Lake Oahe – Upper Fish Population Survey Summary

Lake Oahe is a very large Missouri River reservoir extending from Pierre, South Dakota to Bismarck, North Dakota. For summary and analysis purposes, Lake Oahe is divided into lower and upper regions with the dividing line being the US Highway 212 Bridge. This report is for upper Lake Oahe which is from the US Highway 212 Bridge upstream to the North Dakota State Line. For summary and analysis downstream of US Highway 212 to Oahe Dam, please see Lake Oahe Lower report.

Many species of fish are found within Lake Oahe. A few species of aquatic invasive species (AIS) exists on Lake Oahe and include European rudd, Eurasian watermilfoil, and curly-leafed pondweed. Please remember to clean, drain, and dry all equipment used on Lake Oahe before future use. Lake Oahe follows state-wide fishing regulations, no special regulations exists. Fishing access is plentiful on Upper Lake Oahe with miles of shore fishing access, four State Recreation Areas with all facilities, and eight additional ramps that provide access for anglers to fish Lake Oahe.

Below are summaries for Lake Oahe – Upper from fisheries surveys completed in 2020. Survey methods completed in 2020 include AFS standard gill nets to index adult fish, small mesh gill nets in August to index small fish offshore, and electrofishing to index young walleye produced during that year. These surveys help to determine trends in fish populations.

- **Channel Catfish:** Channel catfish are abundant throughout Lake Oahe especially in embayments. Catfish gill net catch was 6.8 fish/net which is near the average of 7 fish/net. Majority (71%) of the fish collected were larger than 16 inches and approximately 1 percent of them also exceeded 24 inches. The average size collected in 2020 survey was 17 inches. Channel catfish condition or plumpness was good (86 Wr). Anglers that target channel catfish in Lake Oahe can do very well and have a fun day of fishing.

- **Northern Pike:** Abundance of northern pike fluctuates on Lake Oahe depending on flooded vegetation and rising water levels in the spring, helping to spur production of young fish. It is difficult to get an accurate account on northern pike abundance within a lake due to the difficulty of netting them. Lake Oahe northern pike abundance remained stable according to 2020 gill net survey with 0.1 fish/net. Sizes collected by netting ranged from 23 to 37 inches. Larger fish do exist throughout the lake with many caught by anglers over 20 pounds. Lake Oahe exhibits prime conditions to produce trophy northern pike. Occasional flooded vegetation for production, deep cool water for the summer months, and a large variety of food sources including lake herring and rainbow smelt can help produce large northern pike. Spring is a prime time to target northern pike while they are shallow after spawning and feeding.

- **Smallmouth Bass:** Lake Oahe has a great population of smallmouth bass. They tend to be attracted to the rocky shorelines found throughout the lake including riprap. Net catches remained similar to previous years with 1.0 fish/net collected in 2020. Size collected during survey ranged from 3 to 19 inches and averaged 11.5 inches. Approximately 28 percent of the fish collected were larger than 14 inches. Many larger fish do exist within Lake Oahe. Catching a few smallmouth bass can add excitement to your fishing trip.

- **Walleye:** Walleye are the most targeted fish by anglers on Lake Oahe. Walleye abundance continues to remain stable with 1.8 fish/net in 2020 which is near the average of 2.2 fish/net. Approximately 26 percent of the fish collected surpassed 15 inches with 4 percent were also larger than 20 inches. Fish condition or fatness remained stable from previous years (80 Wr). Currently by the age of four most walleye average approximately 15 inches. Fall electrofishing helps to index the abundance of young walleye produced. In 2020, 140 young walleye were collected per hour and in 2019, 65 fish were collected per hour. This indicates a good abundance of walleye was produced. Time will tell if these young walleye will make it into the population for anglers to catch. Most years anglers fishing the upper portion of Lake Oahe do best for walleye during May through June and then again in the fall months for larger fish.

- **Yellow Perch:** Yellow perch are an additional species found in Lake Oahe that are caught by anglers and provides a prey for larger fish within the lake. Abundance is near average at 1.2 fish/net. Approximately 40 percent of the yellow perch collected were larger than 8 inches with 4 percent larger than 10 inches. Many of the yellow perch caught by anglers while targeting walleye.

For more detailed results see the computer-generated South Dakota Statewide Fisheries Survey for Lake Oahe – Upper below. Please contact South Dakota Game, Fish and Parks Fort Pierre office – (605) 223-7705 for additional information.

Prepared 03-03-2021 by KDP

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY
Oahe Upper, Campbell County
ULO-Lake-933-000
2020

Lake Information

Name: Oahe Upper

County: Campbell

Surface Area: 124,724 Acres

Surveys and Investigations

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

Gear	Date	Effort
AFS gill net (1/2 inch)	Aug 10, 2020	18 net-nights
AFS gill net (1/2 inch)	Aug 11, 2020	18 net-nights
AFS gill net (1/2 inch)	Aug 12, 2020	18 net-nights
AFS gill net (1/2 inch)	Aug 13, 2020	18 net-nights
AFS gill net (1/2 inch)	Aug 17, 2020	18 net-nights
AFS std gill net	Aug 10, 2020	18 net-nights
AFS std gill net	Aug 11, 2020	18 net-nights
AFS std gill net	Aug 12, 2020	18 net-nights
AFS std gill net	Aug 13, 2020	18 net-nights
AFS std gill net	Aug 17, 2020	18 net-nights
boat shocker (night)	Nov 02, 2020	3600 seconds
boat shocker (night)	Oct 08, 2020	3600 seconds
boat shocker (night)	Oct 19, 2020	3600 seconds

Common Fish Species Present

Walleye

Channel Catfish

Yellow Perch

Smallmouth Bass

Freshwater Drum

Shorthead Redhorse

Common Carp

River Carpsucker

Spottail Shiner

Bigmouth Buffalo

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.
- s**td 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.

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

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.

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

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

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

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

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).

	Stock		Quality		Preferred		Memorable		Trophy	
Species Name	(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**

			Abundance		Stock Density Indices				Condition	
Gear	Species	Sample Size (n)	CPUE	CI-80	PSD	CI-80	PSD-P	CI-80	Wr	CI-80
AFS gill net (1/2 inch)*	Channel Catfish	3	0.0	0.0	67		0		88	1
	Common Carp	8	0.1	0.0	100		88		93	5
	Emerald Shiner	1	0.0	0.0						
	Freshwater Drum	5	0.1	0.0	100		100		85	12
	Shorthead Redhorse	1	0.0	0.0	100		0		86	
	Smallmouth Bass	6	0.1	0.0	0		0		146	53
	Spotfin Shiner	2	0.0	0.0						
	Spottail Shiner	15	0.2	0.1						
	Walleye	94	1.0	0.2	0		0		85	1
	White Bass	9	0.1	0.1	0		0		102	10
	White Crappie	4	0.0	0.0	0		0		225	81
	Yellow Perch	18	0.2	0.1	13		0		110	7
AFS std gill net	Bigmouth Buffalo	6	0.1	0.0	100		100		87	8
	Black Crappie	2	0.0	0.0	100		100		74	
	Channel Catfish	621	6.8	0.6	71	2	1	1	86	1
	Common Carp	39	0.4	0.1	100		85	9	86	3
	Freshwater Drum	81	0.9	0.1	97		47	8	94	1
	Goldeye	61	0.0	0.0						
	Lake Herring	2	0.0	0.0	100		100		82	11
	Northern Pike	9	0.1	0.0	100		78		92	4
	River Carpsucker	18	0.2	0.1	100		100		98	3
	Sauger	3	0.0	0.0	67		33		67	4
	Shorthead Redhorse	43	0.5	0.1	100		84	9	93	2
	Shortnose Gar	1	0.0	0.0						
	Smallmouth Bass	99	1.0	0.4	60	7	28	7	103	1
	Smallmouth Buffalo	4	0.0	0.0	75		75		78	8
	Walleye	257	1.8	0.3	26	5	4	2	80	1
	White Bass	13	0.1	0.1	46	23	31		96	2
	White Crappie	2	0.0	0.0	0		0		116	2
	White Sucker	4	0.0	0.0	75		75		90	4
	Yellow Perch	104	1.2	0.3	40	7	4		94	2
boat shocker (night)	Walleye*	419	139.7	28.1	22	11	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.

		CPUE										
Gear	Species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avg
AFS gill net (1/2 inch)	Channel Catfish							0.1	0.0	0.0	0.0	0.03
	Common Carp							0.0	0.0	0.1	0.1	0.05
	Freshwater Drum							0.0	0.0	0.0	0.1	0.03
	Gizzard Shad							1.3	0.0	0.0	0.0	0.33
	Smallmouth Bass							0.0	0.0	0.0	0.1	0.03
	Spotfin Shiner							0.0	0.0	0.1	0.0	0.03
	Spottail Shiner							0.1	0.0	0.7	0.2	0.25
	Walleye							0.5	0.2	0.6	1.0	0.58
	White Bass							0.3	0.0	0.1	0.1	0.13
	White Crappie							0.1	0.0	0.0	0.0	0.03
	Yellow Perch							0.4	0.2	0.9	0.2	0.43
AFS std gill net	Bigmouth Buffalo							0.0	0.0	0.0	0.1	0.03
	Channel Catfish							9.9	5.4	5.8	6.8	6.98
	Common Carp							0.2	0.3	0.6	0.4	0.38
	Freshwater Drum							1.1	0.5	0.8	0.9	0.83
	Gizzard Shad							0.1	0.0	0.0	0.0	0.03
	Lake Herring							0.0	0.1	0.0	0.0	0.02
	Northern Pike							0.2	0.1	0.2	0.1	0.15
	River Carpsucker							0.3	0.3	0.2	0.2	0.25
	Sauger							0.1	0.1	0.1	0.0	0.08
	Shorthead Redhorse							0.2	0.3	0.3	0.5	0.33
	Smallmouth Bass							0.2	0.7	1.0	1.0	0.73
	Smallmouth Buffalo							0.1	0.1	0.1	0.0	0.08
	Walleye							2.7	2.2	2.2	1.8	2.23
	White Bass							0.2	0.0	0.0	0.1	0.08
	White Crappie							0.1	0.0	0.0	0.0	0.03
	White Sucker							0.0	0.0	0.1	0.0	0.03
	Yellow Perch							0.7	0.6	1.0	1.2	0.88
boat shocker (night)	Walleye							81.5		64.9	139.7	95.37
large seine	Bigmouth Buffalo	0.0	0.3	9.0	4.3	0.4	0.0	0.0	1.8	0.2		1.77
	Black Bullhead	0.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.2		0.31
	Black Crappie	1.0	1.0	0.1	417.4	247.8	1.1	5.2	88.3	14.7		86.28
	Brassy Minnow	0.5	0.0	0.4	0.2	0.1	0.0	0.0	0.0	0.7		0.21
	Channel Catfish	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	2.4		0.31

	Common Carp	0.3	0.1	0.0	0.0	0.0	0.8	0.5	0.3	2.5	0.50
	Drum Family	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.01
	Emerald Shiner	84.6	19.6	81.3	103.2	109.1	110.5	160.9	156.0	62.5	98.62
	Fathead Minnow	0.0	0.2	0.0	1.5	1.1	0.3	0.0	29.3	0.4	3.64
	Freshwater Drum	2.7	1.9	10.3	0.0	0.9	2.1	1.2	0.0	14.3	3.73
	Gizzard Shad	0.0	3.8	0.4	0.0	0.0	27.0	430.3	0.0	0.0	51.27
	Goldeye	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.8	2.0	0.48
	Iowa Darter	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.02
	Johnny Darter	0.9	0.5	0.3	0.1	0.0	0.4	0.6	0.0	0.8	0.40
	Lake Herring	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	0.13
	Largemouth Bass	0.0	0.0	0.0	0.2	0.7	0.3	0.0	0.1	0.6	0.21
	Northern Pike	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.02
	River Carpsucker	0.4	0.0	3.3	0.2	0.1	0.1	0.0	0.0	2.8	0.76
	Shorthead Redhorse	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.04
	Shortnose Gar	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.01
	Smallmouth Bass	4.5	1.5	31.6	19.0	7.9	2.2	4.8	12.0	11.5	10.55
	Smallmouth Buffalo	0.0	0.6	0.0	7.0	11.0	0.0	0.0	0.4	0.0	2.11
	Spotfin Shiner	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
	Spottail Shiner	4.2	1.8	0.5	2.3	3.6	1.4	6.3	13.3	6.4	4.42
	Walleye	0.3	0.5	1.3	5.6	0.5	0.2	0.1	0.6	0.8	1.10
	White Bass	55.3	22.5	101.5	346.5	18.3	1.8	10.3	12.6	2.8	63.51
	White Crappie	15.0	10.7	12.7	31.7	169.8	3.0	2.0	50.6	3.0	33.14
	White Sucker	0.0	0.2	4.7	1.3	0.2	0.0	0.0	0.0	4.6	1.23
	Yellow Perch	26.0	12.8	53.5	403.0	162.3	40.0	11.0	81.1	32.1	91.32
std exp gill net	Bigmouth Buffalo	0.1	0.0	0.1	0.2	0.0	0.0				0.07
	Black Bullhead	0.1	0.0	0.0	0.0	0.0	0.0				0.02
	Black Crappie	0.1	0.3	0.1	0.1	0.0	0.2				0.13
	Brown Bullhead	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Channel Catfish	11.7	22.0	15.1	12.7	13.5	20.0				15.83
	Chinook Salmon	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Common Carp	1.1	1.3	1.2	1.3	0.9	2.0				1.30
	Freshwater Drum	0.6	0.9	1.2	1.3	0.8	1.3				1.02
	Gizzard Shad	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Goldeye	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	Lake Herring	0.0	0.0	0.0	0.0	0.0	0.1				0.02
	Northern Pike	2.6	1.6	1.1	0.3	0.5	0.9				1.17
	Rainbow Smelt	0.0	0.0	0.0	0.0	0.0	0.0				0.00
	River Carpsucker	0.6	1.0	0.2	0.4	0.6	0.3				0.52
	Sauger	0.7	0.5	0.2	0.6	0.1	0.1				0.37
	Shorthead Redhorse	0.2	1.6	1.4	2.2	0.7	0.3				1.07
	Shortnose Gar	0.0	0.0	0.0	0.0	0.0	0.0				0.00

Smallmouth Bass	0.6	0.6	0.4	0.3	0.6	1.1	0.60
Smallmouth Buffalo	0.1	0.7	0.0	0.1	0.2	0.3	0.23
Spottail Shiner	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Walleye	16.5	19.0	13.7	13.6	9.3	7.4	13.25
White Bass	0.5	0.9	1.1	0.3	0.8	0.3	0.65
White Crappie	1.2	0.6	0.9	0.4	0.1	0.2	0.57
White Sucker	0.1	0.0	0.0	0.1	0.1	0.2	0.08
Yellow Perch	11.3	2.7	1.0	2.9	2.9	1.8	3.77

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.

			Year									
Gear	Species	Index	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
AFS gill net (1/2 inch)	Channel Catfish	PSD							14	40	100	67
		PSD-P							0	0	0	0
		Wr							79	75	80	88
	Northern Pike	PSD							100			
		PSD-P							0			
		Wr							89			
	Sauger	PSD							50			
		PSD-P							0			
		Wr							73			
	Smallmouth Bass	PSD								0	100	0
		PSD-P								0	100	0
		Wr									94	146
	Walleye	PSD							0	0	0	0
		PSD-P							0	0	0	0
		Wr							88	96	86	85
	White Bass	PSD							0	0	0	0
		PSD-P							0	0	0	0
		Wr							182	112	122	102
	Yellow Perch	PSD							18	0	0	13
		PSD-P							0	0	0	0
		Wr							115	103	111	110
AFS std gill net	Channel Catfish	PSD							53	65	71	71
		PSD-P							4	3	4	1
		Wr							81	84	85	86
	Northern Pike	PSD							100	100	100	100
		PSD-P							38	80	61	78
		Wr							88	88	91	92
	Sauger	PSD							88	86	67	67
		PSD-P							25	14	33	33
		Wr							75	79	71	67
	Smallmouth Bass	PSD							69	94	85	60
		PSD-P							23	33	46	28
		Wr							94	97	96	103

	Walleye	PSD							20	32	30	26
		PSD-P							0	8	7	4
		Wr							81	82	82	80
	White Bass	PSD							77	100	75	46
		PSD-P							46	100	50	31
		Wr							94	84	99	96
	Yellow Perch	PSD							64	74	49	40
		PSD-P							17	26	8	4
		Wr							85	92	102	94
boat shocker (night)	Walleye	PSD							0			22
		PSD-P							0			0
std exp gill net	Channel Catfish	PSD	55	53	51	39	60	66				
		PSD-P	8	8	8	3	10	3				
		Wr	91	82	83	85	83	81				
	Northern Pike	PSD	68	89	90	80	11	76				
		PSD-P	15	25	60	60	0	6				
		Wr	83	71	77	86	80	88				
	Sauger	PSD	100	100	100	90	100	100				
		PSD-P	69	78	25	10	100	0				
		Wr	73	62	72	79	67	73				
	Smallmouth Bass	PSD	91	82	88	100	30	70				
		PSD-P	55	27	63	67	30	35				
		Wr	97	93	101	104	100	89				
	Walleye	PSD	19	8	5	28	24	16				
		PSD-P	5	3	2	2	0	2				
		Wr	85	82	83	85	83	80				
	White Bass	PSD	78	100	100	100	100	100				
		PSD-P	78	81	100	100	100	80				
		Wr	89	92	89	92	98	92				
	Yellow Perch	PSD	44	75	72	37	29	61				
		PSD-P	1	2	22	8	2	15				
		Wr	90	86	84	99	93	90				

Length at Capture

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

Species: Sauger

		Mean Length (expanded sample number) at capture by age									
Year	N	1	2	3	4	5	6	7	8	9	10+
2020	2		287 (1)				412 (1)				
2019	9		260 (1)	287 (3)	343 (1)	401 (4)					
2018	7	250 (1)	314 (1)	357 (2)	363 (3)						
2017	7	214 (1)		325 (4)	357 (2)						
2016	1			315 (1)							
2015	1							428 (1)			
2013	4				339 (1)	375 (3)					
2012	6			362 (3)		448 (3)					
2011	13		339 (1)	365 (1)	374 (2)	482 (5)	475 (4)				

Species: Walleye

		Mean Length (expanded sample number) at capture by age									
Year	N	1	2	3	4	5	6	7	8	9	10+
2020	254	207 (87)	281 (82)	318 (33)	386 (25)	413 (11)	441 (12)	604 (1)	651 (1)		746 (2)
2019	268	216 (68)	271 (58)	329 (57)	371 (35)	390 (29)	472 (3)	476 (2)	432 (1)		602 (17)
2018	231	207 (24)	279 (61)	337 (42)	381 (76)	422 (7)	512 (3)	552 (5)	643 (1)	569 (8)	566 (3)
2017	186	201 (31)	263 (28)	335 (101)	403 (18)	483 (1)	446 (4)	445 (1)	455 (4)		
2016	171	182 (14)	273 (126)	356 (11)	410 (5)	408 (6)	466 (6)	474 (3)			
2015	271	214 (112)	322 (47)	362 (62)	385 (20)	392 (7)	398 (24)				
2014	290	237 (56)	313 (50)	350 (35)	370 (21)	376 (125)	395 (1)	562 (3)	553 (1)		
2013	269	207 (19)	259 (16)	294 (18)	329 (205)	407 (9)	580 (1)				662 (1)
2012	377	210 (32)	272 (43)	315 (285)	383 (8)	551 (1)	523 (4)	504 (2)	551 (1)		643 (2)
2011	466	199 (32)	270 (363)	379 (47)	449 (8)	519 (6)	521 (4)			534 (1)	630 (5)

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).

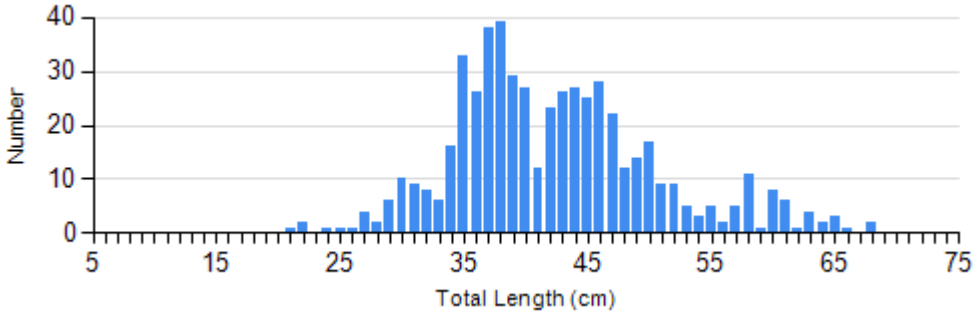
		Length Groups							
		S-Q		Q-P		P-M		M	
Species	Year	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)	N	Wr (SE)
Channel Catfish Gill Net	2016	124	83 (1.2)	224	79 (0.5)	12	86 (2.6)	0	
	2017	249	82 (0.8)	264	79 (0.7)	19	85 (2.2)	0	
	2018	173	86 (1.2)	302	84 (0.6)	13	88 (2.6)	1	91
	2019	148	87 (0.6)	347	84 (0.4)	17	83 (3.4)	1	94
	2020	176	87 (0.5)	432	85 (0.5)	5	85 (6.3)	0	
Northern Pike Gill Net	2016	4	78 (1.0)	12	92 (1.4)	1	87	0	
	2017	0		8	84 (3.7)	4	97 (5.0)	1	91
	2018	0		2	100 (1.4)	6	81 (7.0)	2	95 (4.5)
	2019	0		7	87 (2.2)	10	95 (5.8)	1	74
	2020	0		2	86 (1.2)	6	93 (4.8)	1	97
Sauger Gill Net	2016	0		1	73	0		0	
	2017	1	79	5	71 (1.6)	2	84 (10.0)	0	
	2018	1	96	5	76 (2.3)	1	77	0	
	2019	3	75 (2.1)	3	72 (2.5)	3	67 (6.5)	0	
	2020	1	73	1	62	1	67	0	
Walleye Gill Net	2016	112	80 (0.6)	19	76 (1.3)	2	88 (5.6)	0	
	2017	118	81 (0.5)	30	79 (1.0)	0		0	
	2018	135	82 (1.1)	47	81 (0.7)	10	86 (2.3)	6	87 (1.9)
	2019	136	82 (0.4)	45	82 (0.9)	3	79 (6.1)	10	81 (3.2)
	2020	122	81 (0.6)	36	77 (0.8)	2	86 (4.4)	4	92 (4.4)
White Bass Gill Net	2016	0		1	96	0		4	91 (2.3)
	2017	3	93 (0.7)	4	94 (1.6)	4	97 (4.1)	2	92 (4.6)
	2018	0		0		0		1	84

	2019	1	99	1	116	0		2	91 (5.2)
	2020	7	97 (1.7)	2	92 (3.4)	2	102 (8.1)	2	87 (0.7)
Yellow Perch Gill Net	2016	13	102 (14.7)	15	84 (1.6)	5	79 (4.9)	0	
	2017	13	90 (2.2)	17	84 (2.4)	6	77 (3.0)	0	
	2018	13	94 (2.1)	24	94 (1.9)	13	86 (2.3)	0	
	2019	43	109 (10.5)	34	96 (1.4)	7	87 (1.4)	0	
	2020	62	97 (1.9)	38	90 (1.1)	4	84 (2.4)	0	

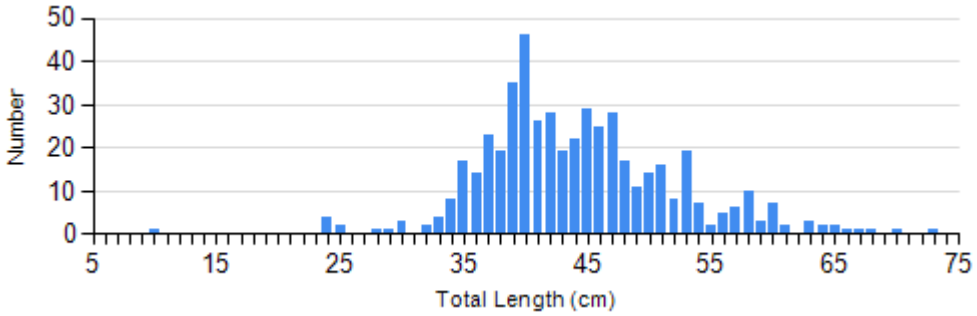
Length Frequency Distribution

Length frequency histogram of species sampled by year.

Species: Channel Catfish
Gear: AFS std gill net



2017



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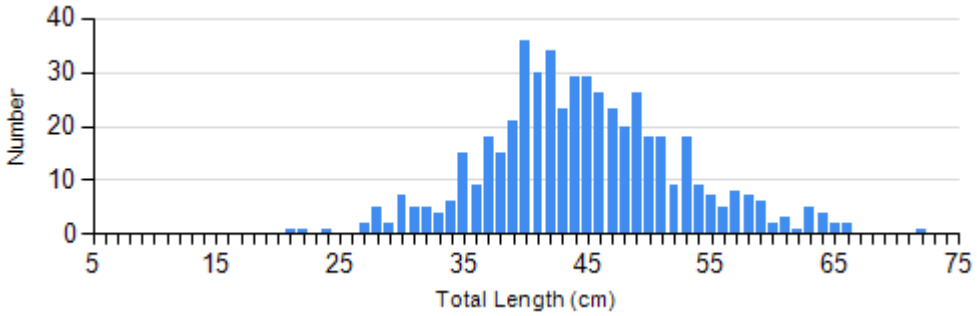

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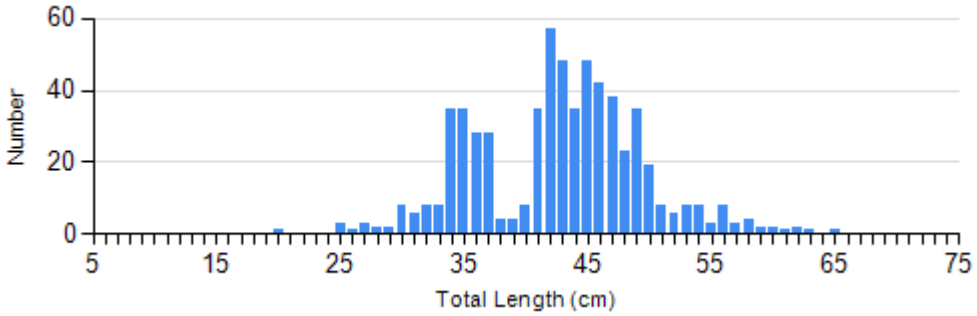
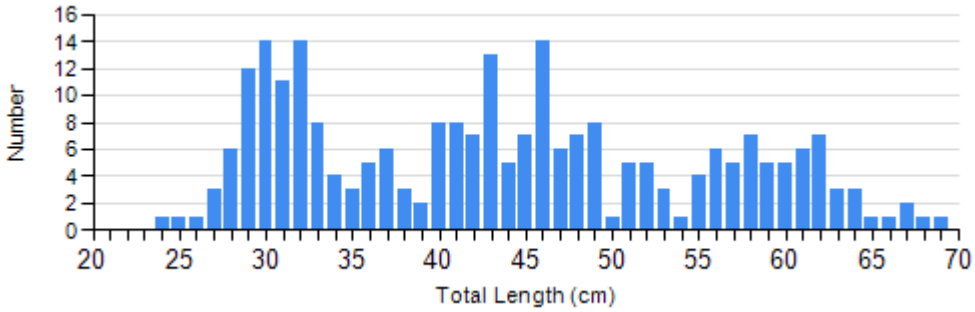


2020

Species: Channel Catfish
Gear: std exp gill net



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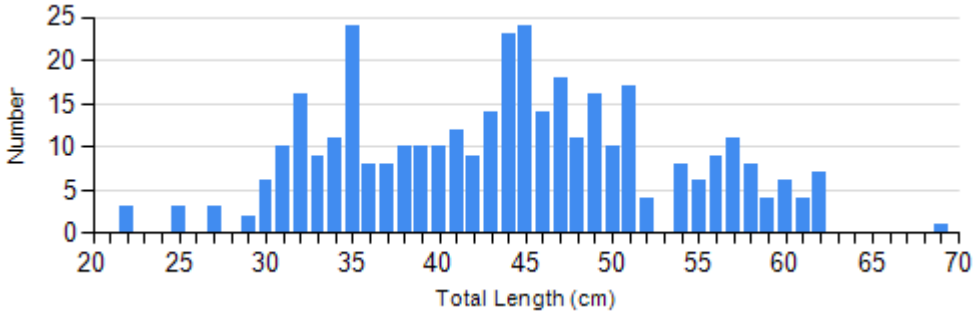
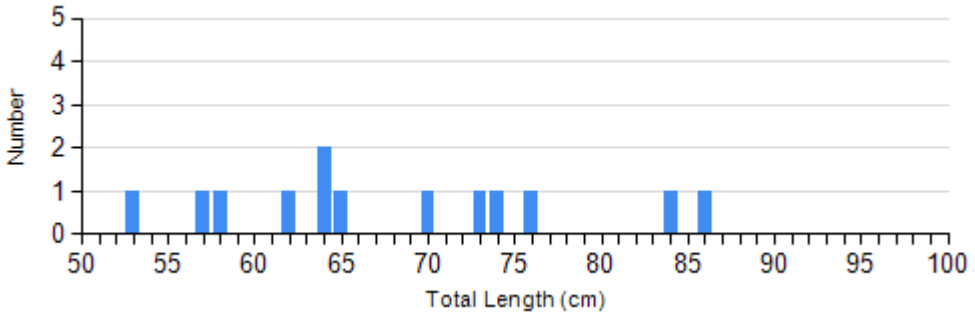


2016

Species: Northern Pike
Gear: AFS std gill net



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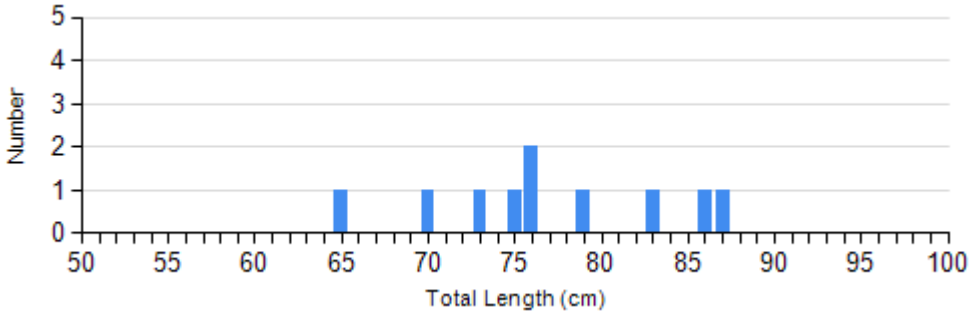

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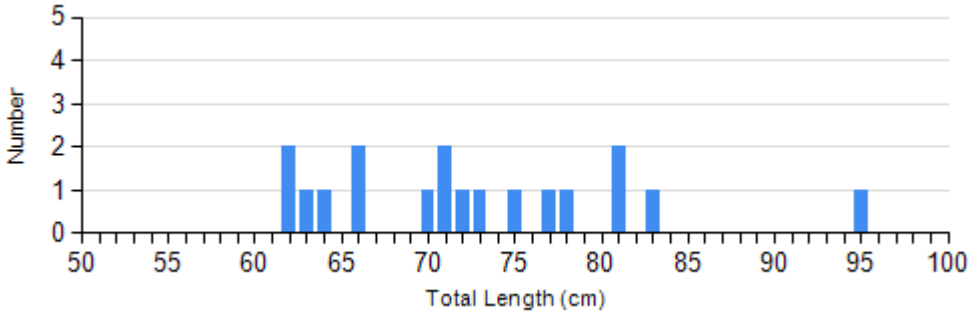
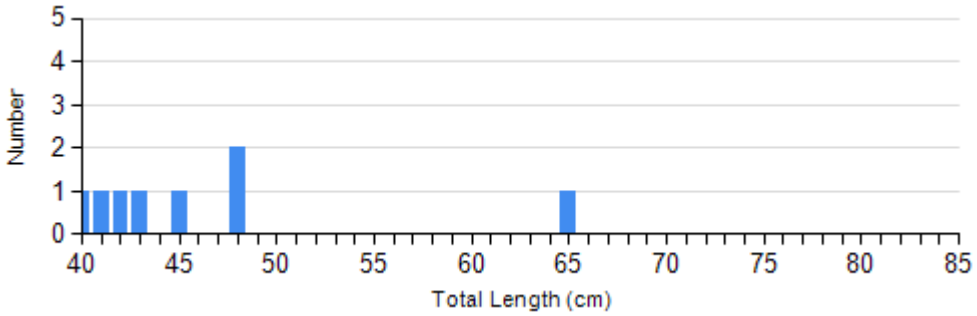


2019

Species: Northern Pike
Gear: std exp gill net

2015



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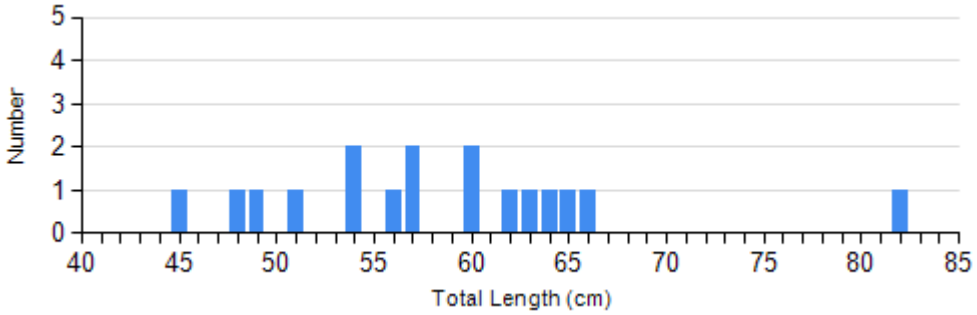
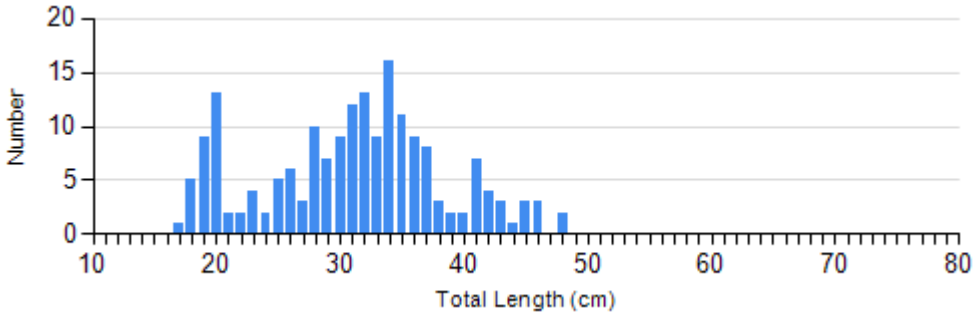


Species: Walleye
Gear: AFS std gill net

2017



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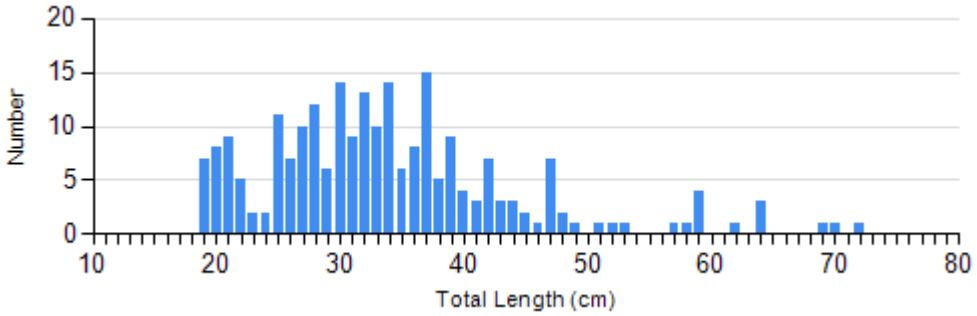

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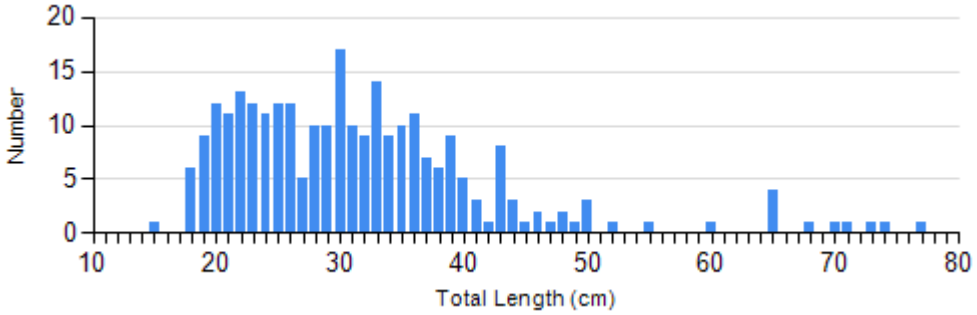
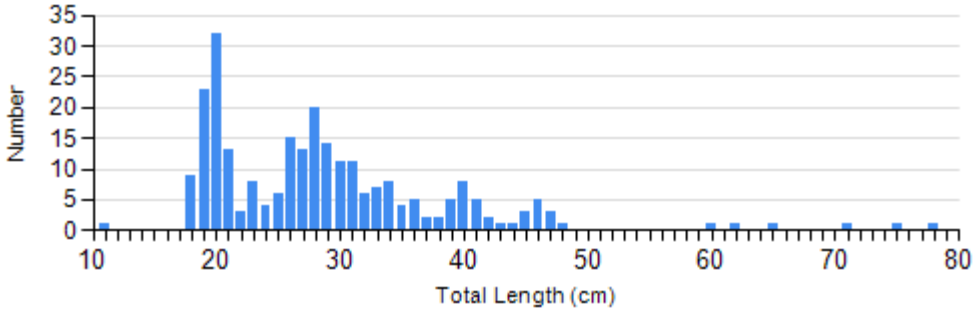
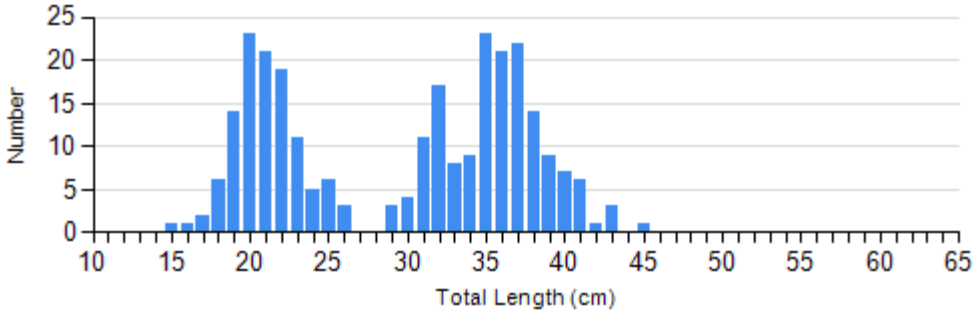


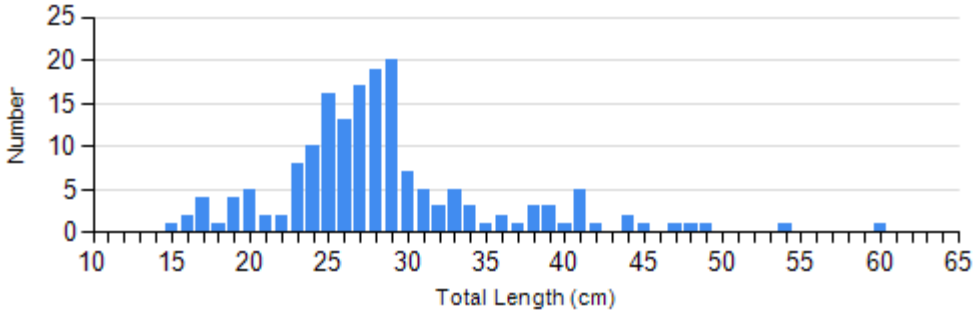


2020

Species: Walleye
Gear: std exp gill net

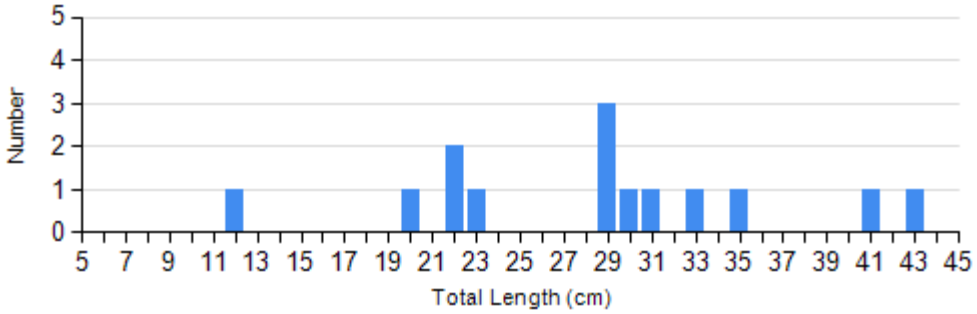


2015

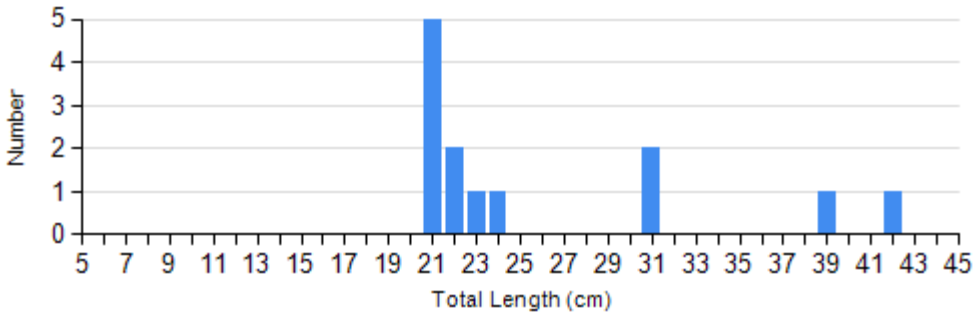


2016

Species: White Bass
Gear: AFS std gill net

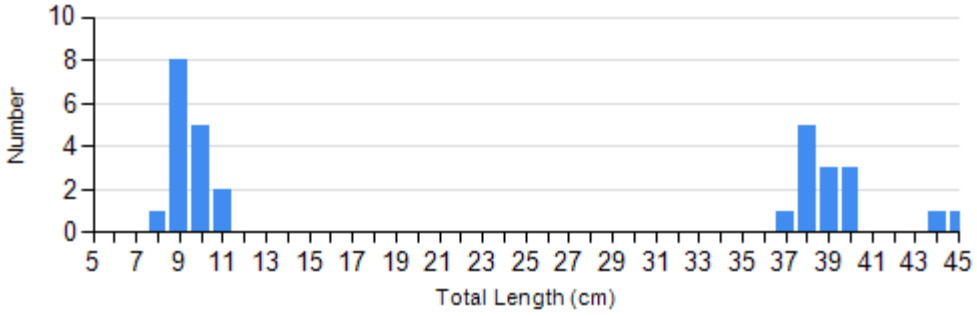


2017



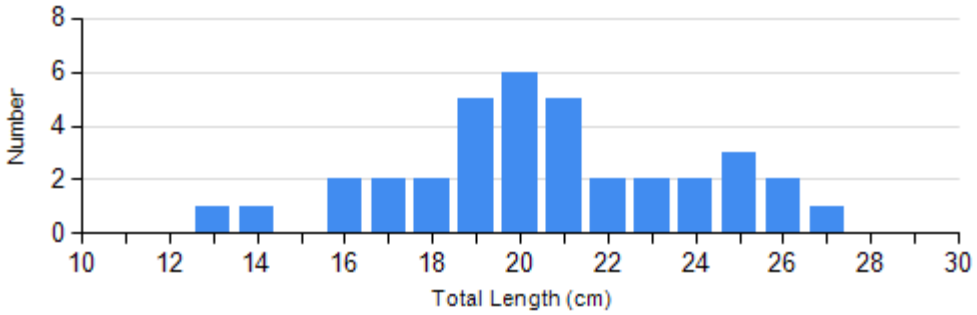
2020

Species: White Bass
Gear: std exp gill net

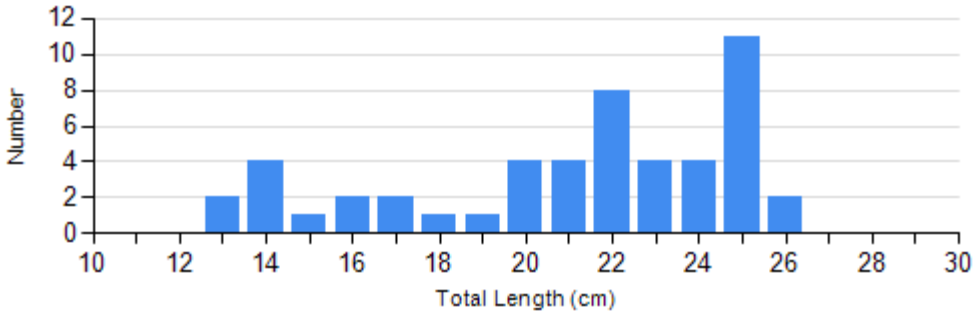


2015

Species: Yellow Perch
Gear: AFS std gill net



2017



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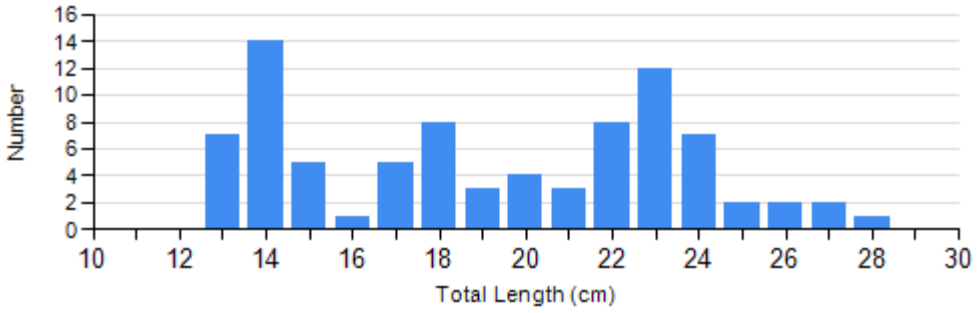
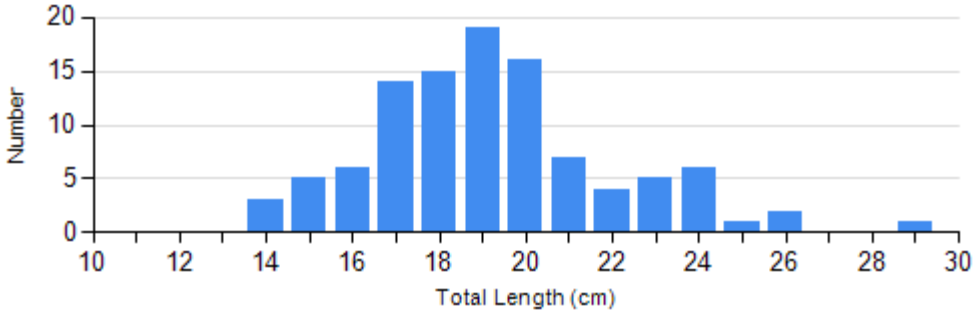
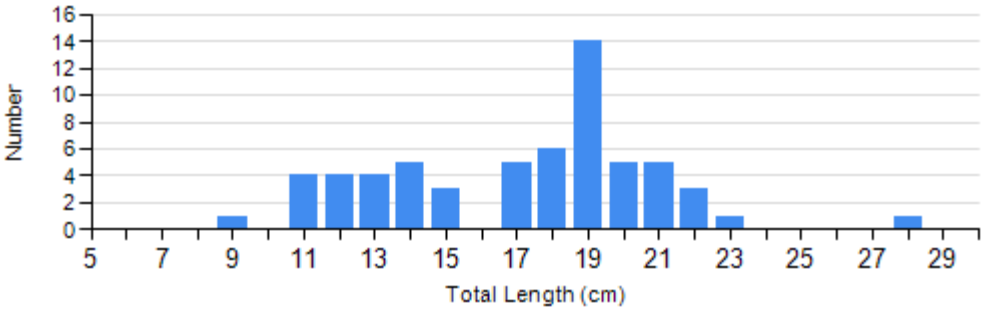


2019

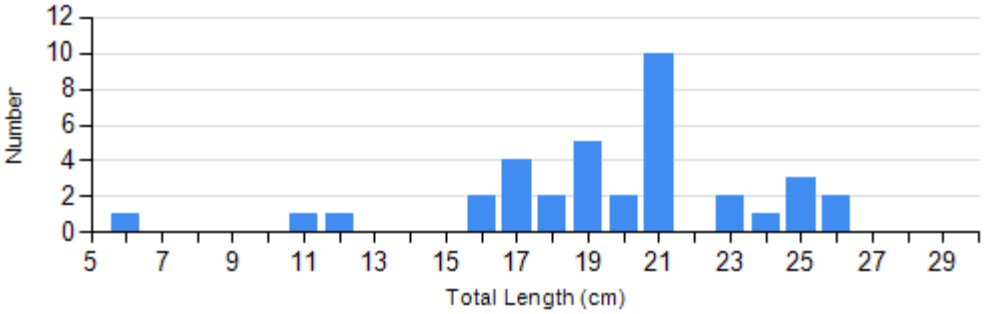


2020

Species: Yellow Perch
Gear: std exp gill net



2015

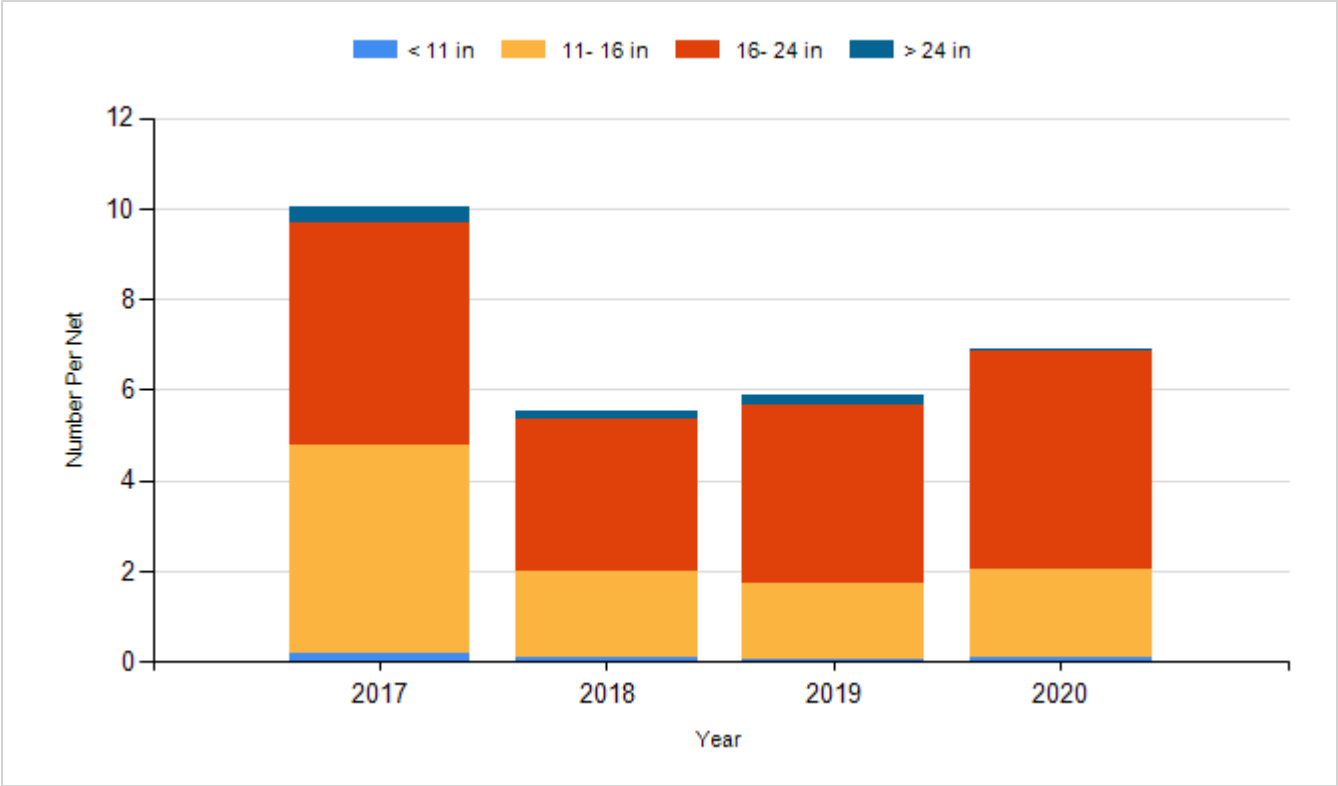


2016

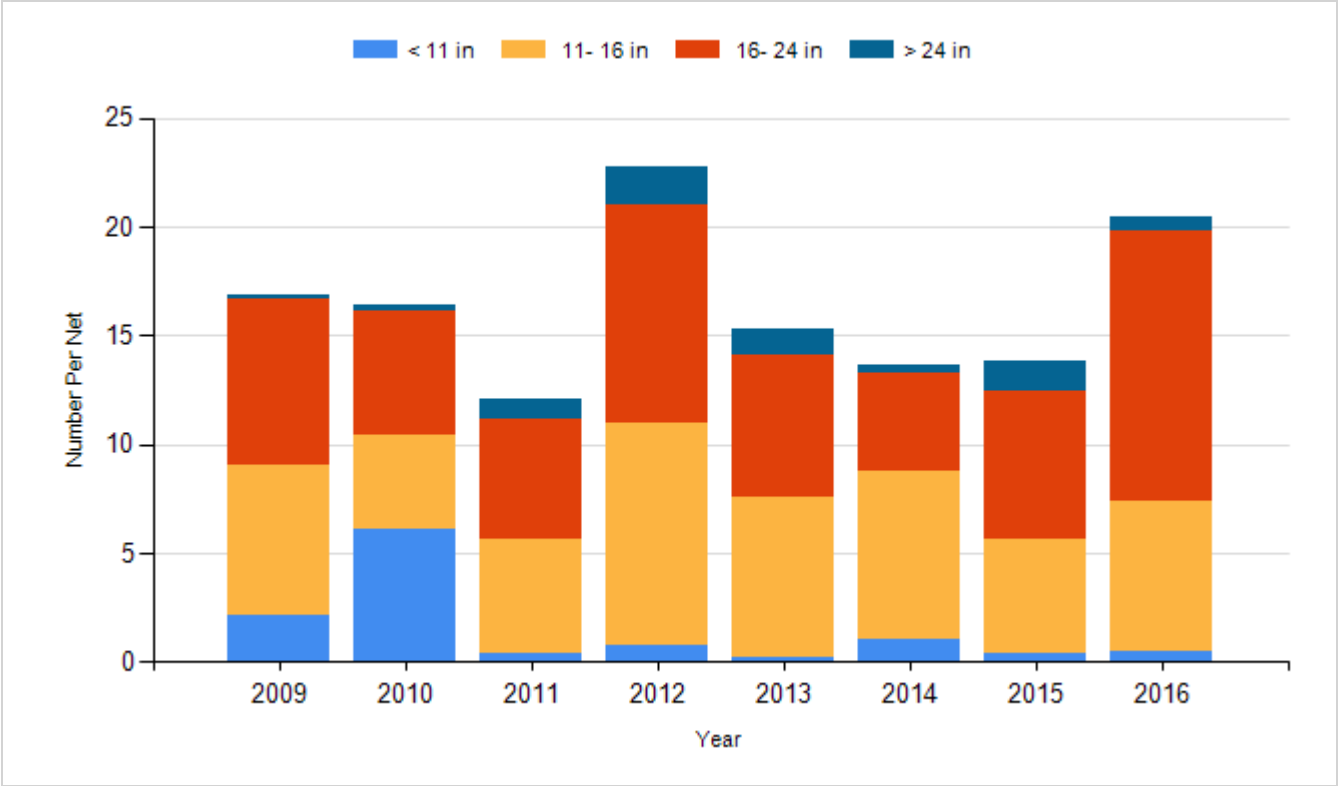
Historic Fish Sizes and Relative Abundance

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

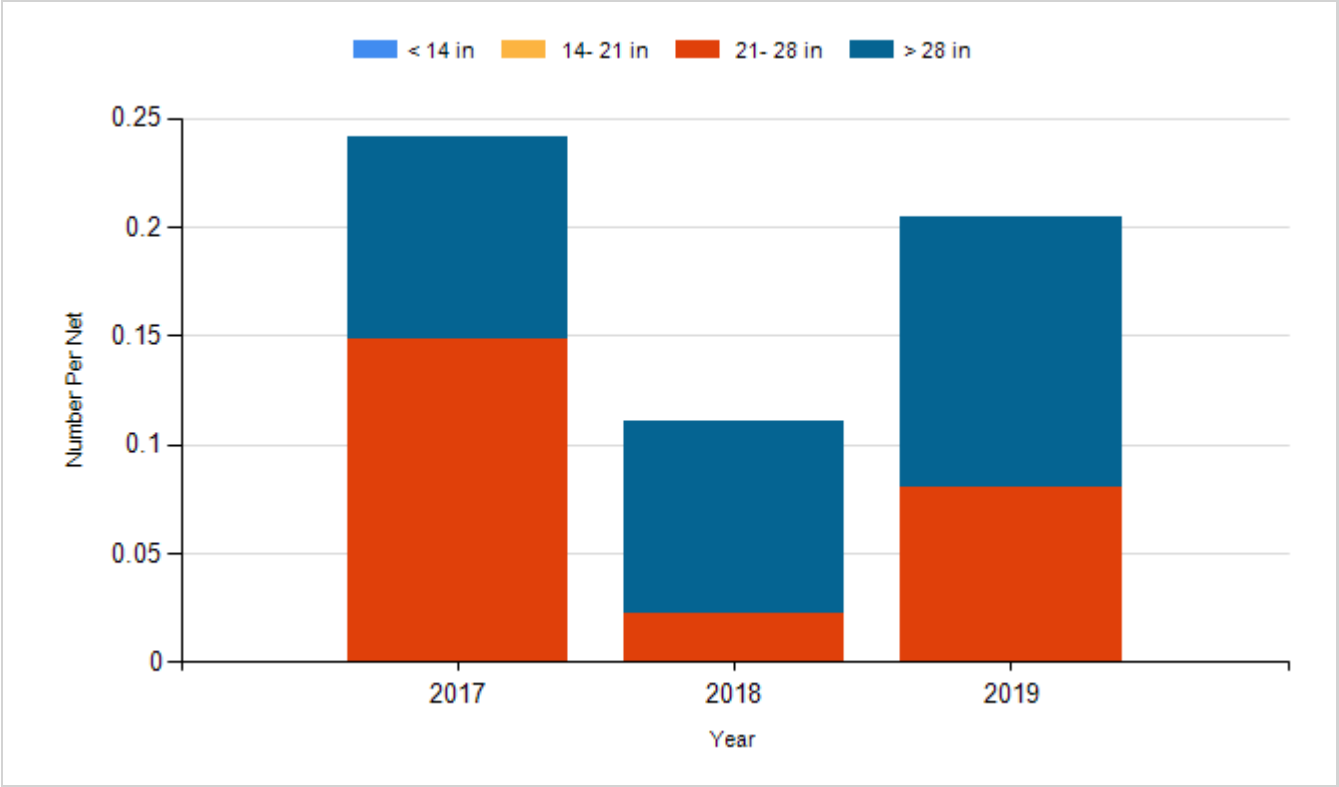
Species: Channel Catfish
Gear: AFS std gill net



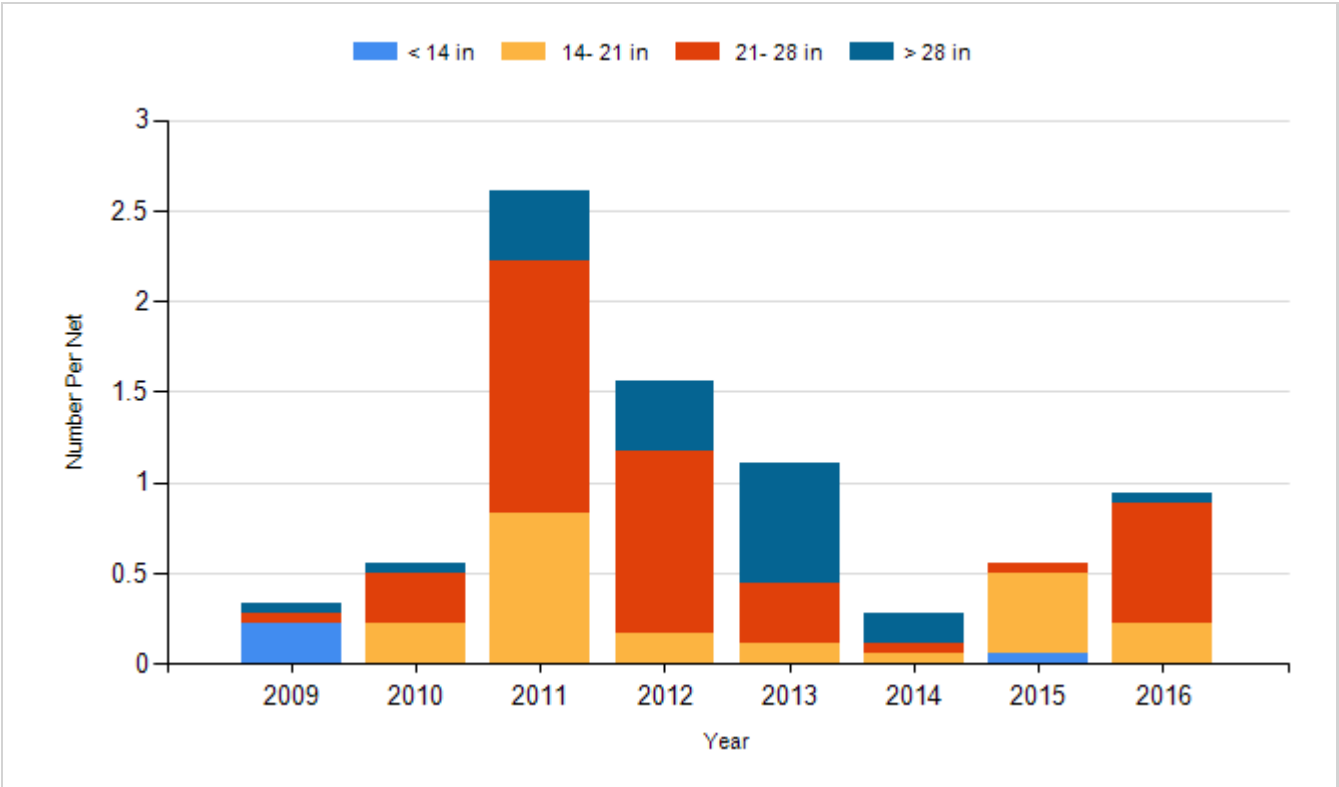
Species: Channel Catfish
Gear: std exp gill net



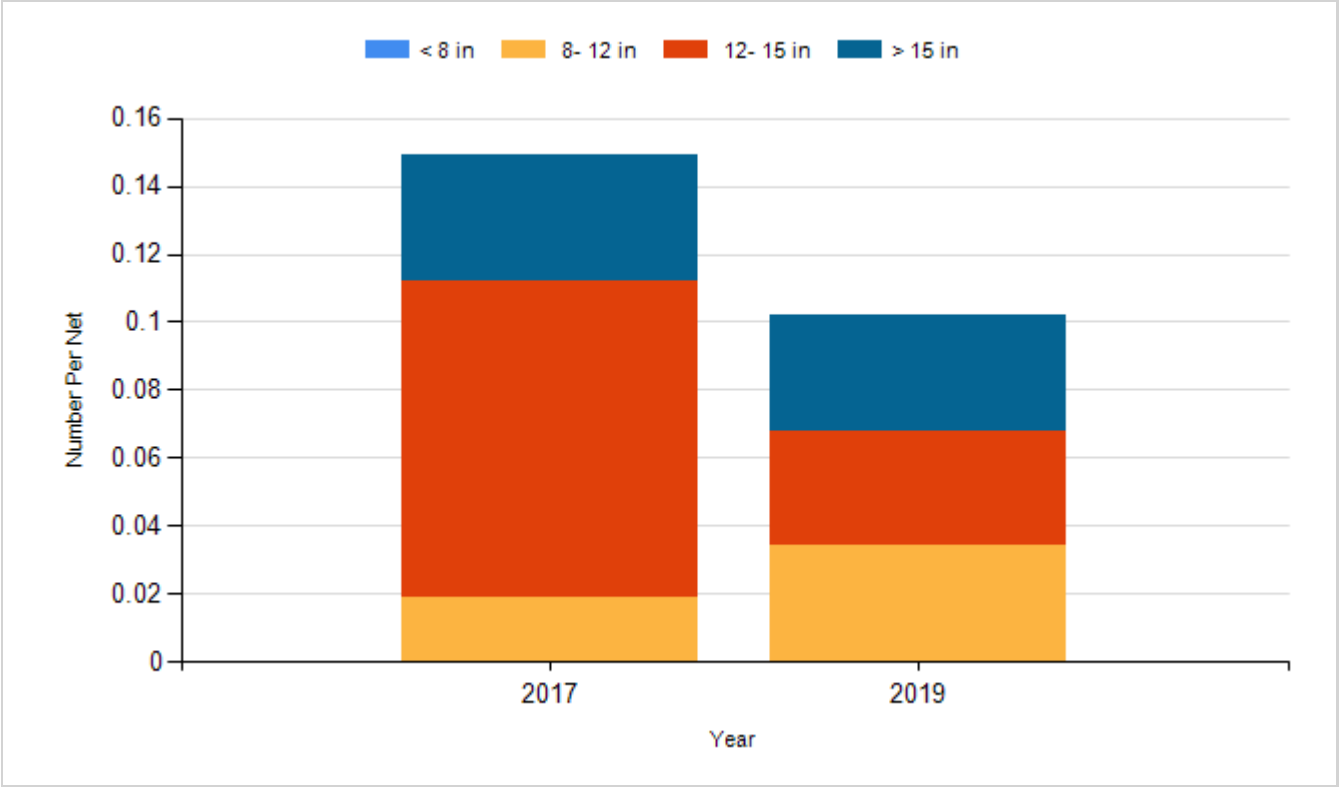
Species: Northern Pike
Gear: AFS std gill net



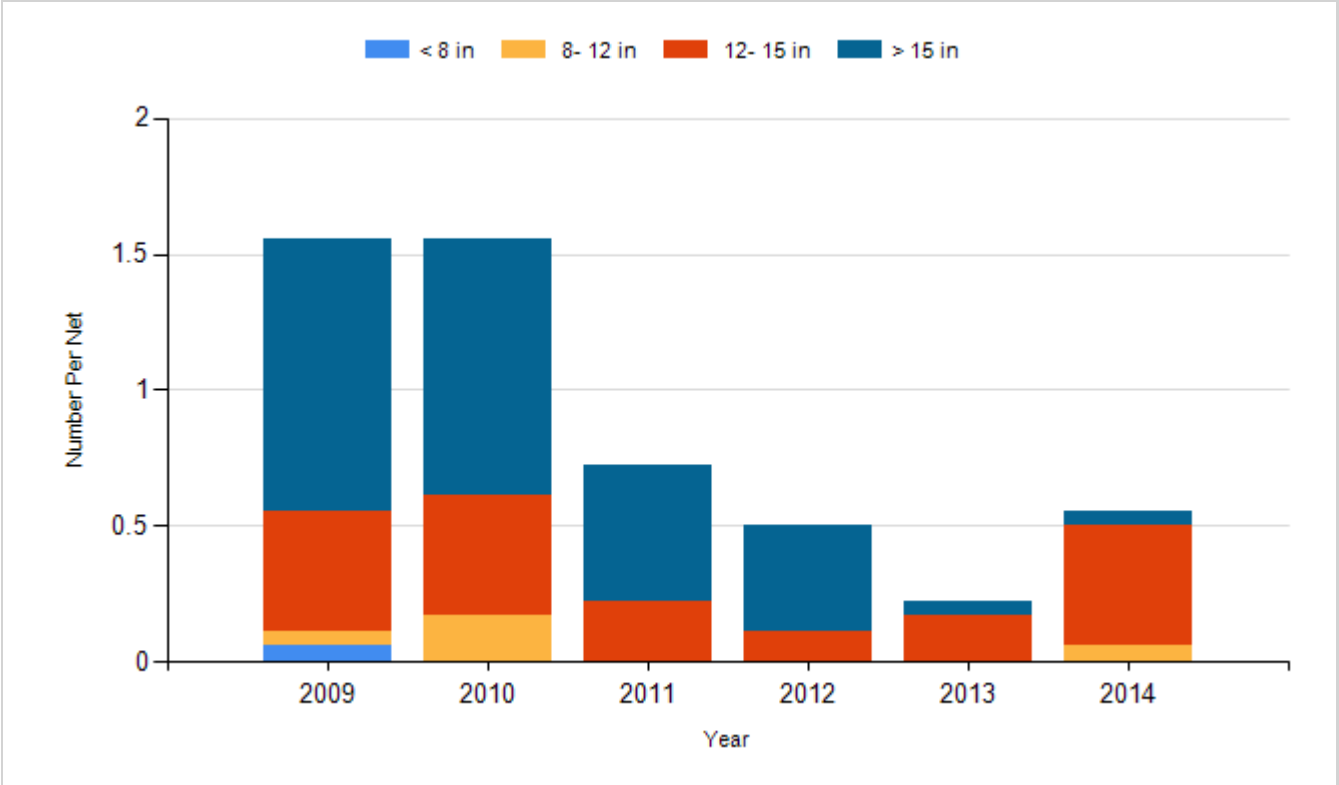
Species: Northern Pike
Gear: std exp gill net



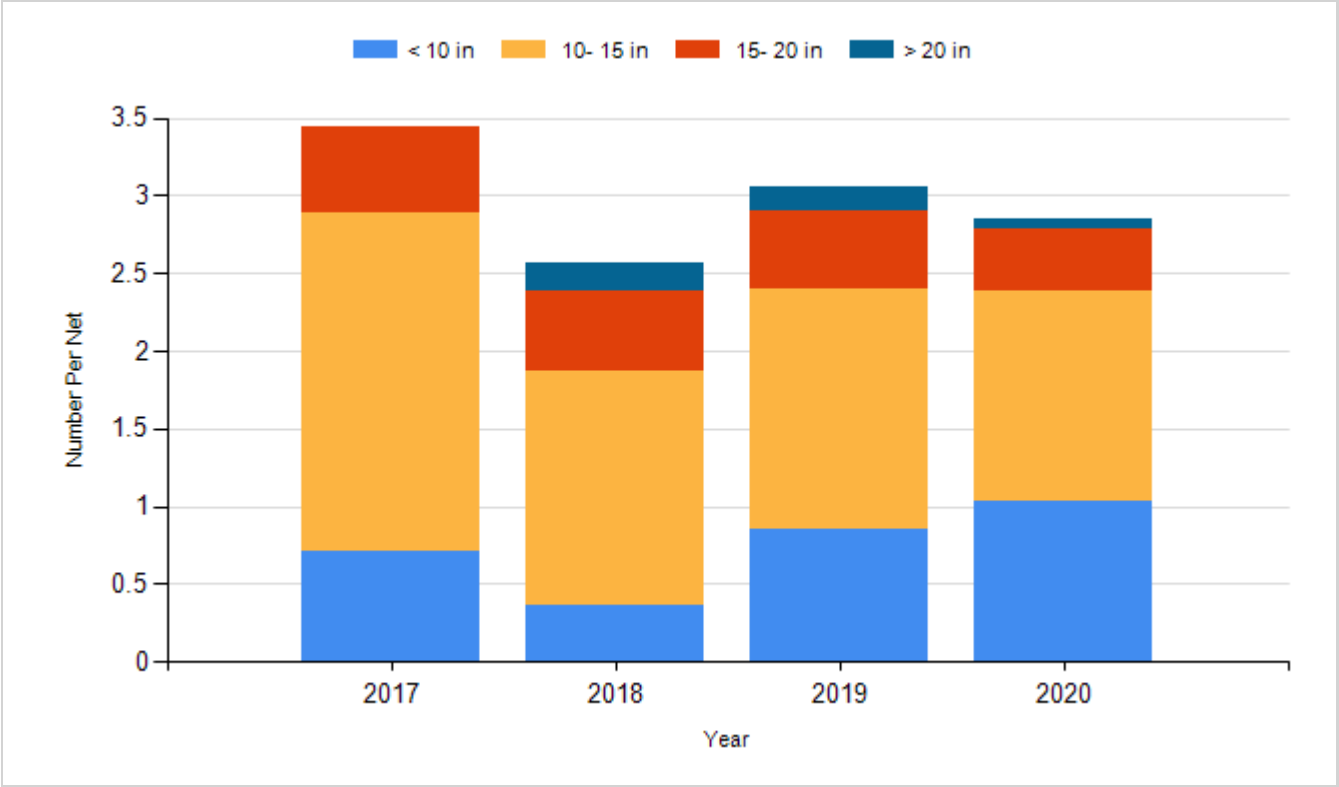
Species: Sauger
Gear: AFS std gill net



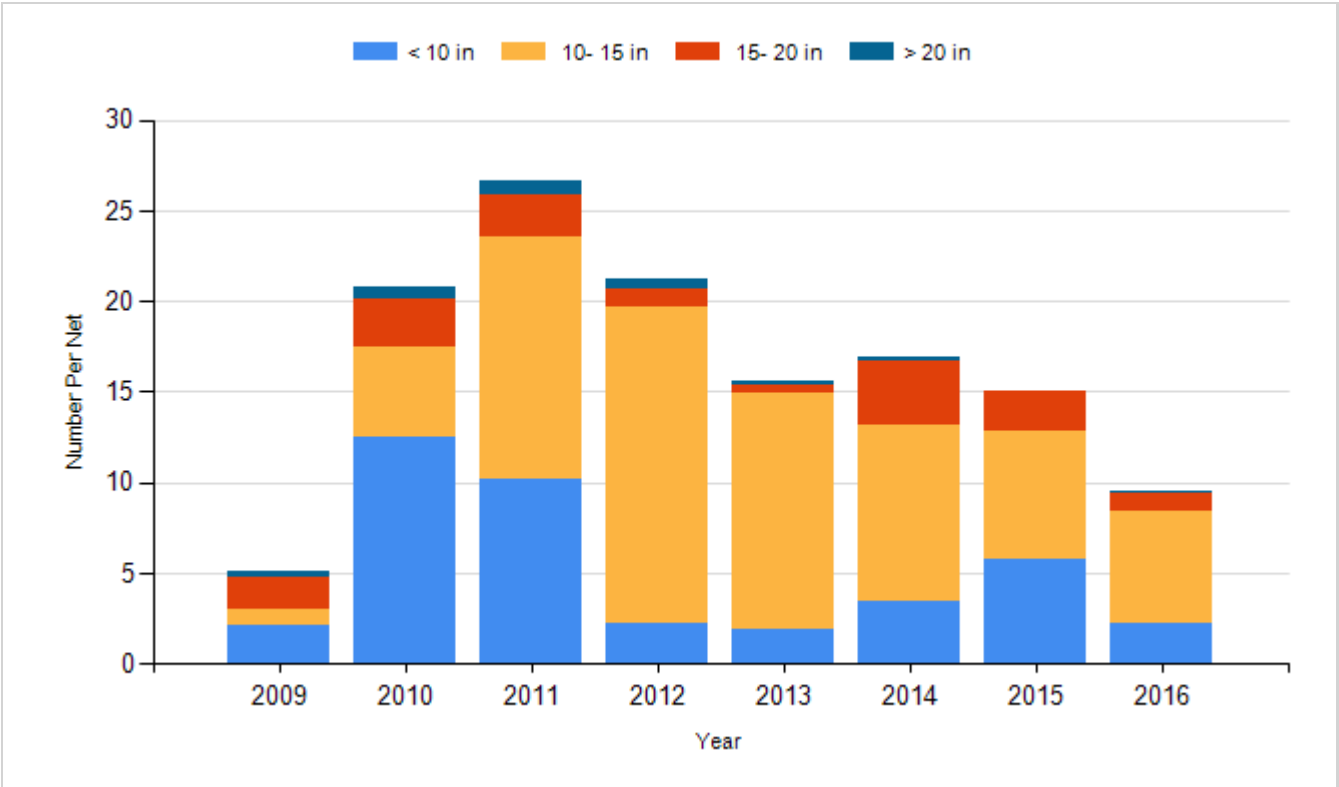
Species: Sauger
Gear: std exp gill net



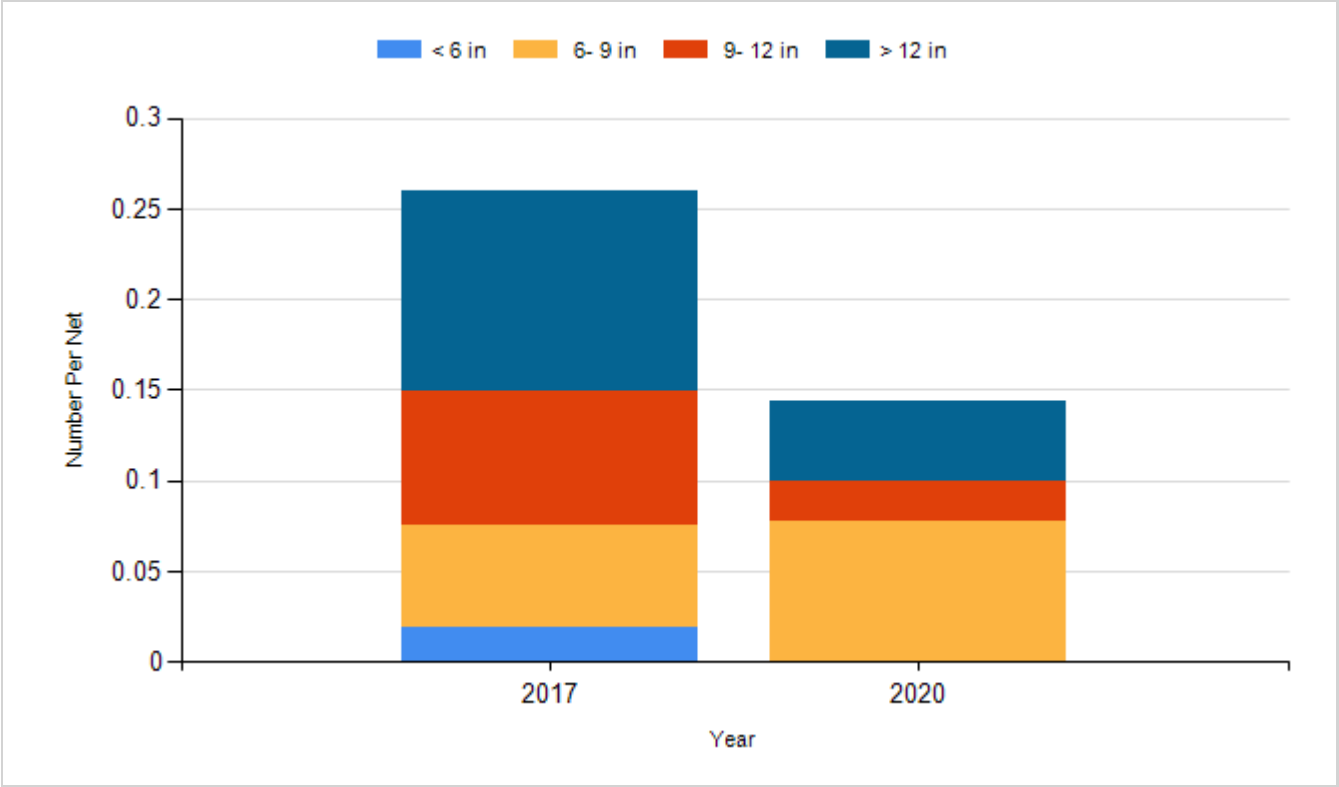
Species: Walleye
Gear: AFS std gill net



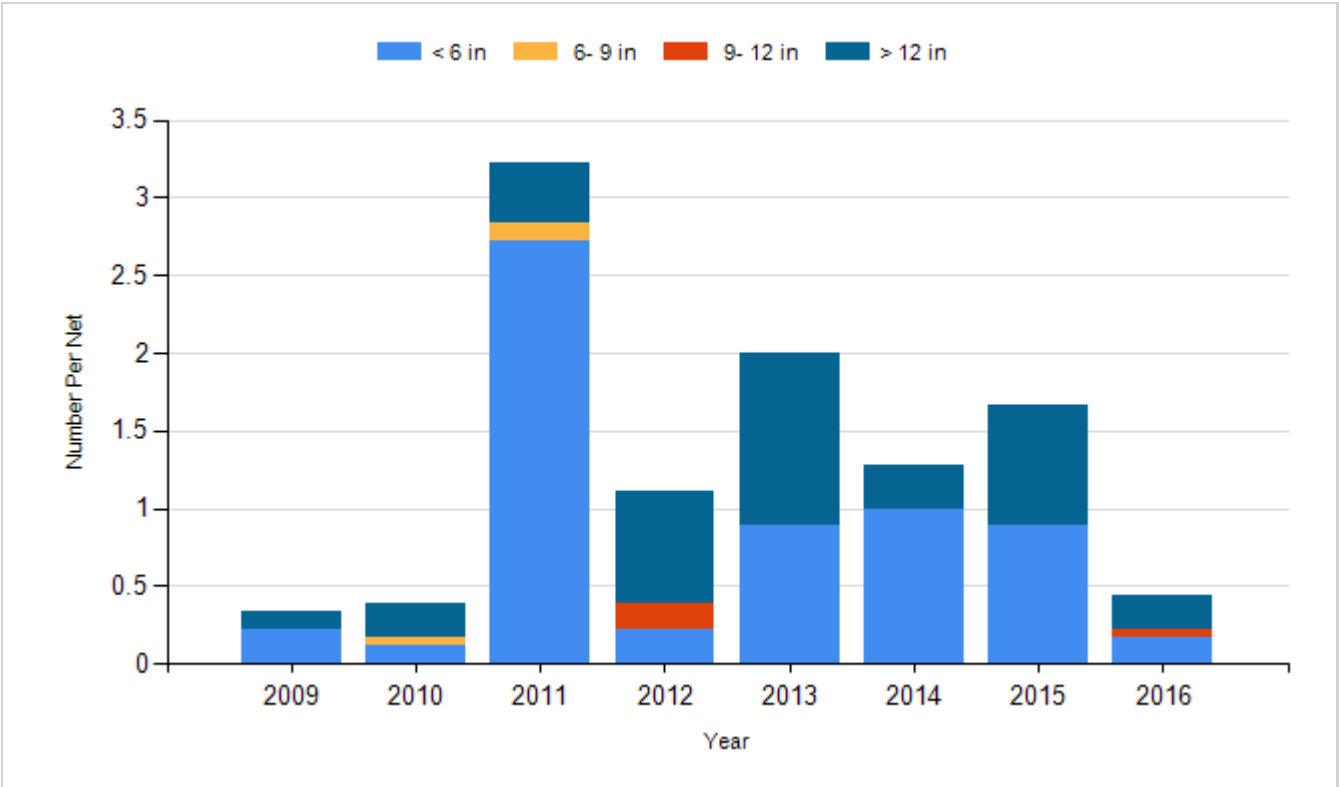
Species: Walleye
Gear: std exp gill net



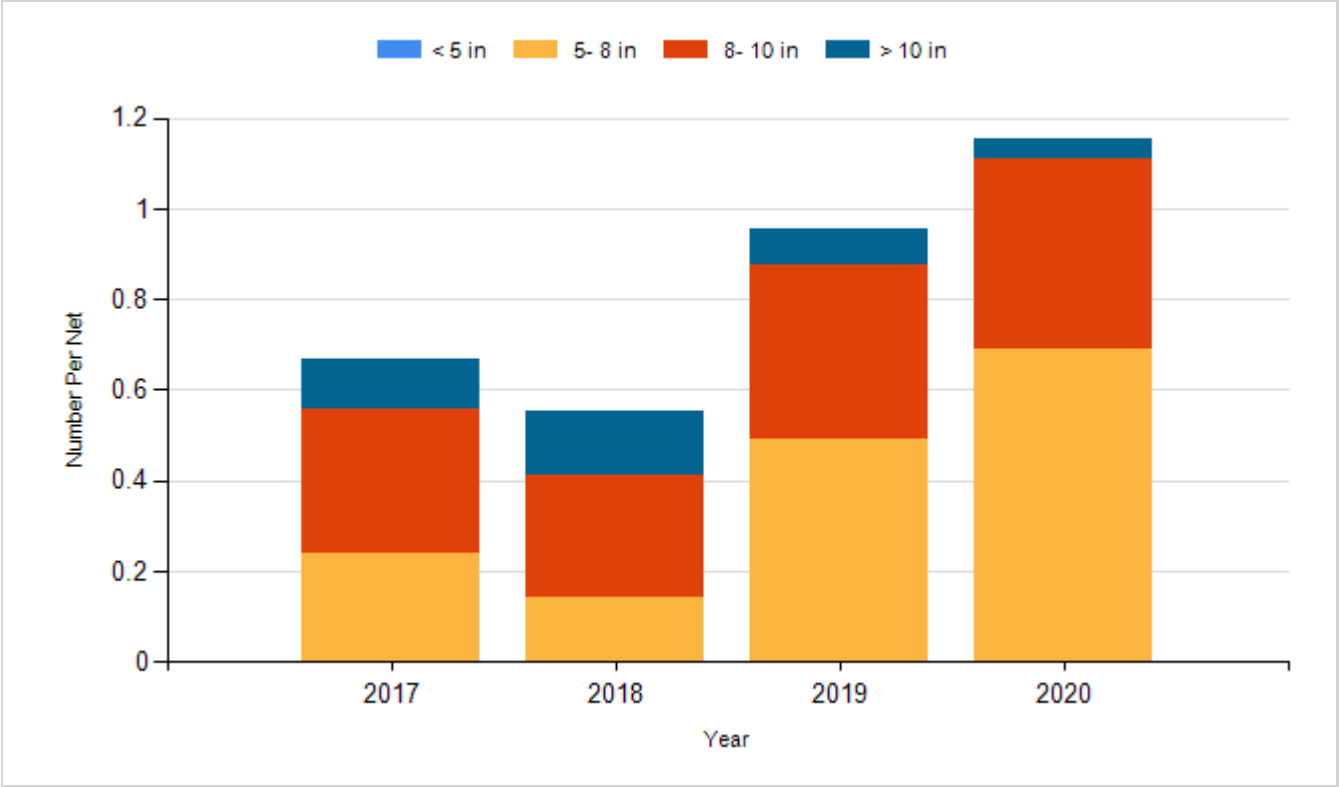
Species: White Bass
Gear: AFS std gill net



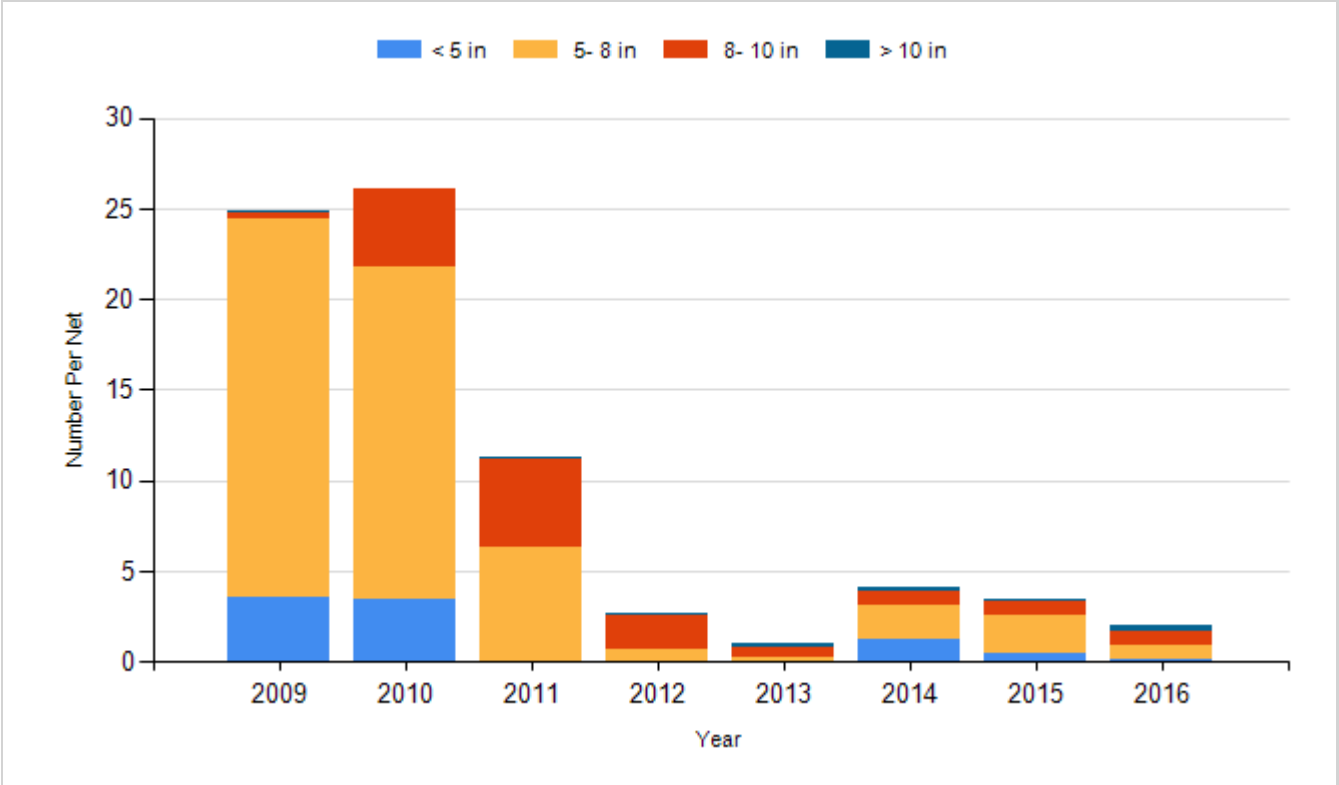
Species: White Bass
Gear: std exp gill net



Species: 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
2012	Gizzard Shad	Adult	344
2013	Gizzard Shad	Adult	530
2018	Atlantic Salmon	Adult	1,863
2018	Atlantic Salmon	Catchable	989
2018	Chinook Salmon (Oahe)	Fingerling	132,736
2018	Walleye	Small Fingerling	104,534
2019	Atlantic Salmon	Adult	3,059
2019	Atlantic Salmon	Catchable 15"	1,368
2019	Atlantic Salmon	Large	2,148
2019	Chinook Salmon (Oahe)	Fingerling	251,187
2019	Chinook Salmon (Oahe)	Juvenile	31,557
2020	Chinook Salmon (Oahe)	Juvenile	135,407
2020	Chinook Salmon (Oahe)	Large Fingerling	33,975