

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY
Lewis and Clark, Yankton County
LCL-Lake-73-000
2020

Lake Information

Name: Lewis and Clark
County: Yankton
Surface Area: 19,279 Acres

Surveys and Investigations

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

Gear	Date	Effort
AFS gill net (1/2 inch)	Sep 15, 2020	26 net-nights
AFS gill net (1/2 inch)	Sep 16, 2020	10 net-nights
AFS std gill net	Sep 15, 2020	26 net-nights
AFS std gill net	Sep 16, 2020	10 net-nights
boat shocker (night)	May 26, 2020	3600 seconds
fall night EF-WAE	Oct 15, 2020	4200 seconds
fall night EF-WAE	Oct 19, 2020	3000 seconds
large seine	Jul 20, 2020	16 hauls

Common Fish Species Present

Walleye

Smallmouth Bass

Bluegill

Freshwater Drum

Sauger

Spotfin Shiner

Black Crappie

Gizzard Shad

Channel Catfish

White Bass

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	164	3.9	0.6	40	6	11	4	93	1
	Common Carp	2	0.1	0.1	100		50		127	14
	Flathead Catfish	3	0.1	0.1	67		0		91	4
	Freshwater Drum	72	1.6	0.4	97		78	8	100	1
	Goldeye	6	0.0	0.0						
	Northern Pike	1	0.0	0.0	100		100		83	
	River Carpsucker	14	0.4	0.2	100		100		92	2
	Rock Bass	2	0.1	0.1	50		0		99	2
	Sauger	16	0.4	0.1	93		93		83	2
	Shorthead Redhorse	4	0.1	0.1	75		75		106	8
	Smallmouth Buffalo	9	0.2	0.1	83		67		85	4
	Walleye	20	0.6	0.2	90		35	17	92	3
	White Bass	3	0.1	0.1	100		100		101	4
Yellow Perch	3	0.1	0.1	100		67		95	2	
boat shocker (night)	Smallmouth Bass	49	43.0	6.8	40	11	14	8	96	1
large seine*	Bigmouth Buffalo	8	0.5	0.1						
	Black Crappie	87	5.4	0.3						
	Bluegill	589	36.8	3.6						
	Channel Catfish	5	0.3	0.0						
	Common Carp	3	0.2	0.0						
	Flathead Catfish	2	0.1	0.0						
	Freshwater Drum	303	18.9	0.4						
	Gizzard Shad	75	4.7	0.7						
	Largemouth Bass	19	1.2	0.1						
	Orangespotted Sunfish	1	0.1	0.0						
	Rainbow Smelt	1	0.1	0.0						
	River Carpsucker	35	2.2	0.1						
	Shorthead Redhorse	9	0.6	0.0						
	Shortnose Gar	2	0.1	0.0						
	Smallmouth Bass	1	0.1	0.0						

Gear	Species	Sample Size (n)	Abundance		Stock Density Indices			Condition	
			CPUE	CI-80	PSD	CI-80	PSD-P	CI-80	Wr
large seine*	Smallmouth Buffalo	18	1.1	0.1					
	Spotfin Shiner	227	14.2	1.8					
	Stonecat	1	0.1	0.0					
	Walleye	1	0.1	0.1					
	Western Silvery Minnow	2	0.1	0.0					
	White Bass	54	3.4	0.2					
	Yellow Perch	37	2.3	0.7					

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										Avg
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
AFS gill net (1/2 inch)*	Channel Catfish							0.1	0.2	0.0	0.1	0.10
	Common Carp							0.0	0.0	0.0	0.0	0.00
	Freshwater Drum							0.1	0.7	0.4	1.1	0.58
	Gizzard Shad							0.1	2.8	0.6	0.0	0.88
	Sauger							0.1	0.2	0.0	0.5	0.20
	Walleye							0.0	0.2	0.2	0.0	0.10
	Yellow Perch							0.0	0.0	0.0	0.0	0.00
AFS std gill net	Channel Catfish							4.2	2.5	1.1	3.9	2.93
	Common Carp							0.1	0.1	0.1	0.1	0.10
	Flathead Catfish							0.1	0.1	0.1	0.1	0.10
	Freshwater Drum							1.9	3.2	2.9	1.6	2.40
	Gizzard Shad							0.3	1.0	0.0	0.0	0.33
	Goldeye							0.0	0.0	0.0	0.0	0.00
	Northern Pike							0.0	0.0	0.0	0.0	0.00
	Paddlefish							0.0	0.1	0.0	0.0	0.03
	River Carpsucker							0.6	0.1	0.1	0.4	0.30
	Rock Bass							0.0	0.0	0.0	0.1	0.03
	Sauger							0.2	0.6	0.4	0.4	0.40
	Shorthead Redhorse							0.1	0.2	0.1	0.1	0.13
	Shortnose Gar							0.0	0.0	0.0	0.0	0.00
	Smallmouth Bass							0.0	0.0	0.0	0.0	0.00
	Smallmouth Buffalo							0.3	0.0	0.0	0.2	0.13
	Walleye							0.6	0.9	0.4	0.6	0.63
	White Bass							0.1	0.0	0.0	0.1	0.05
Yellow Perch							0.1	0.0	0.0	0.1	0.05	
boat shocker (night)	Largemouth Bass	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.40
	Sauger*	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.83
	Smallmouth Bass	54.6	25.0	94.0	53.0	30.0	7.1	25.0	26.0	11.0	43.0	36.87
	Walleye*	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	1.50
electrofishing (flathead)	Flathead Catfish	16.3	8.8	11.7								12.27
fall night EF- WAE*	Sauger	0.5	28.5	8.3	5.0	0.5	0.0	1.7	20.0	0.0	17.0	8.15
	Walleye	6.5	51.5	48.0	30.0	12.0	56.0	18.0	34.0	38.5	51.5	34.60
large seine*	Bigmouth Buffalo	0.2	0.0	0.0	0.8	0.1	0.1	0.0	0.0	0.0	0.5	0.17

Gear	Species	CPUE										
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avg
large seine*	Black Crappie	2.9	0.7	0.0	0.8	1.5	0.4	0.1	1.6	1.3	5.4	1.48
	Bluegill	1.6	3.3	0.3	0.1	0.3	1.6	3.3	69.2	1.0	36.8	11.75
	Bluntnose Minnow	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
	Central Stoneroller	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Channel Catfish	0.1	0.2	0.1	0.0	0.7	0.5	0.2	0.2	0.0	0.3	0.23
	Common Carp	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.04
	Common Shiner	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Creek Chub	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Emerald Shiner	23.6	9.2	355.1	0.3	5.8	0.0	0.2	0.3	0.0	0.0	39.45
	Fathead Minnow	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06
	Flathead Catfish	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.02
	Freshwater Drum	0.0	0.1	3.1	0.6	2.0	5.0	2.6	1.2	1.3	18.9	3.49
	Gizzard Shad	4.4	0.0	346.8	16.8	5.3	2.5	169.1	86.9	39.3	4.7	67.58
	Golden Shiner	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.01
	Goldeye	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.55
	Grass Pickerel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.01
	Green Sunfish	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.01
	Johnny Darter	0.7	0.6	0.7	6.2	2.3	3.4	0.3	0.2	0.0	0.0	1.44
	Largemouth Bass	0.5	2.0	0.6	3.8	2.9	1.5	0.9	2.2	0.0	1.2	1.55
	Northern Pike	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.10
	Northern Redbelly Dace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Orangespotted Sunfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.01
	Rainbow Smelt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.01
	Red Shiner	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10
	River Carpsucker	0.2	1.7	0.4	0.3	0.2	1.4	3.8	0.1	0.0	2.2	1.03
	Rock Bass	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.0	0.0	0.11
	Sand Shiner	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.01
	Sauger	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.08
	Shorthead Redhorse	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.29
	Shortnose Gar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.01
	Silver Chub	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05
	Smallmouth Bass	0.0	0.5	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.08
	Smallmouth Buffalo	0.4	0.0	0.3	0.8	0.0	0.3	0.1	0.1	0.0	1.1	0.31
	Spotfin Shiner	0.6	0.1	0.3	0.0	0.2	0.8	0.0	0.2	0.3	14.2	1.67
	Spottail Shiner	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02
	Stonecat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.01
	Walleye	0.9	0.0	0.2	0.3	0.0	0.1	0.0	0.0	0.0	0.1	0.16

		CPUE										
Gear	Species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avg
large seine*	Western Silvery Minnow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.02
	White Bass	10.4	0.3	5.4	46.8	30.8	3.1	0.5	1.6	1.0	3.4	10.33
	White Crappie	0.4	0.0	0.0	0.7	0.1	0.0	0.3	0.0	0.0	0.0	0.15
	Yellow Perch	3.0	0.8	14.5	0.3	0.0	7.0	0.4	1.2	0.3	2.3	2.99
std exp gill net	Bigmouth Buffalo	0.0	0.0	0.0	0.0	0.0	0.0					0.00
	Black Crappie	0.0	0.2	0.0	0.0	0.0	0.0					0.03
	Channel Catfish	0.5	4.1	6.8	3.2	6.3	4.0					4.15
	Common Carp	0.1	0.2	0.6	0.2	0.3	0.2					0.27
	Flathead Catfish	0.0	0.0	0.0	0.1	0.0	0.1					0.03
	Freshwater Drum	3.6	0.8	1.1	0.8	0.3	1.3					1.32
	Gizzard Shad	0.0	1.2	0.1	0.3	1.0	8.0					1.77
	Goldeye	0.0	0.0	0.0	0.0	0.0	0.0					0.00
	Northern Pike	0.0	0.3	0.0	0.0	0.0	0.0					0.05
	River Carpsucker	0.3	0.8	1.1	0.6	2.9	0.3					1.00
	Rock Bass	0.3	0.0	0.0	0.0	0.0	0.0					0.05
	Sauger	2.7	1.8	2.7	2.1	1.9	2.5					2.28
	Shorthead Redhorse	0.1	0.9	2.9	2.5	1.3	0.8					1.42
	Shortnose Gar	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					0.00
	Smallmouth Bass	0.0	0.0	0.0	0.0	0.1	0.0					0.02
	Smallmouth Buffalo	0.0	0.3	0.3	0.0	0.3	0.0					0.15
	Walleye	2.3	4.3	3.1	2.1	2.1	3.3					2.87
	White Bass	0.0	0.1	0.0	0.4	0.3	0.8					0.27
	White Crappie	0.0	0.1	0.2	0.0	0.0	0.0					0.05
Yellow Perch	0.0	0.3	1.3	1.2	0.4	0.3					0.58	

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										
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
AFS std gill net	Channel Catfish	PSD								84	65	60	40
		PSD-P								29	35	33	11
		Wr								92	91	96	93
	Gizzard Shad	PSD								27	6	0	
		Wr								98	103		
	Sauger	PSD								100	96	85	93
		PSD-P								100	70	77	93
		Wr								80	77	77	83
	Smallmouth Bass	PSD								0			
		PSD-P								0			
		Wr								99			
	Walleye	PSD								57	71	73	90
		PSD-P								30	23	20	35
		Wr								84	85	87	92
	White Bass	PSD								100	100	100	100
		PSD-P								75	100	100	100
		Wr								102	102	82	101
	boat shocker (night)	Sauger	PSD							76			
PSD-P									24				
Smallmouth Bass		PSD	22	40	30	45	17	26	20	31	36	40	
		PSD-P	4	16	3	11	0	8	0	12	9	14	
		Wr	91	93	93	93	97	96	102	94	92	96	
Walleye		PSD								74			
		PSD-P								21			
std exp gill net		Black Crappie	PSD		100								
	PSD-P			50									
	Wr			94									
	Channel Catfish	PSD	83	67	43	61	78	77					
		PSD-P	0	12	4	13	7	8					
		Wr	102	80	87	86	88	92					
	Gizzard Shad	PSD		7	100	0	0	15					
		Wr		99	34	123	112	100					

Gear	Species	Index	Year												
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020			
std exp gill net	Sauger	PSD	100	95	69	80	70	77							
		PSD-P	59	76	50	56	39	57							
		Wr	76	77	76	82	78	86							
	Smallmouth Bass	PSD						0							
		PSD-P						0							
		Wr						88							
	Walleye	PSD	71	83	59	48	44	68							
		PSD-P	14	6	16	0	0	15							
		Wr	81	83	85	90	85	96							
	White Bass	PSD		100	0	100	67	22							
		PSD-P		100	0	0	67	11							
		Wr		96		96	97	95							

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								
2019	1	4	192 (54)																	
2018	2	13	98 (3.8)	188 (5.3)																
2017	3	12	100 (4.3)	168 (6.8)	221 (7.9)															
2016	4	7	92 (3.5)	160 (14.4)	237 (12.9)	277 (16)														
2015	5	6	92 (7.1)	166 (16.1)	231 (17.4)	285 (11.2)	323 (8.8)													
2014	6	2	98 (9.2)	164 (18.5)	234 (.5)	280 (1)	314 (7.5)	339 (8.5)												
2013	7	2	111 (6.9)	157 (30.3)	222 (68.2)	275 (79.3)	339 (69.4)	381 (53.3)	406 (47.1)											
Weighted Mean		46	106	172	228	280	324	360	406											
Year Class	Age	N	11	12	13	14	15	16	17	18	19	20								
2019	1	4																		
2018	2	13																		
2017	3	12																		
2016	4	7																		
2015	5	6																		
2014	6	2																		
2013	7	2																		
Weighted Mean		46																		

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+
2017	164	216 (8)	299 (22)	398 (13)	455 (12)	493 (8)	563 (21)	582 (33)	609 (21)	655 (13)	719 (15)
2012	70	203 (8)	282 (16)	373 (16)	456 (10)	473 (8)	550 (5)	557 (1)	623 (1)		608 (5)

Species: Sauger

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2020	13		394 (3)		441 (7)	449 (2)		455 (1)			
2019	13	283 (2)		405 (7)	414 (2)	497 (2)					
2018	23	272 (1)	371 (9)	435 (3)	487 (5)	513 (1)	472 (3)				448 (1)
2017	6			477 (4)	530 (1)					462 (1)	
2016	24	347 (7)	408 (11)	415 (1)	493 (4)			478 (1)			
2015	23	293 (10)	363 (4)	406 (7)			447 (1)				447 (1)
2014	24	302 (5)	380 (15)			408 (2)		516 (1)	495 (1)		
2013	32	289 (11)	324 (4)	398 (3)	411 (3)	440 (6)	456 (4)	404 (1)			
2012	20	314 (1)	369 (1)	416 (3)	433 (13)	431 (2)					
2011	32		354 (7)	387 (16)	415 (5)	413 (1)	498 (1)	495 (2)			

Species: Smallmouth Bass

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2020	48	221 (4)	206 (14)	234 (12)	281 (8)	339 (6)	348 (2)	417 (2)			
2019	18	115 (5)	164 (4)	237 (5)	313 (3)	401 (1)					
2018	27		200 (16)	282 (8)	362 (2)			460 (1)			
2017	28	127 (3)	225 (20)	293 (3)	317 (2)						
2016	40	119 (2)	208 (17)	272 (15)	314 (3)	357 (2)	417 (1)				
2015	30		205 (8)	260 (19)	309 (3)						
2014	56	91 (1)	205 (18)	279 (21)	323 (12)	350 (3)	368 (1)				

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2013	108	131 (13)	205 (42)	270 (35)	290 (15)	360 (2)		465 (1)	500 (1)		
2012	23		193 (4)	260 (13)	344 (6)						
2011	147	106 (5)	180 (60)	251 (64)	298 (14)	404 (1)	387 (3)				

Species: Walleye

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2020	20	282 (1)	379 (1)	434 (1)	469 (8)	434 (1)	464 (1)	576 (2)	612 (1)		515 (4)
2019	15	269 (1)	354 (1)	398 (8)	437 (2)			592 (2)	672 (1)		
2018	31	270 (1)	377 (12)	438 (7)	501 (2)	541 (2)		657 (1)	465 (1)	518 (4)	499 (1)
2017	26	284 (12)	401 (3)	475 (1)	493 (1)	530 (5)		603 (1)	531 (2)		524 (1)
2016	40	350 (12)	415 (10)	495 (4)	445 (7)	537 (1)		584 (2)	471 (3)	523 (1)	
2015	27	287 (12)	369 (5)	418 (4)	467 (2)	434 (1)	460 (1)	470 (2)			
2014	25	301 (6)	377 (12)	417 (3)		422 (1)	495 (1)	443 (1)	433 (1)		
2013	37	293 (9)	381 (9)	466 (1)	439 (3)	461 (8)	523 (5)	475 (1)			530 (1)
2012	53	300 (6)	369 (4)	416 (13)	453 (18)	457 (7)	444 (1)	477 (1)	541 (1)		552 (2)
2011	28		341 (7)	405 (9)	460 (9)	497 (1)	513 (1)		628 (1)		

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).

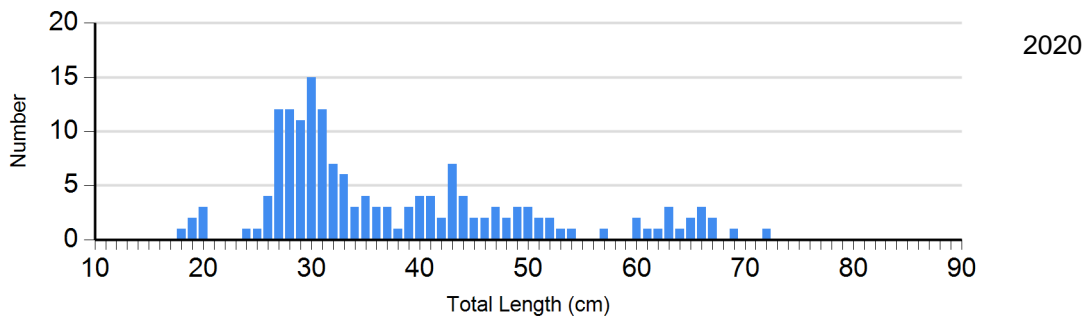
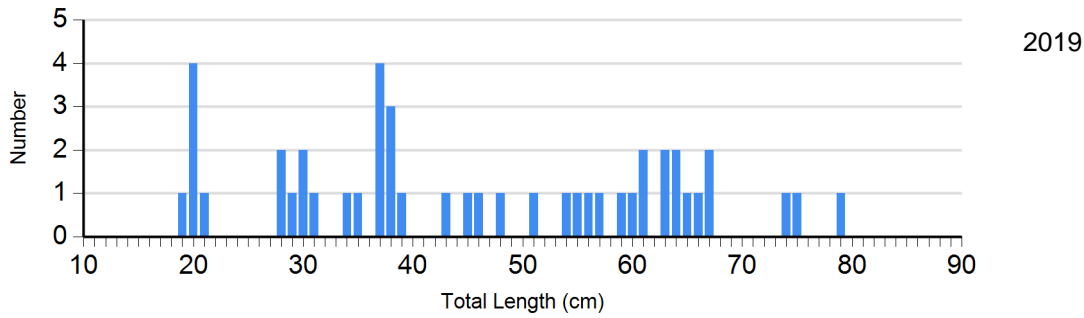
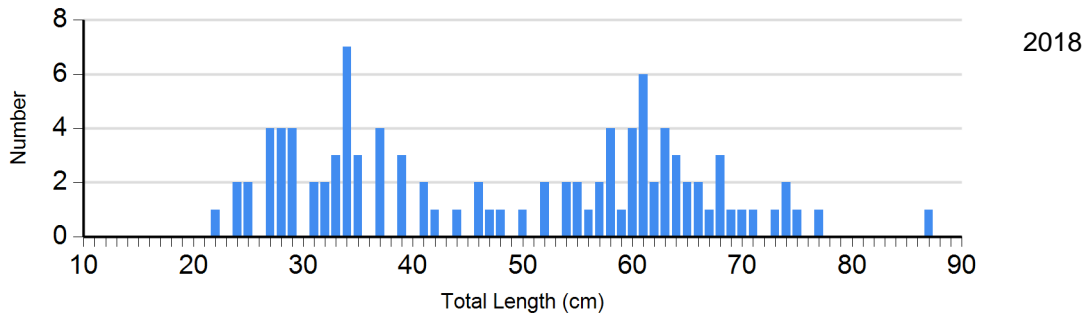
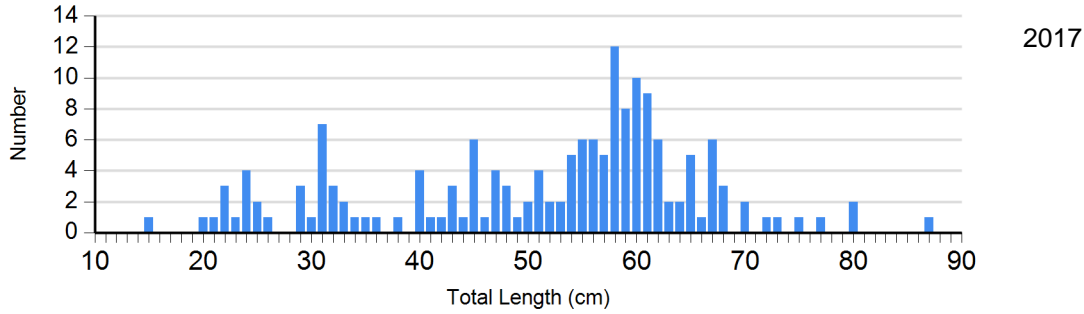
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Channel Catfish Gill Net	2016	11	94 (1.7)	33	91 (1.2)	4	90 (2.6)	0	
	2017	24	86 (1.1)	83	93 (0.7)	36	94 (0.9)	7	102 (4.0)
	2018	32	90 (1.4)	27	93 (2.5)	25	91 (1.7)	7	91 (2.9)
	2019	16	94 (1.5)	11	95 (2.0)	10	96 (3.4)	3	109 (2.2)
	2020	84	92 (0.9)	41	92 (1.4)	14	96 (2.4)	1	86
Sauger Gill Net	2016	7	92 (5.4)	6	93 (2.4)	17	81 (2.6)	0	
	2017	0		0		5	81 (5.0)	1	78
	2018	1	79	6	79 (2.0)	13	76 (1.0)	3	76 (2.3)
	2019	2	81 (9.3)	1	81	10	76 (1.6)	0	
	2020	1	83	0		13	83 (1.4)	0	
Smallmouth Bass Electro Fishing	2016	28	98 (1.6)	7	88 (3.1)	3	97 (3.4)	0	
	2017	20	102 (1.9)	5	100 (3.0)	0		0	
	2018	18	95 (1.5)	5	94 (2.8)	2	88 (2.1)	1	101
	2019	7	87 (2.7)	3	99 (4.0)	1	101	0	
	2020	26	97 (1.3)	11	96 (1.2)	5	92 (2.1)	1	76
Walleye Gill Net	2016	13	97 (2.2)	21	96 (1.7)	6	94 (2.4)	0	
	2017	10	84 (1.5)	6	82 (1.9)	7	86 (1.0)	0	
	2018	9	83 (1.8)	15	86 (1.4)	6	85 (2.6)	1	84
	2019	4	90 (4.9)	8	89 (2.2)	2	82 (9.3)	1	70
	2020	2	88 (4.3)	11	95 (3.0)	7	87 (2.7)	0	
White Bass Gill Net	2016	7	95 (4.6)	1	99	0		1	93
	2017	0		1	106	3	100 (2.3)	0	

Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
White Bass	2018	0		0		1	102	0	
Gill Net	2019	0		0		0		1	82
	2020	0		0		1	104	1	98

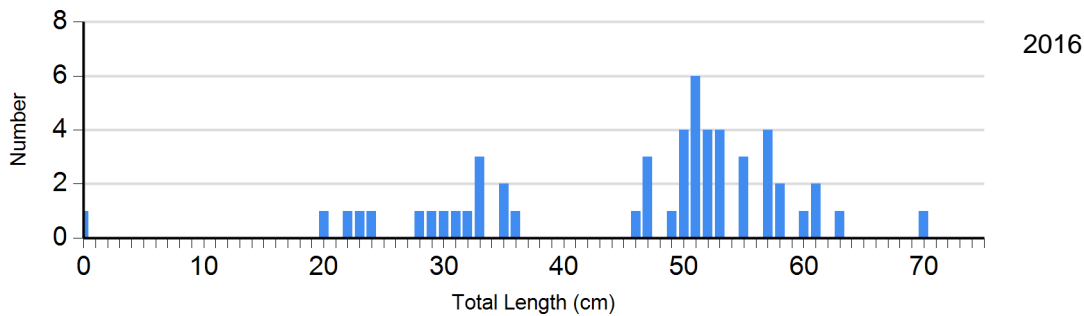
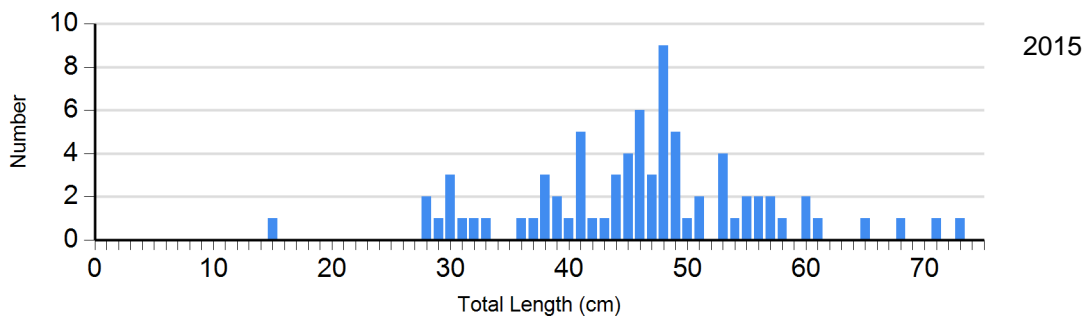
Length Frequency Distribution

Length frequency histogram of species sampled by year.

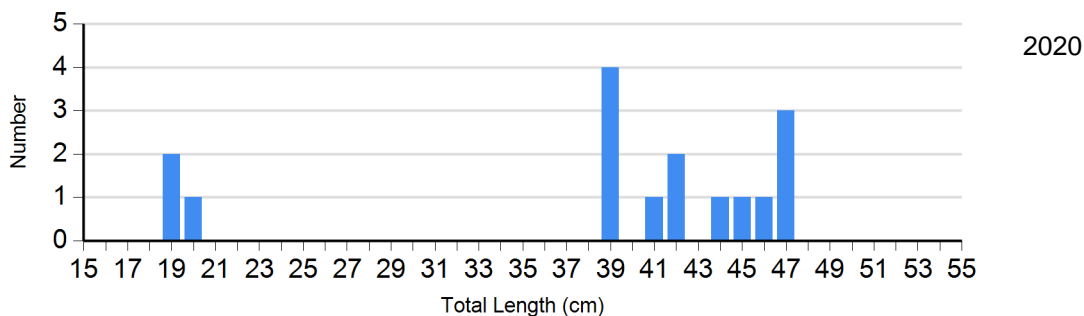
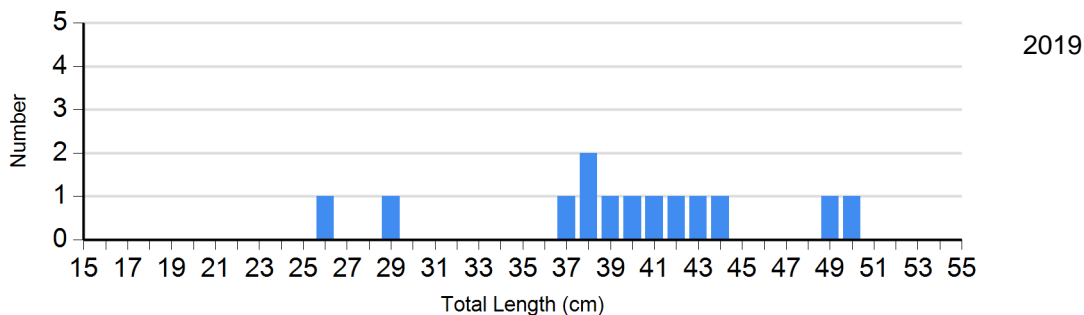
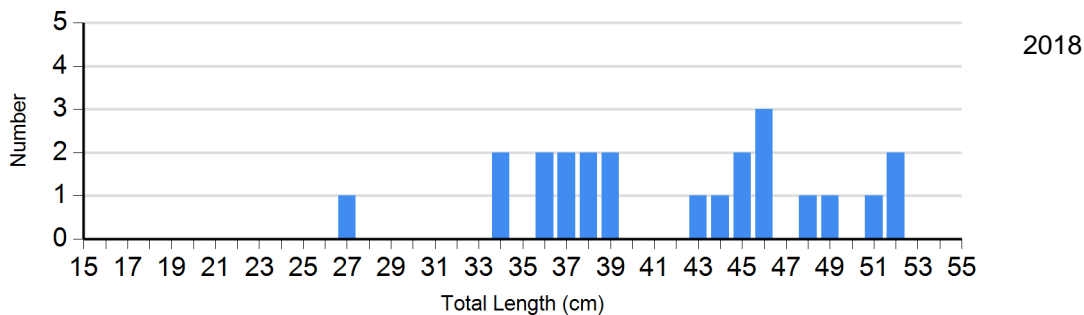
Species: Channel Catfish
Gear: AFS std gill net



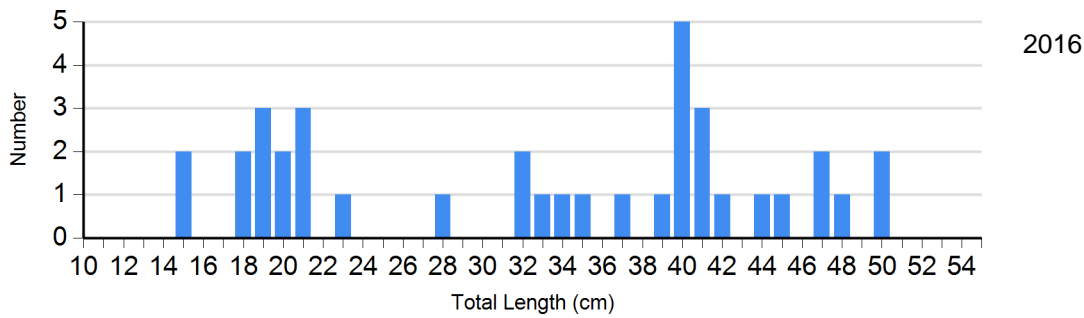
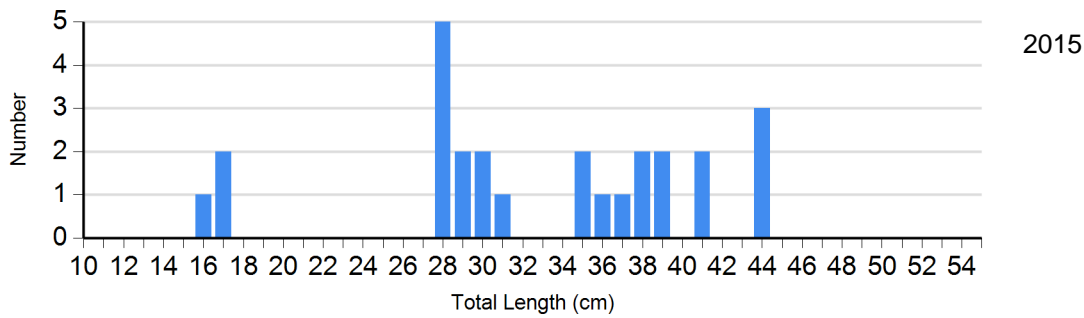
Species: Channel Catfish
 Gear: std exp gill net



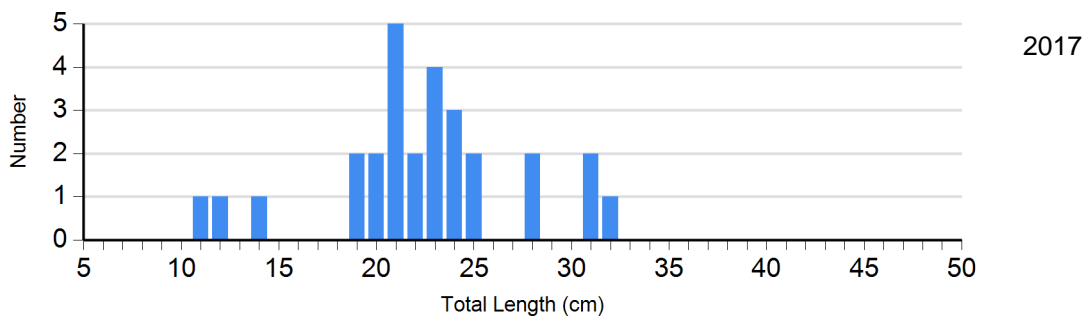
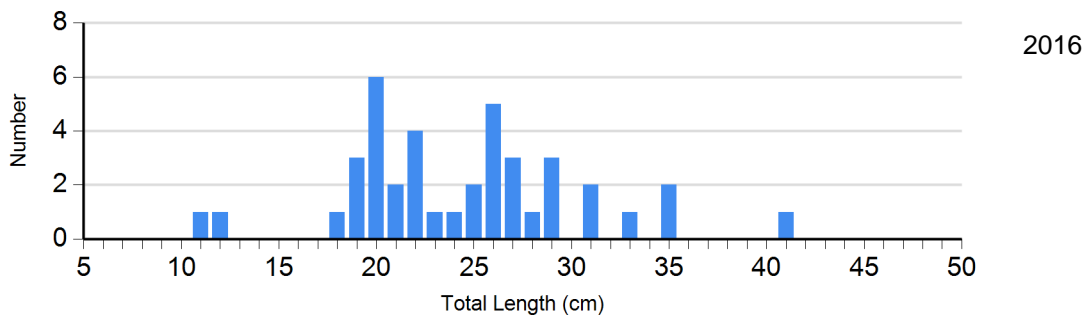
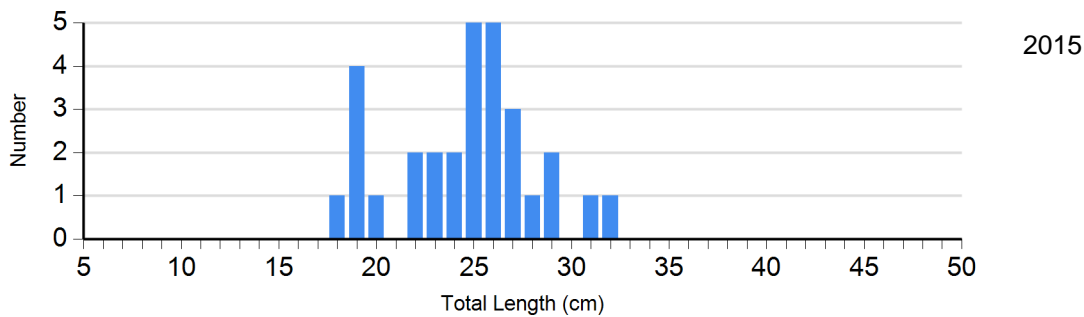
Species: Sauger
 Gear: AFS std gill net

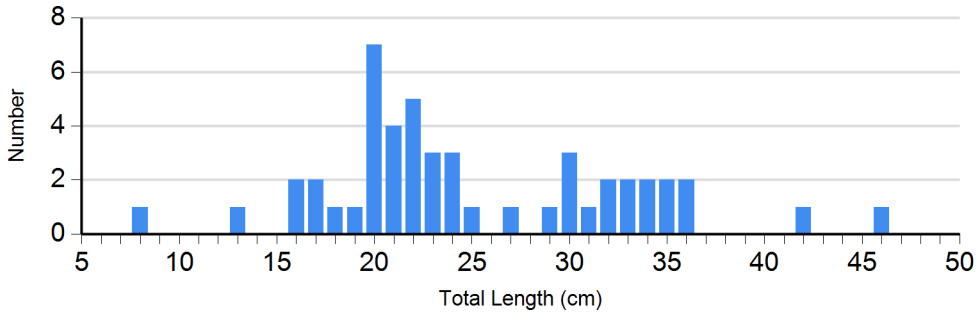
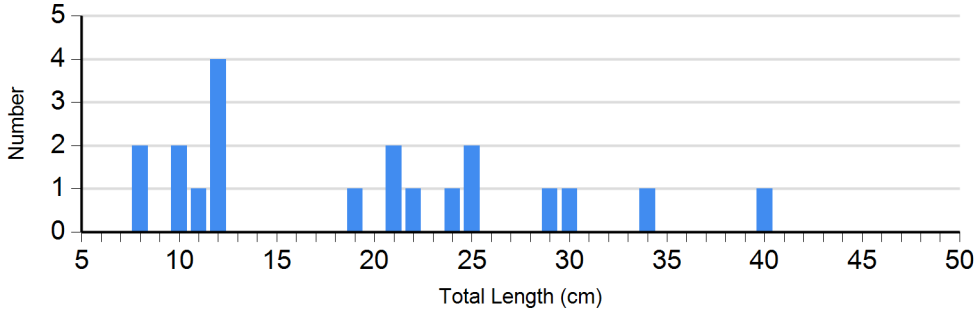
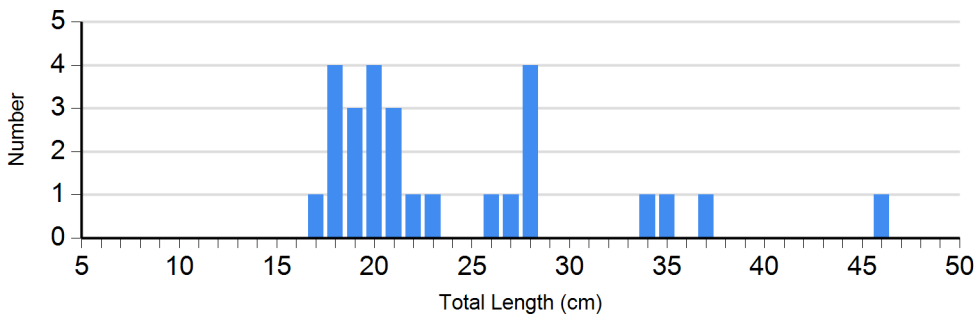


Species: Sauger
 Gear: std exp gill net

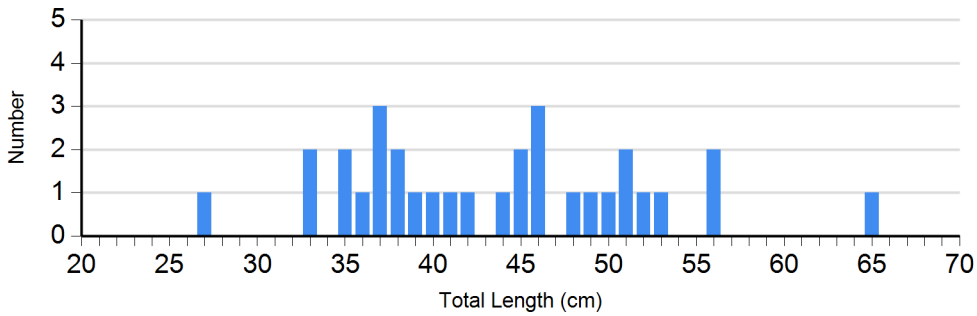
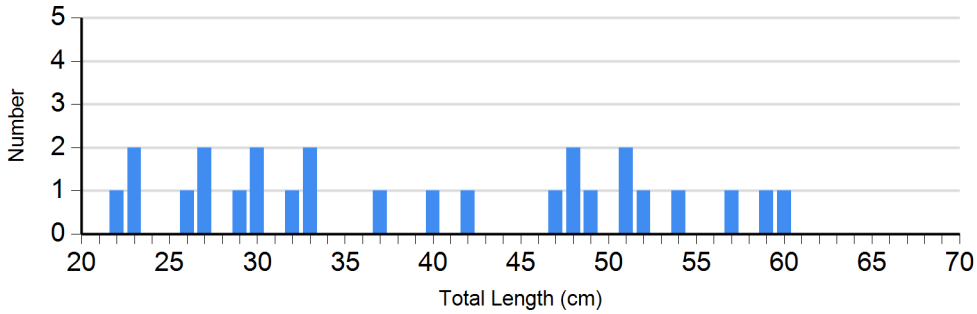


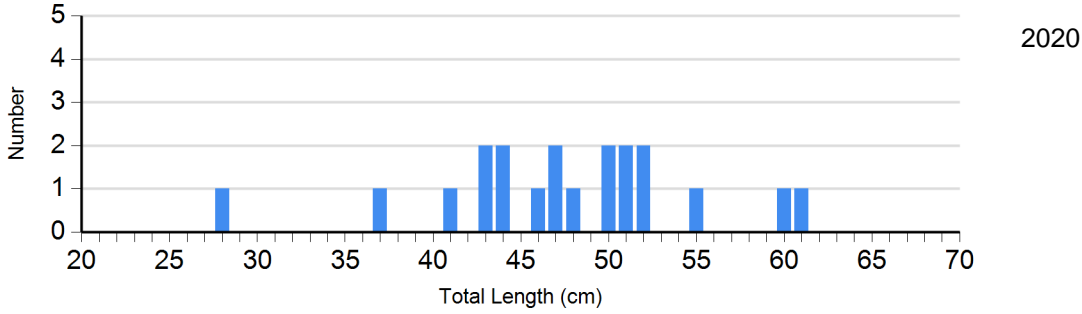
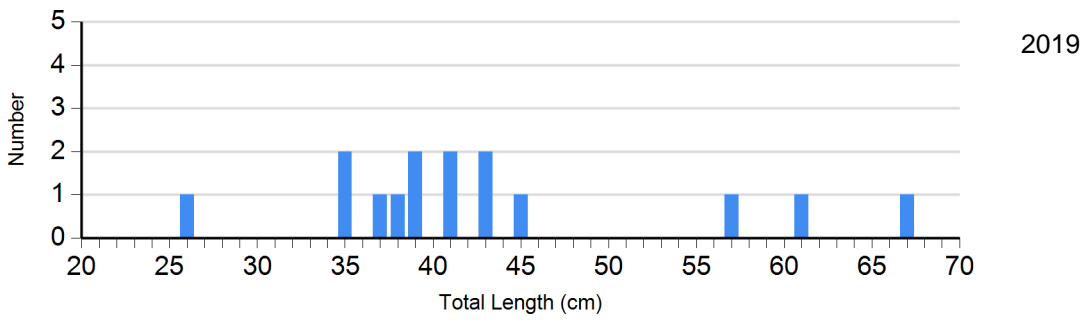
Species: Smallmouth Bass
 Gear: boat shocker (night)



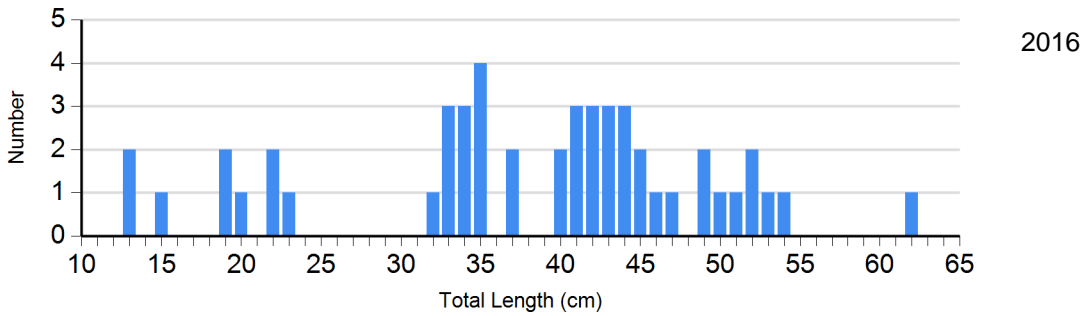
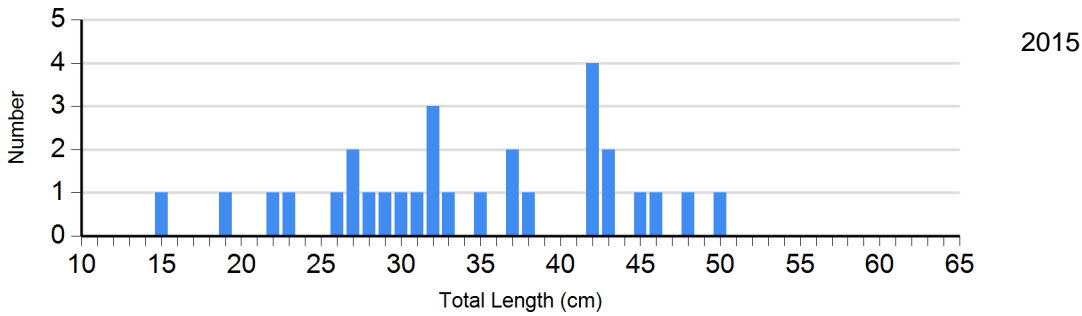


Species: Walleye
Gear: AFS std gill net

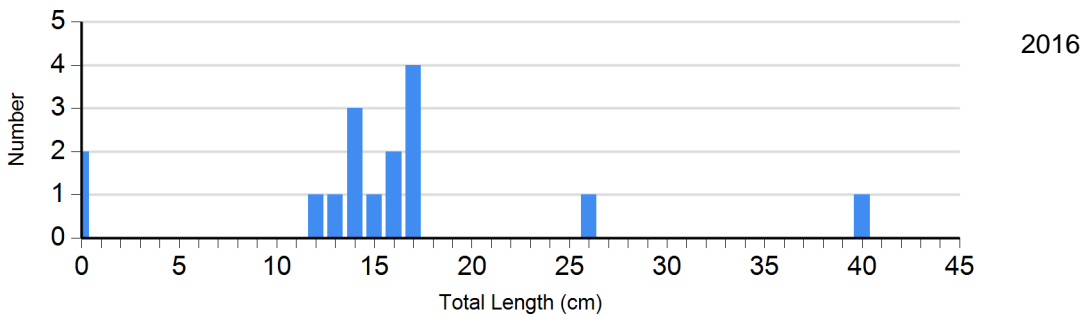




Species: Walleye
Gear: std exp gill net



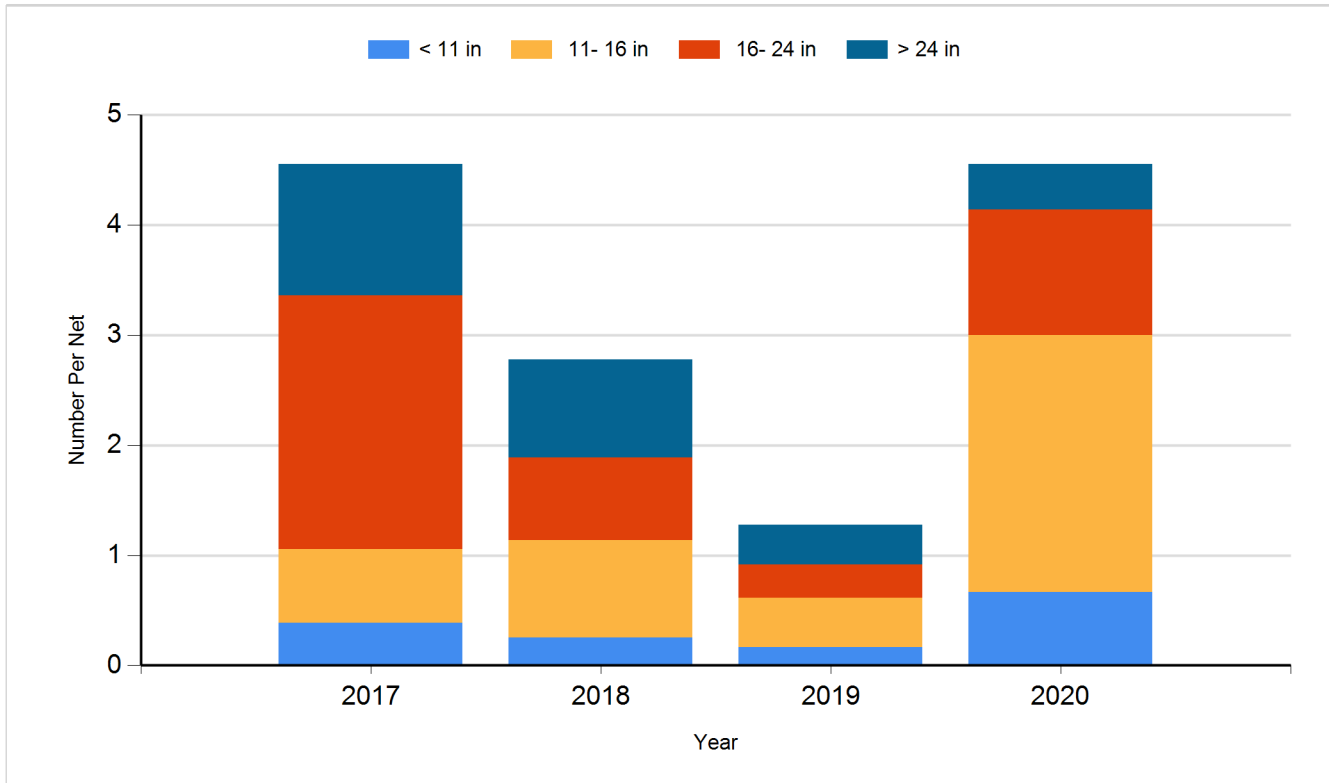
Species: White Bass
Gear: std exp gill net



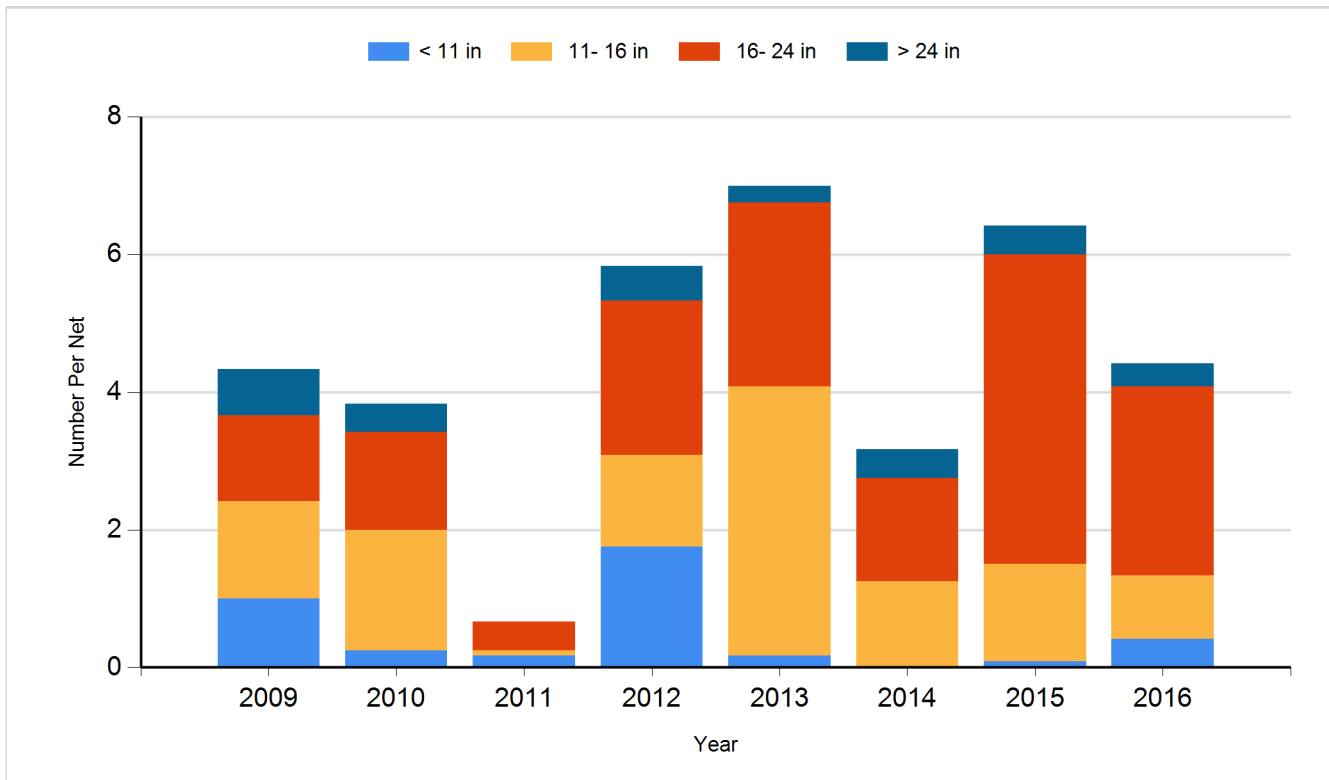
Historic Fish Sizes and Relative Abundance

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

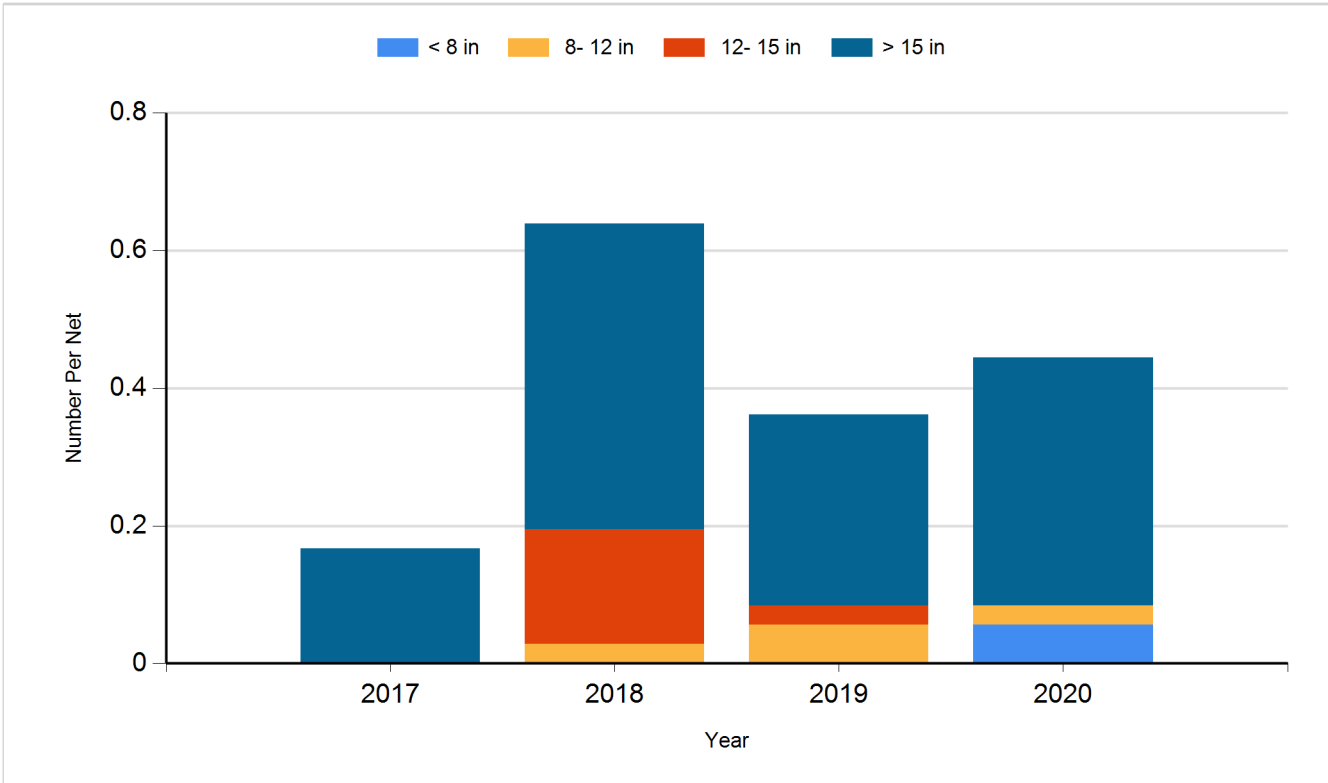
Species: Channel Catfish
Gear: AFS std gill net



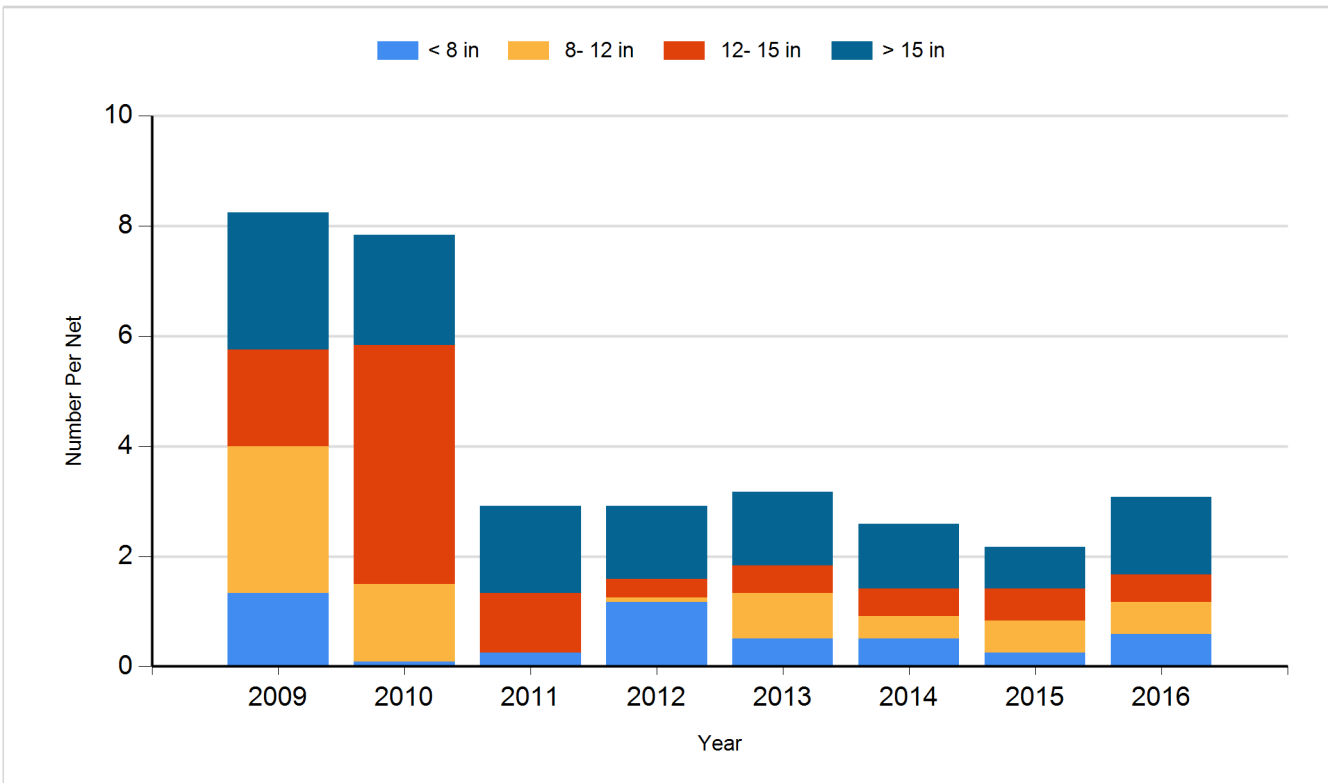
Species: Channel Catfish
Gear: std exp gill net



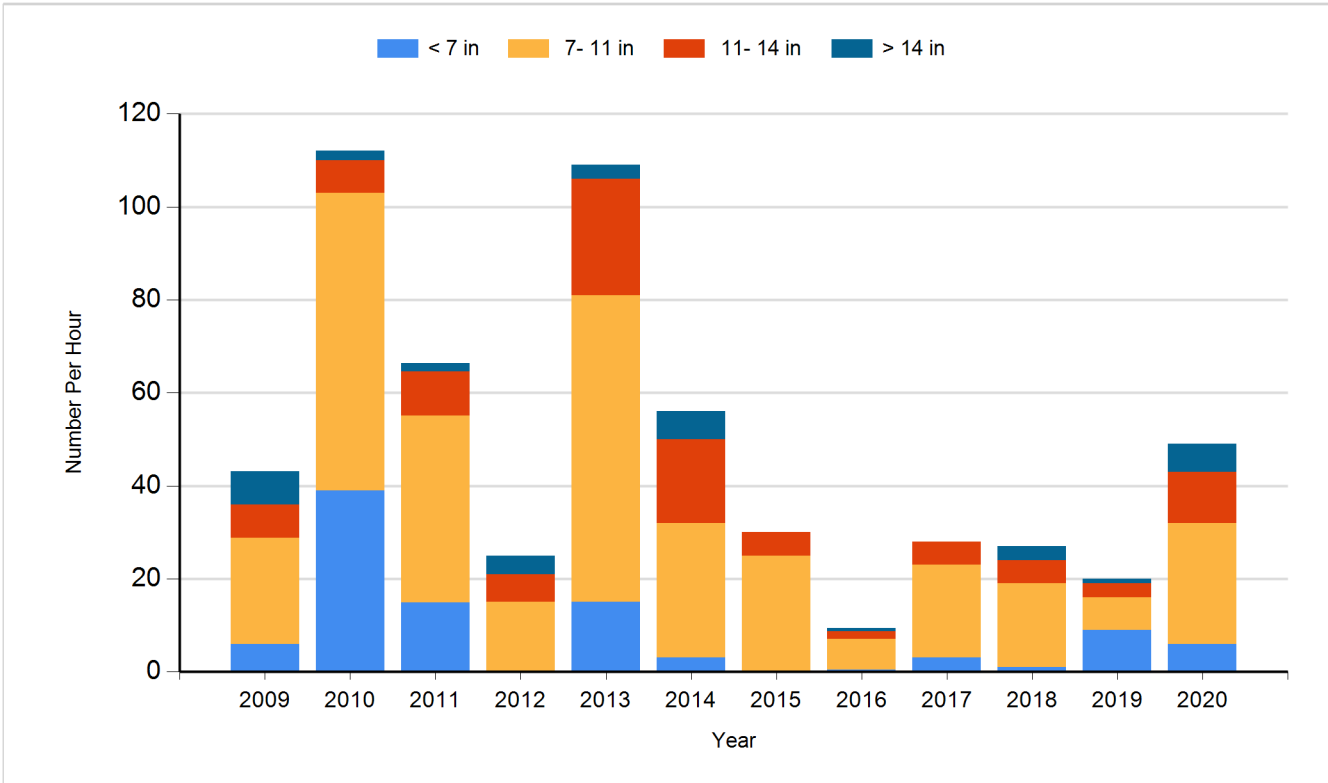
Species: Sauger
Gear: AFS std gill net



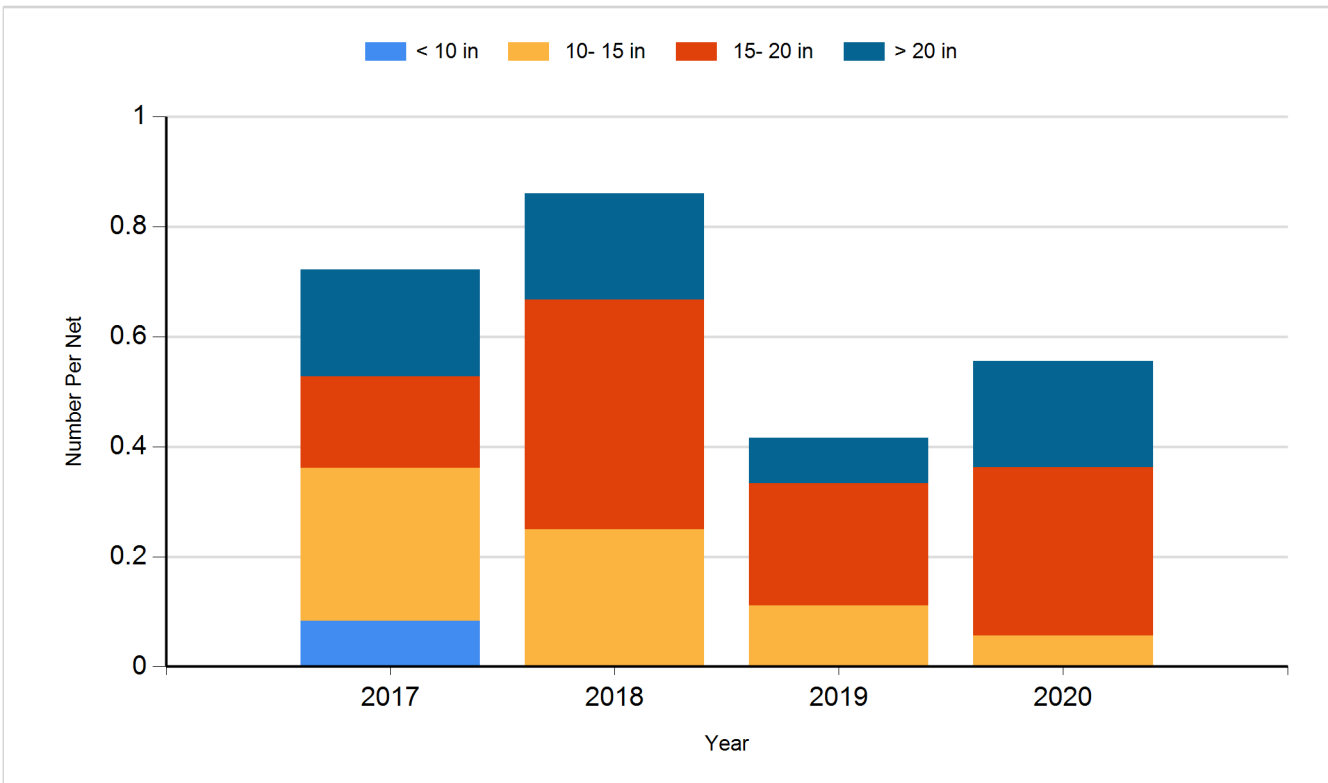
Species: Sauger
Gear: std exp gill net



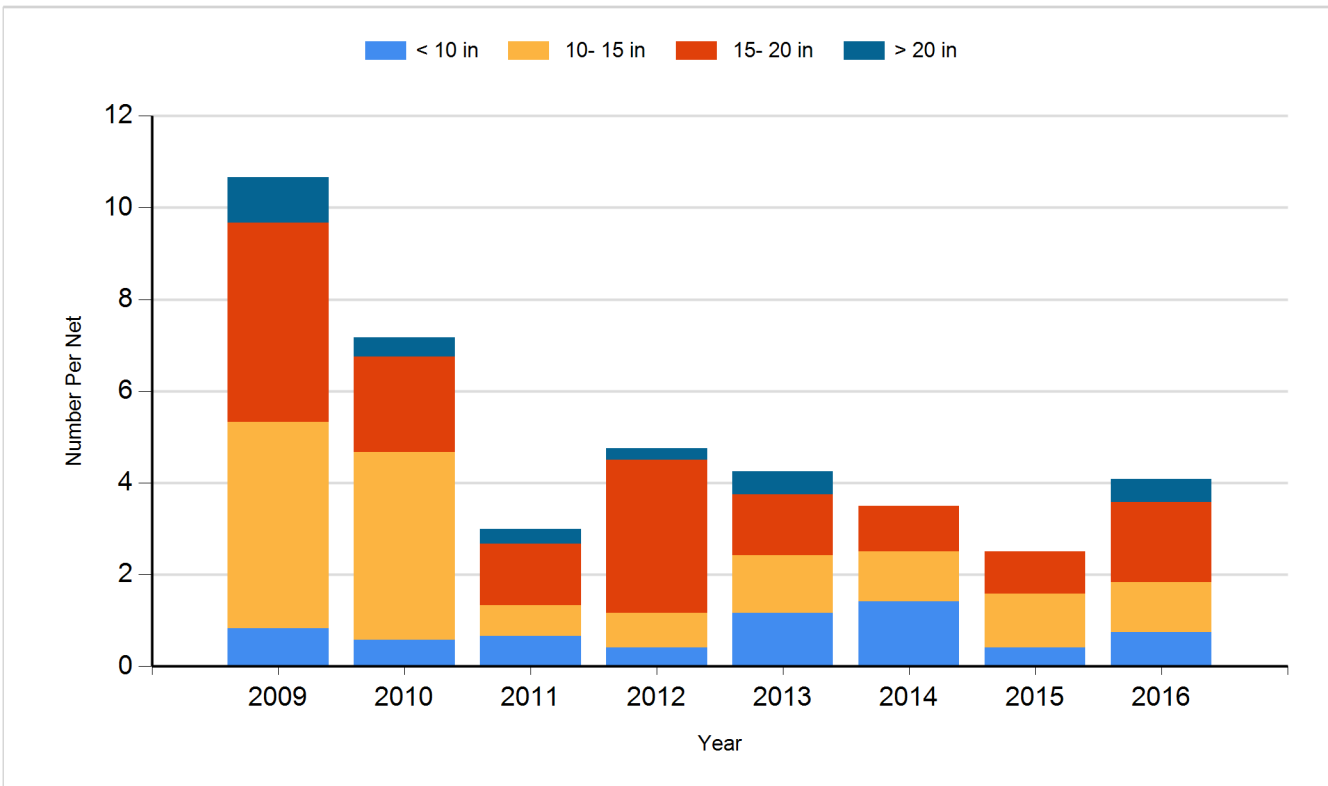
Species: Smallmouth Bass
 Gear: boat shocker (night)



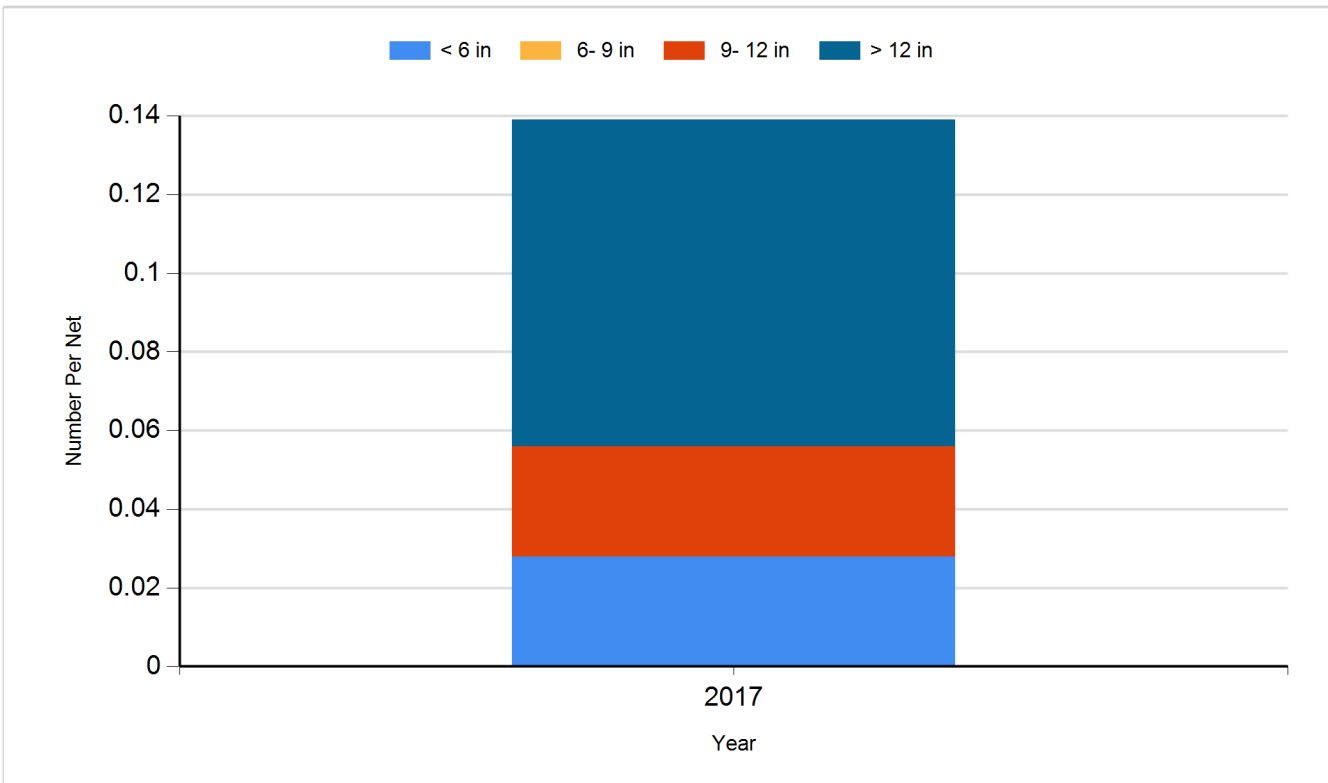
Species: Walleye
 Gear: AFS std gill net



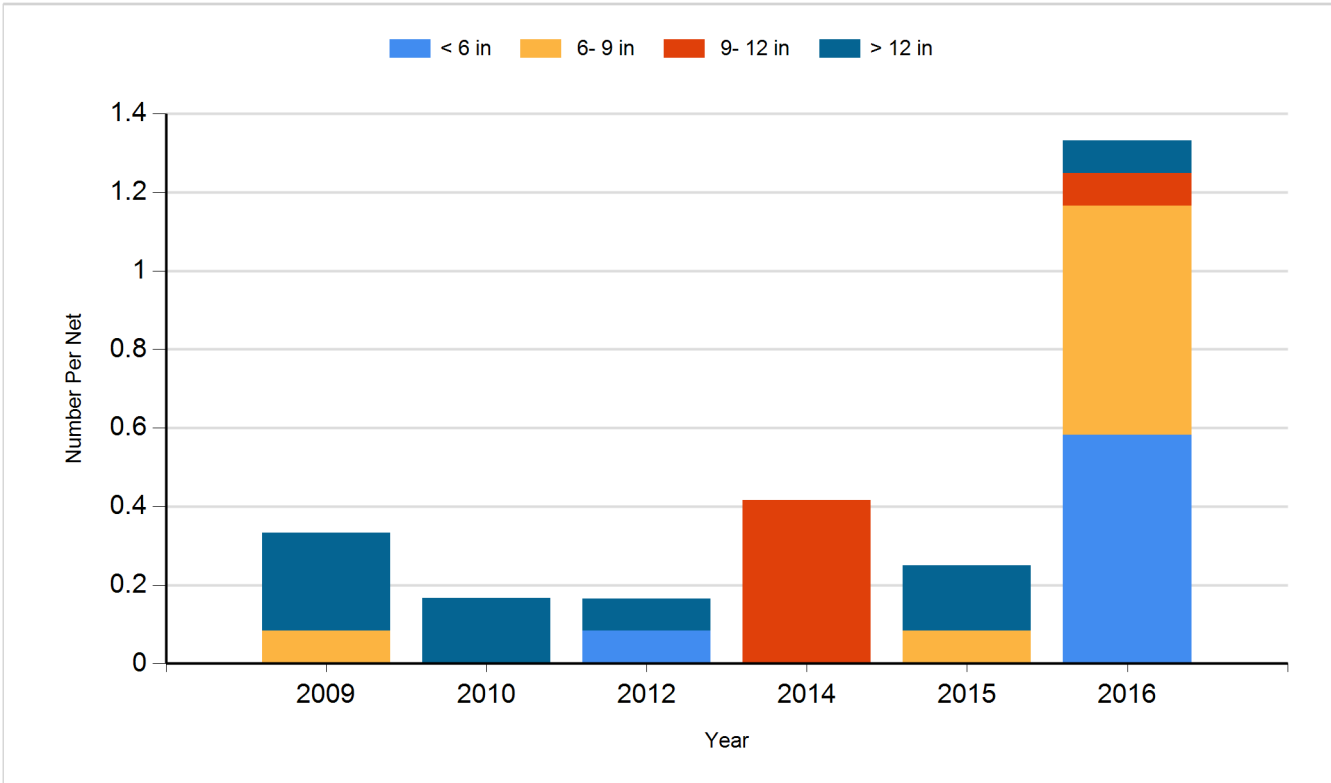
Species: Walleye
Gear: std exp gill net



Species: White Bass
Gear: AFS std gill net



Species: White Bass
Gear: std exp gill net



Fish Stocking

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

Year	Species	Size	Number
2015	Walleye	Fry	12,800,000
2019	Walleye	Fingerling	1,819,269