

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Fall River, Fall River County
27-0023-00
2016

Table 1. Population and Biomass Estimates for Fall River

Site Number: 30	Date Sampled: 06/20/2016	Conductivity (umhos/cm): 1103
Site Midpoint (Latitude, Longitude): 43.40294269, -103.41199702	Site Length (m): 100	pH: 7.1
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 6.2	Water Temperature (C): 18.7
Stream Classification: None	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)
Creek Chub	All	9	9	10	9	146	6	90	59	5.14	145	147.4	39.3
Green Sunfish	All	8	8	9	8	130	5	80	53	4.62	129	114.6	39.8
Longnose Dace	All	35	37	42	35	601	9	370	243	8.05	595	67.3	15.0
Mountain Sucker	All	6	6	8	6	97	4	60	39	3.82	97	162.5	43.8
White Sucker	All	18	18	20	18	292	32	180	118	28.31	290	196.2	108.4

Site Number: 88	Date Sampled: 06/20/2016	Conductivity (umhos/cm): 889
Site Midpoint (Latitude, Longitude): 43.41812442, -103.45778048	Site Length (m): 100	pH: 7.3
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 7.6	Water Temperature (C):
Stream Classification: None	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)
Creek Chub	All	5	5	7	5	66	3	50	27	2.77	80	165.8	47.2
Jack Dempsey	All	96	100	106	96	1314	48	1000	532	42.94	1609	100.1	36.6
Unidentified Fish	All	2	2	3	2	26	1	20	11	0.56	32	102.0	24.0

White Sucker All 2 2 3 2 26 2 20 11 1.49 32 185.0 63.5

Site Number: 117

Date Sampled: 06/20/2016

Conductivity (umhos/cm): 960

Site Midpoint (Latitude, Longitude): 43.43429803, -103.48116151

Site Length (m): 100

pH: 7.2

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 4.5

Water Temperature (C): 28.3

Stream Classification: None

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)
Creek Chub	All	31	37	49	31	826	39	370	334	34.62	595	156.8	47.0
Green Sunfish	All	2	2	3	2	45	2	20	18	1.41	32	118.0	35.5
Jack Dempsey	All	37	39	44	37	870	50	390	352	44.75	628	121.7	57.6
White Sucker	All	6	6	7	6	134	12	60	54	10.35	97	176.3	86.6

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 Fall River, 2006-2016

Site 30

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	May 20, 2015	36	24-66	
	Jun 20, 2016	9	9-10	
Green Sunfish	May 20, 2015	2	2-6	
	Jun 20, 2016	8	8-9	
Longnose Dace	Jun 20, 2016	37	35-42	
Mountain Sucker	May 20, 2015	2	2-2	
	Jun 20, 2016	6	6-8	

White Sucker	May 20, 2015	17	17-18
	Jun 20, 2016	18	18-20

Site 88

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	May 19, 2015	26	26-27	
	Jun 20, 2016	5	5-7	
Jack Dempsey	May 19, 2015	23	23-25	
	Jun 20, 2016	100	96-106	
Mountain Sucker	May 19, 2015	4	4-4	
Unidentified Fish	Jun 20, 2016	2	2-3	
White Sucker	May 19, 2015	8	7-14	
	Jun 20, 2016	2	2-3	

Site 117

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	May 19, 2015	9	9-10	
	Jun 20, 2016	37	31-49	
Green Sunfish	May 19, 2015	1	1-1	

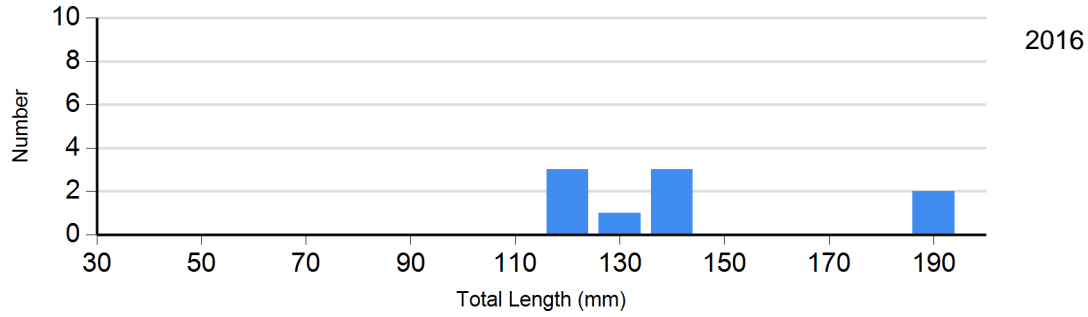
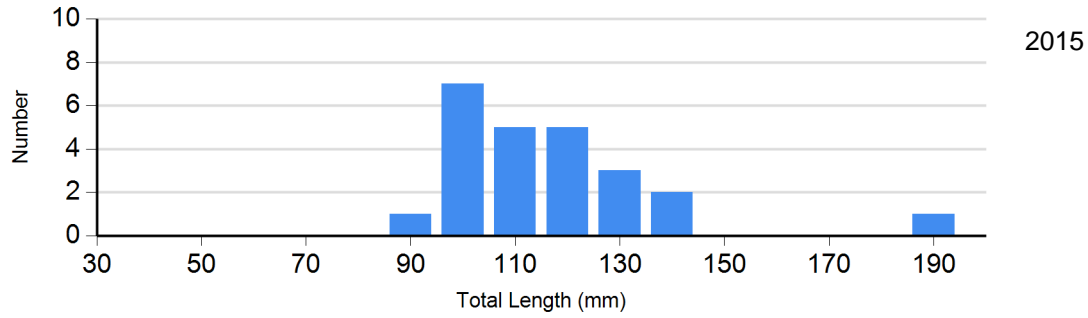
Green Sunfish	Jun 20, 2016	2	2-3
Jack Dempsey	May 19, 2015	699	170-1908
	Jun 20, 2016	39	37-44
White Sucker	Jun 20, 2016	6	6-7

Length Frequency Distribution

Length frequency histogram of species sampled by year.

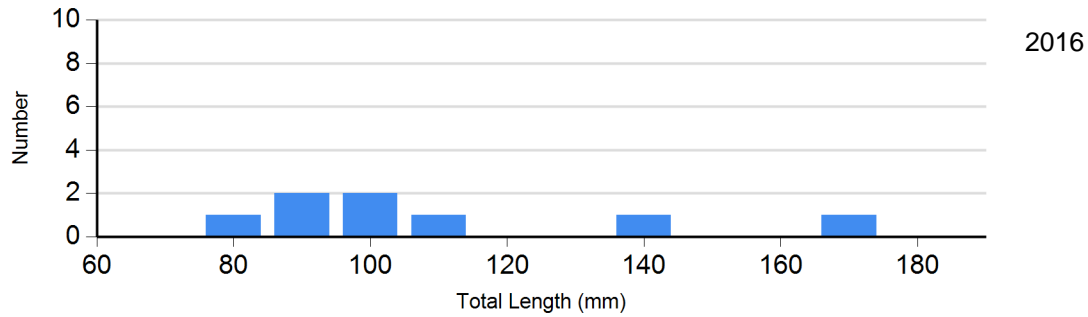
Site: 30

Species: Creek Chub

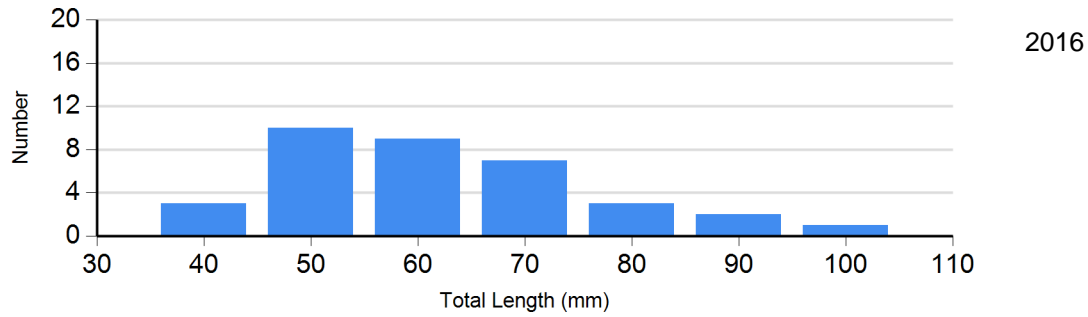
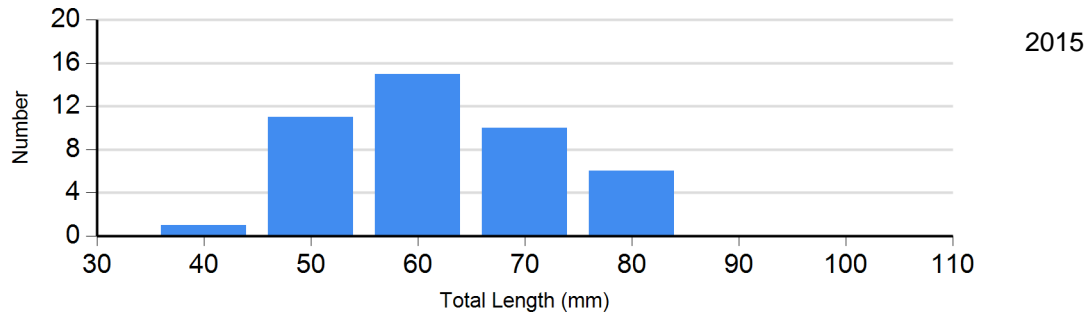


Site: 30

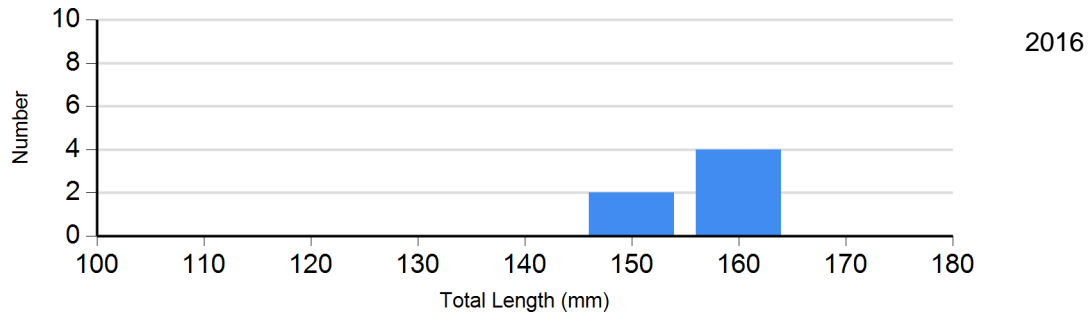
Species: Green Sunfish



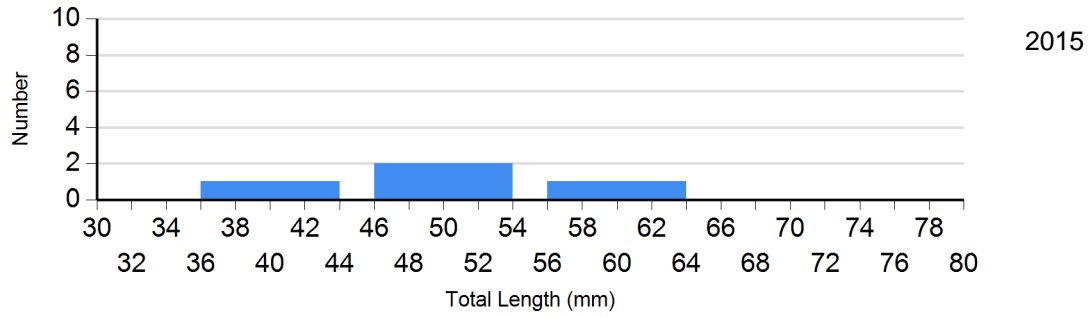
Site: 30
Species: Longnose Dace



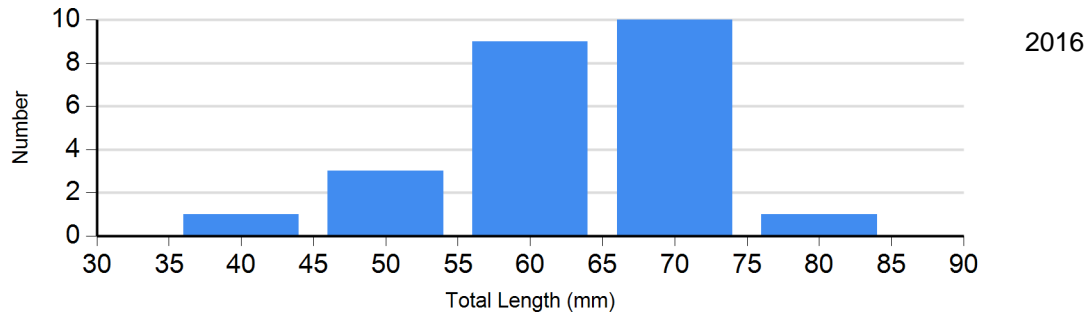
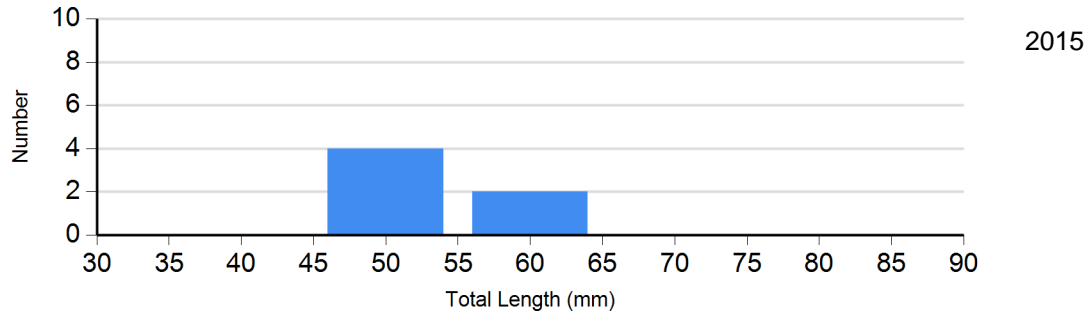
Site: 30
Species: Mountain Sucker



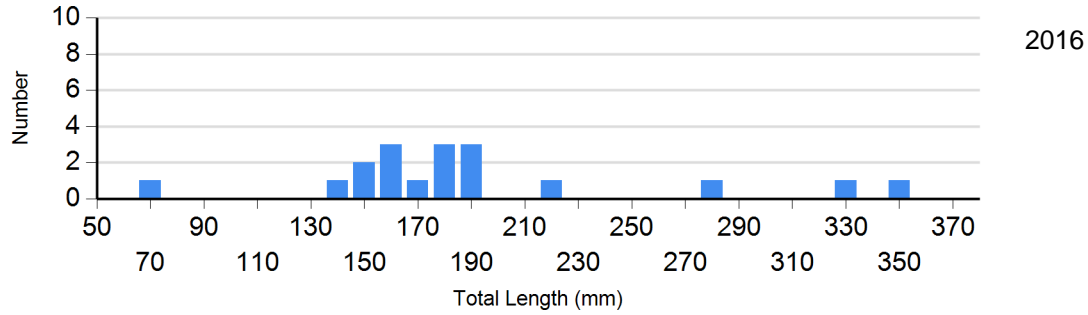
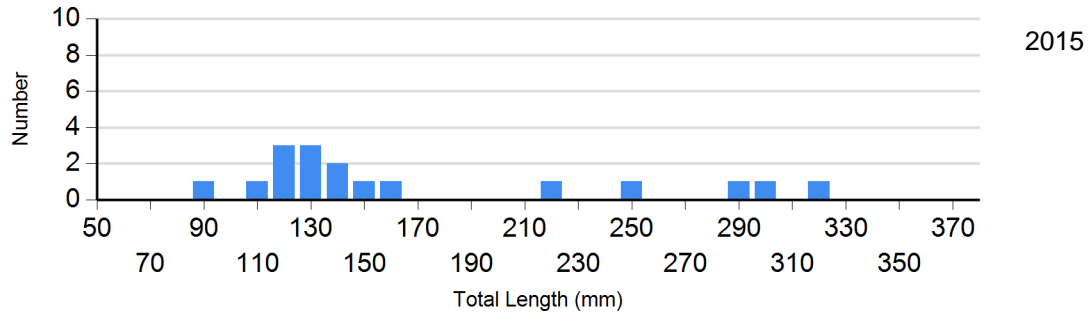
Site: 30
Species: Plains Topminnow



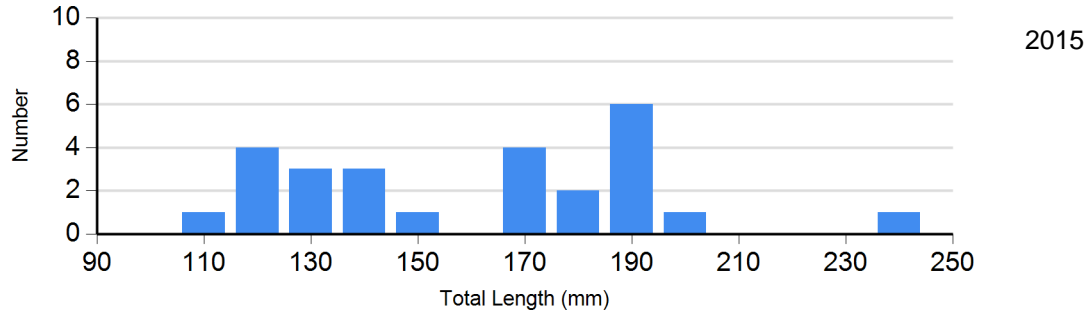
Site: 30
Species: Sand Shiner

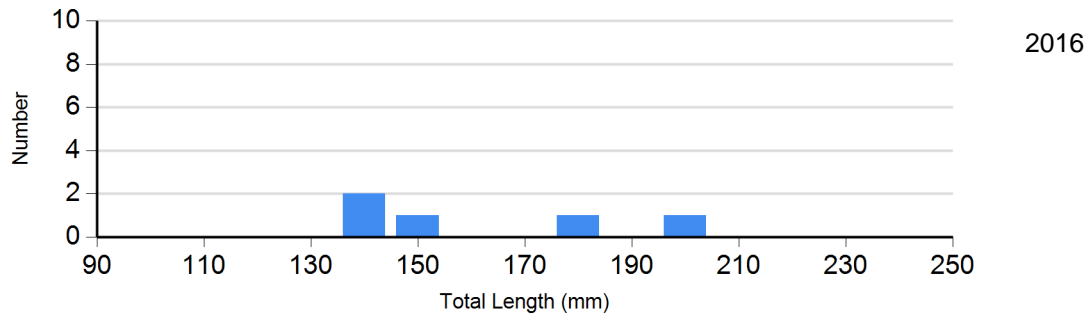


Site: 30
Species: White Sucker

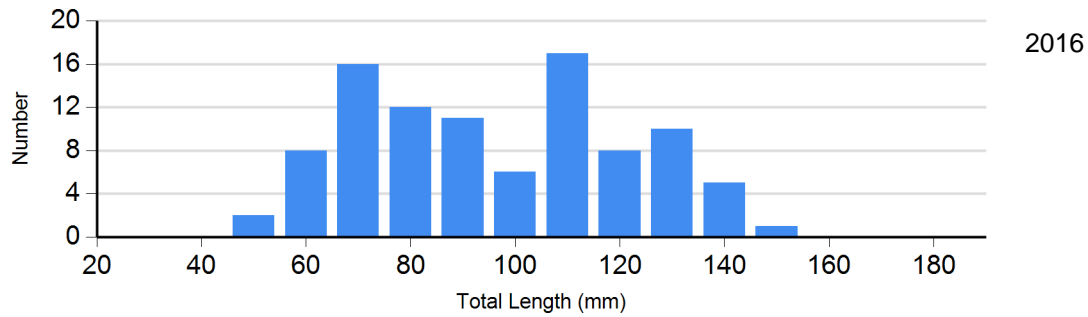
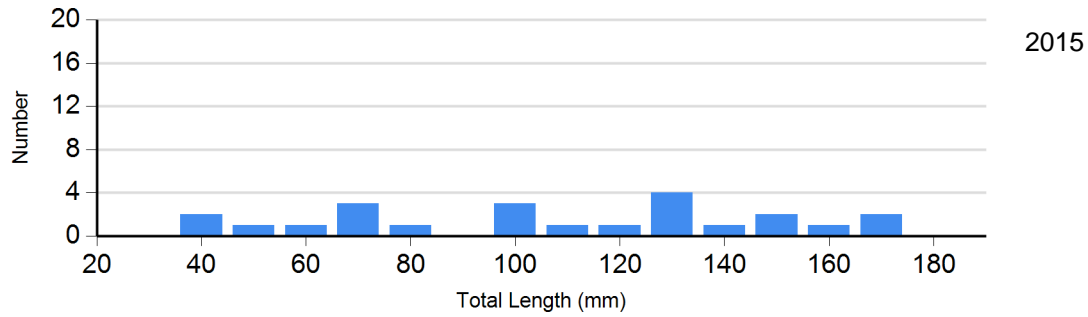


Site: 88
Species: Creek Chub

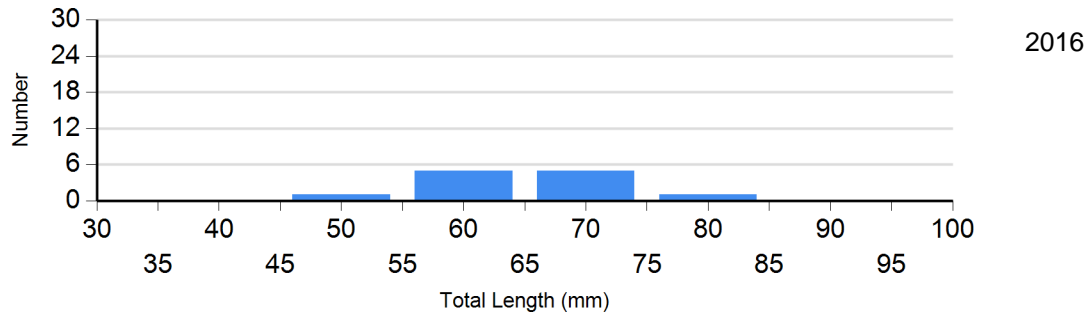
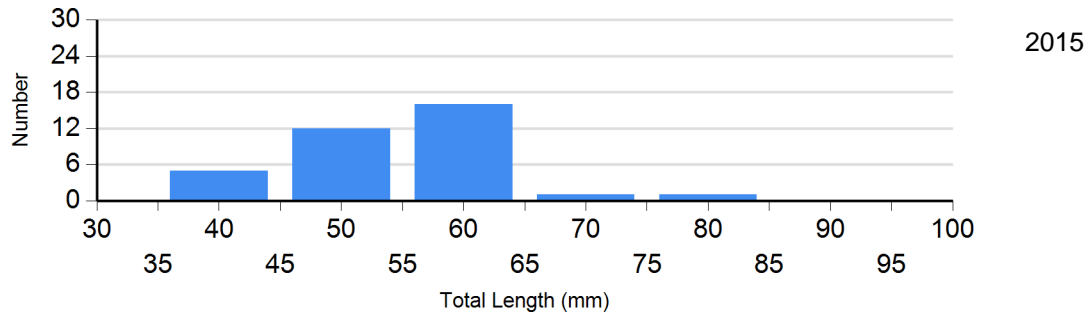




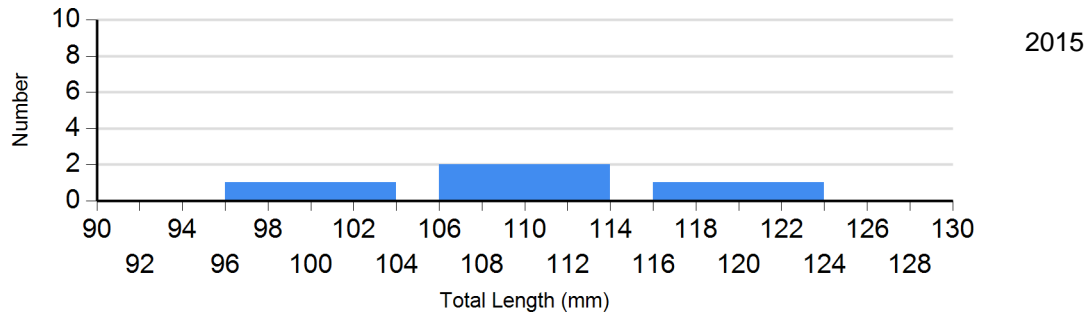
Site: 88
Species: Jack Dempsey



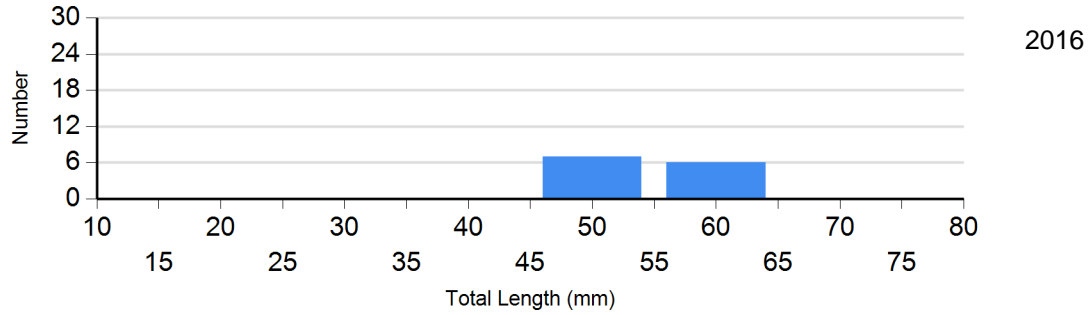
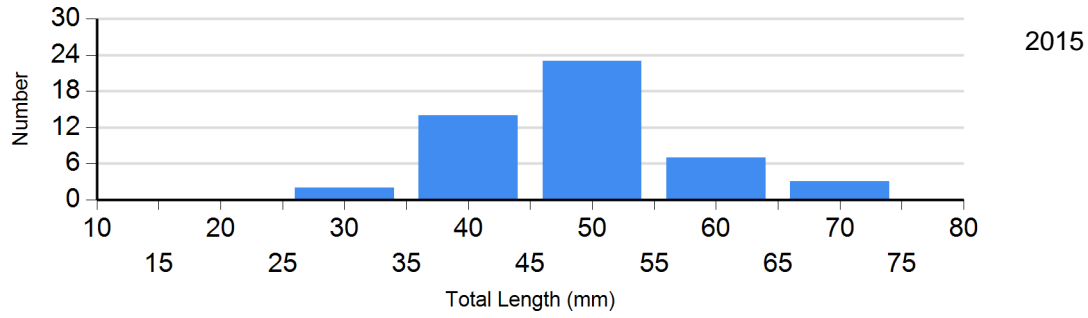
Site: 88
Species: Longnose Dace



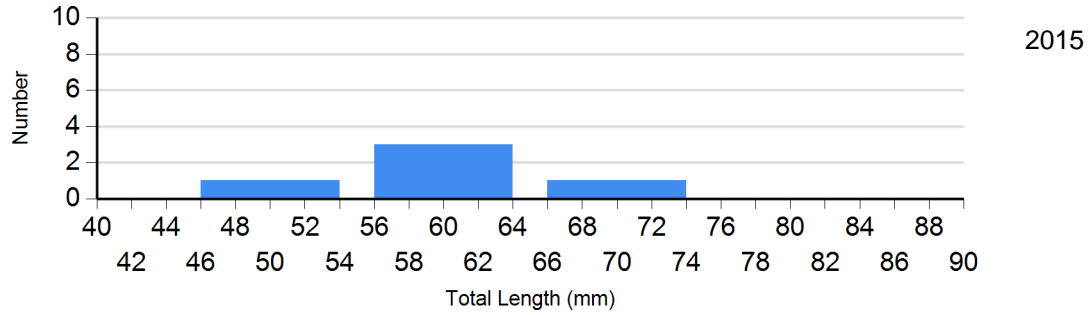
Site: 88
Species: Mountain Sucker



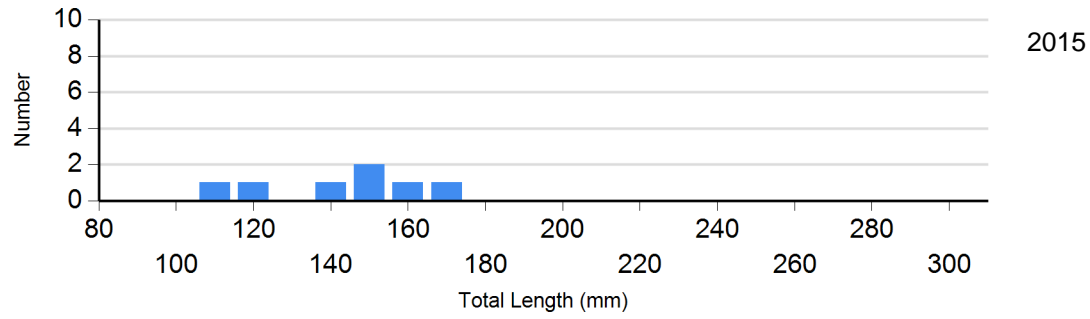
Site: 88
Species: Plains Topminnow



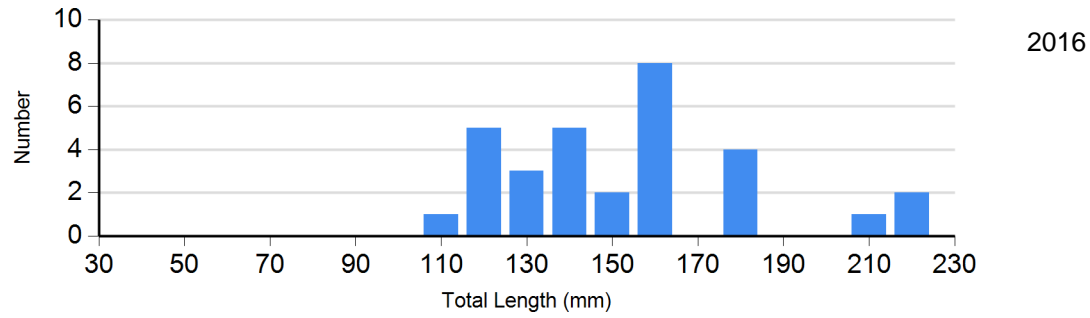
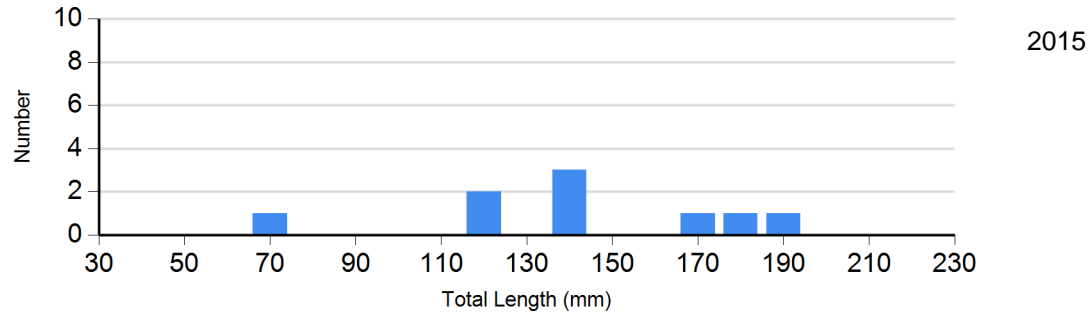
Site: 88
Species: Sand Shiner



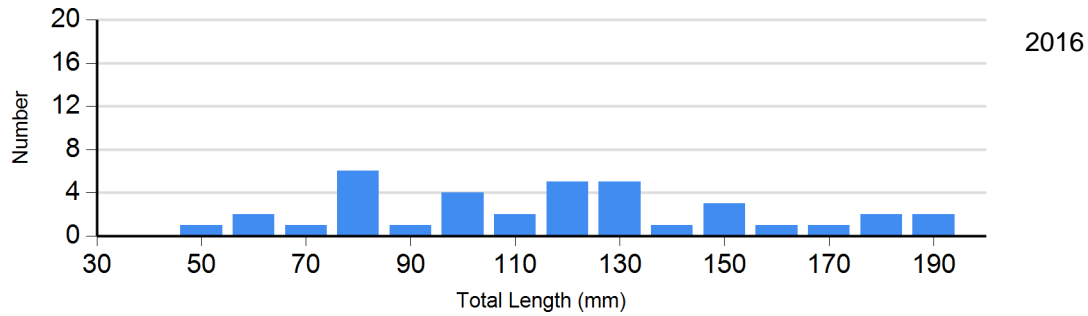
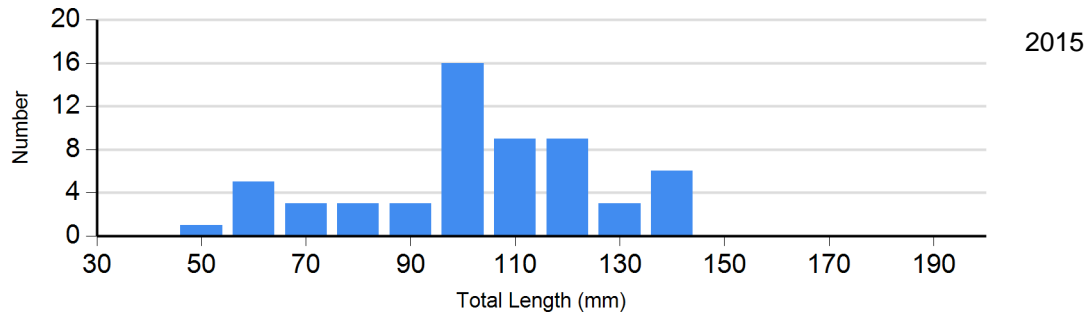
Site: 88
Species: White Sucker



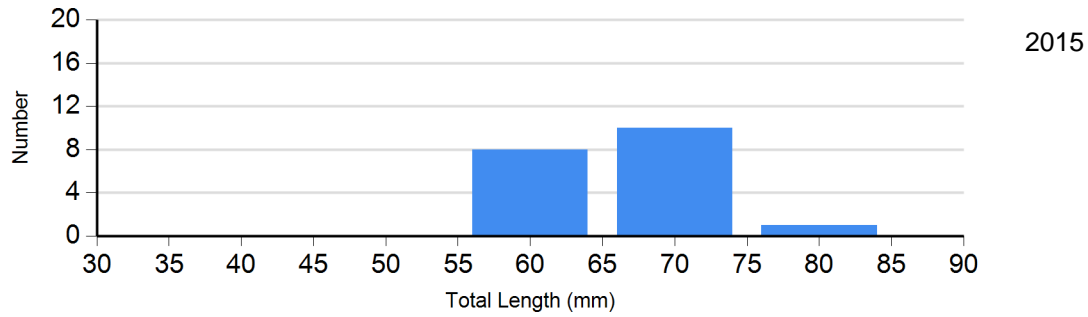
Site: 117
Species: Creek Chub

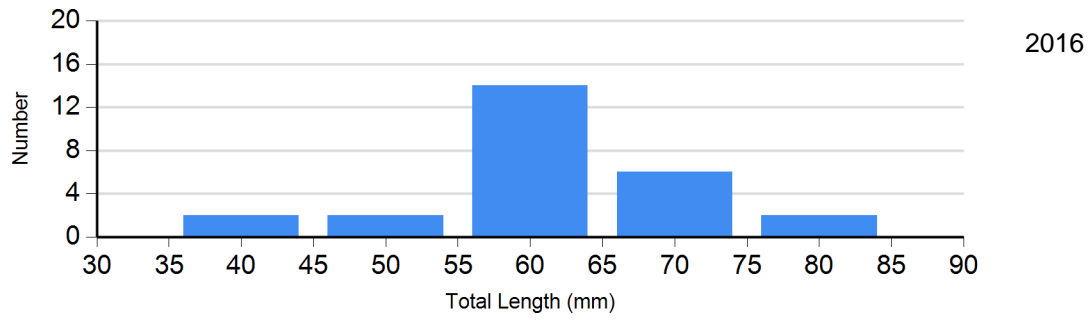


Site: 117
Species: Jack Dempsey

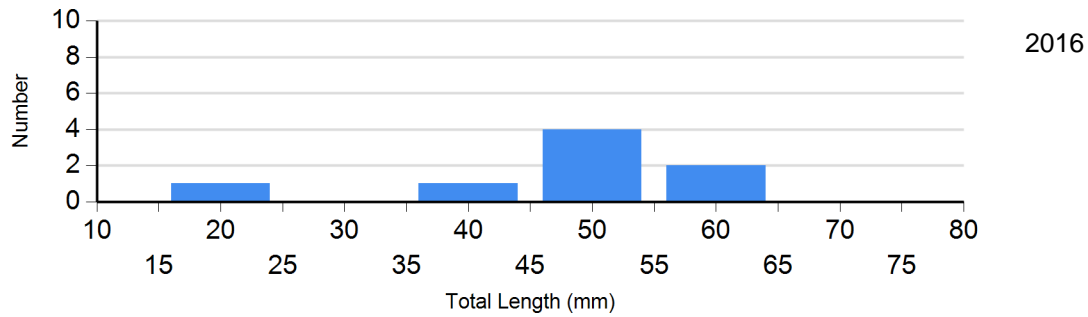
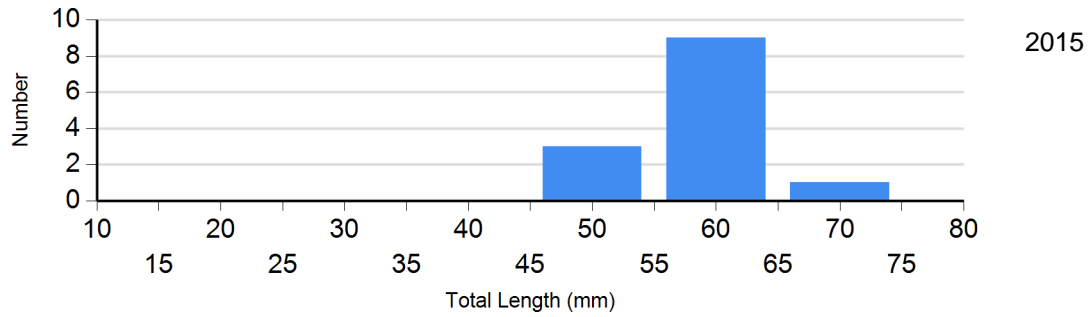


Site: 117
Species: Longnose Dace

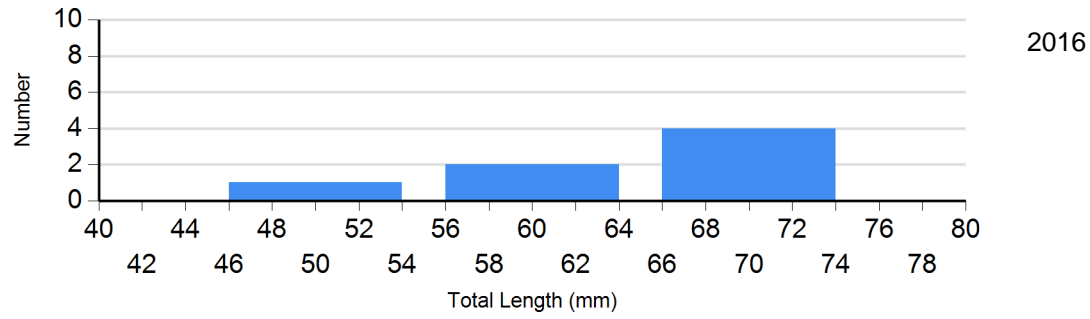




Site: 117
Species: Plains Topminnow



Site: 117
Species: Sand Shiner



Site: 117
Species: White Sucker

