

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY
Francis Case, Charles Mix County
FTR-Lake-6327-000
2024

Lake Information

Name: Francis Case
County: Charles Mix
Surface Area: 88,007 Acres

Surveys and Investigations

Survey methods used by gear type, date, and effort.

Gear	Date	Effort
AFS gill net (1/2 inch)	Sep 03, 2024	17 net-nights
AFS gill net (1/2 inch)	Sep 05, 2024	17 net-nights
AFS gill net (1/2 inch)	Sep 09, 2024	21 net-nights
AFS gill net (1/2 inch)	Sep 18, 2024	19 net-nights
AFS std gill net	Sep 03, 2024	17 net-nights
AFS std gill net	Sep 05, 2024	17 net-nights
AFS std gill net	Sep 09, 2024	21 net-nights
AFS std gill net	Sep 18, 2024	19 net-nights
boat shocker (night)	Jun 03, 2024	2700 seconds
boat shocker (night)	Jun 04, 2024	2700 seconds
boat shocker (night)	Jun 06, 2024	2700 seconds
boat shocker (night)	May 28, 2024	2700 seconds
boat shocker (night)	May 30, 2024	2703 seconds
fall night EF-WAE	Nov 05, 2024	3600 seconds
fall night EF-WAE	Nov 06, 2024	3600 seconds
fall night EF-WAE	Oct 24, 2024	3600 seconds
large seine	Jul 22, 2024	28 hauls

Common Fish Species Present

Walleye

Smallmouth Bass

Sauger

Channel Catfish

Gizzard Shad

Yellow Perch

Common Carp

Freshwater Drum

Shorthead Redhorse

River Carpsucker

Terminology

Catch per unit effort (**CPUE**) refers to the relative abundance of a species. It is defined as the number of fish captured per unit of effort (i.e., number of fish captured per net-night or number of fish captured per hour electrofishing). In this report CPUE is typically given for only stock-length fish (see length categories table for stock lengths).

A statewide effort to help make netting efforts comparable to all waters sampled across the state, occurred in 2017, with a switch to American Fisheries Society gill nets. Past gill netting efforts were completed with different style/types of nets and are not comparable side by side.

- **AFS std gill net** – 80 ft experimental gill net containing eight panels (10 ft each) of varying monofilament meshes of 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25 and 2.50 inches.
- **std experimental gill net for non-Missouri River waters** - 150 ft experimental gill net containing six panels (25 ft each) of varying monofilament meshes of 0.5, 0.75, 1.00, 1.25, 1.50 and 2.00 inches.
- **std experimental gill net for Missouri River reservoirs** – 300 ft experimental gill net containing six panels (50 ft each) of varying multifilament meshes of 0.5, 0.75, 1.00, 1.25, 1.50 and 2.00 inches.

$$CPUE = \frac{\text{number of fish}}{\text{effort}}$$

Population size structure is quantified using the indices proportional size distribution of quality-length fish (**PSD**) and proportional size distribution of preferred-length fish (**PSD-P**). These indices indicate the proportion of stock-length fish that are equal to or greater than a given length. Minimum lengths for stock, quality and preferred length fish are given in the length categories table.

$$PSD = \left(\frac{\text{number of fish} \geq \text{quality length}}{\text{number of fish} \geq \text{stock length}} \right) \times 100$$

$$PSD - P = \left(\frac{\text{number of fish} \geq \text{preferred length}}{\text{number of fish} \geq \text{stock length}} \right) \times 100$$

Relative weight (**Wr**) is used to quantify fish plumpness. Relative weight is the ratio of what a fish weighs (**W**) compared to a length-specific standard weight (**Ws**) multiplied by 100. Relative weight values of 95-105 are commonly cited as optimum values, but values in the 80s are common during summer sampling in South Dakota.

$$Wr = \left(\frac{W}{W_s} \right) \times 100$$

Confidence intervals (CI) are provided for many of the estimates calculated in this report. The confidence interval provides a range in which the true mean is expected to fall. For example, with an 80% CI we are 80% confident that the interval contains the true value.

Length categories include stock (S), quality (Q), preferred (P), memorable (M) and trophy (T). Length categories for most species have been defined based on a percentage of the world record length for that species. Some species mentioned in this report do not have defined length categories. Length categories for species used in this report are provided in the following table. Measurements are the minimum total length for each category and are reported in inches (in) and centimeters (cm).

Species Name	Stock		Quality		Preferred		Memorable		Trophy	
	(in)	(cm)	(in)	(cm)	(in)	(cm)	(in)	(cm)	(in)	(cm)
Black Bullhead	6	15	9	23	12	30	15	38	18	46
Black Crappie	5	13	8	20	10	25	12	30	15	38
Bluegill	3	8	6	15	8	20	10	25	12	30
Brown Trout	8	20	12	30	16	40	20	50	18	46
Channel Catfish	11	28	16	41	24	61	28	71	36	91
Freshwater Drum	8	20	12	30	15	38	20	51	25	63
Lake Trout	12	30	20	50	26	65	31	80	39	100
Largemouth Bass	8	20	12	30	15	38	20	51	25	63
Muskellunge	20	51	30	76	38	97	42	107	50	127
Northern Pike	14	35	21	53	28	71	34	86	44	112
Pumpkinseed	3	8	6	15	8	20	10	25	12	30
Rainbow Trout	10	25	16	40	20	50	26	65	31	80
Rudd	6	15	10	25	12	30	15	38	19	48
Sauger	8	20	12	30	15	38	20	51	25	63
Smallmouth Bass	7	18	11	28	14	35	17	43	20	51
Walleye	10	25	15	38	20	51	25	63	30	76
White Bass	6	15	9	23	12	30	15	38	18	46
White Crappie	5	13	8	20	10	25	12	30	15	38
Yellow Bullhead	4	10	7	18	9	23	11	28	14	36
Yellow Perch	5	13	8	20	10	25	12	30	15	38

Catch Summary of Stock Length Fish

Catch per unit effort (CPUE), proportional size distribution (PSD), proportional size distribution of preferred length fish (PSD-P), and relative weight (Wr) for species sampled in survey with 80% confidence interval (CI-80).

* **Methods/Species that ignore stock length**

Gear	Species	Sample Size (n)	Abundance		Stock Density Indices			Condition		
			CPUE	CI-80	PSD	CI-80	PSD-P	CI-80	Wr	CI-80
AFS std gill net	Channel Catfish	293	3.9	0.3	66	4	9	2	79	1
	Common Carp	60	0.8	0.2	95		26	9	88	1
	Flathead Catfish	5	0.1	0.0	60		20		88	7
	Freshwater Drum	62	0.8	0.2	88	6	23	8	88	2
	Gizzard Shad	163	0.5	0.2	100				96	2
	Goldeye	111	0.0	0.0						
	River Carpsucker	20	0.3	0.1	100		95		102	3
	Sauger	102	1.2	0.2	66	7	30	7	83	1
	Shorthead Redhorse	20	0.3	0.1	85		45	18	89	6
	Shortnose Gar	31	0.0	0.0						
	Shovelnose Sturgeon	3	0.0	0.0						
	Smallmouth Bass	21	0.3	0.1	52	17	29	16	113	2
	Smallmouth Buffalo	1	0.0	0.0	100		100		80	
	Walleye	281	3.4	0.4	64	4	4	2	90	1
	White Bass	26	0.3	0.1	96		92		105	2
Yellow Perch	131	1.8	0.7	18	5	0		85	1	
boat shocker (night)	Smallmouth Bass	510	84.5	7.2	50	3	29	2	95	1
large seine*	Sauger	1	0.0	0.0						
	Walleye	25	0.9	0.6						

10-Year Catch Per Unit Effort by Gear and Species

Catch per unit effort (CPUE) and average (Avg) of species across 10 years using different gear types.

* Methods/Species that ignore stock length

Gear	Species	CPUE										
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Avg
AFS gill net (1/2 inch)*	Bigmouth Buffalo			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Black Crappie			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Channel Catfish			0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.06
	Common Carp			0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.06
	Emerald Shiner			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Freshwater Drum			0.2	0.3	0.4	0.2	0.2	0.1	0.2	0.3	0.24
	Gizzard Shad			1.2	0.4	1.6	2.6	0.5	0.3	0.0	3.8	1.30
	Goldeye			0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.06
	Goldfish			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Lake Herring			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Northern Pike			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Sand Shiner			0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.01
	Sauger			0.2	0.4	0.1	0.2	0.1	0.1	0.1	0.6	0.23
	Shorthead Redhorse			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Shortnose Gar			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Shovelnose Sturgeon			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Silverband Shiner			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Smallmouth Bass			0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.01
	Spottail Shiner			0.1	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.06
	Walleye			0.8	1.3	0.5	0.8	0.6	0.3	0.1	1.0	0.68
White Bass			0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.04	
White Crappie			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Yellow Perch			0.1	0.5	1.0	0.4	0.2	0.1	0.2	0.3	0.35	
AFS std gill net	Bigmouth Buffalo			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Black Bullhead			0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.05
	Black Crappie			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Bluegill			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Channel Catfish			3.7	3.1	4.2	3.9	4.1	4.0	4.5	3.9	3.93
	Common Carp			1.1	0.8	0.5	0.7	1.2	1.2	1.0	0.8	0.91
	Flathead Catfish			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.01
	Freshwater Drum			1.4	1.1	1.4	0.6	0.7	0.6	0.7	0.8	0.91
	Gizzard Shad			0.8	0.1	0.2	0.0	0.0	0.0	0.3	0.5	0.24
	Goldeye			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Lake Herring			0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.01	

Gear	Species	CPUE										Avg
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
AFS std gill net	Largemouth Bass			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Northern Pike			0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.01
	Paddlefish			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	River Carpsucker			0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.3	0.20
	Sauger			1.7	1.4	1.1	1.4	1.4	0.9	0.9	1.2	1.25
	Saugeye			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Shorthead Redhorse			0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.3	0.13
	Shortnose Gar			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Shovelnose Sturgeon			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Smallmouth Bass			1.2	0.4	0.9	1.8	0.9	0.6	0.4	0.3	0.81
	Smallmouth Buffalo			0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.11
	Walleye			4.3	3.6	5.4	8.0	5.1	4.7	2.4	3.4	4.61
	White Bass			1.4	0.6	0.4	0.8	0.3	0.7	0.2	0.3	0.59
	White Crappie			0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.01
Yellow Perch			0.4	0.2	0.7	0.7	0.3	0.3	0.6	1.8	0.63	
boat shocker (night)	Smallmouth Bass	68.9	118.4	109.9	89.9	79.0	152.8	138.4	130.9	69.9	84.5	104.26
fall night EF-WAE*	Sauger				34.2	7.0	0.0	14.2	15.0	26.2	32.7	18.47
	Walleye				117.1	97.3	130.7	145.0	159.7	261.5	162.3	153.37
large seine*	Sauger	0.3	0.1	0.1	0.4	0.0	0.1	0.1	0.1	0.0	0.0	0.12
	Walleye	0.3	0.8	1.4	0.6	4.4	1.2	2.1	1.2	1.3	0.9	1.42
std exp gill net	Bigmouth Buffalo	0.0	0.0									0.00
	Black Crappie	0.0	0.0									0.00
	Bluegill	0.0	0.0									0.00
	Channel Catfish	4.7	5.3									5.00
	Common Carp	1.8	2.0									1.90
	Freshwater Drum	0.2	0.3									0.25
	Gizzard Shad	0.3	4.4									2.35
	Goldeye	0.0	0.0									0.00
	Lake Herring	0.0	0.0									0.00
	Northern Pike	0.1	0.0									0.05
	River Carpsucker	0.1	0.1									0.10
	Sauger	3.7	4.1									3.90
	Shorthead Redhorse	0.3	0.2									0.25
	Shortnose Gar	0.0	0.0									0.00
	Shovelnose Sturgeon	0.0	0.0									0.00
Smallmouth Bass	1.0	0.1									0.55	

CPUE

Gear	Species	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Avg
std exp gill net	Smallmouth Buffalo	0.1	0.1									0.10
	Spottail Shiner	0.0	0.0									0.00
	Walleye	3.9	5.0									4.45
	Western Silvery Minnow	0.0	0.0									0.00
	White Bass	0.2	0.8									0.50
	White Crappie	0.0	0.1									0.05
	Yellow Perch	0.9	1.2									1.05

10-Year Size Structure and Condition Statistics by Gear and Species

Species proportional size distribution (PSD), proportional size distribution of preferred length fish (PSD-P), and relative weight (Wr) collected by different gear types across 10 years.

Gear	Species	Index	Year									
			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
AFS std gill net	Channel Catfish	PSD			59	60	55	67	77	67	76	66
		PSD-P			5	7	6	9	10	10	10	9
		Wr			80	81	89	82	80	76	77	79
	Common Carp	PSD			60	92	88	55	58	91	99	95
		PSD-P			3	5	7	5	5	5	15	26
		Wr			83	83	84	85	87	87	89	88
	Gizzard Shad	PSD			99	100	100	0	0	50	0	100
		Wr			96	100	108	68		33	89	96
	River Carpsucker	PSD			89	100	100	95	100	100	100	100
		PSD-P			89	94	89	90	65	71	89	95
		Wr			96	100	106	106	100	98	107	102
	Sauger	PSD			86	74	65	83	73	82	80	66
		PSD-P			49	36	24	43	30	41	42	30
		Wr			77	78	86	86	77	76	79	83
	Shorthead Redhorse	PSD			100	100	67	83	92	94	100	85
		PSD-P			100	100	67	33	75	94	100	45
		Wr			105	97	97	90	98	89	95	89
	Smallmouth Bass	PSD			70	73	76	86	85	79	84	52
		PSD-P			18	33	33	37	38	40	28	29
		Wr			104	106	107	104	104	104	105	113
	Walleye	PSD			63	38	47	53	48	50	66	64
PSD-P				5	3	4	2	3	3	2	4	
Wr				81	83	91	86	83	81	81	90	
Yellow Perch	PSD			51	17	28	38	19	53	7	18	
	PSD-P			3	0	2	2	5	11	0	0	
	Wr			83	90	85	83	89	91	88	85	
boat shocker (night)	Smallmouth Bass	PSD	37	46	45	59	58	53	47	62	59	50
		PSD-P	12	16	14	18	35	18	16	18	24	29
		Wr	92	97	91	94	96	100	93	93	93	95
std exp gill net	Channel Catfish	PSD	46	52								
		PSD-P	2	3								
		Wr	79	83								

Gear	Species	Index	Year																					
			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024												
std exp gill net	Common Carp	PSD	86	68																				
		PSD-P	2	6																				
		Wr	83	84																				
	Gizzard Shad	PSD	88	32																				
		Wr	94	89																				
	River Carpsucker	PSD	50	100																				
		PSD-P	50	33																				
		Wr	101	95																				
	Sauger	PSD	74	78																				
		PSD-P	32	29																				
		Wr	76	80																				
	Shorthead Redhorse	PSD	88	100																				
		PSD-P	63	67																				
		Wr	120	91																				
	Smallmouth Bass	PSD	62	67																				
		PSD-P	12	0																				
		Wr	100	110																				
	Walleye	PSD	60	46																				
		PSD-P	9	4																				
		Wr	84	86																				
	Yellow Perch	PSD	8	21																				
		PSD-P	0	3																				
		Wr	79	80																				

Back-Calculated Lengths

Mean species back-calculated total length (mm) at age, standard error (SE), and sample size (N).

Species: Smallmouth Bass

Year Class	Age	N	Mean back-calculated length (SE) at age																	
			1	2	3	4	5	6	7	8	9	10								
2023	1	26	98 (2.1)																	
2022	2	70	89 (1.3)	152 (3.1)																
2021	3	101	93 (1.3)	167 (2.8)	222 (2.6)															
2020	4	57	90 (2.1)	156 (4)	231 (4.3)	281 (5.1)														
2019	5	51	88 (1.7)	155 (3.4)	230 (3.9)	298 (3.8)	343 (4.2)													
2018	6	29	85 (2.3)	145 (5)	231 (6.2)	303 (5.4)	359 (5.8)	391 (5.7)												
2017	7	10	85 (1.7)	137 (4.3)	204 (9.8)	278 (10.6)	330 (13.9)	381 (9.3)	407 (8.4)											
2016	8	1	91	146	217	290	350	382	412	436										
2015	9	1	87	129	194	304	360	393	428	449	472									
Weighted Mean		346	90	157	226	291	347	388	409	443	472									
Year Class	Age	N	11	12	13	14	15	16	17	18	19	20								
2023	1	26																		
2022	2	70																		
2021	3	101																		
2020	4	57																		
2019	5	51																		
2018	6	29																		
2017	7	10																		
2016	8	1																		
2015	9	1																		
Weighted Mean		346																		

Length at Capture

Mean length at capture by age across years sampled, sample size (N).

Species: Channel Catfish

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2022	312		262 (3)	297 (27)	313 (37)	361 (16)	395 (21)	406 (29)	418 (13)	460 (32)	546 (132)
2016	152	100 (1)	226 (5)	302 (12)	324 (7)	351 (14)	395 (21)	416 (26)	425 (11)	487 (12)	535 (41)

Species: Sauger

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2024	82	297 (30)	364 (31)	404 (8)	454 (10)	390 (2)	463 (1)				
2023	69	261 (16)	348 (21)	390 (14)	432 (14)	413 (2)	412 (1)				
2022	71	272 (12)	341 (22)	391 (27)	428 (9)	383 (1)					
2021	105	269 (28)	355 (45)	404 (26)	448 (5)	454 (1)	401 (1)				
2020	110	292 (28)	374 (55)	421 (18)	408 (4)	457 (4)					473 (1)
2019	90	289 (44)	367 (33)	428 (9)	402 (1)	413 (2)			441 (1)		
2018	109	305 (39)	367 (29)	390 (19)	409 (14)	465 (4)		384 (3)		541 (1)	
2017	140	305 (41)	368 (40)	403 (42)	451 (8)	450 (6)	450 (2)	404 (2)			
2016	110	295 (37)	355 (38)	405 (13)	388 (9)	406 (10)	435 (2)	479 (1)			
2015	98	258 (25)	360 (33)	363 (5)	396 (26)	430 (4)	443 (4)				365 (1)

Species: Smallmouth Bass

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2024	482	122 (76)	161 (113)	241 (124)	301 (66)	361 (56)	406 (34)	427 (11)	456 (1)	492 (1)	
2023	292	130 (26)	207 (57)	265 (73)	327 (75)	371 (48)	393 (10)	404 (2)			
2022	468	154 (11)	221 (87)	272 (161)	329 (150)	375 (50)	411 (6)	433 (2)			
2021	583	150 (22)	204 (169)	272 (217)	328 (123)	371 (44)	386 (9)	434 (1)	452 (1)		
2020	1119	133 (174)	203 (467)	293 (281)	336 (138)	386 (36)	399 (18)	411 (5)			
2019	323	167 (21)	219 (108)	303 (76)	365 (87)	402 (20)	438 (8)	461 (4)	459 (1)	543 (1)	
2018	378	127 (27)	218 (110)	297 (148)	341 (77)	382 (12)	389 (4)				

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2017	490	129 (14)	213 (273)	301 (137)	360 (42)	392 (17)	443 (6)	425 (1)			
2016	590	121 (66)	199 (253)	289 (176)	348 (58)	390 (17)	414 (15)	424 (3)	413 (1)	484 (1)	
2015	432	108 (84)	187 (210)	277 (63)	314 (44)	353 (22)	406 (8)	447 (1)			

Species: Walleye

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2024	268	276 (60)	371 (59)	410 (41)	436 (26)	443 (68)	465 (8)	499 (4)	484 (1)		547 (2)
2023	181	269 (11)	335 (25)	383 (36)	415 (95)	480 (9)	492 (5)		505 (1)		
2022	358	256 (28)	337 (66)	384 (202)	415 (35)	445 (14)	469 (4)	495 (2)	508 (3)		681 (5)
2021	387	298 (36)	349 (175)	419 (122)	448 (33)	483 (10)	478 (4)	523 (3)		481 (1)	594 (4)
2020	662	290 (203)	381 (250)	419 (149)	447 (31)	443 (10)	512 (8)		475 (1)	584 (5)	579 (5)
2019	443	297 (158)	383 (197)	423 (47)	461 (8)	479 (11)	501 (2)	531 (3)	498 (4)	504 (6)	565 (6)
2018	299	297 (143)	377 (80)	407 (30)	423 (26)		576 (2)	468 (9)	534 (2)	492 (3)	521 (4)
2017	346	295 (76)	378 (83)	405 (91)	448 (6)	445 (13)	472 (37)	464 (16)	470 (15)	443 (1)	538 (4)
2016	142	273 (38)	353 (47)	411 (7)	450 (13)	463 (26)	488 (7)	467 (3)			446 (1)
2015	135	237 (46)	334 (9)	394 (13)	398 (37)	466 (7)	474 (6)	484 (3)	496 (3)		509 (11)

Fish Condition

Mean relative weight (Wr) by sample size (N), length category stock to quality (S-Q), quality to preferred (Q-P), preferred to memorable (P-M), and memorable (M) for species collected across survey years with standard error (SE).

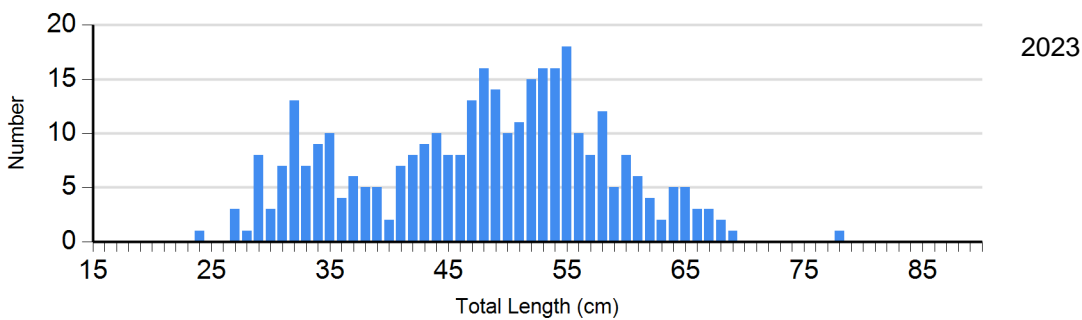
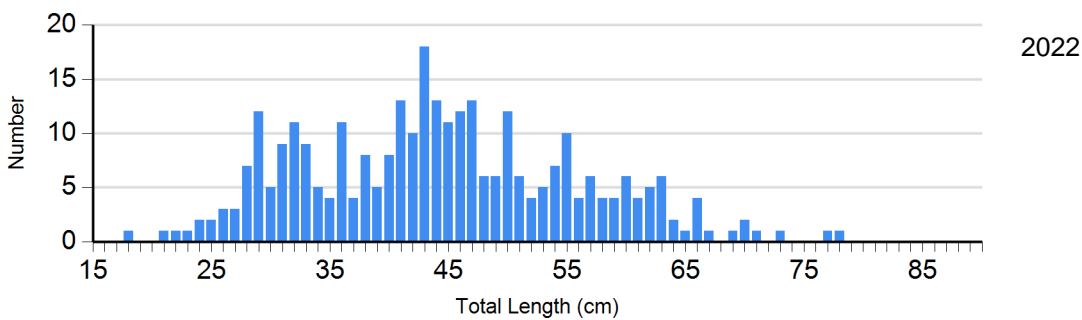
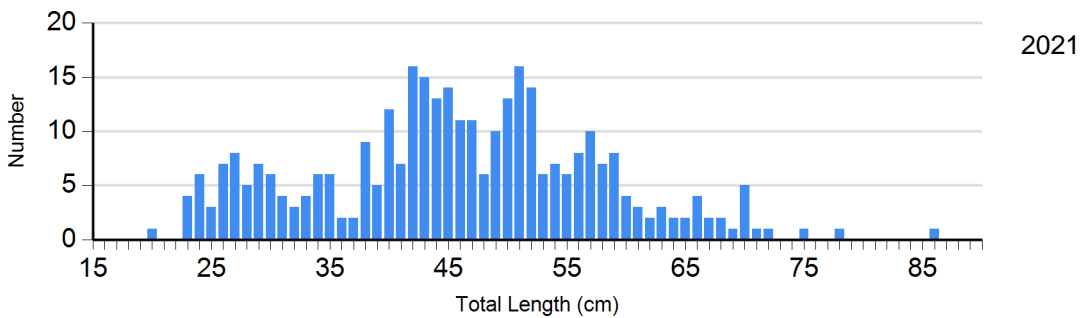
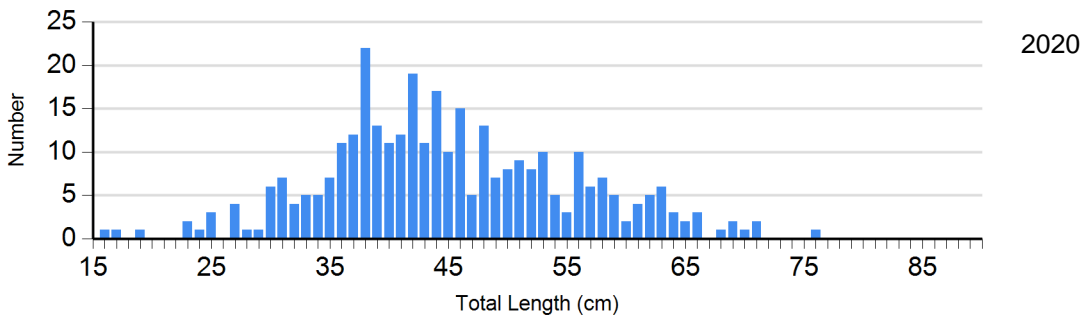
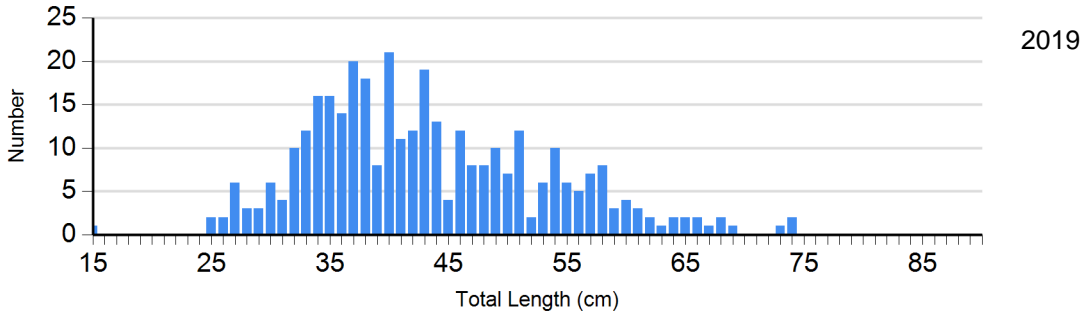
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Channel Catfish Gill Net	2020	105	78 (0.9)	182	83 (0.8)	27	93 (2.6)	3	98 (3.8)
	2021	71	78 (1.1)	202	81 (0.6)	26	85 (2.3)	5	85 (5.9)
	2022	98	77 (0.9)	170	75 (0.6)	26	81 (1.6)	4	86 (4.7)
	2023	80	78 (0.6)	222	76 (0.5)	31	79 (2.0)	1	98
	2024	99	81 (0.8)	166	78 (0.7)	25	80 (1.9)	2	87 (15.8)
Common Carp Gill Net	2020	25	86 (1.2)	27	86 (3.0)	3	83 (5.6)	0	
	2021	38	84 (1.2)	48	89 (1.1)	5	83 (3.1)	0	
	2022	8	86 (1.9)	78	87 (0.8)	5	96 (3.9)	0	
	2023	1	83	63	88 (1.1)	11	95 (2.4)	0	
	2024	3	92 (2.9)	40	89 (1.3)	15	84 (1.6)	0	
Sauger Gill Net	2020	19	77 (1.6)	44	91 (8.3)	47	84 (1.0)	0	
	2021	28	77 (1.5)	46	76 (1.0)	31	78 (1.1)	0	
	2022	13	77 (1.9)	29	77 (1.0)	29	75 (1.0)	0	
	2023	14	86 (8.2)	26	77 (1.3)	29	77 (1.0)	0	
	2024	31	83 (1.1)	33	84 (1.2)	27	84 (1.3)	1	77
Smallmouth Bass Electro Fishing	2020	361	101 (0.6)	265	100 (0.5)	123	98 (0.8)	15	95 (2.1)
	2021	273	93 (0.5)	164	94 (0.6)	74	95 (1.1)	8	95 (1.5)
	2022	173	92 (0.5)	201	94 (0.6)	78	91 (1.3)	6	95 (3.3)
	2023	108	95 (0.6)	92	93 (0.7)	59	91 (0.9)	3	88 (2.7)
	2024	160	94 (0.6)	66	96 (0.9)	74	97 (0.9)	17	98 (1.9)
Walleye Gill Net	2020	307	87 (0.4)	327	86 (0.4)	9	83 (2.5)	4	86 (14.8)
	2021	201	84 (0.4)	175	82 (0.5)	9	75 (1.6)	1	77

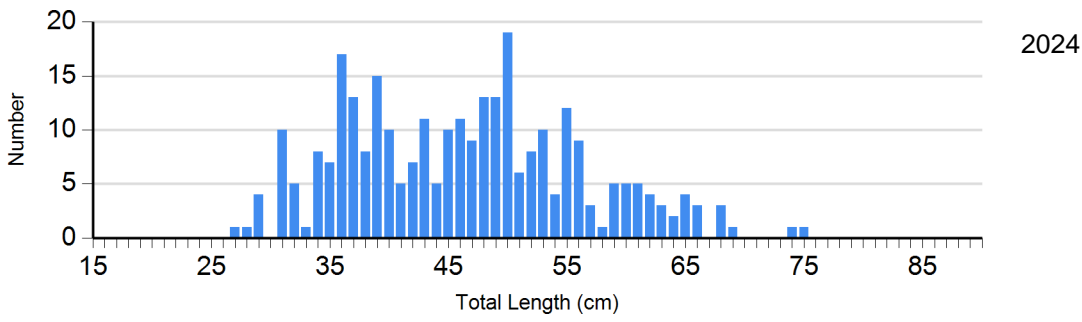
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Walleye Gill Net	2022	176	83 (0.5)	163	79 (0.5)	6	72 (2.3)	5	70 (6.6)
	2023	61	84 (0.7)	115	80 (0.7)	4	67 (10.9)	0	
	2024	92	89 (0.8)	154	91 (0.5)	9	89 (2.3)	0	
Yellow Perch Gill Net	2020	37	85 (1.2)	22	81 (1.1)	1	63	0	
	2021	17	93 (3.2)	3	82 (2.7)	1	48	0	
	2022	9	90 (2.1)	8	92 (3.8)	2	93 (2.4)	0	
	2023	43	88 (1.0)	3	87 (3.2)	0		0	
	2024	108	85 (0.8)	23	85 (1.1)	0		0	

Length Frequency Distribution

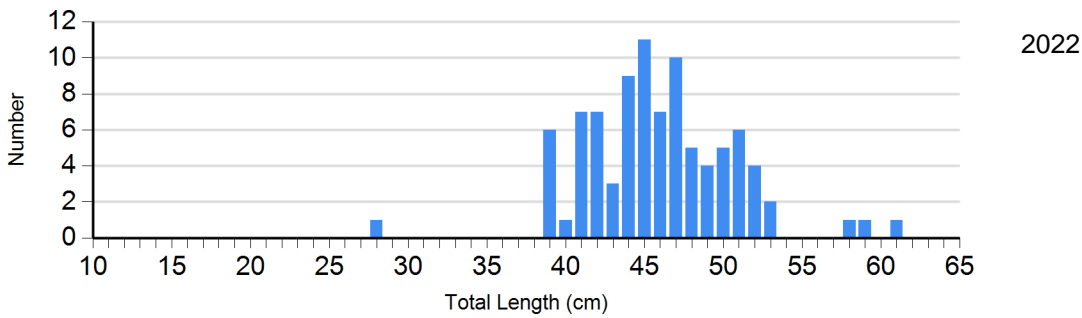
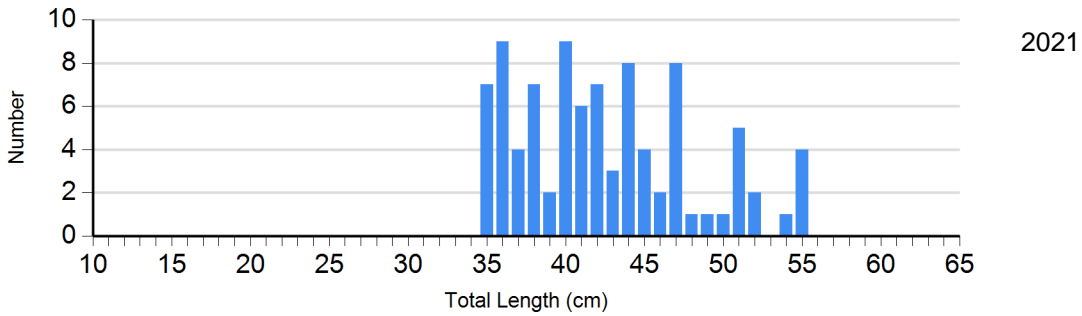
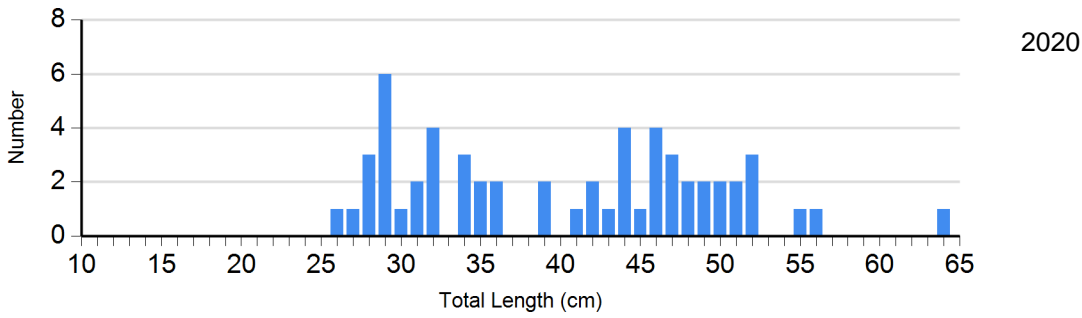
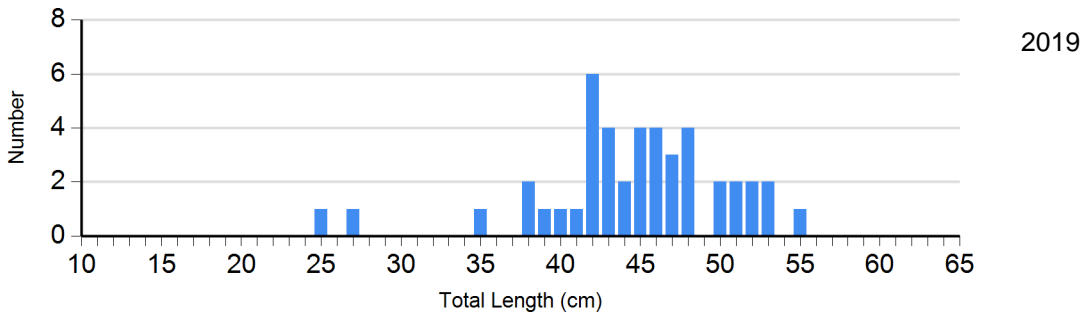
Length frequency histogram of species sampled by year.

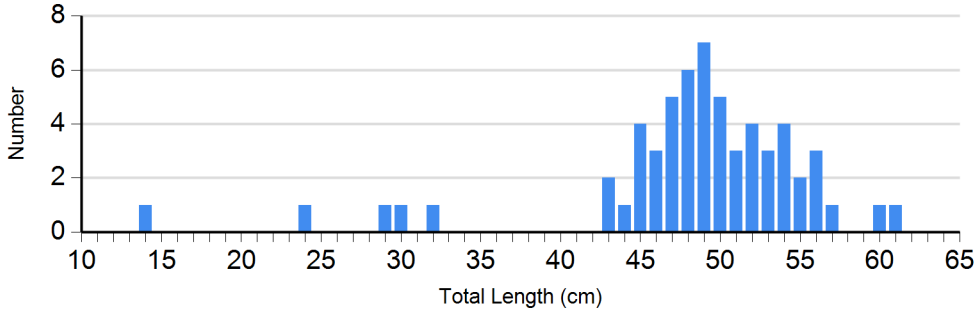
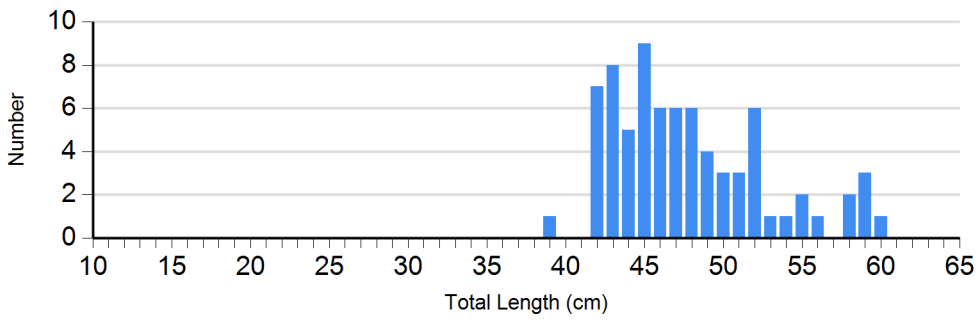
Species: Channel Catfish
Gear: AFS std gill net



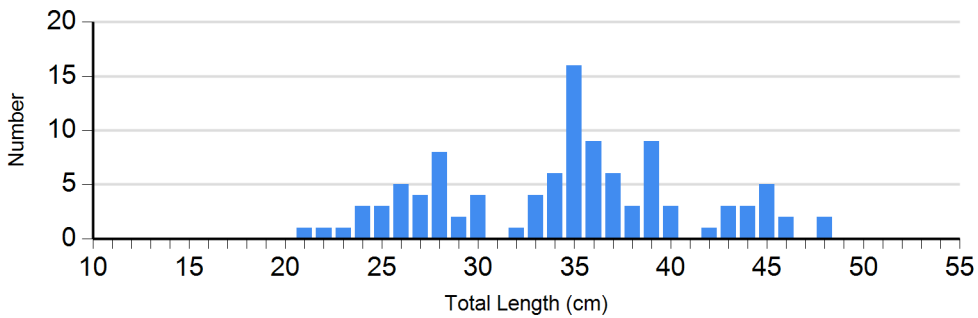
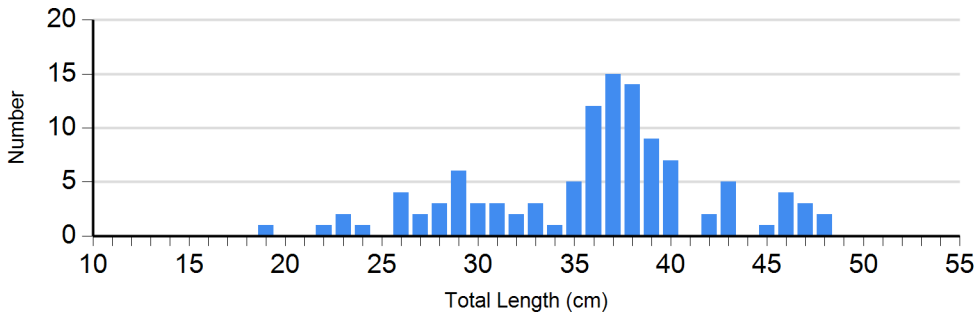
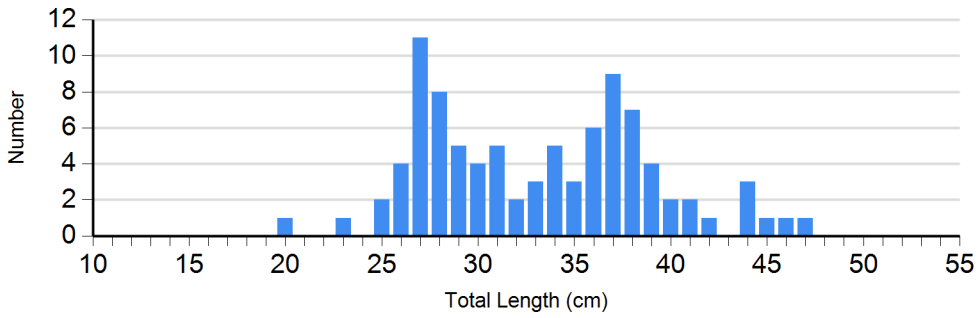


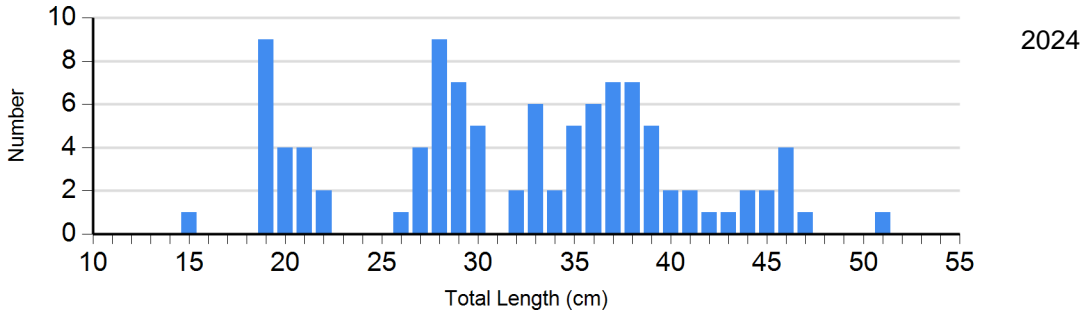
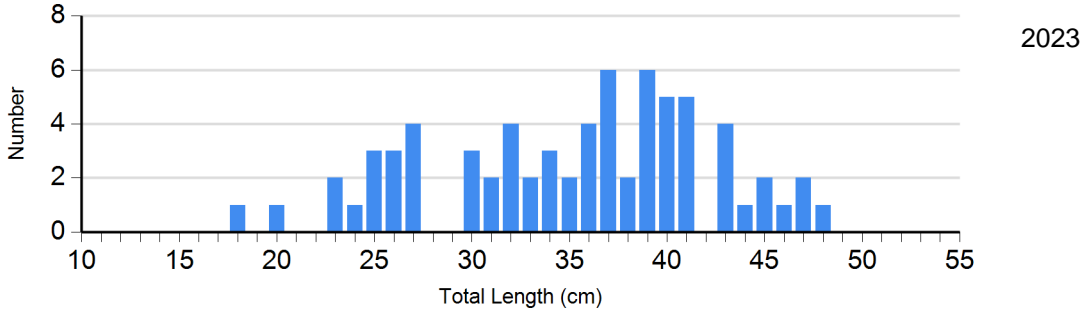
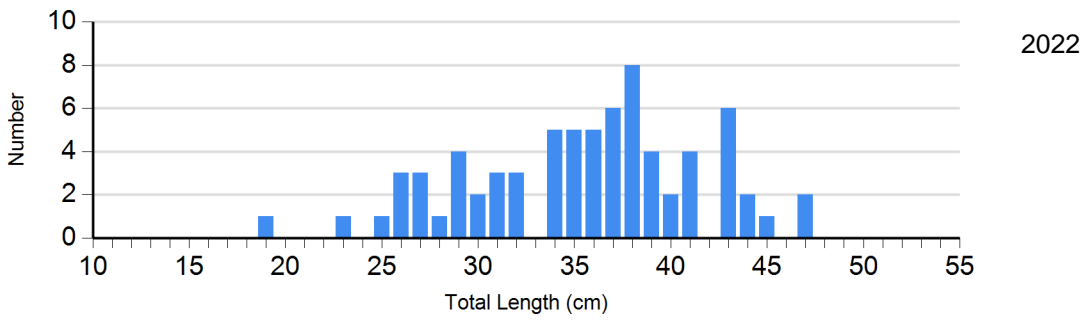
Species: Common Carp
Gear: AFS std gill net



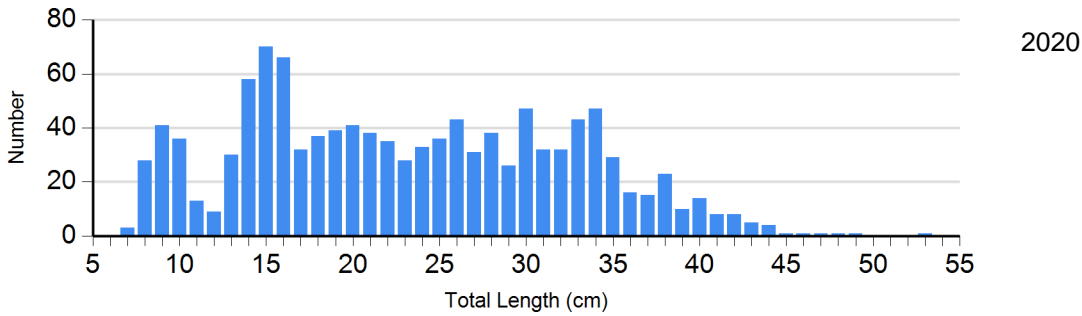
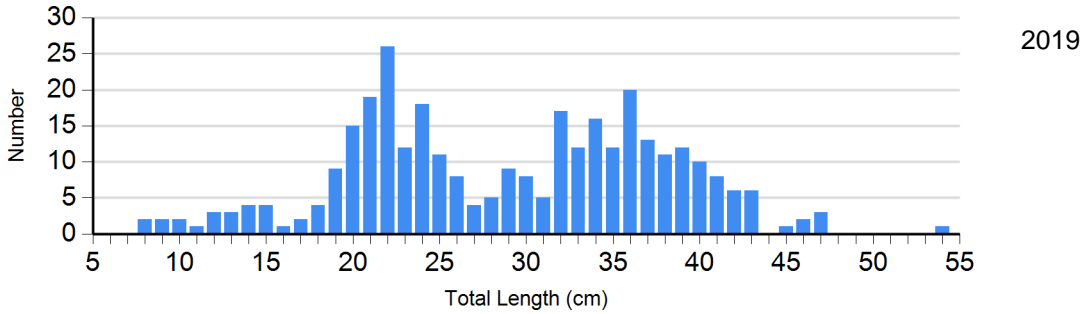


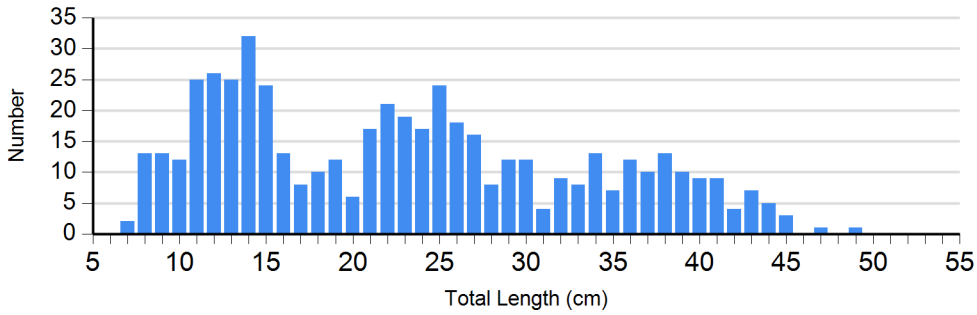
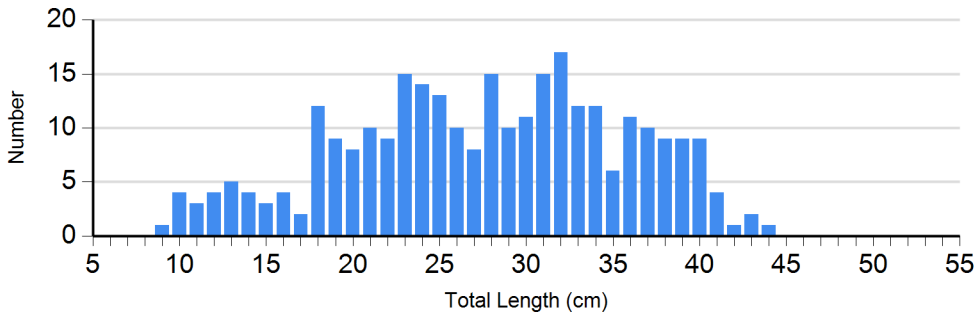
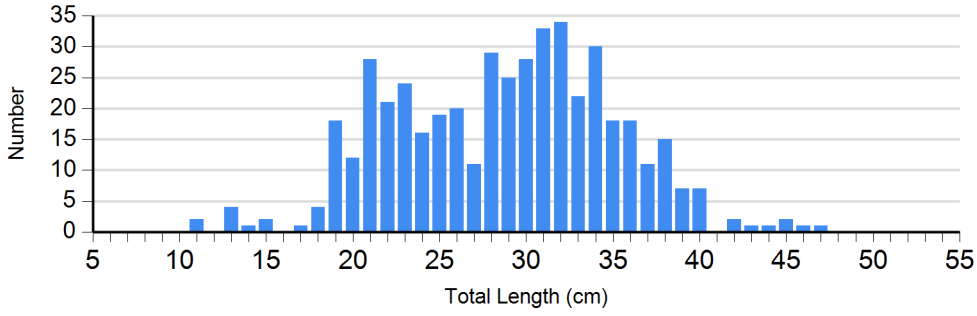
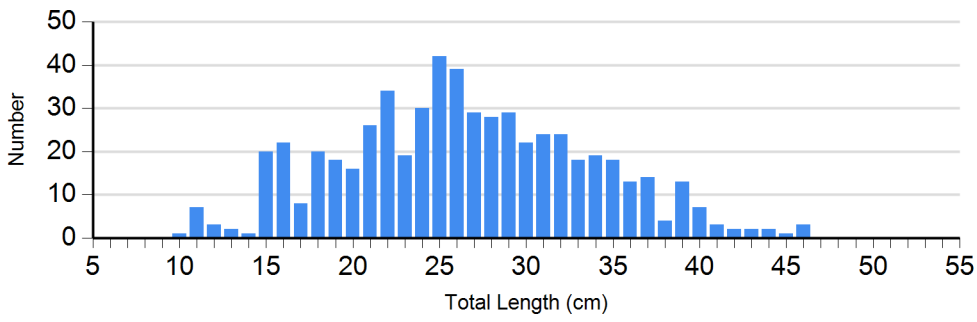
Species: Sauger
Gear: AFS std gill net



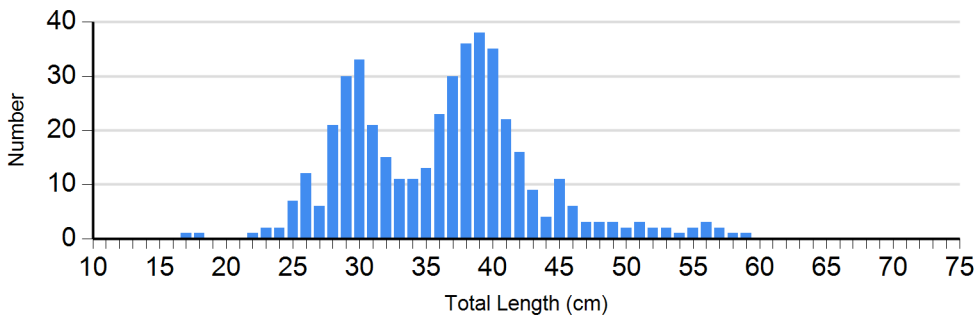


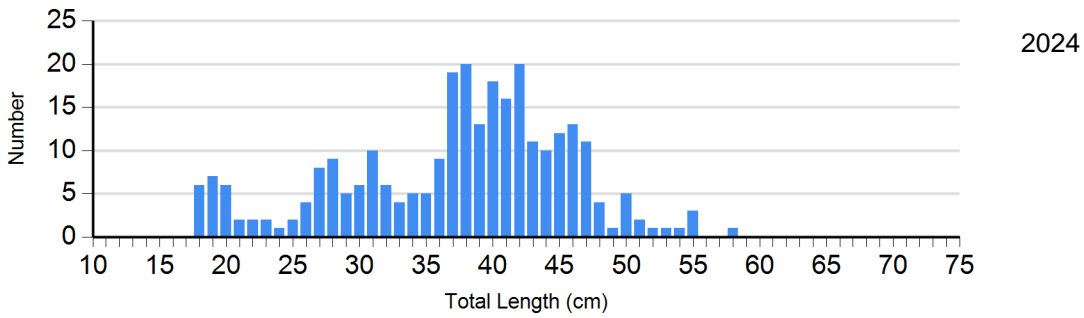
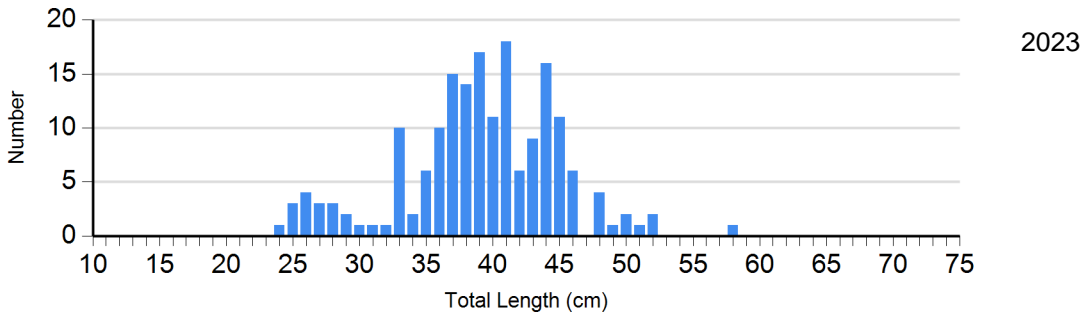
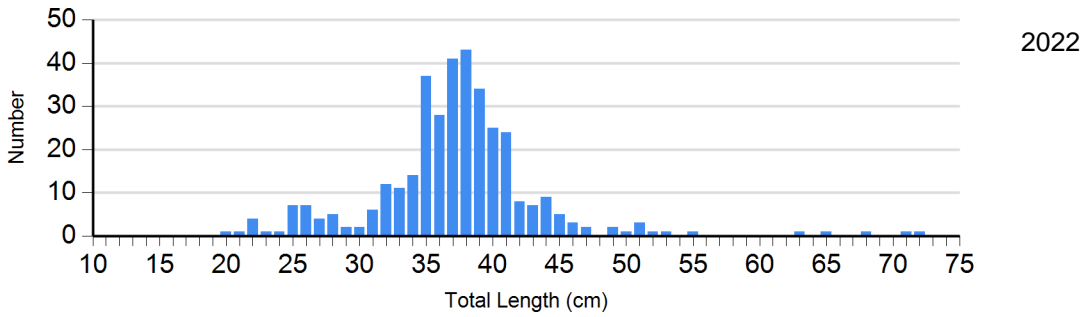
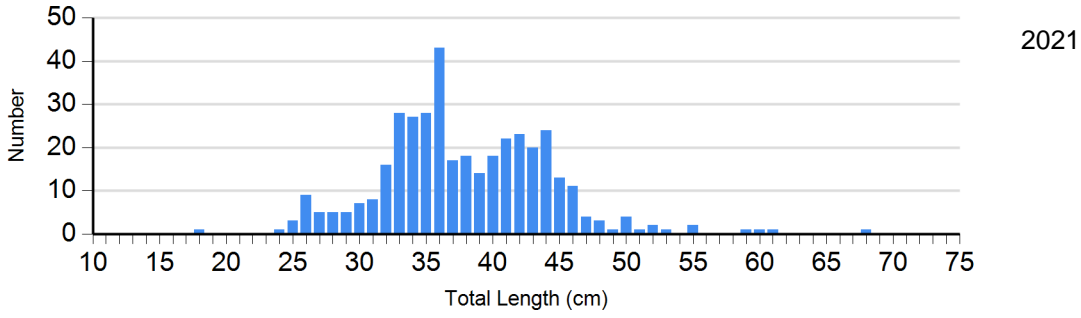
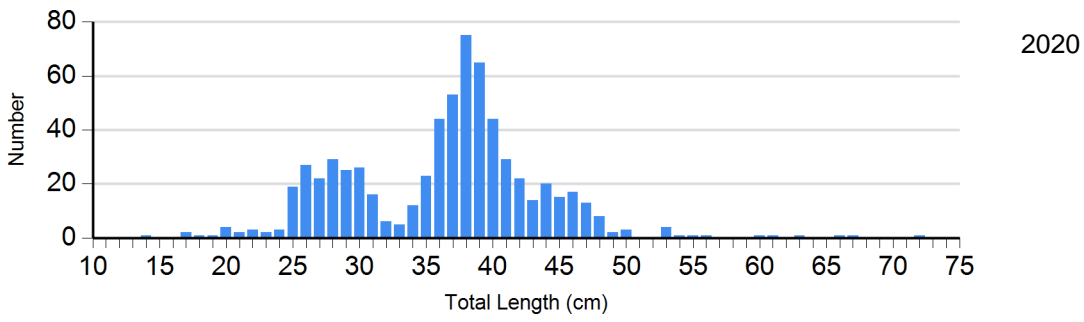
Species: Smallmouth Bass
 Gear: boat shocker (night)



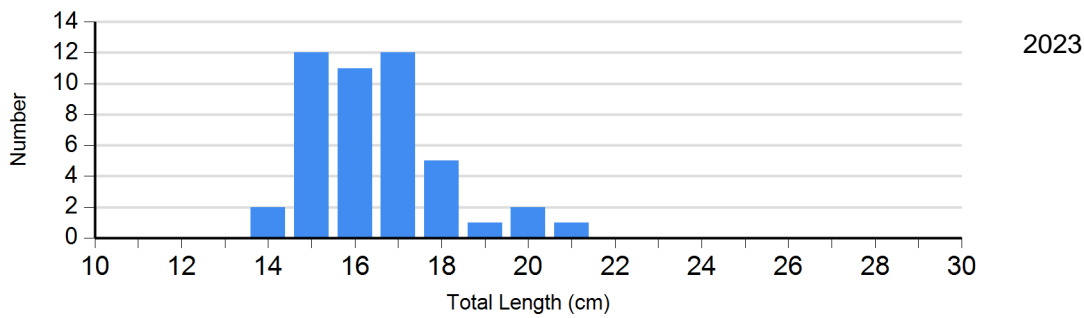
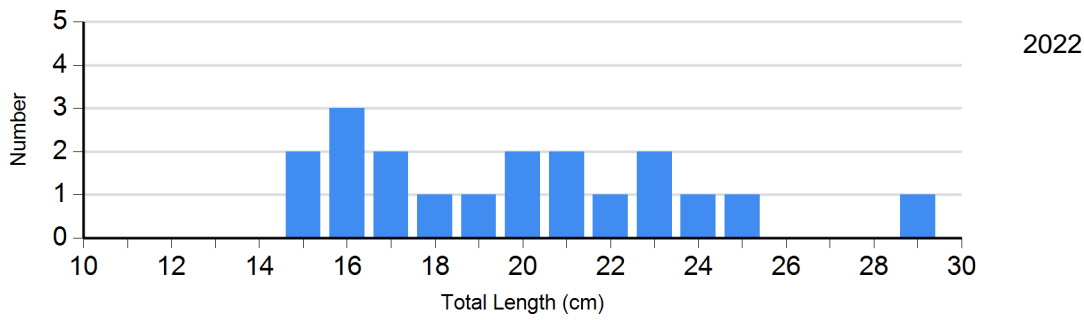
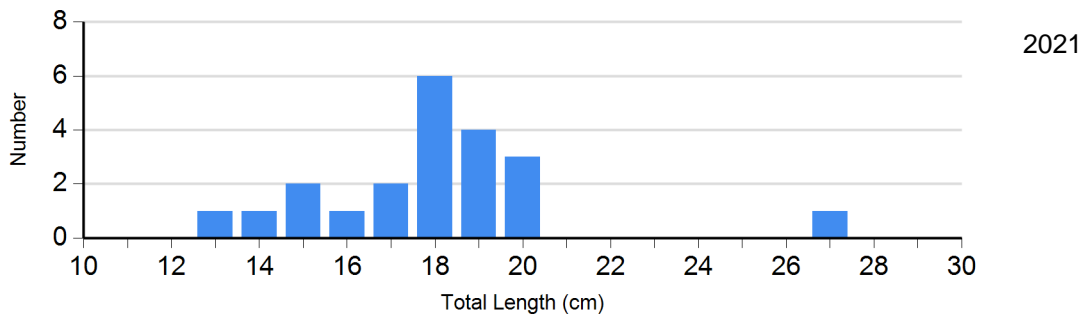
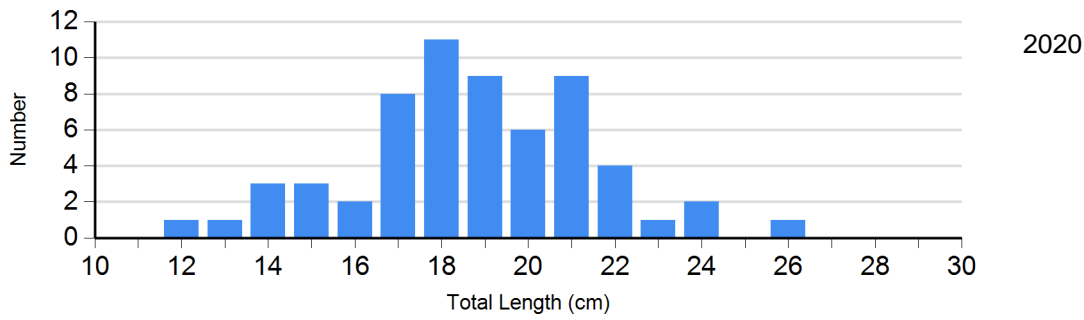
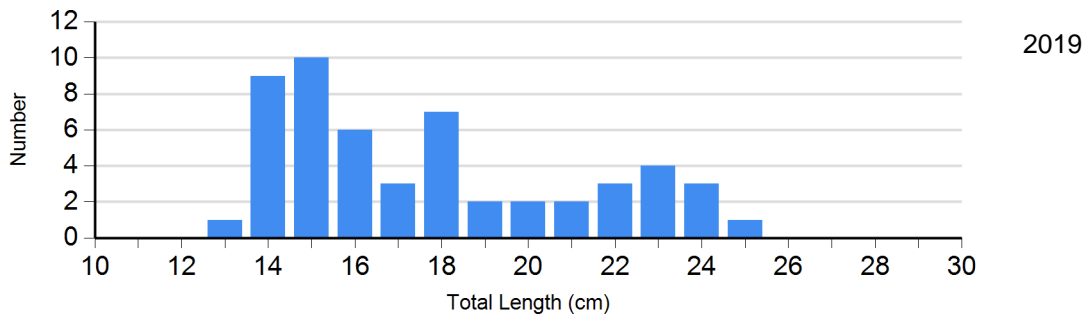


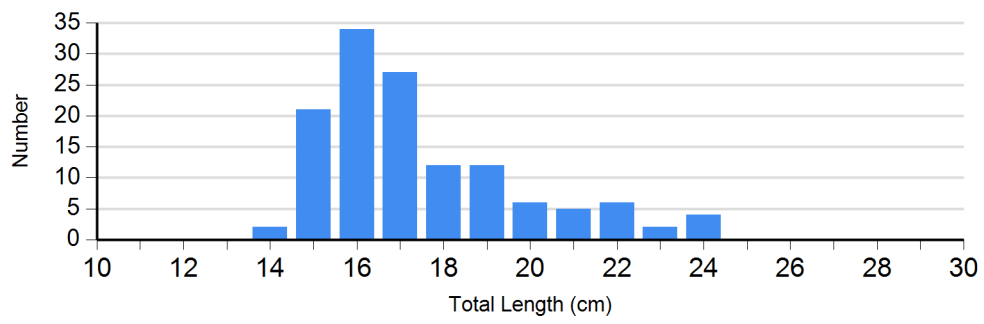
Species: Walleye
 Gear: AFS std gill net





Species: Yellow Perch
Gear: AFS std gill net



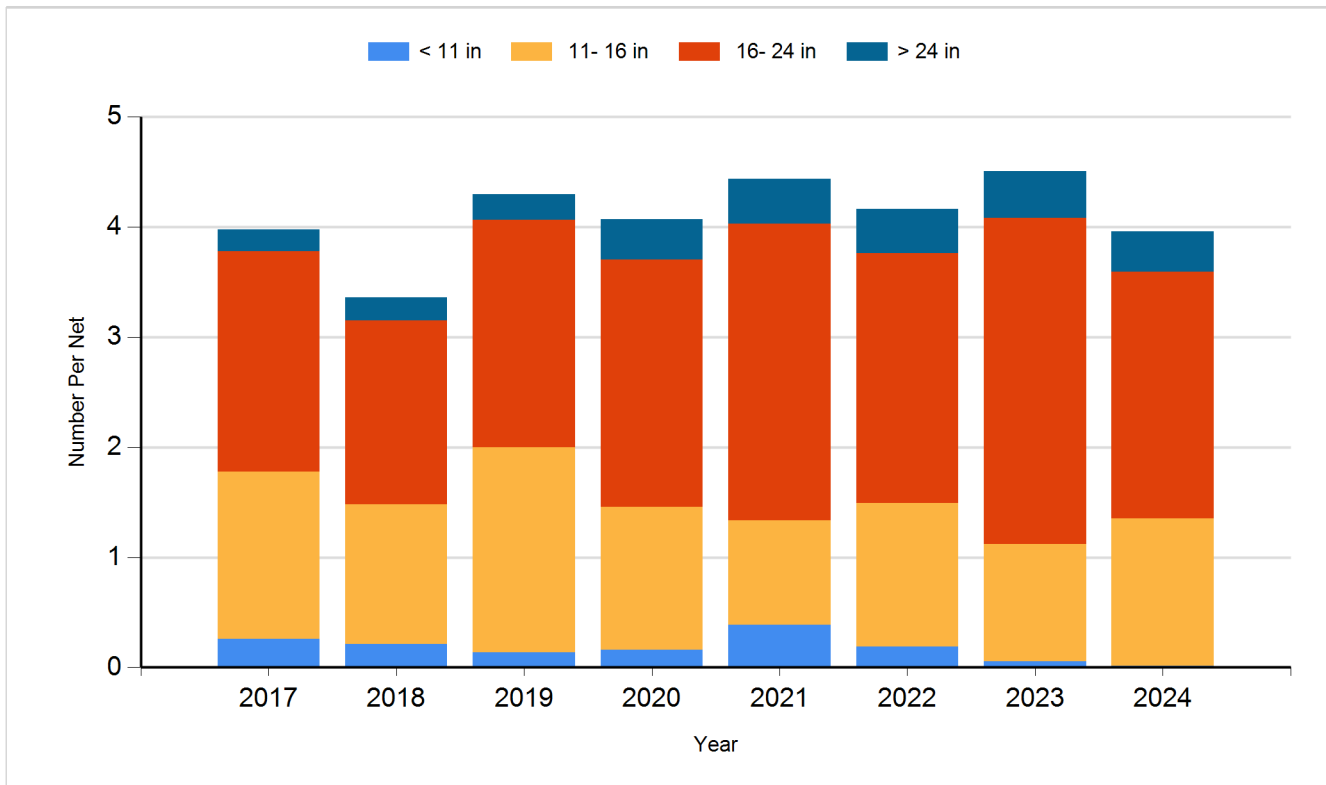


2024

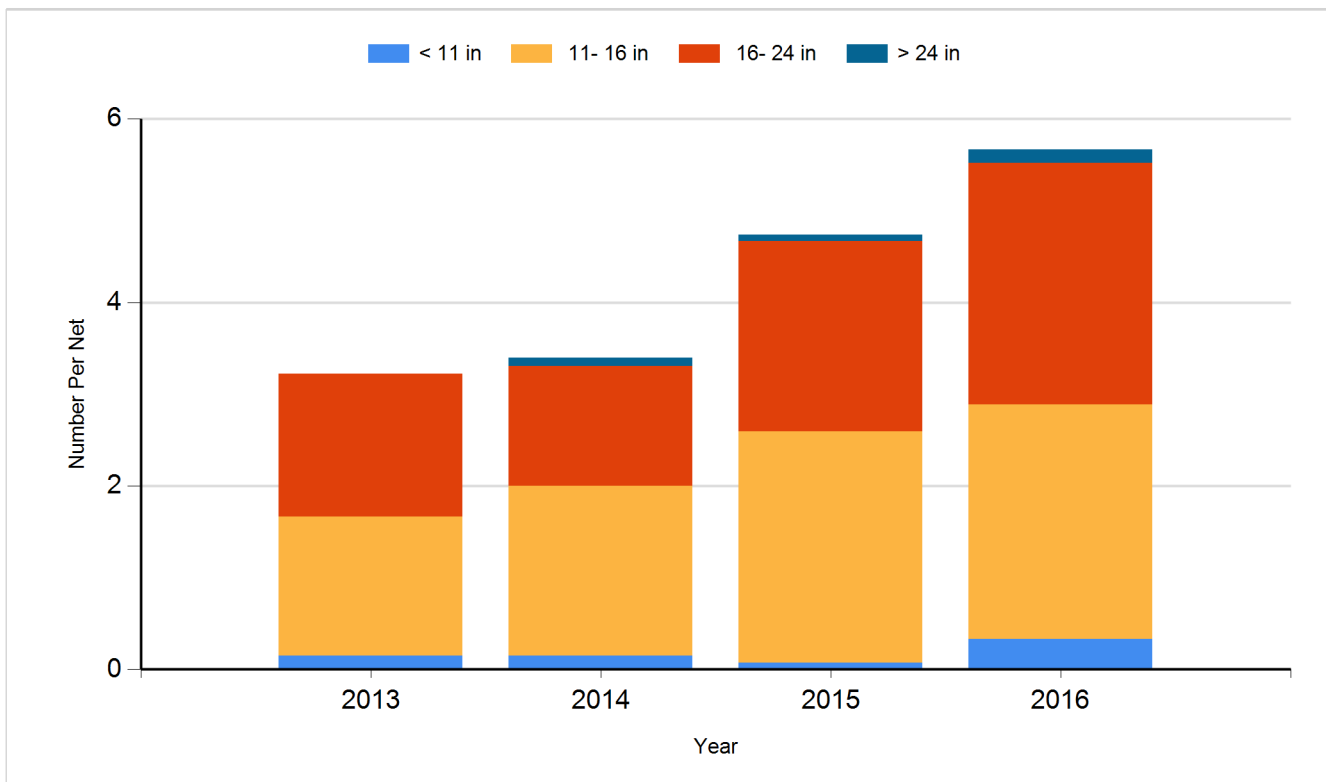
Historic Fish Sizes and Relative Abundance

Size distribution per net by color for species sampled by year.

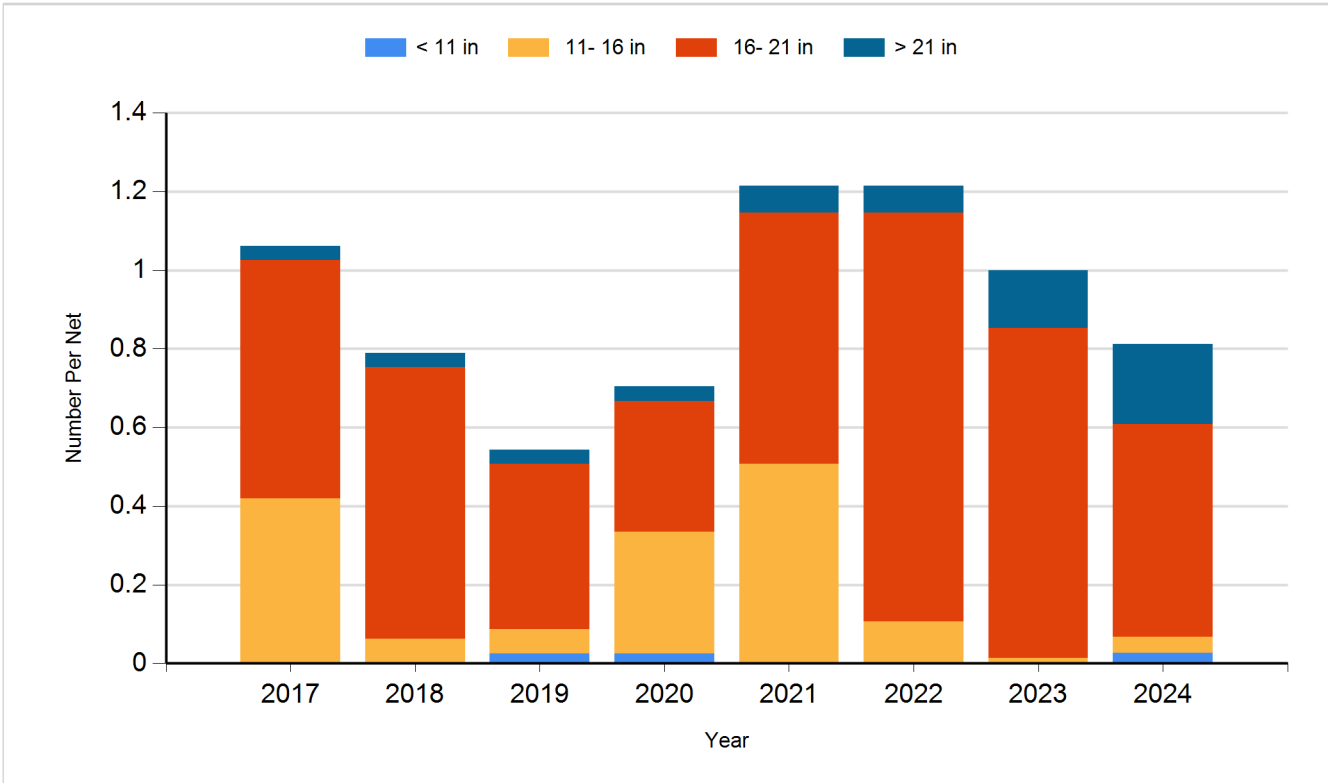
Species: Channel Catfish
Gear: AFS std gill net



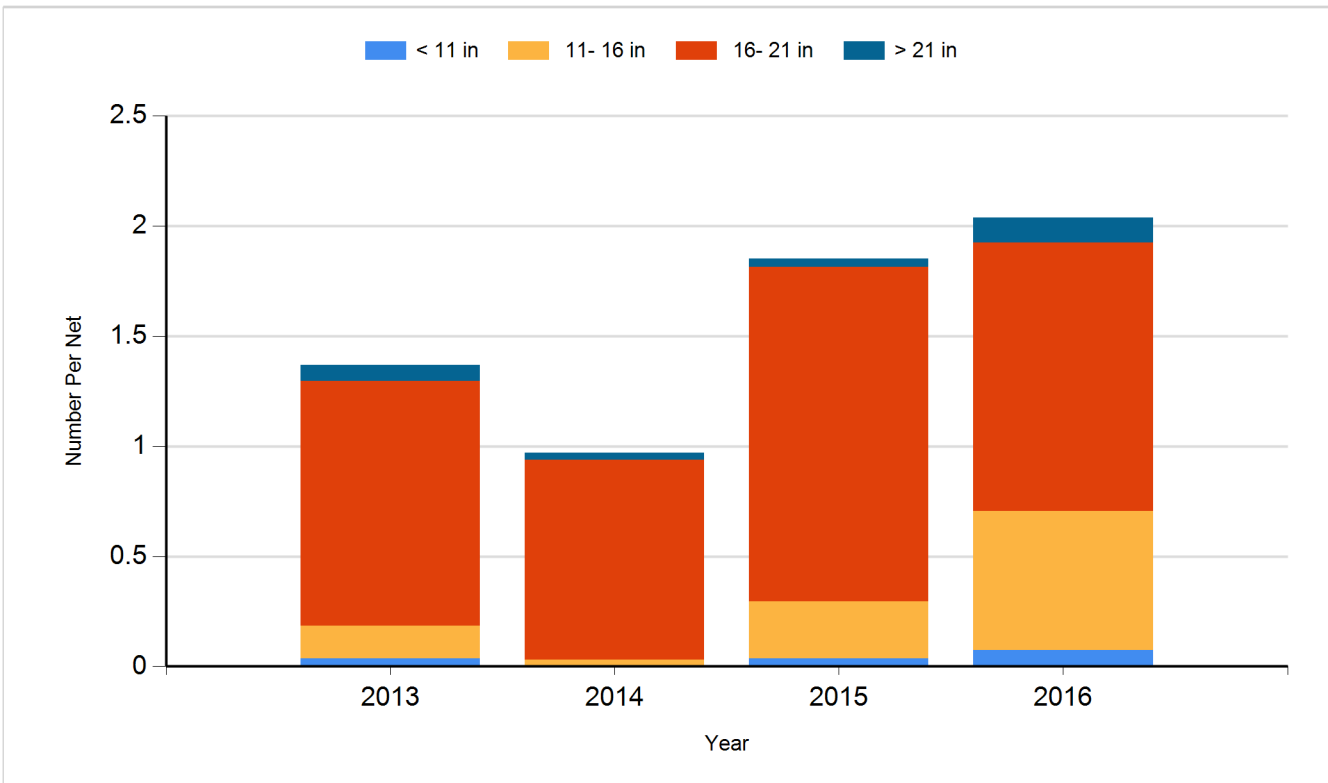
Species: Channel Catfish
Gear: std exp gill net



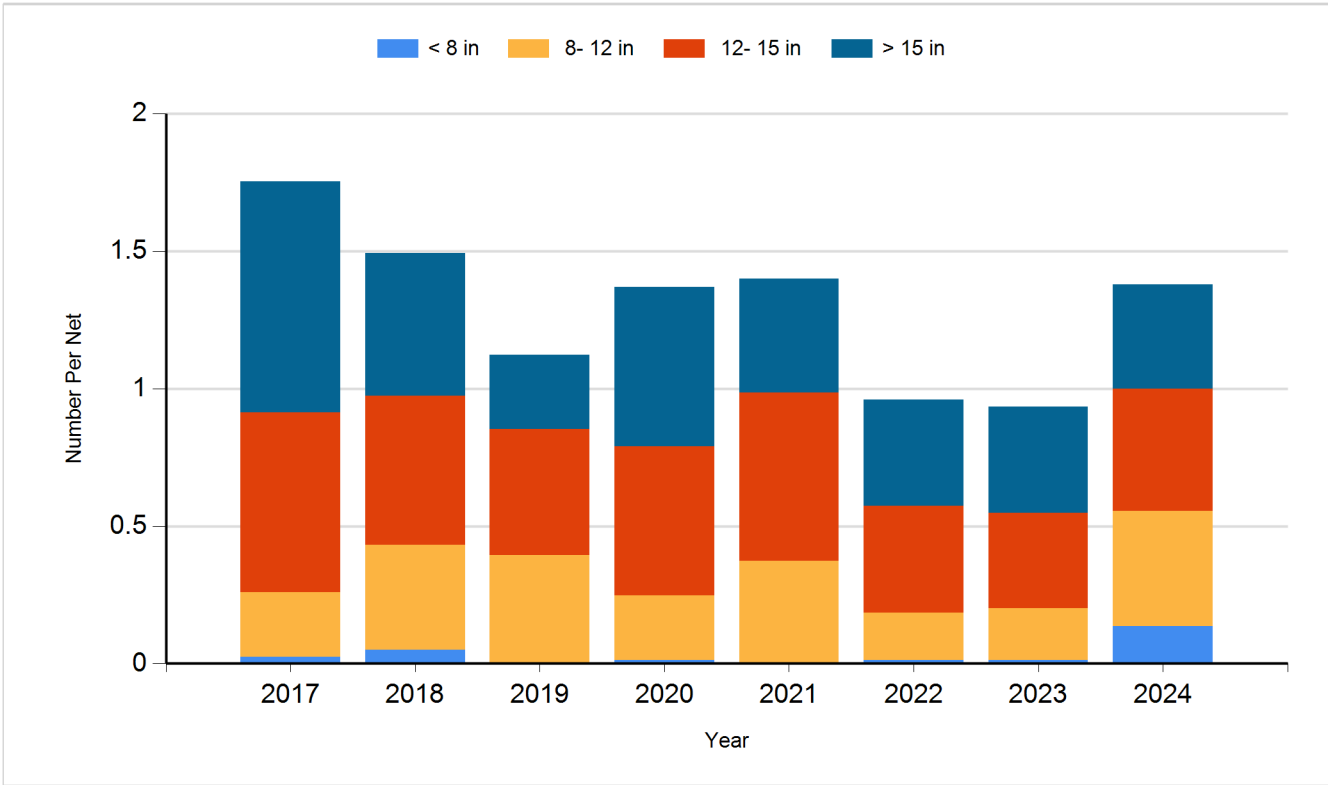
Species: Common Carp
Gear: AFS std gill net



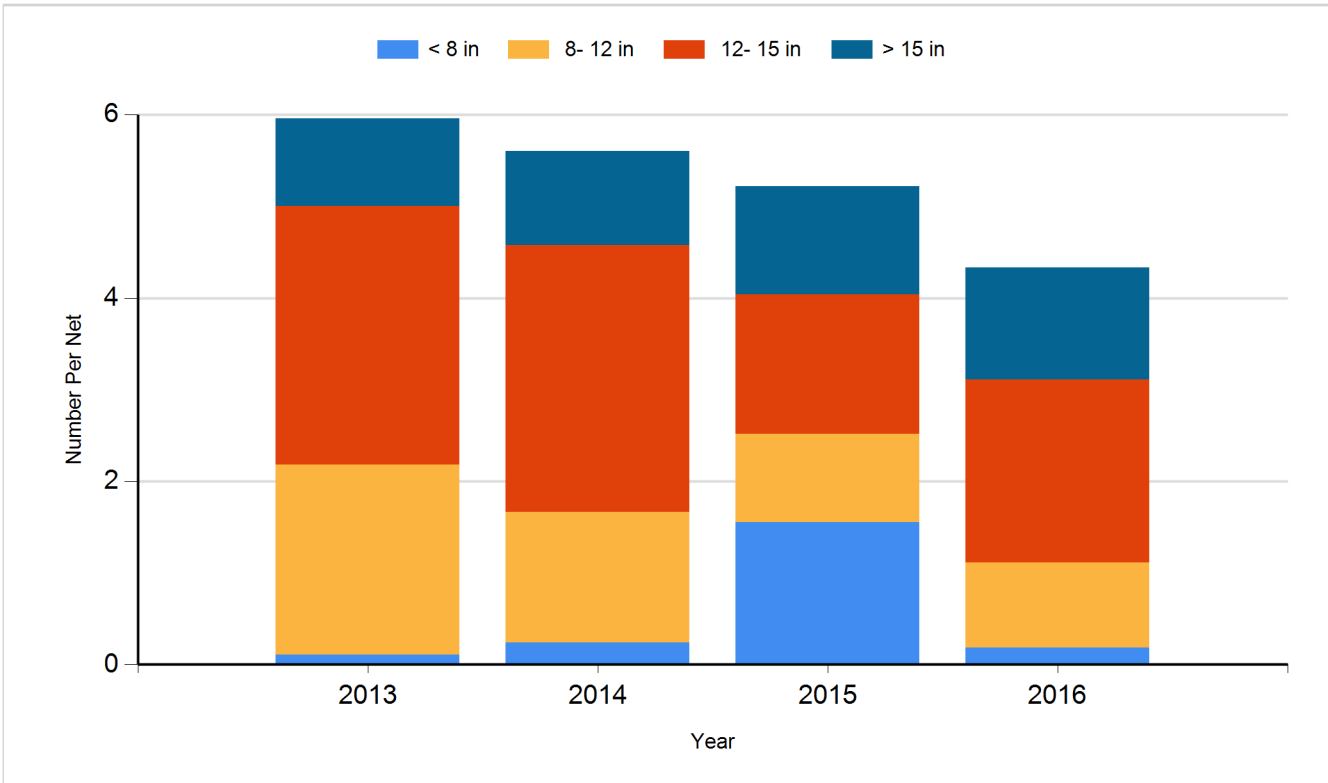
Species: Common Carp
Gear: std exp gill net



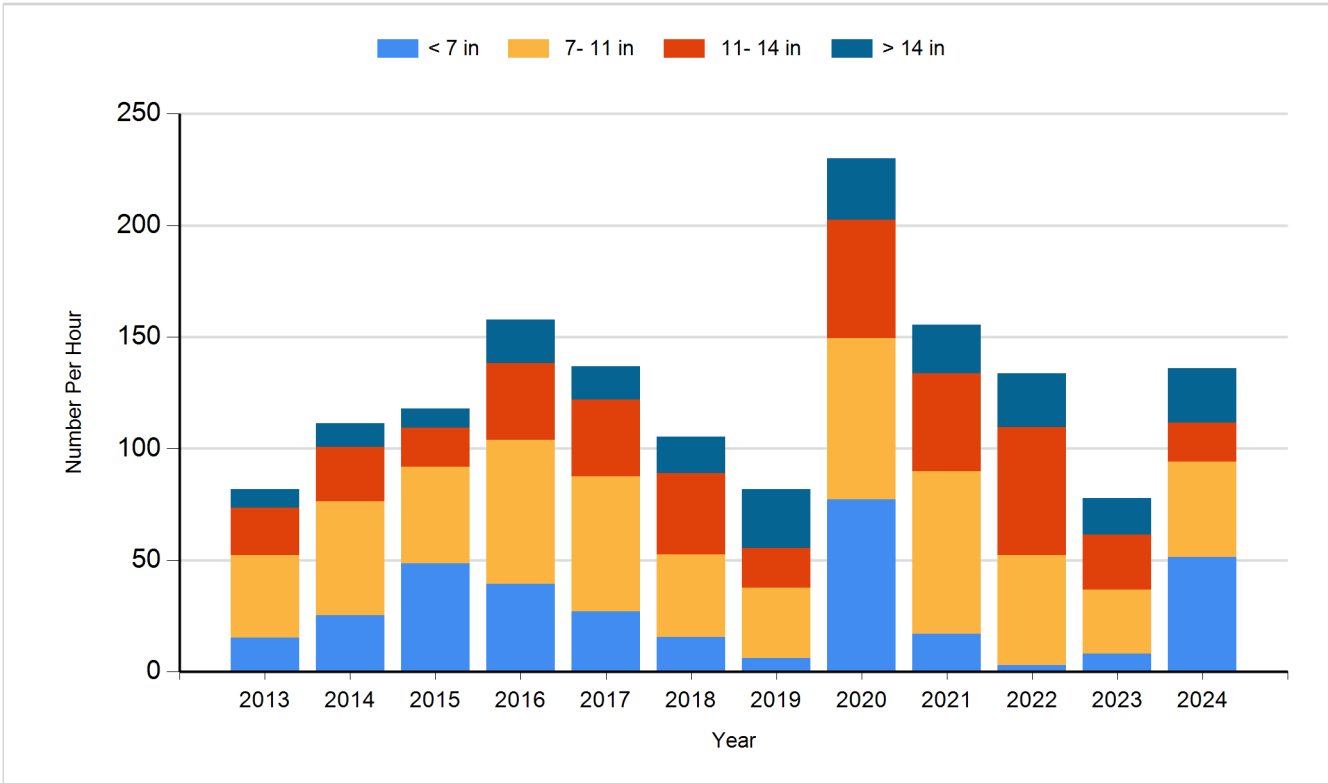
Species: Sauger
Gear: AFS std gill net



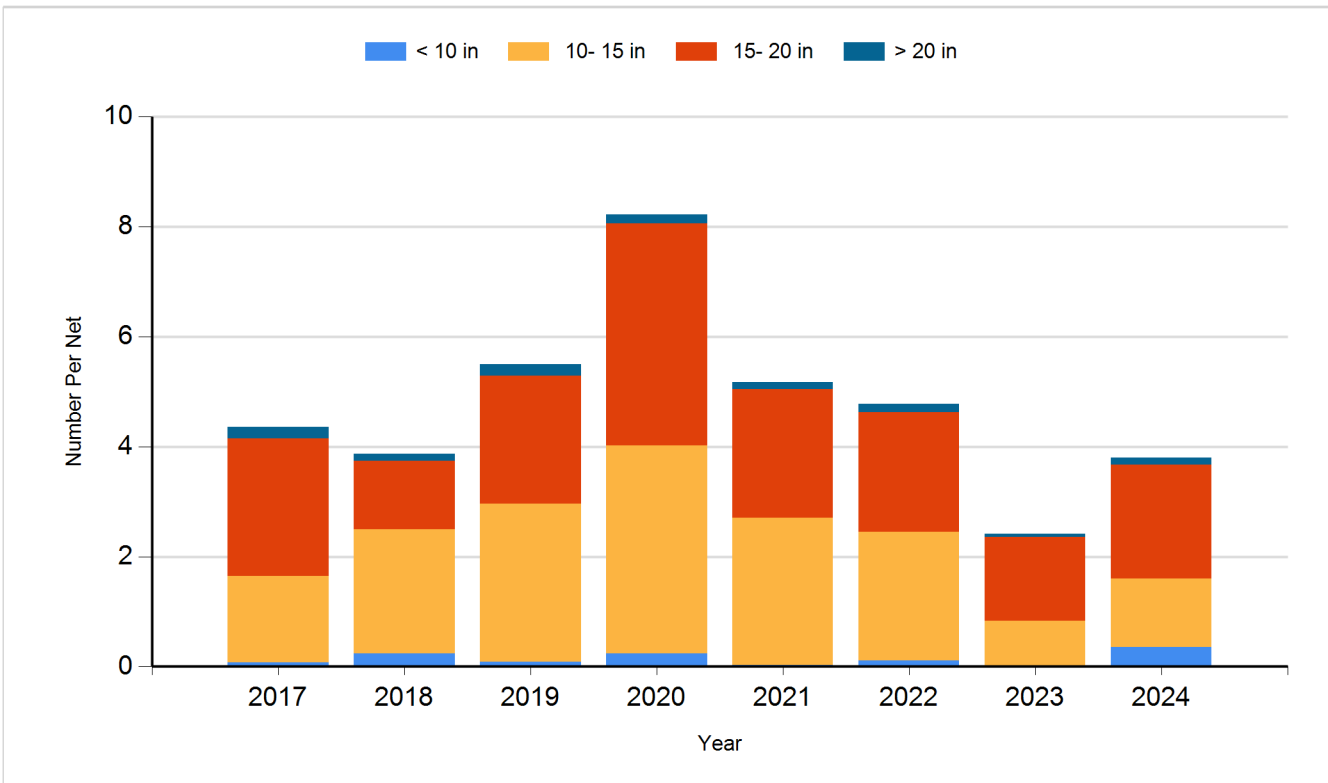
Species: Sauger
Gear: std exp gill net



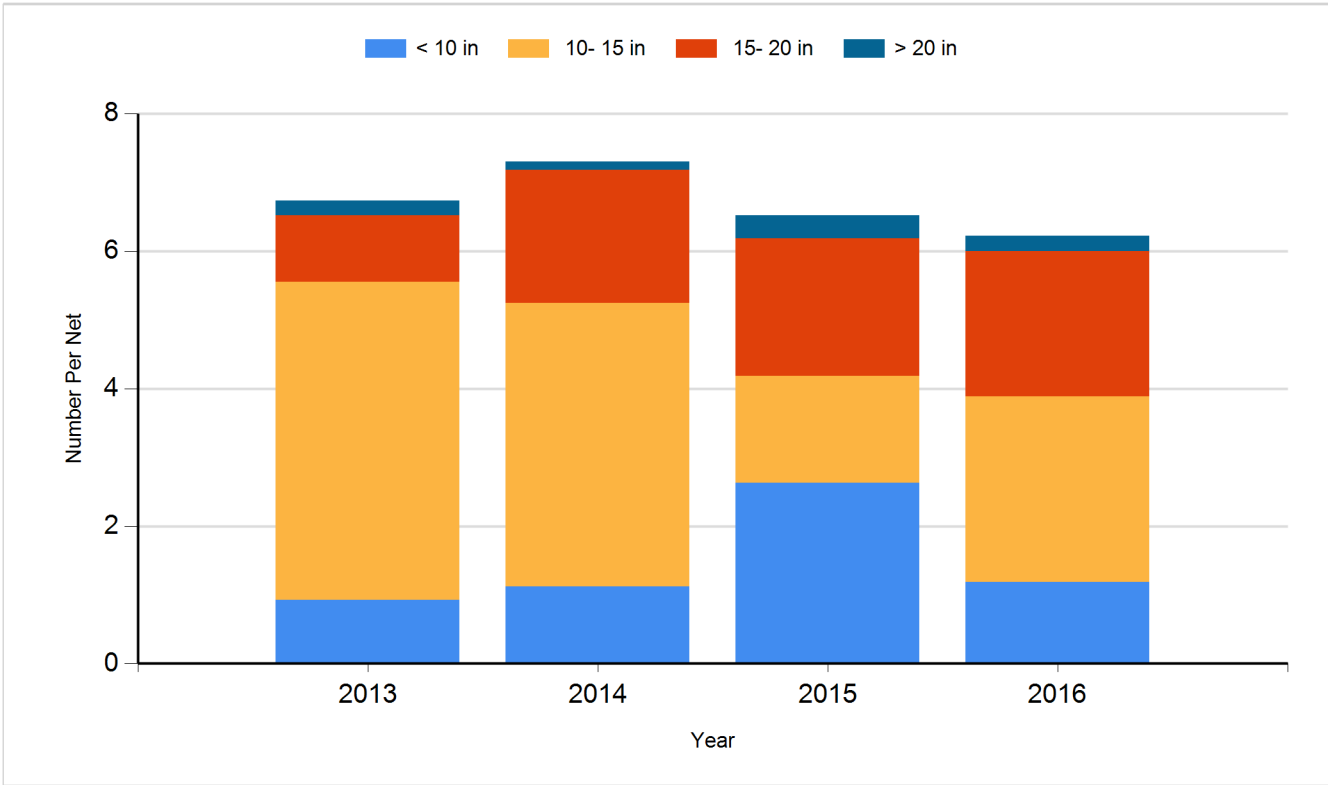
Species: Smallmouth Bass
Gear: boat shocker (night)



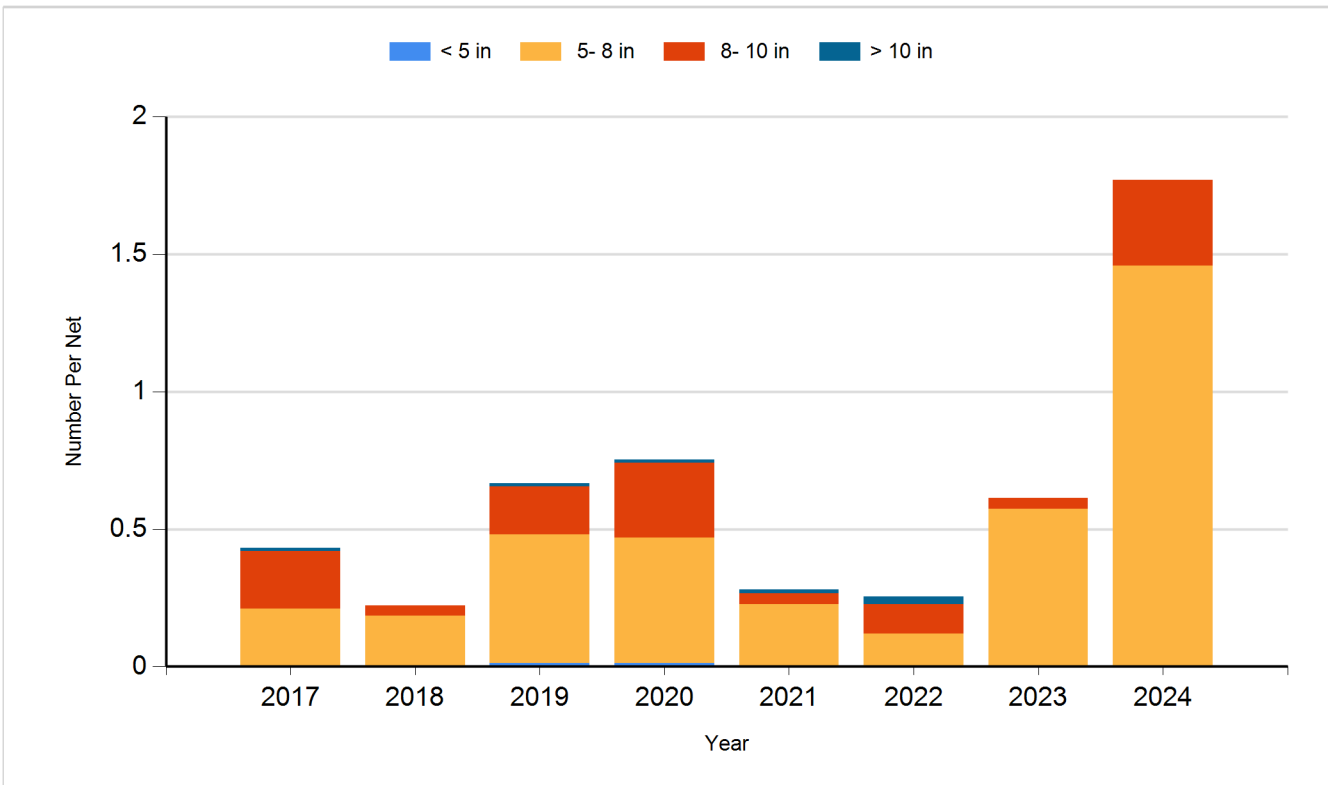
Species: Walleye
Gear: AFS std gill net



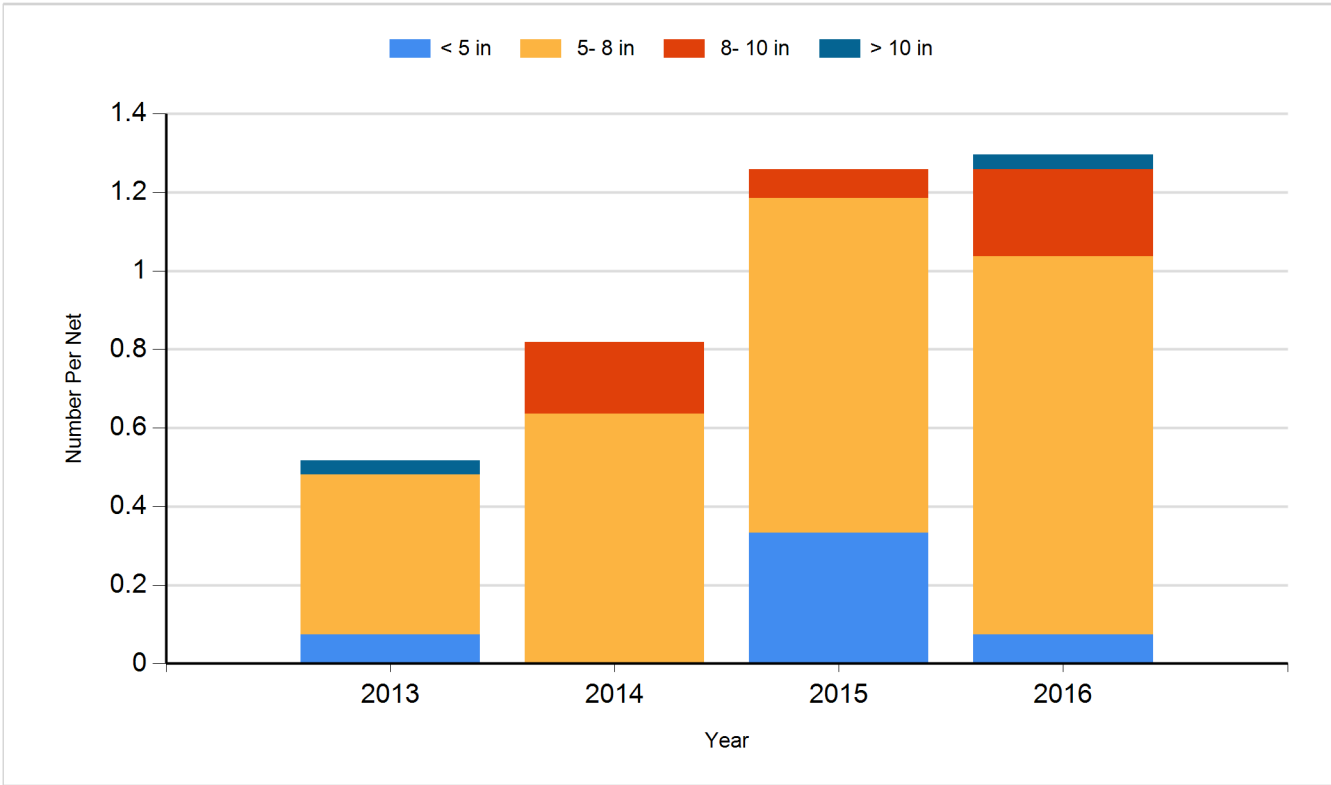
Species: Walleye
Gear: std exp gill net



Species: Yellow Perch
Gear: AFS std gill net



Species: Yellow Perch
Gear: std exp gill net



Fish Stocking

Number of fish stocked by year, species, and size.

Year	Species	Size	Number
2013	Paddlefish	Large Fingerling	3,750
2014	Paddlefish	Juvenile	3,980
2015	Paddlefish	Large Fingerling	31,862
2016	Paddlefish	Large Fingerling	10,071
2017	Paddlefish	Large Fingerling	35,603
2018	Paddlefish	Large Fingerling	24,679
2019	Paddlefish	Large Fingerling	43,204
2020	Paddlefish	Large Fingerling	35,116
2021	Paddlefish	Juvenile	27,444
2022	Paddlefish	Juvenile	30,680
2023	Paddlefish	Juvenile	25,865
2024	Paddlefish	Juvenile	29,478