

# SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

Francis Case, Charles Mix County

FTR-Lake-6327-000

2016

## 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
boat shocker (night)	Jun 01, 2016	2700 seconds
boat shocker (night)	Jun 02, 2016	2700 seconds
boat shocker (night)	Jun 07, 2016	2700 seconds
boat shocker (night)	Jun 08, 2016	2700 seconds
boat shocker (night)	May 31, 2016	2700 seconds
std exp gill net	Sep 07, 2016	9 net-nights
std exp gill net	Sep 09, 2016	6 net-nights
std exp gill net	Sep 13, 2016	12 net-nights

## **Common Fish Species Present**

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Smallmouth Bass

Channel Catfish

Walleye

Gizzard Shad

Sauger

Common Carp

Yellow Perch

White Bass

Freshwater Drum

Shorthead Redhorse

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## 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.

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

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
boat shocker (night)	Smallmouth Bass	592	118.4	21.2	46	2	16	2	97	2
std exp gill net	Channel Catfish	153	5.3	0.7	52	4	3	2	83	1
	Common Carp	55	2.0	0.4	68	6	6	4	84	3
	Freshwater Drum	19	0.3	0.1	75		25		86	8
	Gizzard Shad	137	4.4	1.8	32	4			89	1
	Goldeye	27	0.0	0.0						
	Lake Herring	1	0.0	0.0	100		100		95	
	Northern Pike	1	0.0	0.0	100		100		73	
	River Carpsucker	5	0.1	0.1	100		33		95	5
	Sauger	117	4.1	0.8	78	4	29	4	80	1
	Shorthead Redhorse	6	0.2	0.1	100		67		91	7
	Shortnose Gar	8	0.0	0.0						
	Smallmouth Bass	3	0.1	0.1	67		0		110	8
	Smallmouth Buffalo	2	0.1	0.0	100		100		82	4
	Walleye	168	5.0	0.7	46	4	4	2	86	1
	White Bass	26	0.8	0.2	50	11	27	10	107	2
	White Crappie	3	0.1	0.0	100		0		106	9
	Yellow Perch	35	1.2	0.4	21	7	3		80	3

## 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.

Gear	Species	CPUE										
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg
boat shocker (night)	Smallmouth Bass	53.3	49.1	68.0	181.6	73.6	80.7	66.7	86.0	68.9	118.4	84.6
std exp gill net	Bigmouth Buffalo								0.1			0.1
	Black Bullhead				0.4	0.1						0.3
	Black Crappie		0.0			0.1	0.1	0.0	0.0	0.0		0.0
	Bluegill							0.0				0.0
	Brown Trout					0.0						0.0
	Channel Catfish	5.3	5.7	4.4	3.9	2.5	2.8	3.1	3.2	4.7	5.3	4.1
	Chinook Salmon					0.0						0.0
	Common Carp	1.7	1.4	1.0	0.7	1.0	1.8	1.3	1.0	1.8	2.0	1.4
	Flathead Catfish				0.1							0.1
	Freshwater Drum	0.5	0.3	0.3	0.2	0.2	0.5	0.7	0.4	0.2	0.3	0.4
	Gizzard Shad	0.2	0.0	0.1	0.2	0.4	0.1	0.6	0.0	0.3	4.4	0.6
	Goldeye	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Green Sunfish	0.0										0.0
	Lake Herring				0.0					0.0	0.0	0.0
	Northern Pike	0.1		0.1	0.4	0.4	0.4	0.1		0.1	0.0	0.2
	Orangespotted Sunfish				0.0							0.0
	River Carpsucker	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
	Sauger	2.6	1.2	1.9	4.0	7.2	7.4	5.9	5.4	3.7	4.1	4.3
	Shorthead Redhorse	0.1	0.0	0.1	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2
	Shortnose Gar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Shovelnose Sturgeon						0.0					0.0
	Smallmouth Bass	0.3	0.3	0.6	0.6	0.8	0.6	0.2	0.2	1.0	0.1	0.5
	Smallmouth Buffalo	0.0	0.0	0.1	0.0		0.0	0.0	0.1	0.1	0.1	0.0
	Spottail Shiner		0.0		0.0	0.0			0.0			0.0
	Walleye	7.3	6.7	10.0	14.9	11.9	9.4	5.8	6.2	3.9	5.0	8.1
	Western Silvery Minnow						0.0					0.0
	White Bass	1.0	0.6	0.5	0.0	0.5	0.1	0.3	0.1	0.2	0.8	0.4
	White Crappie	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
	Yellow Perch	0.3	0.4	0.3	4.7	3.6	1.4	0.4	0.8	0.9	1.2	1.4

## **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									
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
boat shocker (night)	Smallmouth Bass	PSD	32	61	48	56	30	42	44	41	37	46
		PSD-P	6	25	7	11	17	7	12	12	12	16
		Wr		94	94			84		91	92	97
std exp gill net	Channel Catfish	PSD	52	46	35	60	63	43	51	43	46	52
		PSD-P	1	1	0	0	1	1	0	3	2	3
		Wr	77	83	81	81	85	84	84	81	79	83
	Sauger	PSD	87	86	82	38	70	73	65	73	74	78
		PSD-P	29	29	25	15	26	35	16	19	32	29
		Wr	72	75	77	82	77	74	73	76	76	80
	Smallmouth Bass	PSD	71	90	65	12	76	47	40	29	62	67
		PSD-P	0	30	6	0	19	33	0	0	12	0
		Wr	97	101	117	104	108	107	97	109	100	110
	Walleye	PSD	29	33	46	47	44	40	20	33	60	46
		PSD-P	2	1	1	1	2	9	4	2	9	4
		Wr	78	83	81	88	83	82	82	84	84	86
	White Bass	PSD	96	100	100	0	92	100	100	100	100	50
		PSD-P	85	94	86	0	69	50	89	100	100	27
		Wr	96	98	100		97	105	102	103	97	107
	Yellow Perch	PSD	25	27	33	26	22	28	8	22	8	21
		PSD-P	0	0	0	3	0	5	8	0	0	3
		Wr	77	86	81	83	85	84	82	84	79	80

## Back-Calculated Lengths

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

Species: Channel Catfish

Year Class	Age	N	Mean back-calculated length (SE) at age									
			1	2	3	4	5	6	7	8	9	10
2016	0	8										
2015	1	8	61 (0)									
2014	2	40	67 (.7)	136 (2.2)								
2013	3	96	72 (1)	132 (3.6)	246 (2.6)							
2012	4	56	81 (1.8)	150 (4.7)	243 (4.8)	295 (4.4)						
2011	5	112	76 (.8)	136 (2.6)	217 (3)	288 (2)	330 (1.8)					
2010	6	168	84 (.8)	155 (2.6)	250 (3.3)	306 (3.2)	340 (2.5)	370 (2.4)				
2009	7	208	85 (.7)	158 (3.2)	247 (3.6)	303 (3.6)	342 (2.8)	373 (2.6)	399 (2.4)			
2008	8	88	86 (1.1)	150 (3.6)	230 (3.6)	298 (3.7)	339 (3.9)	373 (4.5)	393 (4.7)	412 (4.8)		
2007	9	96	93 (.9)	167 (2.8)	261 (2.8)	331 (3.5)	373 (3.9)	408 (4.5)	435 (5)	456 (5.4)	473 (5.4)	
2006	10	96	91 (1)	160 (3.7)	252 (4.5)	318 (4.5)	372 (2.6)	416 (2.7)	447 (2.4)	469 (2.5)	483 (2.9)	495 (2.7)
2005	11	112	101 (2.2)	181 (4.4)	261 (4.2)	320 (4.1)	366 (4.3)	402 (4.1)	436 (4.4)	458 (3.9)	478 (3.7)	495 (3.8)
2004	12	40	92 (1.6)	175 (4.4)	265 (4.5)	325 (4.1)	362 (3.8)	402 (4.4)	442 (5.8)	467 (5.7)	487 (5.8)	502 (5.2)
2003	13	48	107 (2.7)	190 (11.9)	266 (8.4)	320 (7.5)	362 (6.4)	398 (5.6)	433 (6.1)	477 (7.3)	500 (7)	518 (6)
2002	14	8	107 (0)	142 (0)	241 (0)	283 (0)	318 (0)	353 (0)	381 (0)	423 (0)	473 (0)	501 (0)
2001	15	8	93 (0)	113 (0)	162 (0)	266 (0)	329 (0)	392 (0)	433 (0)	461 (0)	510 (0)	538 (0)
1998	18	8	126 (0)	235 (0)	283 (0)	324 (0)	378 (0)	412 (0)	433 (0)	440 (0)	467 (0)	488 (0)
Weighted Mean		1200	86	157	247	308	350	388	421	453	482	500
Year Class	Age	N	11	12	13	14	15	16	17	18	19	20
2016	0	8										
2015	1	8										
2014	2	40										

2013	3	96								
2012	4	56								
2011	5	112								
2010	6	168								
2009	7	208								
2008	8	88								
2007	9	96								
2006	10	96								
2005	11	112	510 (4)							
2004	12	40	517 (5.3)	532 (4.7)						
2003	13	48	536 (5.4)	551 (5.4)	567 (5.4)					
2002	14	8	515 (0)	522 (0)	550 (0)	571 (0)				
2001	15	8	558 (0)	579 (0)	600 (0)	607 (0)	614 (0)			
1998	18	8	515 (0)	535 (0)	549 (0)	576 (0)	611 (0)	638 (0)	652 (0)	658 (0)
Weighted Mean		1200	519	543	567	585	613	638	652	658

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Species: Smallmouth Bass

Year Class	Age	N	Mean back-calculated length (SE) at age									
			1	2	3	4	5	6	7	8	9	10
2015	1	55	122 (2)									
2014	2	191	90 .9)	203 (2.3)								
2013	3	148	92 (1.2)	188 (2.8)	290 (2.8)							
2012	4	54	93 (1.9)	199 (4)	288 (4.5)	347 (4.5)						
2011	5	16	90 (2.9)	191 (8.9)	277 (8.7)	341 (6.6)	390 (6.1)					
2010	6	15	94 (3.5)	178 (12.9)	259 (15.9)	331 (14)	378 (11.6)	414 (10.3)				
2009	7	3	103 (8.9)	188 (.9)	261 (15.4)	306 (2.1)	360 (4.1)	402 (9)	425 (11.6)			
2008	8	1	91	188	239	299	326	360	402	413		
2007	9	1	92	222	321	376	428	451	467	480	485	
Weighted Mean		484	95	196	286	342	382	411	429	447	485	
Year Class	Age	N	11	12	13	14	15	16	17	18	19	20
			55									
2015	1	55										
2014	2	191										
2013	3	148										
2012	4	54										
2011	5	16										
2010	6	15										
2009	7	3										
2008	8	1										
2007	9	1										
Weighted Mean		484										

## Length at Capture

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

Species: Channel Catfish

Year	N	Mean Length (expanded sample number) at capture by age									
		1	2	3	4	5	6	7	8	9	10+
2016	152	100 (1)	226 (5)	302 (12)	324 (7)	351 (14)	395 (21)	416 (26)	425 (11)	487 (12)	535 (41)
2011	70		270 (5)	311 (8)	337 (10)	377 (6)	416 (5)	463 (6)	492 (6)	506 (9)	525 (16)
2010	108	187 (2)	292 (4)	333 (15)	383 (11)	406 (18)	449 (16)	448 (14)	460 (7)	475 (5)	513 (14)
2009	134		237 (6)	285 (19)	336 (30)	362 (10)	381 (21)	416 (15)	425 (6)	444 (4)	484 (23)
2007	152	274 (2)	261 (7)	323 (13)	343 (21)	366 (17)	383 (9)	418 (13)	444 (22)	456 (30)	516 (16)

Species: Sauger

Year	N	Mean Length (expanded sample number) at capture by age									
		1	2	3	4	5	6	7	8	9	10+
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)
2014	177	261 (21)	293 (36)	350 (89)	390 (10)	400 (21)					
2013	159	237 (16)	300 (86)	371 (36)	402 (20)	433 (1)					
2012	199	267 (61)	360 (69)	405 (58)	459 (4)	455 (2)	440 (4)				462 (1)
2011	194	277 (73)	361 (99)	449 (8)	468 (9)	460 (2)	473 (3)				
2010	111	267 (88)	391 (10)	446 (7)	420 (5)	430 (1)					
2009	51	288 (12)	348 (28)	376 (8)	400 (3)						
2008	34	256 (4)	338 (14)	379 (11)	380 (3)		418 (2)				

Species: Smallmouth Bass

Year	N	Mean Length (expanded sample number) at capture by age									
		1	2	3	4	5	6	7	8	9	10+
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)			
2014	333	110 (43)	194 (98)	269 (104)	303 (71)	360 (14)	369 (2)				
2013	307	128 (10)	182 (56)	234 (145)	316 (74)	344 (15)	404 (3)	417 (2)	440 (1)		
2012	475	123 (50)	197 (200)	279 (162)	318 (44)	389 (17)	415 (2)				

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2011	308	118 (26)	217 (161)	281 (71)	362 (28)	396 (11)	422 (7)	437 (3)	473 (1)		
2010	298	111 (32)	177 (69)	284 (156)	344 (33)	399 (5)	414 (2)	434 (1)			
2009	299	104 (13)	202 (139)	297 (112)	339 (34)	383 (2)					
2008	216	109 (20)	212 (73)	321 (98)	366 (19)	429 (6)					
2007	218	124 (17)	191 (113)	268 (66)	312 (13)	358 (8)	380 (1)				

Species: Walleye

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
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)	
2014	208	255 (11)	316 (36)	353 (89)	392 (27)	405 (31)	441 (3)	482 (1)	519 (2)	509 (5)	505 (3)
2013	175	232 (21)	312 (107)	376 (31)	430 (8)	469 (2)	533 (3)	526 (1)	526 (1)	504 (1)	
2012	298	256 (114)	350 (76)	398 (48)	477 (10)	475 (5)	475 (7)	513 (26)	513 (8)	465 (1)	526 (3)
2011	345	269 (99)	369 (156)	417 (41)	446 (11)	456 (10)	462 (25)	446 (1)		483 (1)	615 (1)
2010	427	267 (178)	359 (77)	416 (35)	437 (68)	441 (58)	456 (6)	493 (2)		478 (2)	526 (1)
2009	296	240 (41)	318 (45)	368 (71)	392 (118)	415 (10)	425 (5)	562 (1)		454 (2)	576 (3)
2008	213	240 (25)	309 (44)	357 (100)	409 (19)	458 (10)	472 (6)	429 (2)	486 (5)	467 (3)	504 (1)

Species: White Bass

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2009	16	189 (4)	312 (2)	358 (4)	361 (4)	372 (1)	335 (1)				
2008	13			350 (11)		396 (1)	396 (1)				

Species: Yellow Perch

Mean Length (expanded sample number) at capture by age

Year	N	1	2	3	4	5	6	7	8	9	10+
2010	1				482 (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)	N	Wr (SE)
Channel Catfish Gill Net	2012	43	87 (2.8)	31	81 (1.3)	1	87	0	
	2013	41	84 (0.9)	42	85 (1.3)	0		0	
	2014	61	81 (0.9)	43	81 (1.3)	3	88 (8.1)	0	
	2015	68	81 (0.8)	56	77 (1.1)	2	79 (3.4)	0	
	2016	69	85 (2.0)	71	80 (1.0)	4	88 (3.1)	0	
Sauger Gill Net	2012	53	75 (0.7)	77	75 (1.0)	69	72 (1.5)	0	
	2013	56	74 (0.8)	76	74 (0.9)	26	71 (1.3)	0	
	2014	47	81 (3.5)	96	74 (0.6)	34	75 (0.9)	0	
	2015	26	76 (1.7)	41	77 (1.2)	31	74 (1.8)	1	74
	2016	25	83 (1.5)	54	80 (0.7)	32	76 (1.1)	1	83
Smallmouth Bass Electro Fishing	2012	211	84 (0.5)	125	88 (0.3)	26	70 (7.9)	1	
	2014	153	90 (1.0)	73	90 (1.1)	31	100 (1.5)	1	92
	2015	159	91 (0.9)	64	93 (1.6)	29	95 (1.8)	2	99 (18.2)
	2016	241	99 (3.2)	130	95 (0.6)	66	96 (0.9)	7	97 (4.7)
Walleye Gill Net	2012	152	82 (1.1)	78	83 (1.1)	24	81 (1.1)	0	
	2013	125	82 (0.6)	26	80 (1.3)	6	74 (3.3)	0	
	2014	136	85 (0.5)	64	81 (0.6)	4	71 (2.7)	0	
	2015	42	84 (0.9)	54	84 (1.0)	9	80 (1.9)	0	
	2016	73	86 (0.8)	57	87 (1.0)	6	80 (1.2)	0	
White Bass Gill Net	2012	0		2	109 (0.3)	1	100	1	102
	2013	0		1	98	6	102 (3.0)	2	103 (8.2)
	2014	0		0		4	103 (2.5)	0	

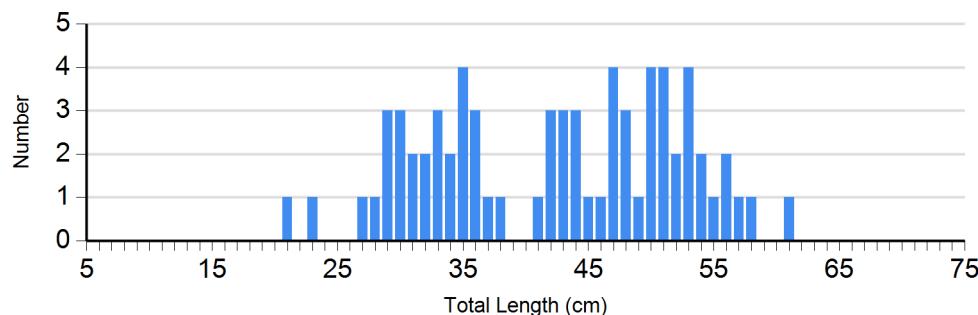
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
White Bass Gill Net	2015	0		0		3	102 (2.2)	3	93 (2.8)
	2016	11	110 (1.9)	5	108 (1.3)	1	111	5	98 (2.8)
Yellow Perch Gill Net	2012	28	89 (1.7)	9	83 (2.7)	2	24 (1.0)	0	
	2013	11	88 (4.0)	0		1	22	0	
	2014	21	85 (1.8)	6	81 (2.2)	0		0	
	2015	23	79 (1.2)	2	79 (7.3)	0		0	
	2016	26	81 (2.7)	6	79 (2.2)	1	52	0	

## Length Frequency Distribution

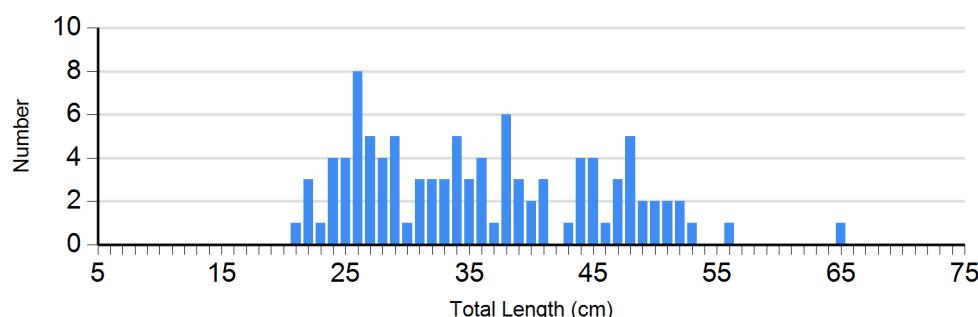
Length frequency histogram of species sampled by year.

Species: Channel Catfish

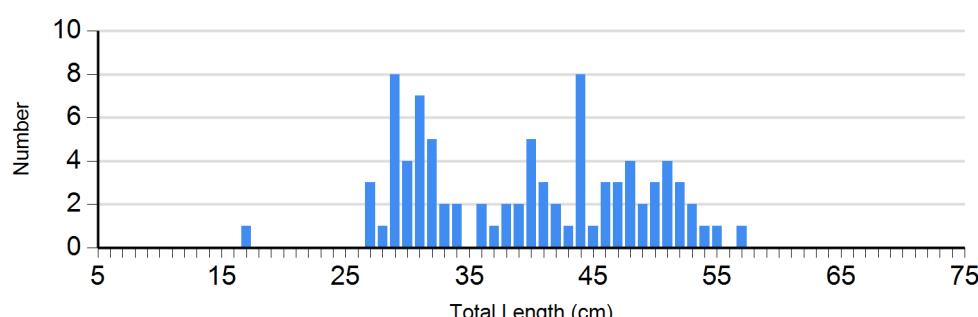
Gear: std exp gill net



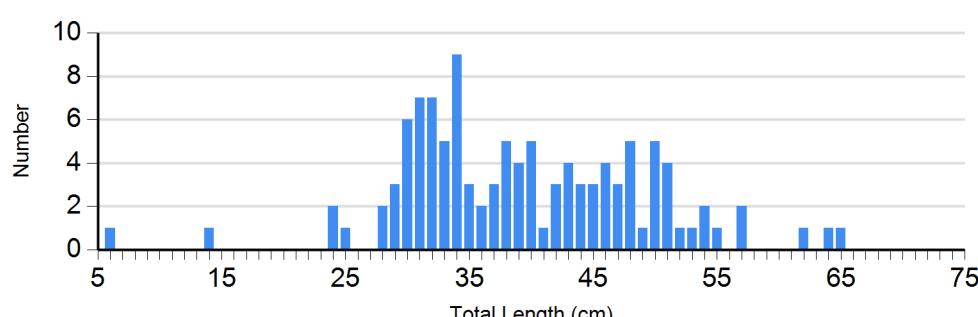
2011



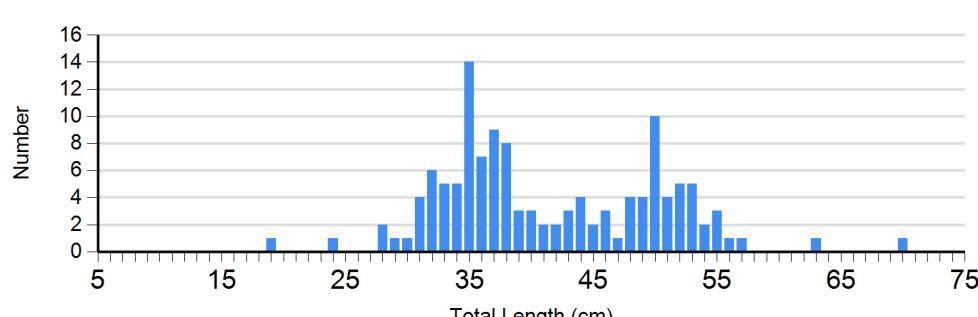
2012



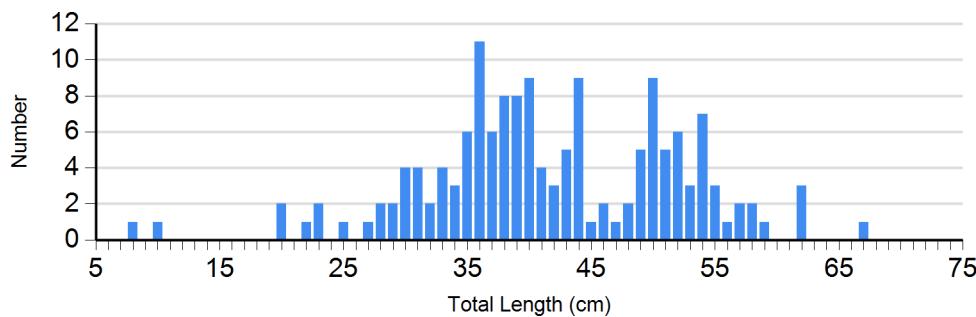
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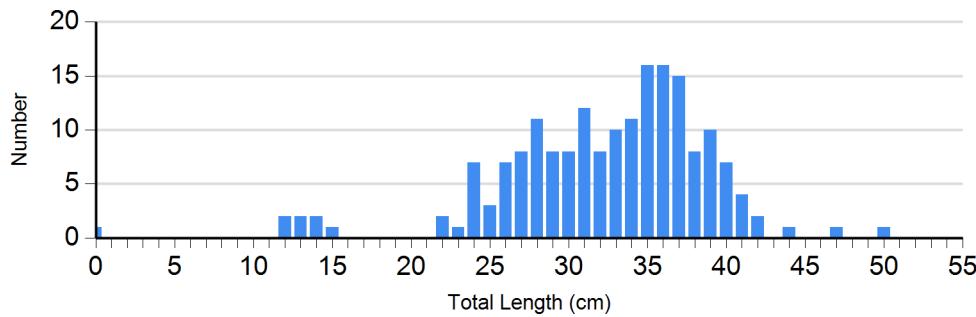
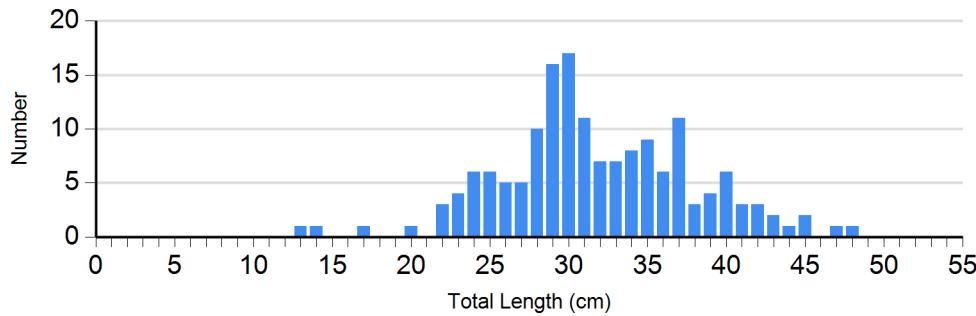
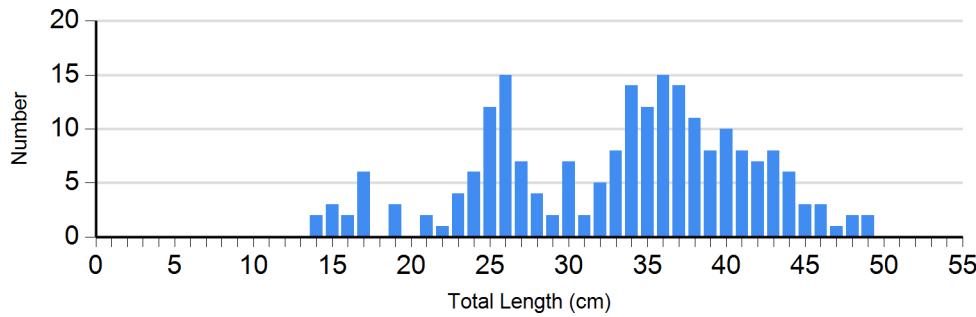
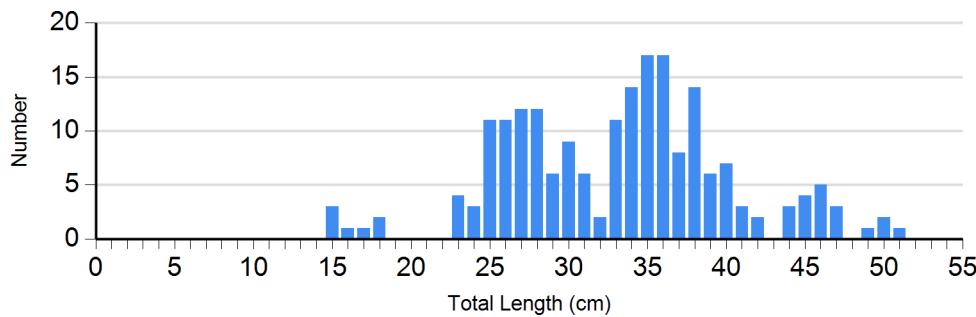
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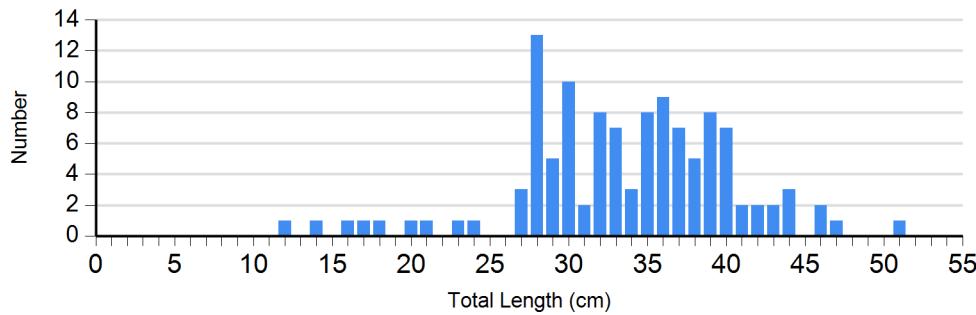
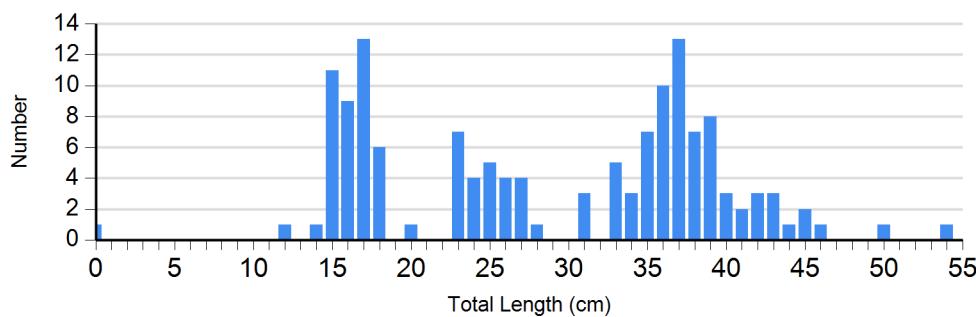


2015

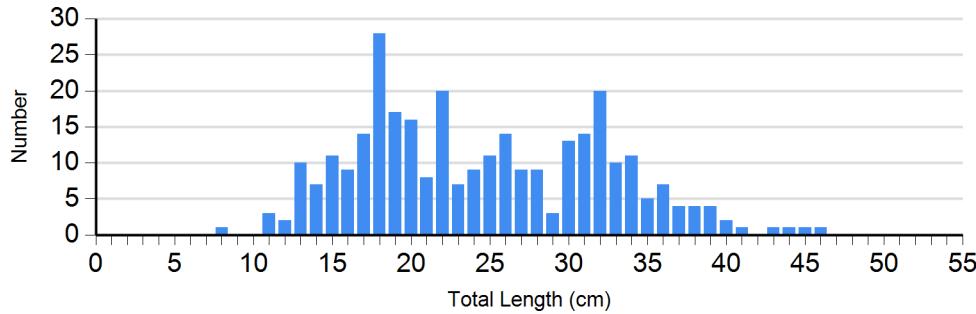
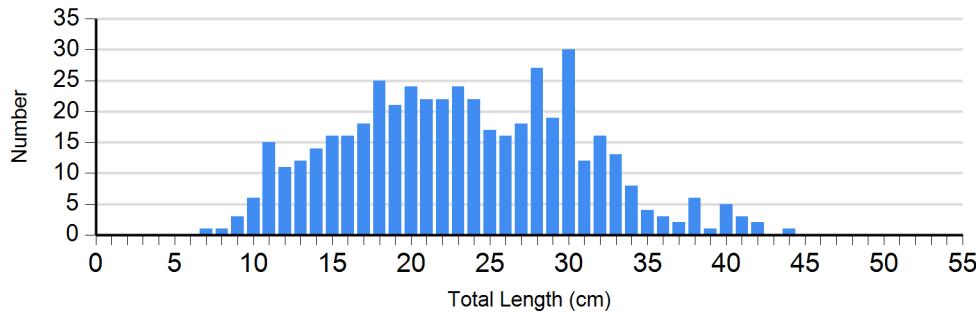
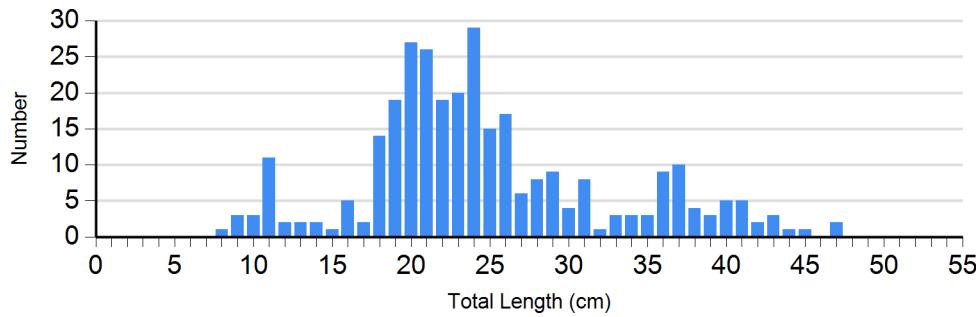


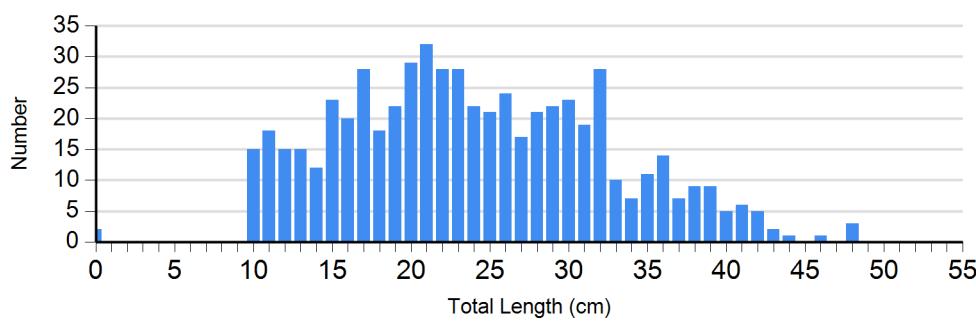
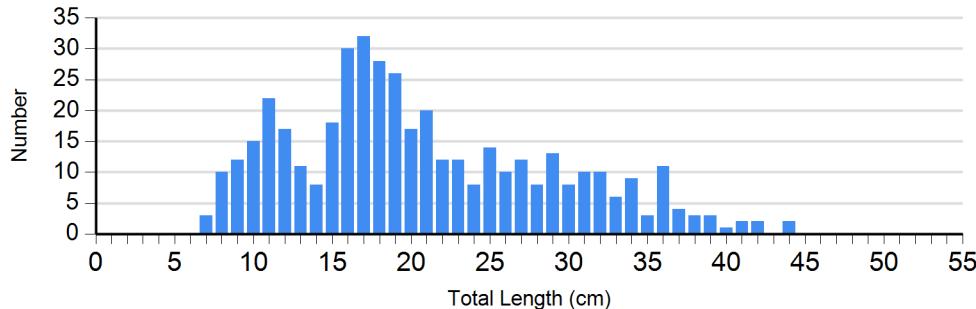
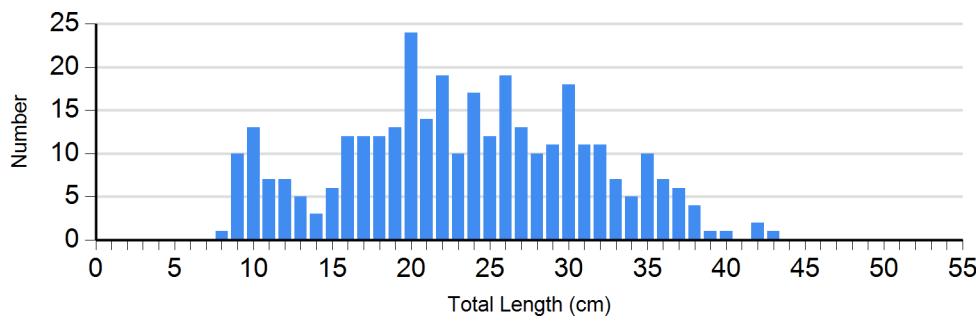
Species: Sauger  
Gear: std exp gill net



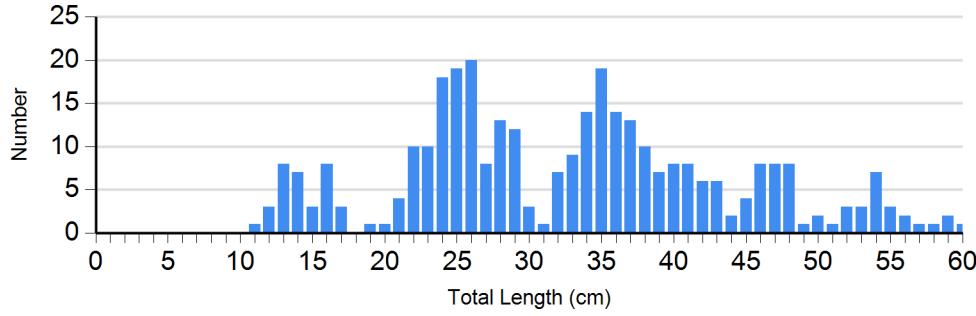
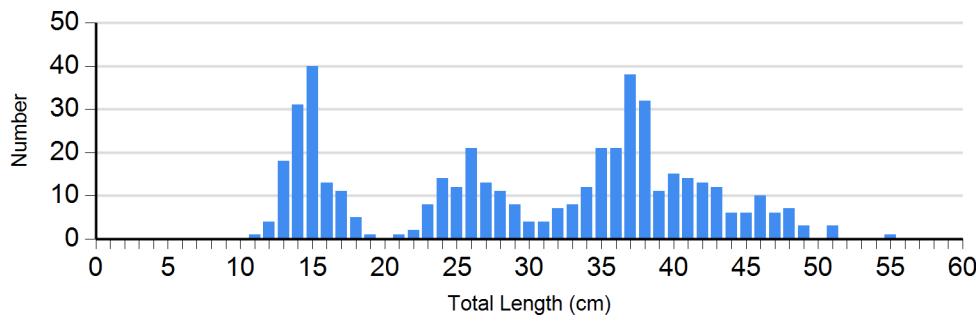


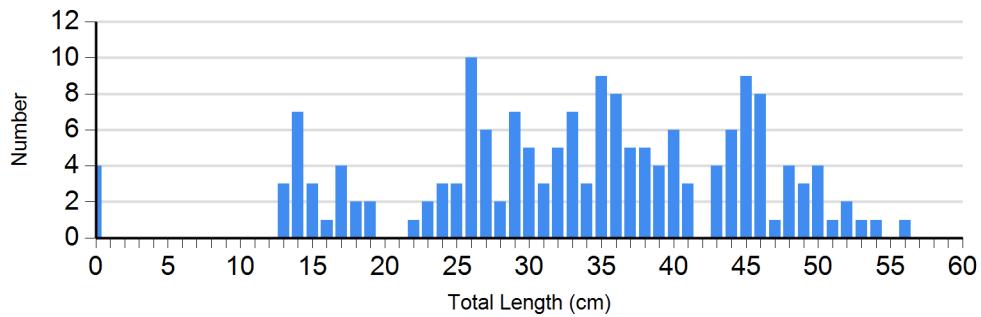
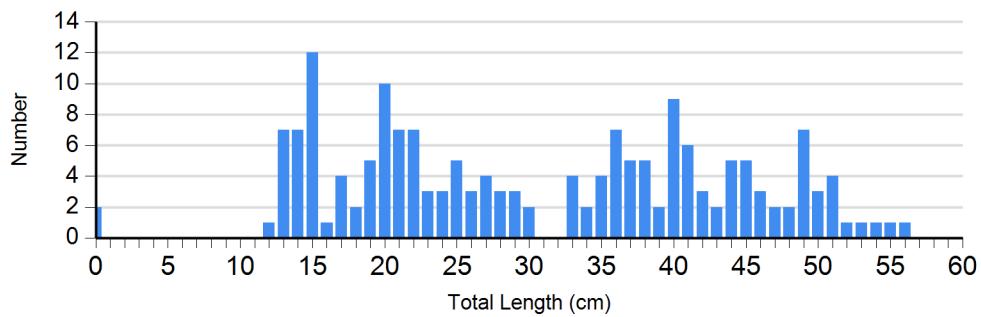
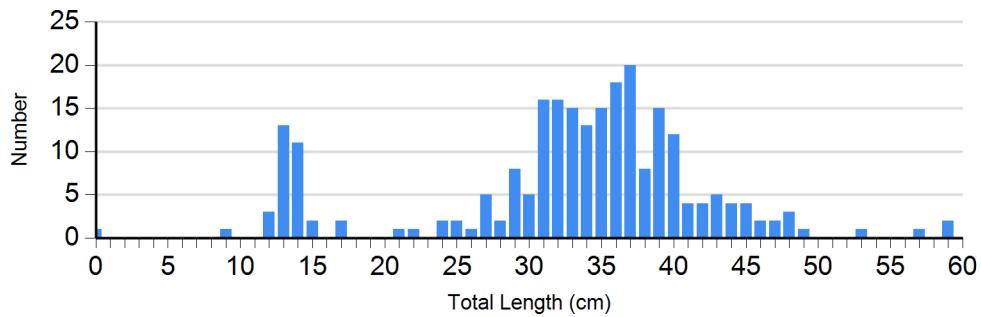
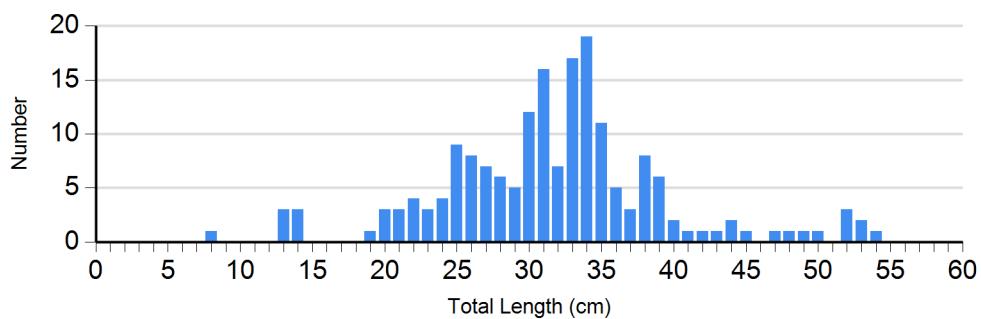
Species: Smallmouth Bass  
Gear: boat shocker (night)



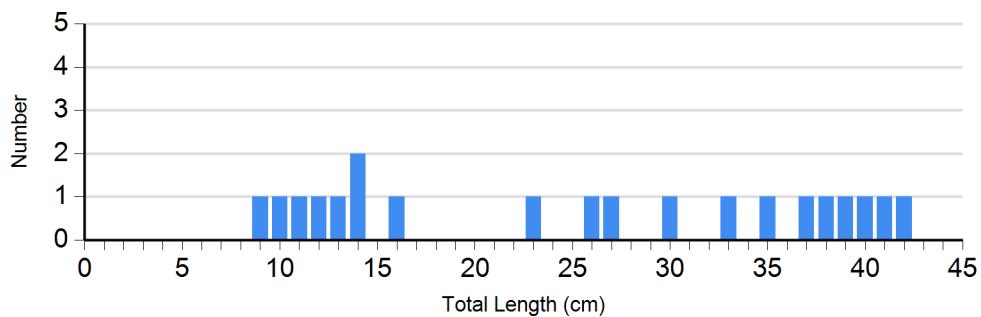


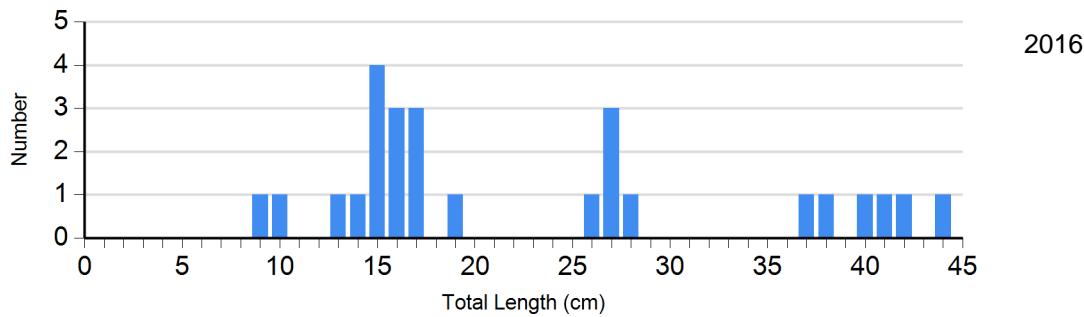
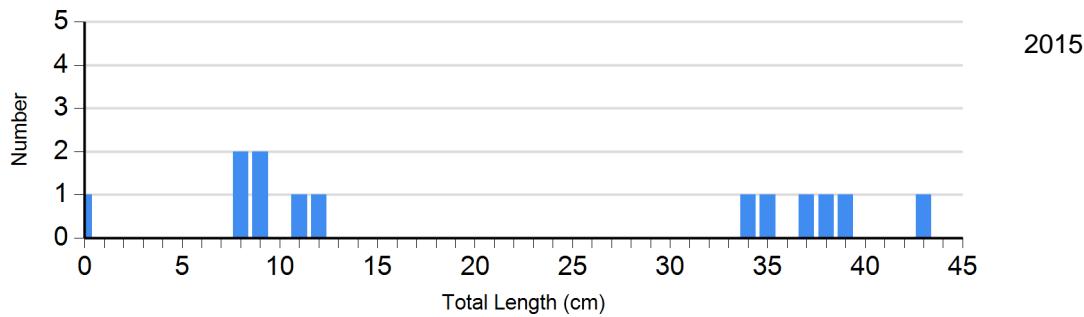
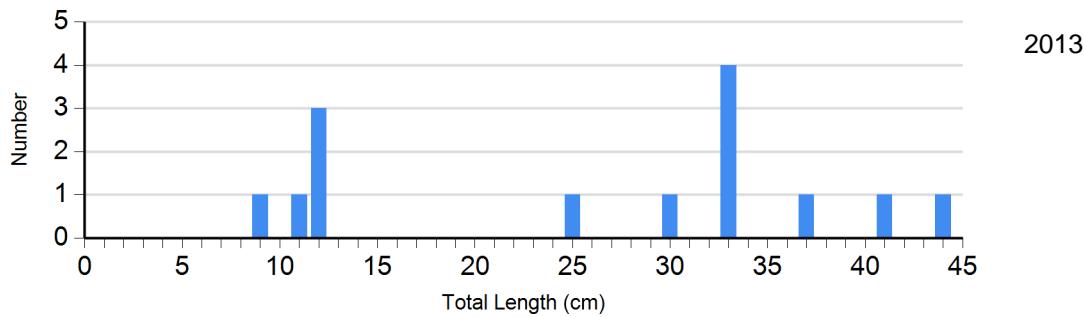
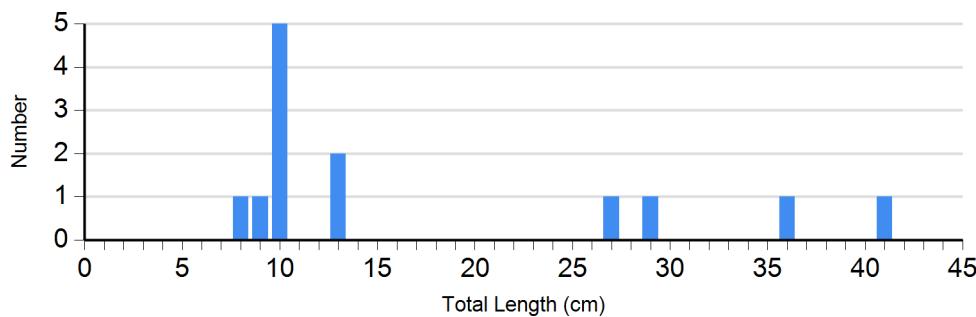
Species: Walleye  
Gear: std exp gill net



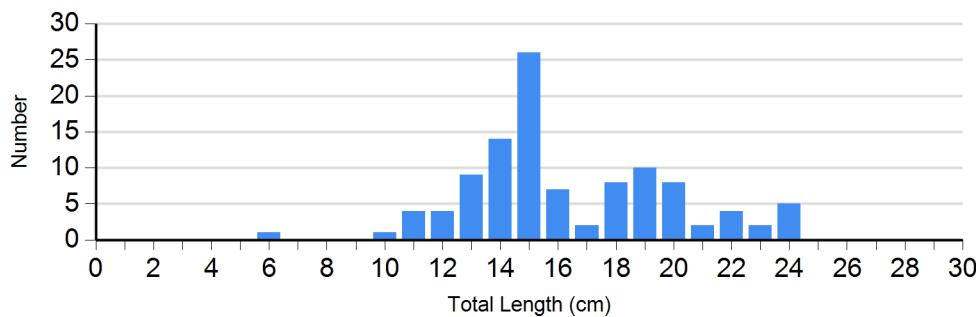


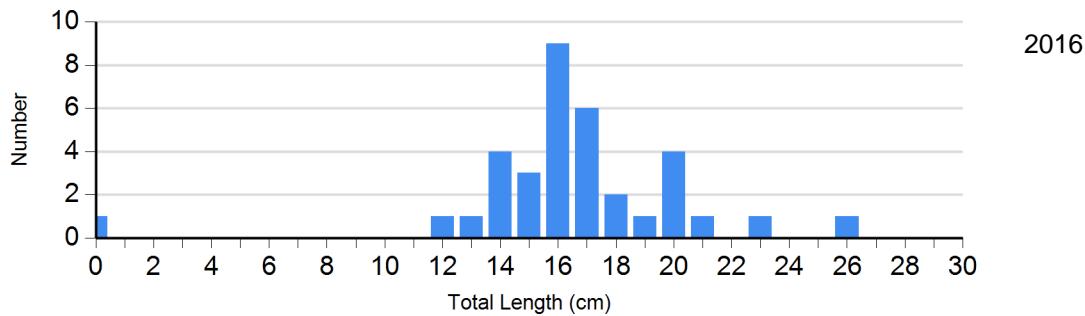
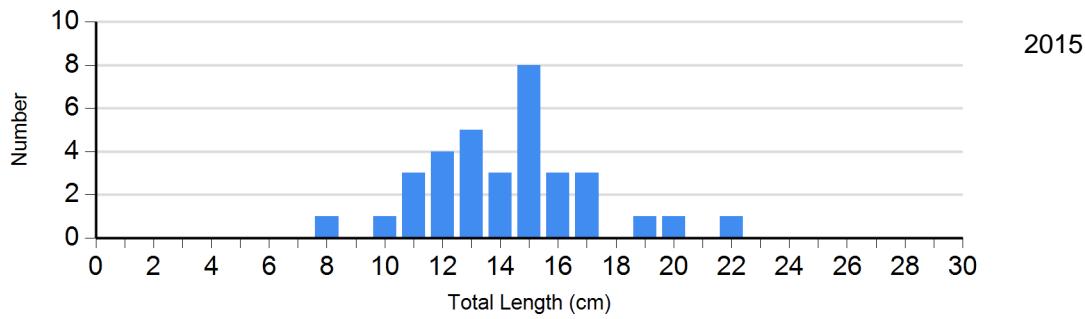
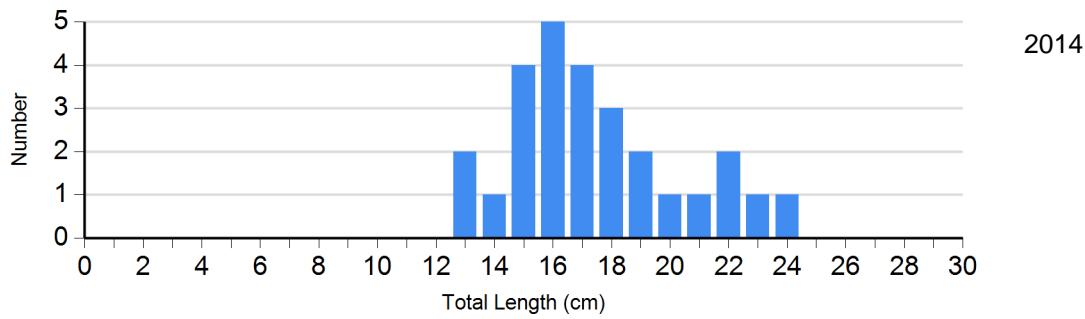
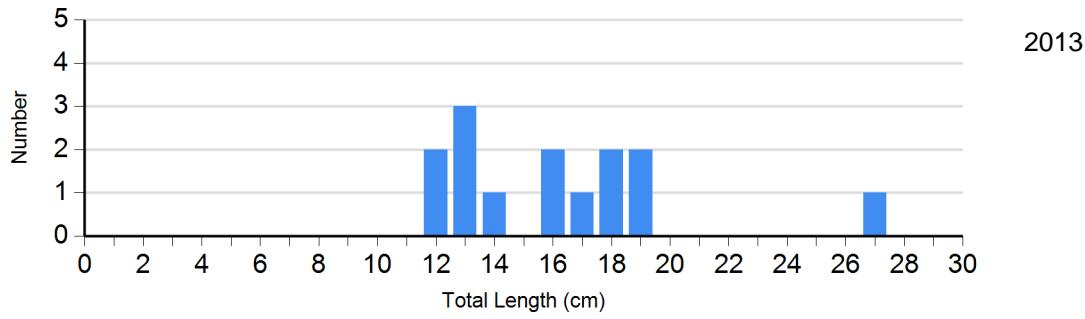
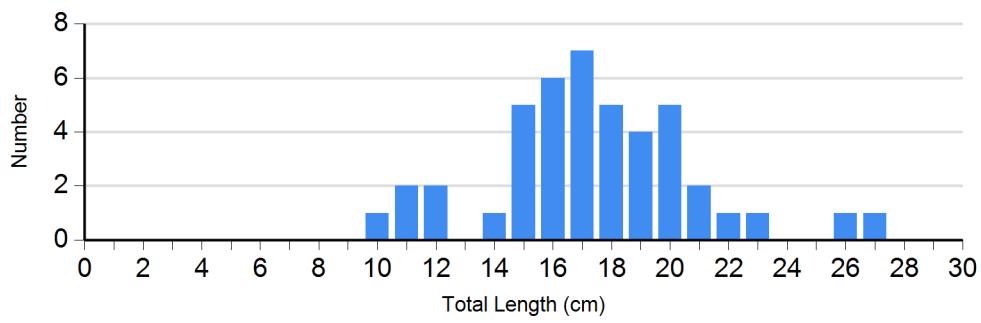
Species: White Bass  
Gear: std exp gill net





Species: Yellow Perch  
Gear: std exp gill net



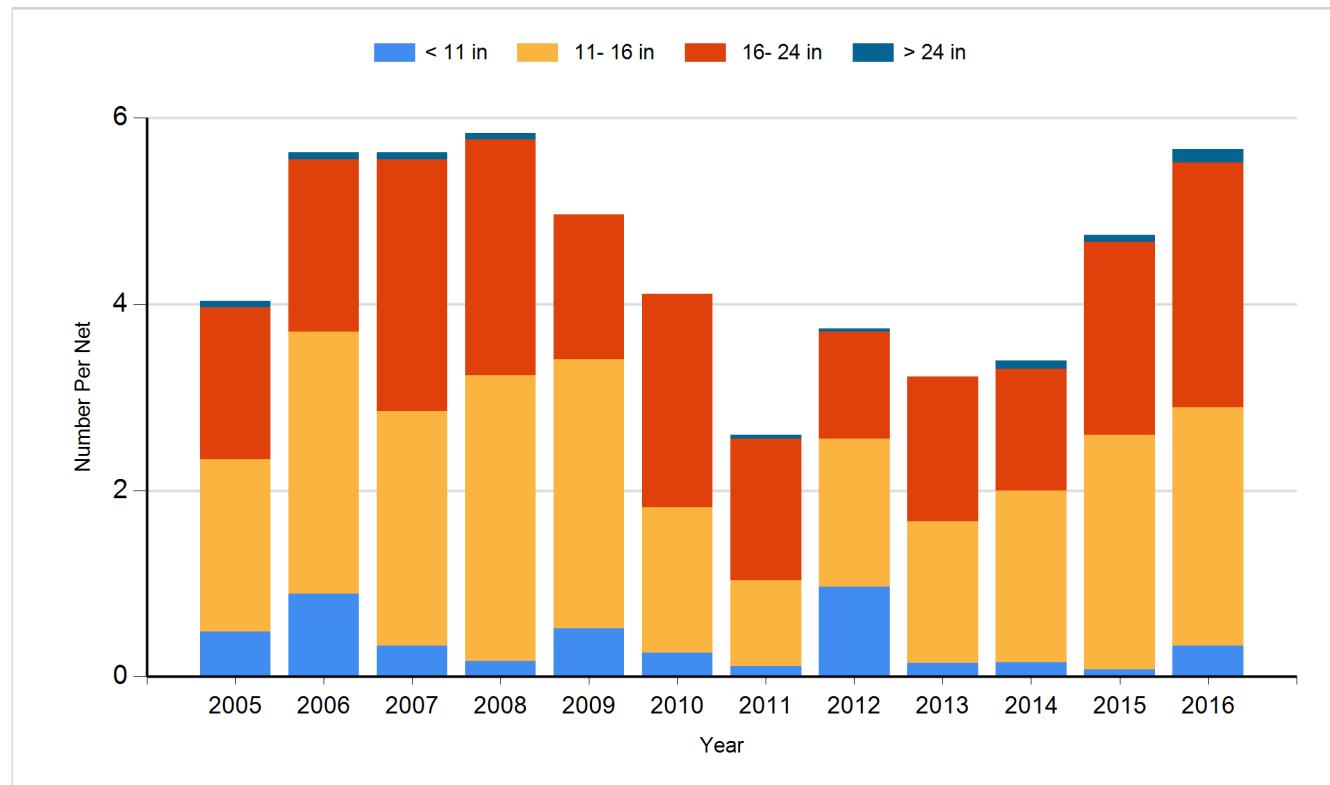


## Historic Fish Sizes and Relative Abundance

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

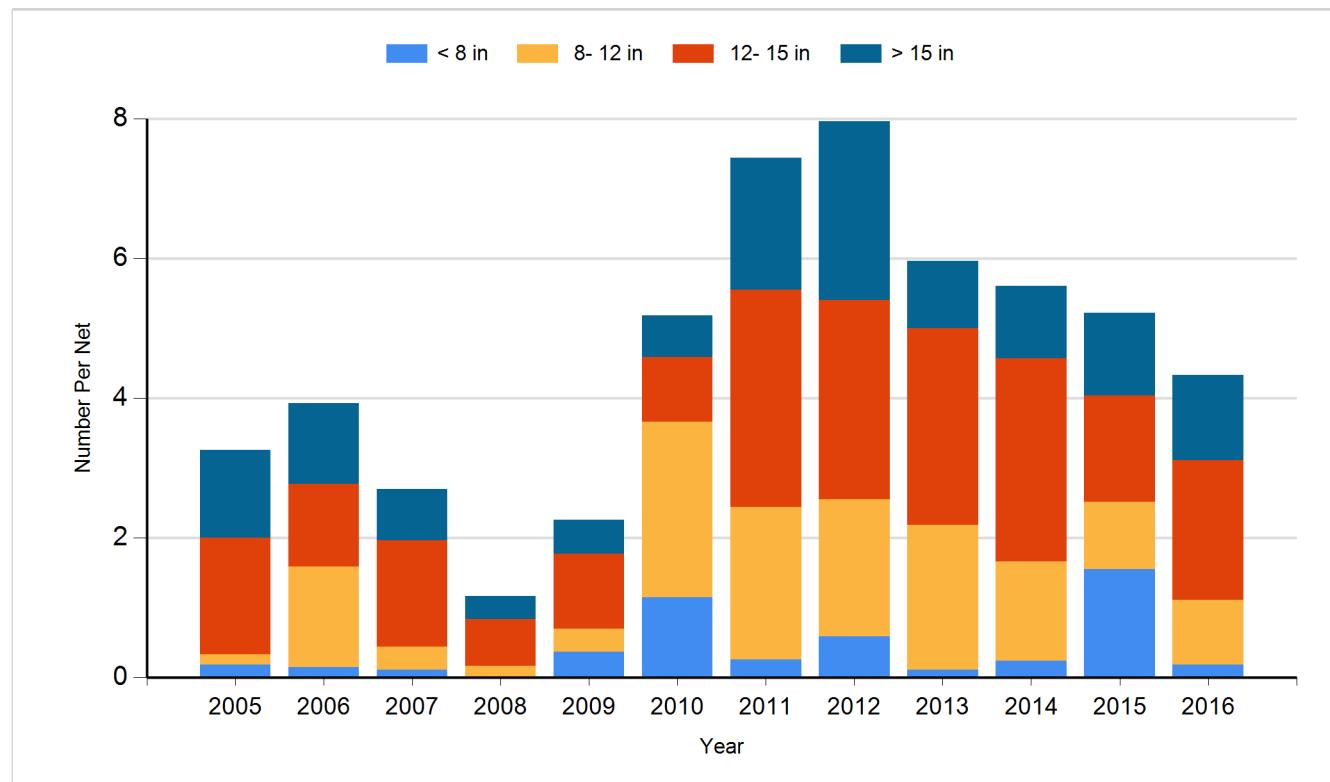
Species: Channel Catfish

Gear: std exp gill net

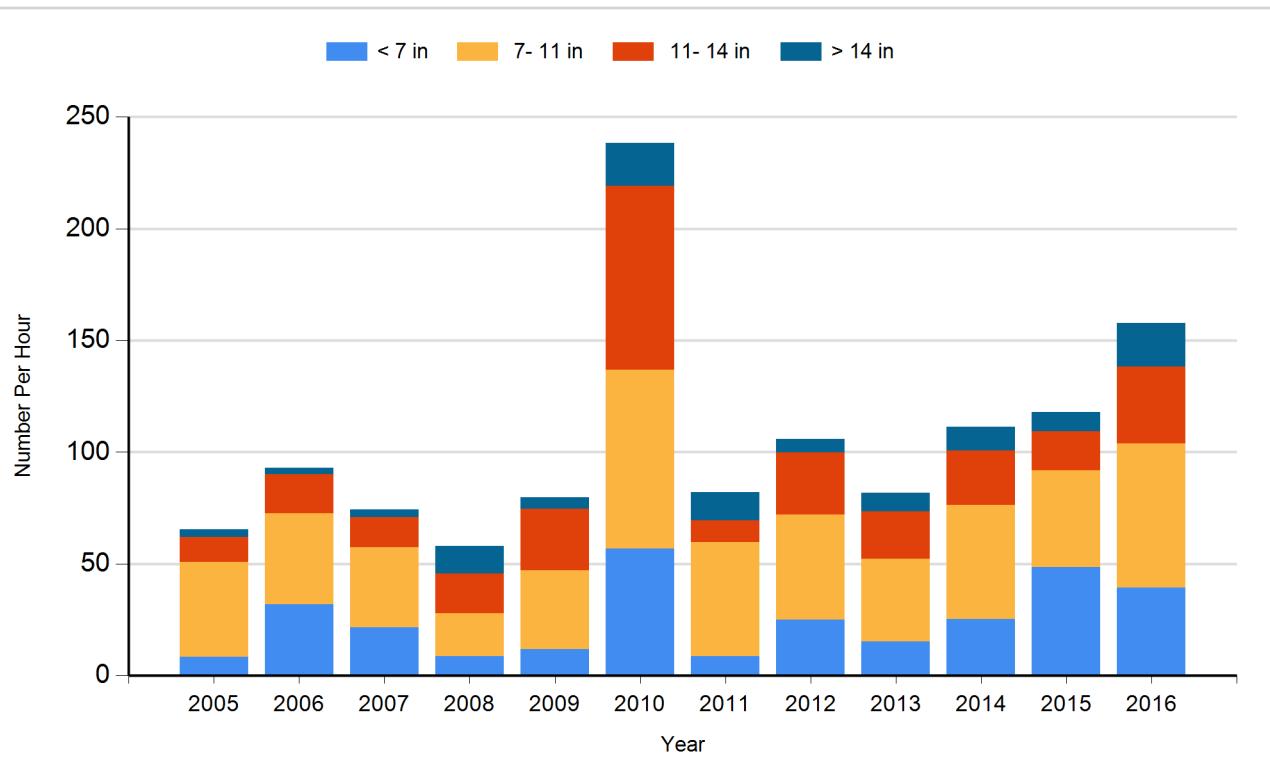


Species: Sauger

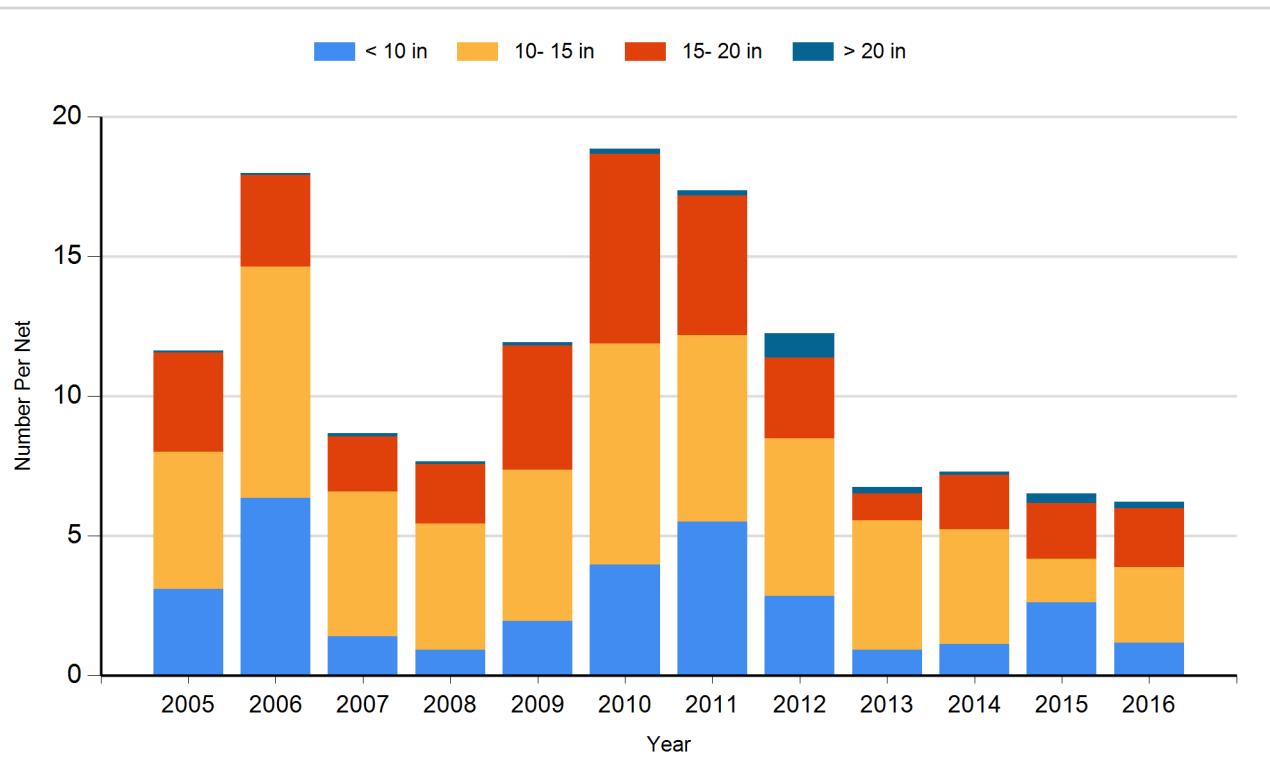
Gear: std exp gill net



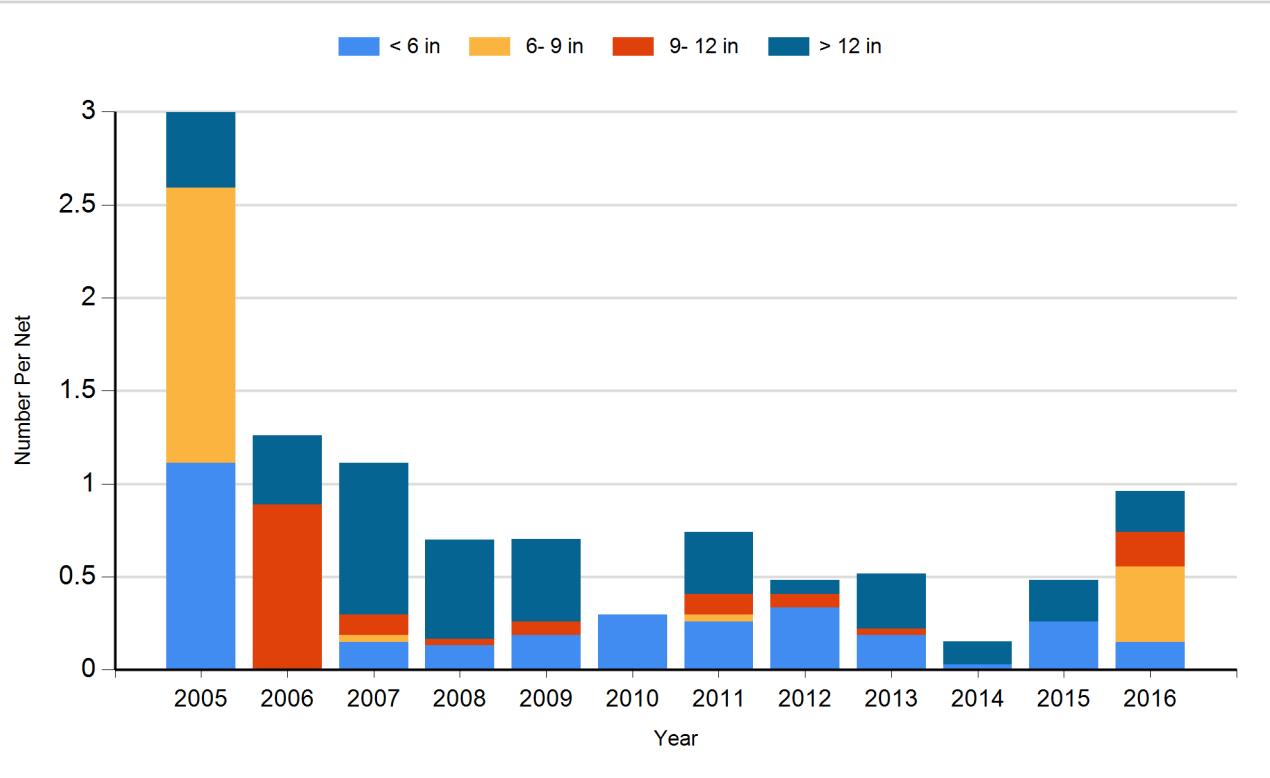
Species: Smallmouth Bass  
Gear: boat shocker (night)



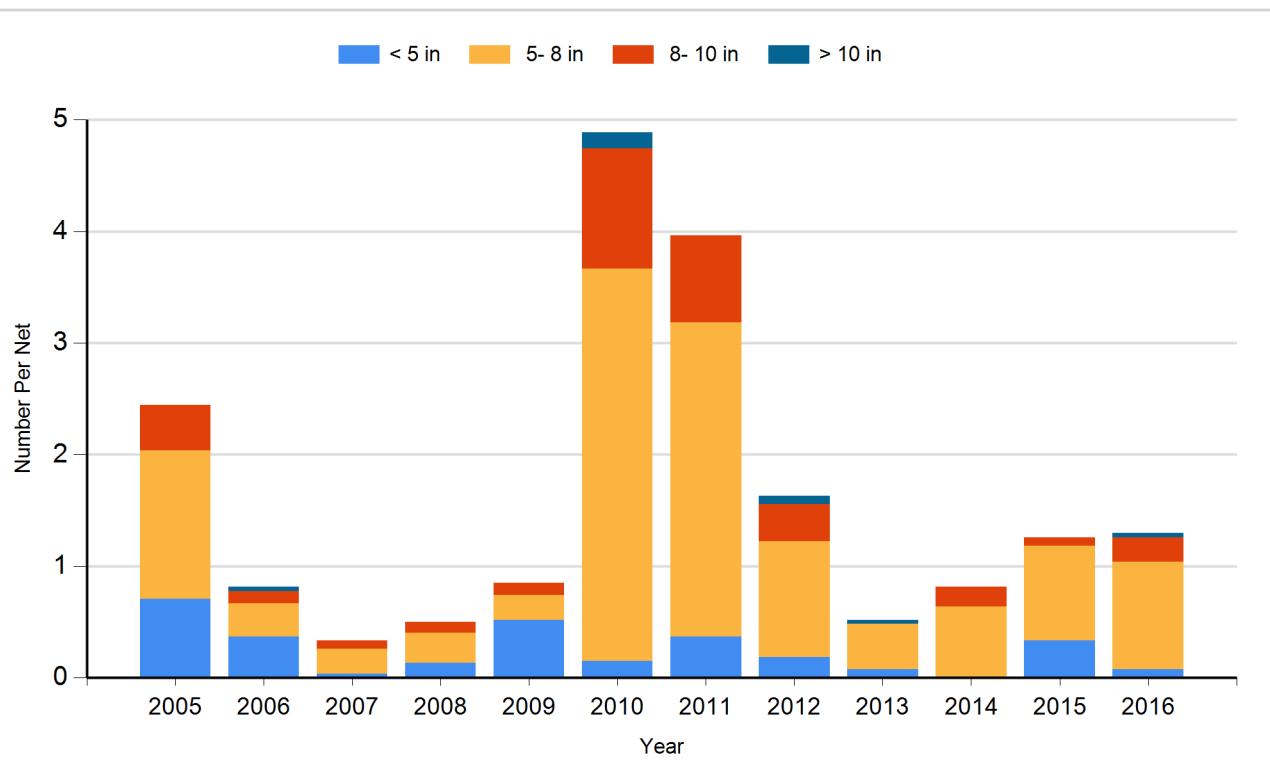
Species: Walleye  
Gear: std exp gill net



Species: White Bass  
Gear: std exp 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
2005	Paddlefish	Fingerling	20,965
2006	Paddlefish	Fingerling	15,567
2007	Paddlefish	Fingerling	27,462
2008	Paddlefish	Large Fingerling	7,140
2012	Paddlefish	Large Fingerling	1,896
2013	Paddlefish	Large Fingerling	3,750
2014	Paddlefish	Juvenile	3,980
2015	Paddlefish	Large Fingerling	31,862