

# SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

Brant, Lake County

LBS-Lake-135-001

2019

## Lake Information

<b>Name:</b>	Brant	<b>Maximum Depth:</b>	14 Feet
<b>County:</b>	Lake	<b>Mean Depth:</b>	10 Feet
<b>Legal Description:</b>	T105N-R51W-Sec. 3, 4, 9, 10	<b>OHWM Elevation:</b>	1,598
<b>Surface Area:</b>	1,046 Acres	<b>Outlet Elevation:</b>	1,597

## Surveys and Investigations

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

Gear	Date	Effort
AFS std gill net	Jul 08, 2019	10 net-nights
frame net (std 3/4 in)	Jul 08, 2019	10 net-nights

## **Common Fish Species Present**

Walleye

Yellow Perch

Black Bullhead

White Sucker

White Bass

Common Carp

Black Crappie

Bigmouth Buffalo

Smallmouth Bass

Bluegill

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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.

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

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	Bigmouth Buffalo	6	0.4	0.4	50		25			
	Black Bullhead	25	2.5	0.7	96		24	14		
	Common Carp	26	2.6	1.2	88		54	15		
	Northern Pike	3	0.3	0.2	33		0		81	3
	Smallmouth Bass	4	0.4	0.6	50		0		90	6
	Walleye	29	2.0	0.6	50	18	20		85	4
	White Bass	42	4.2	1.3	83	9	81	9	87	1
	White Sucker	29	2.9	1.0	97		90			
	Yellow Perch	46	4.6	1.9	93		83	9	105	2
frame net (std 3/4 in)	Bigmouth Buffalo	28	2.8	1.3	96		39	14		
	Black Bullhead	97	9.7	3.4	96		73	6		
	Black Crappie	29	2.9	1.2	100		86		94	2
	Bluegill	24	2.4	1.2	100		63	16	117	4
	Common Carp	42	4.2	2.8	90		40	11		
	Northern Pike	9	0.9	0.4	11		0		81	3
	Smallmouth Bass	31	2.5	1.4	52	16	8		88	2
	Walleye	2	0.1	0.1	0		0		88	
	White Bass	5	0.5	0.3	100		100		81	4
	White Sucker	51	5.1	2.6	100		94			
Yellow Perch	6	0.6	0.4	100		83		105	4	

## 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										Avg
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
AFS std frame net	Bigmouth Buffalo								0.1			0.10
	Black Bullhead								16.5			16.50
	Black Crappie								9.5			9.50
	Bluegill								0.5			0.50
	Common Carp								0.1			0.10
	Smallmouth Bass								2.7			2.70
	Walleye								1.6			1.60
	White Bass								3.3			3.30
	White Sucker								2.2			2.20
Yellow Perch								0.2			0.20	
AFS std gill net	Bigmouth Buffalo								1.6	1.2	0.4	1.07
	Black Bullhead								21.0	2.8	2.5	8.77
	Black Crappie								2.0	0.2	0.0	0.73
	Bluegill								0.2	0.4	0.0	0.20
	Channel Catfish								0.0	0.3	0.0	0.10
	Common Carp								1.2	1.4	2.6	1.73
	Northern Pike								0.2	0.0	0.3	0.17
	Shorthead Redhorse								0.1	0.0	0.0	0.03
	Smallmouth Bass								0.7	4.3	0.4	1.80
	Walleye								2.7	1.8	2.0	2.17
	White Bass								4.7	3.9	4.2	4.27
	White Sucker								7.3	3.4	2.9	4.53
	Yellow Perch								6.7	4.0	4.6	5.10
fall night EF-WAE	Walleye	136.5	7.0	3.0	27.0	85.5	30.5					48.25
frame net (std 3/4 in)	Bigmouth Buffalo	4.4	4.5	1.9	0.7	0.3	0.0	2.6		0.6	2.8	1.98
	Black Bullhead	4.7	15.4	330.3	41.1	48.6	41.7	306.8		13.3	9.7	90.18
	Black Crappie	5.2	4.8	5.9	2.4	1.5	1.3	4.7		8.5	2.9	4.13
	Bluegill	3.2	2.7	1.3	0.7	0.2	0.3	1.6		1.2	2.4	1.51
	Bluegill X Gr. Sunfish Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.0	0.01
	Channel Catfish	0.2	0.0	1.5	0.2	0.1	0.1	0.0		0.1	0.0	0.24
	Common Carp	3.5	1.2	7.1	0.3	0.7	0.2	1.3		2.3	4.2	2.31
	Green Sunfish	0.0	0.0	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.01
	Northern Pike	4.8	2.8	5.9	1.8	1.9	1.4	1.6		1.3	0.9	2.49

		CPUE										
Gear	Species	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
frame net (std 3/4 in)	Smallmouth Bass	1.6	3.8	3.0	1.2	1.4	1.1	17.0		8.5	2.5	4.46
	Sunfish Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.00
	Walleye	2.2	0.6	1.2	0.1	0.2	0.0	1.4		0.7	0.1	0.72
	White Bass	0.9	0.2	3.8	3.0	1.8	1.3	3.9		0.9	0.5	1.81
	White Sucker	3.9	0.6	1.5	0.9	2.3	4.3	1.6		4.2	5.1	2.71
	Yellow Bullhead	0.0	0.0	0.1	0.2	0.0	0.1	0.0		0.1	0.0	0.06
	Yellow Perch	5.0	8.5	2.2	0.0	0.1	0.3	1.4		0.8	0.6	2.10
std exp gill net	Bigmouth Buffalo	4.4	0.0	0.5	0.3	1.0	0.0	0.2				0.91
	Black Bullhead	4.4	9.7	23.8	24.3	27.6	21.2	34.2				20.74
	Black Crappie	0.4	0.0	2.5	0.0	0.0	0.0	1.4				0.61
	Bluegill	0.2	0.0	0.3	0.0	0.2	0.2	0.4				0.19
	Channel Catfish	0.0	0.0	0.3	1.3	0.0	0.0	1.6				0.46
	Common Carp	1.2	0.0	0.5	0.7	0.4	0.6	2.2				0.80
	Green Sunfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Northern Pike	1.4	12.7	1.8	1.7	1.8	0.4	0.2				2.86
	Orangespotted Sunfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Smallmouth Bass	3.2	3.0	4.3	2.3	1.2	1.6	2.8				2.63
	Spottail Shiner	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Walleye	8.0	23.7	11.3	1.3	4.0	3.0	3.8				7.87
	White Bass	0.8	2.7	4.3	1.0	1.0	1.2	3.4				2.06
	White Sucker	7.2	6.0	6.0	2.7	6.8	5.2	2.6				5.21
	Yellow Perch	35.4	16.3	32.8	0.0	8.4	4.6	18.8				16.61

## 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													
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019				
AFS std frame net	Bigmouth Buffalo	PSD										0				
		PSD-P											0			
	Black Bullhead	PSD											66			
		PSD-P											42			
	Black Crappie	PSD											57			
		PSD-P											14			
	Bluegill	Wr											101			
		PSD											40			
		PSD-P											0			
	Common Carp	Wr											109			
		PSD											100			
		PSD-P											0			
	Smallmouth Bass	PSD											19			
		PSD-P											4			
		Wr											89			
	Walleye	PSD											6			
		PSD-P											0			
		Wr											78			
	White Bass	PSD											97			
		PSD-P											82			
		Wr											86			
	White Sucker	PSD											100			
		PSD-P											95			
	Yellow Perch	PSD											100			
PSD-P												100				
Wr												84				
AFS std gill net	Bigmouth Buffalo	PSD										25	73	50		
		PSD-P											19	18	25	
	Black Bullhead	PSD											75	84	96	
		PSD-P											22	36	24	
	Black Crappie	PSD											5	100		
		PSD-P											0	100		
		Wr											121	99		



Gear	Species	Index	Year												
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019			
AFS std gill net	Bluegill	PSD									50	100			
		PSD-P									0	100			
		Wr									92	109			
	Common Carp	PSD										100	100	88	
		PSD-P										17	38	54	
	Smallmouth Bass	PSD										57	38	50	
		PSD-P										43	15	0	
		Wr										92	95	90	
	Walleye	PSD										59	44	50	
		PSD-P										11	25	20	
		Wr										83	86	85	
	White Bass	PSD										79	100	83	
		PSD-P										43	89	81	
		Wr										97	93	87	
	White Sucker	PSD										100	97	97	
		PSD-P										97	94	90	
	Yellow Perch	PSD										60	97	93	
		PSD-P										45	44	83	
Wr											99	99	105		
fall night EF-WAE	Walleye	Wr	94	89	83	88	84	89							
frame net (std 3/4 in)	Bigmouth Buffalo	PSD	92	94	83	100	100			73			83	96	
		PSD-P	8	13	26	25	25			62			17	39	
		Wr	92	89	90	94									
	Black Bullhead	PSD	77	51	93	100	97	98	3				89	96	
		PSD-P	27	5	11	25	57	42	2				63	73	
		Wr	93	85	92	91									
	Black Crappie	PSD	100	60	99	100	100	94	55				99	100	
		PSD-P	100	40	6	59	100	69	28				44	86	
		Wr	101	107	108	102	102	97	110				98	94	
	Bluegill	PSD	97	97	100	63	100	50	75				92	100	
		PSD-P	84	16	44	50	100	25	38				92	63	
		Wr	110	123	118	115	103	110	113				108	117	
	Common Carp	PSD	24	93	93	100	75	100	8				91	90	
		PSD-P	17	0	12	50	25	100	8				48	40	
		Wr	99	98	92	94									
	Smallmouth Bass	PSD	42	9	42	21	82	31	8				16	52	

Gear	Species	Index	Year									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
frame net (std 3/4 in)	Smallmouth Bass	PSD-P	5	4	8	0	24	8	2		5	8
		Wr	94	99	91	99	104	98	101		86	88
	Walleye	PSD	15	29	14	100	100	0	43		29	0
		PSD-P	4	0	7	0	50	0	29		29	0
		Wr	90	84	91	75	93		82		85	88
		White Bass	PSD	100	100	100	100	100	100	97		100
	PSD-P		91	50	96	100	100	100	59		100	100
	Wr		94	97	91	87	91	85	94		83	81
	White Sucker	PSD	91	100	100	100	100	100	100		100	100
		PSD-P	72	57	94	100	96	98	100		93	94
		Wr	95	98	91	94						
	Yellow Perch	PSD	83	73	100		0	33	79		100	100
		PSD-P	77	23	8		0	33	43		75	83
		Wr	103	103	99		127	94	100		89	105
	std exp gill net	Bigmouth Buffalo	PSD	100		50	100	60		0		
PSD-P			5		0	100	40		0			
Wr			91		90	97						
Black Bullhead		PSD	73	72	84	100	98	100	33			
		PSD-P	32	14	1	10	17	16	15			
		Wr	101	110	90	92						
Black Crappie		PSD	100		100				0			
		PSD-P	100		0				0			
		Wr	94		109				125			
Bluegill		PSD	100		100		0	100	50			
		PSD-P	100		100		0	0	50			
		Wr	133		91		114	107	127			
Common Carp		PSD	67		100	100	50	100	9			
		PSD-P	50		0	100	50	100	0			
		Wr	100		104	92						
Smallmouth Bass		PSD	75	78	18	43	50	50	14			
		PSD-P	44	56	12	0	33	38	0			
		Wr	89	93	94	87	108	100	91			
Walleye		PSD	15	37	11	75	35	67	0			
		PSD-P	3	1	4	25	10	40	0			
		Wr	88	85	90	88	89	85	85			
White Bass		PSD	100	100	100	100	100	100	100			
		PSD-P	100	100	94	100	100	100	24			

Gear	Species	Index	Year									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
std exp gill net	White Bass	Wr	92	93	90	81	93	84	98			
		PSD	92	100	100	100	74	100	100			
		PSD-P	81	50	83	100	71	88	92			
	White Sucker	Wr	96	99	101	100						
		PSD	68	82	96		19	26	73			
		PSD-P	53	35	21		5	4	24			
		Wr	96	102	96		108	101	105			
		PSD										
		PSD-P										
Yellow Perch	Wr											

## Length at Capture

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

### Species: Black Crappie

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2013	29		212 (1)	250 (25)	245 (2)		322 (2)				
2012	71	163 (1)	225 (60)		245 (8)	311 (2)					
2011	58	151 (23)	225 (12)	277 (2)	291 (13)	306 (7)	336 (1)				
2010	62			263 (54)	277 (7)	305 (1)					

### Species: Bluegill

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2013	8	125 (4)			225 (3)				265 (1)		
2012	16		179 (3)	195 (8)	213 (4)	215 (1)					

### Species: Walleye

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2019	29	212 (10)	324 (7)	384 (4)	446 (4)		457 (1)				591 (3)
2018	17	270 (8)	339 (2)	383 (1)	454 (2)	443 (1)					576 (3)
2017	30	247 (11)	384 (4)	437 (10)	482 (3)			551 (2)			
2016	30	255 (15)	297 (15)								
2015	32	203 (17)	351 (6)			469 (1)	540 (5)	588 (2)	471 (1)		
2014	20	266 (12)	293 (1)	398 (1)	465 (5)	578 (1)					
2013	4			396 (3)	541 (1)						
2012	50	236 (6)	314 (39)	419 (1)	474 (2)	539 (1)					718 (1)
2011	105	245 (54)	359 (32)	425 (8)	468 (11)						
2010	53	249 (25)	334 (12)	372 (15)					586 (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+
2019	46	151 (3)	223 (3)	274 (25)	285 (7)	304 (7)	329 (1)				
2018	36	154 (1)	243 (26)	280 (6)	294 (2)	323 (1)					
2017	67	165 (27)	248 (16)	272 (23)				335 (1)			
2016	94	179 (28)	243 (64)	293 (2)							
2015	23	165 (17)	236 (5)	296 (1)							
2014	42	165 (34)	236 (5)	260 (2)	313 (1)						
2012	131	174 (3)	227 (107)	270 (22)							
2011	49	155 (9)	240 (32)	261 (5)	308 (2)	318 (1)					
2010	177	158 (56)	231 (21)	265 (94)	311 (2)	307 (4)					

## 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).

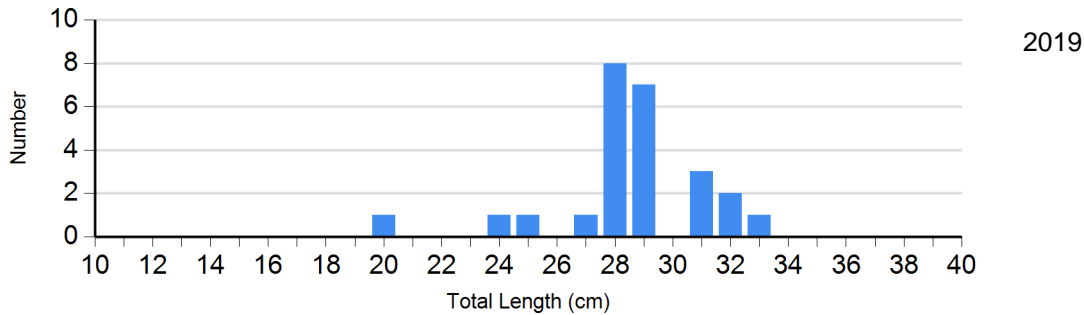
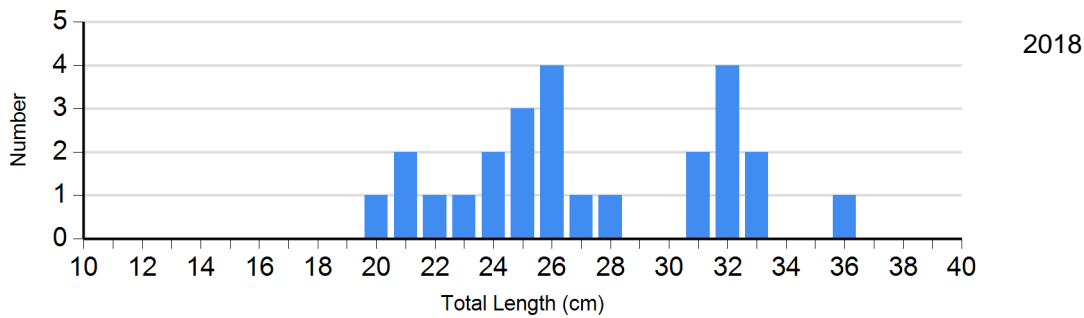
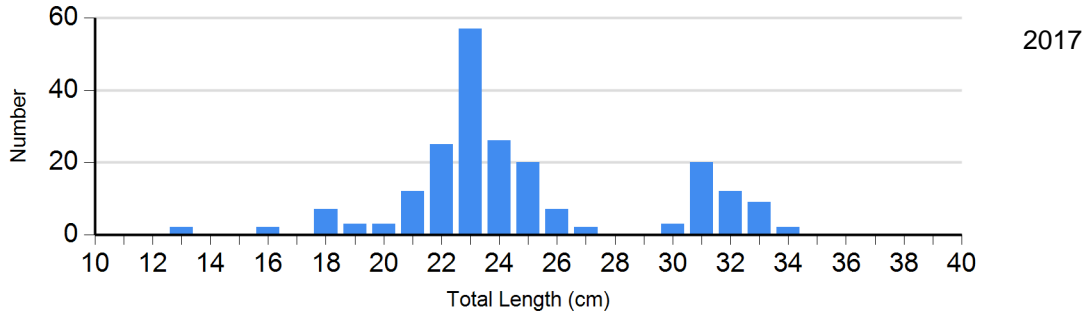
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Black Crappie Frame Net	2015	1	104	4	105 (1.3)	2	96 (1.7)	9	94 (1.6)
	2016	21	121 (3.0)	13	108 (2.4)	5	98 (13.7)	8	93 (2.2)
	2017	41	108 (1.4)	41	96 (1.9)	10	96 (1.1)	3	83
	2018	1	99	47	102 (0.9)	36	94 (0.8)	1	86
	2019	0		4	96 (2.3)	24	94 (2.0)	1	92
Bluegill Frame Net	2015	2	103 (22.1)	1	117	1	117	0	
	2016	4	105 (5.8)	6	124 (2.6)	6	108 (2.4)	0	
	2017	3	104 (14.6)	2	116 (8.3)	0		0	
	2018	1	106	0		11	108 (4.0)	0	
	2019	0		9	126 (4.7)	11	111 (2.5)	4	112 (13.7)
Walleye Gill Net	2015	5	78 (1.7)	4	89 (1.8)	6	88 (2.3)	0	
	2016	19	85 (1.2)	0		0		0	
	2017	11	79 (1.2)	13	83 (1.5)	3	94 (3.9)	0	
	2018	9	89 (2.6)	3	81 (4.6)	3	84 (2.2)	1	83
	2019	10	84 (3.7)	6	80 (2.0)	3	96 (10.7)	1	100
White Bass Gill Net	2015	0		0		1	79	5	84 (2.0)
	2016	0		13	99 (4.0)	0		4	97 (8.2)
	2017	10	92 (1.8)	17	103 (8.5)	11	93 (1.4)	9	94 (2.1)
	2018	0		4	128 (38.3)	28	89 (0.9)	3	80 (2.8)
	2019	7	92 (2.4)	1	86	31	87 (0.8)	3	71 (2.7)
Yellow Perch Gill Net	2015	17	101 (2.2)	5	103 (2.9)	1	90	0	
	2016	25	104 (1.5)	46	106 (1.2)	23	104 (1.3)	0	

Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Yellow Perch Gill Net	2017	27	101 (2.1)	10	98 (1.6)	29	99 (1.5)	1	80
	2018	1	96	19	100 (1.4)	15	99 (1.6)	1	85
	2019	3	128 (12.1)	5	107 (1.7)	31	104 (1.3)	7	100 (3.1)

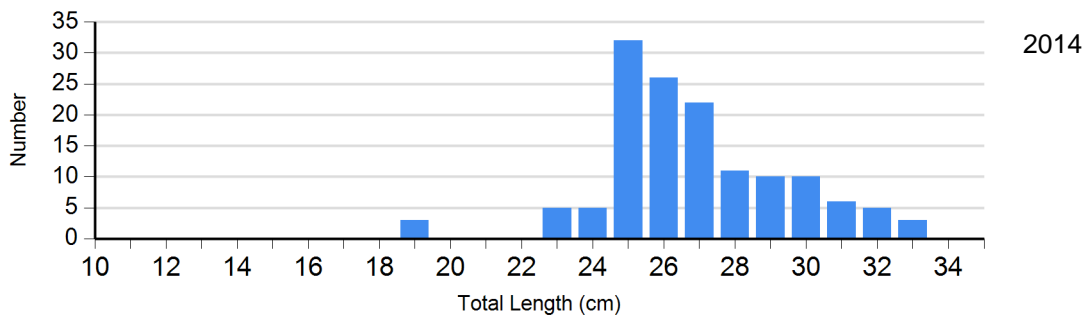
# Length Frequency Distribution

Length frequency histogram of species sampled by year.

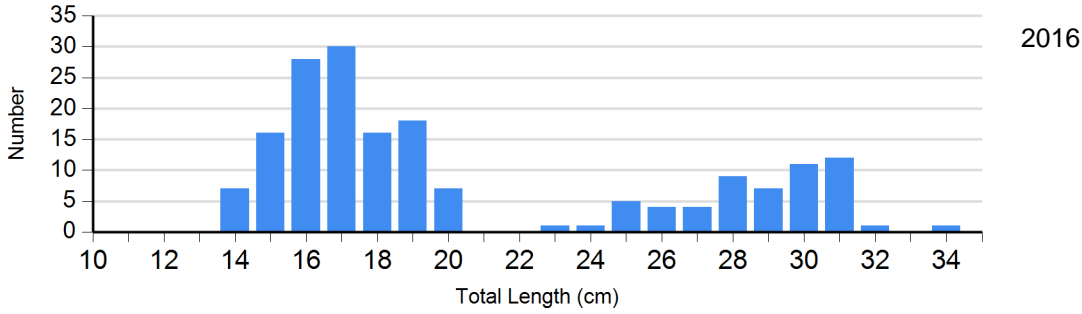
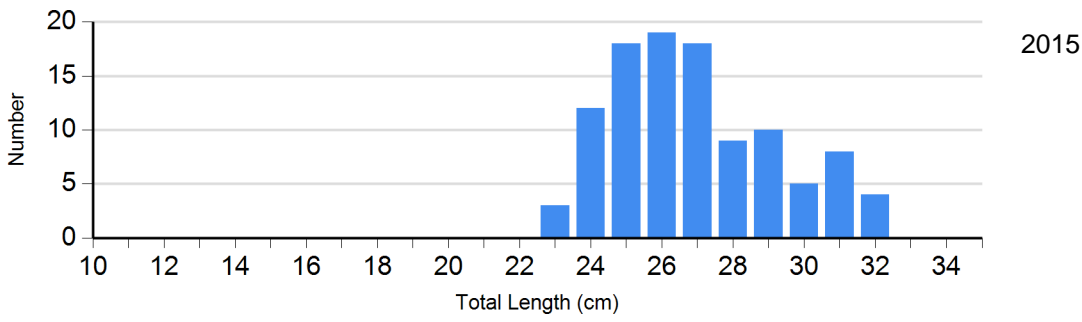
Species: Black Bullhead  
Gear: AFS std gill net



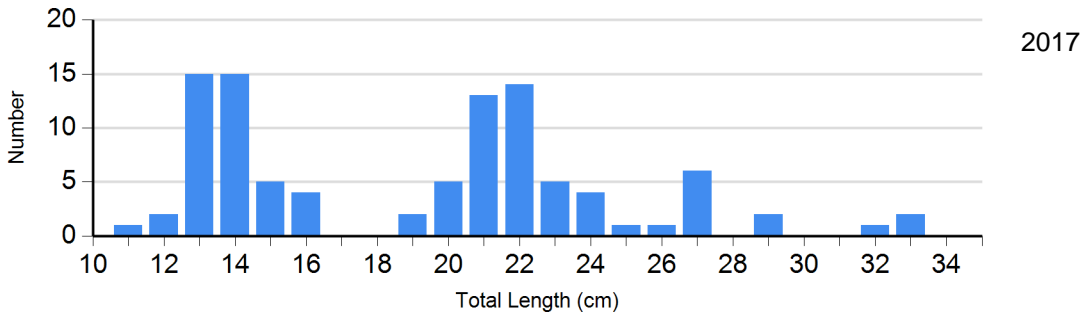
Species: Black Bullhead  
Gear: std exp gill net



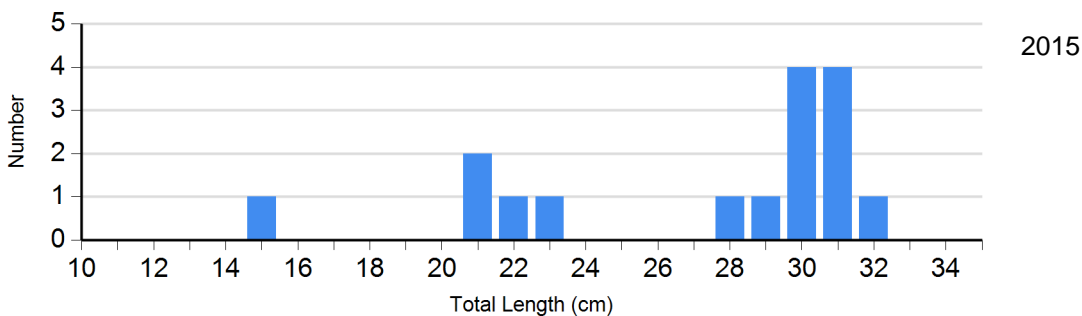
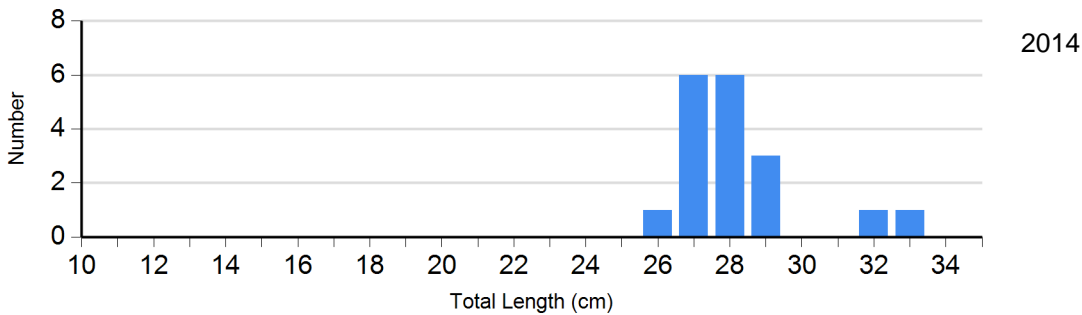


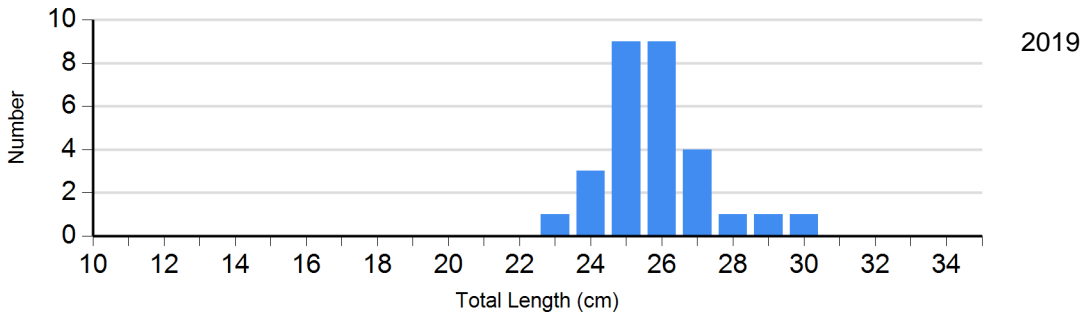
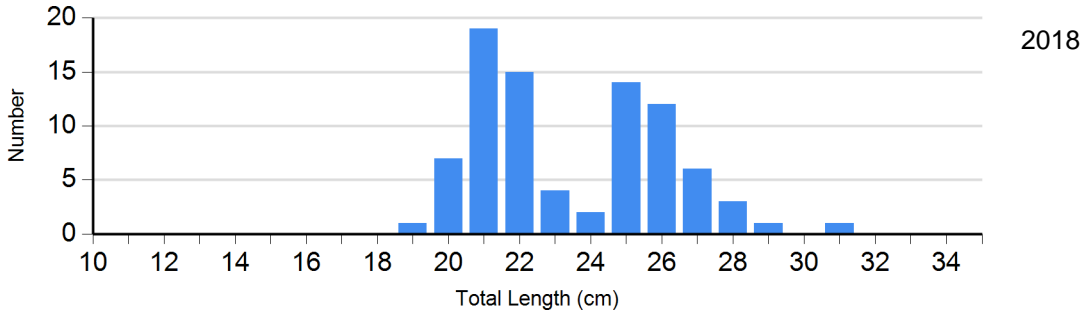
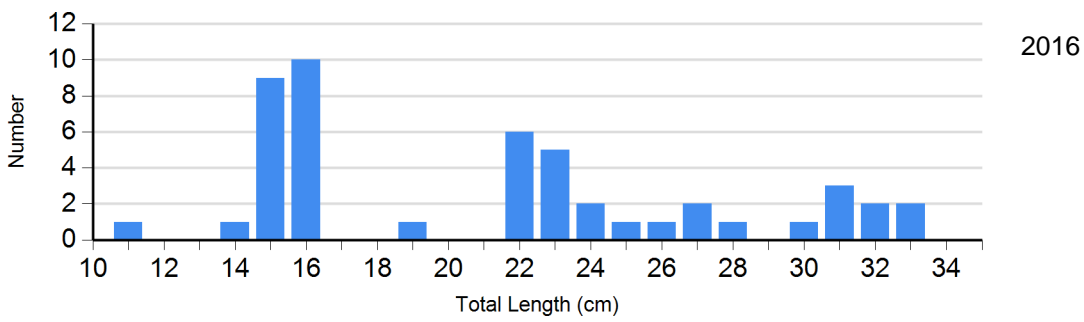


Species: Black Crappie  
Gear: AFS std frame net

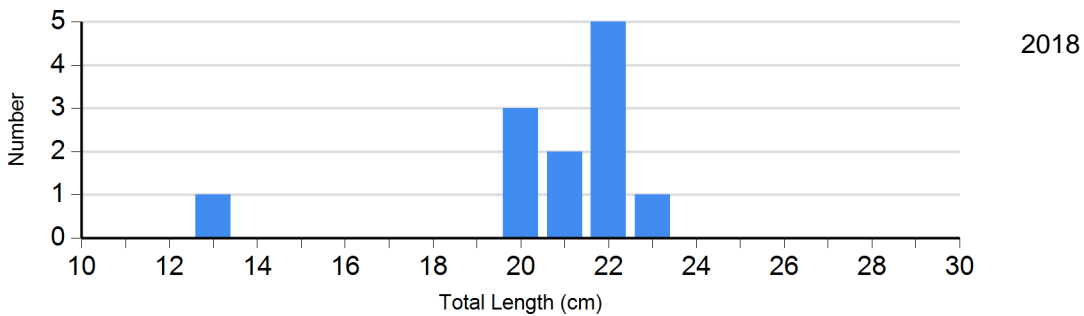
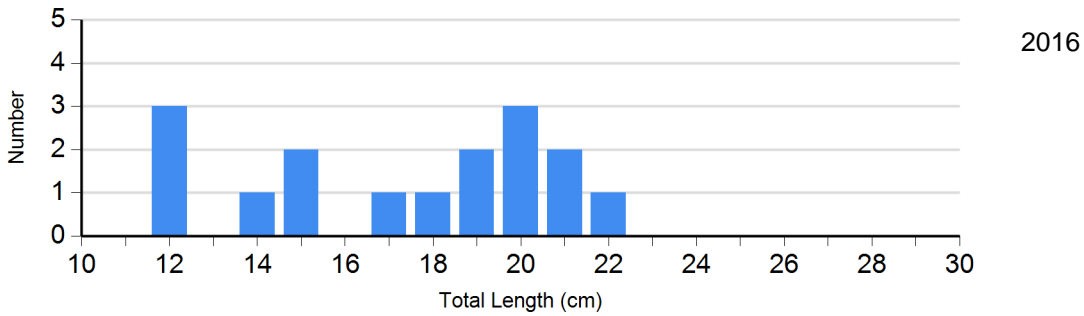


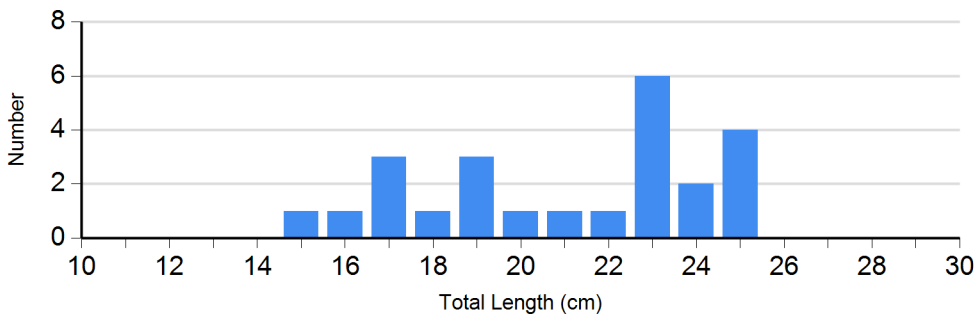
Species: Black Crappie  
Gear: frame net (std 3/4 in)





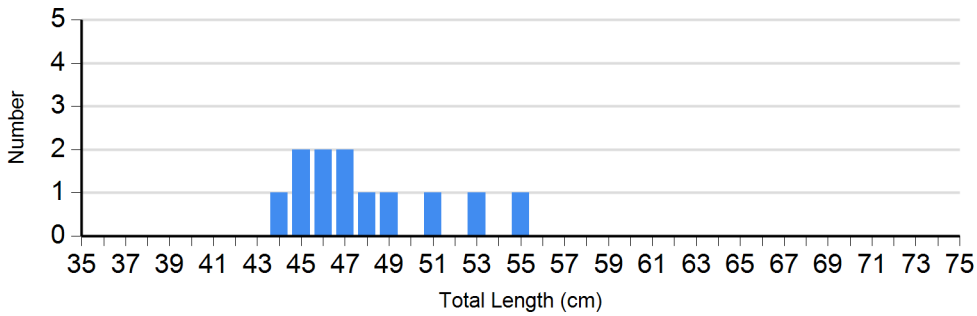
Species: Bluegill  
 Gear: frame net (std 3/4 in)



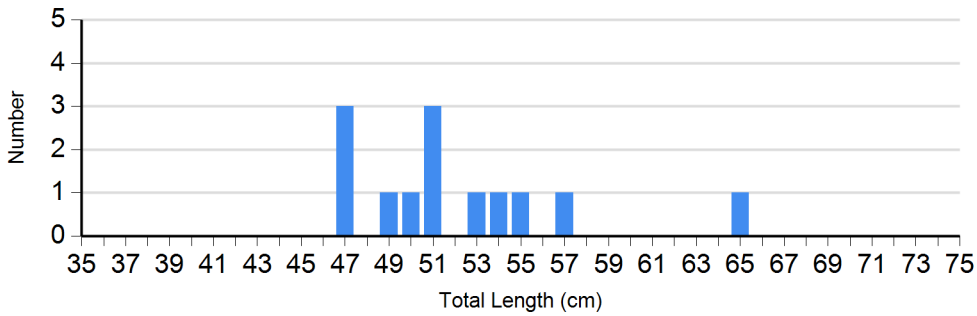


2019

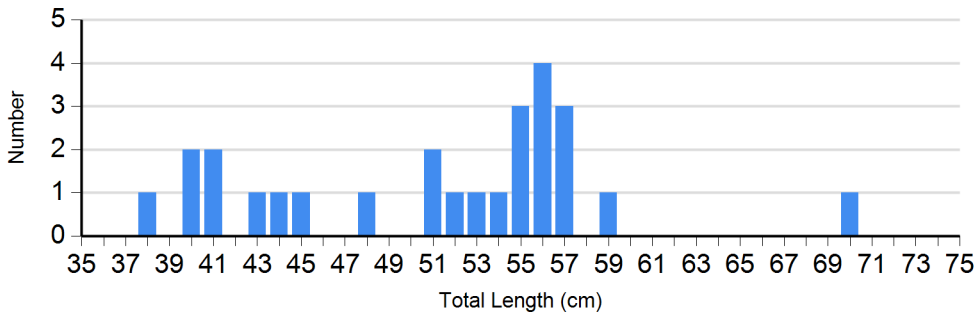
Species: Common Carp  
Gear: AFS std gill net



2017

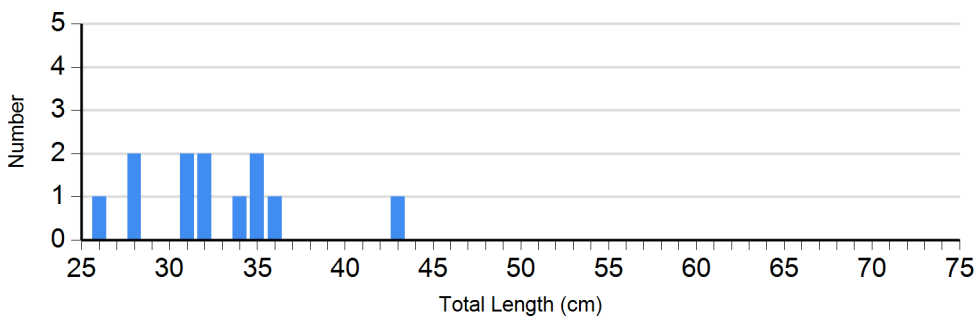


2018



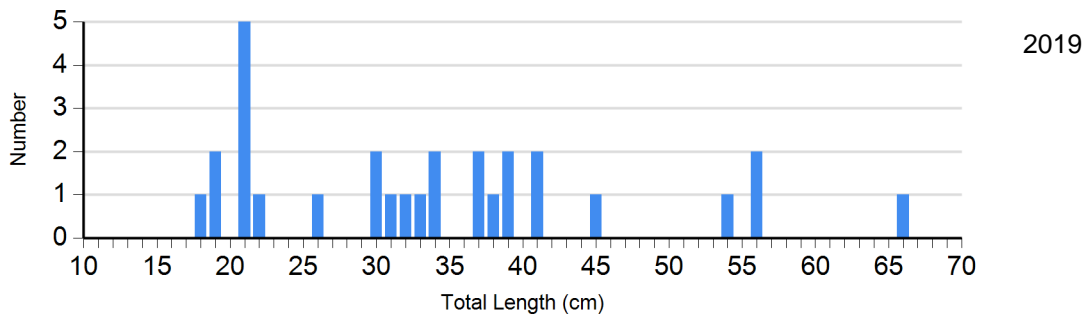
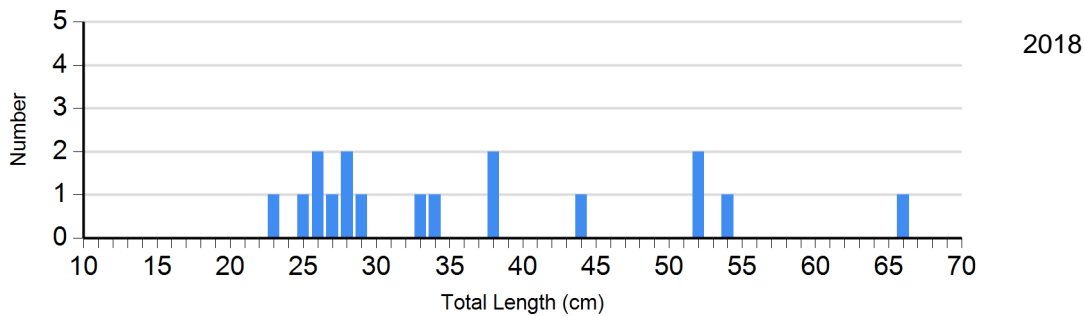
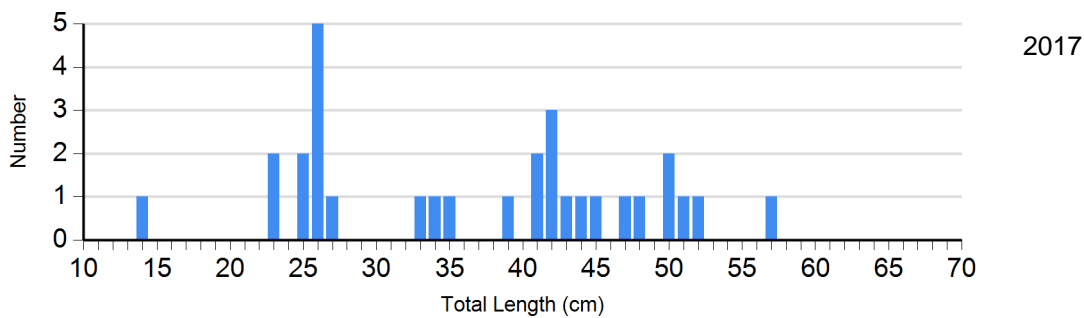
2019

Species: Common Carp  
Gear: std exp gill net

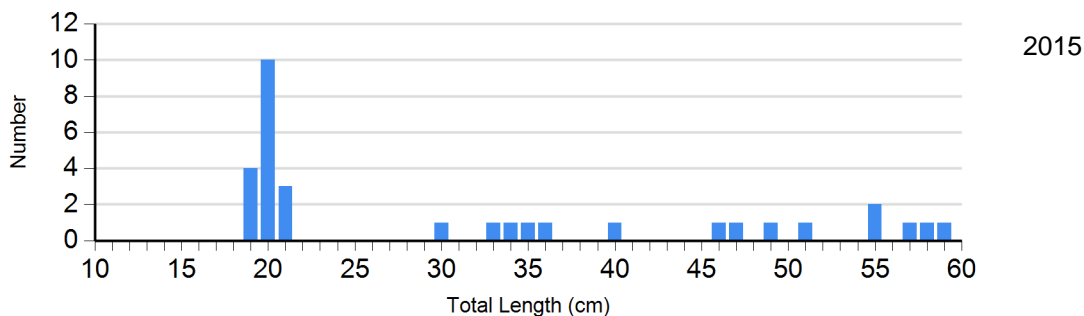
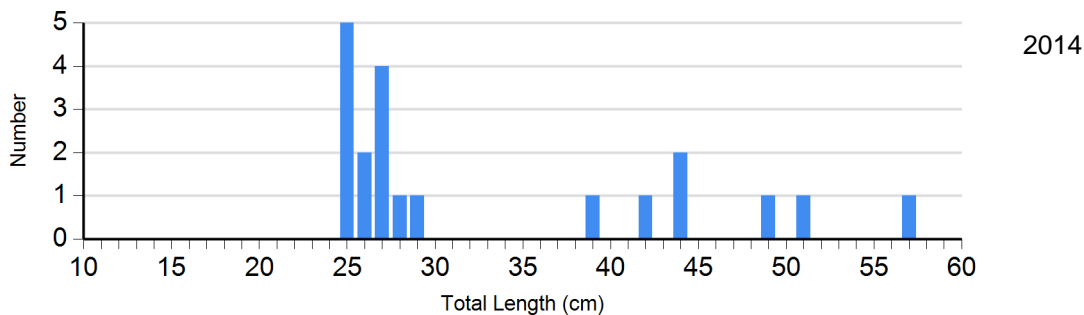


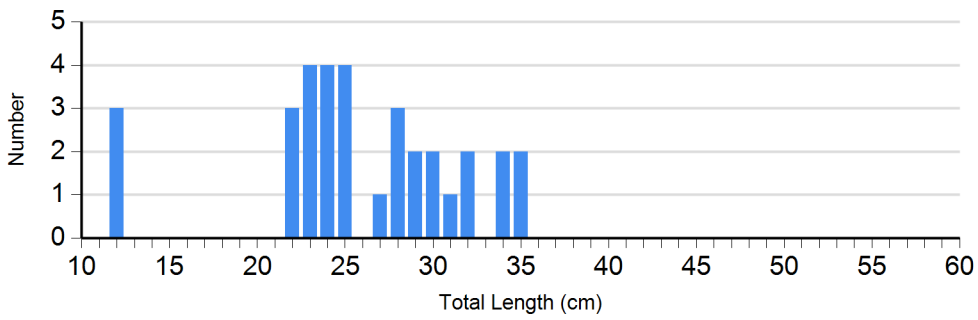
2016

Species: Walleye  
 Gear: AFS std gill net



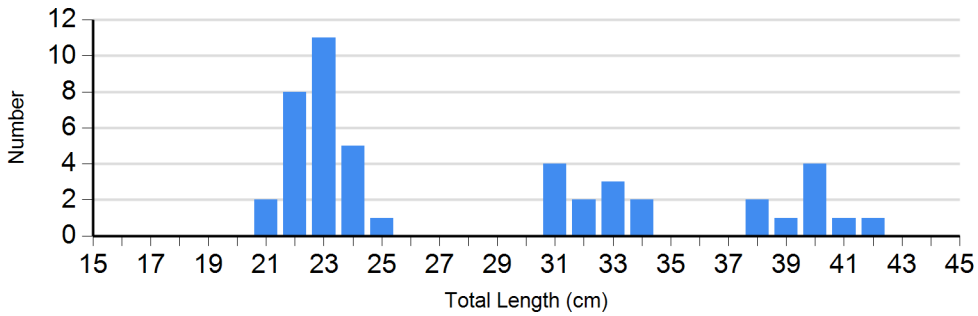
Species: Walleye  
 Gear: std exp gill net



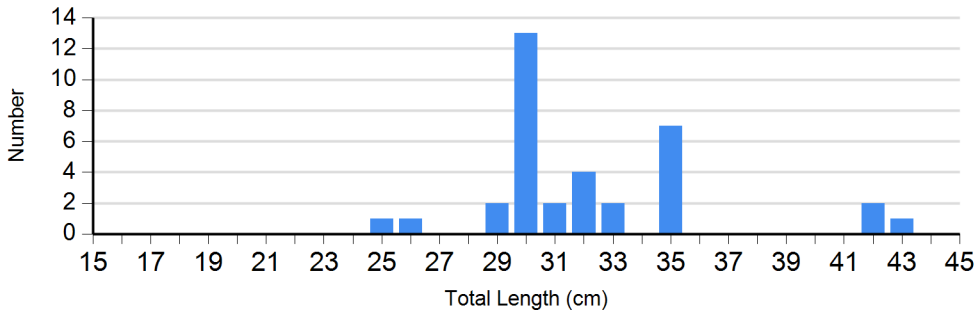


2016

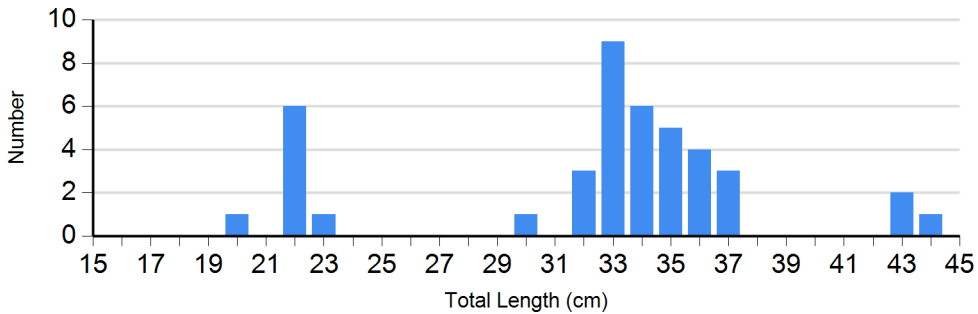
Species: White Bass  
Gear: AFS std gill net



2017

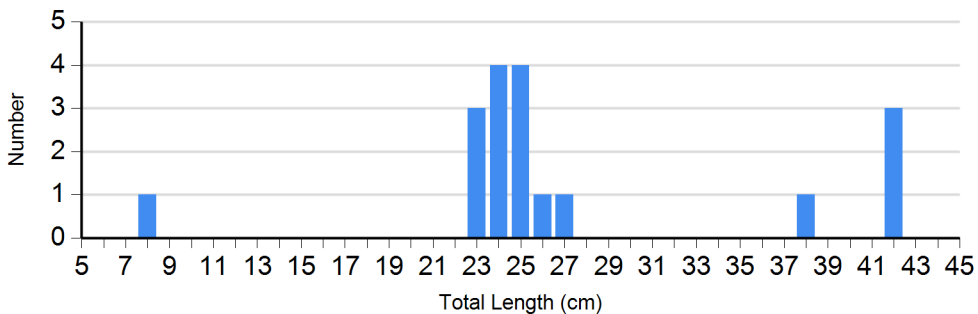


2018



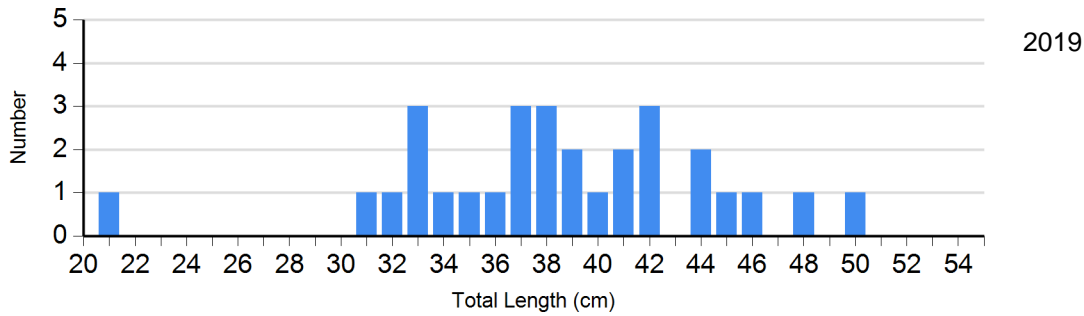
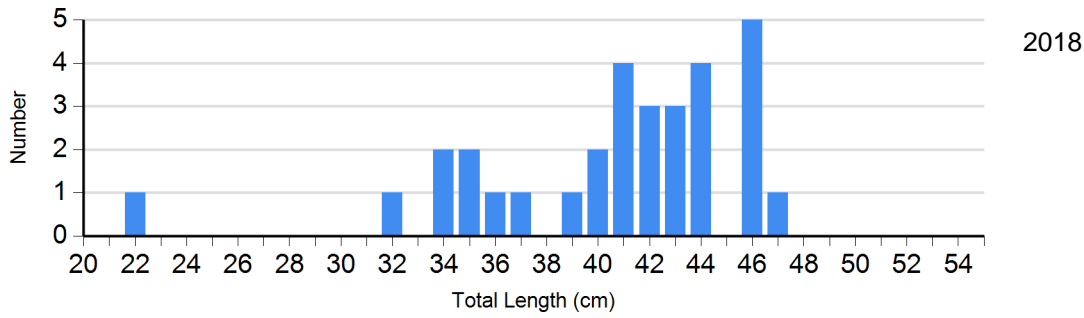
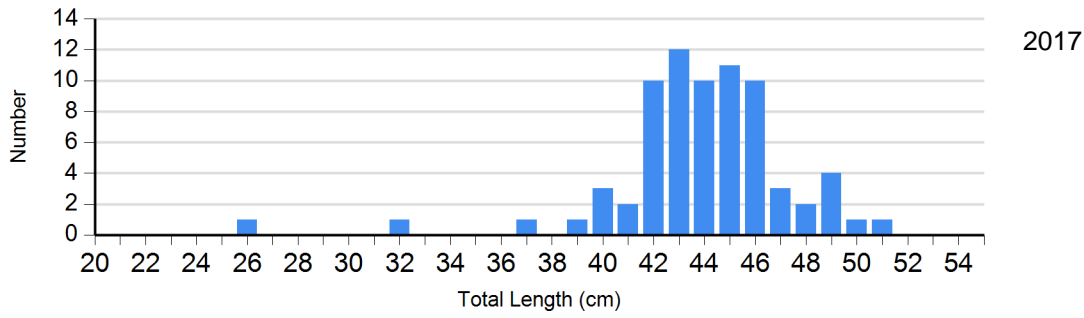
2019

Species: White Bass  
Gear: std exp gill net

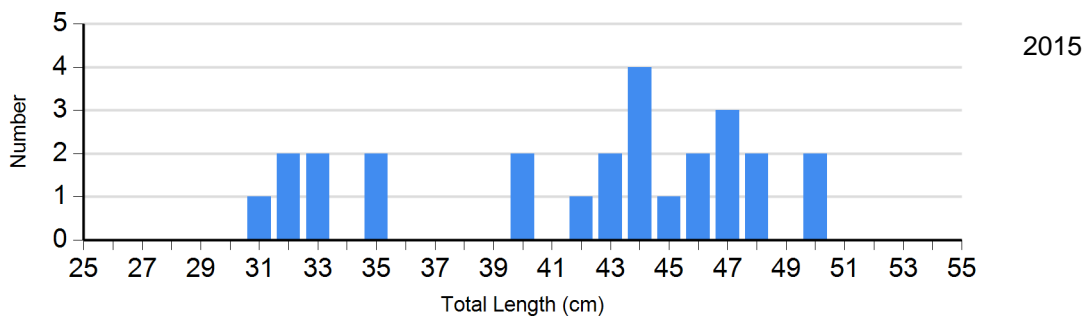
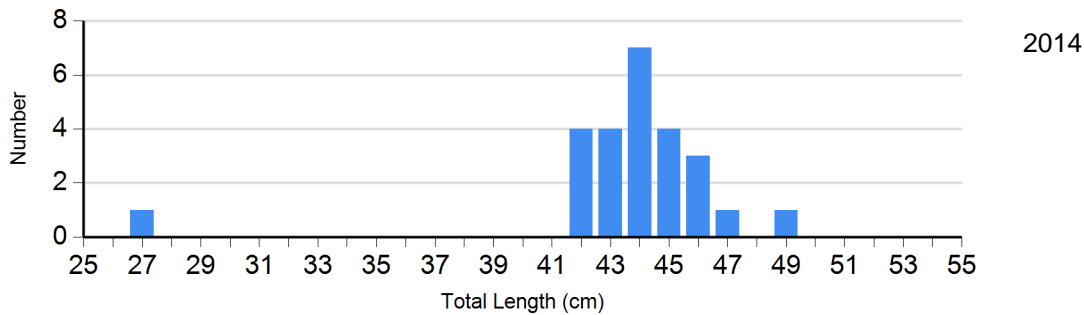


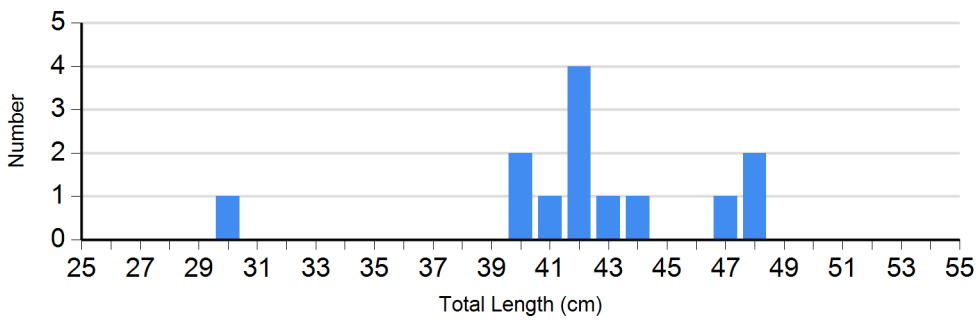
2016

Species: White Sucker  
 Gear: AFS std gill net



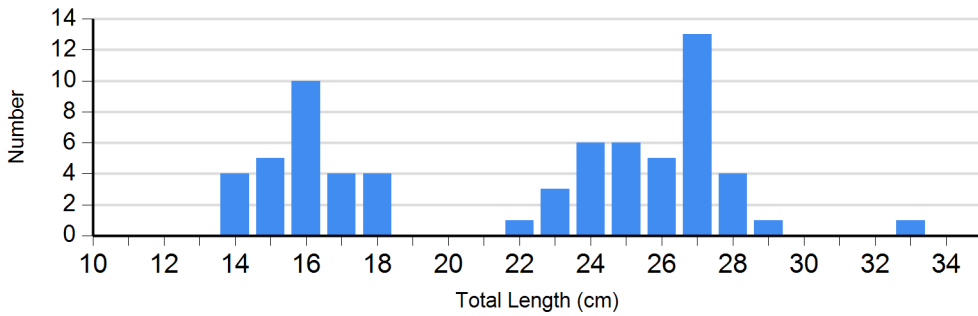
Species: White Sucker  
 Gear: std exp gill net



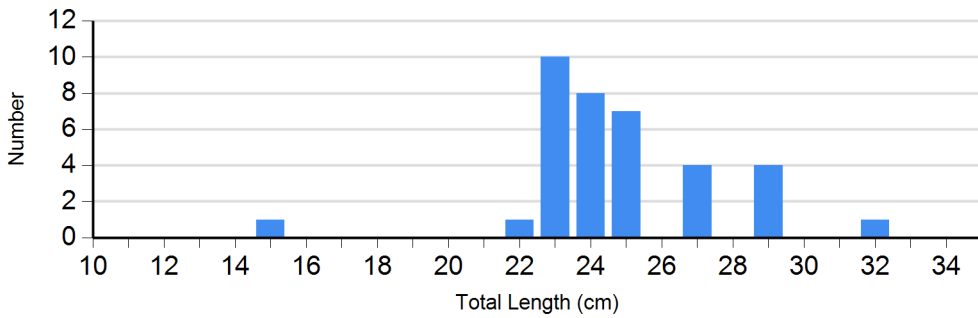


2016

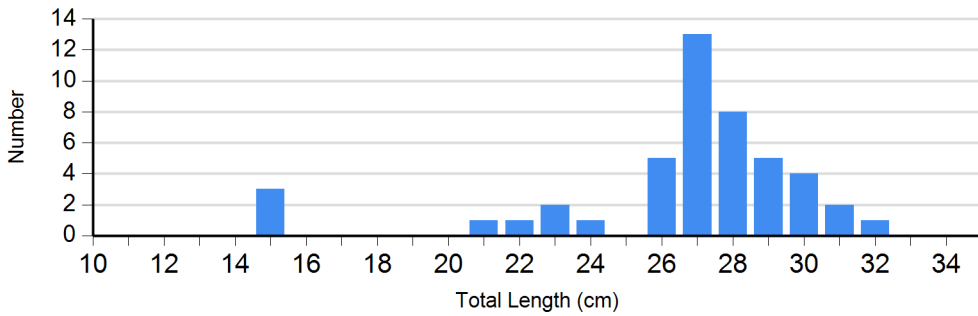
Species: Yellow Perch  
Gear: AFS std gill net



2017

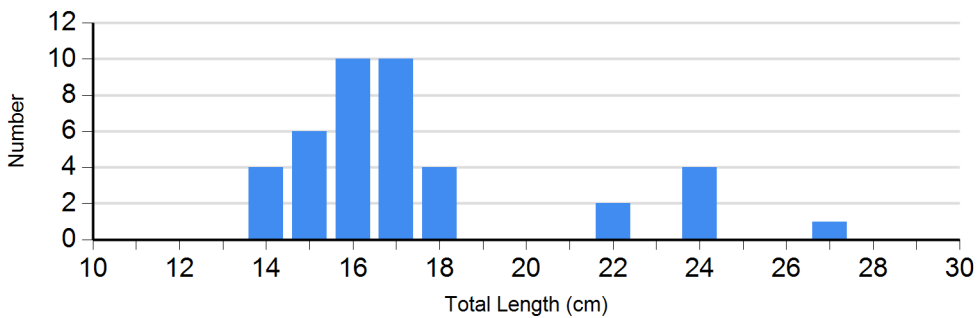


2018

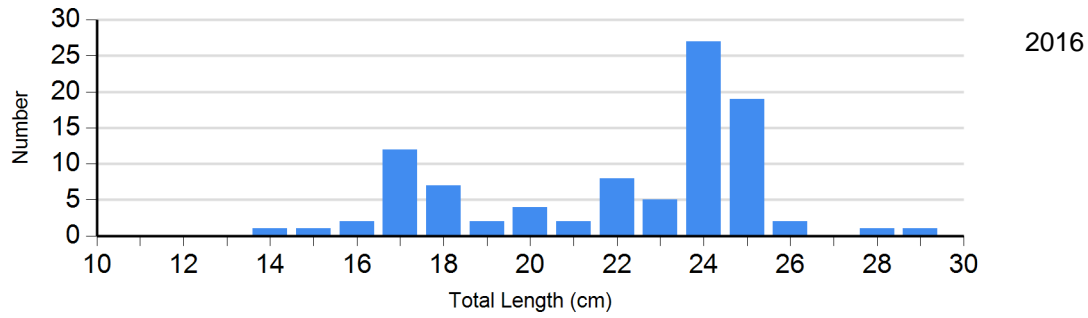
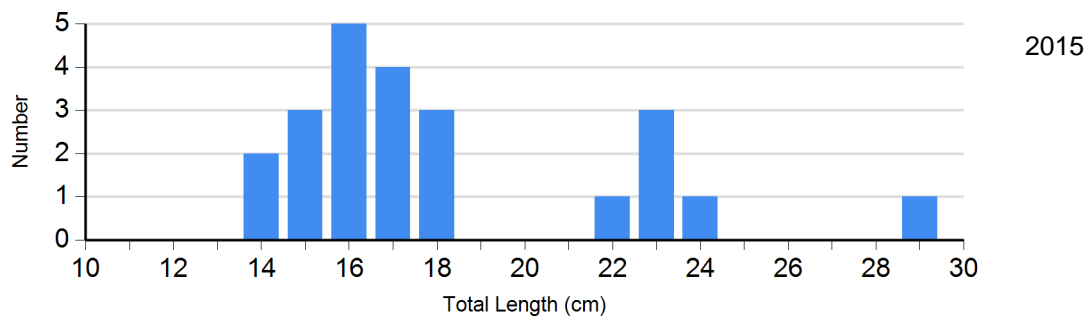


2019

Species: Yellow Perch  
Gear: std exp gill net



2014

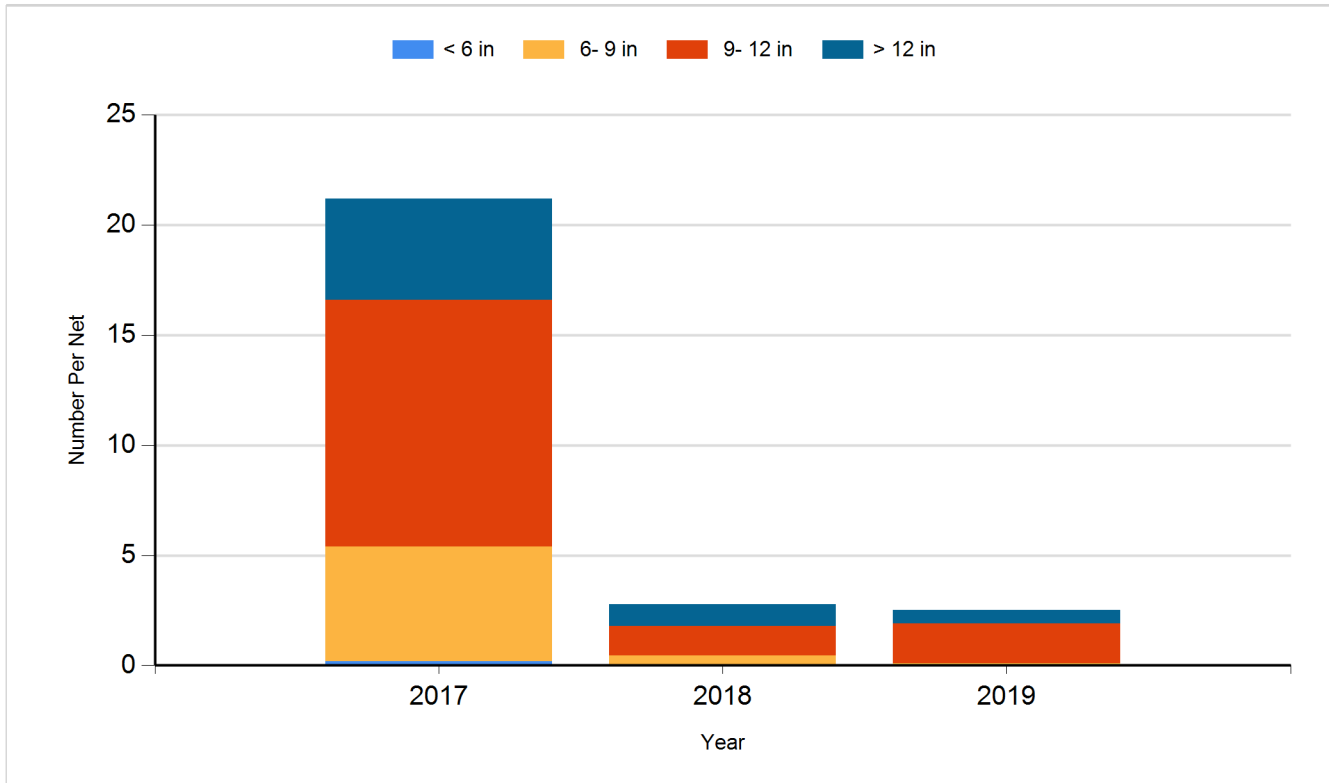




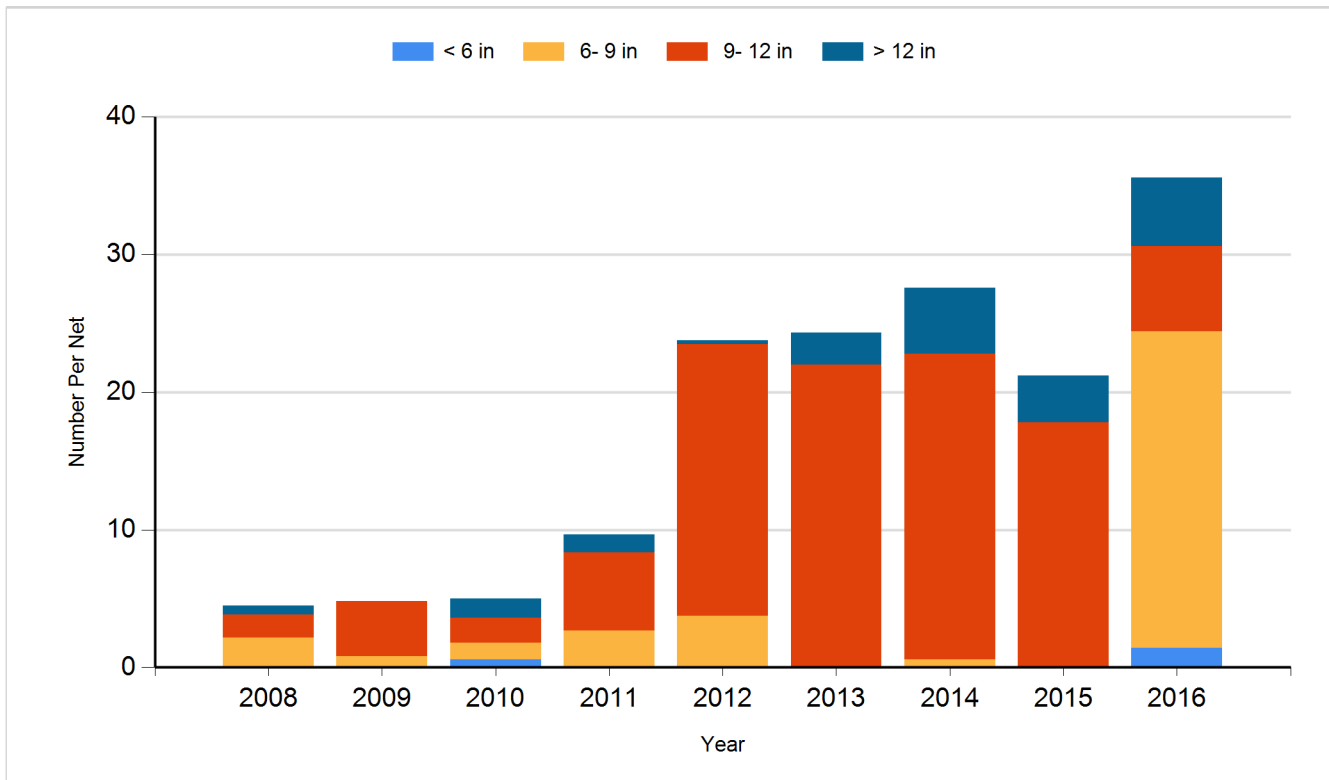
## Historic Fish Sizes and Relative Abundance

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

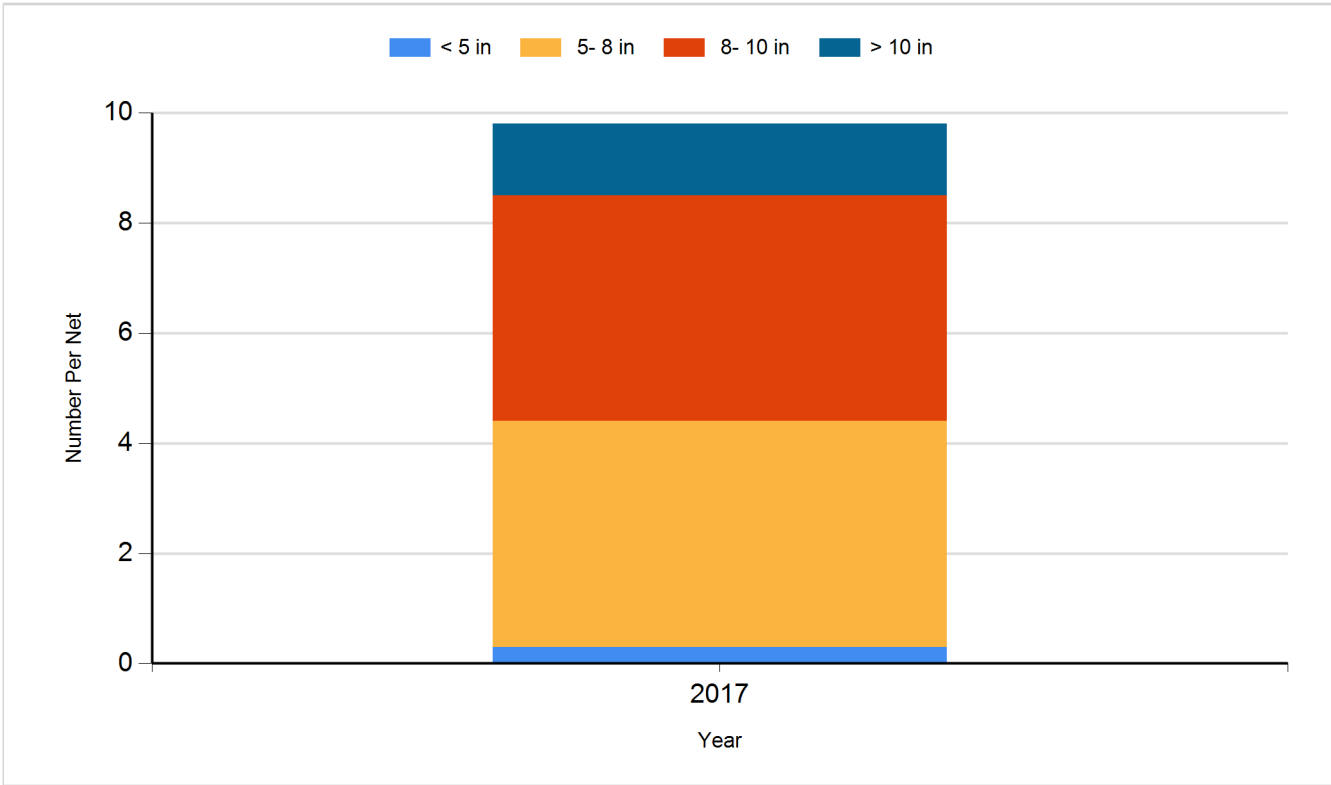
Species: Black Bullhead  
Gear: AFS std gill net



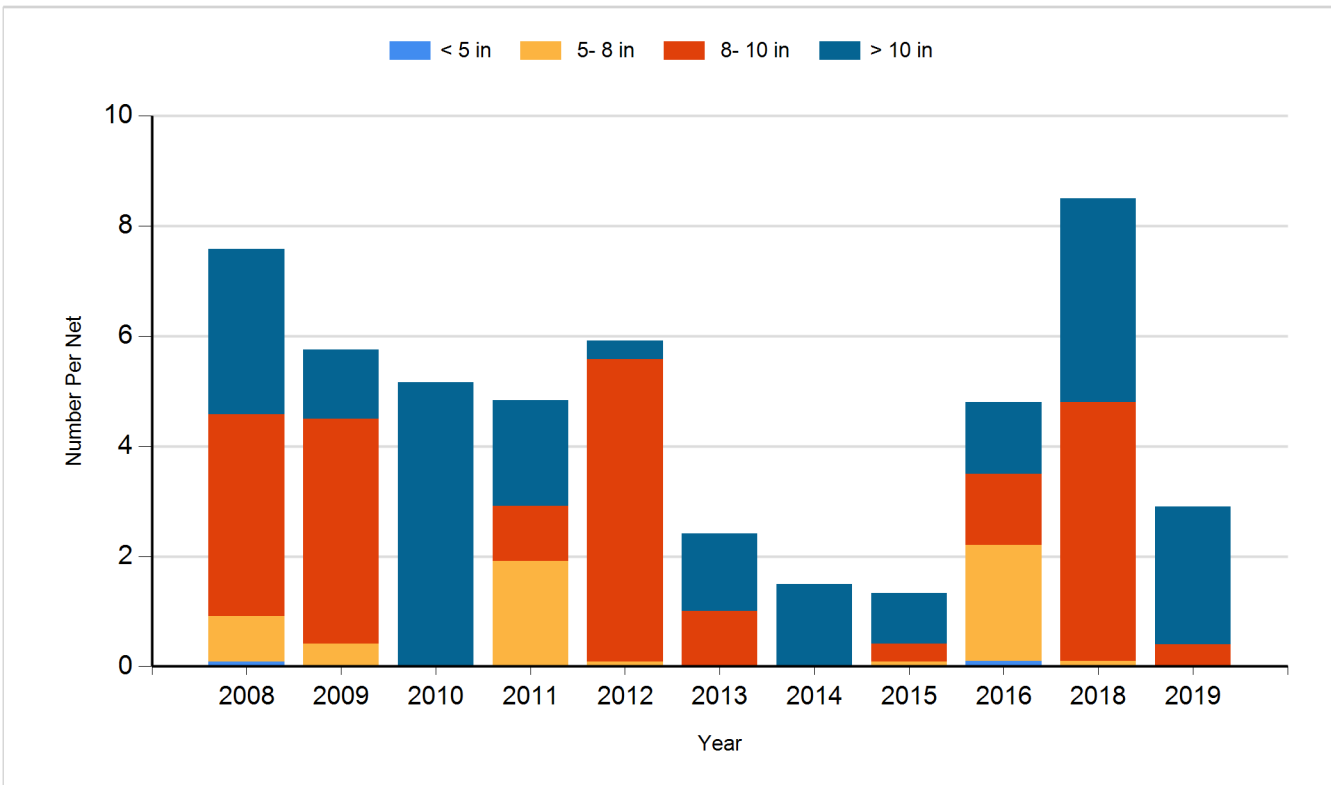
Species: Black Bullhead  
Gear: std exp gill net



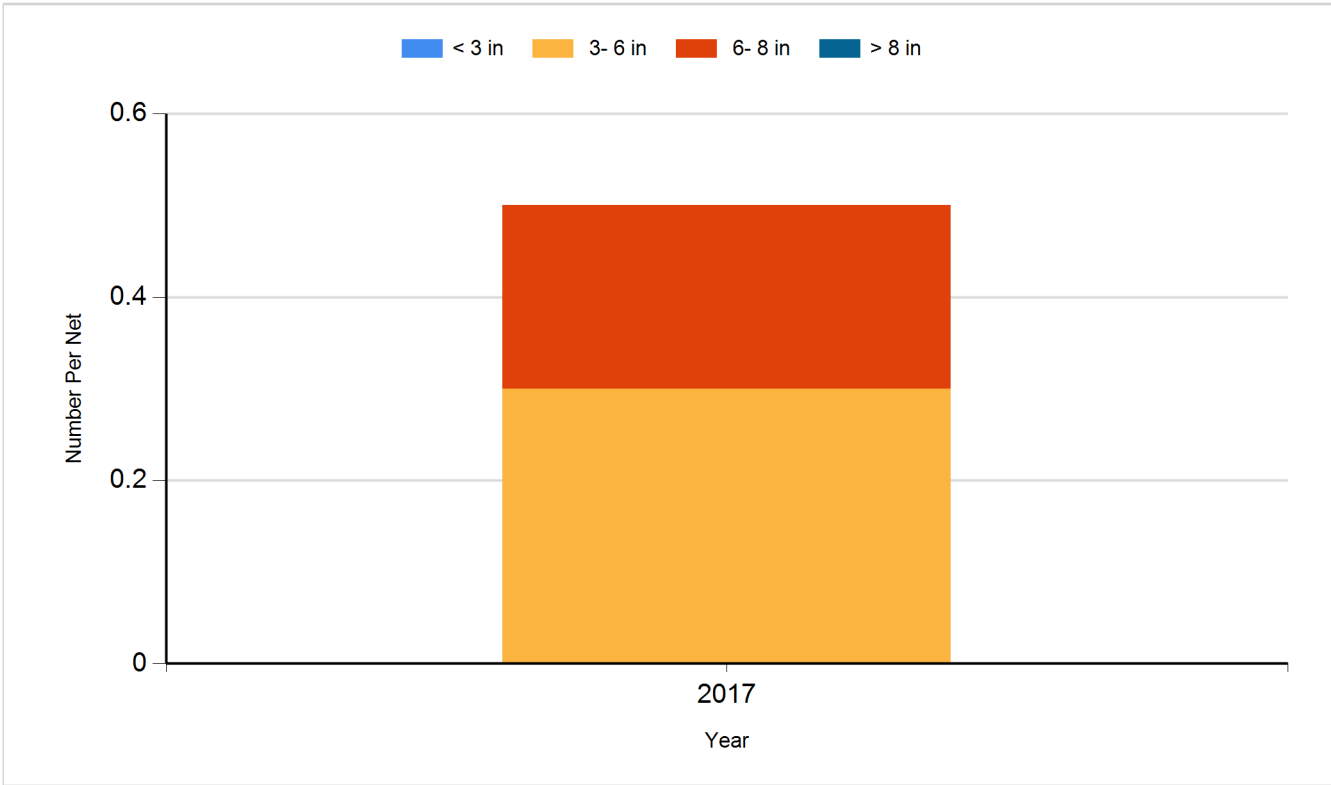
Species: Black Crappie  
Gear: AFS std frame net



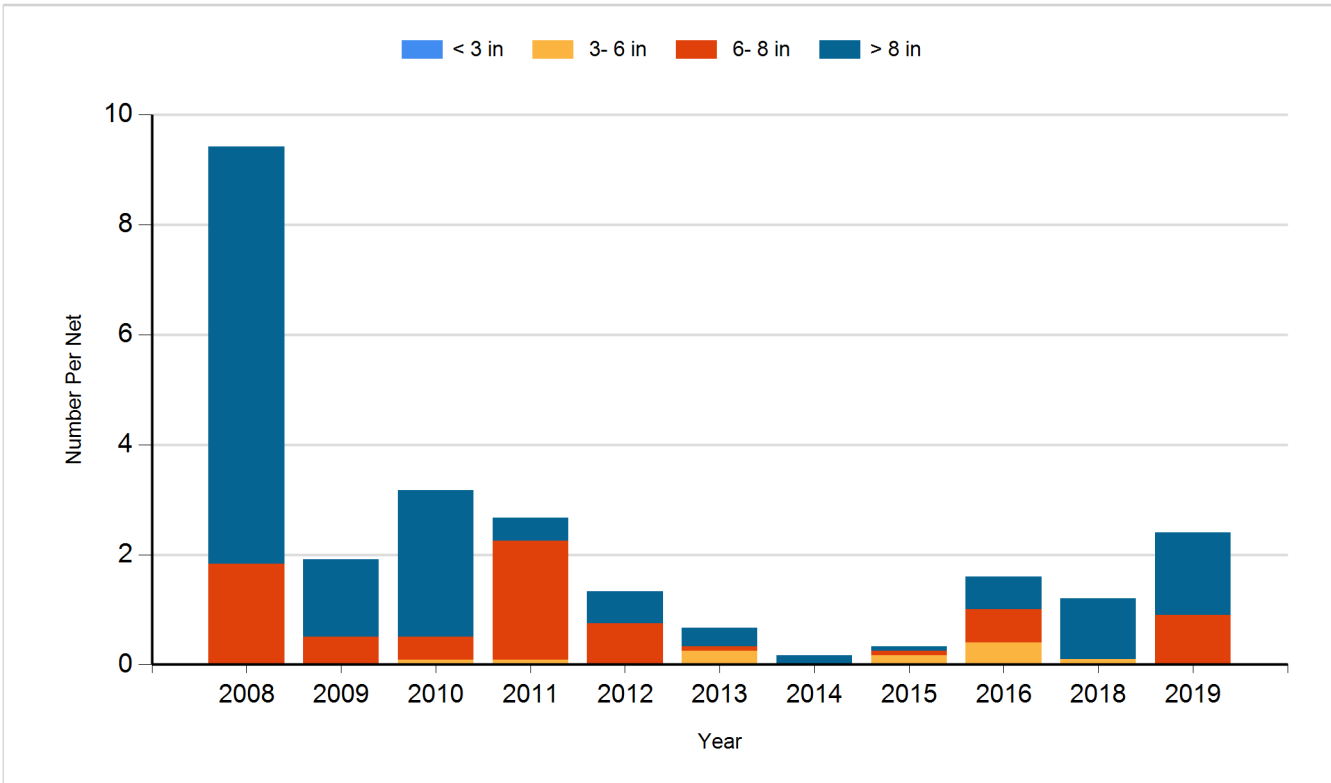
Species: Black Crappie  
Gear: frame net (std 3/4 in)



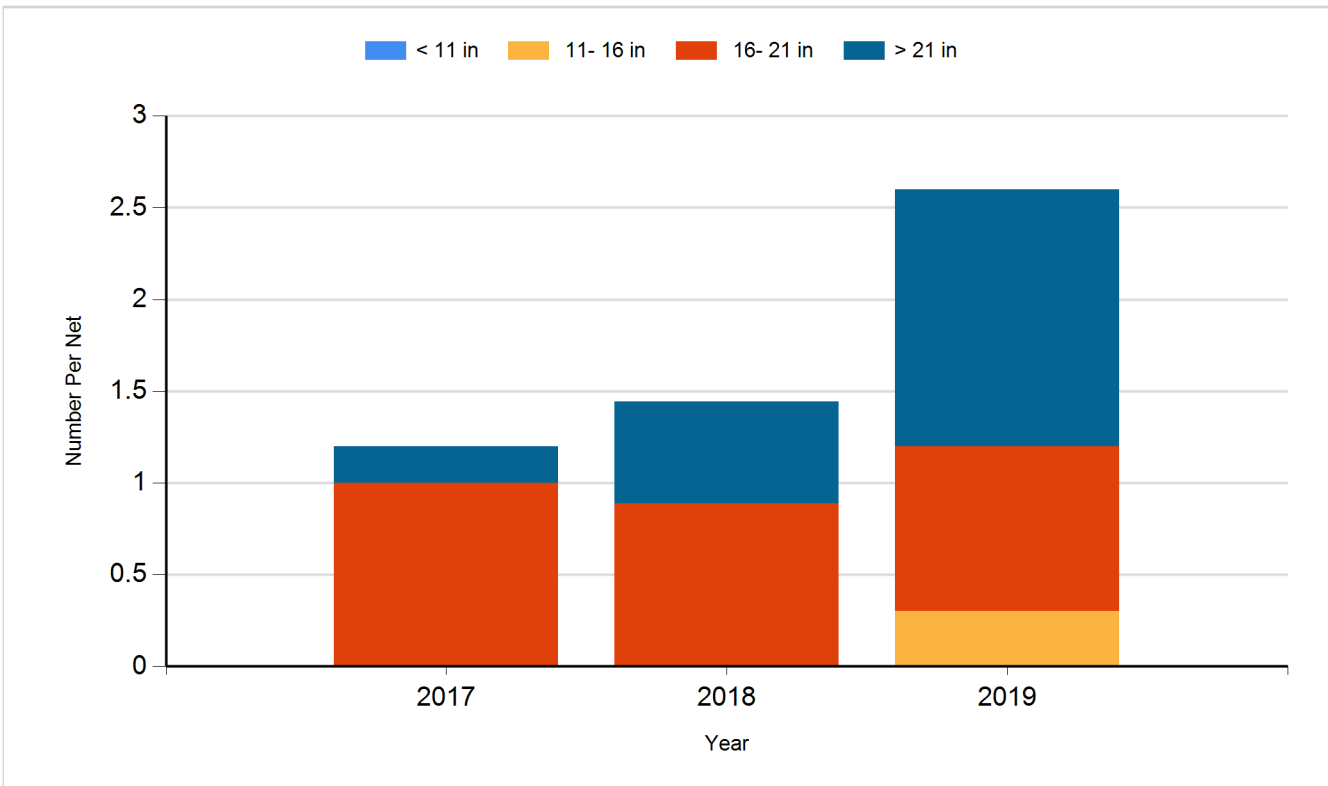
Species: Bluegill  
Gear: AFS std frame net



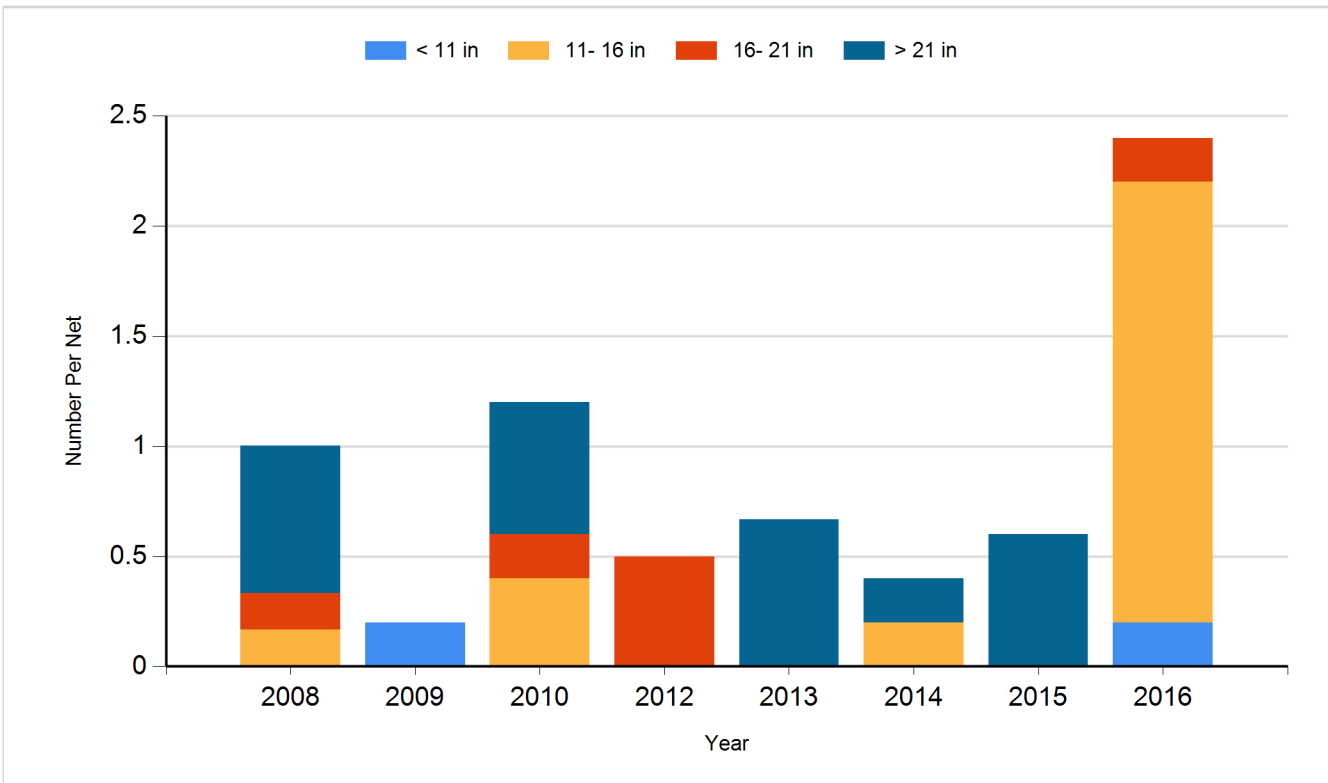
Species: Bluegill  
Gear: frame net (std 3/4 in)



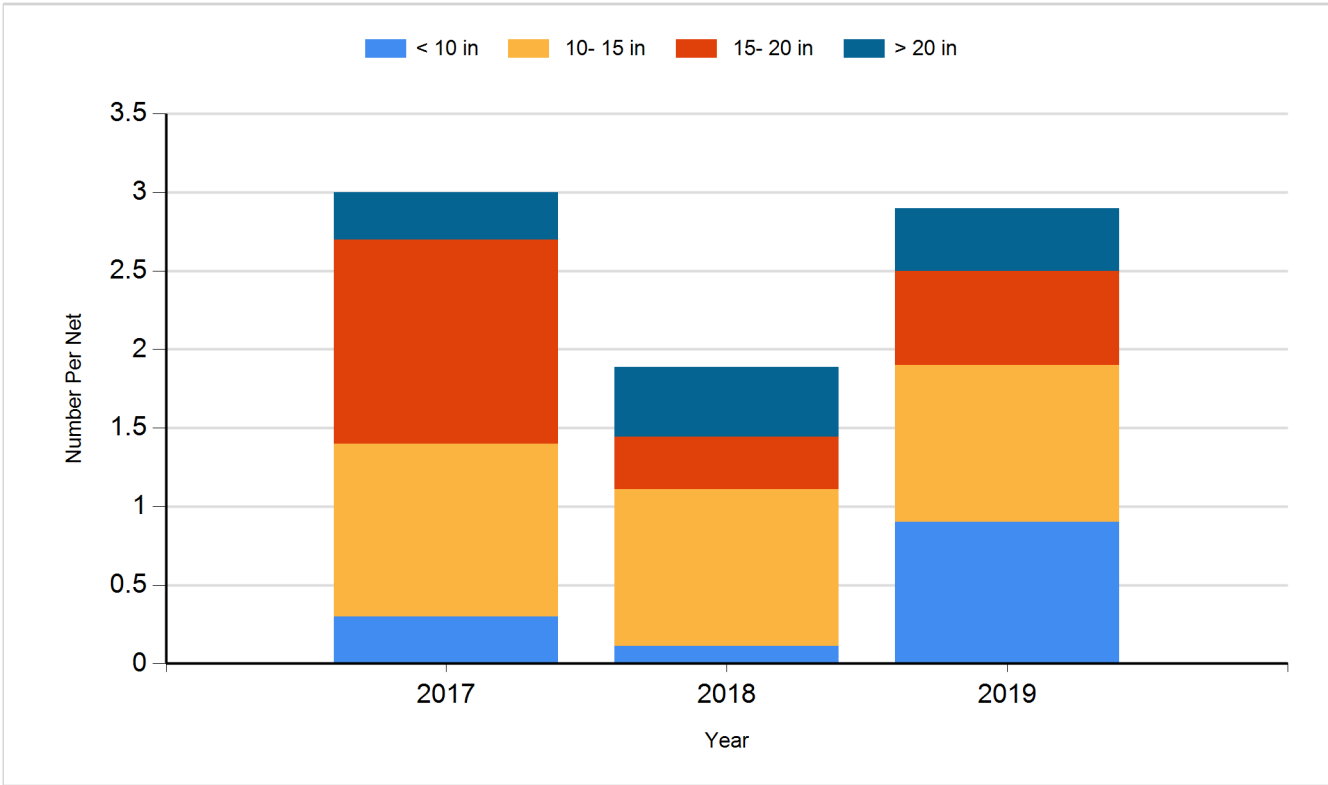
Species: Common Carp  
Gear: AFS std gill net



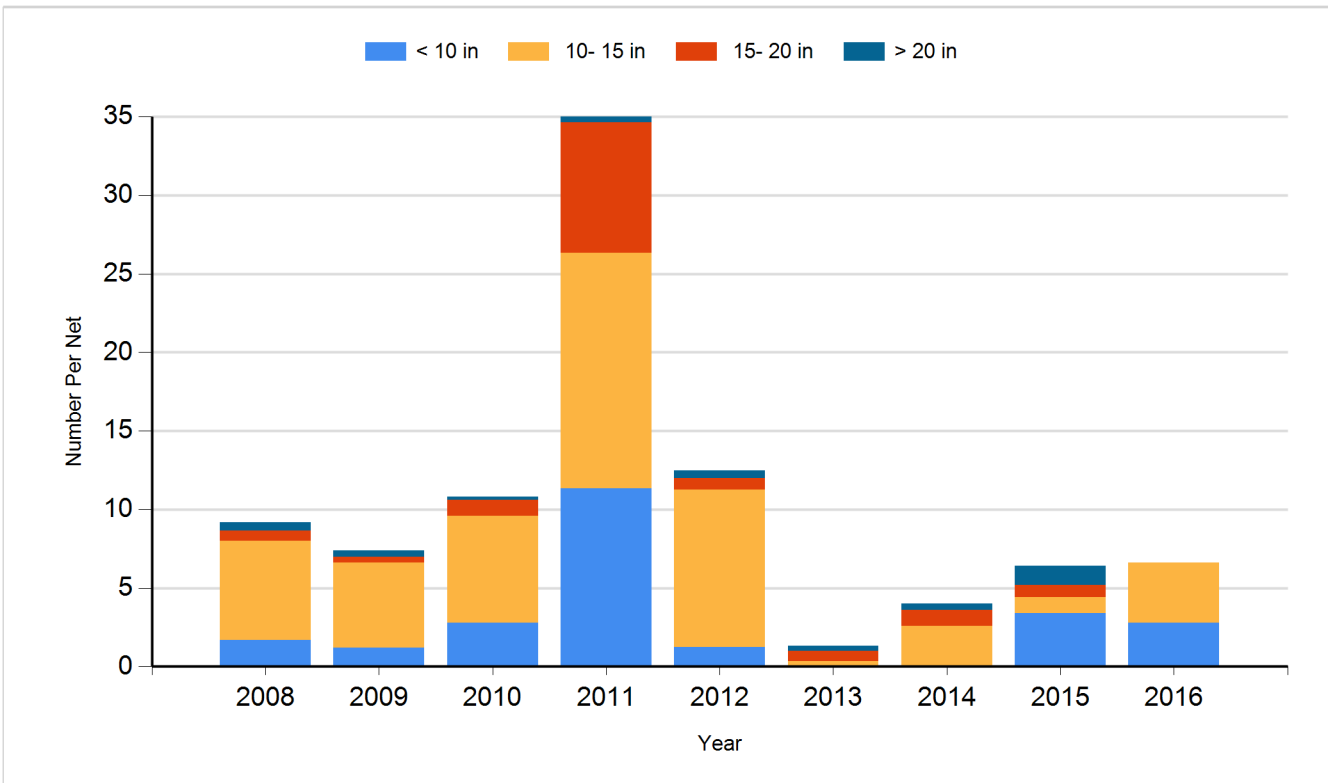
Species: Common Carp  
Gear: std exp gill net



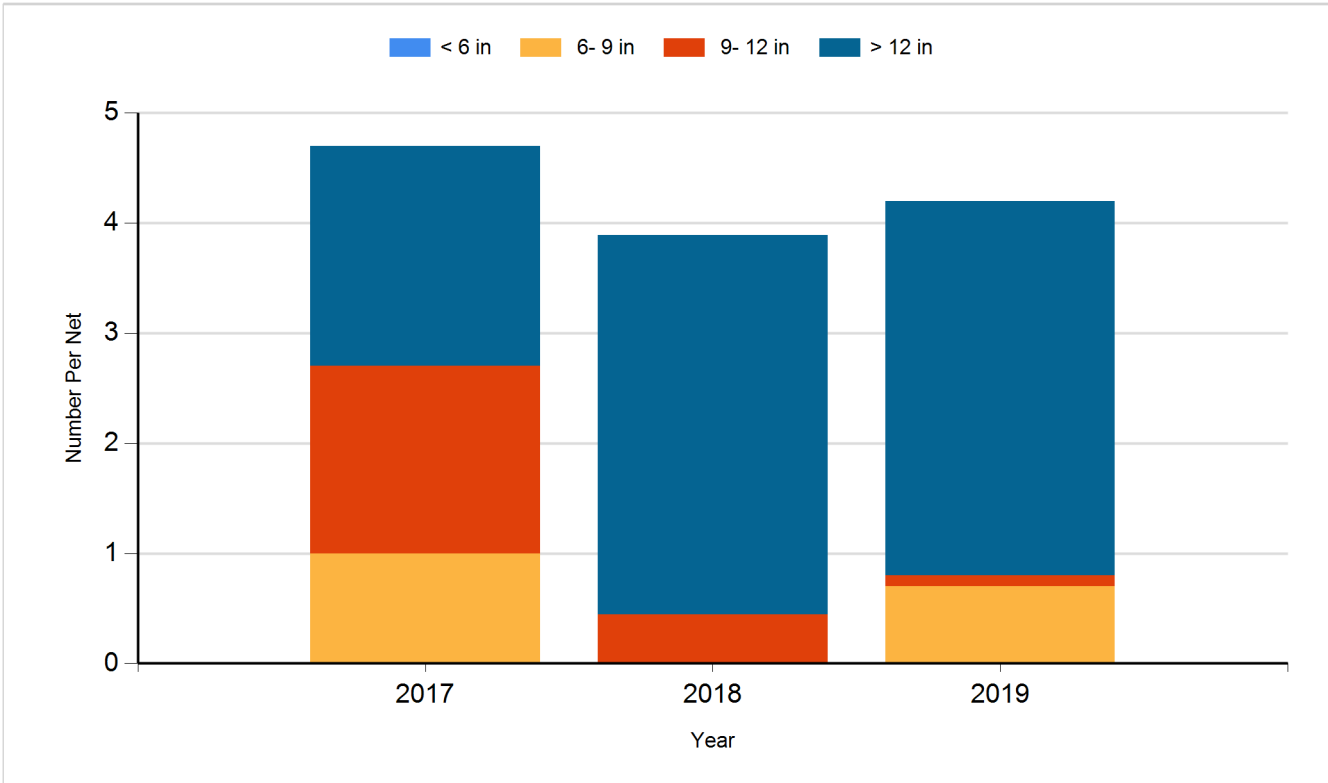
Species: Walleye  
Gear: AFS std gill net



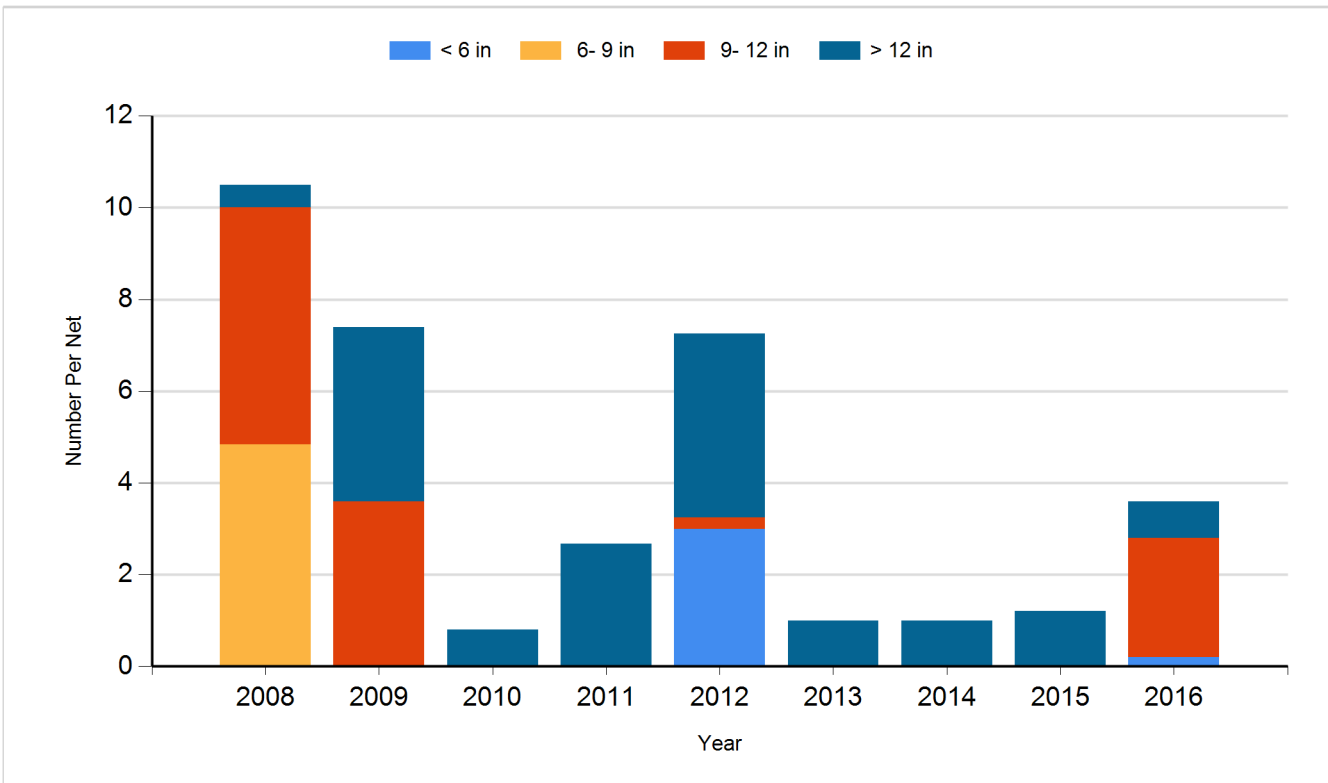
Species: Walleye  
Gear: std exp gill net



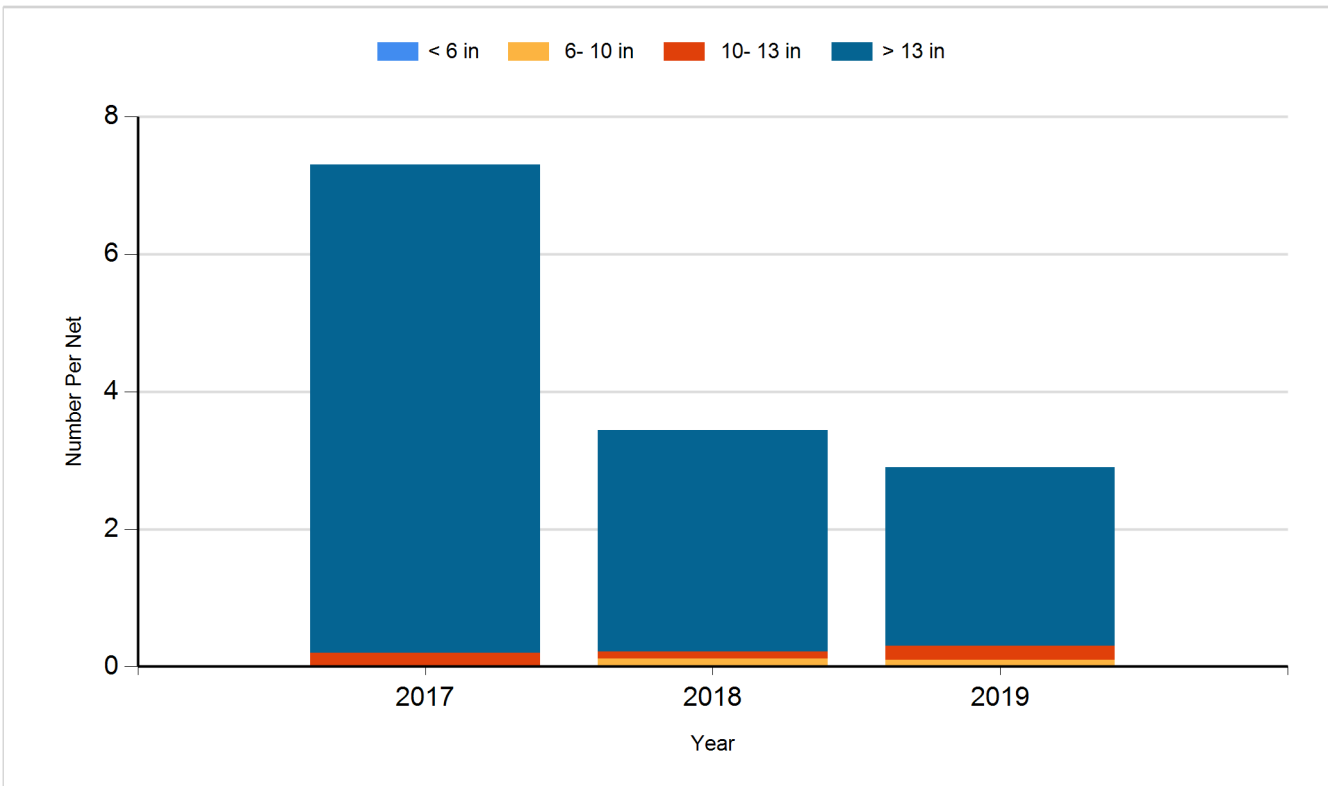
Species: White Bass  
Gear: AFS std gill net



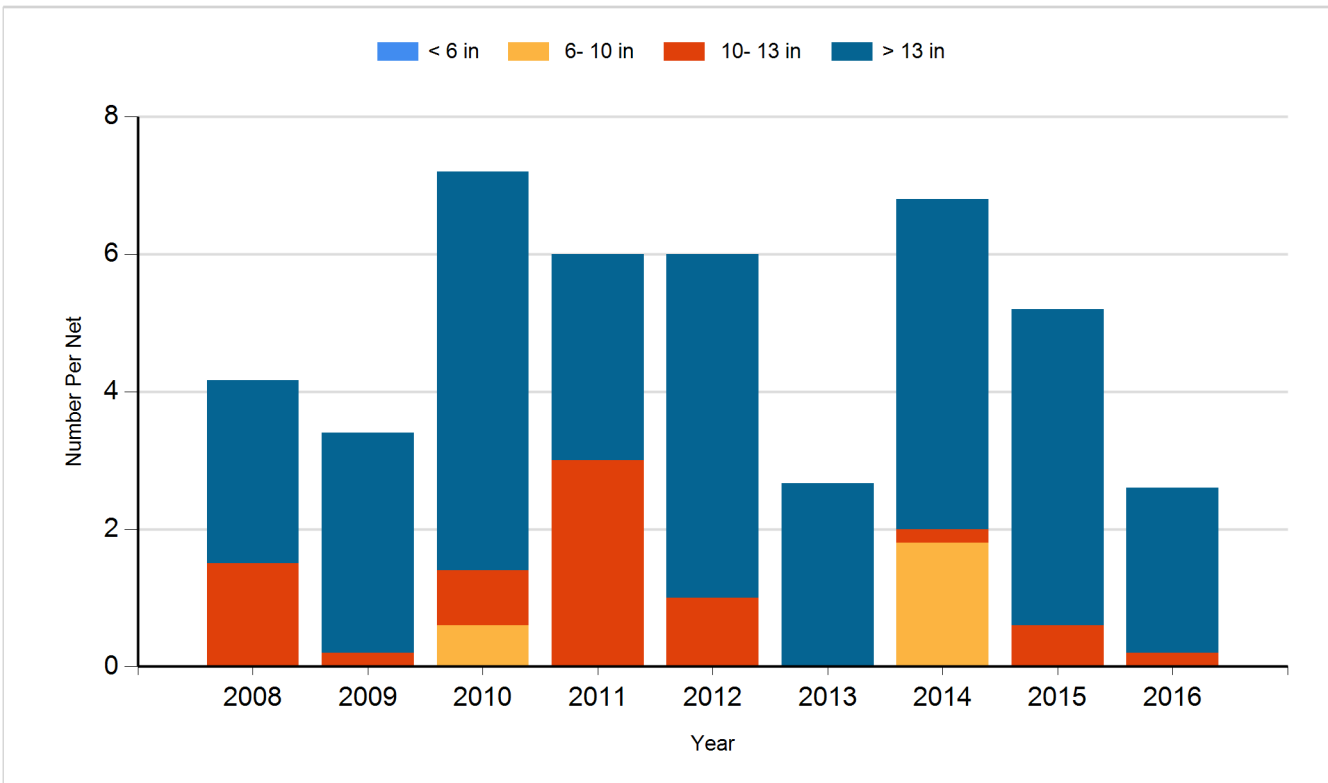
Species: White Bass  
Gear: std exp gill net



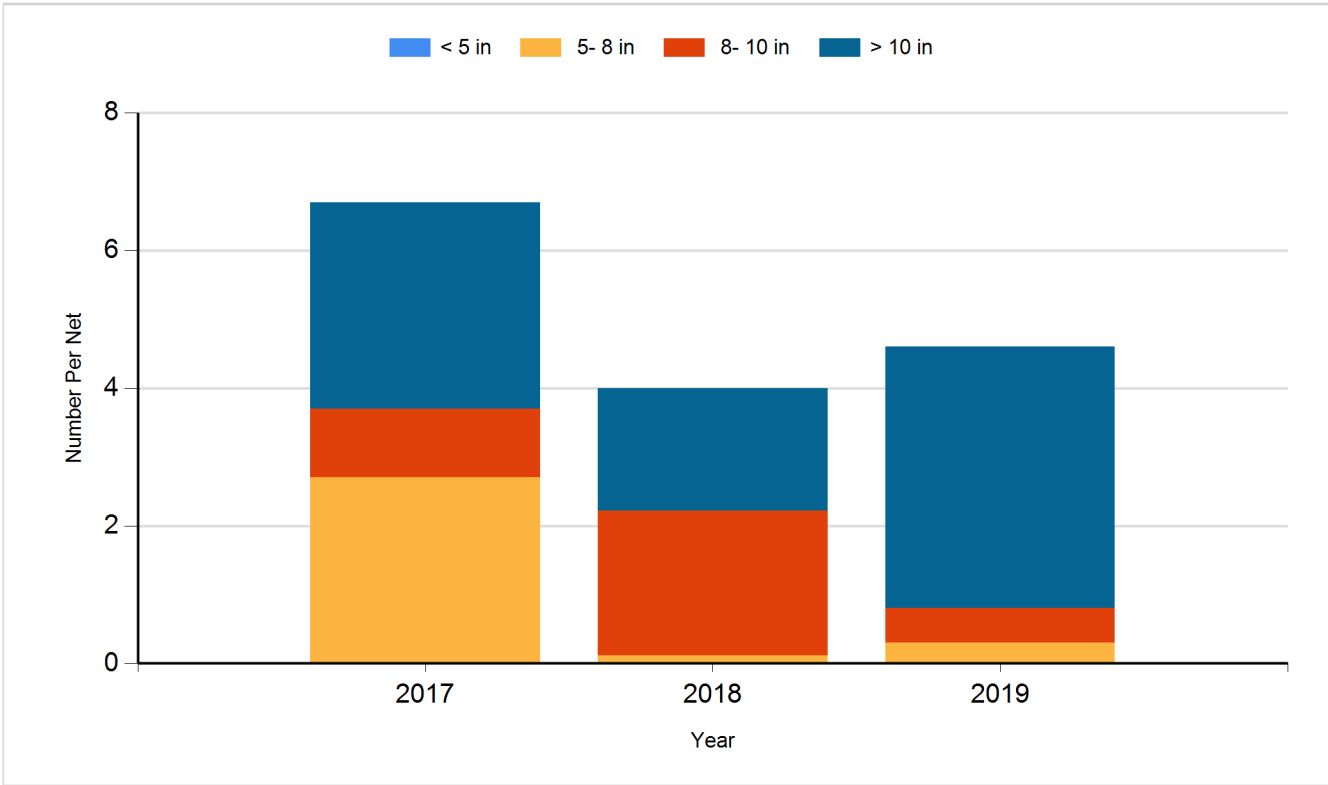
Species: White Sucker  
Gear: AFS std gill net



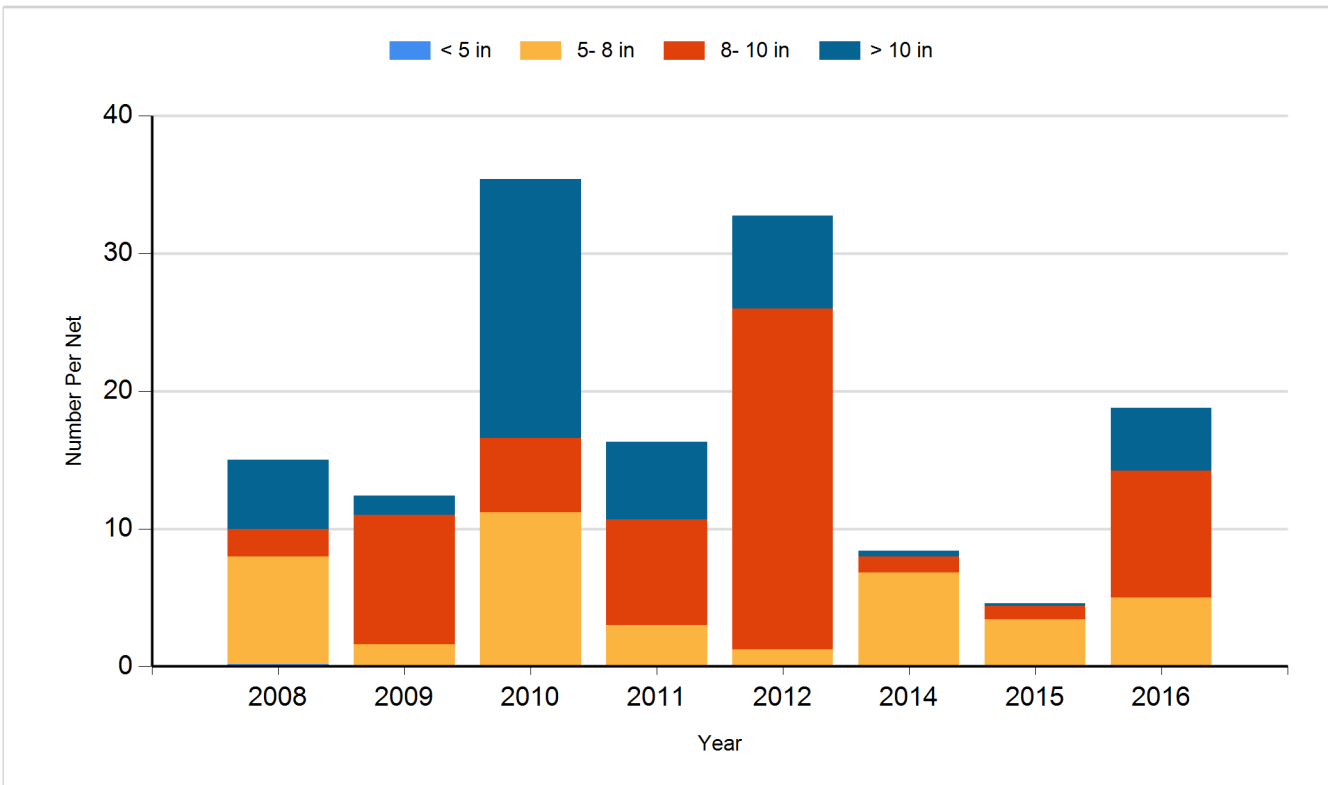
Species: White Sucker  
Gear: std exp gill net



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
2008	Yellow Perch	Small Fingerling	103,540
2009	Walleye	Small Fingerling	103,900
2009	Yellow Perch	Fry	5,245,000
2013	Walleye	Small Fingerling	102,660
2014	Walleye	Small Fingerling	103,600
2014	Yellow Perch	Small Fingerling	499,000
2015	Walleye	Small Fingerling	68,320
2017	Walleye	Small Fingerling	70,490
2018	Walleye	Small Fingerling	72,900
2019	Walleye	Small Fingerling	73,030