

SOUTH DAKOTA BLACK HILLS COLD STREAM SURVEY
Rapid Creek, Pennington County
02-0062-00
1993

Table 1. Population and Biomass Estimates for Rapid Creek

Site Number: 1363	Date Sampled: 09/28/1993	Conductivity (umhos/cm): 340
Site Midpoint (Latitude, Longitude): 44.07961205, -103.20426495	Site Length (m): 110	pH: 7.7
Survey Completed by: South Dakota Game, Fish and Parks	Mean Width (m): 11.1	Water Temperature (C): 10.0
Stream Classification: BR2	Number of Pass: 3	Voltage: 300

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	19	28	53	19	253	5	255	102	4.50	410	113.5	19.9
Brown Trout	>=200mm	20	22	28	20	199	37	200	80	33.41	322	254.2	188.5
Brown Trout	All	39	50	70	39	451	48	455	183	42.85	731	185.6	106.4
Green Sunfish	All	3	3	4	3	27	0	27	11	0.11	44	61.0	4.7
Hatchery Brown Trout	>=200mm	17	51	235	17	460	88	464	186	78.71	746	260.8	191.5
Hatchery Brown Trout	All	17	51	235	17	460	88	464	186	78.71	746	260.8	191.5
Hatchery Rainbow Trout	>=200mm	1	1	1	1	9	1	9	4	0.93	15	232.0	115.0
Hatchery Rainbow Trout	All	1	1	1	1	9	1	9	4	0.93	15	232.0	115.0
Longnose Dace	All	132	139	147	132	1255	6	1264	508	5.15	2033	75.7	4.6
Mountain Sucker	All	44	44	46	44	397	20	400	161	18.07	644	155.9	51.0
Rock Bass	All	2	2	2	2	18	1	18	7	0.50	29	114.5	31.0
White Sucker	All	140	147	155	140	1327	226	1336	537	202.09	2150	209.7	170.6

Site Number: 1412
Site Midpoint (Latitude, Longitude): 44.07907606, -103.25491933

Survey Completed by: South Dakota Game, Fish and Parks

Date Sampled: 09/28/1993

Conductivity (umhos/cm): 312

Stream Classification: BR1

Site Length (m): 108

pH: 7.9

Mean Width (m): 8.6

Water Temperature (C): 13.0

Number of Pass: 3

Voltage: 300

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	116	142	168	116	1655	36	1315	670	32.00	2116	117.1	21.7
Brown Trout	>=200mm	113	164	219	113	1911	344	1519	774	306.71	2443	253.2	179.7
Brown Trout	All	229	304	358	250	3543	353	2815	1435	315.25	4529	184.3	99.7
Green Sunfish	All	2	2	2	2	23	1	19	9	0.58	30	107.0	28.0
Longnose Dace	All	2	2	4	2	23	0	19	9	0.11	30	81.5	5.5
Mountain Sucker	All	1	1	2	1	12	1	9	5	1.23	15	206.0	118.0
White Sucker	All	56	56	58	56	653	301	519	264	268.31	834	332.3	460.4

Site Number: 1606

Date Sampled: 09/27/1993

Conductivity (umhos/cm): 241

Site Midpoint (Latitude, Longitude): 44.03917228, -103.38297329

Site Length (m): 100

pH: 8.1

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 10.8

Water Temperature (C): 10.0

Stream Classification: BK0, BR1

Number of Pass: 3

Voltage: 400

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	1	1	1	1	9	0	10	4	0.18	16	137.0	22.0
Brook Trout	All	1	1	1	1	9	0	10	4	0.18	16	137.0	22.0
Brown Trout	<200mm	219	317	393	241	2930	39	3170	1187	34.57	5101	100.9	13.2
Brown Trout	>=200mm	47	48	51	47	444	86	480	180	76.62	772	267.5	193.4
Brown Trout	All	266	345	397	293	3189	144	3450	1291	128.27	5551	130.3	45.1

Site Number: 1656
Site Midpoint (Latitude, Longitude): 44.05452135, -103.40589571
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR1

Date Sampled: 09/30/1993 **Conductivity (umhos/cm):** 238
Site Length (m): 112 **pH:** 8.2
Mean Width (m): 8.3 **Water Temperature (C):** 10.0
Number of Pass: 3 **Voltage:** 400

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	164	229	286	172	2746	76	2045	1112	68.23	3290	135.7	27.8
Brown Trout	>=200mm	93	99	107	93	1187	146	884	481	130.75	1422	234.1	123.4
Brown Trout	All	257	312	349	275	3741	234	2786	1515	208.88	4482	171.3	62.5

Site Number: 1752
Site Midpoint (Latitude, Longitude): 44.07974011, -103.42967056
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR1

Date Sampled: 09/21/1993 **Conductivity (umhos/cm):** 220
Site Length (m): 100 **pH:**
Mean Width (m): 11.0 **Water Temperature (C):** 8.0
Number of Pass: 3 **Voltage:** 400

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	84	115	153	84	1049	16	1150	425	14.53	1850	106.1	15.5
Brown Trout	>=200mm	94	100	108	94	912	163	1000	370	145.58	1609	260.0	178.7
Brown Trout	All	178	206	229	183	1880	191	2060	761	170.66	3315	187.4	101.7
Hatchery Brown Trout	>=200mm	1	1	1	1	9	1	10	4	1.16	16	260.0	143.0
Hatchery Brown Trout	All	1	1	1	1	9	1	10	4	1.16	16	260.0	143.0

Site Number: 1812
Site Midpoint (Latitude, Longitude): 44.07679180, -103.46254687
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BK0, BR1

Date Sampled: 09/21/1993 **Conductivity (umhos/cm):** 245
Site Length (m): 100 **pH:**
Mean Width (m): 10.1 **Water Temperature (C):** 11.0

Number of Pass: 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)
Brook Trout	<200mm	2	2	3	2	20	1	20	8	0.60	32	153.0	34.0
Brook Trout	All	2	2	3	2	20	1	20	8	0.60	32	153.0	34.0
Brown Trout	<200mm	185	202	217	187	1992	49	2020	807	43.46	3250	126.3	24.4
Brown Trout	>=200mm	107	137	168	107	1351	203	1370	547	181.20	2204	243.7	150.2
Brown Trout	All	292	334	361	307	3294	232	3340	1334	207.07	5374	169.3	70.4
Hatchery Brown Trout	<200mm	3	3	5	3	30	0	30	12	0.44	48	120.7	16.7
Hatchery Brown Trout	>=200mm	4	4	4	4	39	6	40	16	5.10	64	260.0	144.8
Hatchery Brown Trout	All	7	7	8	7	69	6	70	28	5.54	113	200.3	89.9

Site Number: 1833

Date Sampled: 09/30/1993

Conductivity (umhos/cm): 230

Site Midpoint (Latitude, Longitude): 44.07611720, -103.47551527

Site Length (m): 97

pH: 7.6

Survey Completed by: South Dakota Game, Fish and Parks

Mean Width (m): 10.0

Water Temperature (C): 9.0

Stream Classification: BK0, BR2

Number of Pass: 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)
Brook Trout	<200mm	14	20	40	14	199	2	206	81	1.35	332	88.5	7.6
Brook Trout	All	14	20	40	14	199	2	206	81	1.35	332	88.5	7.6
Brown Trout	<200mm	201	474	808	201	4721	30	4887	1912	27.09	7863	74.6	6.4
Brown Trout	>=200mm	32	34	39	32	339	82	351	137	73.39	564	280.0	242.7
Brown Trout	All	233	433	616	250	4313	169	4464	1747	150.80	7182	102.8	39.2

Site Number: 1843

Site Midpoint (Latitude, Longitude): 44.07203156, -103.47488319

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BK2, BR1

Date Sampled: 09/29/1993

Site Length (m): 100

Mean Width (m): 8.3

Number of Pass: 3

Conductivity (umhos/cm): 230

pH: 7.6

Water Temperature (C): 10.0

Voltage: 400

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	63	228	776	63	2740	45	2280	1110	40.41	3669	110.1	16.5
Brook Trout	>=200mm	6	6	8	6	72	13	60	29	11.57	97	247.0	179.7
Brook Trout	All	69	199	530	69	2392	74	1990	969	66.02	3202	122.0	30.9
Brown Trout	<200mm	255	395	500	290	4748	64	3950	1923	57.09	6356	93.3	13.5
Brown Trout	>=200mm	80	85	93	80	1022	202	850	414	180.35	1368	258.6	197.7
Brown Trout	All	336	449	516	382	5397	320	4490	2186	285.34	7224	132.7	59.2

Site Number: 1853

Site Midpoint (Latitude, Longitude): 44.07655505, -103.48401117

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BR1, RB1

Date Sampled: 09/29/1993

Site Length (m): 100

Mean Width (m): 10.6

Number of Pass: 3

Conductivity (umhos/cm): 230

pH: 7.3

Water Temperature (C): 9.0

Voltage: 400

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	65	70	78	65	663	21	700	268	18.42	1126	124.0	31.1
Brown Trout	>=200mm	58	64	73	58	606	310	640	245	276.49	1030	326.6	510.9
Brown Trout	All	123	135	148	123	1278	336	1350	518	300.09	2172	219.6	262.9
Rainbow Trout	>=200mm	7	7	8	7	66	26	70	27	23.06	113	300.7	389.6
Rainbow Trout	All	7	7	8	7	66	26	70	27	23.06	113	300.7	389.6

Site Number: 1930

Site Midpoint (Latitude, Longitude): 44.08581700, -103.55549131

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BR2

Date Sampled: 09/22/1993

Site Length (m): 108

Mean Width (m): 7.8

Number of Pass: 3

Conductivity (umhos/cm): 252

pH: 7.8

Water Temperature (C): 9.0

Voltage: 400

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	72	84	100	72	1074	22	778	435	19.22	1251	117.9	20.0
Brown Trout	>=200mm	14	14	16	14	179	24	130	73	21.85	209	244.5	136.7
Brown Trout	All	86	99	115	86	1266	49	917	513	44.12	1475	138.5	39.0
Hatchery Rainbow Trout	<200mm	1	1	1	1	13	1	9	5	0.46	15	158.0	40.0
Hatchery Rainbow Trout	>=200mm	1	1	1	1	13	1	9	5	1.03	15	238.0	90.0
Hatchery Rainbow Trout	All	2	2	2	2	26	2	19	10	1.48	30	198.0	65.0
Kokanee Salmon	All	1	1	2	1	13	8	9	5	6.83	15	448.0	598.0
Rock Bass	All	3	3	3	3	38	1	28	16	1.34	45	126.0	39.0

Site Number: 1936

Site Midpoint (Latitude, Longitude): 44.08412803, -103.56026979

Survey Completed by: South Dakota Game, Fish and Parks

Stream Classification: BK0, BR1

Date Sampled: 09/22/1993

Site Length (m): 100

Mean Width (m): 9.7

Number of Pass: 3

Conductivity (umhos/cm): 255

pH: 8.0

Water Temperature (C): 11.0

Voltage: 400

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	1	1	2	1	10	0	10	4	0.27	16	166.0	29.0
Brook Trout	All	1	1	2	1	10	0	10	4	0.27	16	166.0	29.0
Brown Trout	<200mm	83	95	110	83	981	18	950	397	16.27	1529	112.1	18.6
Brown Trout	>=200mm	38	39	43	38	403	63	390	163	55.81	628	251.6	155.1

Brown Trout	All	121	135	149	121	1395	87	1350	565	77.88	2172	155.9	62.5
Hatchery Brown Trout	<200mm	2	2	2	2	21	1	20	8	1.13	32	183.5	61.0
Hatchery Brown Trout	All	2	2	2	2	21	1	20	8	1.13	32	183.5	61.0
Rock Bass	All	1	1	1	1	10	0	10	4	0.28	16	122.0	30.0

Site Number: 1952
Site Midpoint (Latitude, Longitude): 44.08822830, -103.57398811
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR1

Date Sampled: 09/22/1993
Site Length (m): 100
Mean Width (m): 7.8
Number of Pass: 3
Conductivity (umhos/cm): 260
pH: 8.0
Water Temperature (C): 9.0
Voltage: 400

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	136	179	219	139	2301	40	1790	932	35.51	2880	110.1	17.3
Brown Trout	>=200mm	42	42	43	42	540	77	420	219	68.46	676	243.0	142.0
Brown Trout	All	178	204	225	183	2622	123	2040	1062	109.38	3282	141.5	46.7
Cutthroat Trout	>=200mm	2	2	2	2	26	2	20	10	1.92	32	242.5	83.5
Cutthroat Trout	All	2	2	2	2	26	2	20	10	1.92	32	242.5	83.5
Hatchery Rainbow Trout	<200mm	1	1	5	1	13	1	10	5	0.53	16	169.0	46.0
Hatchery Rainbow Trout	>=200mm	2	2	4	2	26	2	20	10	2.08	32	234.0	90.5
Hatchery Rainbow Trout	All	3	5	24	3	64	5	50	26	4.34	80	212.3	75.7
Rock Bass	All	1	1	1	1	13	1	10	5	0.85	16	157.0	74.0

Site Number: 2007
Site Midpoint (Latitude, Longitude): 44.08387011, -103.60810831
Survey Completed by: South Dakota Game, Fish and Parks
Stream Classification: BR1

Date Sampled: 09/27/1993
Site Length (m): 100
Mean Width (m): 9.9
Number of Pass: 3
Conductivity (umhos/cm): 235
pH: 8.0
Water Temperature (C): 5.0
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	214	232	247	217	2348	38	2320	951	33.56	3733	110.2	16.0
Brown Trout	>=200mm	37	37	39	37	374	44	370	152	39.01	595	234.3	116.7
Brown Trout	All	251	268	281	255	2713	84	2680	1099	74.70	4312	128.5	30.8
Cutthroat Trout	>=200mm	5	5	6	5	51	5	50	20	4.14	80	229.8	91.6
Cutthroat Trout	All	5	5	6	5	51	5	50	20	4.14	80	229.8	91.6
Hatchery Rainbow Trout	<200mm	1	1	1	1	10	0	10	4	0.35	16	164.0	39.0
Hatchery Rainbow Trout	>=200mm	2	2	2	2	20	3	20	8	2.23	32	242.5	123.5
Hatchery Rainbow Trout	All	3	3	3	3	30	3	30	12	2.58	48	216.3	95.3
White Sucker	All	1	1	1	1	10	1	10	4	1.18	16	232.0	131.0

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 Rapid Creek, 1983-1993

Site 1363

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Oct 04, 1990	15	14-19	
	Sep 28, 1993	28	19-53	
Brown Trout >=200mm	Oct 04, 1990	14	14-15	BR3
	Sep 28, 1993	22	20-28	BR2
Green Sunfish	Oct 04, 1990	7	6-14	
	Sep 28, 1993	3	3-4	
Hatchery Brown Trout >=200mm	Oct 04, 1990	11	11-13	

Hatchery Brown Trout ≥200mm	Sep 28, 1993	51	17-235
Hatchery Rainbow Trout ≥200mm	Sep 28, 1993	1	1-1
Longnose Dace	Oct 04, 1990	7	8-12
	Sep 28, 1993	139	132-147
Mountain Sucker	Oct 04, 1990	20	20-22
	Sep 28, 1993	44	44-46
Rock Bass	Oct 04, 1990	6	6-7
	Sep 28, 1993	2	2-2
White Sucker	Oct 04, 1990	40	29-66
	Sep 28, 1993	147	140-155

Site 1412

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Oct 06, 1988	195	172-218	
	Oct 10, 1990	87	76-102	
	Oct 22, 1991	176	74-403	
	Oct 05, 1992	163	127-199	

Brown Trout <200mm	Sep 28, 1993	142	116-168	
Brown Trout >=200mm	Oct 06, 1988	140	136-146	BR3
	Oct 10, 1990	176	175-179	BR3
	Oct 22, 1991	123	108-140	BR3
	Oct 05, 1992	116	111-123	BR1
	Sep 28, 1993	164	113-219	BR1
Green Sunfish	Oct 10, 1990	1	1-1	
	Oct 05, 1992	1	1-5	
	Sep 28, 1993	2	2-2	
Longnose Dace	Oct 22, 1991	5	6-8	
	Oct 05, 1992	2	2-3	
	Sep 28, 1993	2	2-4	
Mountain Sucker	Oct 06, 1988	19	18-23	
	Oct 22, 1991	6	6-8	
	Oct 05, 1992	6	6-9	
	Sep 28, 1993	1	1-2	

Rainbow Trout <200mm	Oct 06, 1988	2	2-4
Rock Bass	Oct 10, 1990	3	3-3
White Sucker	Oct 06, 1988	36	36-37
	Oct 22, 1991	73	61-91
	Oct 05, 1992	87	85-91
	Sep 28, 1993	56	56-58

Site 1606

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 27, 1993	1	1-1	
Brown Trout <200mm	Sep 27, 1993	317	241-393	
Brown Trout >=200mm	Sep 27, 1993	48	47-51	BR1

Site 1656

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Sep 10, 1990	367	343-391	
	Mar 25, 1991	264	239-289	
	Oct 17, 1991	237	201-273	
	Oct 13, 1992	269	235-303	

Brown Trout <200mm	Sep 30, 1993	229	172-286	
Brown Trout >=200mm	Sep 10, 1990	74	73-77	BR3
	Mar 25, 1991	70	68-74	BR3
	Oct 17, 1991	89	85-96	BR3
	Oct 13, 1992	75	74-78	BR1
	Sep 30, 1993	99	93-107	BR1

Site 1752

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Sep 21, 1993	115	84-153	
Brown Trout >=200mm	Sep 21, 1993	100	94-108	BR1
Hatchery Brown Trout >=200mm	Sep 21, 1993	1	1-1	

Site 1812

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 21, 1993	2	2-3	
Brown Trout <200mm	Sep 21, 1993	202	187-217	
Brown Trout >=200mm	Sep 21, 1993	137	107-168	BR1
Hatchery Brown Trout <200mm	Sep 21, 1993	3	3-5	

Hatchery Brown Trout
>=200mm

Sep 21, 1993

4

4-4

Site 1833

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Oct 07, 1988	8	7-14	
	Nov 13, 1992	10	10-12	
	Sep 30, 1993	20	14-40	
Brown Trout <200mm	Oct 07, 1988	116	86-155	
	Aug 03, 1990	90	85-98	
	Oct 17, 1991	174	98-286	
	Nov 13, 1992	281	232-330	
	Sep 30, 1993	474	201-808	
Brown Trout >=200mm	Oct 07, 1988	59	56-65	BR3
	Aug 03, 1990	40	39-43	BR3
	Oct 17, 1991	43	41-48	BR3
	Nov 13, 1992	50	50-51	BR1
	Sep 30, 1993	34	32-39	BR2

Hatchery Brown Trout >=200mm	Oct 07, 1988	2	2-2
Rainbow Trout <200mm	Nov 13, 1992	1	1-2

Site 1843

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Oct 07, 1988	12	12-12	
	Aug 03, 1990	20	14-41	
	Oct 06, 1992	55	47-68	
	Sep 29, 1993	228	63-776	
Brook Trout >=200mm	Oct 07, 1988	9	9-9	BK3
	Aug 03, 1990	2	2-2	BK3
	Oct 06, 1992	11	11-11	BK2
	Sep 29, 1993	6	6-8	BK2
Brown Trout <200mm	Oct 07, 1988	28	28-28	
	Aug 03, 1990	23	22-27	
	Sep 30, 1991	141	114-171	
	Oct 06, 1992	153	101-214	

Brown Trout <200mm	Sep 29, 1993	395	290-500	
Brown Trout >=200mm	Oct 07, 1988	28	28-28	BR3
	Aug 03, 1990	24	17-46	BR3
	Sep 30, 1991	27	27-28	BR3
	Oct 06, 1992	54	53-57	BR1
	Sep 29, 1993	85	80-93	BR1
Hatchery Brown Trout >=200mm	Oct 07, 1988	19	19-19	
Rainbow Trout <200mm	Oct 06, 1992	1	1-1	

Site 1853

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Oct 06, 1992	47	33-75	
	Sep 29, 1993	70	65-78	
Brown Trout >=200mm	Oct 06, 1992	73	72-76	BR1
	Sep 29, 1993	64	58-73	BR1
Rainbow Trout <200mm	Oct 06, 1992	19	15-31	
Rainbow Trout >=200mm	Oct 06, 1992	1	1-1	RB2

Rainbow Trout >=200mm	Sep 29, 1993	7	7-8	RB1
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Site 1930

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Sep 24, 1992	81	74-91	
	Sep 22, 1993	84	72-100	
Brown Trout >=200mm	Sep 24, 1992	26	26-27	BR1
	Sep 22, 1993	14	14-16	BR2
Hatchery Rainbow Trout <200mm	Sep 22, 1993	1	1-1	
Hatchery Rainbow Trout >=200mm	Sep 22, 1993	1	1-1	
Kokanee Salmon	Sep 22, 1993	1	1-2	
Rainbow Trout <200mm	Sep 24, 1992	48	35-73	
Rainbow Trout >=200mm	Sep 24, 1992	2	2-3	RB2
Rock Bass	Sep 22, 1993	3	3-3	

Site 1936

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brook Trout <200mm	Sep 24, 1992	1	1-2	
	Sep 22, 1993	1	1-2	

Brown Trout <200mm	Sep 30, 1991	141	114-171	
	Sep 24, 1992	67	49-96	
	Sep 22, 1993	95	83-110	
Brown Trout >=200mm	Sep 30, 1991	27	27-28	BR3
	Sep 24, 1992	62	59-68	BR1
	Sep 22, 1993	39	38-43	BR1
Cutthroat Trout >=200mm	Sep 24, 1992	2	2-2	
Hatchery Brown Trout <200mm	Sep 22, 1993	2	2-2	
Rainbow Trout <200mm	Sep 24, 1992	36	14-150	
Rainbow Trout >=200mm	Sep 24, 1992	2	2-4	RB2
Rock Bass	Sep 24, 1992	20	21-27	
	Sep 22, 1993	1	1-1	
White Sucker	Sep 24, 1992	3	3-4	

Site 1952

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 02, 1990	65	65-65	

Brown Trout <200mm	Sep 30, 1991	92	65-134	
	Sep 25, 1992	74	72-78	
	Sep 22, 1993	179	139-219	
Brown Trout >=200mm	Aug 02, 1990	11	11-11	BR3
	Sep 30, 1991	21	21-22	BR3
	Sep 25, 1992	36	36-36	BR1
	Sep 22, 1993	42	42-43	BR1
Cutthroat Trout >=200mm	Aug 02, 1990	1	1-1	
	Sep 30, 1991	1	1-1	
	Sep 22, 1993	2	2-2	
Hatchery Rainbow Trout <200mm	Sep 22, 1993	1	1-5	
Hatchery Rainbow Trout >=200mm	Sep 22, 1993	2	2-4	
Rainbow Trout <200mm	Sep 30, 1991	1	1-4	
Rainbow Trout >=200mm	Sep 30, 1991	1	1-1	RB2
Rock Bass	Sep 25, 1992	8	8-9	
	Sep 22, 1993	1	1-1	

White Sucker

Sep 25, 1992

1

1-1

Site 2007

Species/Size	Date	Pop Est.	(95% C.I.)	Stream Classification
Brown Trout <200mm	Aug 02, 1990	180	150-210	
	Oct 11, 1991	164	119-214	
	Sep 25, 1992	194	177-211	
	Sep 27, 1993	232	217-247	
Brown Trout >=200mm	Aug 02, 1990	37	37-39	BR3
	Oct 11, 1991	60	48-81	BR3
	Sep 25, 1992	78	77-81	BR1
	Sep 27, 1993	37	37-39	BR1
Cutthroat Trout <200mm	Aug 02, 1990	1	1-4	
Cutthroat Trout >=200mm	Aug 02, 1990	3	3-3	
	Sep 25, 1992	1	1-1	
	Sep 27, 1993	5	5-6	
Hatchery Rainbow Trout <200mm	Sep 27, 1993	1	1-1	

Hatchery Rainbow Trout
>=200mm

Sep 27, 1993

2

2-2

White Sucker

Sep 27, 1993

1

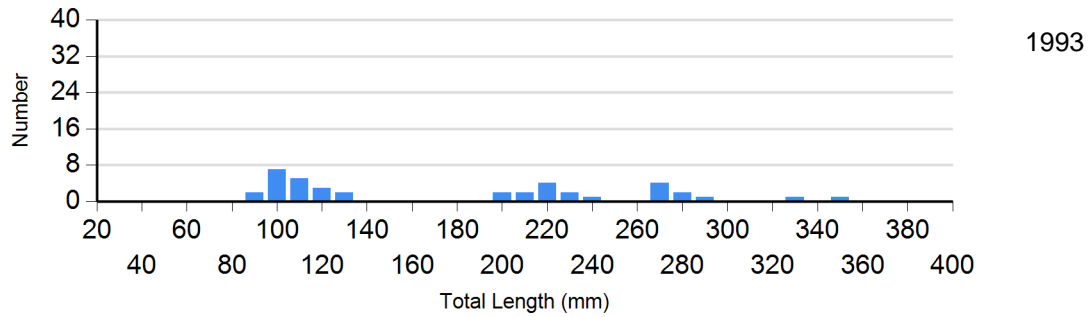
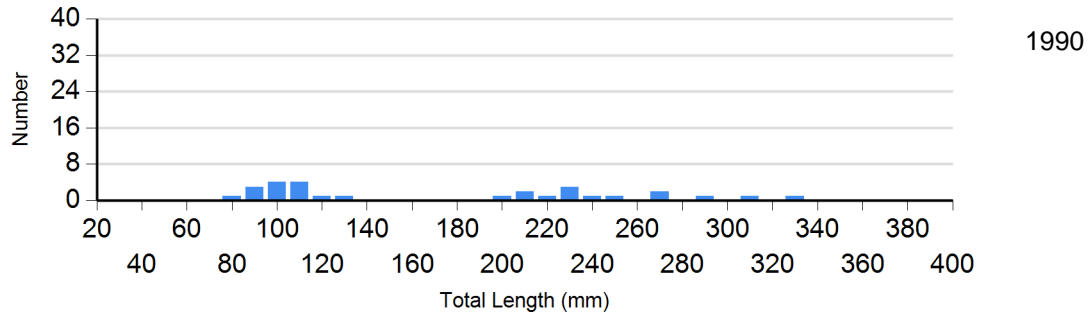
1-1

Length Frequency Distribution

Length frequency histogram of species sampled by year.

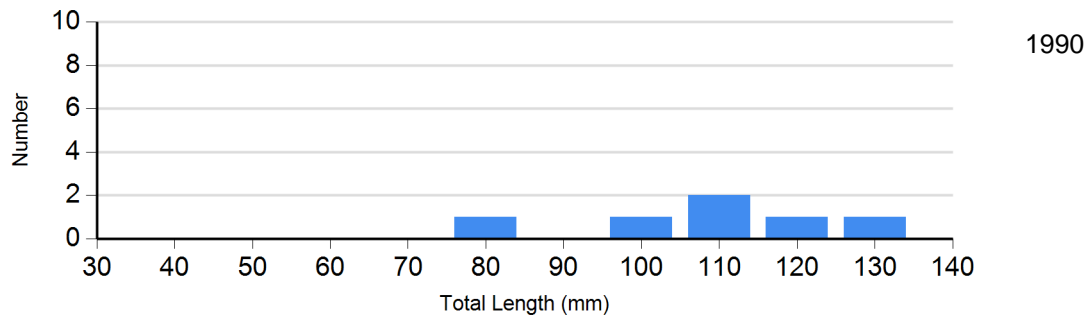
Site: 1363

Species: Brown Trout

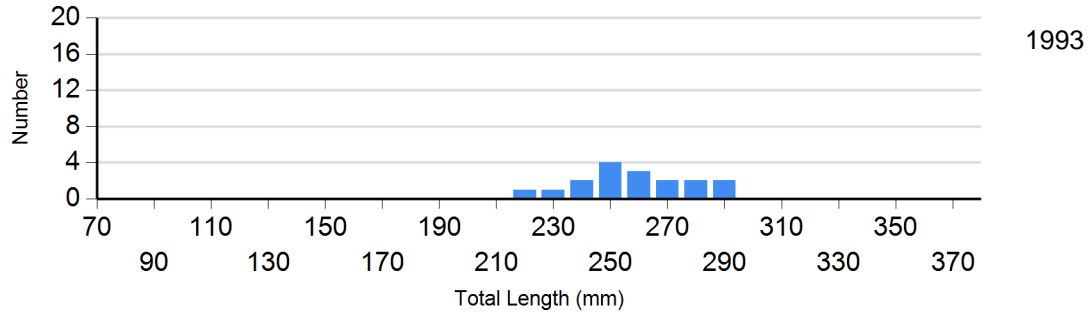
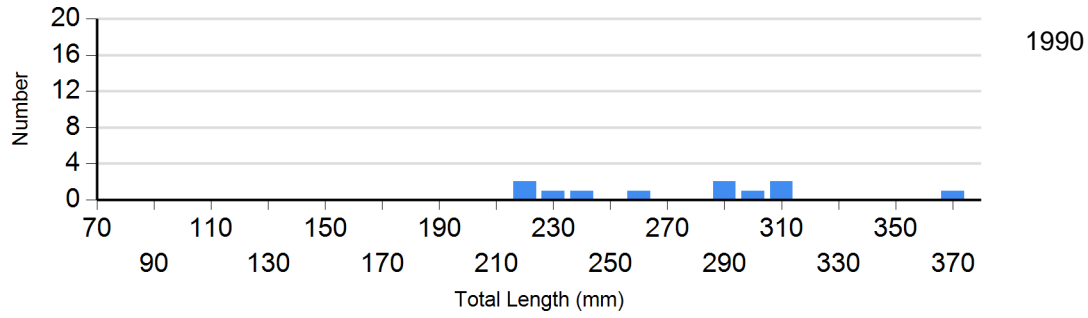


Site: 1363

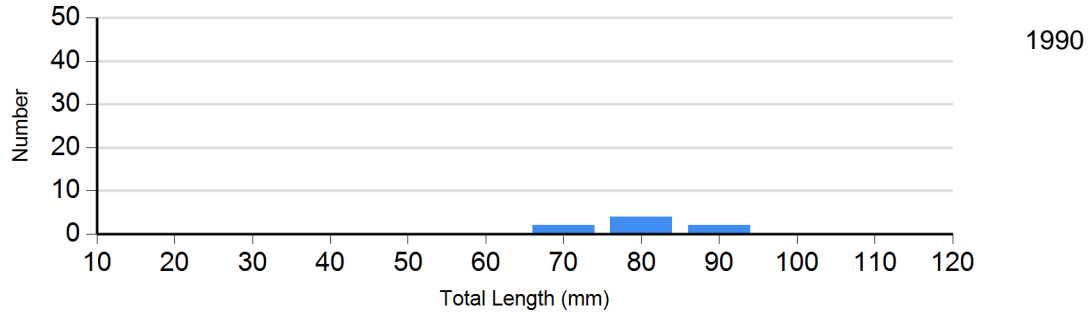
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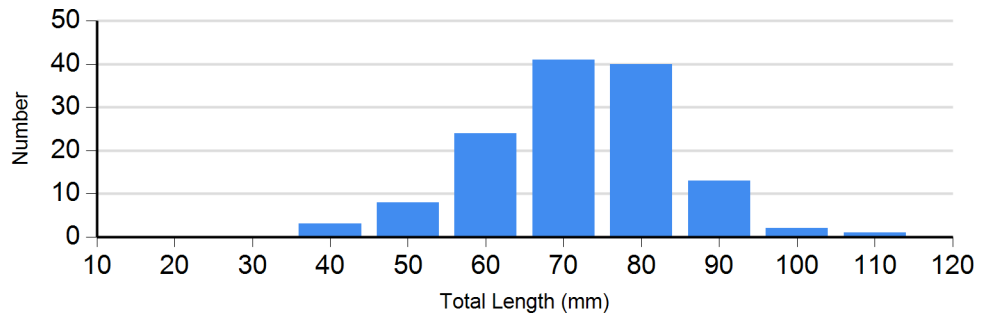


Site: 1363
Species: Hatchery Brown Trout

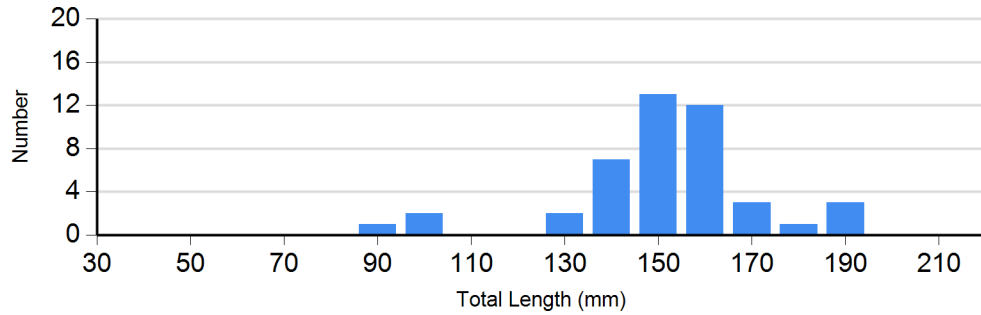
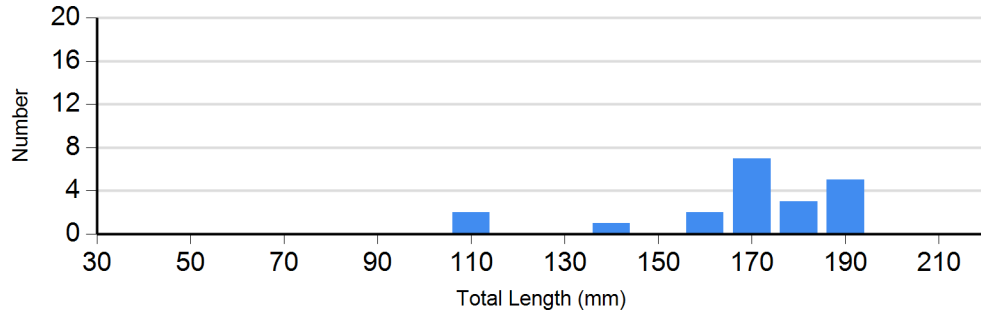


Site: 1363
Species: Longnose Dace

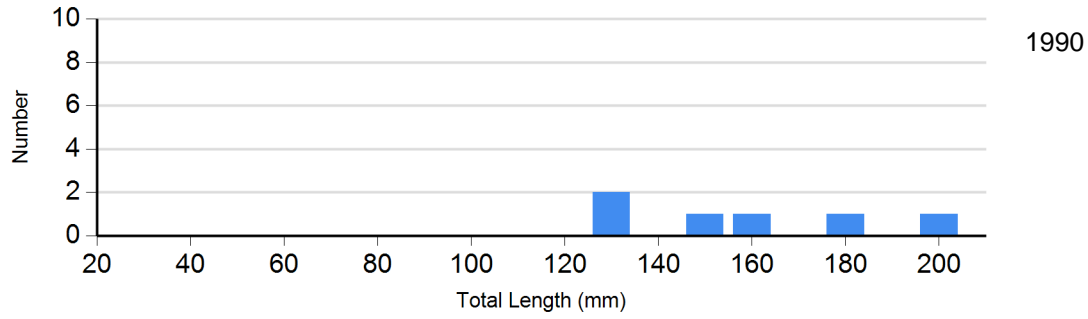




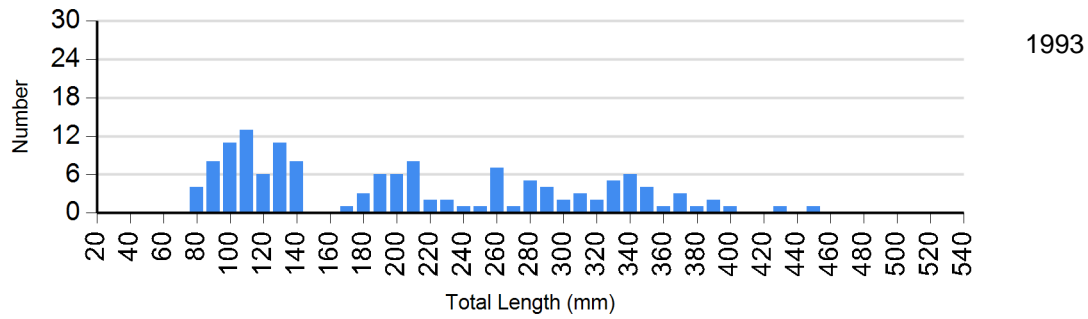
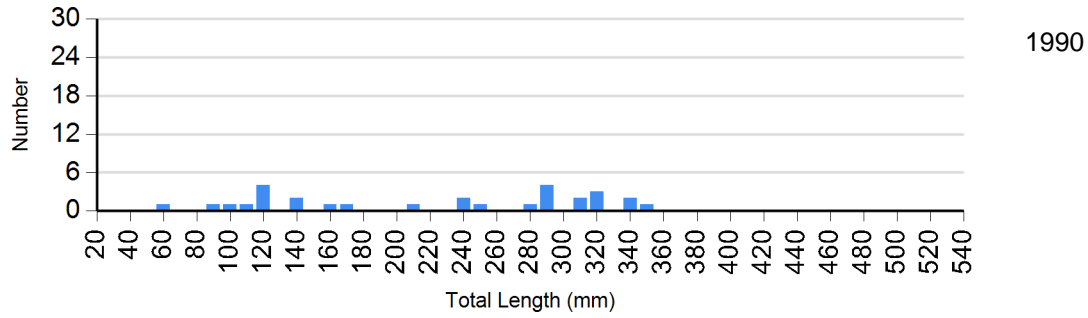
Site: 1363
Species: Mountain Sucker



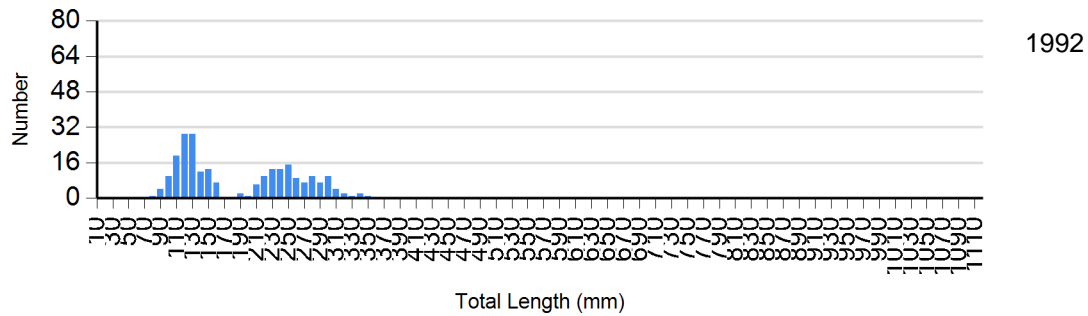
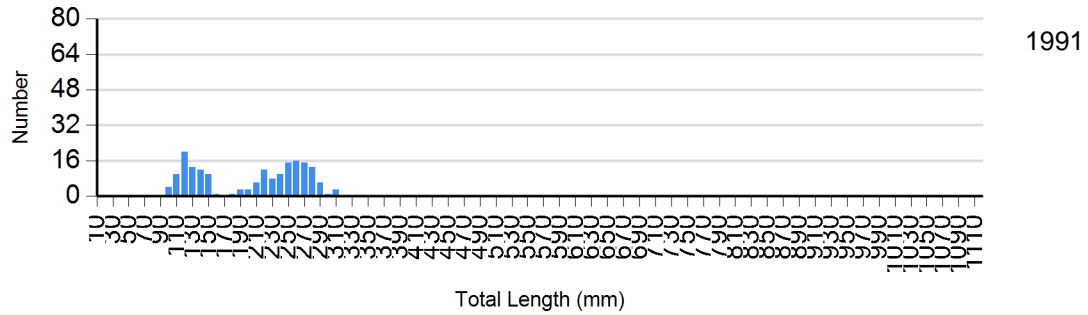
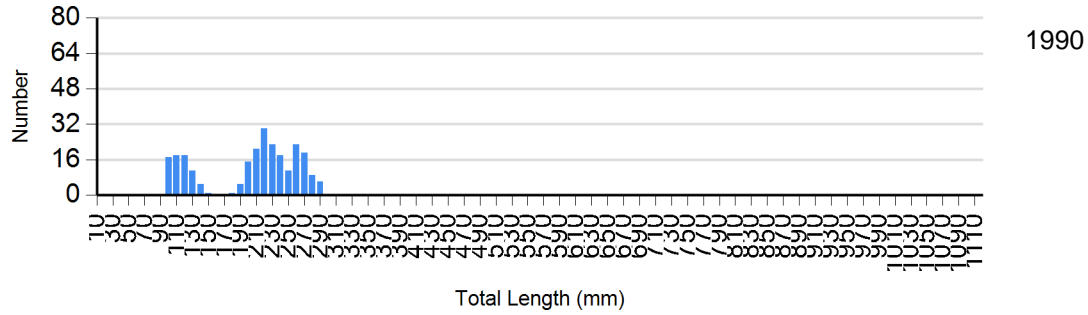
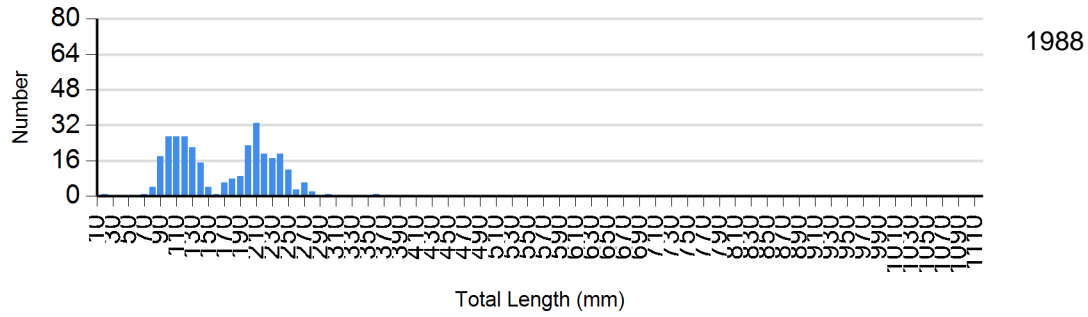
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Species: Rock Bass

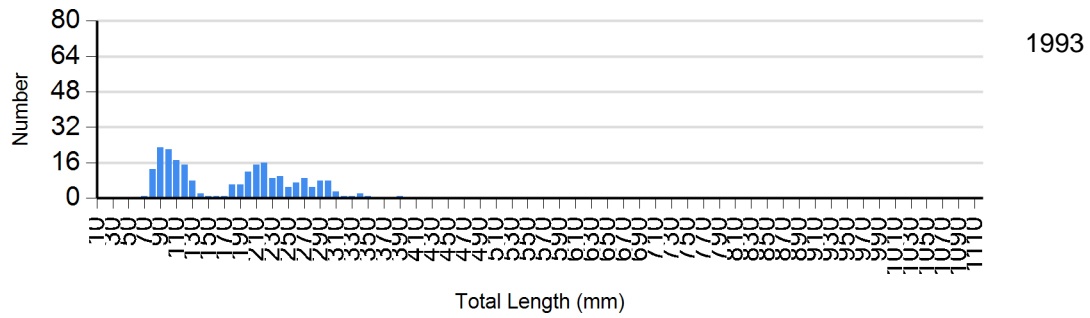


Site: 1363
Species: White Sucker

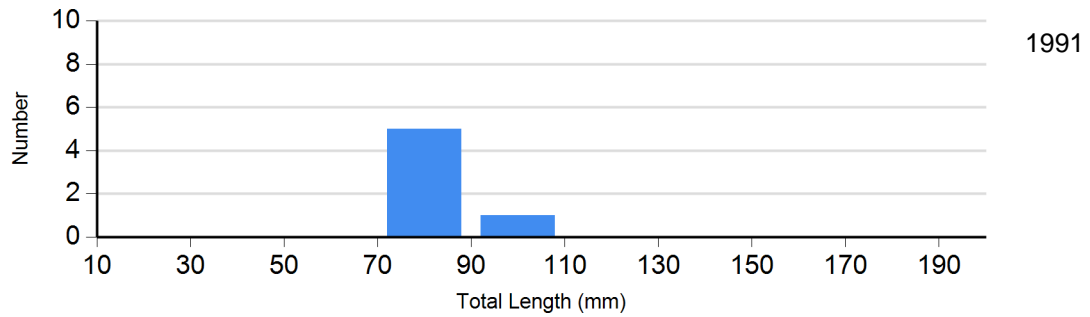
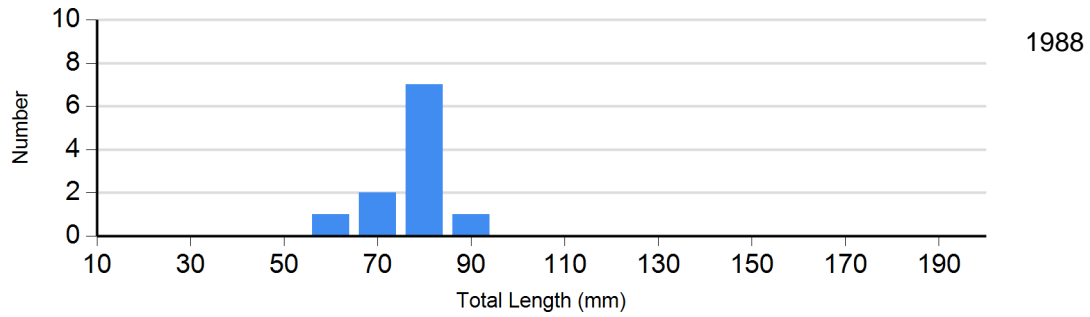


Site: 1412
Species: Brown Trout

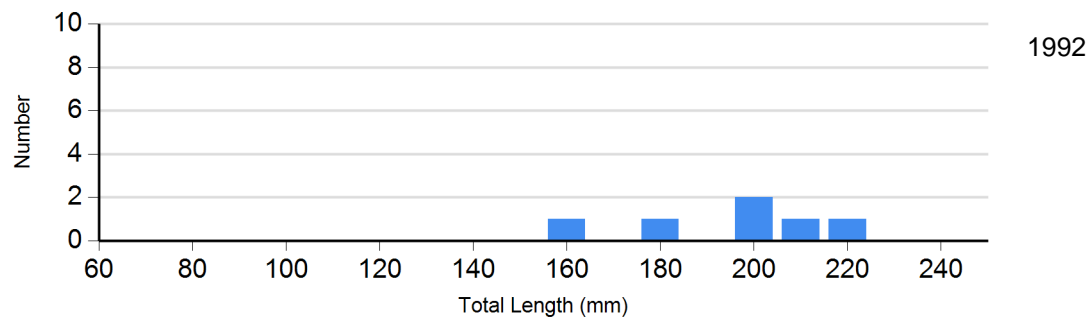
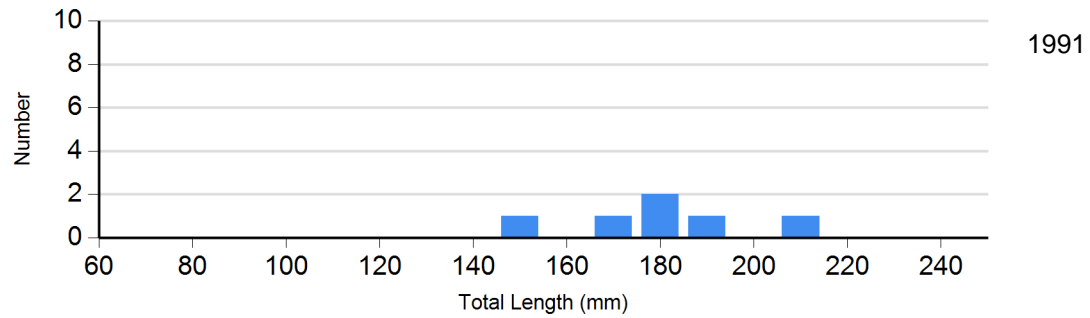
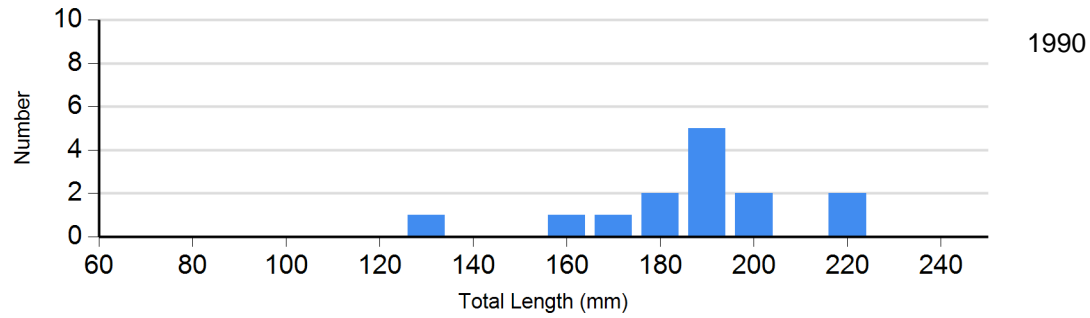
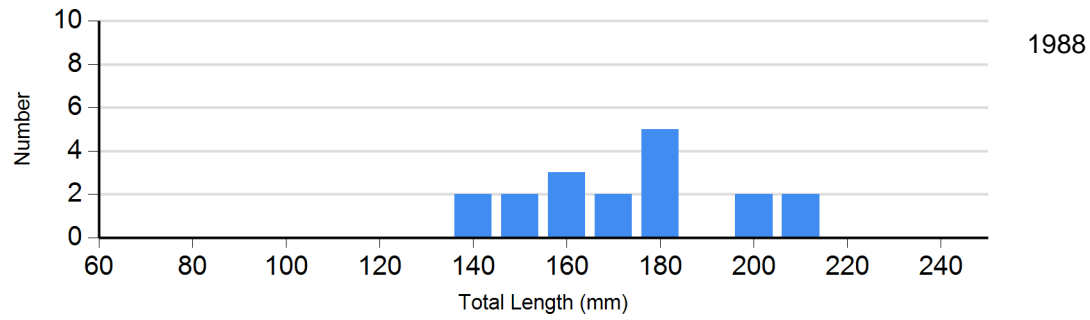




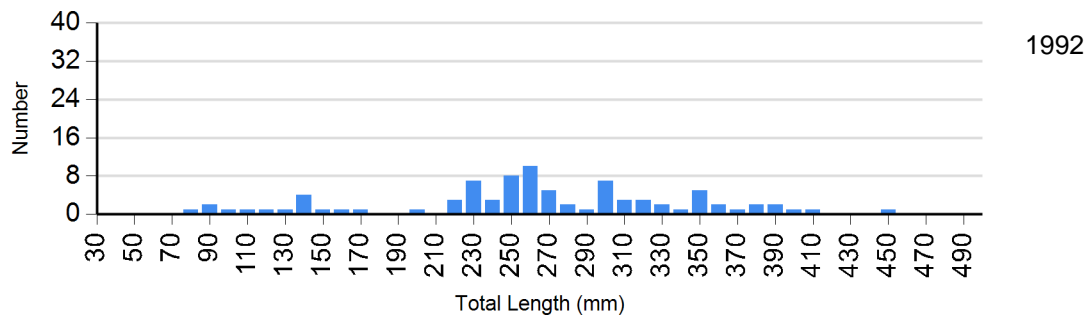
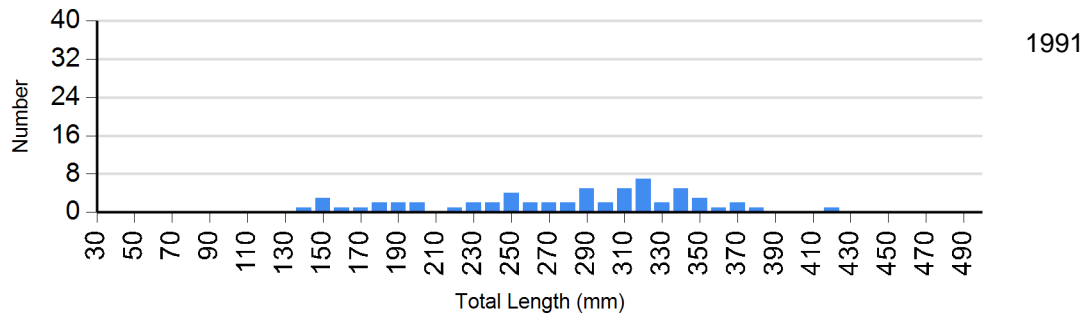
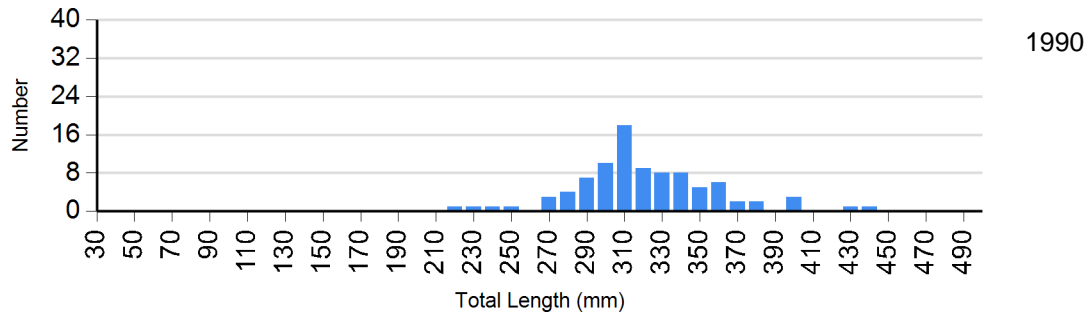
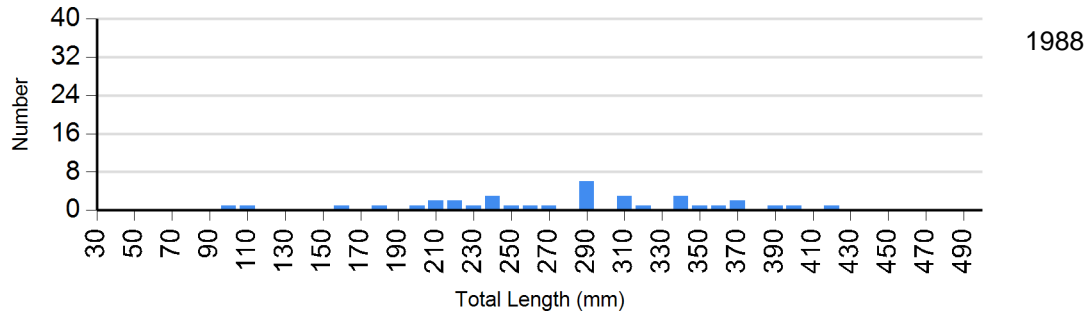
Site: 1412
Species: Longnose Dace

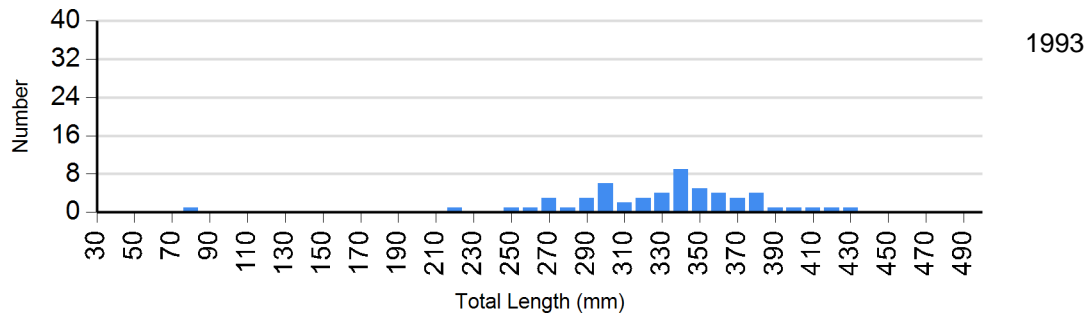


Site: 1412
Species: Mountain Sucker

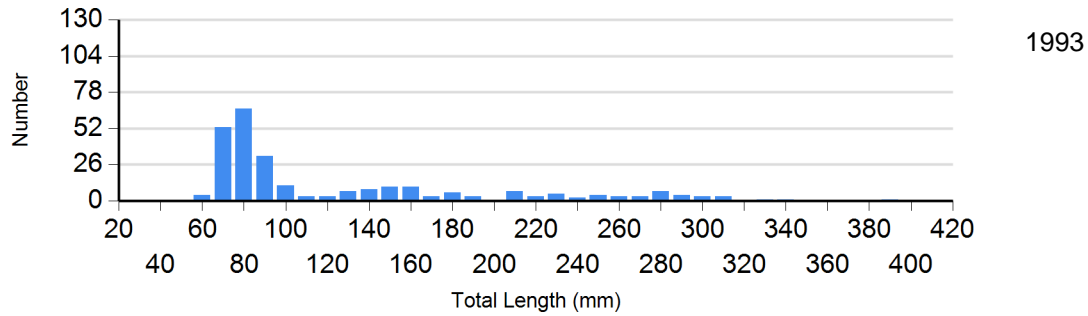


Site: 1412
Species: White Sucker

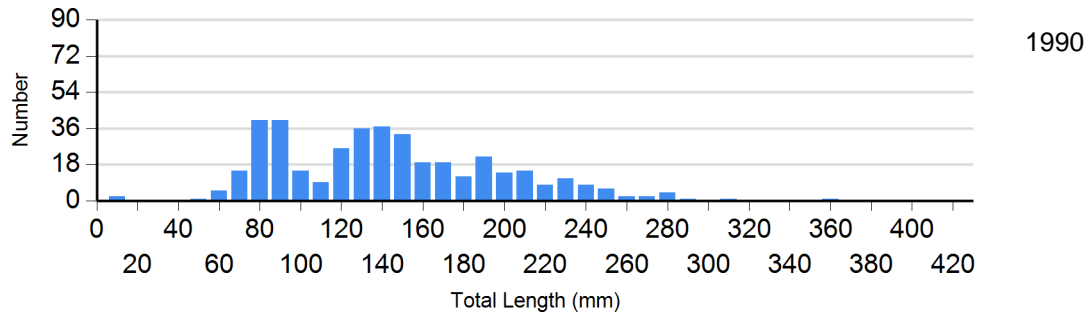


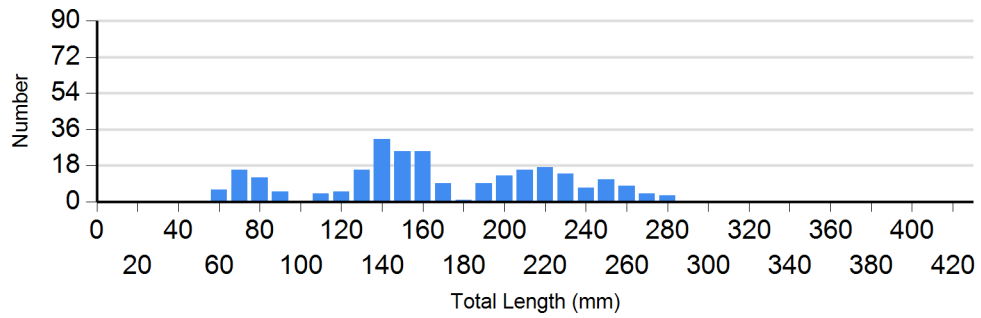
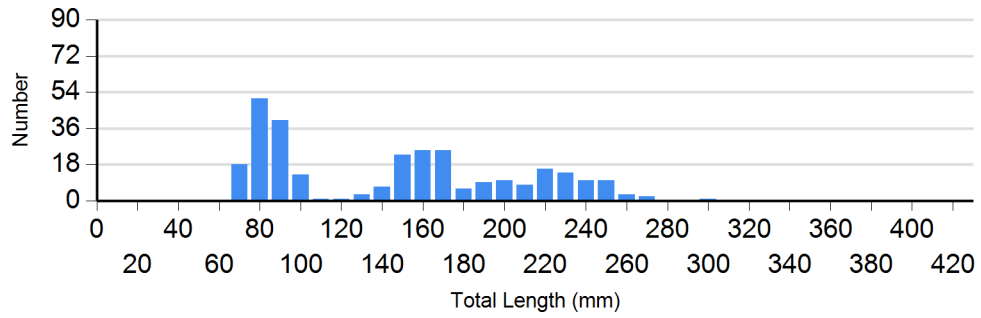
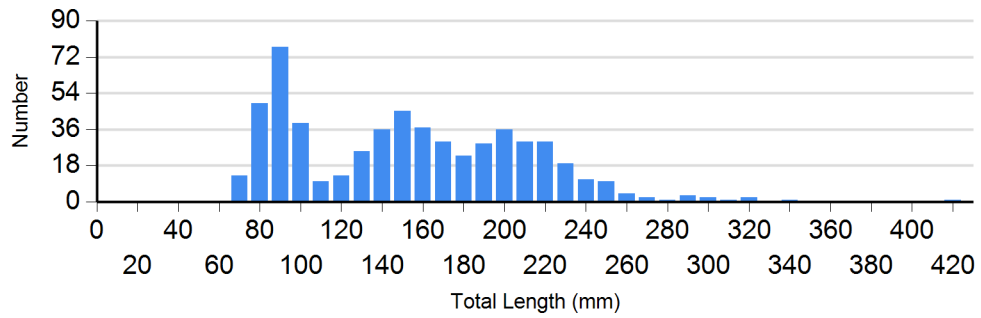


Site: 1606
Species: Brown Trout

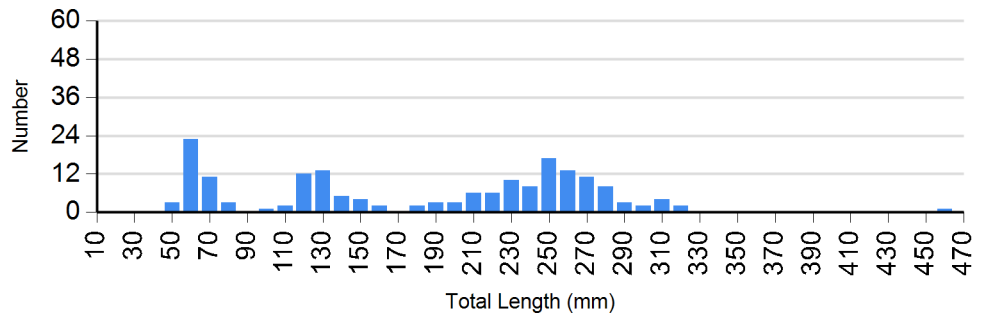


Site: 1656
Species: Brown Trout

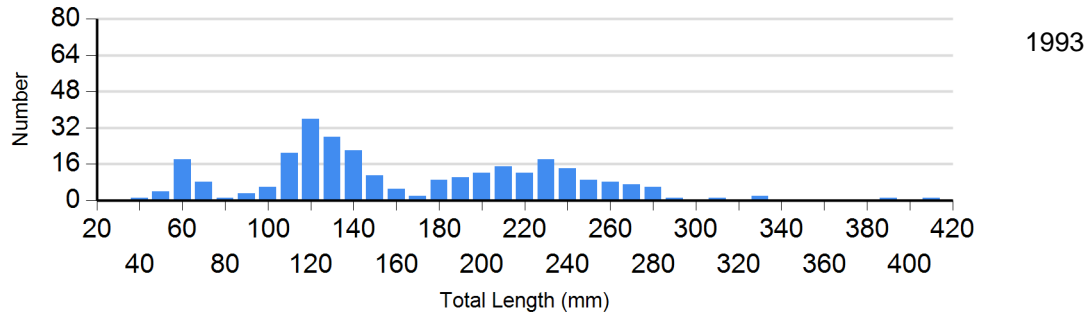




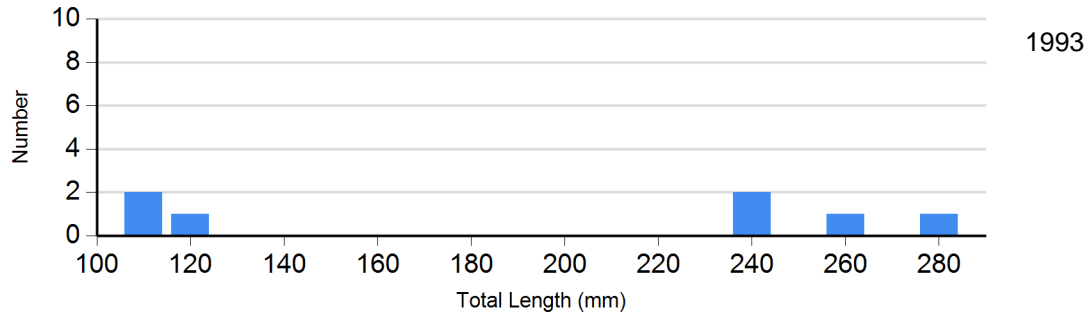
Site: 1752
Species: Brown Trout



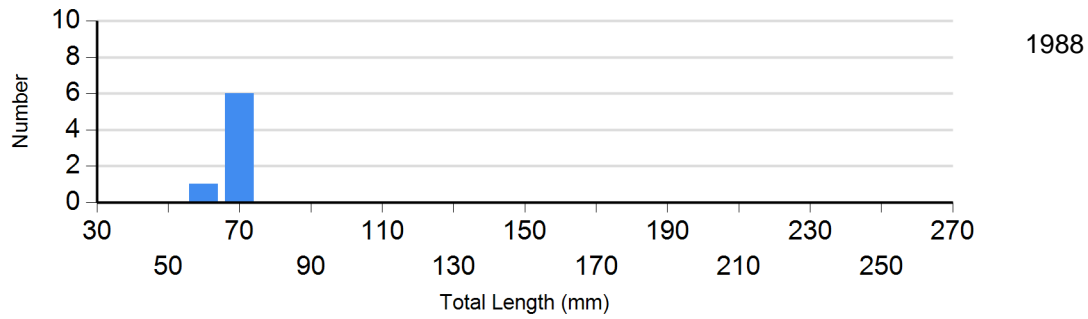
Site: 1812
Species: Brown Trout

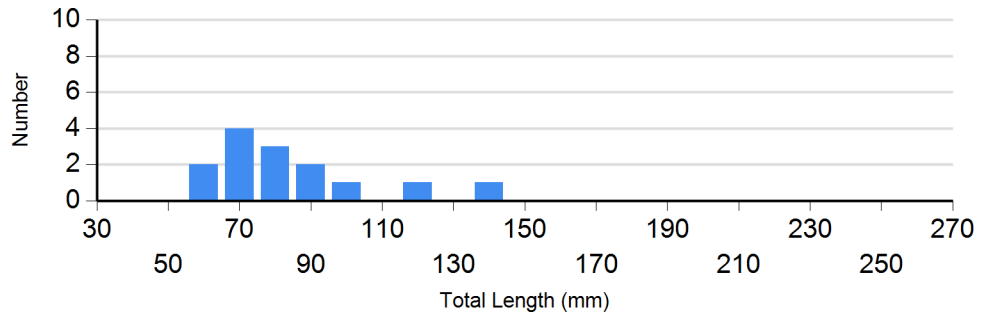
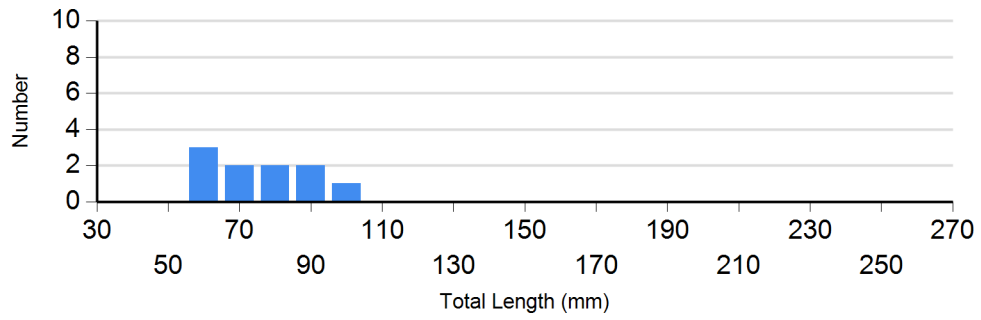


Site: 1812
Species: Hatchery Brown Trout

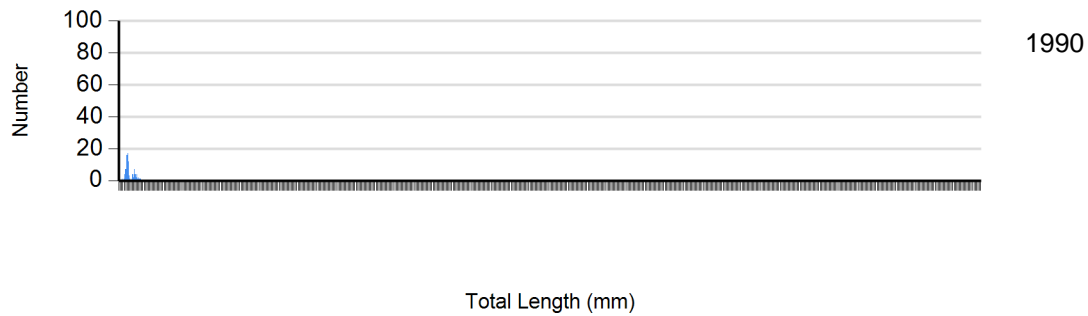
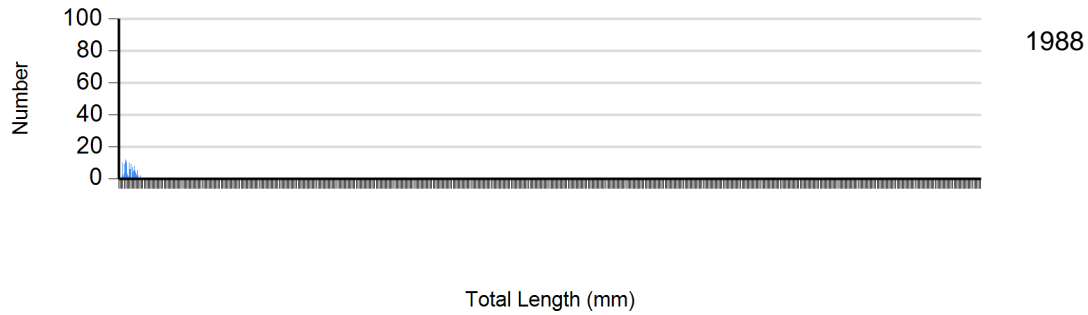


Site: 1833
Species: Brook Trout



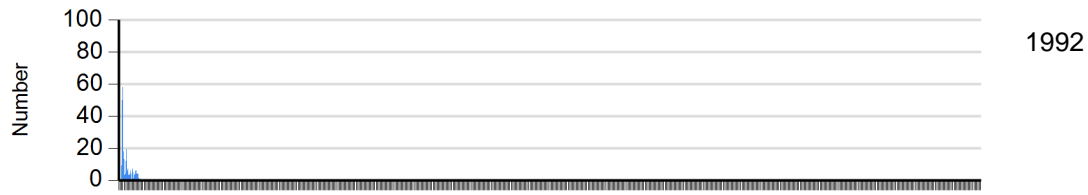


Site: 1833
Species: Brown Trout

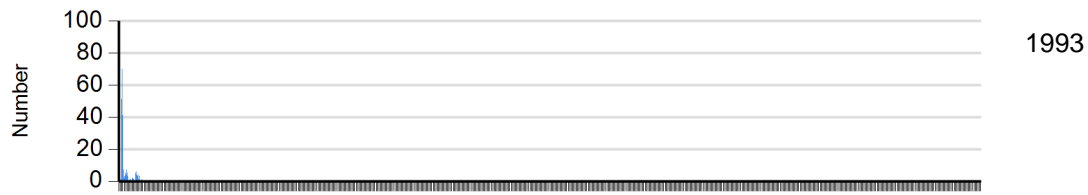




Total Length (mm)

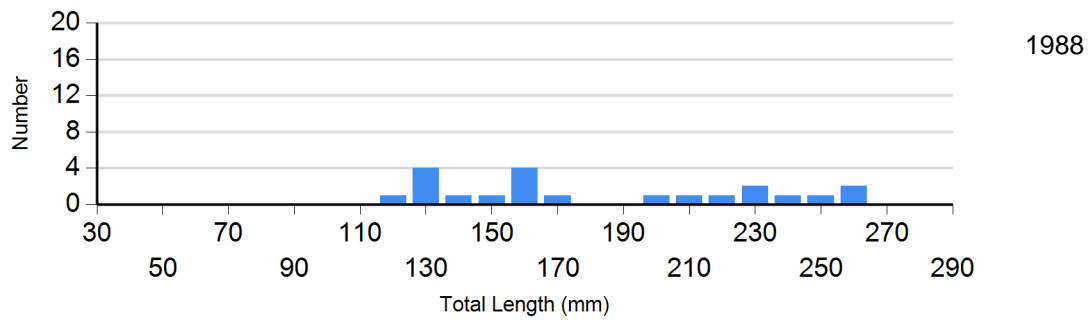


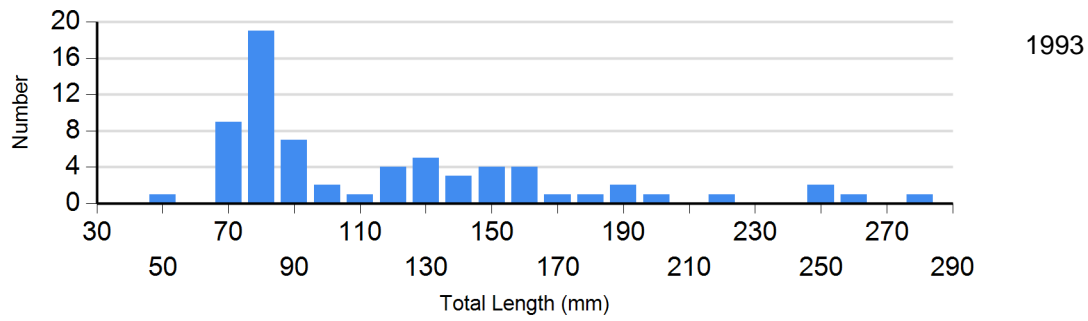
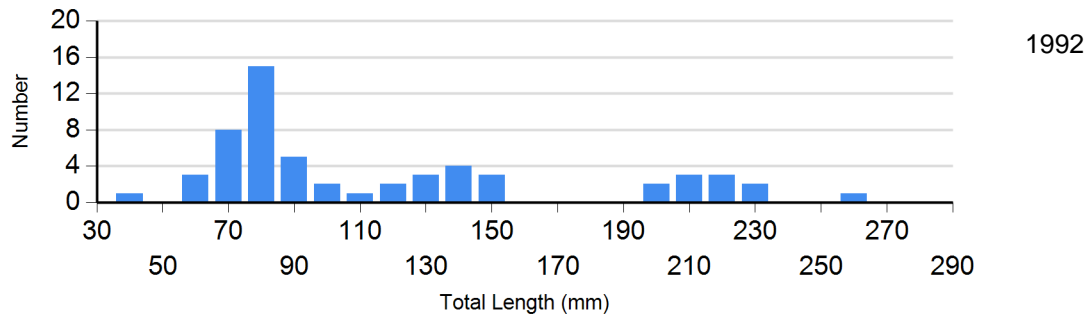
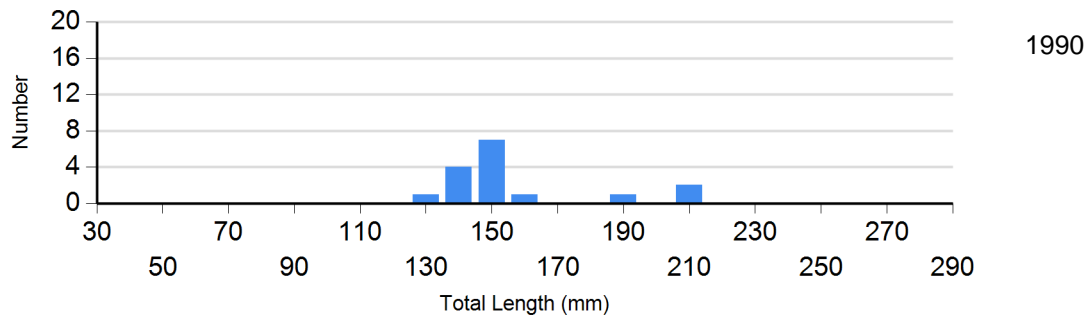
Total Length (mm)



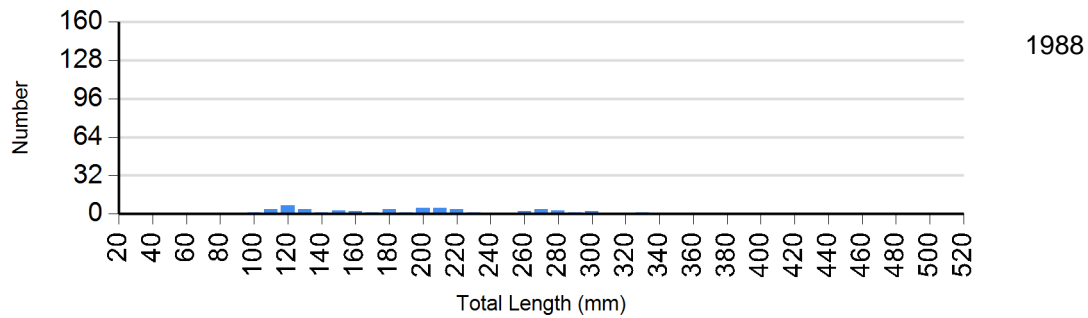
Total Length (mm)

Site: 1843
Species: Brook Trout

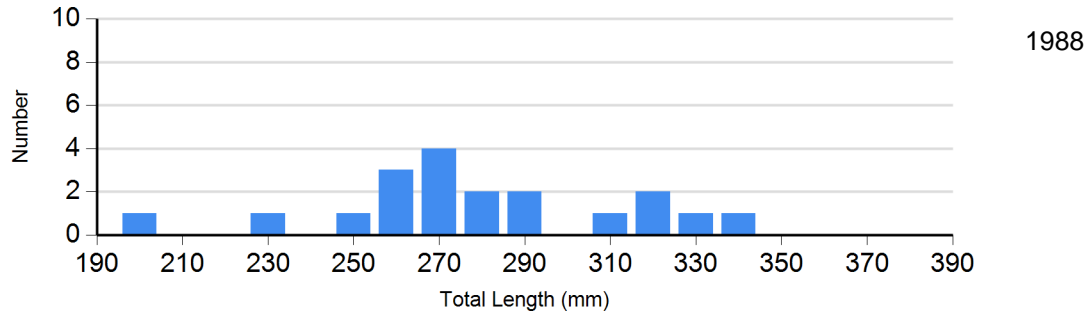




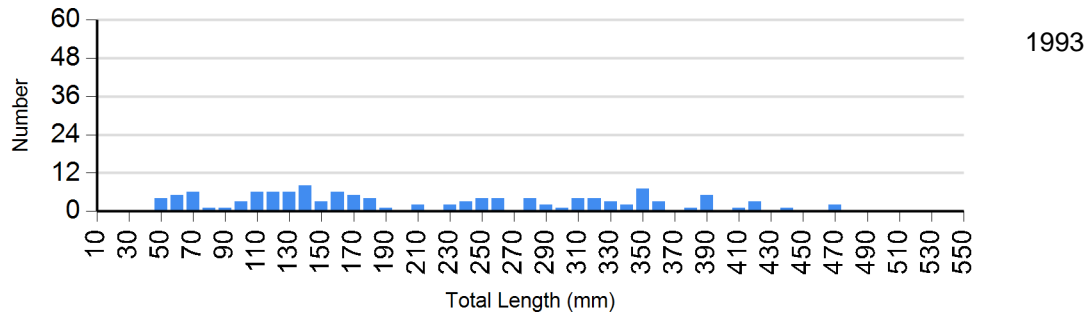
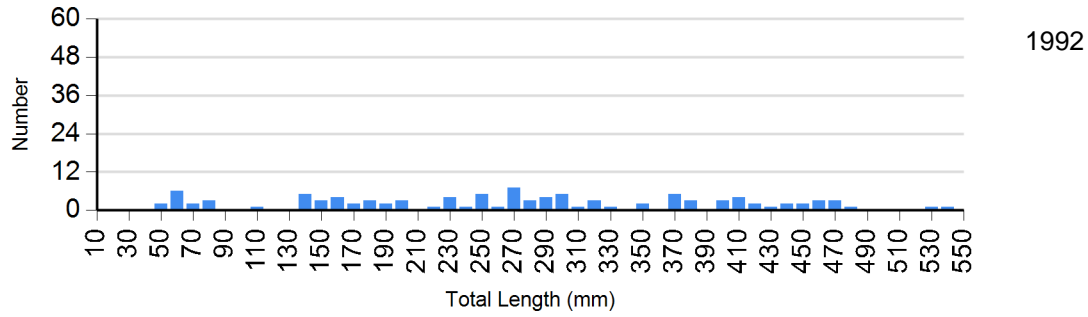
Site: 1843
Species: Brown Trout



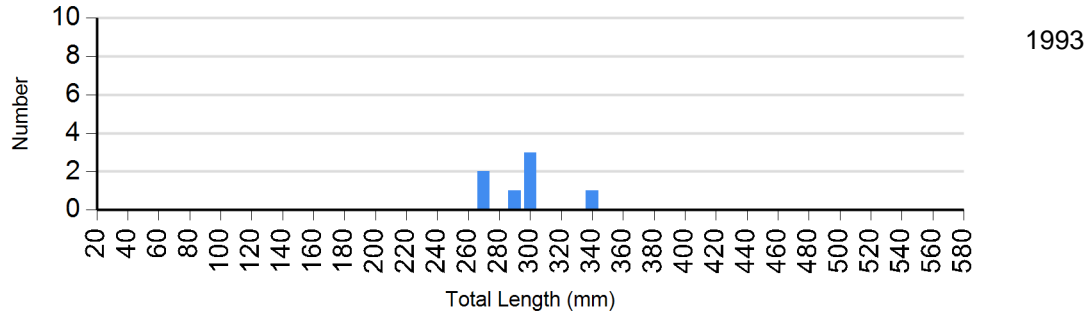
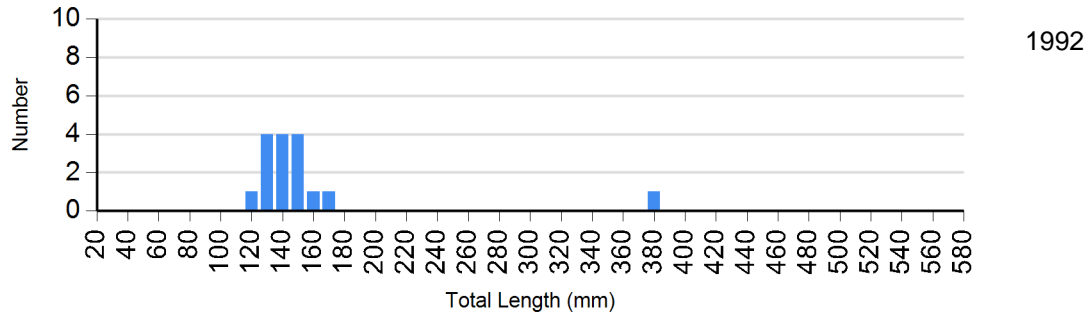
Site: 1843
Species: Hatchery Brown Trout



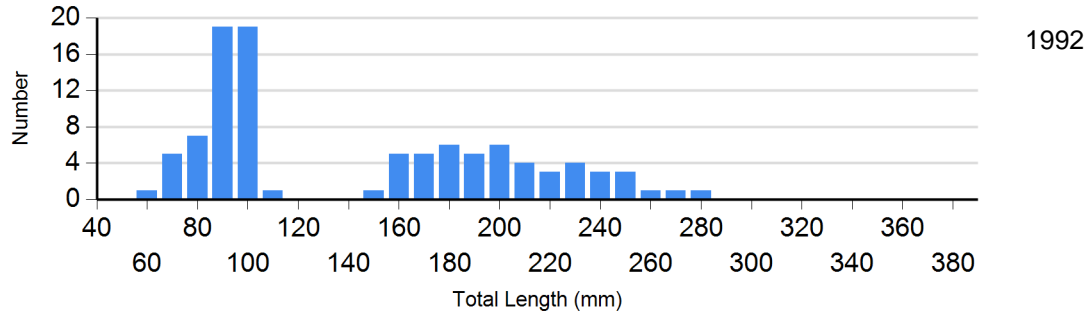
Site: 1853
Species: Brown Trout

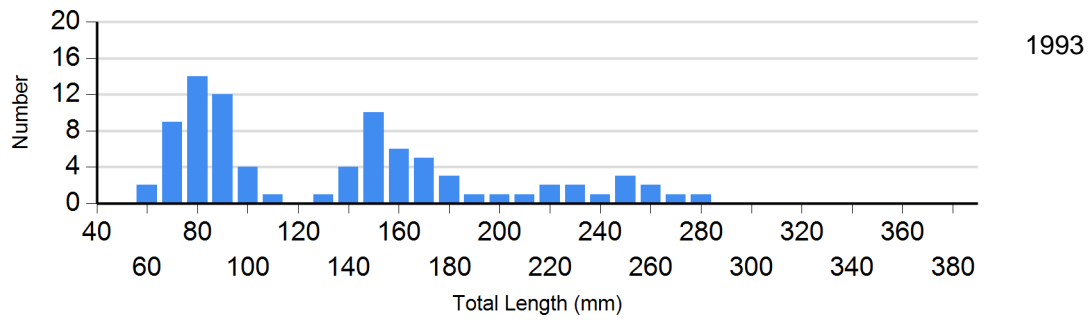


Site: 1853
Species: Rainbow Trout

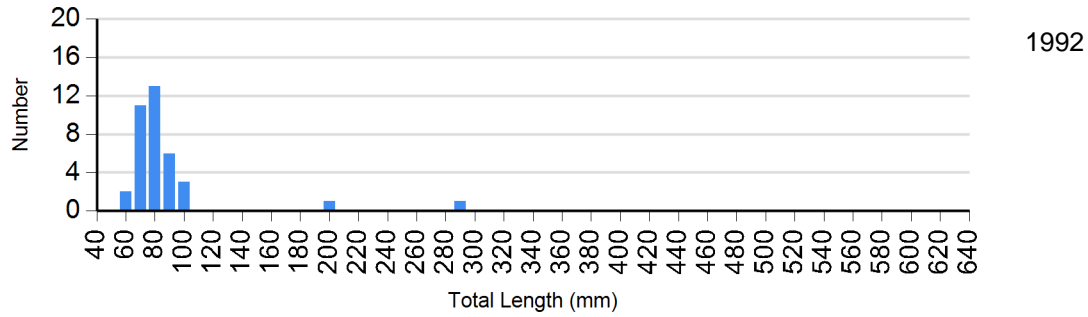


Site: 1930
Species: Brown Trout

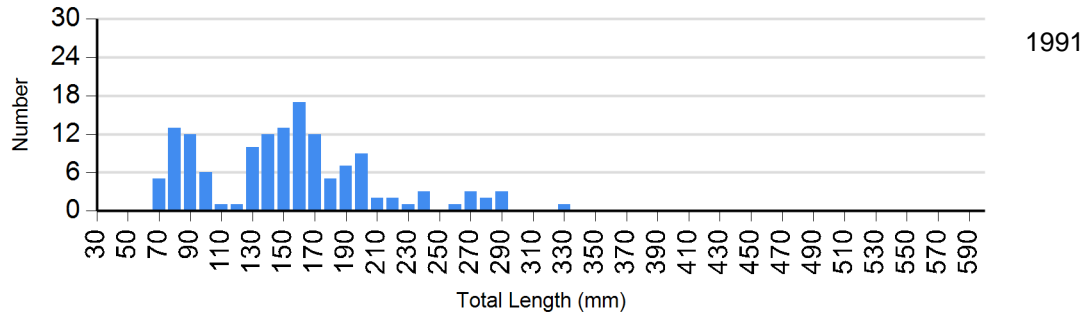


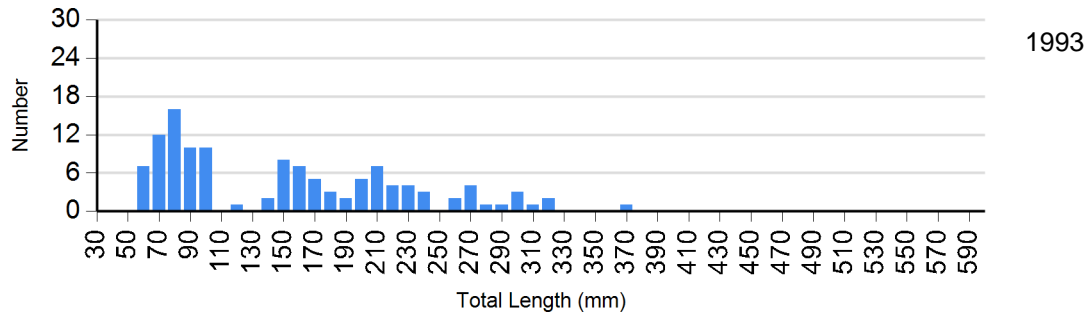
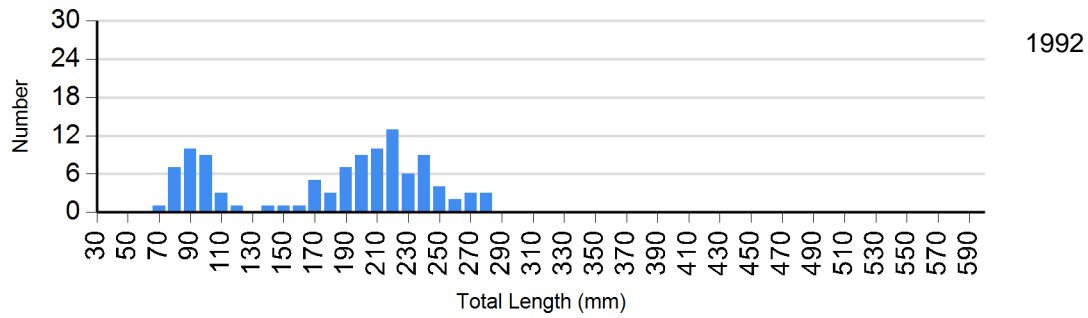


Site: 1930
Species: Rainbow Trout

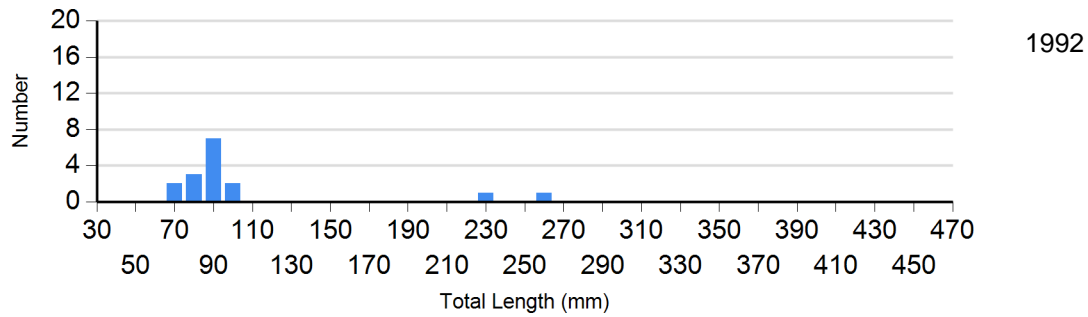


Site: 1936
Species: Brown Trout

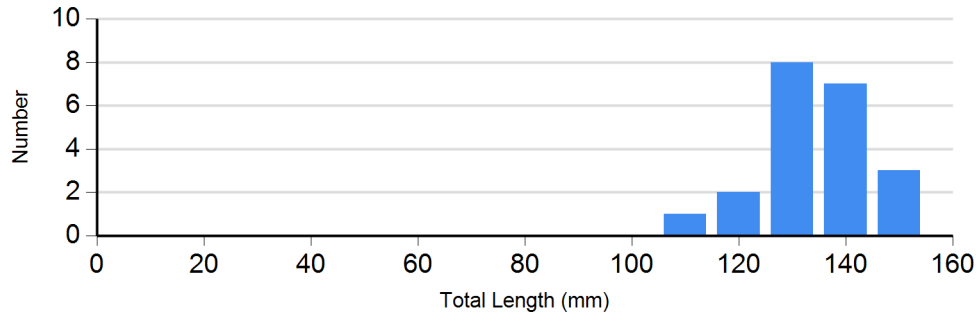




Site: 1936
Species: Rainbow Trout

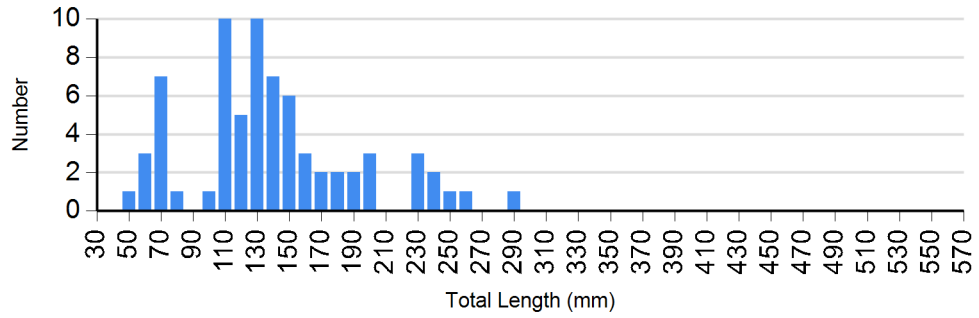


Site: 1936
Species: Rock Bass

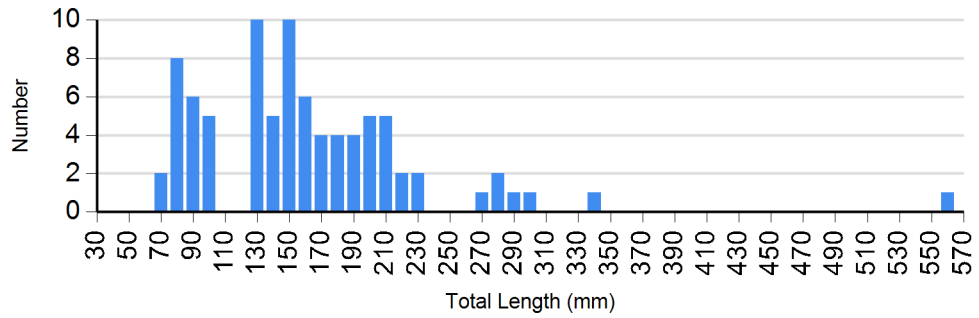


1992

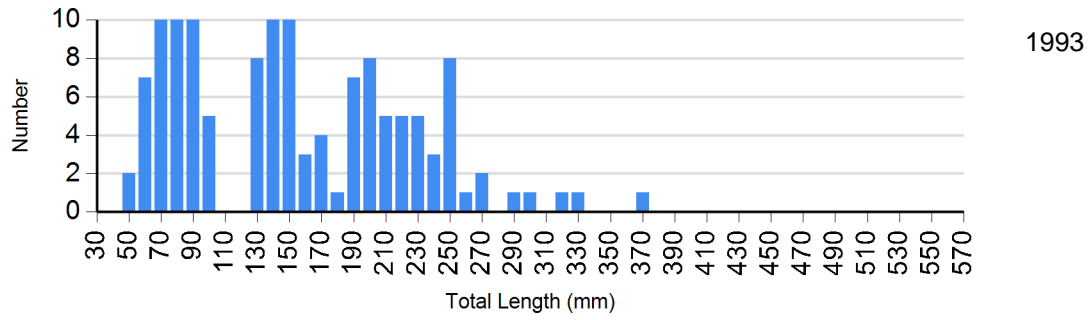
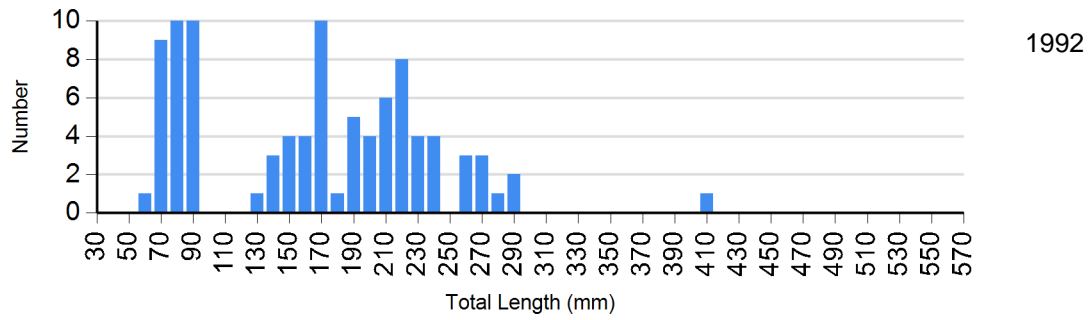
Site: 1952
Species: Brown Trout



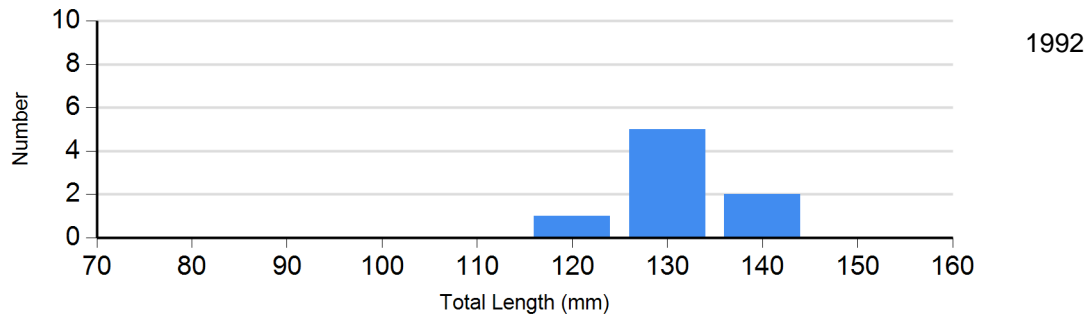
1990



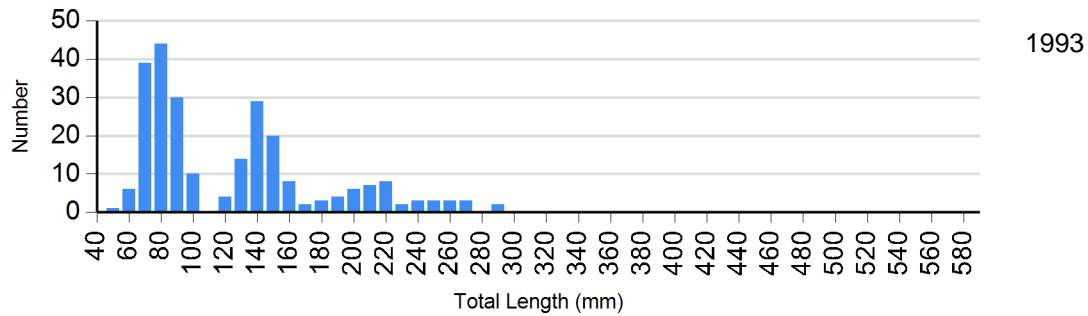
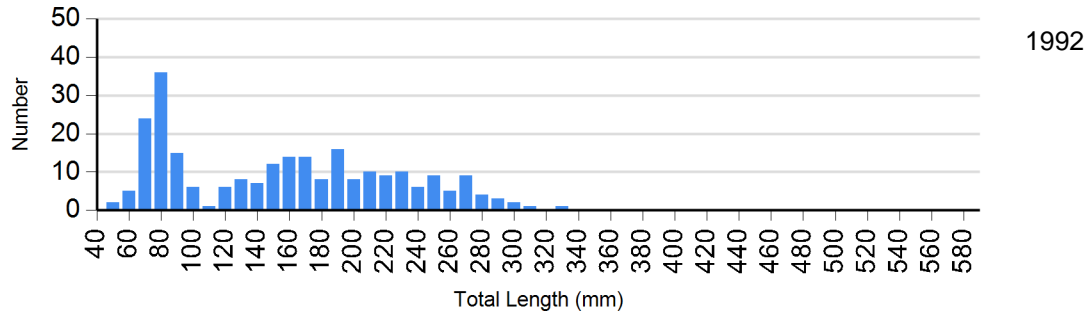
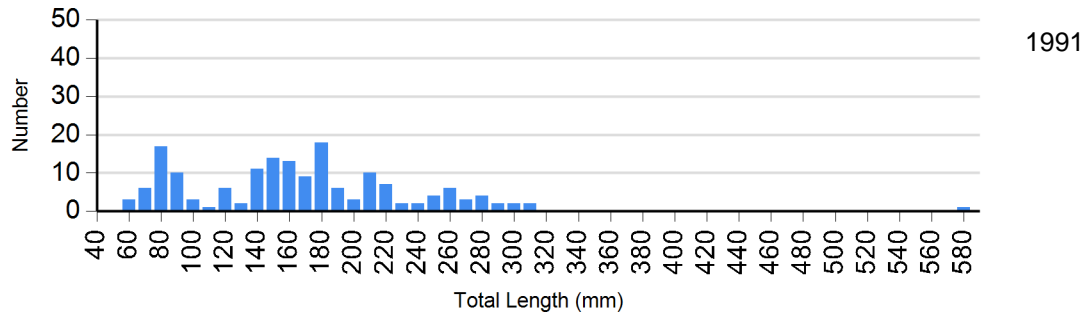
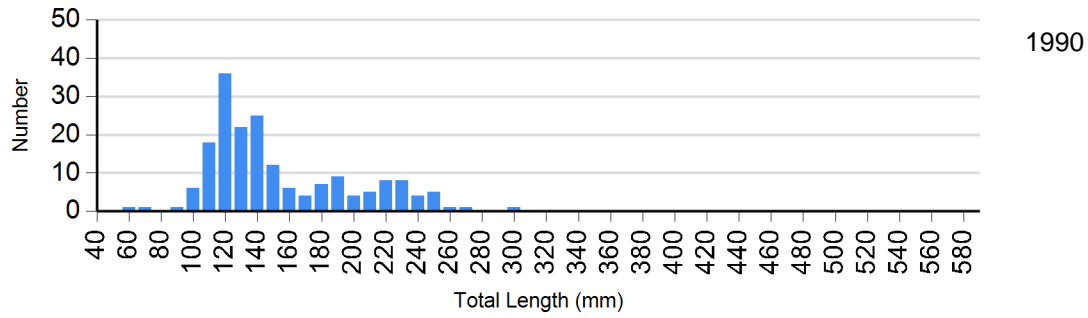
1991



Site: 1952
Species: Rock Bass



Site: 2007
Species: Brown Trout



Site: 2007
Species: Cutthroat Trout

