

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Fall River, Fall River County
27-0023-00
2018

Table 1. Population and Biomass Estimates for Fall River

Site Number: 30 **Date Sampled:** 07/02/2018
Site Midpoint (Latitude, Longitude): 43.40294269, -103.41199702 **Conductivity (umhos/cm):**
Survey Completed by: South Dakota Game, Fish and Parks **pH:**
Stream Classification: None **Water Temperature (C):** 26.0
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)
Creek Chub	All	19	21	27	19	365	17	210	148	15.13	338	105.0	46.4
Green Sunfish	All	20	20	22	20	348	22	200	141	19.22	322	135.5	61.9
Jack Dempsey	All	8	8	9	8	139	5	80	56	4.89	129	115.6	39.4
Mountain Sucker	All	1	1	5	1	17	0	10	7	0.34	16	111.0	22.0
Unidentified Fish	All	1	1	1	1	17	3	10	7	2.48	16	234.0	160.0
White Sucker	All	12	13	18	12	226	36	130	91	31.77	209	171.6	157.5

Site Number: 88 **Date Sampled:** 07/02/2018
Site Midpoint (Latitude, Longitude): 43.41812442, -103.45778048 **Conductivity (umhos/cm):**
Survey Completed by: South Dakota Game, Fish and Parks **pH:**
Stream Classification: None **Water Temperature (C):** 27.0
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)
Creek Chub	All	9	9	11	9	0	0	0	0	0.00	0	160.8	44.2
Jack Dempsey	All	19	55	228	19	0	0	0	0	0.00	0	110.5	34.4

Mountain Sucker	All	2	1	1	2	0	0	0	0	0.00	0	112.5	16.5
White Sucker	All	1	1	1	1	0	0	0	0	0.00	0	204.0	86.0

Site Number: 117

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

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: None

Date Sampled: 07/02/2018

Site Length (m): 100

Mean Width (m): 7.7

Number of Pass: 3

Conductivity (umhos/cm):

pH:

Water Temperature (C): 27.0

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)
Jack Dempsey	All	55	55	57	55	711	24	550	288	21.61	885	100.0	34.0
White Sucker	All	1	1	1	1	13	2	10	5	2.02	16	251.0	175.0

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 Fall River, 2008-2018

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	
	Oct 08, 2017	14	14-15	
	Jul 02, 2018	21	19-27	
Green Sunfish	May 20, 2015	2	2-6	
	Jun 20, 2016	8	8-9	
	Oct 08, 2017	10	10-11	

Green Sunfish	Jul 02, 2018	20	20-22
Jack Dempsey	Oct 08, 2017	1	1-2
	Jul 02, 2018	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
	Oct 08, 2017	1	1-1
	Jul 02, 2018	1	1-5
Unidentified Fish	Jul 02, 2018	1	1-1
White Sucker	May 20, 2015	17	17-18
	Jun 20, 2016	18	18-20
	Oct 08, 2017	14	14-16
	Jul 02, 2018	13	12-18

Site 88

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	May 19, 2015	26	26-27	

Creek Chub	Jun 20, 2016	5	5-7
	Aug 10, 2017	46	45-49
	Jul 02, 2018	9	9-11
Jack Dempsey	May 19, 2015	23	23-25
	Jun 20, 2016	100	96-106
	Aug 10, 2017	114	114-115
	Jul 02, 2018	55	19-228
Mountain Sucker	May 19, 2015	4	4-4
	Jul 02, 2018	1	2-1
Unidentified Fish	Jun 20, 2016	2	2-3
White Sucker	May 19, 2015	8	7-14
	Jun 20, 2016	2	2-3
	Aug 10, 2017	8	8-10
	Jul 02, 2018	1	1-1

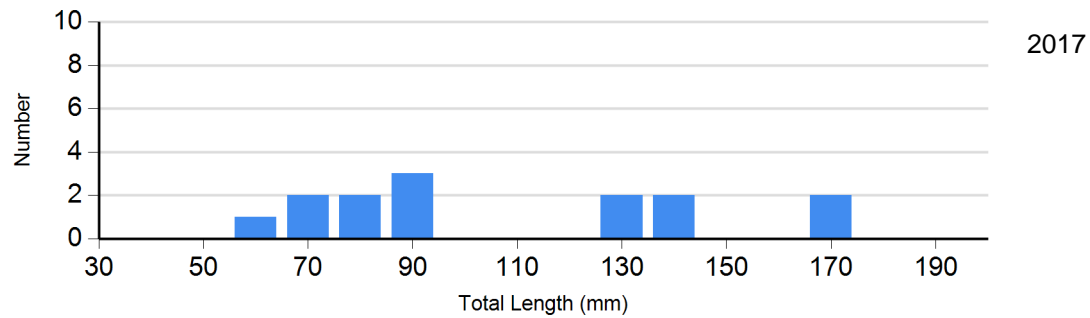
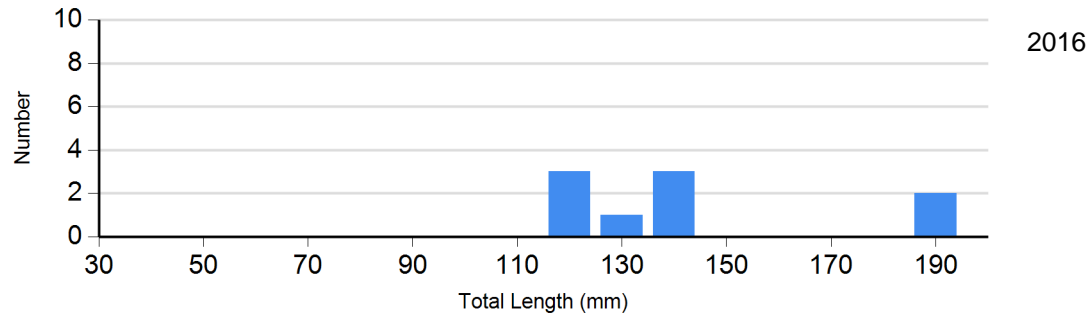
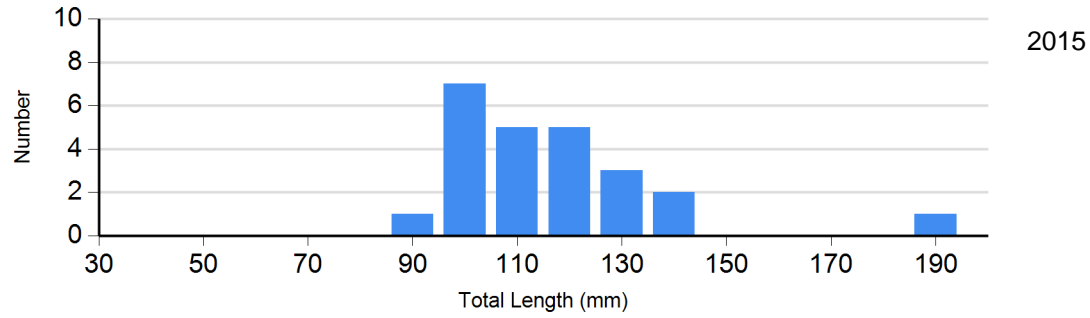
Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Creek Chub	May 19, 2015	9	9-10	
	Jun 20, 2016	37	31-49	
Green Sunfish	May 19, 2015	1	1-1	
	Jun 20, 2016	2	2-3	
Jack Dempsey	May 19, 2015	699	170-1908	
	Jun 20, 2016	39	37-44	
	Aug 08, 2017	89	88-92	
	Jul 02, 2018	55	55-57	
Longnose Dace	Aug 08, 2017	25	25-27	
White Sucker	Jun 20, 2016	6	6-7	
	Aug 08, 2017	2	2-2	
	Jul 02, 2018	1	1-1	

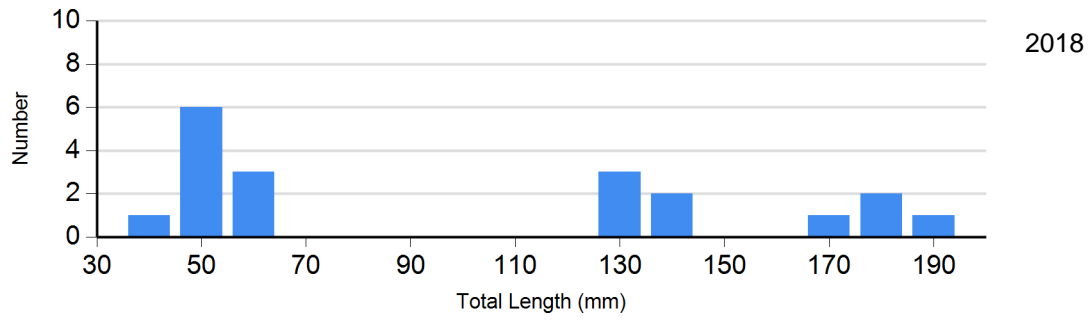
Length Frequency Distribution

Length frequency histogram of species sampled by year.

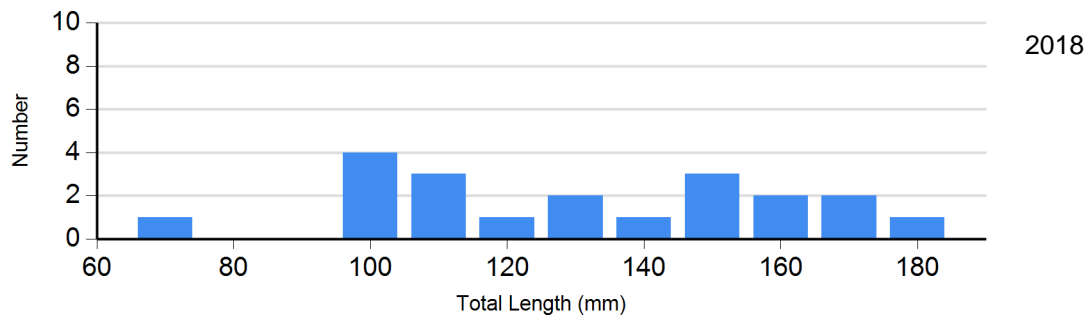
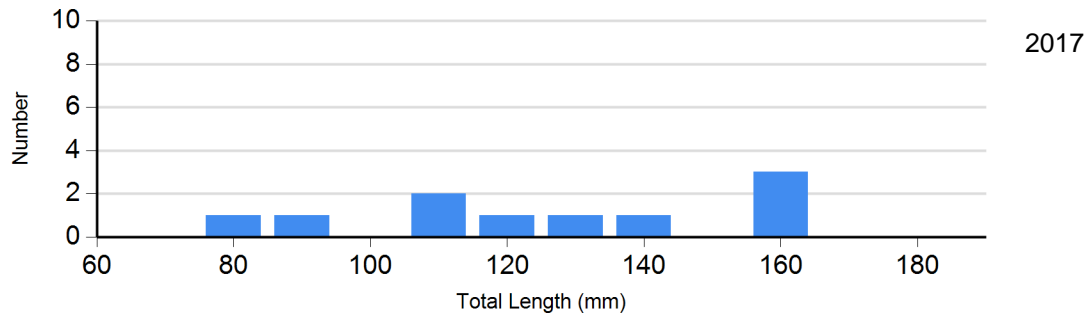
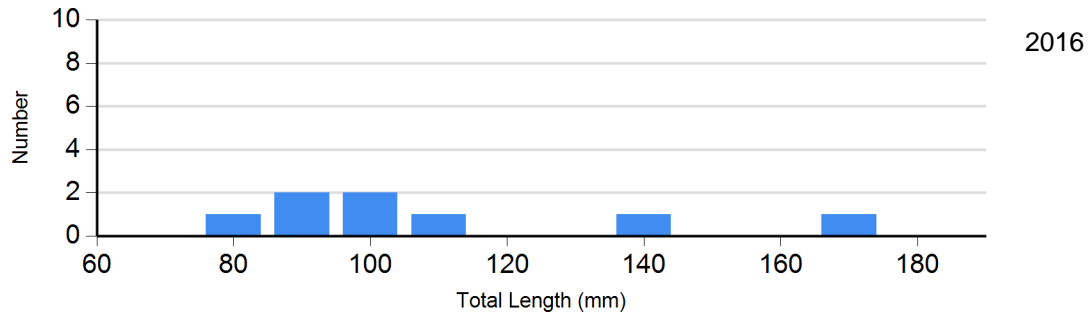
Site: 30

Species: Creek Chub

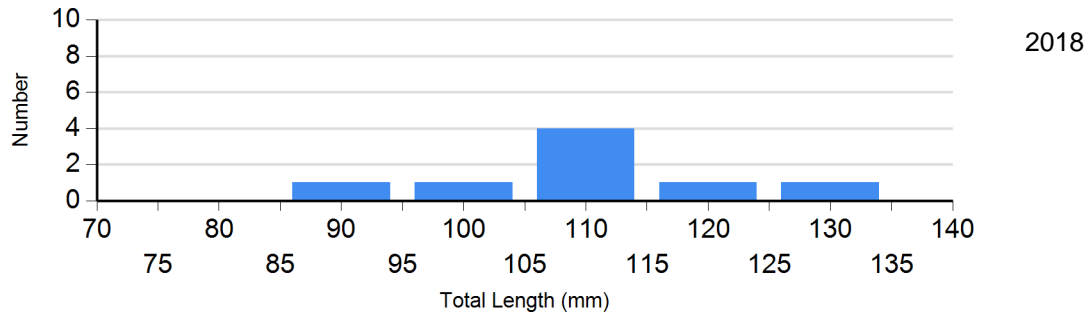




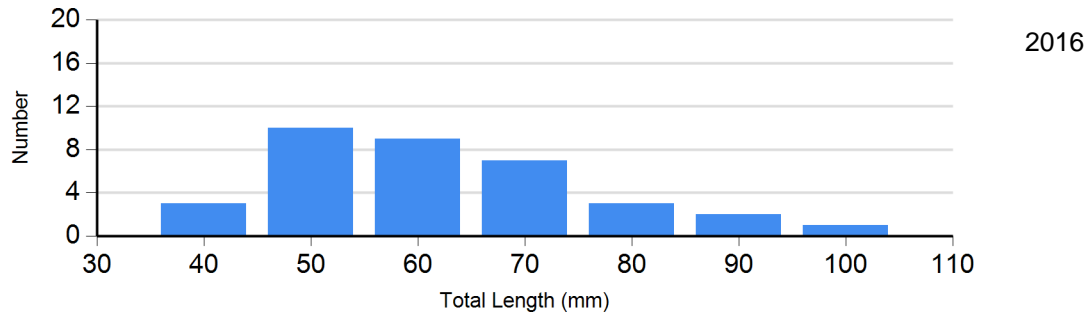
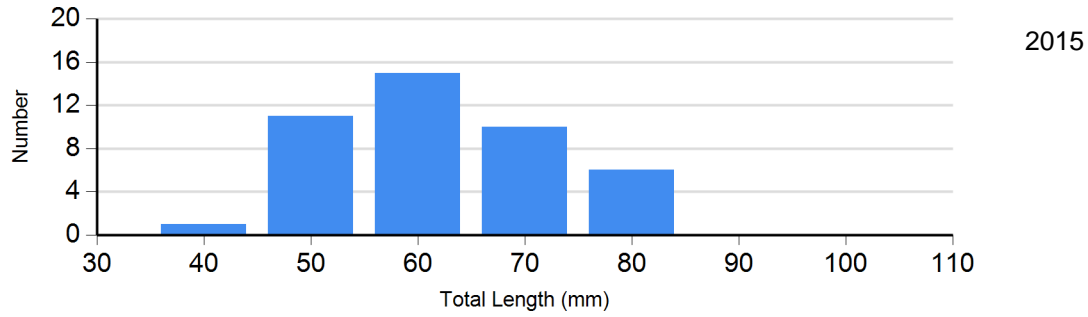
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Species: Green Sunfish

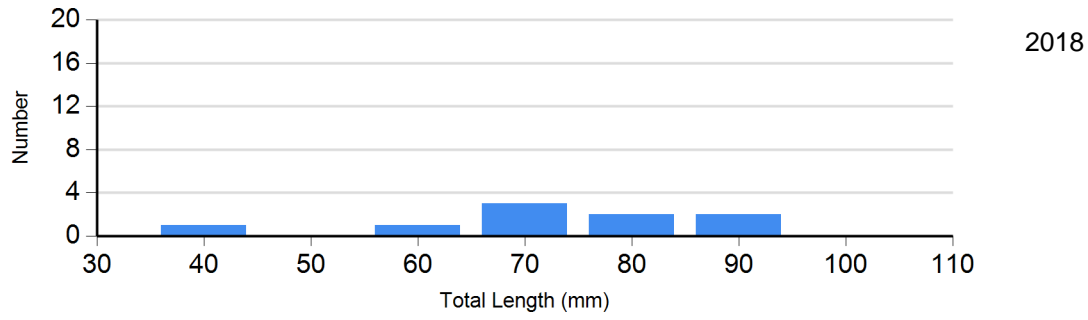
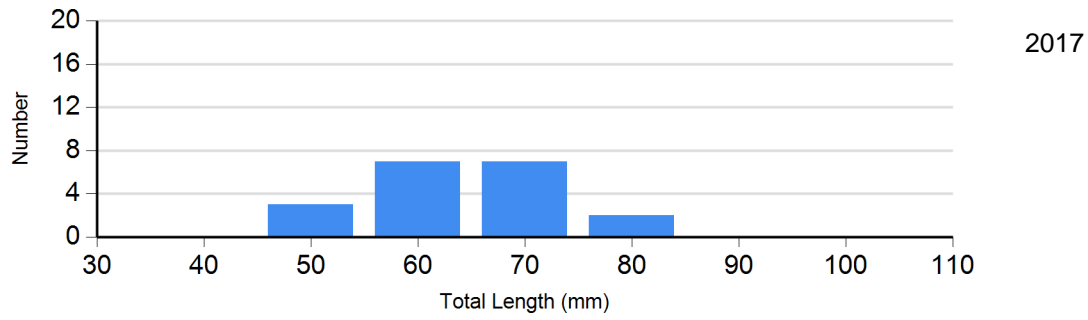


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Species: Jack Dempsey

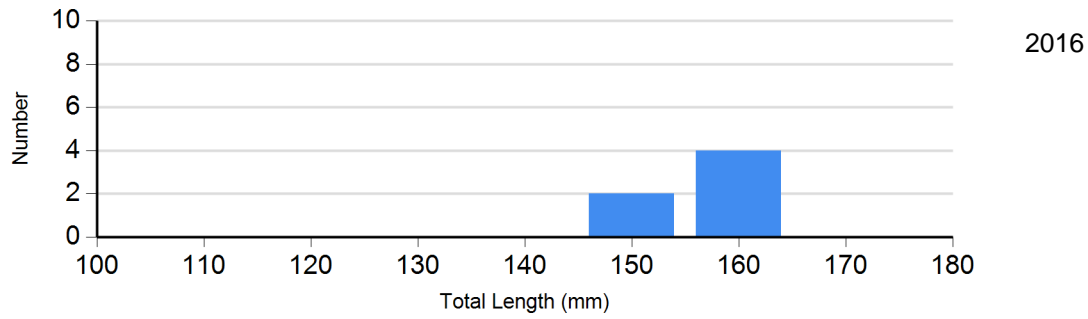


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Species: Longnose Dace

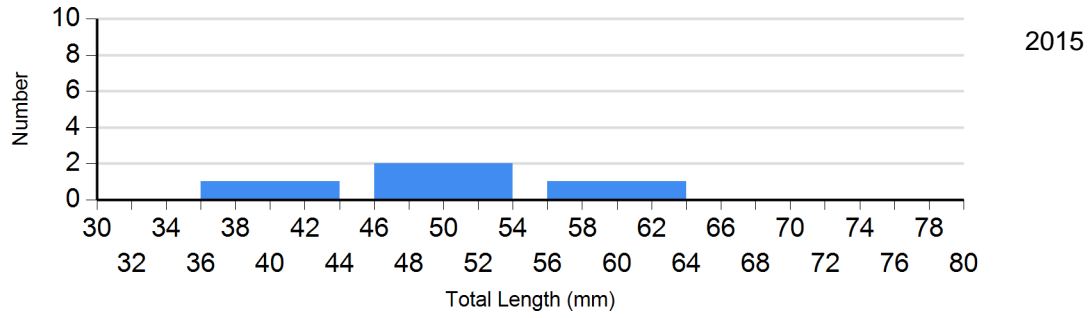




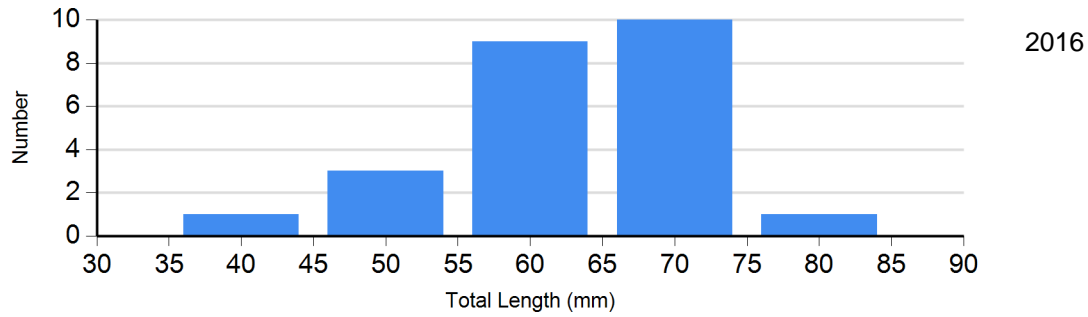
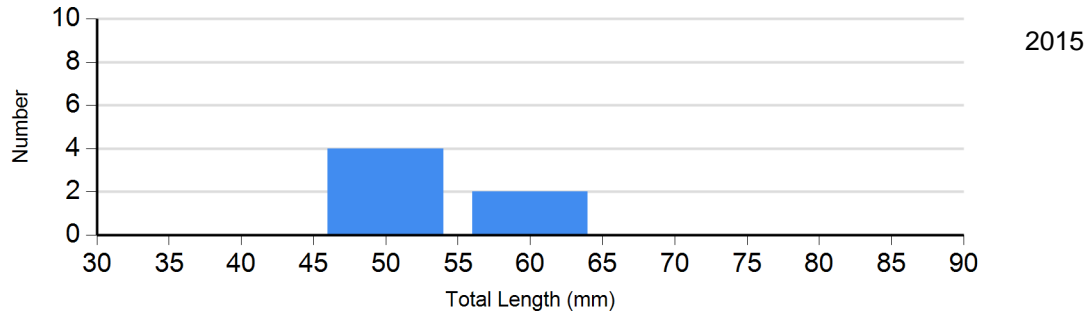
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Species: Mountain Sucker



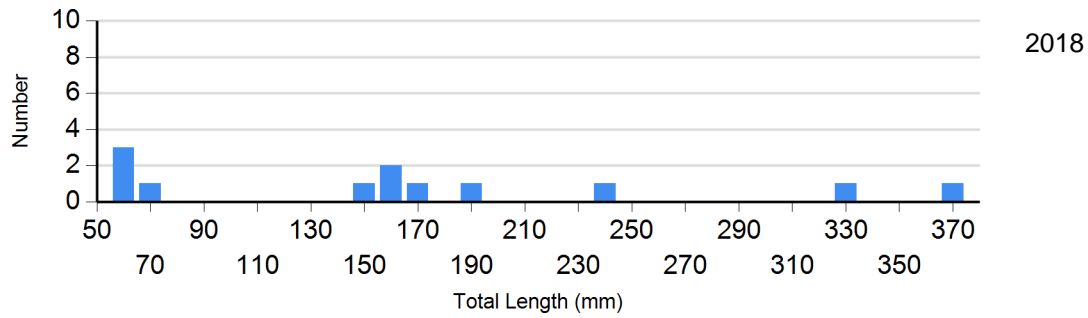
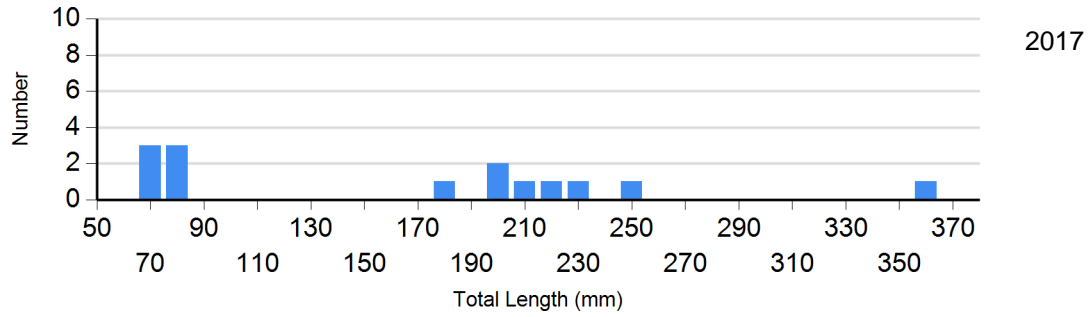
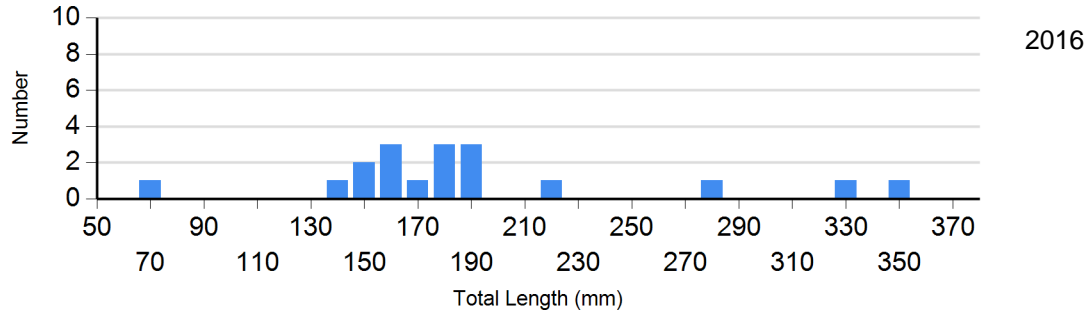
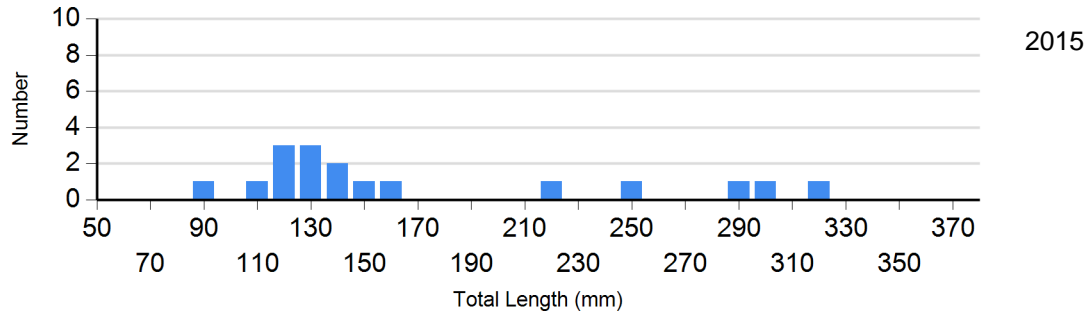
Site: 30
Species: Plains Topminnow



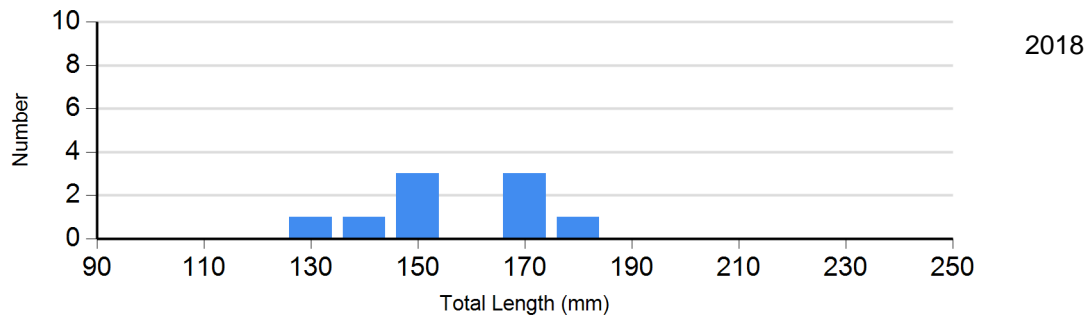
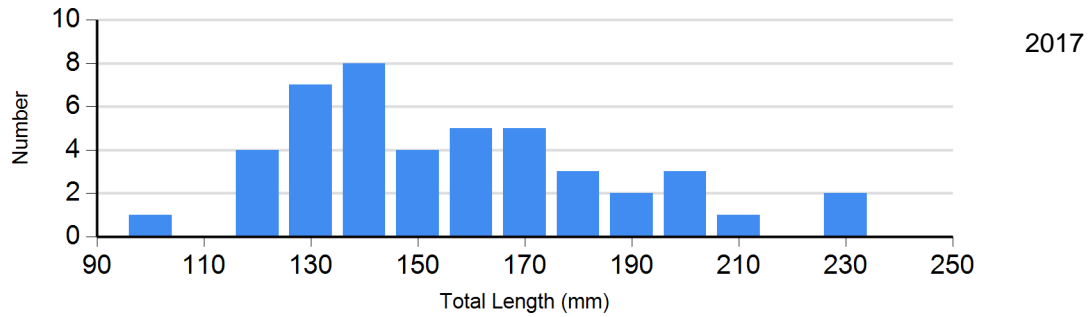
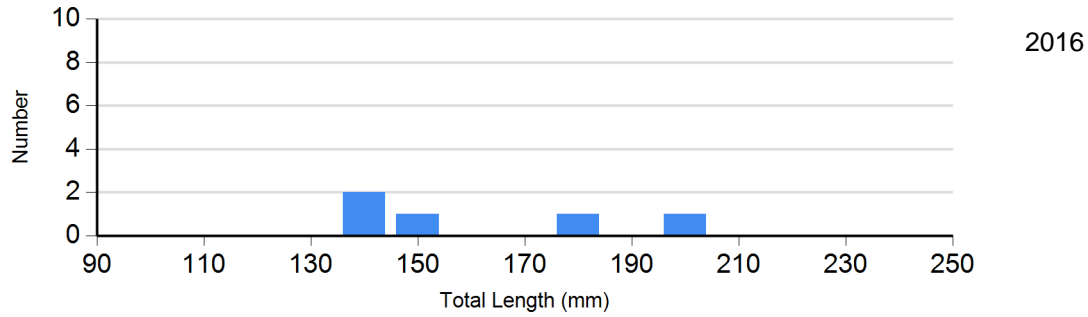
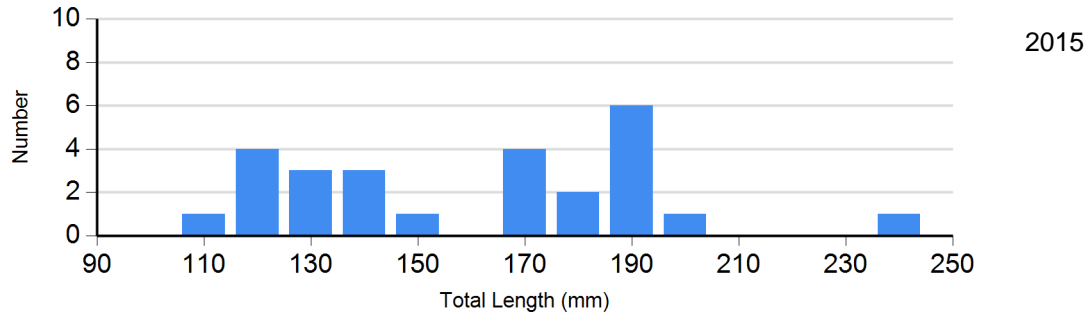
Site: 30
Species: Sand Shiner



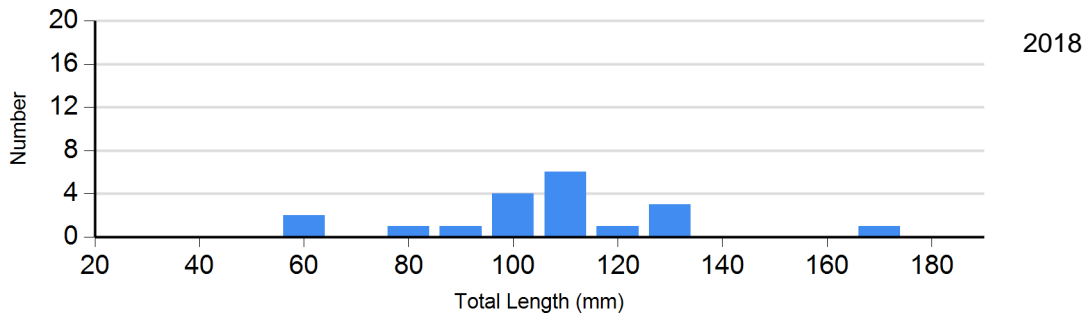
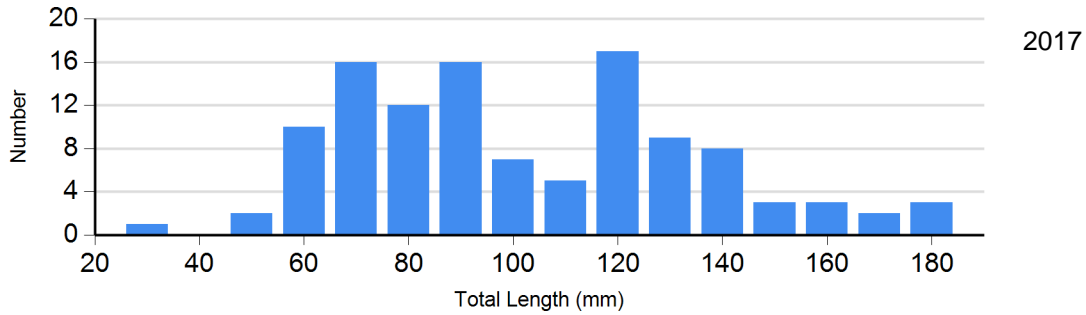
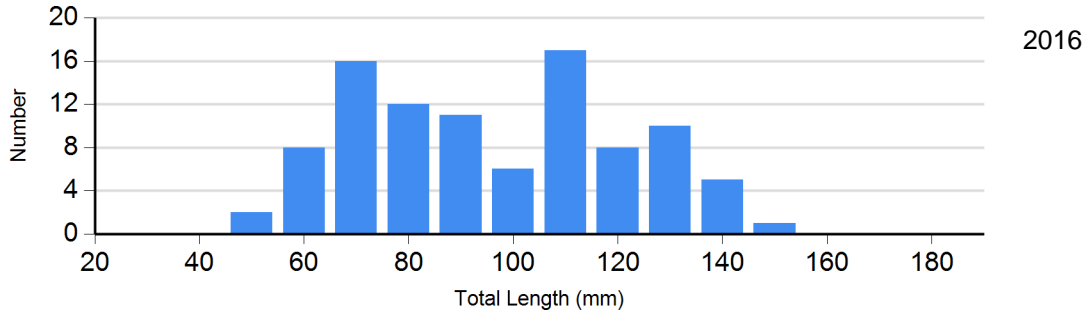
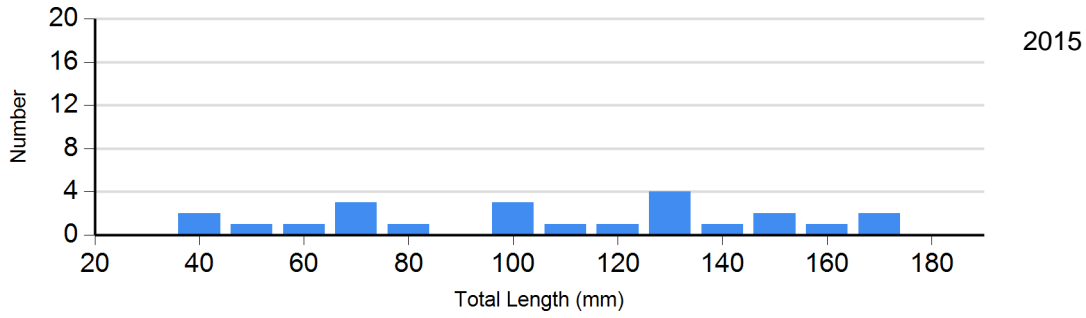
Site: 30
Species: White Sucker



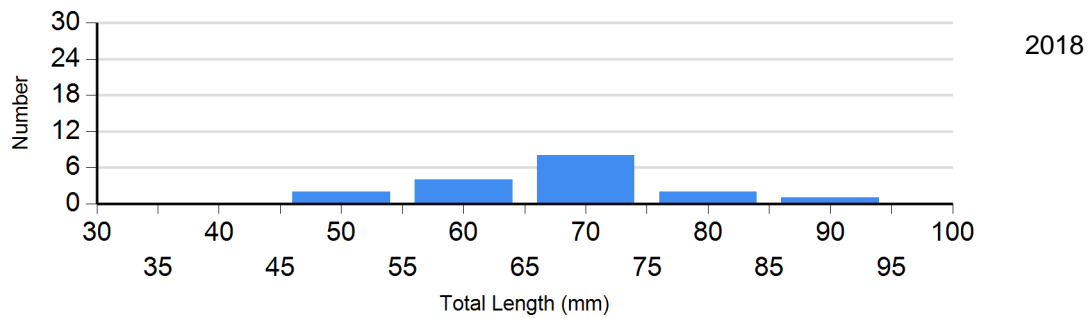
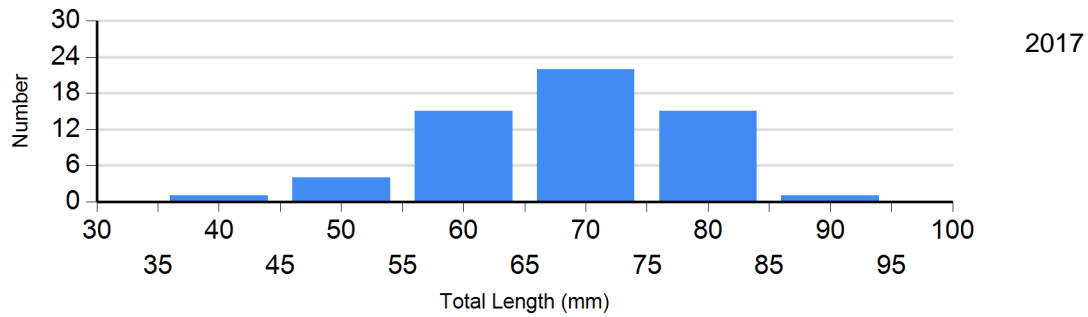
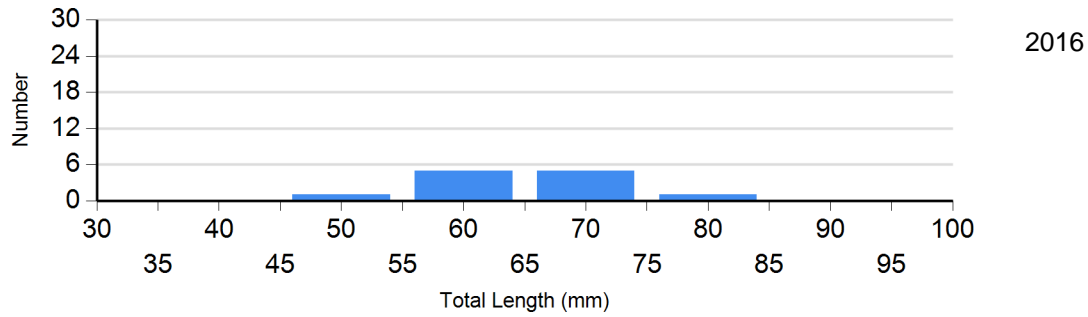
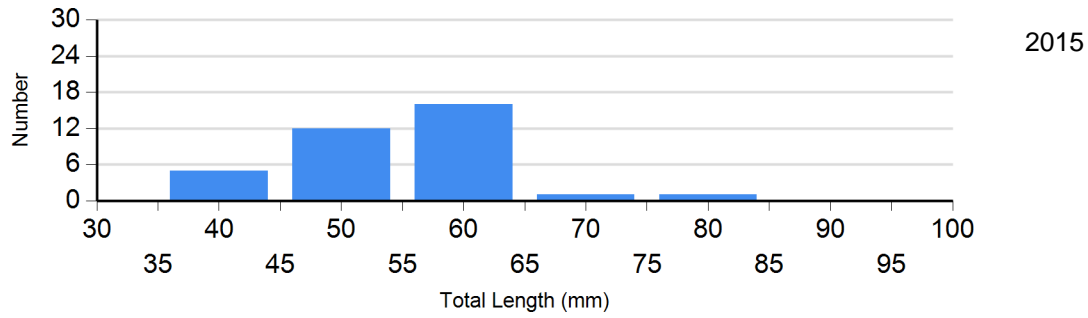
Site: 88
Species: Creek Chub



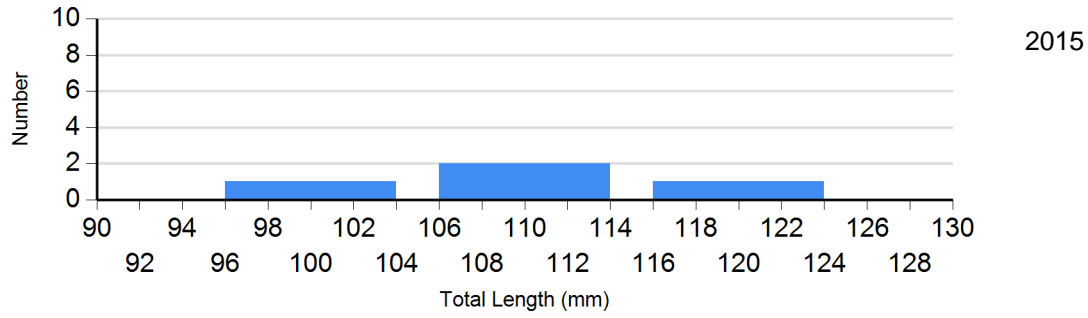
Site: 88
Species: Jack Dempsey



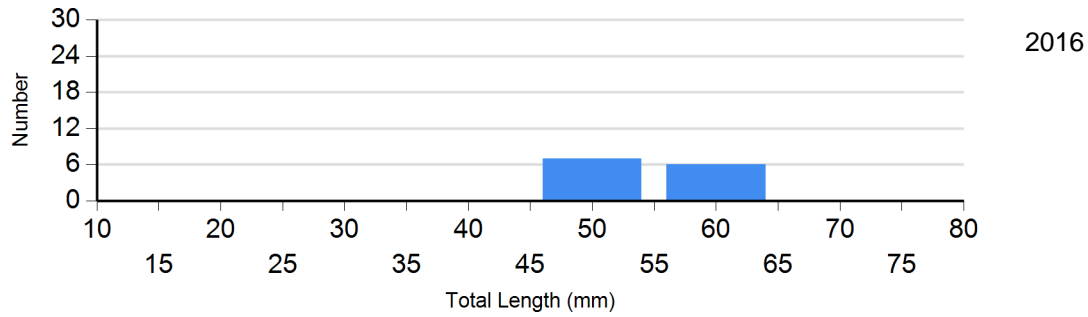
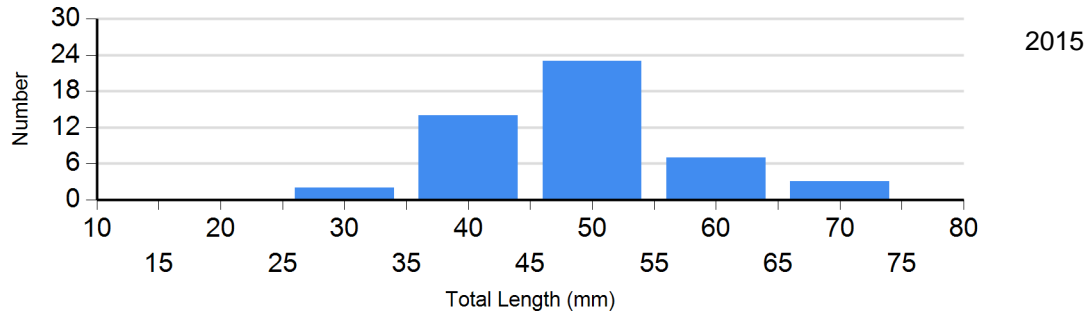
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Species: Longnose Dace

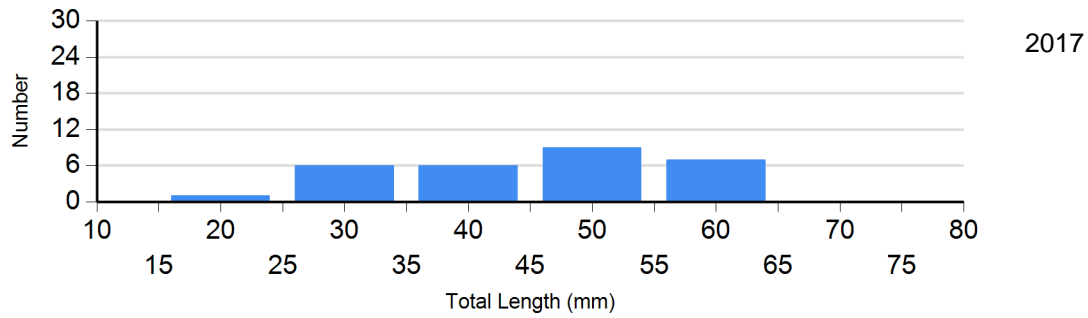


Site: 88
Species: Mountain Sucker

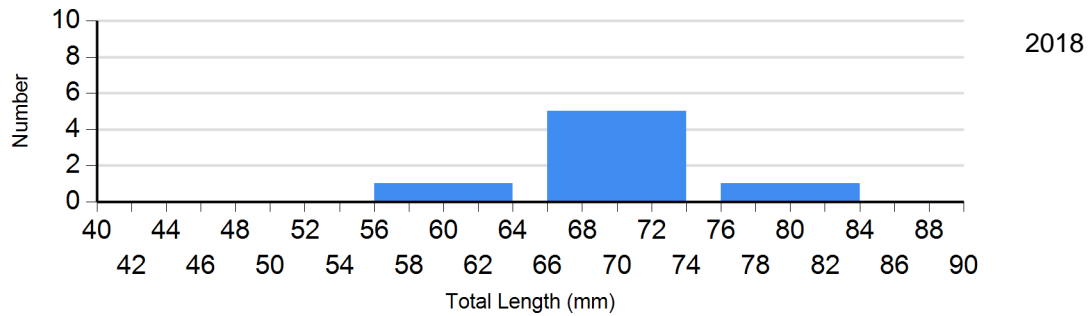
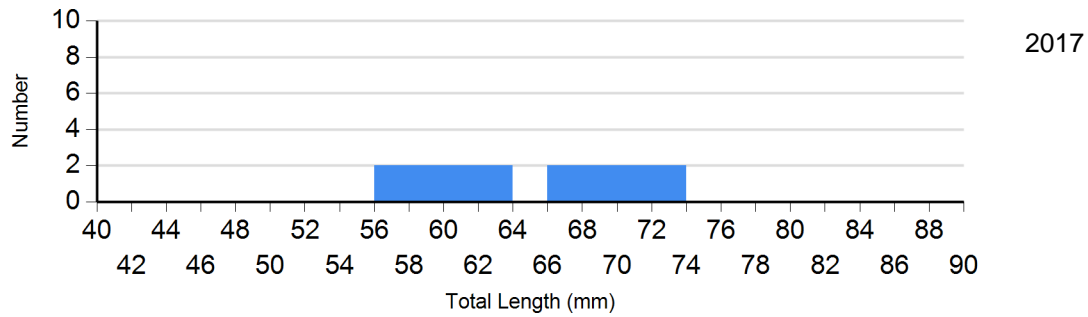
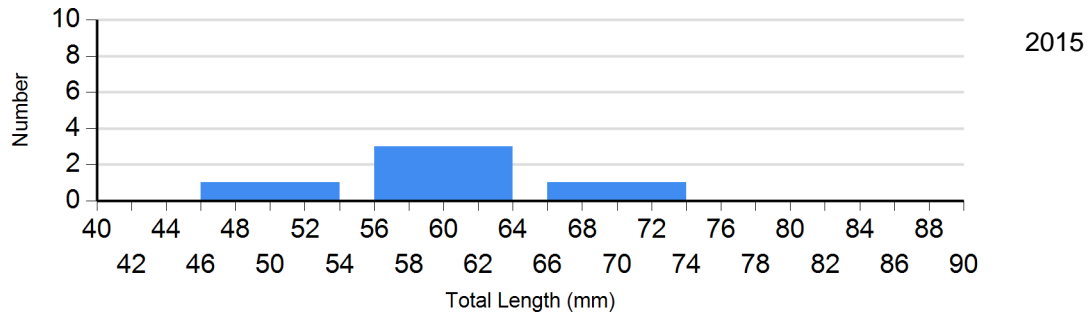


Site: 88
Species: Plains Topminnow

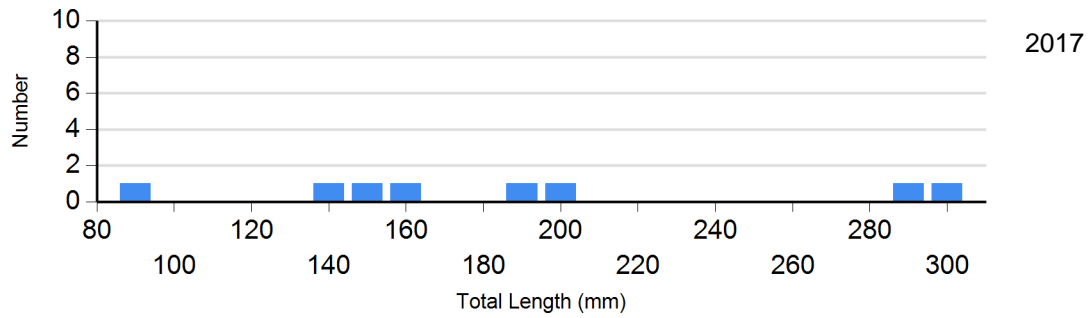
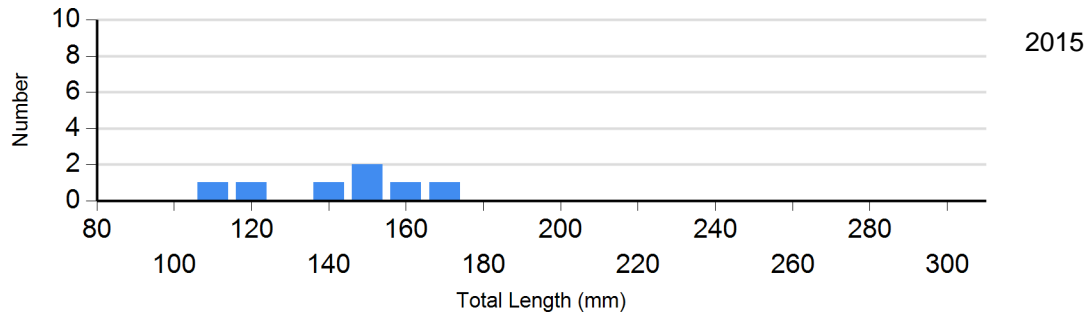




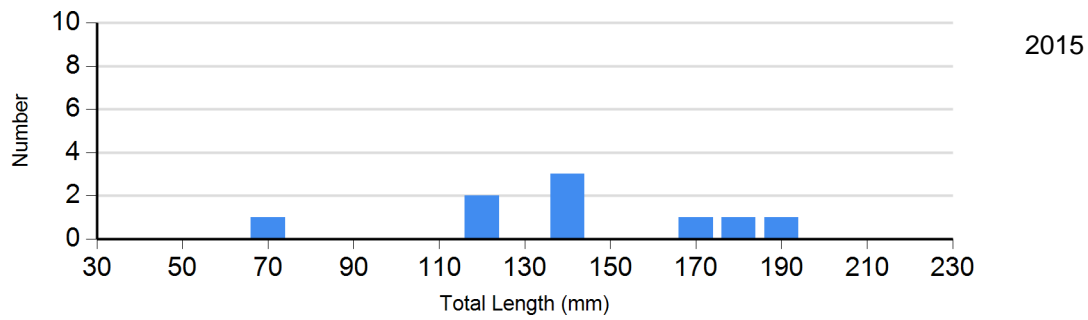
Site: 88
Species: Sand Shiner

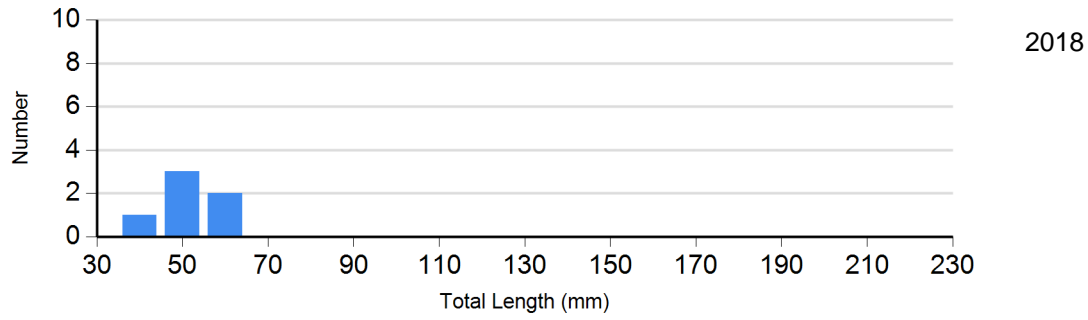
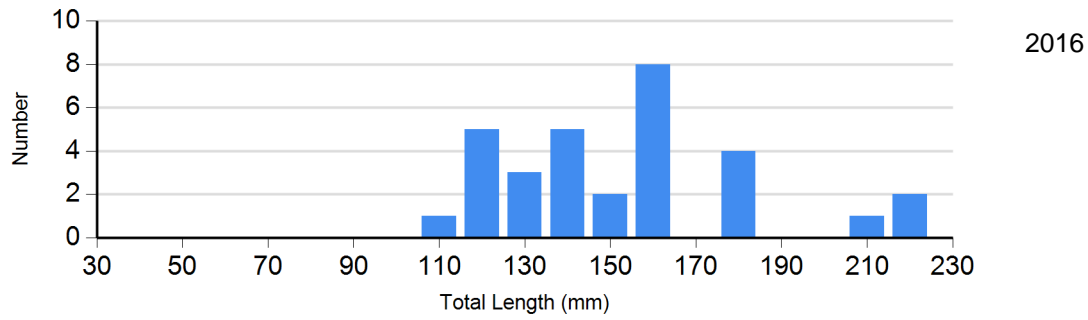


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Species: White Sucker

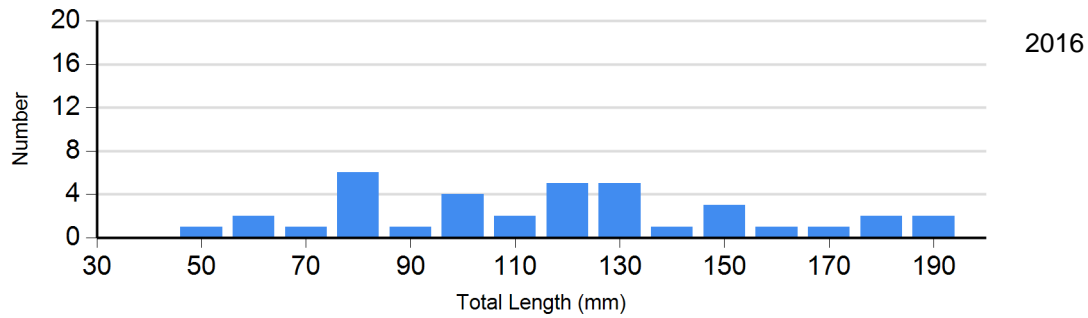
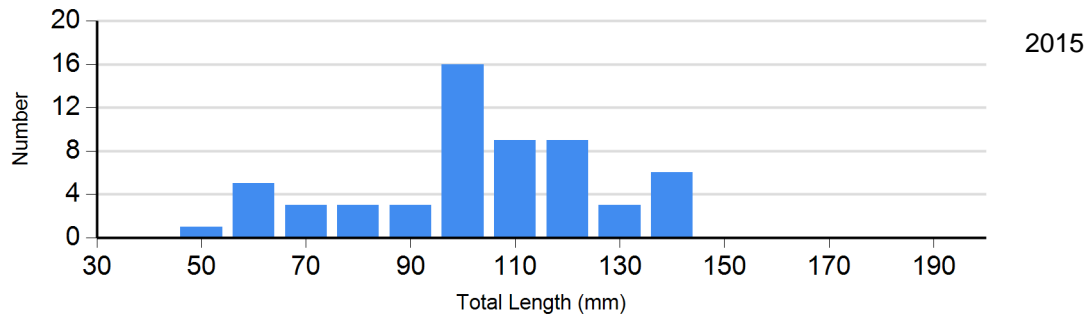


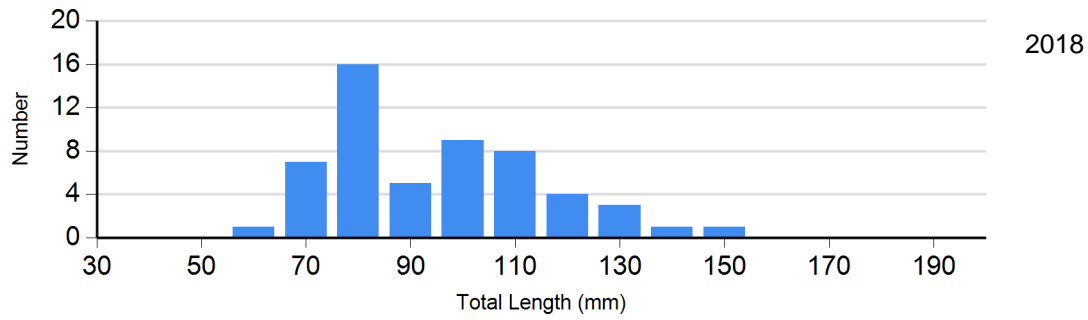
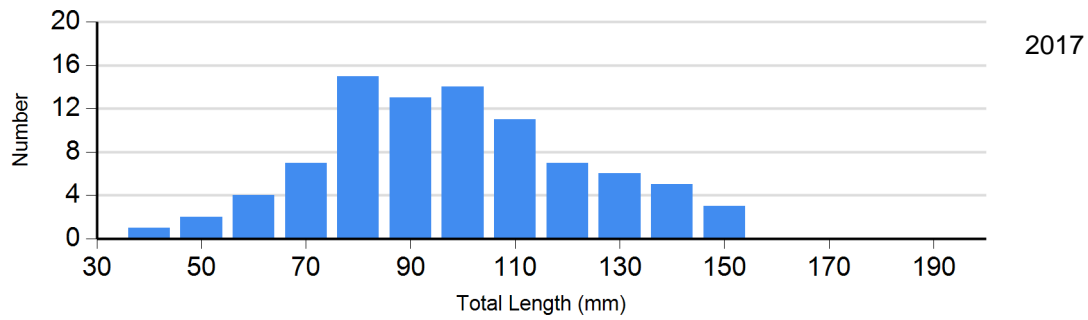
Site: 117
Species: Creek Chub



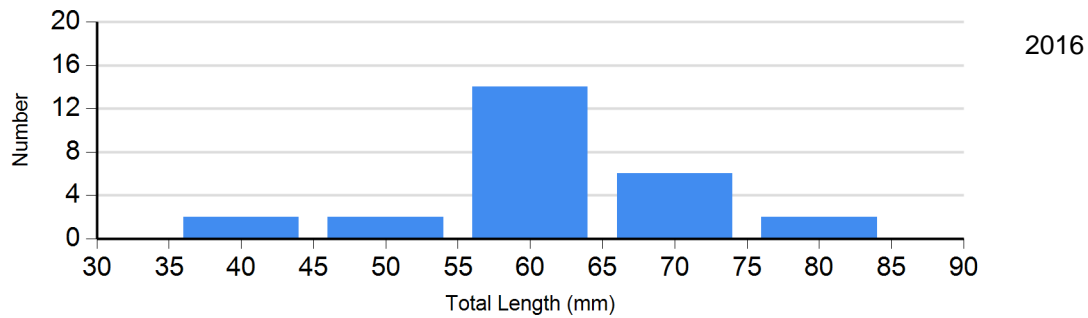
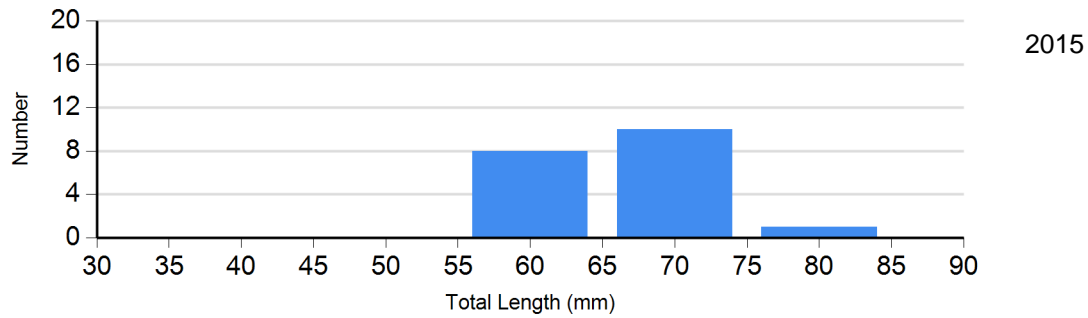


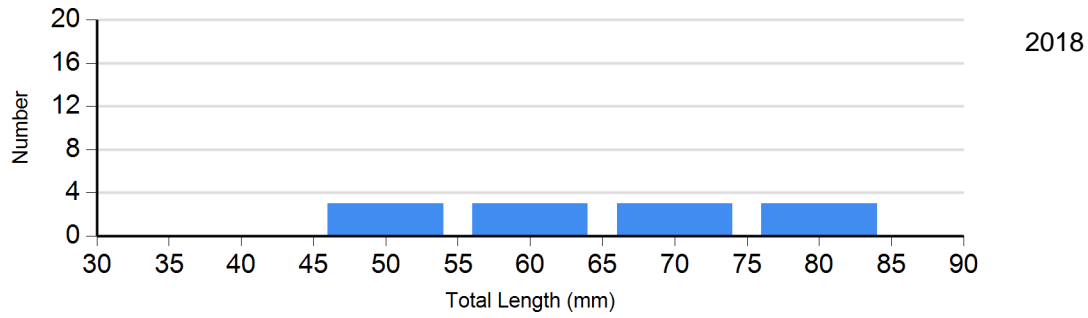
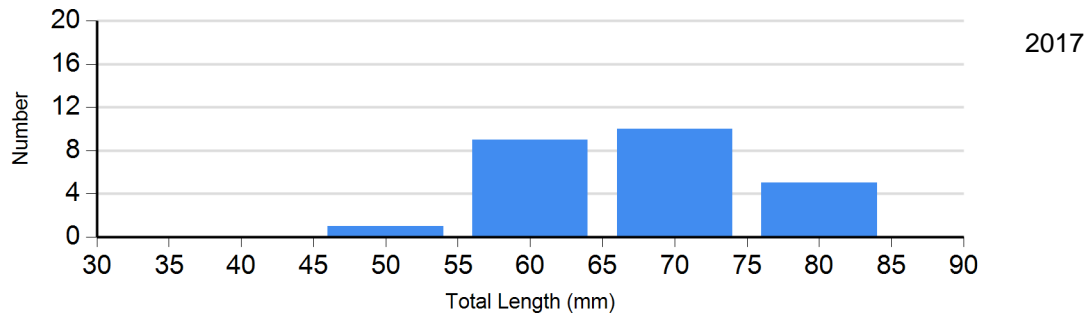
Site: 117
Species: Jack Dempsey



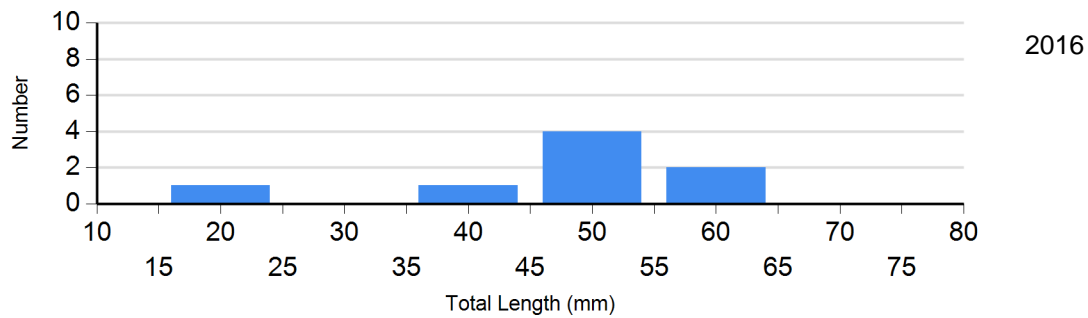
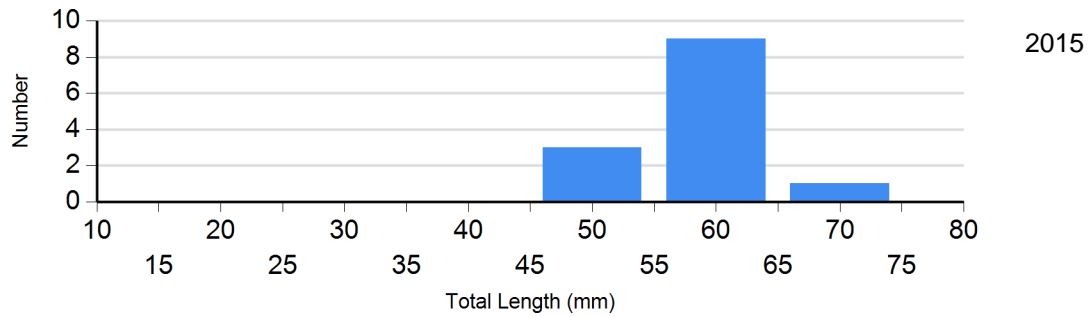


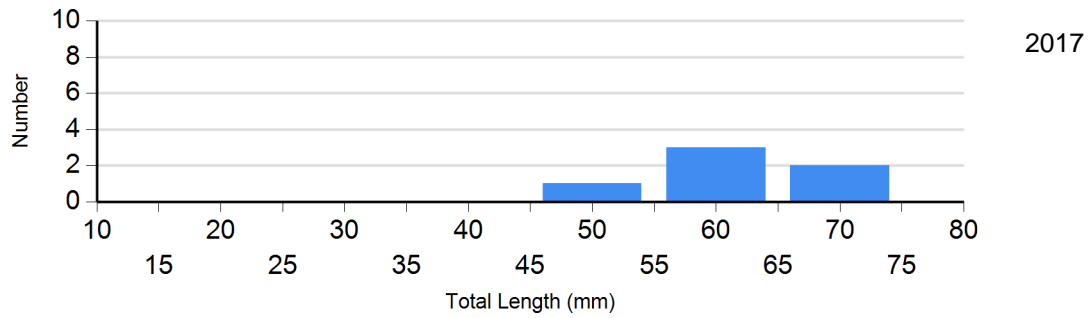
Site: 117
Species: Longnose Dace



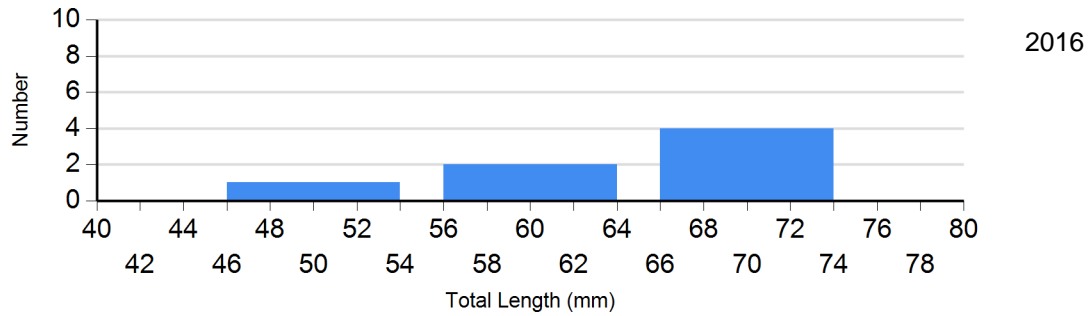


Site: 117
Species: Plains Topminnow





Site: 117
Species: Sand Shiner



Site: 117
Species: White Sucker

