b>	<b>(95% C.I.)</b>	<b>Stream Classification</b>
Brown Trout <200mm	Jun 02, 2017	11	11-13	
Brown Trout >=200mm	Jun 02, 2017	5	5-5	BR2
Creek Chub	Jun 02, 2017	30	29-34	
Mountain Sucker	Jun 02, 2017	8	7-14	
White Sucker	Jun 02, 2017	82	76-91	

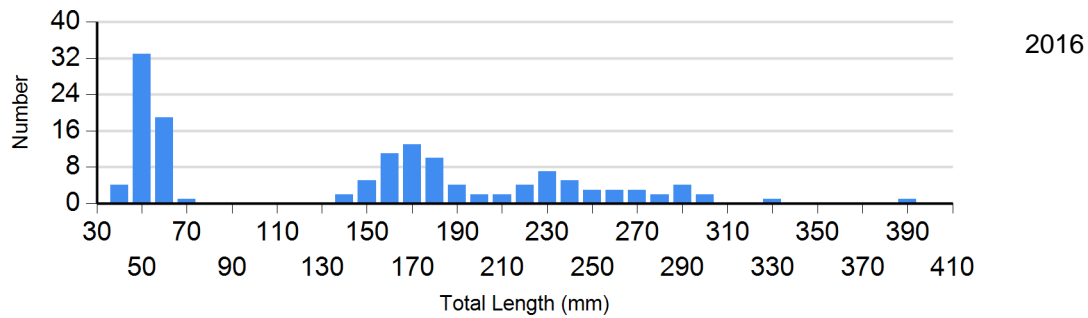
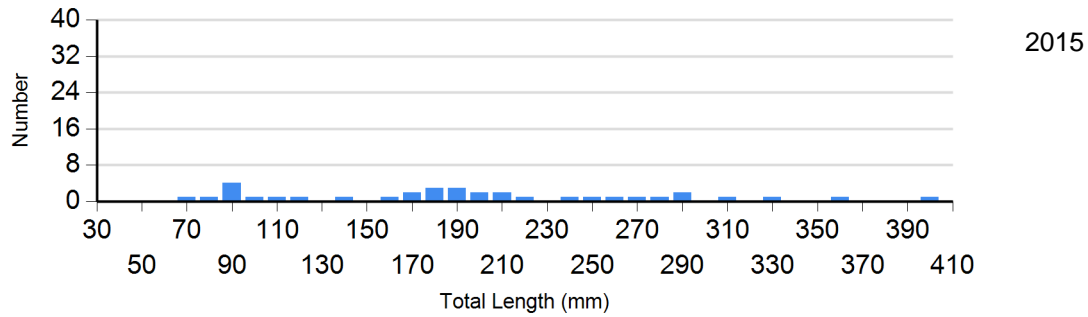
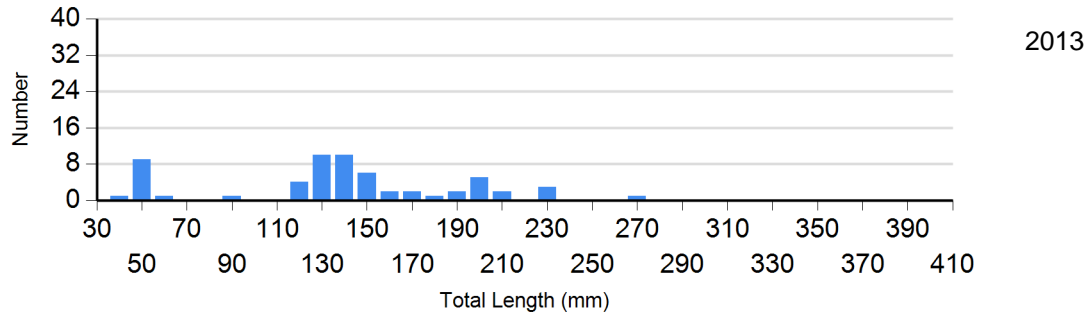
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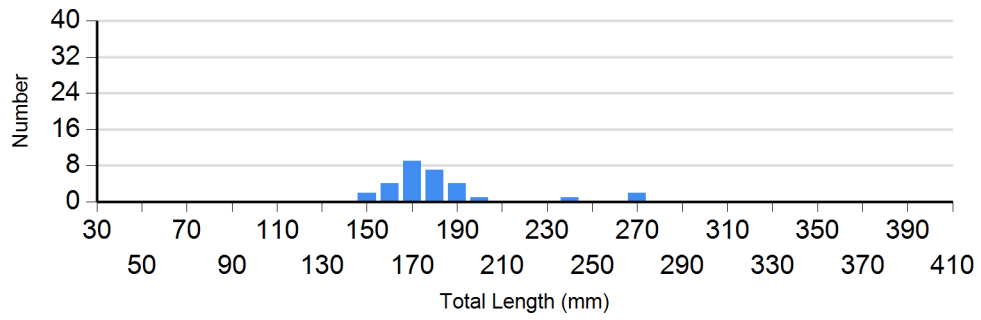
## Length Frequency Distribution

Length frequency histogram of species sampled by year.

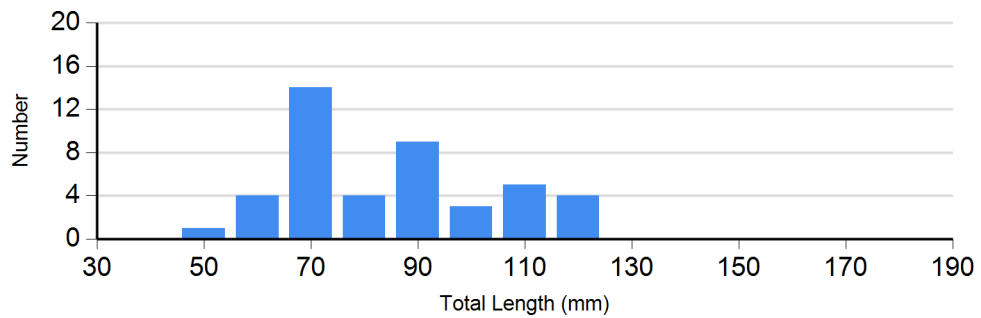
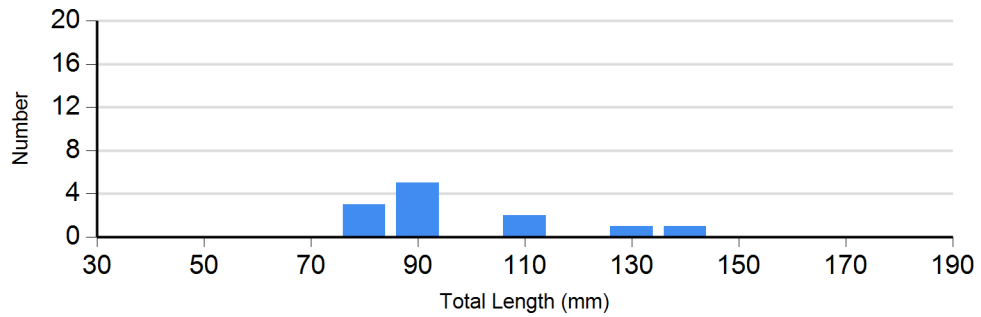
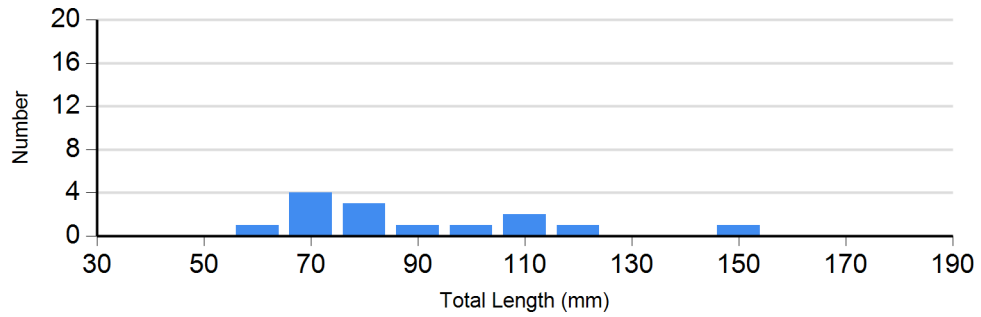
**Site:** 875

**Species:** Brown Trout

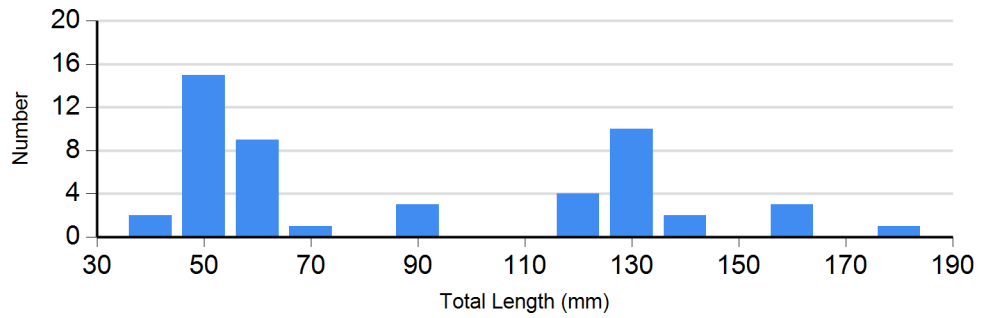




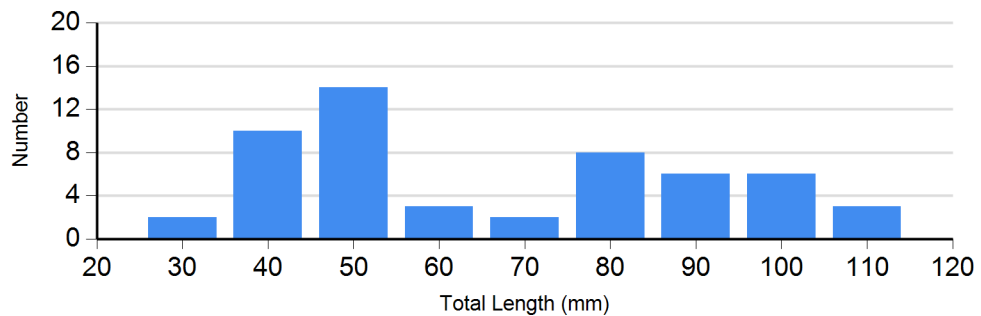
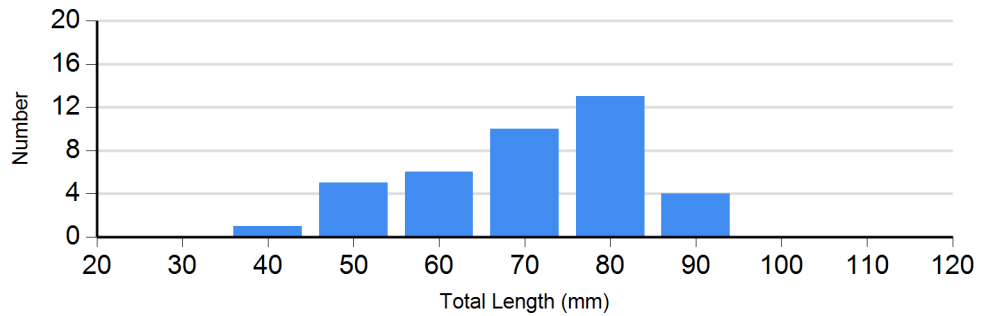
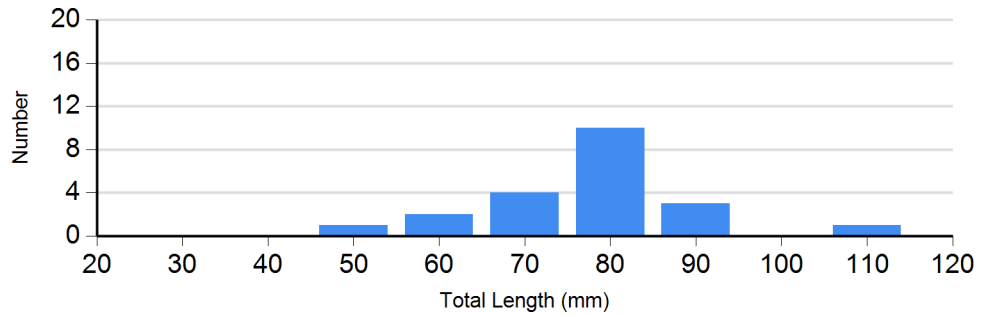
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**Species:** Creek Chub



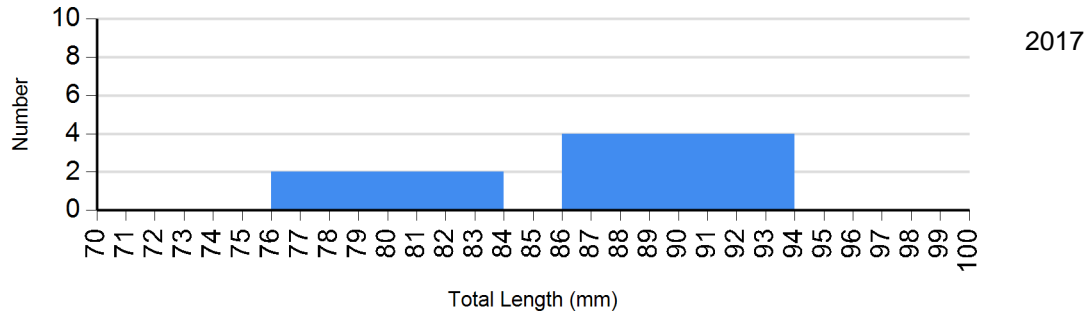




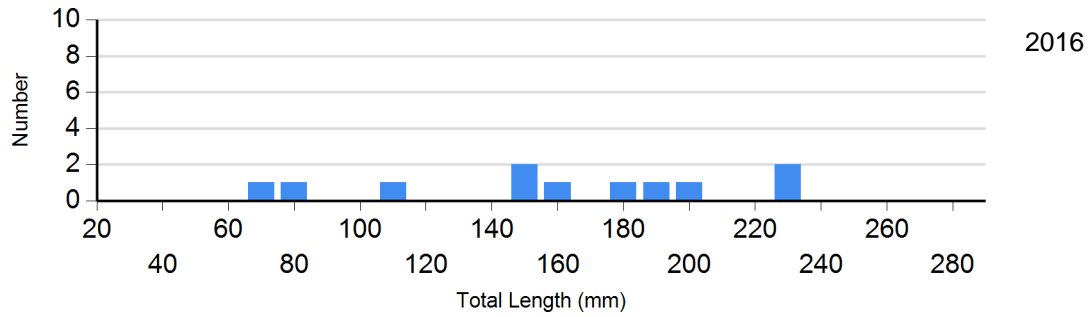
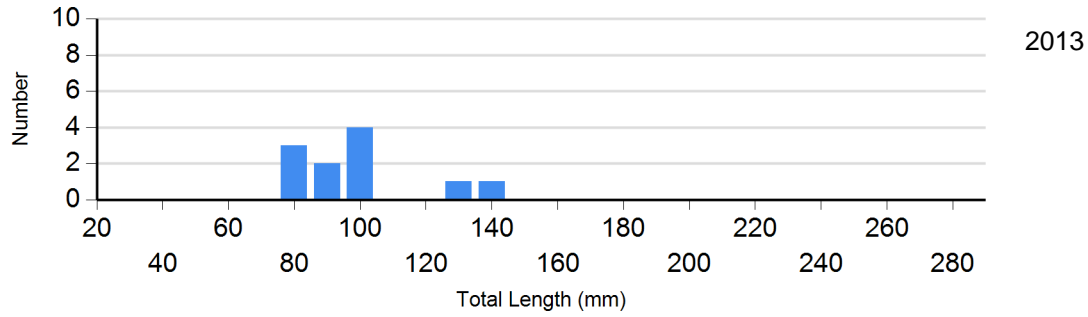
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**Species:** Longnose Dace

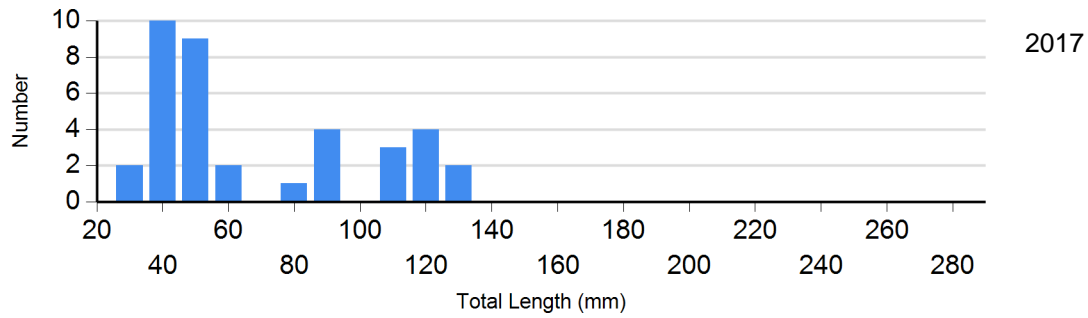


**Site: 875**  
**Species: Smallmouth Bass**

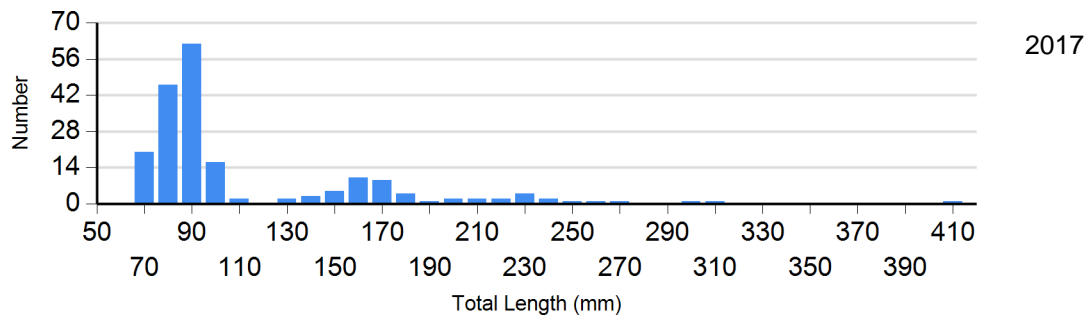
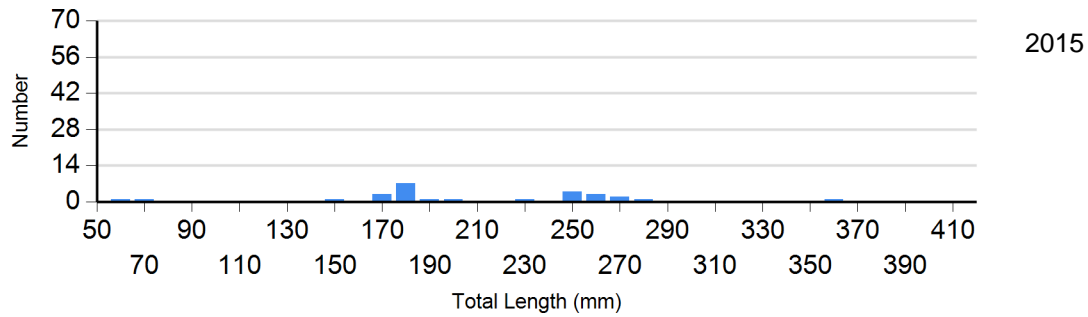
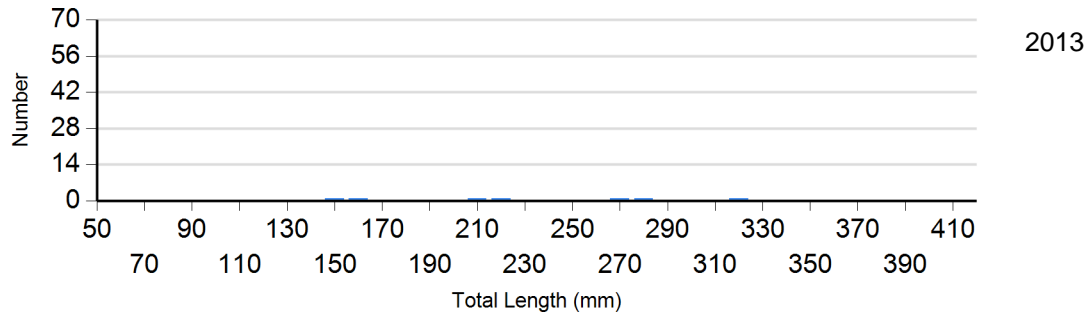


**Site: 875**  
**Species: White Sucker**

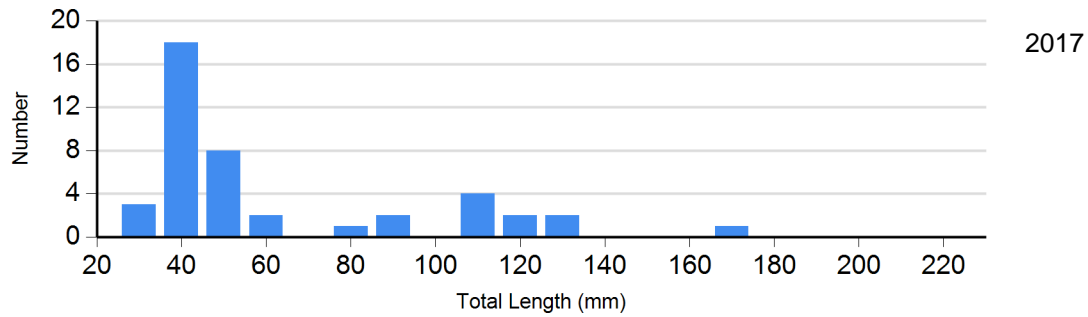
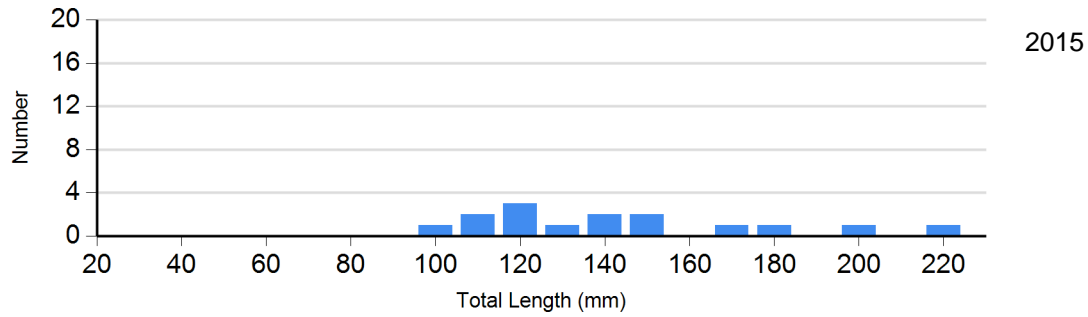
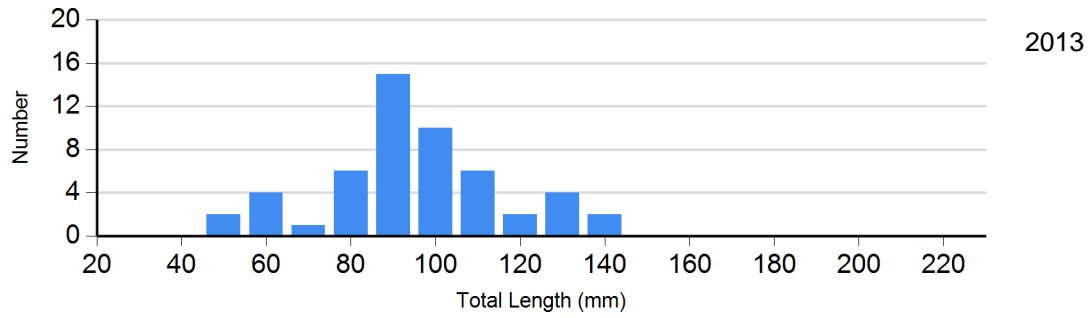




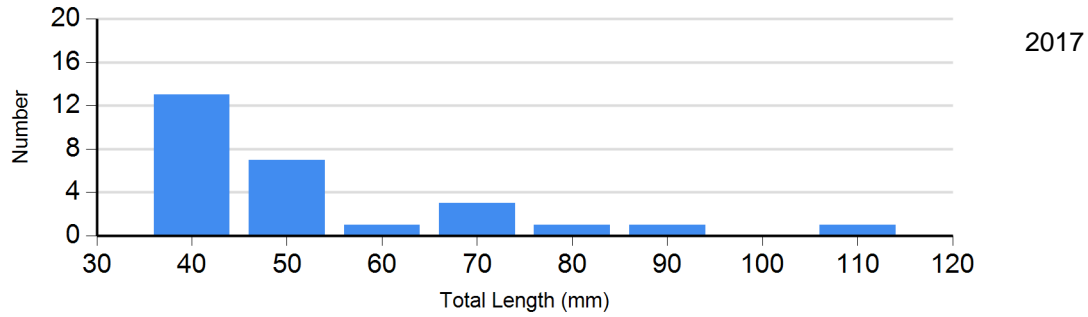
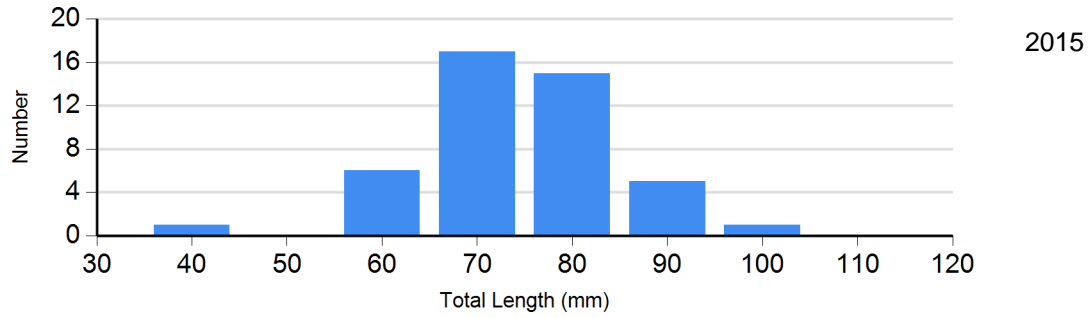
Site: 996  
Species: Brown Trout



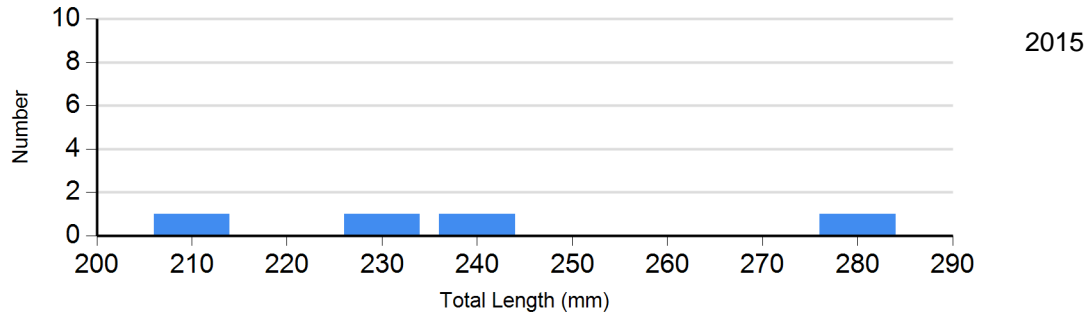
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Species: Creek Chub



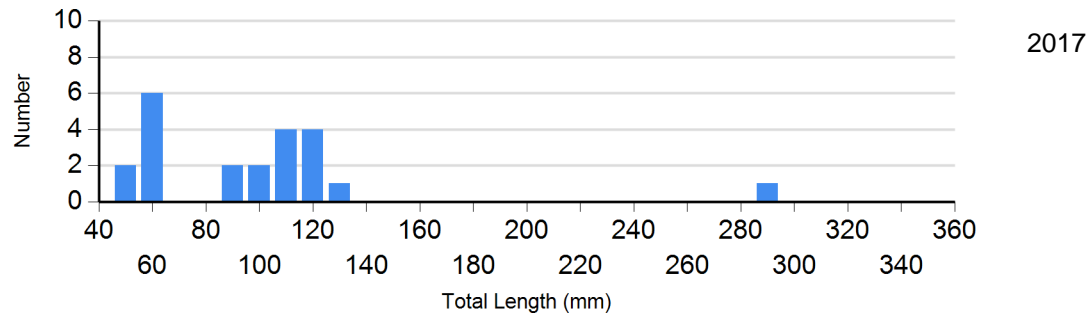
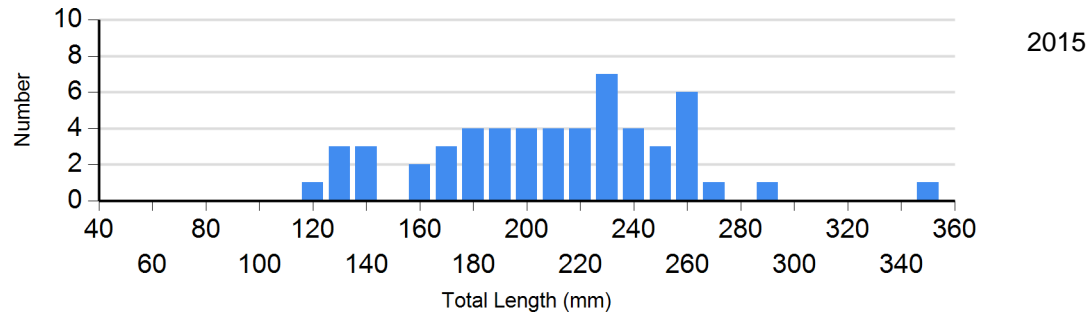
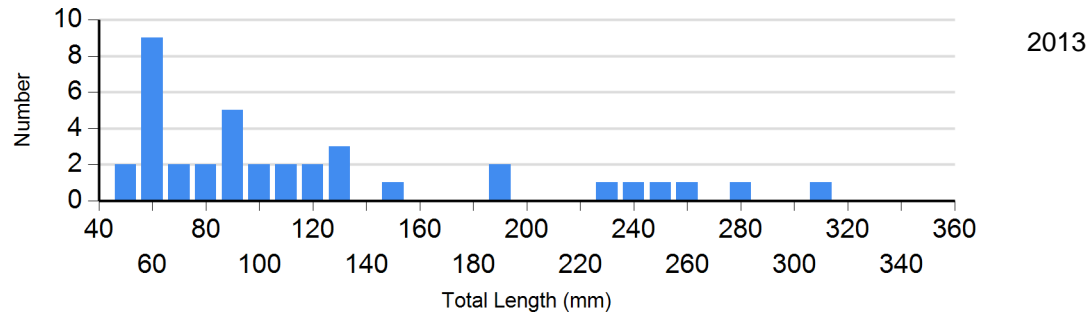
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**Species:** Longnose Dace



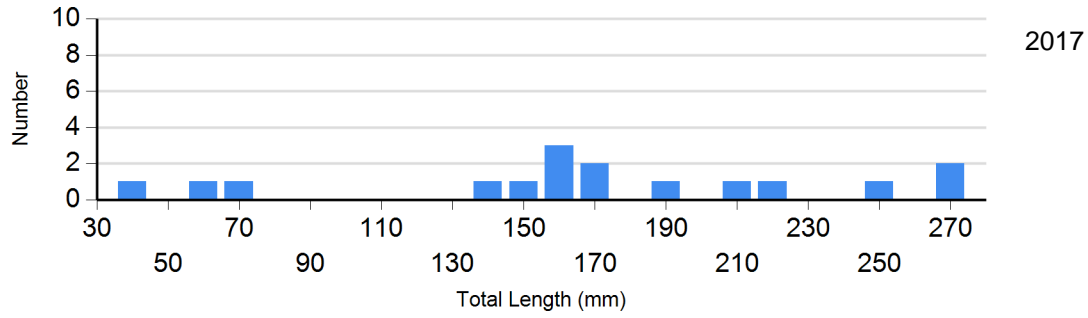
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**Species:** Smallmouth Bass



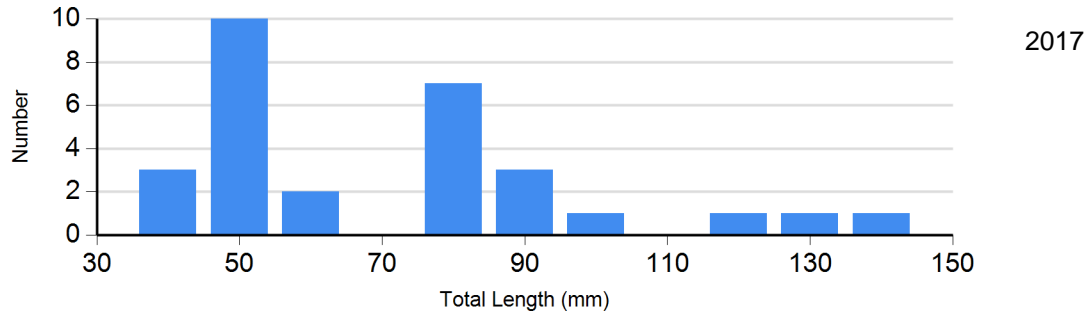
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Species: White Sucker



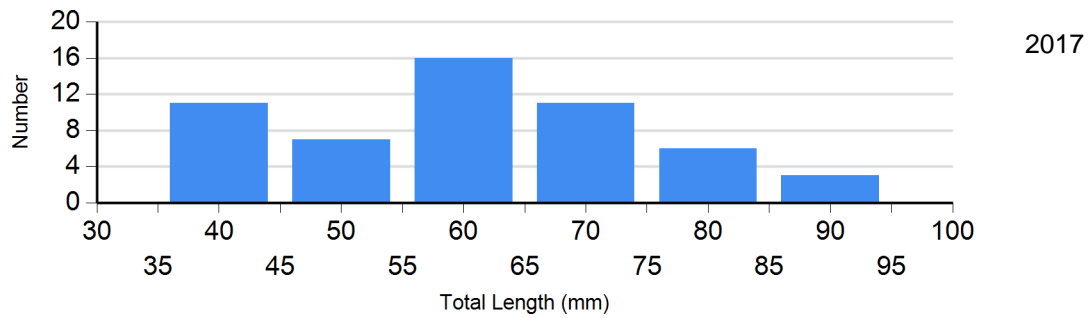
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**Species:** Brown Trout



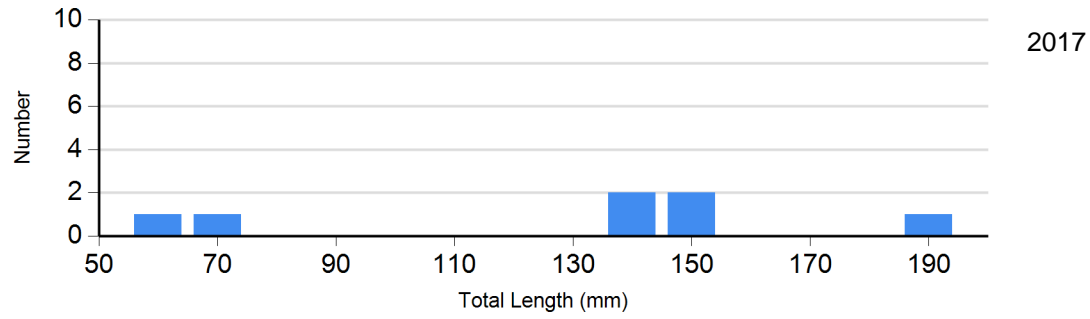
**Site:** 1130  
**Species:** Creek Chub



**Site:** 1130  
**Species:** Longnose Dace



**Site:** 1130  
**Species:** Mountain Sucker



**Site:** 1130  
**Species:** White Sucker

