

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Elk Creek, Meade County
09-0015-00
2018

Table 1. Population and Biomass Estimates for Elk Creek

Site Number: 2211 **Date Sampled:** 05/16/2018 **Conductivity (umhos/cm):**
Site Midpoint (Latitude, Longitude): 44.29475339, -103.52310349 **Site Length (m):** 100 **pH:**
Survey Completed by: South Dakota Game, Fish and Parks **Mean Width (m):** 3.7 **Water Temperature (C):** 13.0
Stream Classification: BK0 **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	5	5	7	5	134	6	50	54	5.05	80	161.4	42.2
Brook Trout	All	5	5	7	5	134	6	50	54	5.05	80	161.4	42.2
Longnose Dace	All	50	112	258	50	3005	48	1120	1217	42.93	1802	72.2	16.0
Mountain Sucker	All	15	16	20	15	429	9	160	174	8.43	257	117.1	22.0
White Sucker	All	19	19	21	19	510	63	190	206	56.22	306	223.6	123.5

Site Number: 2460 **Date Sampled:** 05/16/2018 **Conductivity (umhos/cm):**
Site Midpoint (Latitude, Longitude): 44.27675204, -103.69560209 **Site Length (m):** 100 **pH:**
Survey Completed by: South Dakota Game, Fish and Parks **Mean Width (m):** 2.4 **Water Temperature (C):** 14.0
Stream Classification: BK2 **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	56	56	57	56	2290	69	560	927	61.46	901	130.0	30.1
Brook Trout	>=200mm	4	4	4	4	164	18	40	66	15.63	64	217.3	107.0
Brook Trout	All	60	60	61	60	2454	88	600	994	78.34	965	135.8	35.8

Longnose Dace	All	27	35	52	27	1431	24	350	580	21.01	563	95.1	16.4
Mountain Sucker	All	8	8	10	8	327	14	80	132	12.33	129	110.3	42.2

Site Number: 2537

Site Midpoint (Latitude, Longitude): 44.25638126, -103.75581378

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BK0

Date Sampled: 05/16/2018

Site Length (m): 100

Mean Width (m): 1.7

Number of Pass: 3

Conductivity (umhos/cm):

pH:

Water Temperature (C): 10.0

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)
Brook Trout	<200mm	26	26	28	26	1513	87	260	613	78.09	418	122.3	57.8
Brook Trout	All	26	26	28	26	1513	87	260	613	78.09	418	122.3	57.8

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 Elk Creek, 2008-2018

Site 2211

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 04, 2014	3	3-4	
	Jun 02, 2016	31	31-32	
	May 10, 2017	23	23-23	
	May 16, 2018	5	5-7	
Brook Trout >=200mm	Sep 04, 2014	14	14-15	BK1
	Jun 02, 2016	20	20-20	BK1
Longnose Dace	Sep 04, 2014	109	70-166	

Longnose Dace	Jun 02, 2016	116	111-123
	May 16, 2018	112	50-258
Mountain Sucker	Sep 04, 2014	36	35-39
	Jun 02, 2016	122	118-128
	May 10, 2017	22	22-23
	May 16, 2018	16	15-20
White Sucker	Sep 04, 2014	33	32-36
	Jun 02, 2016	56	55-59
	May 10, 2017	7	7-8
	May 16, 2018	19	19-21

Site 2460

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 04, 2015	72	71-75	
	Jun 02, 2016	48	48-49	
	Jun 13, 2017	97	95-101	
	May 16, 2018	56	56-57	

Brook Trout >=200mm	Sep 04, 2015	22	22-22	BK3
	Jun 02, 2016	17	17-18	BK1
	Jun 13, 2017	6	6-6	BK2
	May 16, 2018	4	4-4	BK2
Longnose Dace	Sep 04, 2015	7	7-9	
	Jun 02, 2016	6	6-8	
	Jun 13, 2017	12	12-14	
	May 16, 2018	35	27-52	
Mountain Sucker	Sep 04, 2015	8	4-42	
	Jun 02, 2016	9	9-10	
	Jun 13, 2017	9	9-11	
	May 16, 2018	8	8-10	

Site 2537

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Jul 01, 2008	61	61-61	
	Sep 24, 2015	22	22-24	

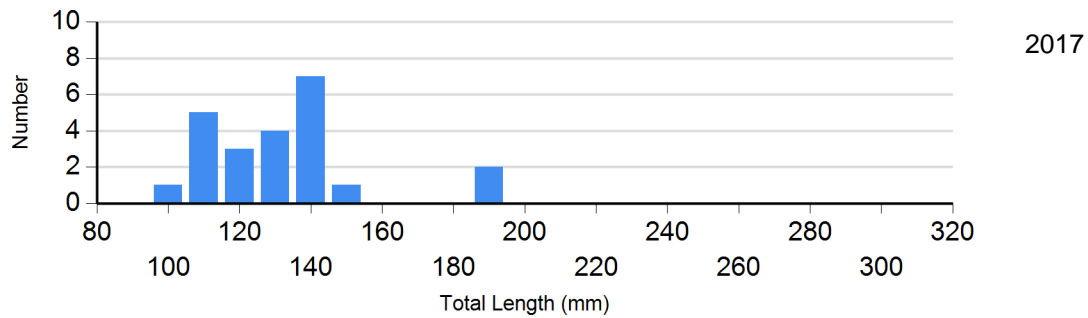
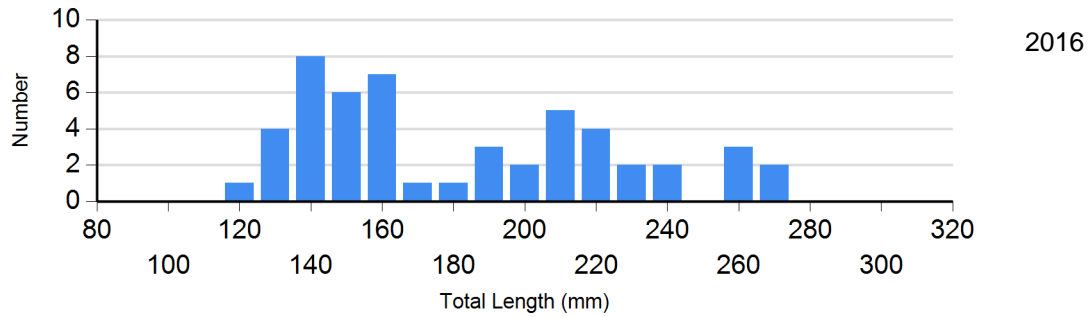
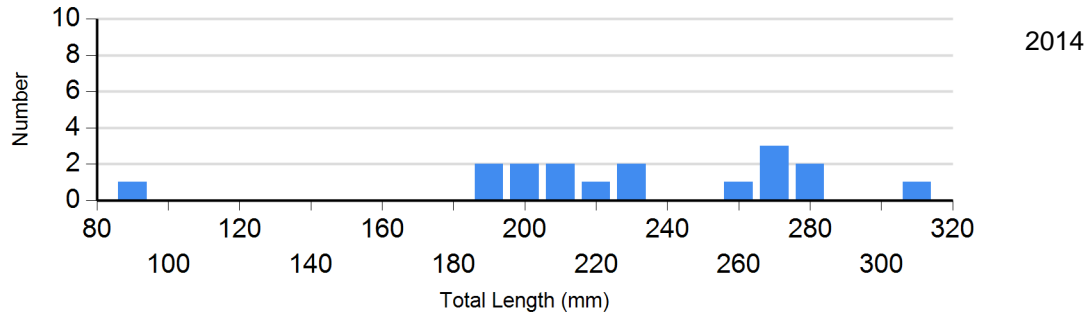
Brook Trout <200mm	May 16, 2018	26	26-28	
Brook Trout >=200mm	Sep 24, 2015	6	6-7	BK1

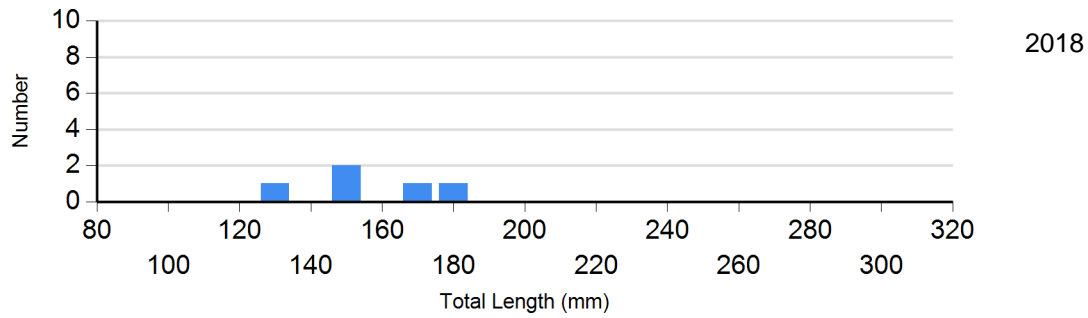
Length Frequency Distribution

Length frequency histogram of species sampled by year.

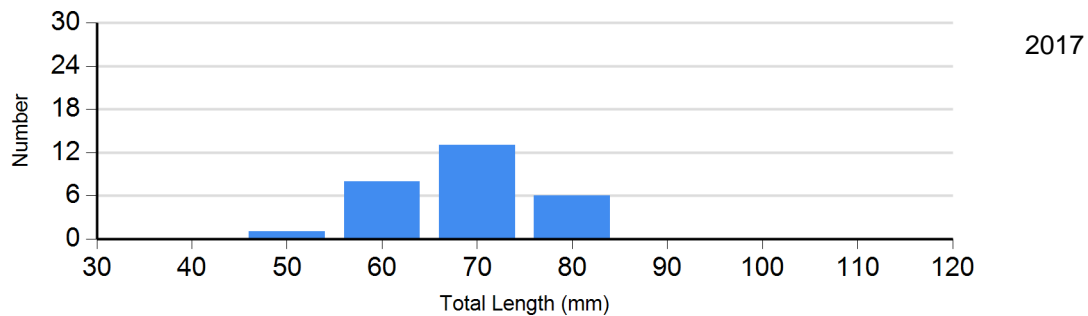
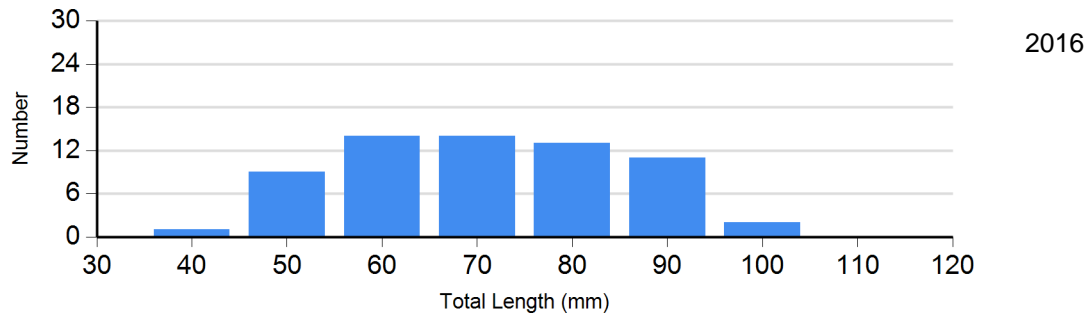
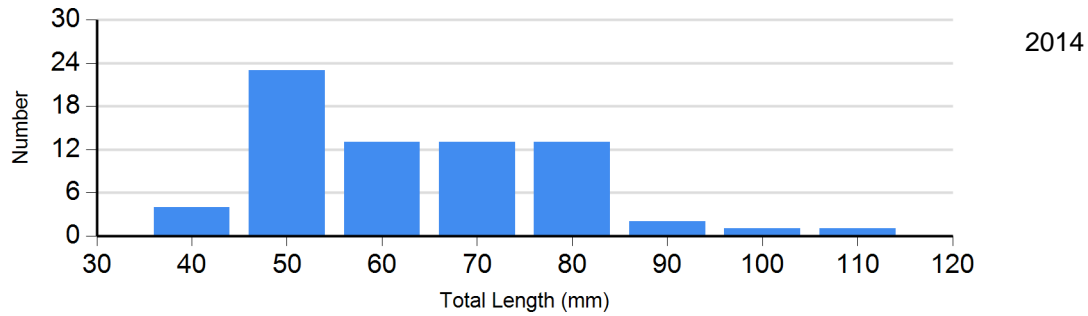
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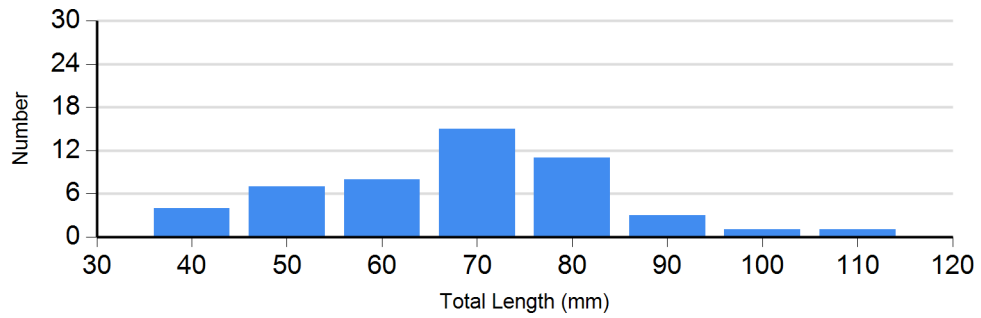
Species: Brook Trout



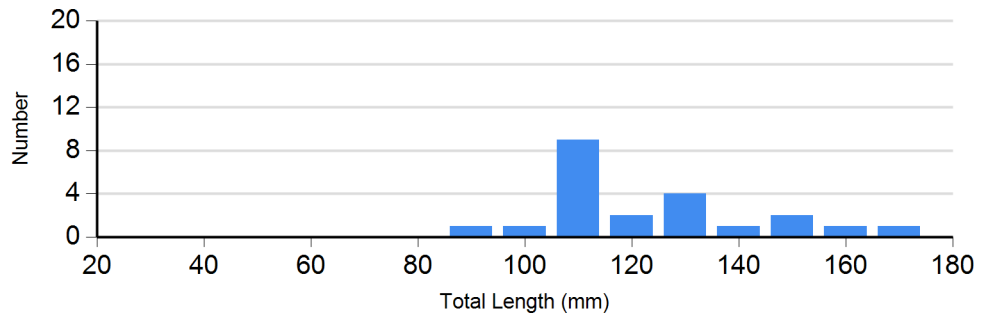
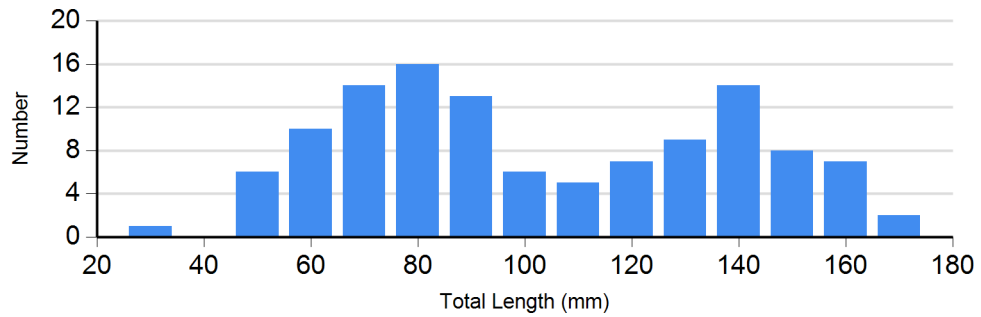
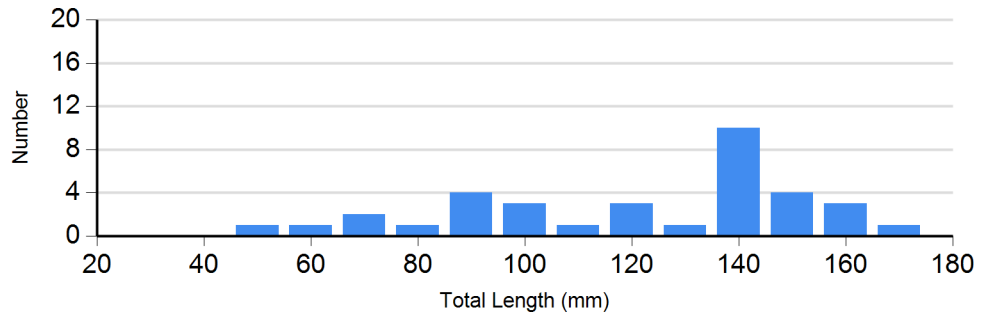


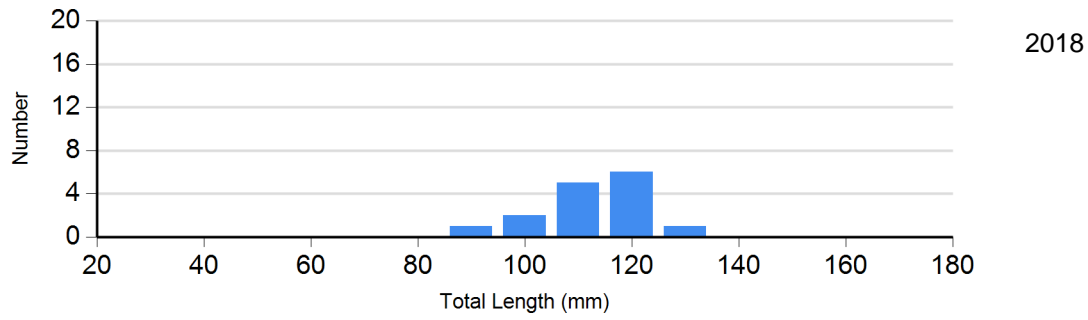
Site: 2211
Species: Longnose Dace



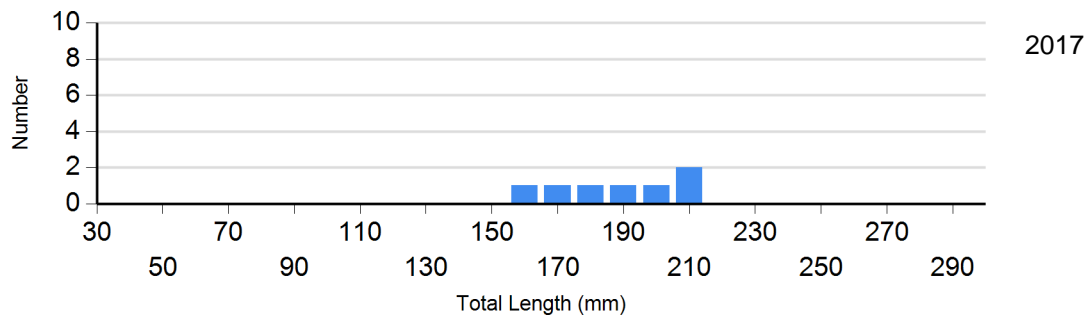
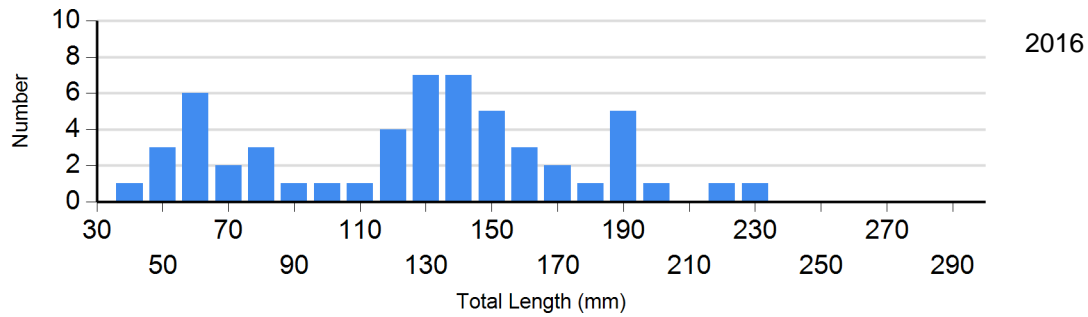
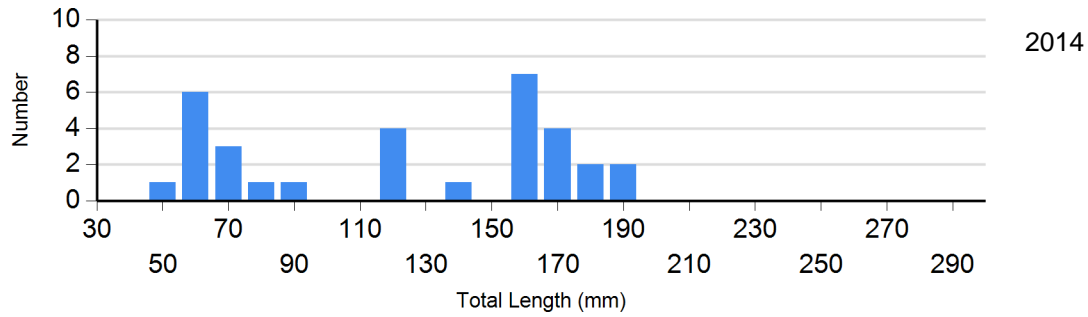


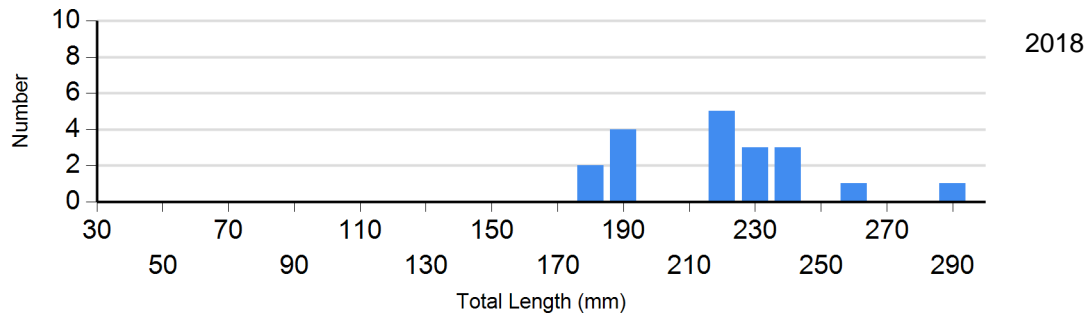
Site: 2211
Species: Mountain Sucker



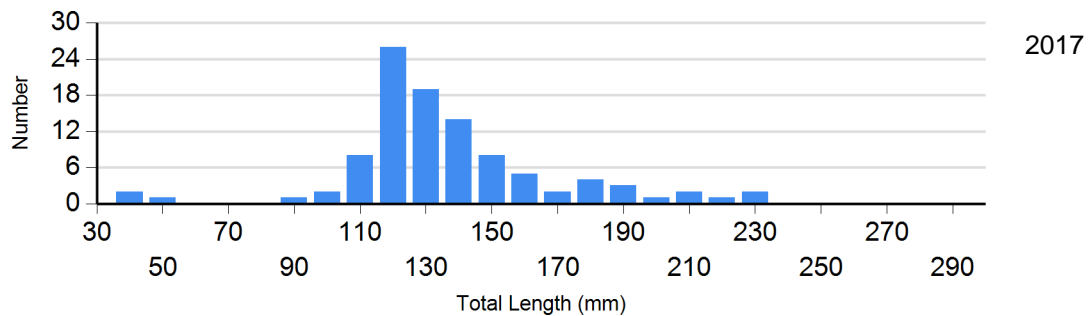
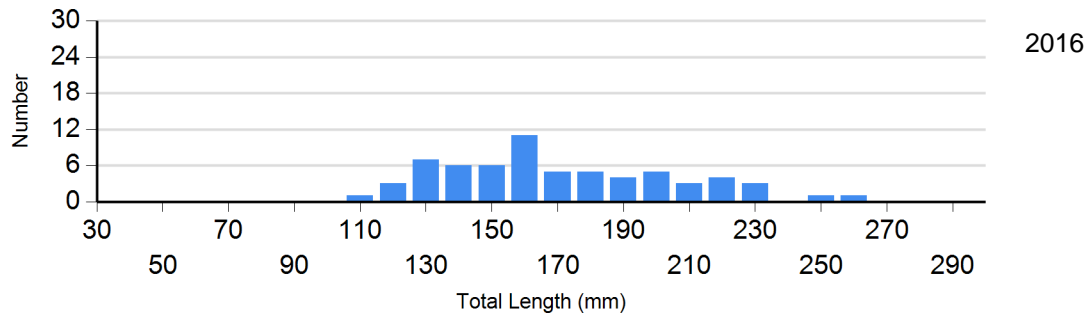
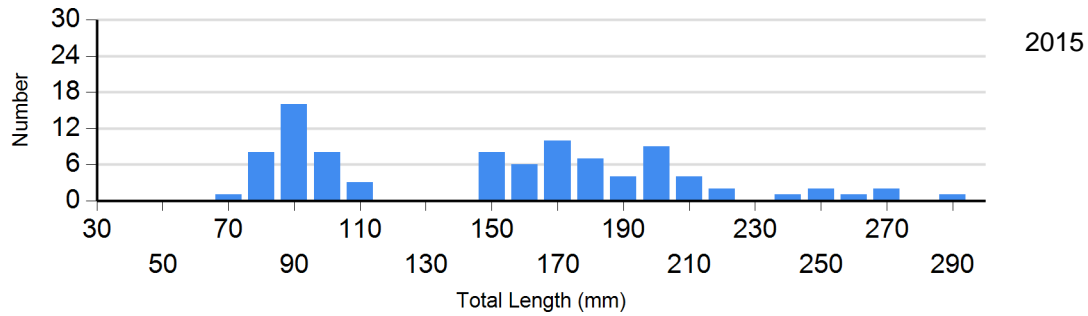


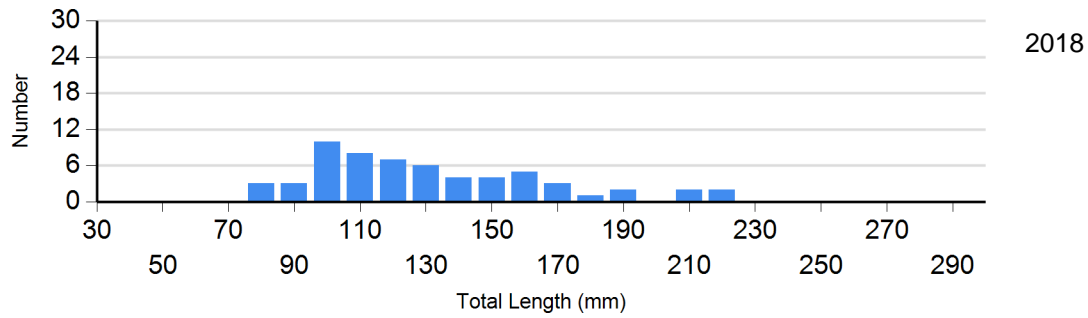
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Species: White Sucker



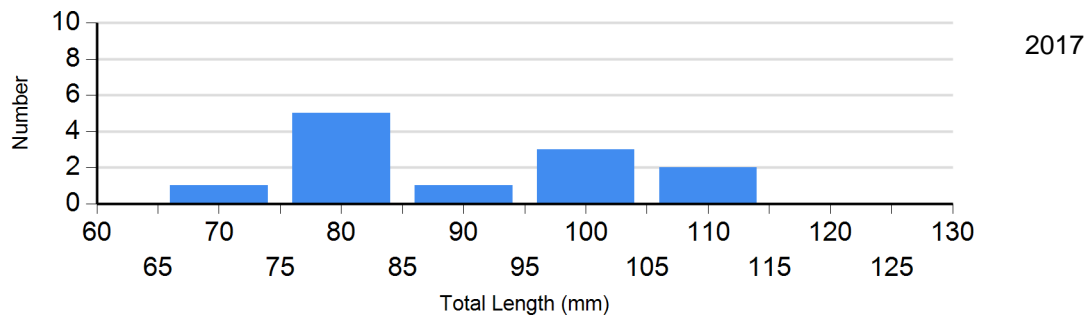
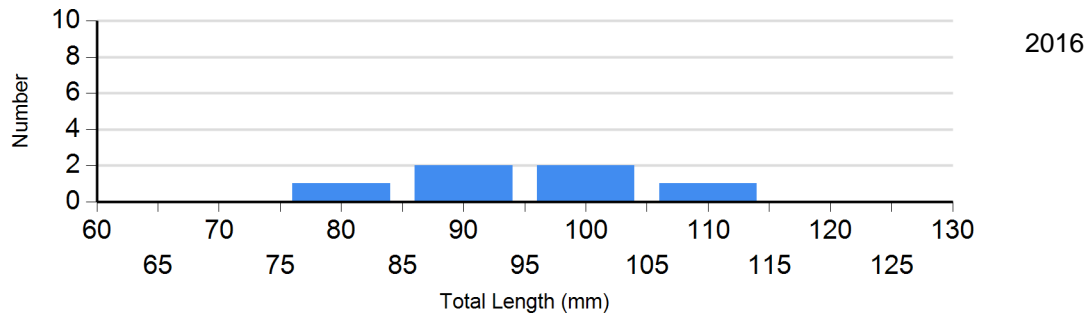
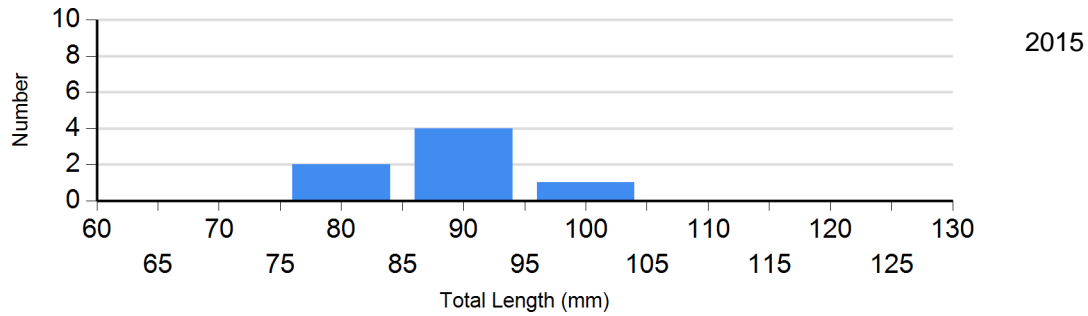


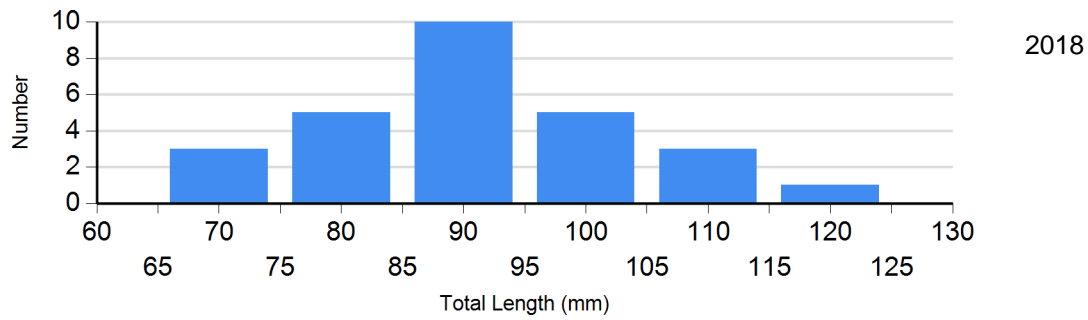
Site: 2460
Species: Brook Trout



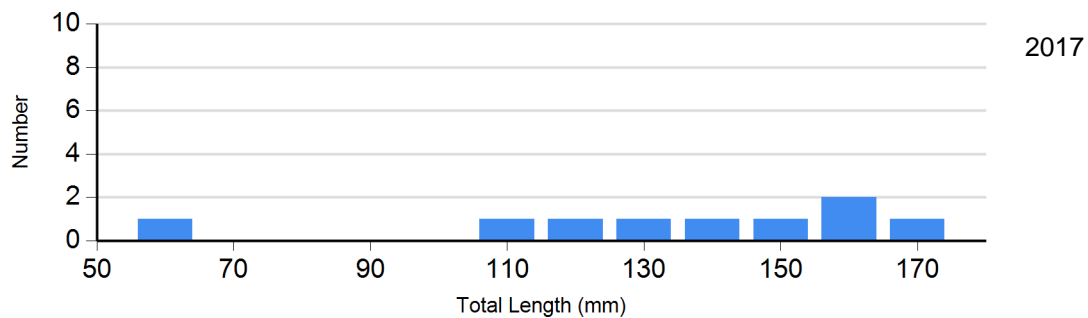
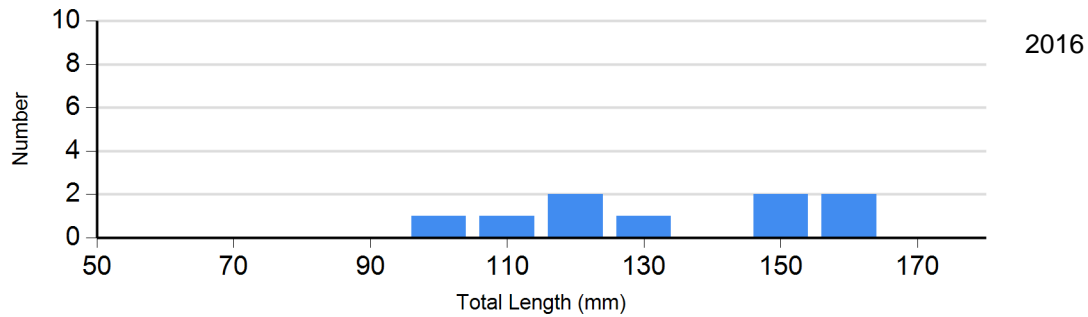
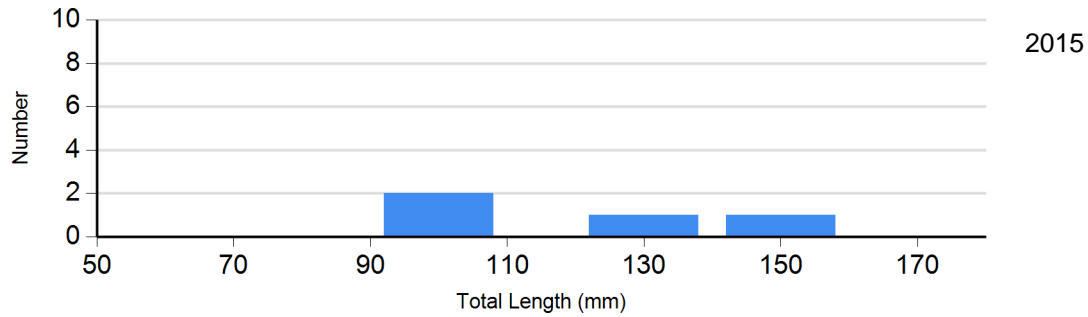


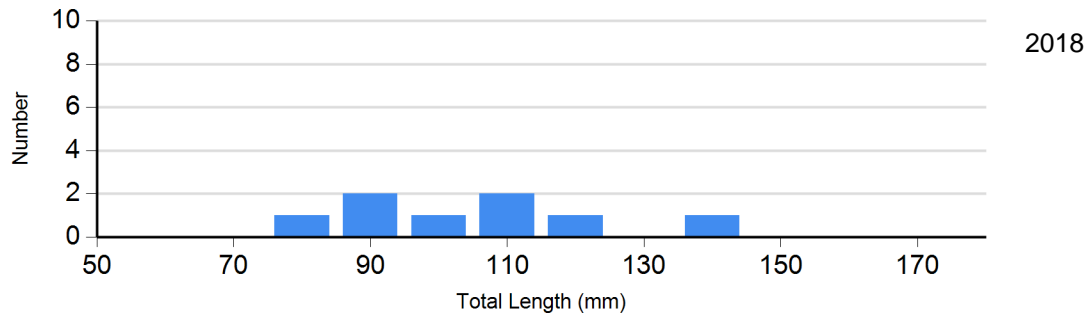
Site: 2460
Species: Longnose Dace





Site: 2460
Species: Mountain Sucker





Site: 2537
Species: Brook Trout

