

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

Sharpe, Hughes County

FTR-Lake-6327-001

2019

Lake Information

Name: Sharpe
County: Hughes
Surface Area: 58,660 Acres

Surveys and Investigations

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

Gear	Date	Effort
AFS gill net (1/2inch)	Aug 13, 2019	18 net-nights
AFS gill net (1/2inch)	Aug 14, 2019	19 net-nights
AFS gill net (1/2inch)	Aug 15, 2019	19 net-nights
AFS gill net (1/2inch)	Aug 16, 2019	16 net-nights
AFS std gill net	Aug 13, 2019	18 net-nights
AFS std gill net	Aug 14, 2019	19 net-nights
AFS std gill net	Aug 15, 2019	19 net-nights
AFS std gill net	Aug 16, 2019	16 net-nights
large seine	Aug 01, 2019	8 hauls
large seine	Jul 31, 2019	8 hauls

Common Fish Species Present

Gizzard Shad

Emerald Shiner

Yellow Perch

White Bass

White Crappie

Johnny Darter

Smallmouth Bass

Red Shiner

Channel Catfish

Walleye

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 gill net (1/2inch)	Channel Catfish	2	0.0	0.0	0		0		87	2
	Common Carp	4	0.1	0.0	100		25		85	2
	Northern Pike	1	0.0	0.0	0		0		96	
	Rainbow Smelt	1	0.0	0.0						
	Sauger	6	0.0	0.0	50		50		67	11
	Spottail Shiner	6	0.0	0.0						
	Walleye	16	0.1	0.0	0		0		76	4
	Yellow Perch	23	0.1	0.1	14		0		96	7
AFS std gill net	Bigmouth Buffalo	2	0.0	0.0	100		100		77	11
	Black Bullhead	1	0.0	0.0	100		0		70	
	Channel Catfish	177	2.4	0.4	63	5	15	4	91	1
	Common Carp	52	0.7	0.2	100		25	9	83	2
	Flathead Catfish	2	0.0	0.0	50		0		87	1
	Freshwater Drum	29	0.4	0.1	100		100		85	3
	Gizzard Shad	31	0.4	0.1	100				108	2
	Goldeye	13	0.0	0.0						
	Lake Herring	3	0.0	0.0	100		67		69	1
	Northern Pike	1	0.0	0.0	0		0		86	
	River Carpsucker	9	0.1	0.1	100		100		100	4
	Sauger	10	0.1	0.1	90		30		66	4
	Shorthead Redhorse	18	0.3	0.1	83		72	18	109	11
	Shovelnose Sturgeon	5	0.0	0.0						
	Smallmouth Bass	41	0.6	0.4	95		73	11	91	2
	Smallmouth Buffalo	3	0.0	0.0	100		67		80	2
	Walleye	183	2.3	0.4	47	5	1		79	1
	White Bass	8	0.1	0.1	100		100		92	5
	White Sucker	1	0.0	0.0	100		100		92	
	Yellow Perch	37	0.5	0.2	68	12	14	9	98	3
large seine*	Black Crappie	7	0.4	0.1						
	Bluntnose Minnow	15	0.9	0.2						
	Channel Catfish	2	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	CI-80
large seine*	Common Carp	1	0.1	0.0						
	Emerald Shiner	264	16.5	0.7						
	Fathead Minnow	2	0.1	0.0						
	Freshwater Drum	25	1.6	0.1						
	Gizzard Shad	12032	752.0	19.5						
	Goldeye	1	0.1	0.0						
	Johnny Darter	61	3.8	0.4						
	Largemouth Bass	3	0.2	0.0						
	Rainbow Smelt	6	0.4	0.0						
	Red Shiner	50	3.1	0.7						
	River Carpsucker	33	2.1	0.6						
	Smallmouth Bass	52	3.3	0.2						
	Smallmouth Buffalo	4	0.3	0.1						
	Spottail Shiner	35	2.2	0.1						
	Walleye	16	1.0	0.7						
	White Bass	151	9.4	0.4						
	White Crappie	65	4.1	0.3						
	White Sucker	1	0.1	0.0						
	Yellow Perch	264	16.5	2.0						

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 gill net (1/2 inch)	Black Crappie									0.0		0.0
	Channel Catfish								0.1			0.1
	Common Carp								0.0			0.0
	Freshwater Drum								0.0			0.0
	Gizzard Shad								0.0	0.1		0.1
	Rainbow Smelt								0.0			0.0
	Smallmouth Bass								0.0			0.0
	Spottail Shiner								0.2	0.3		0.3
	Walleye								0.3	0.4		0.4
	White Bass									0.0		0.0
	Yellow Perch								0.2	0.3		0.3
AFS gill net (1/2inch)	Channel Catfish										0.0	0.0
	Common Carp										0.1	0.1
	Northern Pike										0.0	0.0
	Rainbow Smelt										0.0	0.0
	Sauger										0.0	0.0
	Spottail Shiner										0.0	0.0
	Walleye										0.1	0.1
AFS std gill net	Yellow Perch										0.1	0.1
	Bigmouth Buffalo								0.0	0.0	0.0	0.0
	Black Bullhead										0.0	0.0
	Black Crappie					0.0						0.0
	Channel Catfish					2.3			4.9	4.2	2.4	3.5
	Common Carp					0.4			0.9	0.6	0.7	0.7
	Flathead Catfish					0.0			0.0	0.1	0.0	0.0
	Freshwater Drum					0.4			0.6	0.4	0.4	0.5
	Gizzard Shad					0.2			0.3	0.3	0.4	0.3
	Goldeye					0.0			0.0	0.0	0.0	0.0
	Lake Herring								0.0	0.0	0.0	0.0
	Northern Pike								0.0		0.0	0.0
	Rainbow Trout					0.0						0.0
	River Carpsucker					0.8			0.2	0.0	0.1	0.3
	Sauger					1.0			0.4	0.1	0.1	0.4
	Shorthead Redhorse					0.6			0.1	0.2	0.3	0.3

		CPUE										
Gear	Species	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
AFS std gill net	Shortnose Gar					0.0				0.0		0.0
	Shovelnose Sturgeon					0.0			0.0	0.0	0.0	0.0
	Smallmouth Bass					1.9			0.8	1.0	0.6	1.1
	Smallmouth Buffalo					0.3			0.1	0.0	0.0	0.1
	Spottail Shiner								0.0			0.0
	Walleye					12.9			5.0	3.4	2.3	5.9
	White Bass					0.6			0.8	0.1	0.1	0.4
	White Sucker					0.0			0.0		0.0	0.0
	Yellow Perch					1.3			0.6	1.1	0.5	0.9
boat shocker (night)	Sauger	6.1										6.1
	Walleye	38.2	14.6									26.4
frame net (std 3/4 in)	Bigmouth Buffalo		0.2									0.2
	Black Bullhead	0.3	0.2	1.4								0.6
	Black Crappie	5.3	3.0	8.1								5.5
	Bluegill	1.3		1.6								1.5
	Channel Catfish	2.3	4.2	3.0								3.2
	Common Carp	4.0	3.1	2.4								3.2
	Freshwater Drum	0.1										0.1
	Gizzard Shad	1.8	0.3	1.3								1.1
	Green Sunfish	0.1										0.1
	Largemouth Bass			0.1								0.1
	Northern Pike			0.0								0.0
	Rainbow Trout	0.1	0.0									0.1
	River Carpsucker	0.9										0.9
	Sauger	0.3	0.1									0.2
	Shorthead Redhorse	0.9	0.1									0.5
	Shortnose Gar	0.0	0.0	0.0								0.0
	Smallmouth Bass	1.2	0.8	1.2								1.1
	Smallmouth Buffalo	0.1	1.1									0.6
	Walleye	0.8	0.9	1.2								1.0
	White Bass	8.9	11.9	3.2								8.0
	White Crappie	1.0	0.1	0.1								0.4
	White Sucker	0.3	0.3									0.3
	Yellow Perch	0.1										0.1
large seine	Black Crappie									0.1	0.4	0.3
	Bluntnose Minnow									0.8	0.9	0.9
	Channel Catfish									0.1	0.1	0.1

CPUE												
Gear	Species	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Avg
large seine	Common Carp									0.1	0.1	0.1
	Emerald Shiner									13.1	16.5	14.8
	Fathead Minnow										0.1	0.1
	Freshwater Drum									2.9	1.6	2.2
	Gizzard Shad									1,312.3	752.0	1032.1
	Goldeye										0.1	0.1
	Johnny Darter									0.9	3.8	2.3
	Lake Herring									0.2		0.2
	Largemouth Bass									0.3	0.2	0.3
	Orangespotted Sunfish									0.1		0.1
	Rainbow Smelt										0.4	0.4
	Red Shiner										3.1	3.1
	River Carpsucker									0.4	2.1	1.3
	Shorthead Redhorse									0.1		0.1
	Smallmouth Bass									4.8	3.3	4.0
	Smallmouth Buffalo										0.3	0.3
	Spottail Shiner									3.3	2.2	2.7
	Walleye									2.7	1.0	1.9
	White Bass									2.4	9.4	5.9
	White Crappie									0.1	4.1	2.1
	White Sucker									0.3	0.1	0.2
	Yellow Perch									27.2	16.5	21.8
rod and reel	Smallmouth Bass	8,460.0	3,480.0	11,640.0								7860.0
smb mono gill net	Bigmouth Buffalo			0.0								0.0
	Channel Catfish			0.9								0.9
	Common Carp			0.5								0.5
	Freshwater Drum			0.2								0.2
	Gizzard Shad			0.7								0.7
	Goldeye			0.0								0.0
	Northern Pike			0.0								0.0
	River Carpsucker			0.2								0.2
	Sauger			0.1								0.1
	Shorthead Redhorse			0.5								0.5
	Smallmouth Bass	2.0	1.1	1.0								1.4
	Walleye			6.1								6.1
	White Bass			0.1								0.1

Gear	Species	CPUE										Avg
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
smb mono gill net	White Sucker			0.1								0.1
	Yellow Perch			0.3								0.3
std exp gill net	Bigmouth Buffalo							0.2				0.2
	Black Bullhead		0.1	0.1				0.0				0.1
	Black Crappie	0.1	0.1	0.0	0.0		0.1	0.1				0.1
	Burbot					0.0						0.0
	Channel Catfish	5.0	2.8	6.6	4.4	3.0	4.0	4.8				4.4
	Chinook Salmon							0.0				0.0
	Common Carp	1.7	1.9	1.8	2.5	1.1	2.0	1.5				1.8
	Freshwater Drum	0.2	0.2	0.3	0.1	0.1	0.4	0.5				0.3
	Gizzard Shad	0.2	0.0	0.0	0.0	0.3	0.6	3.6				0.7
	Goldeye	0.0		0.0	0.0	0.0	0.0	0.0				0.0
	Lake Herring						0.6					0.6
	Largemouth Bass					0.0						0.0
	Northern Pike	0.0	0.1	0.0	0.0		0.0	0.0				0.0
	Rainbow Trout			0.0		0.0						0.0
	River Carpsucker	1.1	0.6	0.3	0.5	2.0	2.7	0.3				1.1
	Sauger	1.1	1.8	0.9	1.4	1.6	1.9	1.4				1.4
	Shorthead Redhorse	0.0	0.7	0.8	1.3	0.7	1.5	0.3				0.8
	Shortnose Gar	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.0
	Shovelnose Sturgeon	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.0
	Smallmouth Bass	1.3	0.3	0.2	1.1	0.6	0.7	1.6				0.8
	Smallmouth Buffalo	0.0			0.0	0.1	0.0					0.0
	Spottail Shiner	0.0	0.0				0.0					0.0
	Walleye	19.9	18.4	21.9	12.5	8.0	12.9	21.3				16.4
	White Bass	0.5	0.4	0.0	0.8	0.2	0.0	0.2				0.3
	White Crappie	0.1	0.1	0.0				0.8				0.3
	White Sucker	0.0	0.3		0.1		0.0					0.1
	Yellow Perch	1.9	2.6	1.8	1.4	0.9	3.0	2.7				2.0

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 gill net (1/2 inch)	Channel Catfish	PSD								20		
		PSD-P								0		
		Wr								93		
	Gizzard Shad	PSD								0	0	
		Wr								150		
	Smallmouth Bass	PSD								0		
		PSD-P								0		
		Wr								89		
	Walleye	PSD								0	29	
		PSD-P								0	0	
		Wr								91	97	
	White Bass	PSD									0	
		PSD-P									0	
	Yellow Perch	PSD								17	17	
		PSD-P								0	0	
		Wr								85	80	
AFS gill net (1/2inch)	Channel Catfish	PSD										0
		PSD-P										0
		Wr										87
	Walleye	PSD										0
		PSD-P										0
		Wr										76
	Yellow Perch	PSD										14
		PSD-P										0
		Wr										96
AFS std gill net	Channel Catfish	PSD					86			68	68	63
		PSD-P					39			18	21	15
		Wr								85	90	91
	Gizzard Shad	PSD					100			100	96	100
		Wr								97	99	108
	Smallmouth Bass	PSD					68			70	90	95
		PSD-P					26			32	49	73

Gear	Species	Index	Year									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AFS std gill net	Smallmouth Bass	Wr								99	100	91
	Walleye	PSD					26			35	40	47
		PSD-P					2			1	1	1
		Wr								77	80	79
	White Bass	PSD					96			100	100	100
		PSD-P					74			100	100	100
		Wr								93	100	92
	Yellow Perch	PSD					56			57	55	68
		PSD-P					22			19	17	14
		Wr								87	86	98
boat shocker (night)	Walleye	PSD	0	0								
		PSD-P	0	0								
frame net (std 3/4 in)	Channel Catfish	PSD	93	100	93							
		PSD-P	0	7	18							
		Wr	94	106								
	Gizzard Shad	PSD	100	100	100							
		Wr	85									
	Smallmouth Bass	PSD	92	100	70							
		PSD-P	50	80	13							
		Wr	97	102	93							
	Walleye	PSD	69	76	39							
		PSD-P	31	29	9							
		Wr	81	89	74							
	White Bass	PSD	99	100	100							
		PSD-P	96	99	67							
		Wr	87	89	90							
	White Crappie	PSD	100	0	100							
		PSD-P	90	0	100							
		Wr	102	85	90							
	Yellow Perch	PSD	0									
		PSD-P	0									
rod and reel	Smallmouth Bass	PSD	100	99	100							
		PSD-P	88	99	85							
		Wr	90	80	105							
smb mono gill net	Channel Catfish	PSD			0							
		PSD-P			0							

Gear	Species	Index	Year									
			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
smb mono gill net	Gizzard Shad	PSD			100							
	Smallmouth Bass	PSD	88	89	68							
		PSD-P	68	68	42							
		Wr	91	88	107							
	Walleye	PSD			0							
		PSD-P			0							
	White Bass	PSD			100							
		PSD-P			100							
	Yellow Perch	PSD			100							
std exp gill net		PSD-P			100							
	Channel Catfish	PSD	74	82	53	53	77	68	44			
		PSD-P	1	2	5	4	15	13	9			
		Wr	88	89	90	86	86	89	85			
	Gizzard Shad	PSD	100	0	100	0	100	14	36			
		Wr	107		91		102	95	94			
	Smallmouth Bass	PSD	59	80	40	52	79	71	71			
		PSD-P	24	40	20	19	57	35	47			
		Wr	103	87	101	107	101	100	101			
	Walleye	PSD	47	39	41	60	52	41	41			
		PSD-P	1	1	1	0	1	0	1			
		Wr	87	83	83	84	85	79	82			
	White Bass	PSD	100	71	100	89	100	100	100			
		PSD-P	100	71	100	5	100	100	60			
		Wr	109	86	102	108	104	93	94			
	White Crappie	PSD	0	0	100				0			
		PSD-P	0	0	100				0			
		Wr	108	94	118				97			
	Yellow Perch	PSD	36	61	58	74	36	56	62			
		PSD-P	6	20	9	50	32	15	17			
		Wr	86	83	91	97	92	96	84			

Length at Capture

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

Species: Walleye

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2018	264	236 (24)	318 (62)	360 (49)	379 (55)	400 (55)	437 (12)		393 (1)	553 (2)	485 (3)
2017	377	239 (28)	313 (65)	357 (144)	390 (86)	418 (30)	407 (3)	442 (4)	464 (6)	456 (3)	518 (8)
2016	531	232 (22)	322 (184)	374 (206)	409 (67)		455 (10)	447 (19)	455 (7)	455 (4)	494 (9)
2015	341	214 (34)	327 (121)	382 (130)	450 (5)	426 (15)	423 (18)	416 (11)	432 (6)	465 (1)	
2014	681	245 (150)	337 (292)	389 (25)	397 (63)	427 (80)	423 (38)	426 (17)	456 (6)	461 (10)	
2013	315	249 (35)	349 (23)	380 (102)	397 (95)	395 (28)	426 (16)	465 (7)	444 (4)	424 (1)	454 (6)
2012	945	248 (13)	307 (417)	358 (307)	357 (107)	415 (39)	437 (28)	453 (19)		470 (9)	437 (5)
2011	320	231 (35)	340 (162)	387 (45)	436 (29)	436 (25)	463 (12)	404 (1)	503 (3)		490 (8)
2010	522	261 (172)	348 (99)	394 (106)	411 (63)	416 (60)	414 (3)	447 (8)	434 (1)	459 (2)	498 (7)

Species: White Crappie

Mean Length (expanded sample number) at capture by age											
Year	N	1	2	3	4	5	6	7	8	9	10+
2011	1			197 (1)							
2010	20	202 (1)	274 (17)	292 (2)							

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).

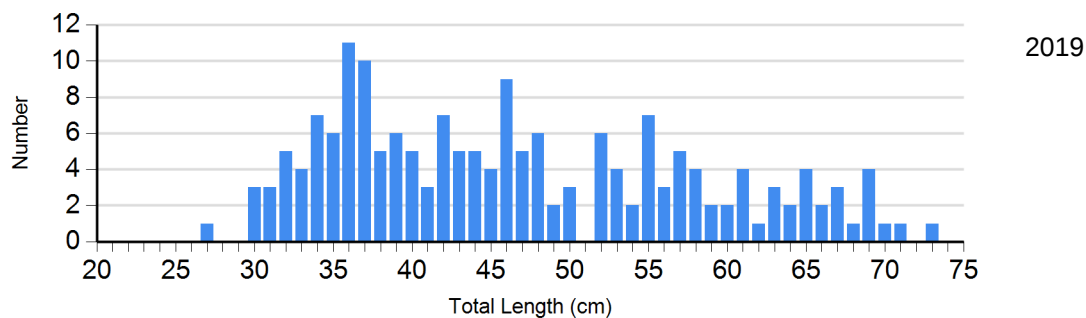
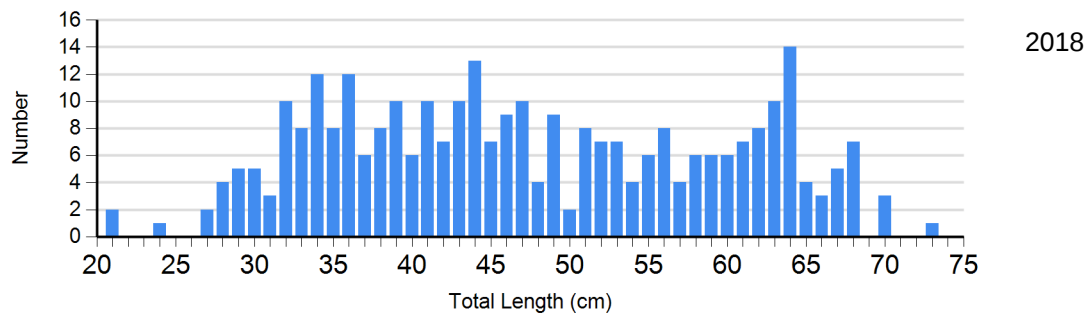
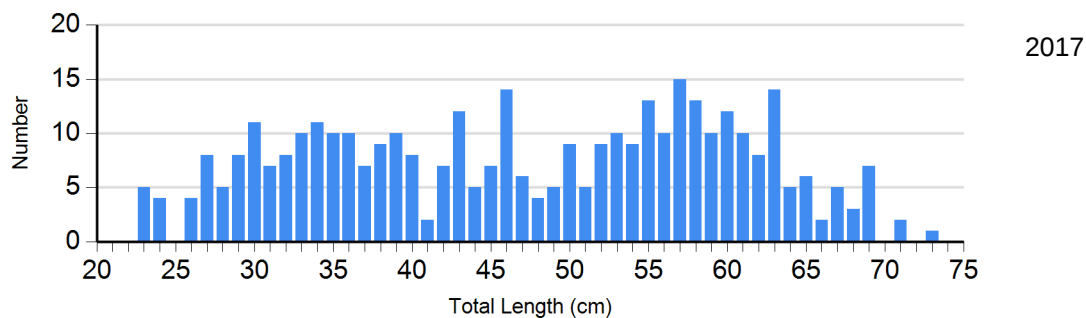
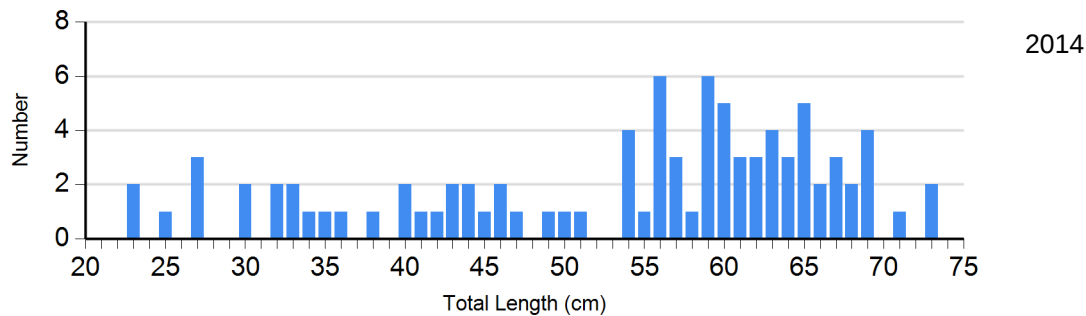
Species	Year	Length Groups							
		S-Q		Q-P		P-M		M	
		N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Channel Catfish Gill Net	2015	31	89 (2.7)	53	89 (1.2)	12	85 (2.0)	0	
	2016	65	88 (1.5)	41	82 (1.6)	9	81 (2.6)	1	75
	2017	114	89 (1.2)	177	84 (0.9)	60	81 (1.5)	3	93 (5.3)
	2018	97	96 (3.9)	143	87 (0.8)	61	85 (1.7)	1	105
	2019	65	90 (0.7)	84	92 (1.3)	25	93 (2.0)	2	85 (6.4)
Walleye Gill Net	2015	182	80 (1.2)	126	79 (0.7)	1	84	0	
	2016	303	84 (0.5)	203	81 (0.5)	5	73 (1.1)	0	
	2017	232	80 (0.8)	121	72 (0.7)	2	69 (0.6)	2	73 (3.4)
	2018	146	82 (0.6)	96	77 (0.5)	3	74 (3.1)	0	
	2019	89	81 (0.6)	78	76 (0.9)	2	75 (2.3)	0	
White Bass Gill Net	2015	0		0		1	93	0	
	2016	0		2	83 (22.4)	2	103 (6.0)	1	99
	2017	0		0		26	99 (1.1)	30	87 (2.3)
	2018	0		0		6	103 (1.8)	4	94 (3.4)
	2019	0		0		2	102 (2.1)	6	89 (4.2)
Yellow Perch Gill Net	2015	31	97 (3.1)	29	96 (1.7)	10	95 (2.4)	1	86
	2016	25	87 (1.5)	29	84 (1.5)	9	80 (4.9)	2	69 (20.2)
	2017	18	88 (1.9)	16	90 (2.9)	8	79 (2.1)	0	
	2018	34	86 (1.3)	29	86 (1.7)	13	85 (2.4)	0	
	2019	12	110 (4.6)	20	95 (2.2)	5	87 (4.3)	0	

Length Frequency Distribution

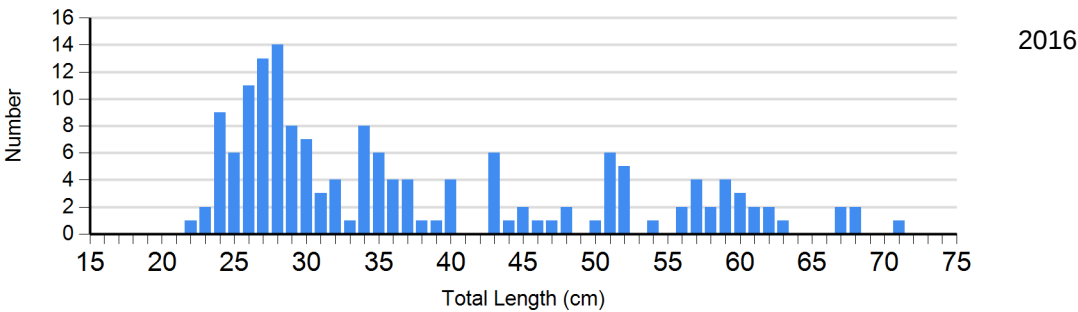
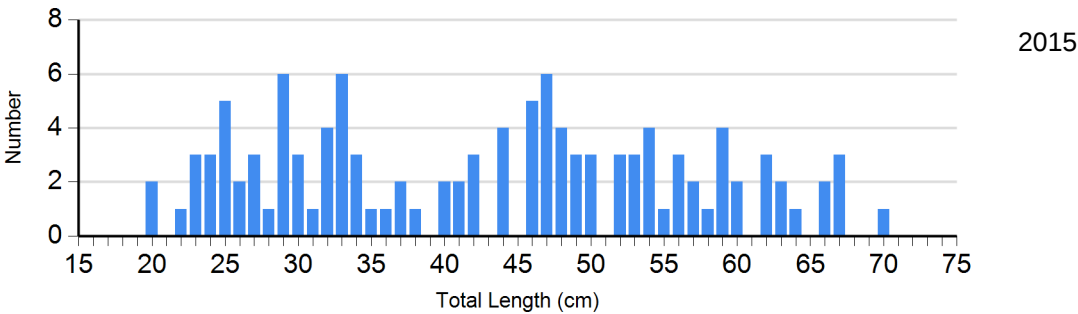
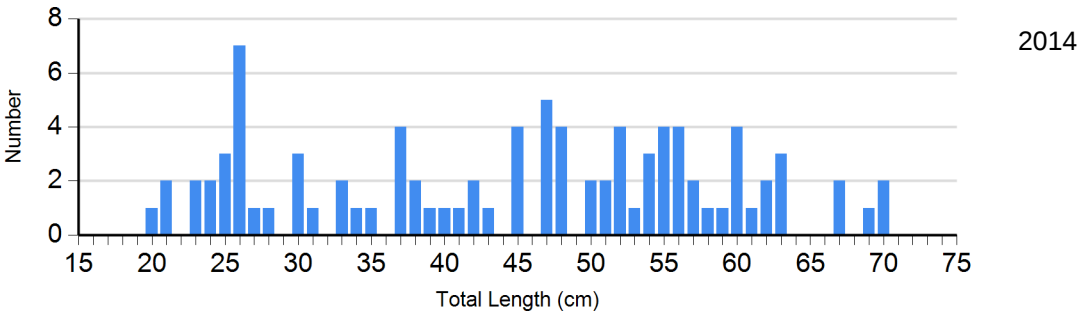
Length frequency histogram of species sampled by year.

Species: Channel Catfish

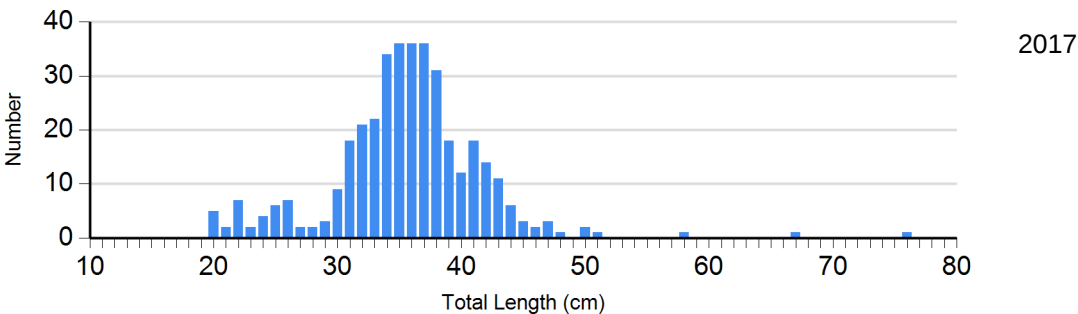
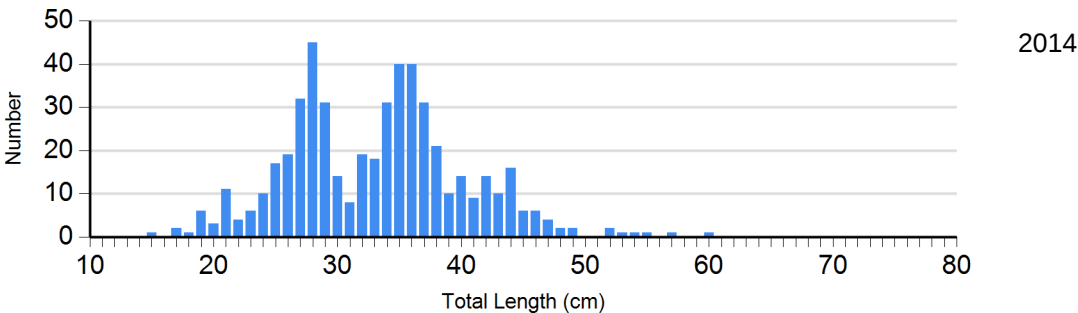
Gear: AFS std gill net

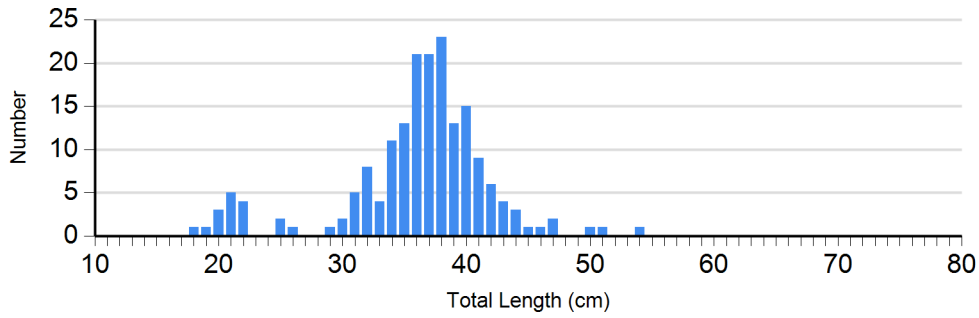
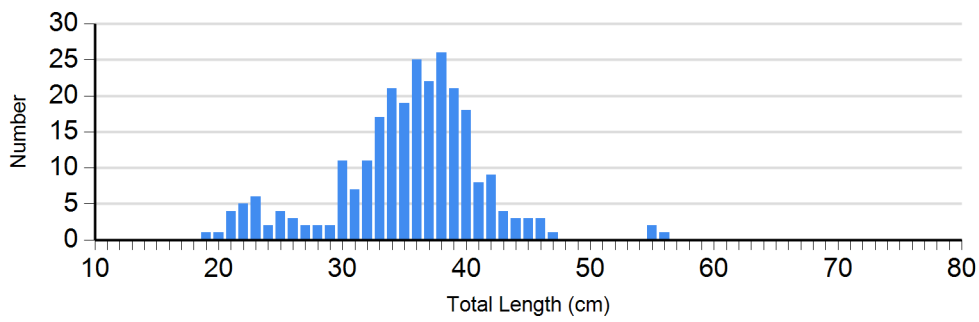


Species: Channel Catfish
Gear: std exp gill net

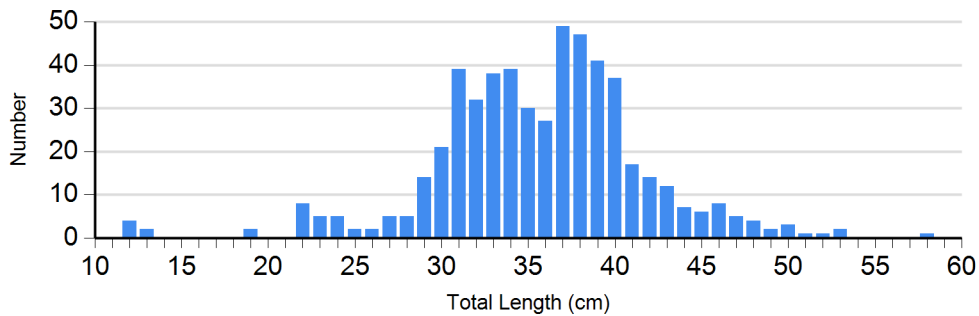
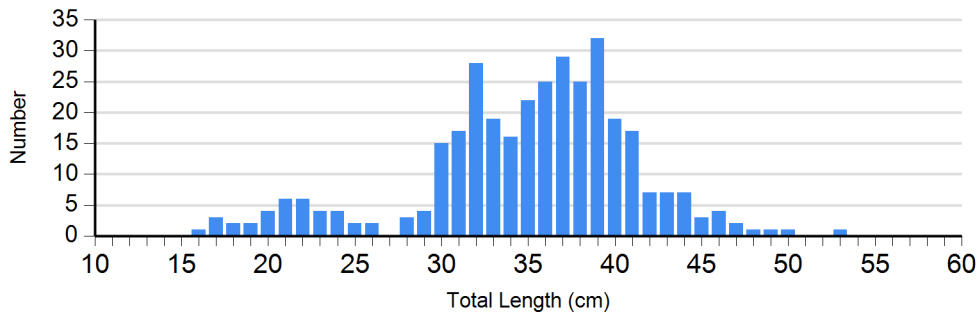
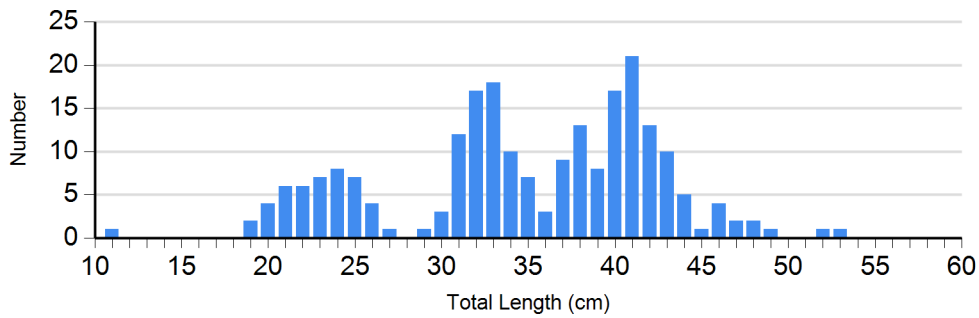


Species: Walleye
Gear: AFS std gill net

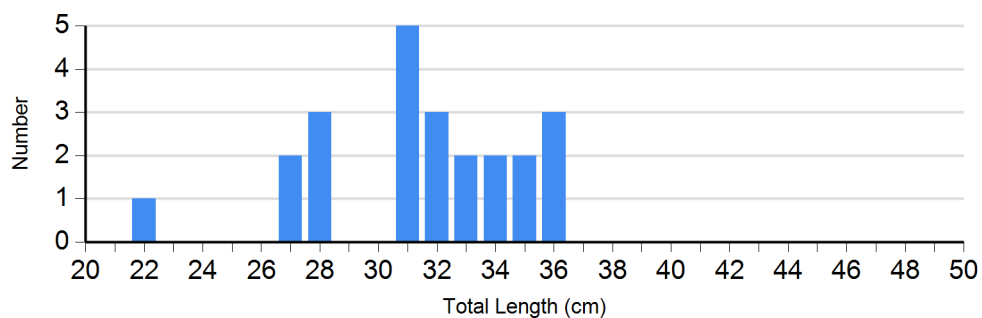




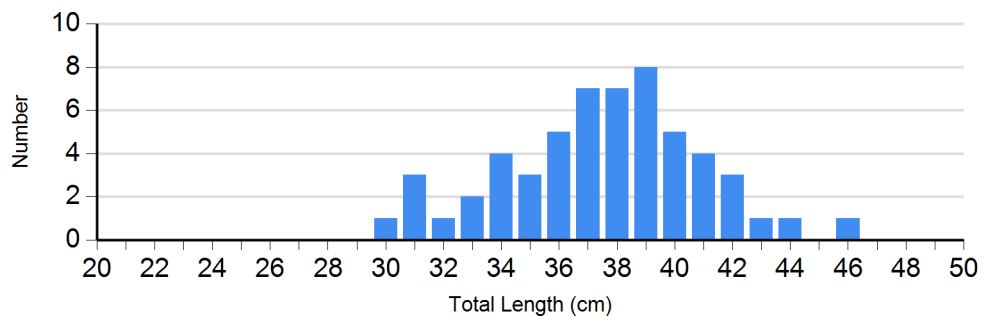
Species: Walleye
Gear: std exp gill net



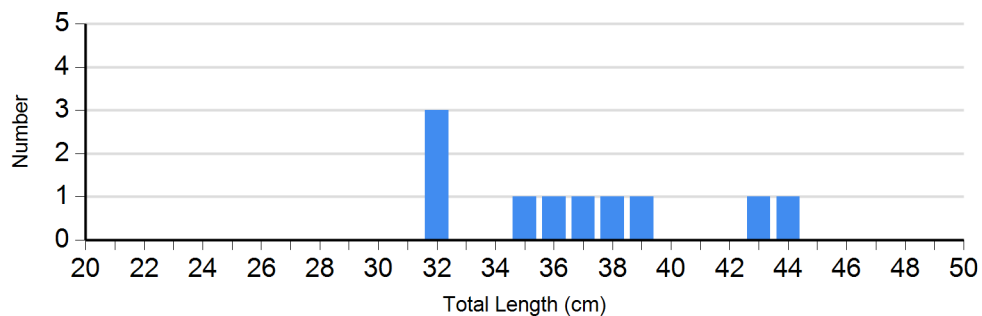
Species: White Bass
Gear: AFS std gill net



2014

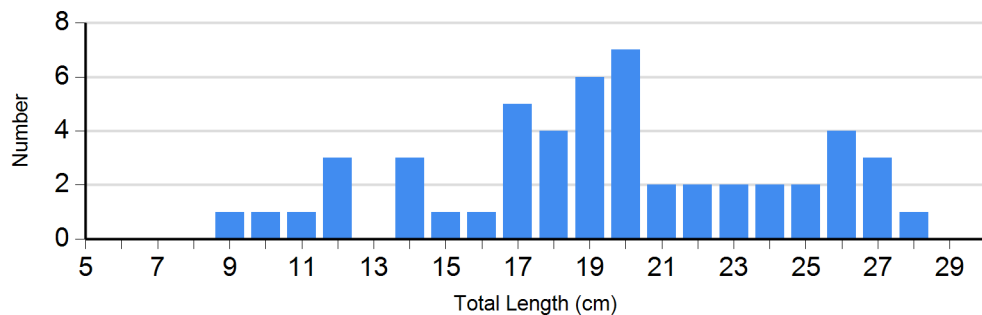


2017

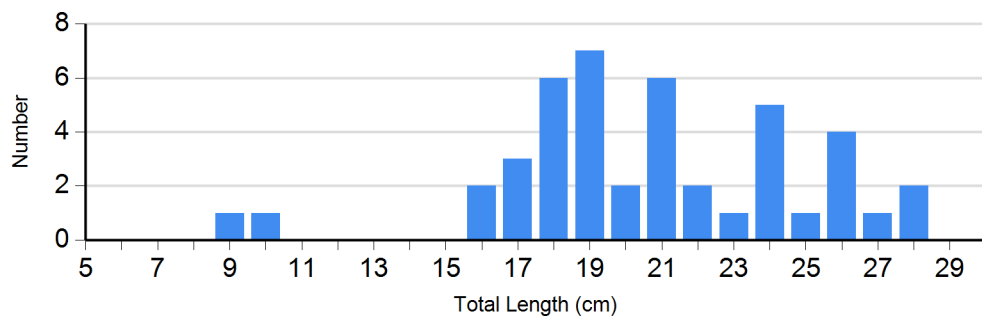


2018

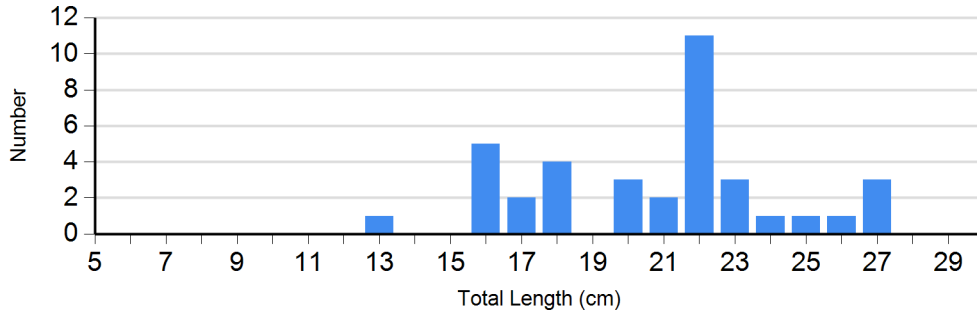
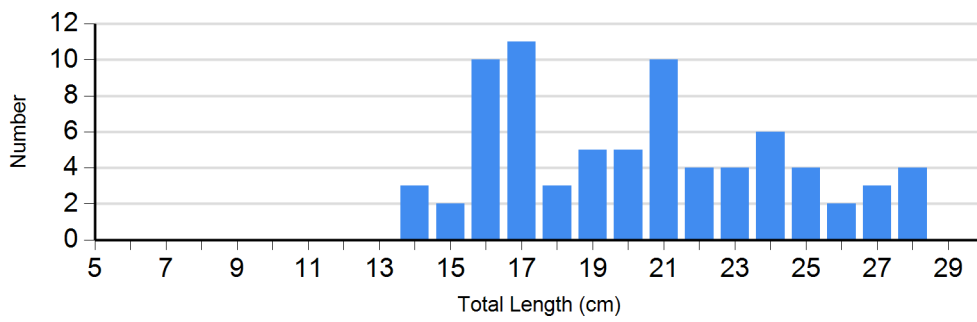
Species: Yellow Perch
Gear: AFS std gill net



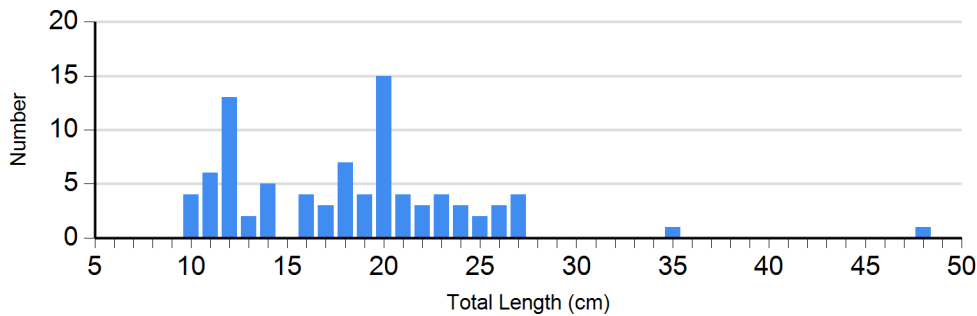
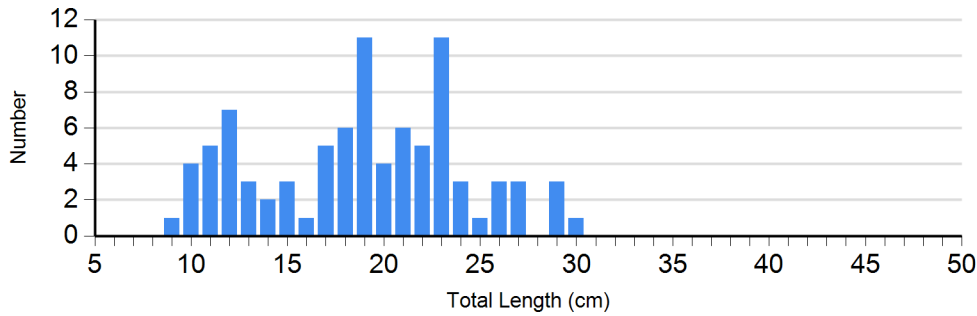
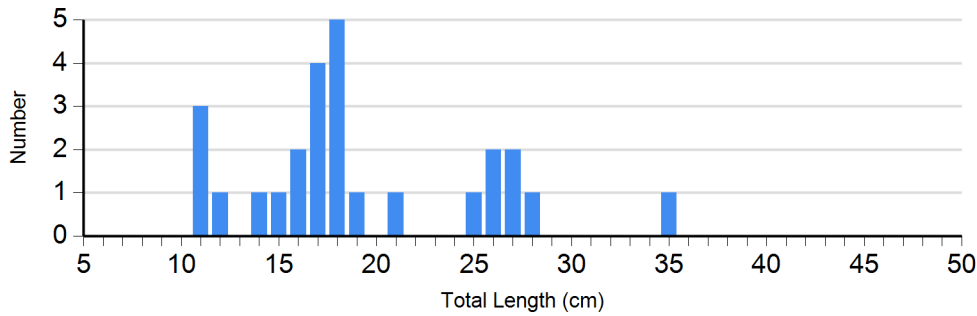
2014



2017



Species: Yellow Perch
Gear: std exp gill net

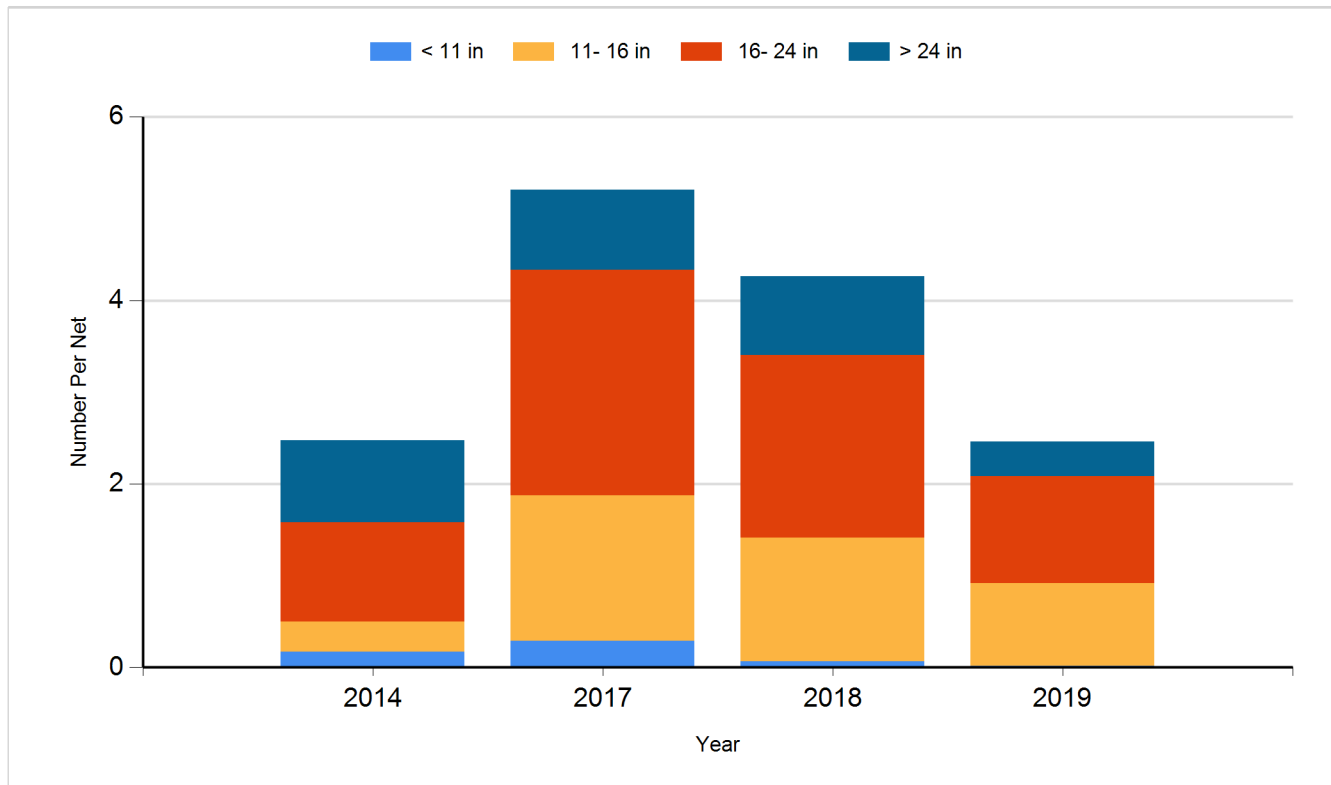


Historic Fish Sizes and Relative Abundance

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

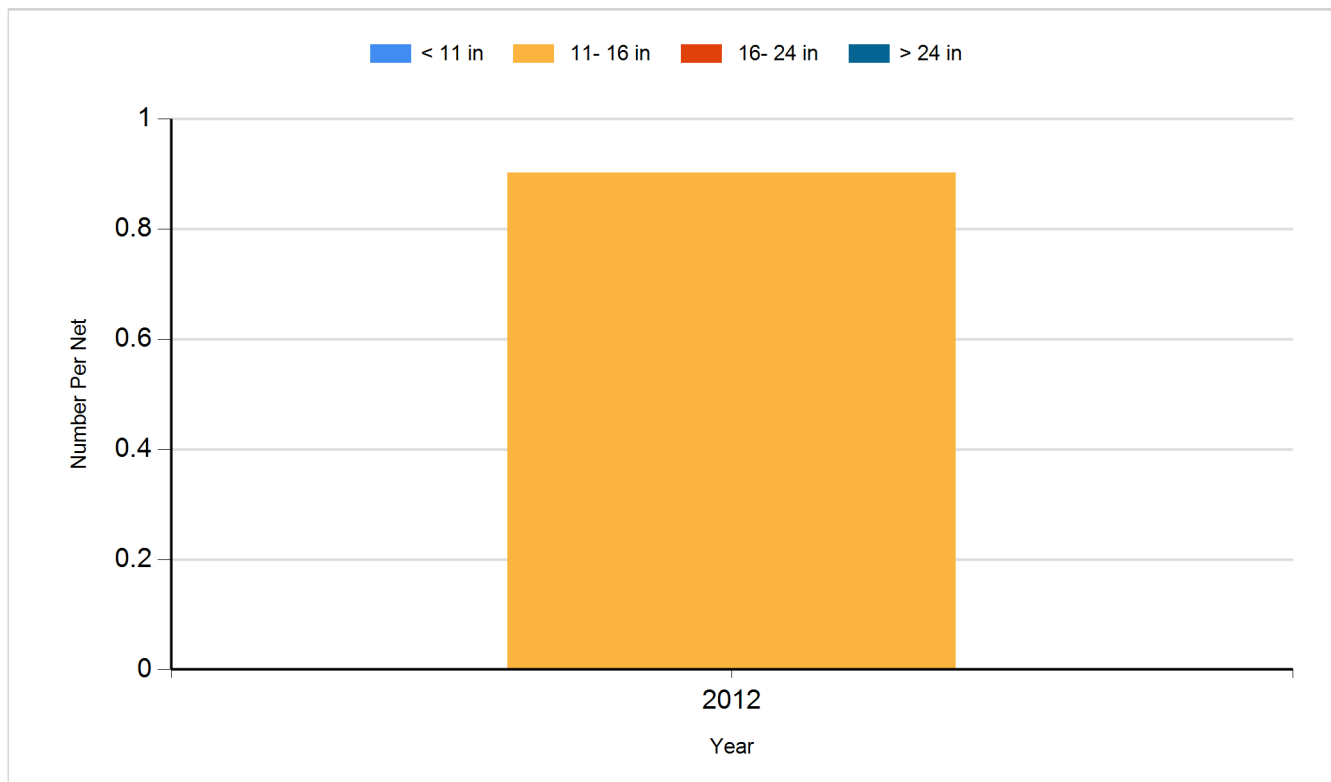
Species: Channel Catfish

Gear: AFS std gill net

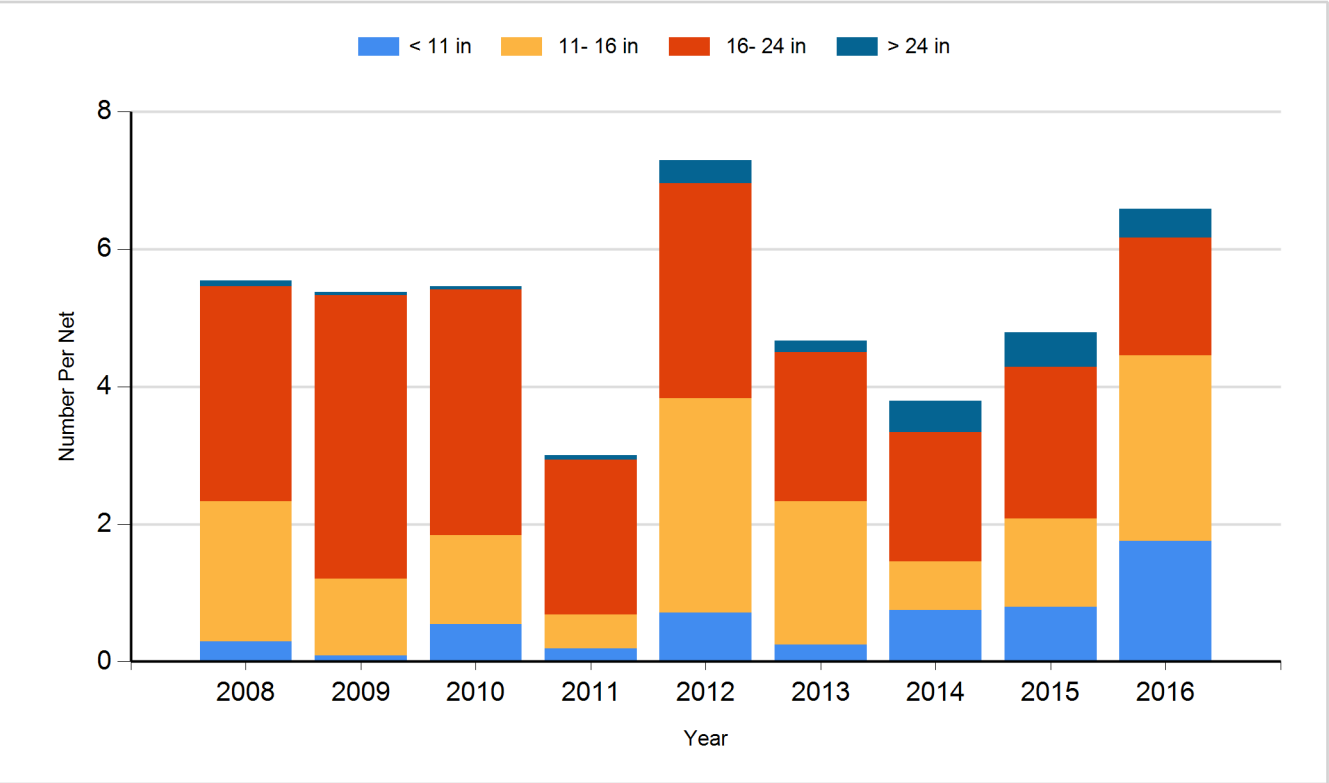


Species: Channel Catfish

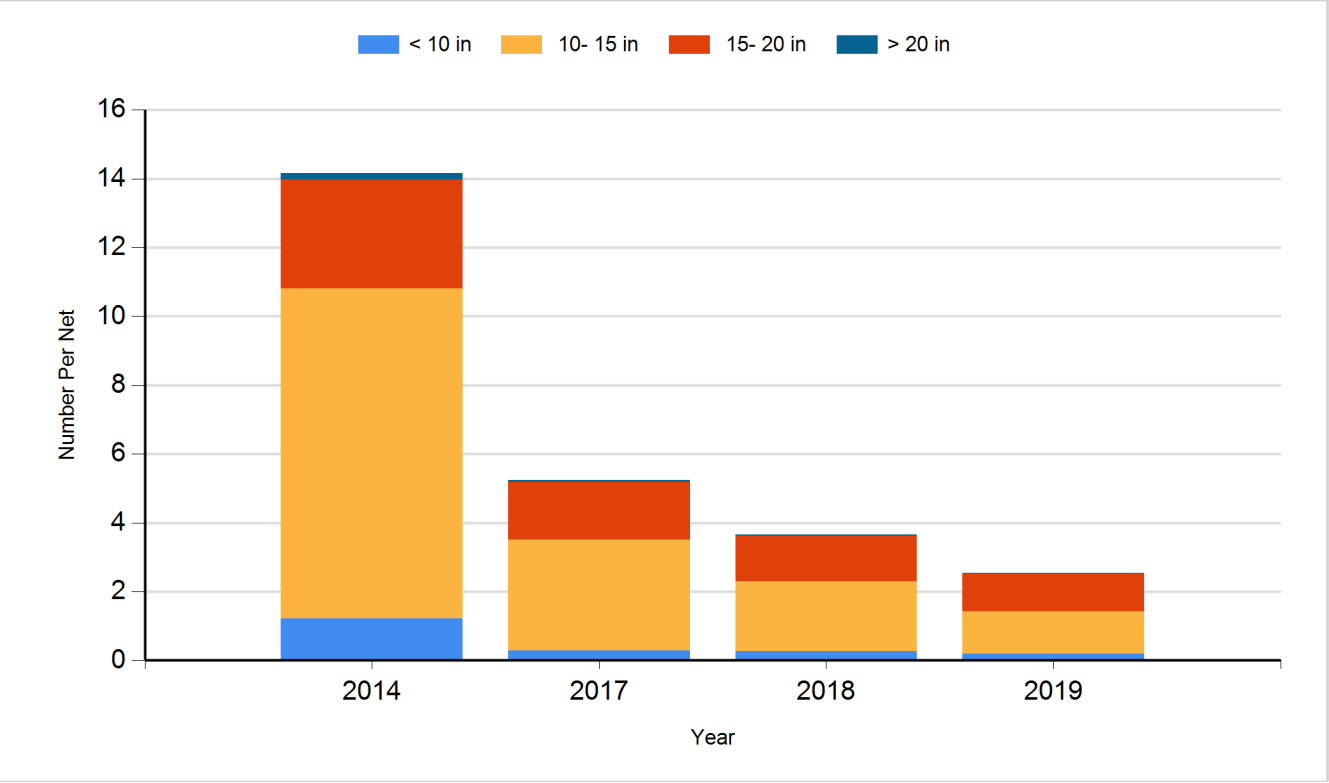
Gear: smb mono gill net



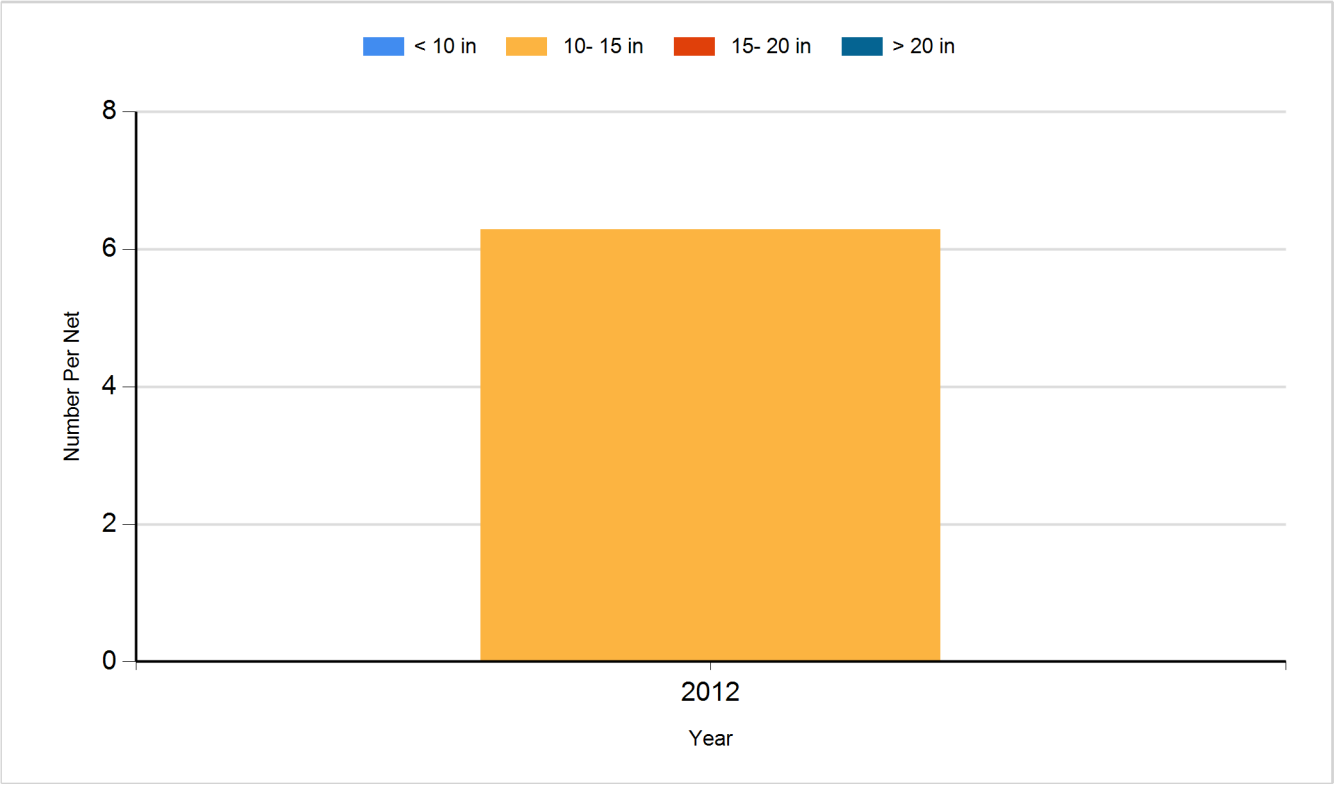
Species: Channel Catfish
Gear: std exp gill net



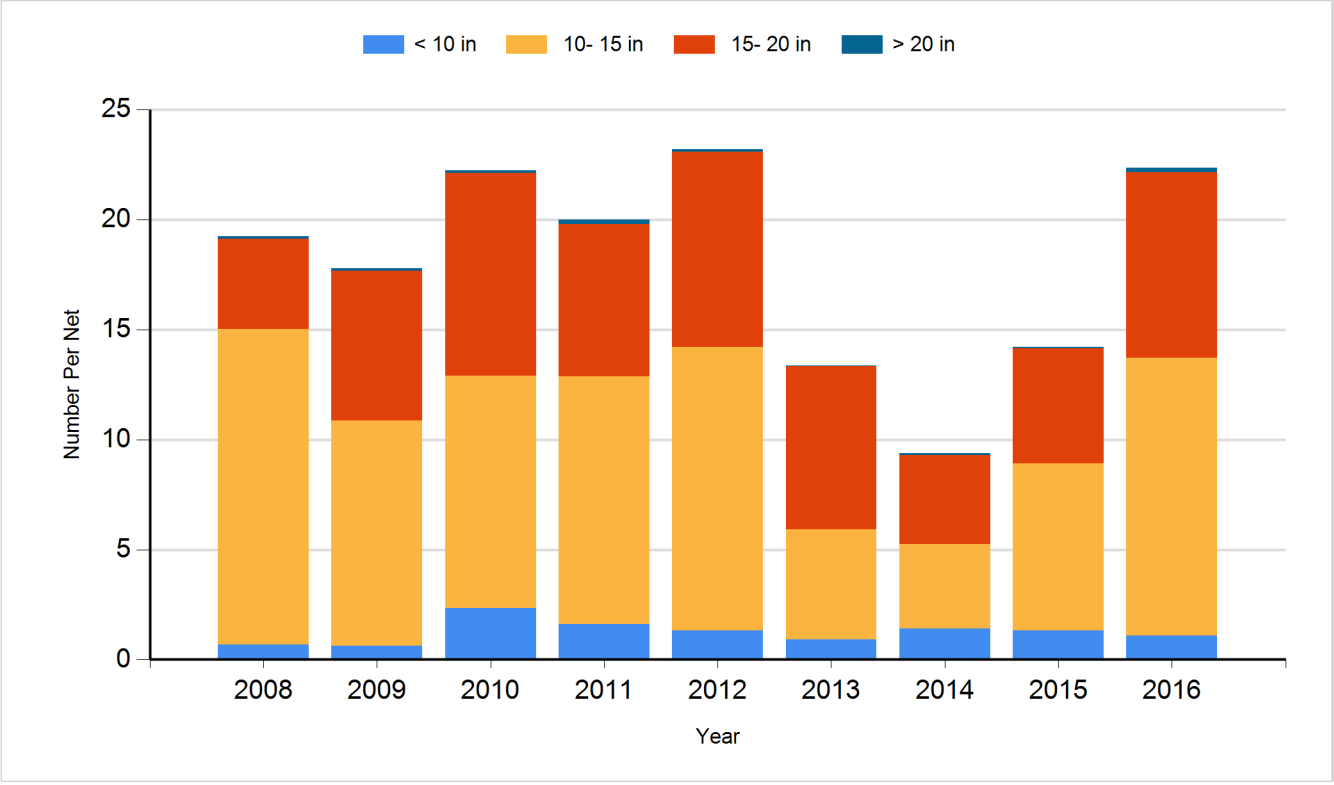
Species: Walleye
Gear: AFS std gill net



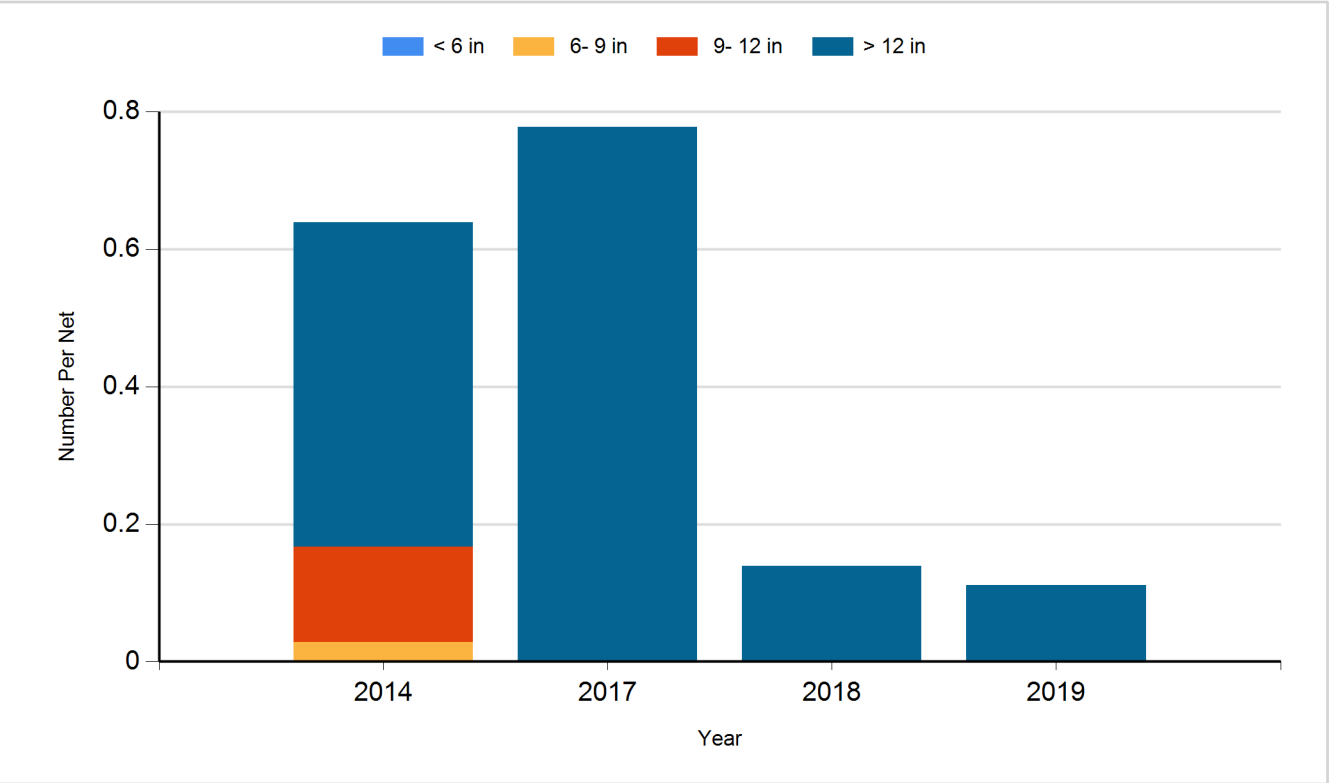
Species: Walleye
Gear: smb mono gill net



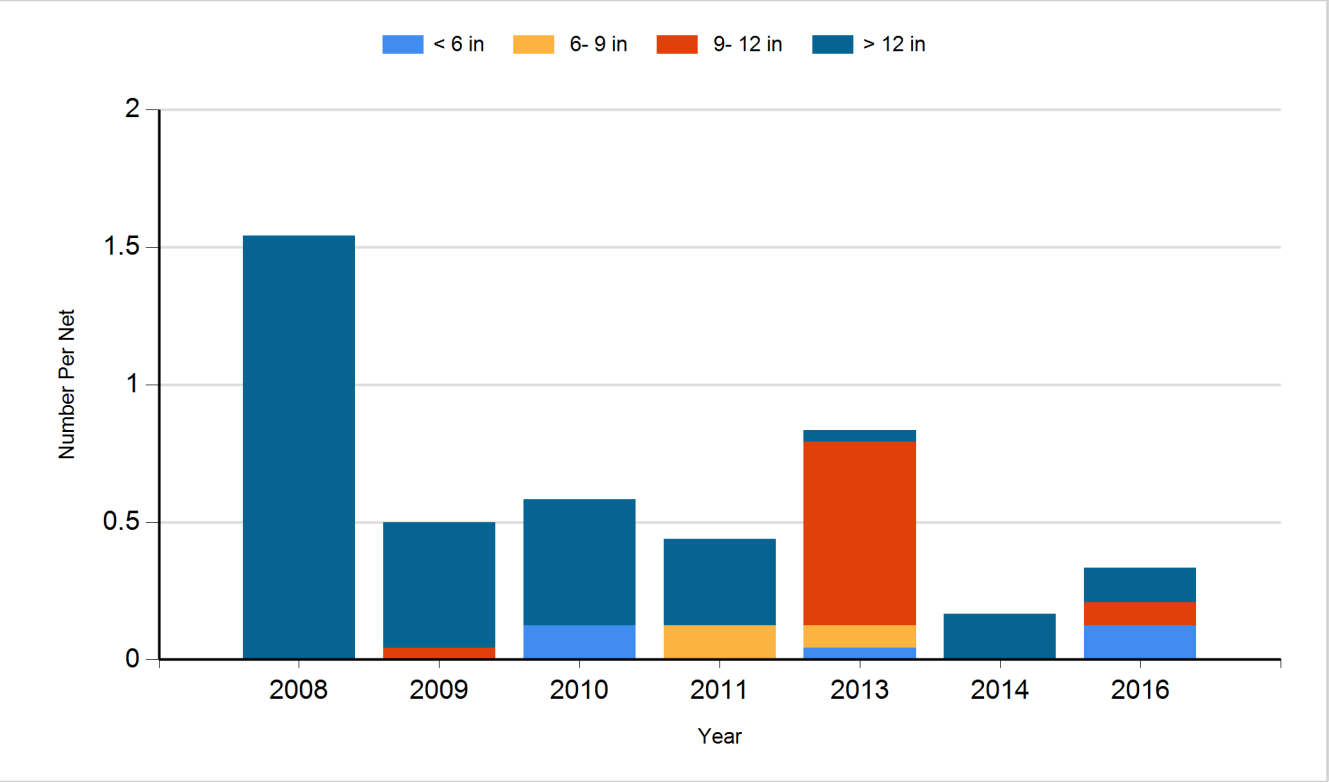
Species: Walleye
Gear: std exp gill net



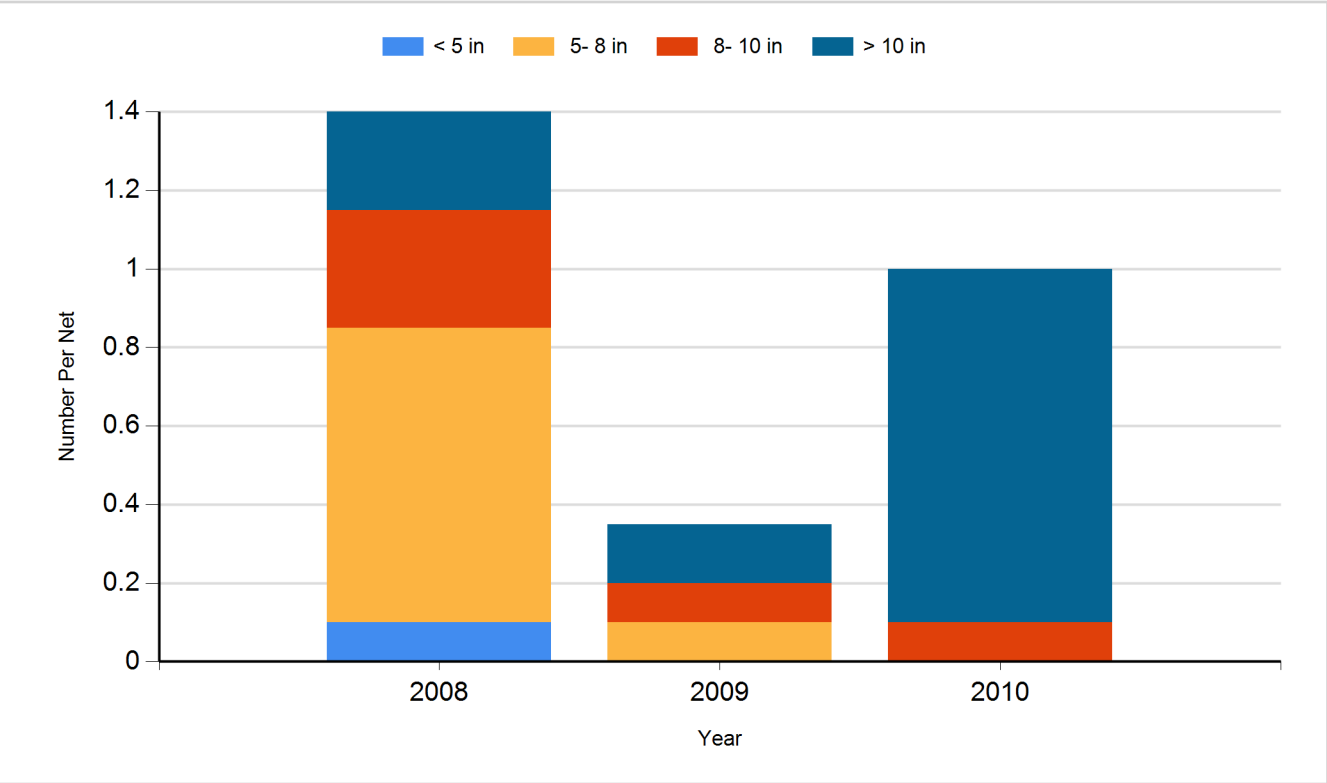
Species: White Bass
Gear: AFS std gill net



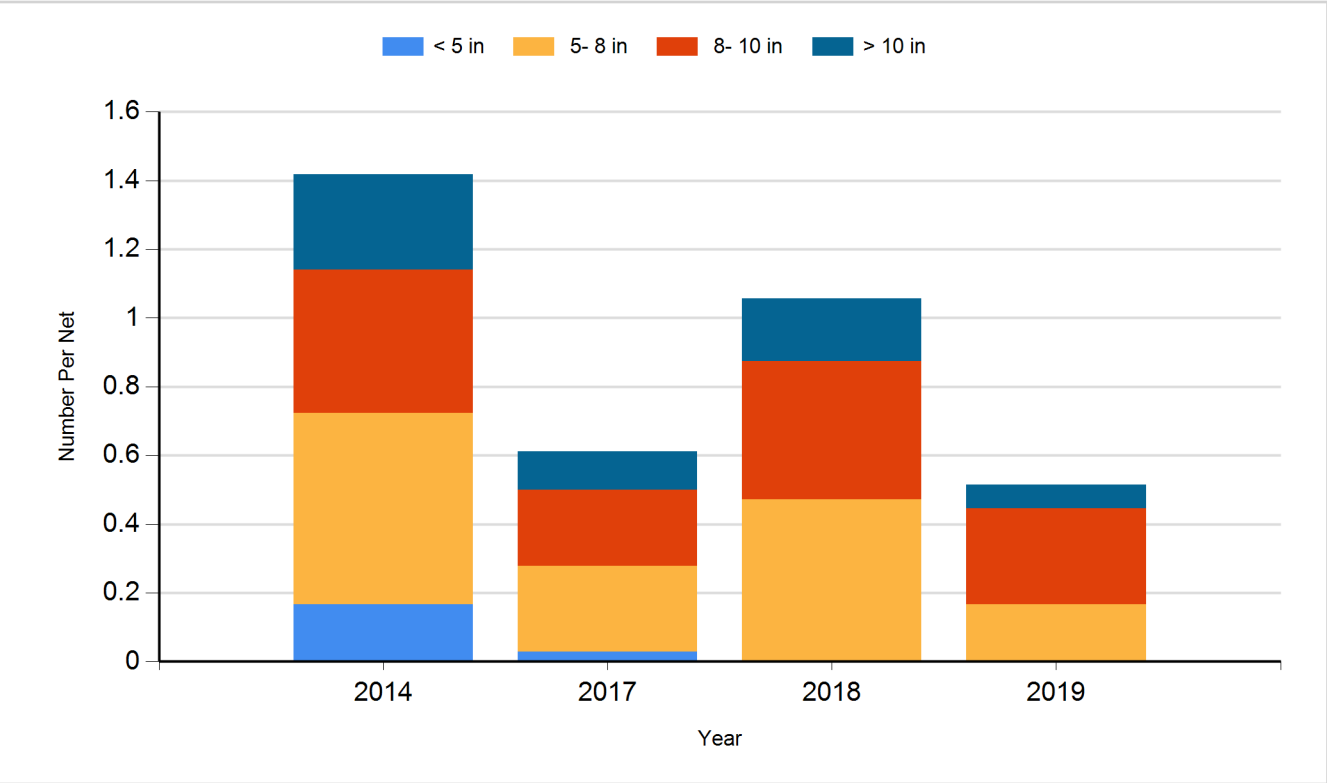
Species: White Bass
Gear: std exp gill net



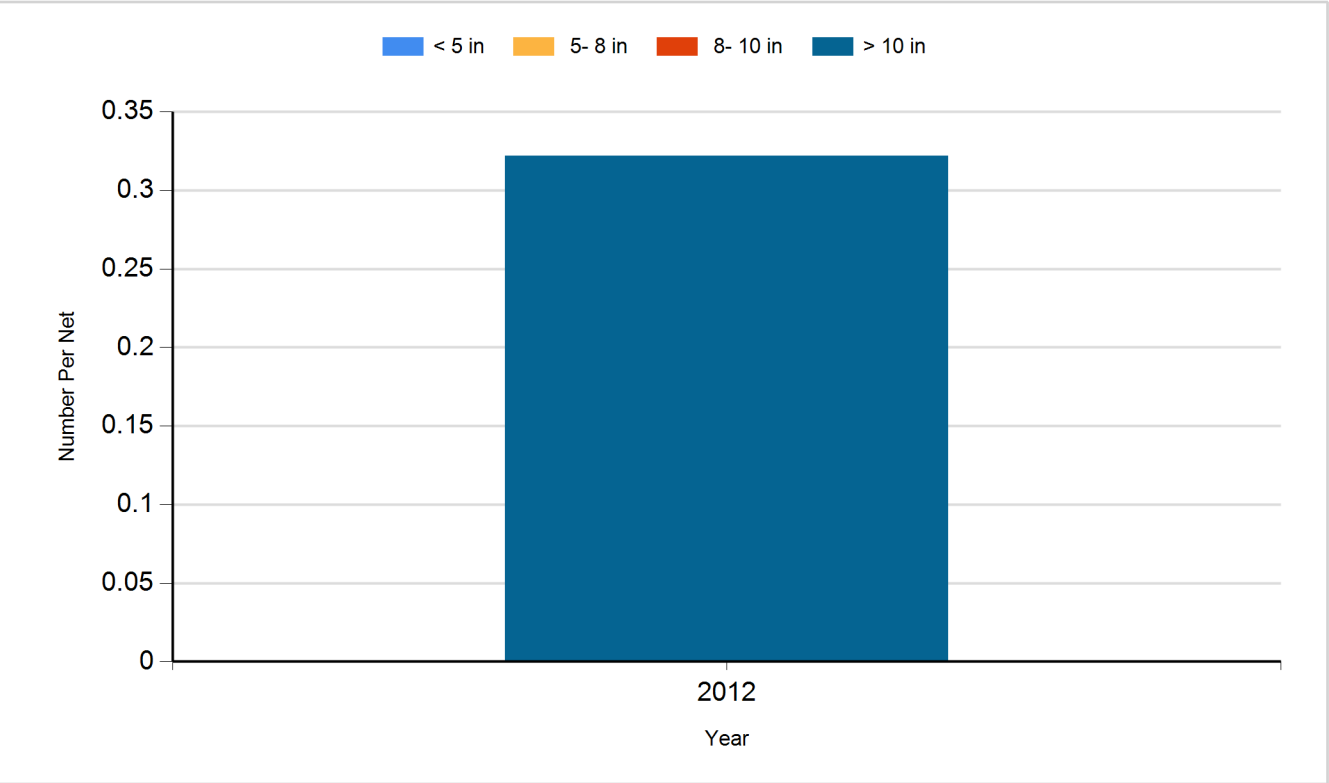
Species: White Crappie
Gear: frame net (std 3/4 in)



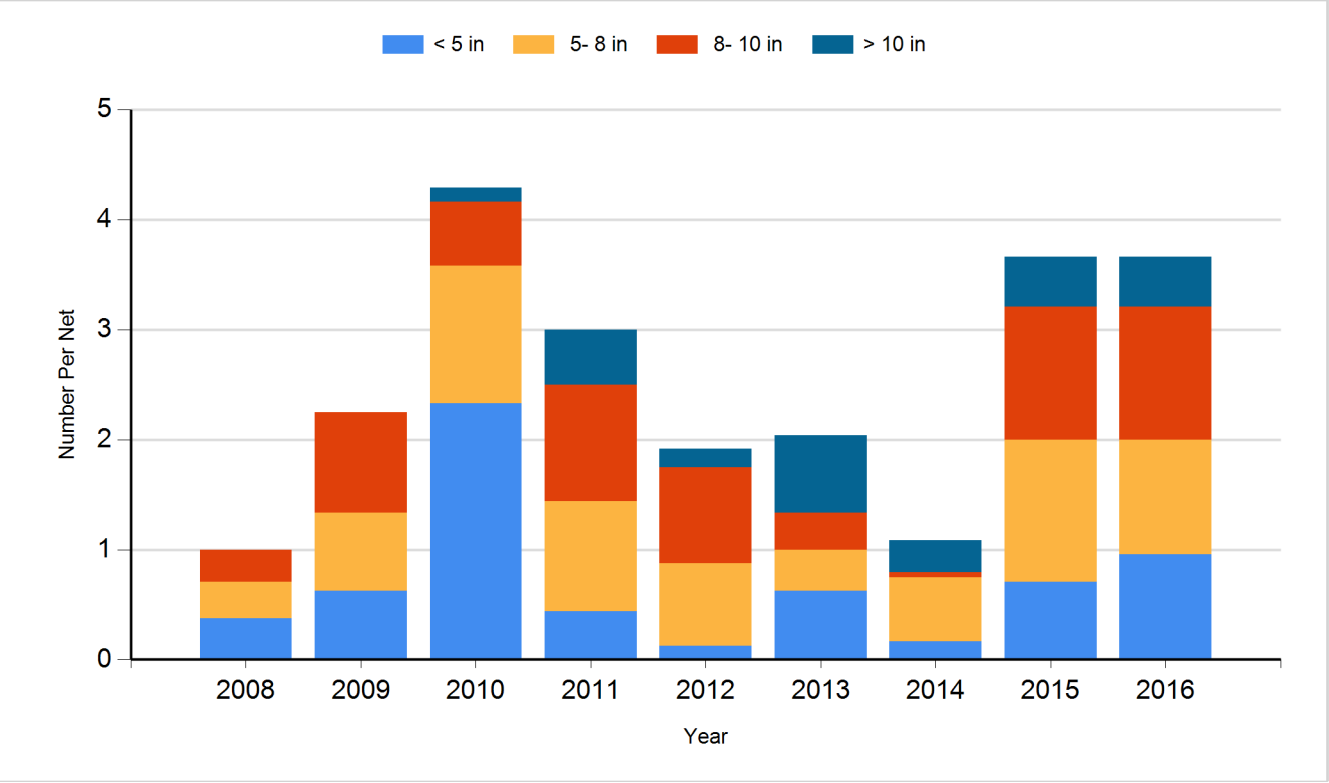
Species: Yellow Perch
Gear: AFS std gill net



Species: Yellow Perch
Gear: smb mono 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	Rainbow Trout (McConaugRainbow Trout	Catchable	14,400
2009	Rainbow Trout (McConaugRainbow Trout	Catchable	20,000
2010	Rainbow Trout (Erwin)	Catchable 15"	20
2010	Rainbow Trout (McConaugRainbow Trout	Catchable	20,000
2010	Rainbow Trout (Shasta)	Catchable	300
2011	Rainbow Trout (Erwin x Arlee)	Catchable	3,750
2011	Rainbow Trout (McConaugRainbow Trout	Catchable	16,250
2012	Rainbow Trout (McConaugRainbow Trout	Catchable 11"	10,000
2012	Rainbow Trout (Shasta)	Catchable 11"	10,000
2013	Rainbow Trout (Erwin x Arlee)	Catchable 11"	2,980
2013	Rainbow Trout (Shasta)	Catchable 11"	20,000
2014	Rainbow Trout (Shasta)	Catchable 11"	9,600
2015	Paddlefish	Large Fingerling	5,604
2015	Paddlefish	Small Fingerling	7,500
2015	Rainbow Trout (Ennis)	Catchable 11"	451
2015	Rainbow Trout (Shasta)	Catchable 11"	9,855
2016	Paddlefish	Fry	50,372
2016	Rainbow Trout (Shasta)	Catchable 11"	7,496
2017	Paddlefish	Juvenile	10,000
2017	Rainbow Trout (Shasta)	Catchable	5,438
2017	Rainbow Trout (Shasta)	Catchable 15"	2,720
2018	Paddlefish		5,178
2018	Rainbow Trout (Shasta)	Catchable	1,200
2019	Paddlefish	Juvenile	6,000



South Dakota Department of Game, Fish and Parks

Sharpe (Hughes) Stocking Report

Year	Fish Species	Fish Stock Number*		Fish Size	Fish Per Pound	Stock Purpose
2019	Paddlefish	6,000		Juvenile		Maintenance
2018	Paddlefish	5,178			6.3	Introductory
2018	Rainbow Trout (Shasta)	1,200		Catchable	1.8	Maintenance
2017	Paddlefish	10,000	Y	Juvenile	9.0	Introductory
2017	Rainbow Trout (Shasta)	2,664		Catchable	1.8	Maintenance
2017	Rainbow Trout (Shasta)	2,774		Catchable	2.0	Maintenance
2017	Rainbow Trout (Shasta)	1,280		Catchable 15"	0.7	Maintenance
2017	Rainbow Trout (Shasta)	1,440		Catchable 15"	0.8	Maintenance
2016	Paddlefish	50,372	Y	Fry		Introductory
2016	Rainbow Trout (Shasta)	1,280		Catchable 11"	0.7	Maintenance
2016	Rainbow Trout (Shasta)	3,016		Catchable 11"	1.7	Maintenance
2016	Rainbow Trout (Shasta)	3,200		Catchable 11"	1.8	Maintenance
2015	Paddlefish	5,604	Y	Large Fingerling	14.1	Introductory
2015	Paddlefish	7,500	Y	Small Fingerling	30.0	Introductory
2015	Rainbow Trout (Ennis)	451		Catchable 11"	1.5	Maintenance
2015	Rainbow Trout (Shasta)	1,539		Catchable 11"	1.1	Maintenance
2015	Rainbow Trout (Shasta)	1,184		Catchable 11"	1.1	Maintenance
2015	Rainbow Trout (Shasta)	3,457		Catchable 11"	2.0	Maintenance
2015	Rainbow Trout (Shasta)	3,675		Catchable 11"	2.2	Maintenance
2014	Rainbow Trout (Shasta)	2,400		Catchable 11"	1.8	Maintenance
2014	Rainbow Trout (Shasta)	2,400		Catchable 11"	1.9	Maintenance
2014	Rainbow Trout (Shasta)	2,400		Catchable 11"	2.0	Maintenance
2014	Rainbow Trout (Shasta)	2,400		Catchable 11"	2.1	Maintenance
2013	Rainbow Trout (Erwin x Arlee)	2,200		Catchable 11"	0.8	Maintenance
2013	Rainbow Trout (Erwin x Arlee)	780		Catchable 11"	1.8	Maintenance
2013	Rainbow Trout (Shasta)	15,000		Catchable 11"	1.9	Maintenance
2013	Rainbow Trout (Shasta)	5,000		Catchable 11"	2.1	Maintenance
2012	Rainbow Trout (McConaugRainbow Trout)	5,000		Catchable 11"	3.4	Maintenance

*Y = Federal Hatchery or other Federal Source

2012	Rainbow Trout (McConaugRainbow Trout)	5,000	Catchable 11"	3.6	Maintenance
2012	Rainbow Trout (Shasta)	5,000	Catchable 11"	2.6	Maintenance
2012	Rainbow Trout (Shasta)	5,000	Catchable 11"	3.1	Maintenance
2011	Rainbow Trout (Erwin x Arlee)	3,750	Catchable	2.7	Maintenance
2011	Rainbow Trout (McConaugRainbow Trout)	3,750	Catchable	2.8	Maintenance
2011	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	3.0	Maintenance
2011	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	3.1	Maintenance
2011	Rainbow Trout (McConaugRainbow Trout)	5,000	Catchable	3.8	Maintenance
2011	Rainbow Trout (McConaugRainbow Trout)	5,000	Catchable	4.0	Maintenance
2010	Rainbow Trout (Erwin)	20	Catchable 15"	0.7	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	2.8	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	3,750	Catchable	2.9	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	3,750	Catchable	3.0	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	3.0	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	3,750	Catchable	2.7	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	2.9	Maintenance
2010	Rainbow Trout (McConaugRainbow Trout)	5,000	Catchable	3.0	Maintenance
2010	Rainbow Trout (Shasta)	300	Catchable	1.6	Maintenance
2009	Rainbow Trout (McConaugRainbow Trout)	3,750	Catchable	2.7	Maintenance
2009	Rainbow Trout (McConaugRainbow Trout)	1,250	Catchable	2.8	Maintenance

*Y = Federal Hatchery or other Federal Source

2009	Rainbow Trout (McConaugRainbow Trout	1,250	Catchable	2.8	Maintenance
2009	Rainbow Trout (McConaugRainbow Trout	3,750	Catchable	2.9	Maintenance
2009	Rainbow Trout (McConaugRainbow Trout	5,000	Catchable	2.6	Maintenance
2009	Rainbow Trout (McConaugRainbow Trout	5,000	Catchable	3.0	Maintenance
2008	Rainbow Trout (McConaugRainbow Trout	3,600	Catchable	2.4	Maintenance
2008	Rainbow Trout (McConaugRainbow Trout	6,300	Catchable	2.5	Maintenance
2008	Rainbow Trout (McConaugRainbow Trout	3,600	Catchable	2.6	Maintenance
2008	Rainbow Trout (McConaugRainbow Trout	900	Catchable	2.8	Maintenance
2007	Rainbow Trout (McConaugRainbow Trout	4,175	Catchable	3.7	Maintenance
2007	Rainbow Trout (McConaugRainbow Trout	4,175	Catchable	4.1	Maintenance
2007	Rainbow Trout (McConaugRainbow Trout	4,050	Catchable	4.3	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	3,500	Catchable	2.8	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	1,131	Catchable	3.0	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	6,000	Catchable	3.1	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	3,875	Catchable	2.9	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	3,875	Catchable	3.1	Maintenance
2006	Rainbow Trout (McConaugRainbow Trout	2,125	Catchable	3.4	Maintenance

*Y = Federal Hatchery or other Federal Source

2006	Rainbow Trout (McConaugRainbow Trout	2,125	Catchable	3.4	Maintenance
2005	Rainbow Trout	4,782	Fingerling	6.7	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	1,003	Catchable	2.9	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	1,996	Catchable	3.0	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	3,993	Catchable	3.0	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	6,000	Catchable	3.2	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	3,000	Catchable	3.5	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	2,000	Catchable	3.6	Maintenance
2005	Rainbow Trout (McConaugRainbow Trout	1,000	Catchable	3.9	Maintenance
2005	Rainbow Trout (Shasta)	18,870	Juvenile	10.1	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	3,170	Catchable	2.4	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	2,364	Catchable	2.7	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	5,000	Catchable	2.8	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	5,000	Catchable	2.9	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	1,286	Catchable	2.9	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	5,680	Catchable	3.0	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	447	Catchable	1.9	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	2,707	Catchable	2.2	Maintenance

*Y = Federal Hatchery or other Federal Source

2004	Rainbow Trout (McConaugRainbow Trout	4,800	Catchable	2.6	Maintenance
2004	Rainbow Trout (McConaugRainbow Trout	4,546	Catchable	2.6	Maintenance
2003	Rainbow Trout (McConaugRainbow Trout	7,382	Catchable	2.2	Maintenance
2003	Rainbow Trout (McConaugRainbow Trout	1,550	Catchable	2.8	Maintenance
2003	Rainbow Trout (McConaugRainbow Trout	6,000	Catchable	3.0	Maintenance
2003	Rainbow Trout (McConaugRainbow Trout	20,320	Catchable	2.1	Maintenance
2002	Rainbow Trout	15,200	Catchable	5.7	Maintenance
2002	Rainbow Trout	10,293	Catchable	2.4	Maintenance
2002	Rainbow Trout	11,000	Catchable	2.4	Maintenance
2001	Rainbow Trout	10,500	Catchable	3.1	Maintenance
2001	Rainbow Trout	6,714	Catchable	3.9	Maintenance
2001	Rainbow Trout	9,168	Catchable	2.7	Maintenance
2001	Rainbow Trout	4,973	Catchable	2.8	Maintenance
2001	Rainbow Trout	4,764	Catchable	3.0	Maintenance
2000	Rainbow Trout	12,424	Catchable	3.1	Maintenance
2000	Rainbow Trout	8,810	Catchable	3.7	Maintenance
1999	Brown Trout	10,103	Fingerling		
1999	Rainbow Trout	18,728	Catchable		
1999	Rainbow Trout	165,945	Fingerling		
1998	Rainbow Trout	10,170	Catchable		
1997	Rainbow Trout	42	Adult		
1997	Rainbow Trout	16,572	Catchable		
1997	Tiger Muskellunge	52,000	Fingerling		
1996	Brown Trout	16,200	Fingerling		
1996	Rainbow Trout	19,250	Catchable		
1996	Tiger Muskellunge	15,000	Fingerling		
1995	Brown Trout	10,010	Fingerling		
1995	Rainbow Trout	73	Adult		
1995	Rainbow Trout	22,679	Catchable		
1995	Tiger Muskellunge	16,000	Fingerling		

*Y = Federal Hatchery or other Federal Source

1994	Brown Trout	7,056	Catchable
1994	Brown Trout	10,000	Fingerling
1994	Rainbow Trout	22,000	Catchable
1993	Brown Trout	9,440	Large
1993	Rainbow Trout	17,025	Catchable
1993	Tiger Muskellunge	21,000	Small
1992	Brown Trout	12,985	Large
1992	Rainbow Trout	40,653	Large
1992	Tiger Muskellunge	22,000	Fingerling
1991	Brown Trout	9,540	Fingerling
1991	Chinook Salmon (Oahe)	8,854	Fingerling
1991	Rainbow Trout	18,138	Fingerling
1991	Smallmouth Bass	40,000	Fingerling
1991	Tiger Muskellunge	12,000	Fingerling
1990	Brown Trout	21,353	Catchable
1990	Brown Trout	15,000	Fingerling
1990	Rainbow Trout	17,945	Fingerling
1990	Smallmouth Bass	40,000	Fingerling
1990	Tiger Muskellunge	1,740	Fingerling
1989	Brown Trout	13,339	Catchable
1989	Largemouth Bass	26,171	Fingerling
1989	Rainbow Trout	240,226	Fingerling
1989	Rainbow Trout	34,455	Juvenile
1989	Smallmouth Bass	57,063	Fingerling
1989	Tiger Muskellunge	20,000	Fingerling
1988	Bluegill	2,100	Adult
1988	Bluegill	250,000	Fingerling
1988	Brown Trout	24,562	Catchable
1988	Brown Trout	21,924	Fingerling
1988	Largemouth Bass	51	Adult
1988	Largemouth Bass	36,090	Fingerling
1988	Largemouth Bass	1,295	Juvenile
1988	Muskellunge	12,000	Fingerling
1988	Rainbow Trout	48,418	Fingerling
1988	Smallmouth Bass	96,915	Fingerling
1988	White Crappie	3,366	Adult
1987	Bluegill	166,500	Fingerling

*Y = Federal Hatchery or other Federal Source

1987	Brown Trout	19,470	Catchable
1987	Brown Trout	20,000	Fingerling
1987	Largemouth Bass	55,550	Fingerling
1987	Rainbow Trout	29,031	Catchable
1987	Smallmouth Bass	158,584	Fingerling
1987	Tiger Muskellunge	26,000	Fingerling
1986	Brown Trout	7,485	Catchable
1986	Cutthroat trout (lotic)	34,698	Fingerling
1986	Rainbow Trout	17,604	Catchable
1986	Rainbow Trout	39,052	Fingerling
1986	Smallmouth Bass	100,000	Fingerling
1986	Tiger Muskellunge	30,000	Fingerling
1985	Brown Trout	5,358	Catchable
1985	Cutthroat trout (lotic)	866,331	Fingerling
1985	Rainbow Trout	32,490	Catchable
1985	Smallmouth Bass	50,000	Fingerling
1985	Tiger Muskellunge	25,000	Fingerling
1985	Walleye	5,000	Fingerling
1984	Bluegill	20,000	Fingerling
1984	Cutthroat trout (lotic)	76,595	Fingerling
1984	Largemouth Bass	1,200	Fingerling
1984	Rainbow Trout	1,915	Catchable
1984	Rainbow Trout	43,250	Fingerling
1984	Rainbow Trout	130,800	Fry
1984	Smallmouth Bass	113,250	Fingerling
1984	Tiger Muskellunge	29,000	Fingerling
1983	Brown Trout	5,000	Catchable
1983	Muskellunge	21,400	Fingerling
1983	Rainbow Trout	130	Adult
1983	Smallmouth Bass	96,250	Fingerling
1982	Brown Trout	7,000	Catchable
1982	Rainbow Trout	10,745	Catchable
1981	Brown Trout	5,000	Catchable
1981	Rainbow Trout	3,563	Catchable
1980	Brown Trout	3,600	Catchable
1980	Muskellunge	10,000	Fingerling
1980	Rainbow Trout	5,000	Fingerling

*Y = Federal Hatchery or other Federal Source

1980	Smallmouth Bass	6,400	Fingerling
1979	Brown Trout	6,610	Fingerling
1977	Brown Trout	500	Catchable
1977	Rainbow Trout	2,500	Catchable
1977	Rainbow Trout	99,168	Fingerling
1976	Largemouth Bass	20,000	Fingerling
1976	Rainbow Trout	132,700	Fingerling
1975	Largemouth Bass	8,800	Fingerling
1975	Rainbow Trout	115,434	Fingerling
1974	Largemouth Bass	11,000	Fingerling
1974	Rainbow Trout	3,200	Catchable
1974	Rainbow Trout	117,215	Fingerling
1971	Coho Salmon	10,000	Fingerling
1971	Northern Pike	1,060,000	Fry
1965	Rainbow Trout	1,500	Catchable

*Y = Federal Hatchery or other Federal Source

Creel and Lake Information

Lake Information

Lake Name: Sharpe
Lake Code: FTR-Lake-6327-001
Surface Area: 23,738.91 Hectares
County: Hughes
Start Date: 5/8/2018
End Date: 8/30/2018
Months Included: May, June, July, August

Table 1. Percent of angling parties interviewed primarily targeting a species (or any species) by month and overall for Sharpe during 2017 - 2018. Any Species (ANY), Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC).

Year	Month	# of Interviews	Percent of Anglers Targeting							
			ANY	BLC	CCF	RBT	SMB	WAE	WHB	WHC
2017	May	389	23.4	0.0	1.8	0.0	1.5	63.2	3.9	0.0
	June	256	27.3	0.0	3.1	0.0	2.0	65.6	0.4	0.0
	July	230	16.5	0.0	3.0	0.0	0.0	80.0	0.0	0.0
	August	170	20.0	0.0	2.9	0.0	1.2	75.3	0.0	0.0
	Overall	1045	22.3	0.0	2.6	0.0	1.2	69.5	1.5	0.0
2018	May	216	13.0	1.9	1.9	0.5	9.3	70.4	2.8	0.5
	June	179	16.8	1.1	3.4	0.0	6.1	72.6	0.0	0.0
	July	164	12.8	0.0	4.9	0.0	1.2	81.1	0.0	0.0
	August	158	15.8	0.0	9.5	0.0	2.5	71.5	0.6	0.0
	Overall	717	14.5	0.8	4.6	0.1	5.2	73.6	1.0	0.1

Table 2. Monthly and overall number of interviews, angler hours, angler days, mean trip length, mean party size, percent of parties interviewed that were South Dakota residents, percent of angling activity from a boat or shack and percent of angling activity that occurred on weekends and holidays at Sharpe (80% confidence interval).

Year	Month	# Interviews	Angler Hours	Angler Days	Trip Length (h)	Party Size	% SD Residents	% Boat or Shack	% Weekend/Holidays
2017	May	389	113,744 (24,474)	32,685	3.48 (0.49)	2.17 (0.28)	88	60	52
	June	256	94,893 (19,965)	26,806	3.54 (0.50)	2.44 (0.32)	86	57	59
	July	230	91,347 (13,428)	29,092	3.14 (0.44)	2.20 (0.27)	80	81	55
	August	170	39,850 (7,295)	10,570	3.77 (0.42)	2.35 (0.21)	82	73	71
	Overall	1045	339,835 (35,087)	97,654	3.48 (0.23)	2.29 (0.13)	85	66	58
2018	May	216	99,343 (8,944)	21,456	4.63 (1.65)	2.31 (0.64)	69	64	54
	June	179	108,345 (5,060)	20,289	5.34 (1.49)	2.55 (0.85)	73	69	50
	July	164	99,341 (5,785)	22,475	4.42 (0.93)	2.46 (0.49)	76	81	58
	August	158	69,748 (3,363)	15,000	4.65 (1.05)	2.28 (0.42)	75	68	51
	Overall	717	376,777 (12,263)	79,321	4.75 (0.66)	2.40 (0.31)	73	70	53

Table 3. Estimated fishing pressure (angler hours) by month during the summer season 2018 daylight period on Sharpe (80% confidence interval).

Lake	Month				
	May	June	July	August	Total
Sharpe (Hughes)	99,343 (8,944)	108,345 (5,060)	99,341 (5,785)	69,748 (3,363)	376,777 (12,263)

Table 4. Estimated number of fish harvested, by species and month, for the summer season 2018 daylight period on Sharpe (80% confidence interval).

Species	Month				Total
	May	June	July	August	
Black Crappie	5 (5)	296 (162)	0	61 (65)	362 (175)
Channel Catfish	102 (103)	447 (380)	2,227 (967)	433 (367)	3,209 (1,107)
Rainbow Trout	0	0	0	0	0
Smallmouth Bass	8,977 (3,283)	4,177 (2,207)	949 (425)	2,266 (805)	16,369 (4,059)
Walleye	34,948 (4,878)	28,107 (6,124)	50,417 (5,564)	35,822 (5,290)	149,295 (10,965)
White Bass	155 (121)	639 (681)	421 (228)	166 (155)	1,382 (744)
White Crappie	3 (4)	46 (71)	0	0	49 (72)
Total	44,191 (8,393)	33,712 (9,625)	54,014 (7,185)	38,749 (6,682)	170,666 (17,122)

Table 5a. Estimated monthly and overall angler catch rate per hour fished (C/h) for all anglers by species at Sharpe (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and other species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		C/h	C/h	C/h	C/h	C/h	C/h	C/h
2017	May	0.00	0.02 (0.01)	<0.01 (<0.01)	0.26 (0.27)	1.27 (0.61)	0.07 (0.03)	0.00
	June	0.00	0.02 (<0.01)	<0.01 (<0.01)	0.22 (0.10)	1.68 (0.85)	0.04 (0.02)	0.00
	July	0.00	0.06 (0.02)	0.00	0.10 (0.04)	1.23 (0.46)	0.01 (<0.01)	0.00
	August	0.00	0.05 (0.04)	<0.01 (<0.01)	0.07 (0.08)	0.69 (0.28)	0.03 (0.02)	0.00
	Overall	0.00	0.03 (<0.01)	<0.01 (<0.01)	0.18 (0.09)	1.31 (0.33)	0.04 (0.01)	0.00
2018	May	<0.01 (<0.01)	<0.01 (<0.01)	0.00	0.33 (0.20)	1.21 (0.42)	0.01 (<0.01)	<0.01 (<0.01)
	June	<0.01	0.03 (0.02)	0.00	0.15 (0.07)	1.36 (0.39)	0.02 (<0.01)	<0.01 (<0.01)
	July	0.00	0.03 (0.01)	0.00	0.02 (<0.01)	0.83 (0.22)	<0.01 (<0.01)	0.00
	August	0.00	0.02 (0.02)	0.00	0.08 (0.05)	0.80 (0.16)	0.01 (<0.01)	<0.01 (<0.01)
	Overall	<0.01 (<0.01)	0.02 (<0.01)	0.00	0.15 (0.05)	1.08 (0.17)	0.01 (<0.01)	<0.01 (<0.01)

Table 5b. Estimated monthly and overall angler harvest rate per hour fished (H/h) for all anglers by species at Sharpe (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and other species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		H/h	H/h	H/h	H/h	H/h	H/h	H/h
2017	May	0.00	0.01	<0.01 (<0.01)	0.05 (0.04)	0.44 (0.21)	0.02 (0.01)	0.00
	June	0.00	<0.01 (<0.01)	0.00	0.04 (0.03)	0.31 (0.16)	0.01 (<0.01)	0.00
	July	0.00	0.02 (<0.01)	0.00	0.03 (0.02)	0.53 (0.20)	<0.01 (<0.01)	0.00
	August	0.00	0.01 (<0.01)	<0.01 (<0.01)	0.02 (<0.01)	0.37 (0.14)	<0.01 (<0.01)	0.00
	Overall	0.00	0.01 (<0.01)	<0.01 (<0.01)	0.04 (0.02)	0.42 (0.10)	0.01 (<0.01)	0.00
2018	May	<0.01 (<0.01)	<0.01 (<0.01)	0.00	0.09 (0.04)	0.35 (0.10)	<0.01 (<0.01)	<0.01 (<0.01)
	June	<0.01	<0.01 (<0.01)	0.00	0.04 (0.02)	0.26 (0.07)	0.01 (<0.01)	<0.01 (<0.01)
	July	0.00	0.02 (<0.01)	0.00	0.01 (<0.01)	0.51 (0.09)	<0.01 (<0.01)	0.00
	August	<0.01 (<0.01)	0.01 (<0.01)	0.00	0.03 (0.01)	0.51 (0.11)	<0.01 (<0.01)	0.00
	Overall	<0.01 (<0.01)	0.01 (<0.01)	0.00	0.04 (0.01)	0.40 (0.05)	<0.01 (<0.01)	<0.01 (<0.01)

Table 6a. Estimated monthly and overall angler catch rate per hour fished (C/h) only for anglers primarily targeting a species at Sharpe. (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and Other Species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		C/h	C/h	C/h	C/h	C/h	C/h	C/h
2017	May	0.00	0.30 (0.05)	0.00	2.98 (1.65)	1.28 (0.98)	0.51 (0.19)	0.00
	June	0.00	0.15 (0.12)	0.00	1.98 (0.74)	1.14 (0.21)	0.19	0.00
	July	0.00	0.16 (0.15)	0.00	0.00	1.15 (0.73)	0.00	0.00
	August	0.00	0.43	0.00	1.02 (0.66)	0.69 (0.30)	0.00	0.00
	Overall	0.00	0.23 (0.06)	0.00	2.23 (0.71)	1.08 (0.34)	0.48 (0.18)	0.00
2018	May	0.06 (0.18)	0.00	0.00	0.91 (2.39)	1.20 (0.35)	1.75 (8.34)	0.00
	June	0.00	0.34 (0.21)	0.00	0.45 (0.74)	1.22 (0.39)	0.00	0.00
	July	0.00	0.04 (0.13)	0.00	0.00	0.82 (0.48)	0.00	0.00
	August	0.00	0.09 (0.16)	0.00	1.52 (0.53)	0.81 (0.26)	0.00	0.00
	Overall	0.03 (0.09)	0.11 (0.08)	0.00	0.79 (0.70)	1.04 (0.18)	1.39 (6.63)	0.00

Table 6b. Estimated monthly and overall angler harvest rate per hour fished (H/h) only for anglers primarily targeting a species at Sharpe. (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and Other Species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		H/h	H/h	H/h	H/h	H/h	H/h	H/h
2017	May	0.00	0.09 (0.03)	0.00	0.23 (0.46)	0.43 (0.08)	0.25 (0.16)	0.00
	June	0.00	0.10 (0.07)	0.00	0.00	0.22 (0.07)	0.00	0.00
	July	0.00	0.16 (0.13)	0.00	0.00	0.44 (0.15)	0.00	0.00
	August	0.00	0.00	0.00	0.34 (0.80)	0.41 (0.14)	0.00	0.00
	Overall	0.00	0.11 (0.05)	0.00	0.11 (0.17)	0.36 (0.05)	0.23 (0.15)	0.00
2018	May	0.20 (0.18)	0.00	0.00	0.16 (0.22)	0.34 (0.07)	0.09 (0.05)	0.00
	June	0.00	0.33 (0.67)	0.00	0.10 (0.21)	0.24 (0.09)	0.00	0.00
	July	0.00	0.06 (0.02)	0.00	0.00	0.48 (0.27)	0.00	0.00
	August	0.00	0.25 (0.18)	0.00	0.09 (0.22)	0.52 (0.17)	0.00	0.00
	Overall	0.10 (0.09)	0.16 (0.16)	0.00	0.10 (0.10)	0.38 (0.07)	0.07 (0.04)	0.00

Table 7a. Estimated monthly and overall angler catch (C) for all anglers by species at Sharpe (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and other species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		C	C	C	C	C	C	C
2017	May	0	1,944 (706)	281 (97)	29,499 (21,746)	144,864 (43,526)	7,981 (2,552)	0
	June	0	1,436 (631)	146 (137)	20,810 (7,174)	159,805 (49,746)	3,773 (1,220)	0
	July	0	5,689 (1,442)	0	9,249 (2,746)	112,041 (26,730)	921 (385)	0
	August	0	2,190 (722)	13 (10)	2,894 (1,338)	27,408 (7,212)	1,266 (696)	0
	Overall	0	11,259 (1,870)	440 (168)	62,452 (23,101)	444,118 (71,664)	13,941 (2,939)	0
2018	May	2 (2)	207 (133)	0	32,362 (13,082)	120,076 (35,784)	724 (286)	5 (6)
	June	175 (163)	2,805 (2,364)	0	16,032 (8,766)	147,273 (34,209)	1,682 (1,071)	46 (71)
	July	0	2,702 (1,386)	0	1,628 (671)	82,881 (15,618)	278 (203)	0
	August	0	1,629 (1,125)	0	5,833 (3,410)	55,658 (7,963)	470 (340)	61 (80)
	Overall	176 (163)	7,344 (2,965)	0	55,855 (16,126)	405,888 (52,517)	3,154 (1,177)	111 (108)

Table 7b. Estimated monthly and overall angler harvest (H) for all anglers by species at Sharpe (80% confidence interval). Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) and other species (Other).

Year	Month	BLC	CCF	RBT	SMB	WAE	WHB	WHC
		H	H	H	H	H	H	H
2017	May	0	874	34 (39)	5,474 (3,353)	49,833 (14,631)	2,447 (944)	0
	June	0	172 (135)	0	4,108 (2,220)	29,156 (8,674)	678 (425)	0
	July	0	1,711 (718)	0	3,063 (1,061)	48,551 (11,127)	143 (137)	0
	August	0	337 (192)	13 (10)	678 (340)	14,829 (3,661)	48 (31)	0
	Overall	0	3,095 (658)	46 (40)	13,324 (4,173)	142,370 (20,653)	3,316 (1,045)	0
2018	May	5 (5)	102 (103)	0	8,977 (3,283)	34,948 (4,878)	155 (121)	3 (4)
	June	296 (162)	447 (380)	0	4,177 (2,207)	28,107 (6,124)	639 (681)	46 (71)
	July	0	2,227 (967)	0	949 (425)	50,417 (5,564)	421 (228)	0
	August	61 (65)	433 (367)	0	2,266 (805)	35,822 (5,290)	166 (155)	0
	Overall	362 (175)	3,209 (1,107)	0	16,369 (4,059)	149,295 (10,965)	1,382 (744)	49 (72)

Table 8. Estimated number and rate (number per hour) of Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC) caught and harvested by anglers during the summer and winter fisheries on Sharpe, (80% confidence interval).

Black Crappie

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	319 (281)	161 (145)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2010	405 (269)	240 (228)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2018	176 (163)	362 (175)	<0.01 (<0.01)	<0.01 (<0.01)

Channel Catfish

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	12,384 (2,498)	7,108 (1,643)	0.03 (<0.01)	0.02 (<0.01)
Summer	2010	10,866 (2,501)	6,384 (1,565)	0.03 (<0.01)	0.02 (<0.01)
Summer	2011	3,434 (878)	1,964 (657)	0.02 (<0.01)	0.01 (<0.01)
Summer	2012	7,086 (2,014)	2,130 (907)	0.02 (<0.01)	0.01 (<0.01)
Summer	2013	13,610 (3,509)	4,954 (2,428)	0.03 (0.01)	0.01 (<0.01)
Summer	2014	5,740 (1,468)	2,433 (1,004)	0.02 (<0.01)	0.01 (<0.01)
Summer	2015	14,051 (2,665)	4,591 (1,704)	0.04 (<0.01)	0.01 (<0.01)
Summer	2017	11,259 (1,870)	3,095 (658)	0.03 (<0.01)	0.01 (<0.01)
Summer	2018	7,344 (2,965)	3,209 (1,107)	0.02 (<0.01)	0.01 (<0.01)

Rainbow Trout

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	662 (603)	421 (460)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2010	1,028 (625)	655 (465)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2011	196 (278)	22 (34)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2012	2,001 (1,035)	480 (231)	0.01 (<0.01)	<0.01 (<0.01)
Summer	2013	2,610 (1,240)	1,659 (770)	0.01 (<0.01)	<0.01 (<0.01)
Summer	2014	603 (308)	221 (141)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2015	368 (134)	211 (121)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2017	440 (168)	46 (40)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2018	0	0	0.00	0.00

Smallmouth Bass

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	131,133 (20,149)	12,239 (2,773)	0.32 (0.08)	0.03 (<0.01)
Summer	2010	91,882 (16,211)	7,128 (1,429)	0.24 (0.06)	0.02 (<0.01)
Summer	2011	41,405 (9,884)	4,321 (1,152)	0.24 (0.08)	0.03 (0.01)
Summer	2012	68,295 (8,643)	16,174 (3,580)	0.21 (0.04)	0.05 (0.01)
Summer	2013	54,653 (8,844)	19,590 (5,287)	0.14 (0.04)	0.05 (0.02)
Summer	2014	54,872 (12,413)	10,964 (3,060)	0.20 (0.06)	0.04 (0.01)
Summer	2015	63,109 (13,200)	17,190 (5,203)	0.20 (0.06)	0.05 (0.02)
Summer	2017	62,452 (23,101)	13,324 (4,173)	0.18 (0.09)	0.04 (0.02)
Summer	2018	55,855 (16,126)	16,369 (4,059)	0.15 (0.05)	0.04 (0.01)

Walleye

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	478,571 (56,831)	154,132 (18,585)	1.18 (0.24)	0.38 (0.08)
Summer	2010	274,293 (33,284)	136,807 (14,753)	0.71 (0.16)	0.35 (0.07)
Summer	2011	178,666 (28,179)	72,622 (10,304)	1.05 (0.29)	0.43 (0.11)
Summer	2012	539,817 (65,397)	173,049 (19,657)	1.66 (0.31)	0.53 (0.10)
Summer	2013	405,715 (50,112)	232,065 (24,154)	1.02 (0.25)	0.58 (0.12)
Summer	2014	295,844 (40,534)	117,643 (19,504)	1.08 (0.28)	0.43 (0.12)
Summer	2015	305,774 (38,249)	116,826 (15,481)	0.97 (0.20)	0.37 (0.08)
Summer	2017	444,118 (71,664)	142,370 (20,653)	1.31 (0.33)	0.42 (0.10)
Summer	2018	405,888 (52,517)	149,295 (10,965)	1.08 (0.17)	0.40 (0.05)

White Bass

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2018	3,154 (1,177)	1,382 (744)	0.01 (<0.01)	<0.01 (<0.01)

Summer	2009	49,864 (12,633)	20,213 (7,373)	0.12 (0.04)	0.05 (0.02)
Summer	2010	37,324 (12,073)	9,779 (4,231)	0.10 (0.04)	0.03 (0.01)
Summer	2011	9,367 (3,717)	3,408 (1,596)	0.05 (0.02)	0.02 (<0.01)
Summer	2012	15,219 (7,183)	2,764 (1,283)	0.05 (0.02)	0.01 (<0.01)
Summer	2013	14,311	2,797 (907)	0.04	0.01 (<0.01)
Summer	2014	17,815 (4,048)	4,682 (1,810)	0.07 (0.02)	0.02 (<0.01)
Summer	2015	34,232	9,389	0.11	0.03
Summer	2017	13,941 (2,939)	3,316 (1,045)	0.04 (0.01)	0.01 (<0.01)

White Crappie

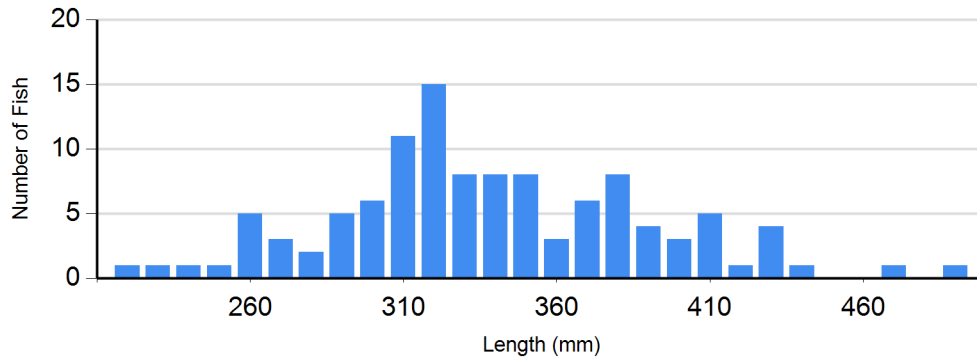
Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Summer	2009	13 (17)	13 (17)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2010	41 (47)	41 (47)	<0.01 (<0.01)	<0.01 (<0.01)
Summer	2018	111 (108)	49 (72)	<0.01 (<0.01)	<0.01 (<0.01)

Table 9. The number of fish harvested with each species by length group (mm) for the winter and summer fisheries at Sharpe. Abbreviations for species are as follows: Black Crappie (BLC), Channel Catfish (CCF), Rainbow Trout (RBT), Smallmouth Bass (SMB), Walleye (WAE), White Bass (WHB), White Crappie (WHC).

Summer 2017							
Length Group (mm)	BLC (N=0)	CCF (N=0)	RBT (N=0)	SMB (N=112)	WAE (N=2262)	WHB (N=0)	WHC (N=0)
220				1	1		
230				1			
240				1			
250				1	1		
260				5	1		
270				3	1		
280				2	1		
290				5	2		
300				6	10		
310				11	15		
320				15	34		
330				8	58		
340				8	86		
350				8	140		
360				3	154		
370				6	187		
380				8	288		
390				4	335		
400				3	240		
410				5	190		
420				1	141		
430				4	109		
440				1	92		
450					64		
460					32		
470				1	23		
480					19		
490				1	9		
500					7		
510					6		
520					5		
530					2		
540					3		
550					2		
560							
570					1		
580							
590							
600					2		
610							
620							
630							
640							
650							
660							
670							
680							
690							
700					1		

Summer 2018							
Length Group (mm)	BLC (N=0)	CCF (N=0)	RBT (N=0)	SMB (N=279)	WAE (N=2077)	WHB (N=4)	WHC (N=0)
30					1		
40							
50							
60							
70							
80							
90							
100							
110							
120							
130							
140							
150							
160							
170							
180							
190							
200							
210							
220				1			
230							
240				1			
250				2			
260							
270				3			
280				7	1		
290				1	3		
300				18	10		
310				13	23		
320				19	24		
330				14	35		
340				13	98		
350				16	132		
360				16	185	1	
370				12	227		
380				16	400	1	
390				13	322	1	
400				21	212		
410				25	132		
420				23	80	1	
430				11	66		
440				12	40		
450				5	29		
460				6	17		
470				6	12		
480				3	10		
490				2	7		
500					1		
510					1		
520					3		
530					1		
540							
550					1		
560					1		
570					1		
580					1		
590							
600							
610							
620							
630							
640							
650							
660							
670							
680					1		

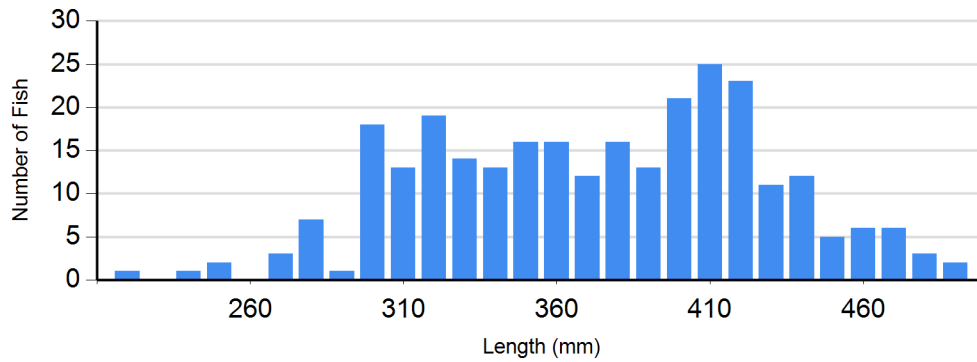
Length frequency of angler-harvested Smallmouth Bass measured by the creel clerk during creel surveys on Sharpe.



Summer 2017

N = 112

Mean TL = 338 mm

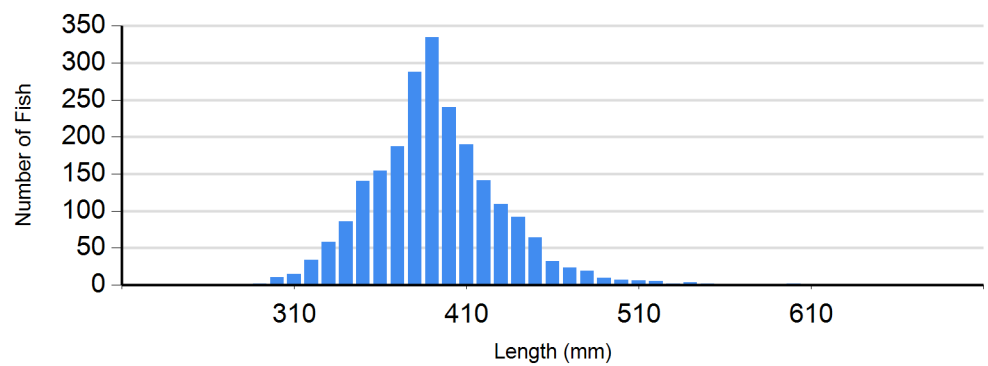


Summer 2018

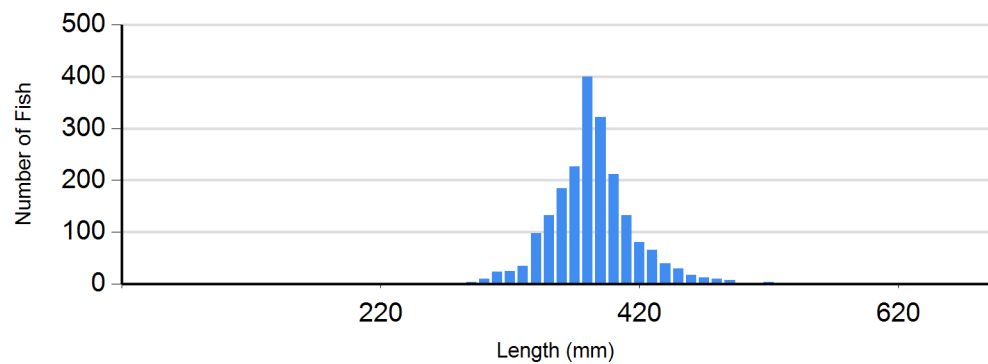
N = 279

Mean TL = 373 mm

Length frequency of angler-harvested Walleye measured by the creel clerk during creel surveys on Sharpe.



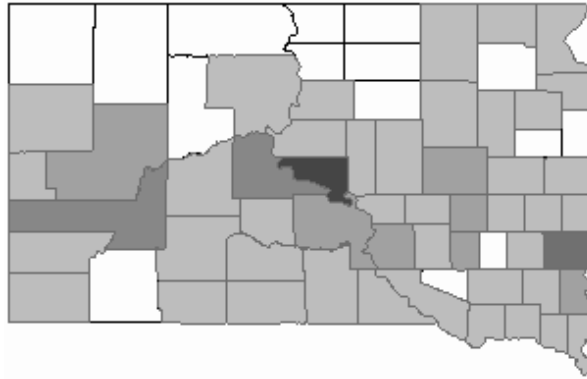
Summer 2017
N = 2262
Mean TL = 391 mm



Summer 2018
N = 2077
Mean TL = 383 mm

South Dakota county of residence for winter and summer resident anglers fishing Sharpe,
South Dakota between May 2017 and August 2018.

Summer 2017



Summer 2018

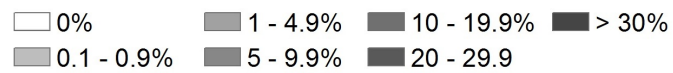
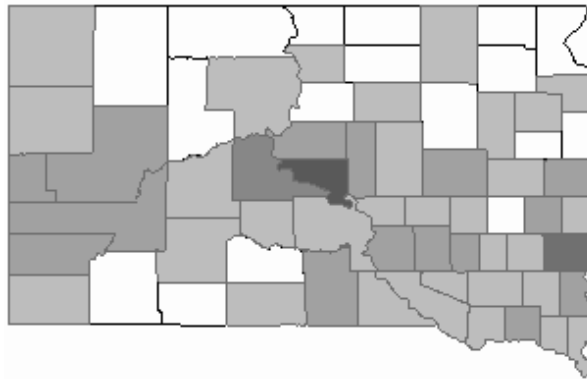


Table 10. Number of parties or anglers interviewed that harvested (or caught) a specified number of fish totaled over selected strata for a species.

Summer 2017	Counts						
	BLC (n=1045)	CCF (n=1045)	RBT (n=1045)	SMB (n=1045)	WAE (n=1045)	WHB (n=1045)	WHC (n=1045)
0.00	1045	995	1043	953	508	1004	1045
0.08	0	0	0	0	1	0	0
0.14	0	0	0	1	2	1	0
0.17	0	0	0	1	0	0	0
0.20	0	2	0	1	3	1	0
0.25	0	3	0	1	4	2	0
0.29	0	0	0	0	0	1	0
0.33	0	8	0	12	19	3	0
0.40	0	0	0	0	4	0	0
0.43	0	0	0	0	0	1	0
0.50	0	11	2	22	46	6	0
0.57	0	0	0	0	1	0	0
0.60	0	0	0	0	1	0	0
0.67	0	2	0	5	17	3	0
0.75	0	0	0	2	2	0	0
0.80	0	0	0	0	1	0	0
0.83	0	0	0	0	1	0	0
1.00	0	14	0	16	53	10	0
1.20	0	0	0	0	1	0	0
1.25	0	0	0	1	2	0	0
1.33	0	0	0	2	7	1	0
1.40	0	0	0	0	1	0	0
1.50	0	3	0	4	34	0	0
1.67	0	2	0	1	9	0	0
1.75	0	0	0	0	3	0	0
2.00	0	4	0	8	47	4	0
2.25	0	0	0	0	3	0	0
2.33	0	0	0	1	5	0	0
2.50	0	0	0	3	19	0	0
2.67	0	0	0	1	11	0	0
2.75	0	0	0	0	1	0	0
2.86	0	0	0	0	1	0	0
3.00	0	1	0	1	39	2	0
3.25	0	0	0	0	1	0	0
3.33	0	0	0	1	4	0	0
3.50	0	0	0	2	22	0	0
3.67	0	0	0	0	10	0	0
3.75	0	0	0	0	3	0	0
4.00	0	0	0	4	154	2	0
4.50	0	0	0	0	1	0	0
5.00	0	0	0	2	0	2	0

6.00	0	0	0	0	1	0	0
7.00	0	0	0	0	1	0	0
7.50	0	0	0	0	1	1	0
8.00	0	0	0	0	0	1	0
11.00	0	0	0	0	1	0	0

Summer 2018	Counts						
	Angler Harvest	BLC (n=717)	CCF (n=718)	RBT (n=717)	SMB (n=717)	WAE (n=719)	WHB (n=717)
0.00	707	668	717	624	335	686	714
0.14	0	1	0	1	0	0	0
0.17	0	1	0	0	1	1	0
0.20	1	2	0	2	3	1	0
0.25	2	1	0	5	4	4	0
0.29	0	0	0	0	1	0	0
0.33	2	6	0	16	12	6	0
0.40	0	2	0	1	1	0	0
0.50	3	9	0	16	26	4	0
0.60	0	0	0	1	0	0	0
0.67	0	2	0	4	8	1	0
0.75	0	0	0	2	2	0	0
0.80	0	0	0	0	1	0	0
0.83	0	0	0	0	1	0	0
1.00	2	13	0	16	45	5	3
1.20	0	0	0	0	1	0	0
1.25	0	0	0	1	2	0	0
1.33	0	2	0	1	10	2	0
1.40	0	0	0	0	1	0	0
1.50	0	4	0	3	24	3	0
1.60	0	0	0	0	2	0	0
1.67	0	0	0	2	6	1	0
1.75	0	0	0	1	2	0	0
1.80	0	0	0	0	1	0	0
2.00	0	1	0	2	34	0	0
2.25	0	0	0	0	1	0	0
2.33	0	0	0	0	4	0	0
2.44	0	0	0	0	1	0	0
2.50	0	0	0	2	10	1	0
2.67	0	0	0	0	7	0	0
2.75	0	1	0	0	3	0	0
3.00	0	3	0	0	23	1	0
3.25	0	0	0	0	2	0	0
3.33	0	0	0	1	4	0	0
3.40	0	1	0	0	0	0	0
3.50	0	0	0	1	15	0	0
3.60	0	0	0	0	1	0	0
3.67	0	0	0	0	6	0	0
3.75	0	0	0	0	1	0	0
3.80	0	0	0	0	1	0	0
4.00	0	1	0	0	110	0	0
4.14	0	0	0	0	1	0	0
4.25	0	0	0	1	1	0	0

4.33	0	0	0	1	0	0	0
4.50	0	0	0	2	2	0	0
4.67	0	0	0	0	1	0	0
5.00	0	0	0	9	0	0	0
5.50	0	0	0	0	1	1	0
6.00	0	0	0	1	1	0	0
8.00	0	0	0	1	0	0	0

Table 11 The number (N) and percent of total interviews in supplemental-response categories by question asked during interviews at Sharpe.

Question: Considering all factors, how satisfied are you with your fishing trip today? ☐

Response	Summer 2018 (n = 717)
Very Satisfied ☐	44%
Moderately Satisfied ☐	26%
Slightly Satisfied ☐	10%
Neutral/No Opinion ☐	9%
Slightly Dissatisfied ☐	5%
Moderately Dissatisfied ☐	4%
Very Dissatisfied ☐	2%

Question: Why did you decide to come here to fish today? ☐

Response	Summer 2018 (n = 473)
Camping nearby ☐	15%
Close to home ☐	15%
Easy/Good/Adequate access ☐	9%
Family friendly access ☐	2%
Family nearby ☐	1%
Favorite place to fish ☐	21%
Other ☐	19%
Reports of fish were biting ☐	16%
Sizes of fish being caught ☐	1%

Question: Would you harvest a Shovelnose Sturgeon if it was legal to do so? ☐

Response	Summer 2018 (n = 422)
No ☐	80%
Yes ☐	20%