



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2023 Comprehensive Summary Report

Shawano, Loon, Washington Lakes, Shawano Channel and Wolf River Pond,

Shawano County (WBIC's 322800, 322600, 322500, 323700, 323800)

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Introduction And Objectives

In 2023, the Department of Natural Resources conducted a comprehensive fish survey of Shawano Lake and the surrounding waters in order to provide insight and direction for the future fisheries management of this system. Comprehensive fish surveys include both spring fyke netting and spring electrofishing surveys. Primary sampling objectives of these surveys are to characterize species composition, relative abundance, and size structure. The following report is a brief summary of the activities conducted, general status of fish populations and future management options for Shawano Lake, which includes survey data from Loon, Washington Lakes, Shawano Outlet Channel and Wolf River Pond.

DNR Contact

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Lake Information

Combined Acres: 6,830
Max. Depth: 40
Shoreline Miles: 33.6
Public Access: 10 Boat Landings

Regulations

Statewide Regulations for all species, except walleye which follows countywide regulation bag limit of 3 and minimum length of 18 inches

Survey Method

- Shawano Lake and surrounding waters was sampled according to spring netting I (SNI), spring netting II (SNII), spring electrofishing I (SEI), and spring electrofishing II (SEII) protocols as outlined in DNR Fisheries Monitoring Protocols. The primary objective of the spring fyke netting I survey is to count and measure adult walleye, northern pike, and mark adult walleyes to estimate walleye abundance. The primary objective of the spring netting II survey is to count, measure and mark adult muskellunge. The primary objective of the spring electrofishing II survey is to count and measure adult largemouth bass, smallmouth bass, and panfish. Other species of fish may be sampled during each survey, but are considered by-catch as part of that survey.
- Boom shockers were used to electrofish 21.89 miles of shoreline during SEII surveys. Gamefish were collected and measured throughout, and panfish were collected and counted along random transects within the survey.
- Fyke nets were deployed in areas of the lake that contained spawning habitat or were likely travel areas for northern pike, walleye and muskellunge. All newly captured individuals were marked with a fin clip or PIT tag. Aging structures (spines/otoliths) were taken from a sample of walleye, northern pike, bluegill, black crappie and yellow perch for age and growth analyses.

SURVEY INFORMATION

Site Location	Survey Dates	Water Temperature (°F)	Target Species	Gear	Number of Nets	Effort
Shawano Outlet	3/23/2023 - 4/11/2023	38 - 48	northern pike walleye	Fyke Net	9	98 net nights
Wolf River Pond	4/09/2023 - 4/13/2023	42 - 49	northern pike walleye	Fyke Net	6	20 net nights
Loon Lake	4/11/2023 - 4/21/2023	46 - 58	northern pike walleye	Fyke Net	4	38 net nights
Washington	4/11/2023 - 4/18/2023	43 - 57	northern pike walleye	Fyke Net	2	14 net nights
Shawano Lake	4/13/2023 - 4/18/2023	43 - 57	northern pike walleye	Fyke Net	13	61 net nights
Shawano Lake	4/18/2023	50	walleye	Boomshocker	N/A	17.2 miles
Washington Lake	4/18/2023	49	walleye	Boomshocker	N/A	1.5 miles
Loon Lake	4/21/2023	48	walleye	Boomshocker	N/A	3.58 miles
Shawano Lake	4/20/2023 - 5/04/2023	46 - 50	muskellunge	Fyke Net	5	57
Washington Lake	4/20/2023 - 5/04/2023	46 - 50	muskellunge	Fyke Net	2	28
Loon Lake	4/26/2023 - 5/04/2023	46 - 54	muskellunge	Fyke Net	2	16
Shawano Outlet	5/16/2023	65	bass/panfish	Boomshocker	N/A	6.11 miles
Wolf River Pond	5/17/2023	63	bass/panfish	Boomshocker	N/A	4.19 miles
Shawano Lake	5/23/2023 - 5/25/2023	65 - 70	bass/panfish	Boomshocker	N/A	7.5 miles
Washington Lake	5/23/2023	70	bass/panfish	Boomshocker	N/A	0.5 miles
Loon Lake	5/15/2023	64	bass/panfish	Boomshocker	N/A	3.59 miles

Metric Descriptions

- Catch per unit effort (CPUE) is an index used to measure fish population relative abundance, which simply refers to the number of fish captured per unit of distance or time. For netting surveys, we typically quantify CPUE by the number and size of fish per net night. For electrofishing, we quantify CPUE as the number caught per mile of water electrofished. CPUE indexes are compared to statewide data by percentiles and within lake trends. For example, if a CPUE is in the 90th percentile, it is higher than 90% of the other CPUEs in the state.
- Proportional Stock Density (PSD) is an index used to describe the size structure of fish populations. It is calculated by dividing the number of quality size fish by the number of stock size fish for a given species. PSD values between 40 - 60 generally describe a balanced fish population.



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Northern Pike

- Northern Pike (*Esox lucius*) are a common predatory fish species found across many Wisconsin waterbodies. Northern pike spawn in areas of emergent vegetation at approximately 34-40°F water temperatures. Fyke netting is the preferred sampling gear for northern pike. All results presented for northern pike are from spring fyke netting surveys.

2023 SIZE STRUCTURE METRICS

Total Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	Percentile Rank	Size Rating
552	19.3	9.3 - 32.2	14.0 and 21.0	524	117	31	34th	Low - Moderate

RELATIVE ABUNDANCE (CPUE = NUMBER PER NET NIGHT)

Total Sampled	2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
624	3.6	2.9	4.1	1.2	2.9	2.9	66th	Moderate

SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
28	17	34	38	31	31

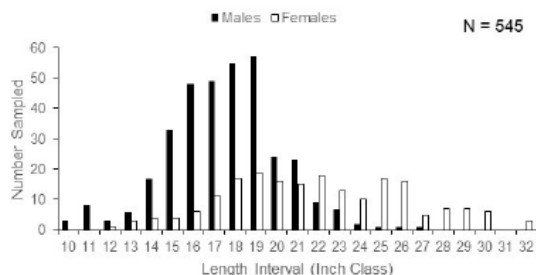
2023 GROWTH METRICS

Number Sampled	Length Bin (inches)	Sex	Mean Age	Age Range	Percentile Rank	Growth Rating
18	18.0-18.9	M	3.6	3 - 4	38th	Slow - Moderate
13	18.0-18.9	F	3.4	3 - 8	26th	Slow
8	21.0-21.9	M	4.3	4 - 5	38th	Moderate
8	21.0-21.9	F	3.8	3 - 5	49th	Moderate
1	26.0 - 26.9	M	6	6	42nd	Moderate
8	25.5-26.4	F	5.4	4 - 7	35th	Moderate

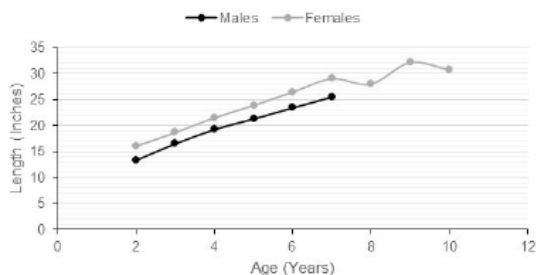
Species Summary

- Shawano Lake and surrounding waters support a moderate density northern pike population with 2023 catch rates 2.9 fish per net night. A catch rate of 2.9 per net night ranks in the 66th percentile when compared to northern pike catch rates statewide.

Northern Pike Length Distribution



Northern Pike Mean Length at Age



Black Crappie

- Black Crappie (*Pomoxis nigromaculatus*) are a common panfish species distributed widely across many Wisconsin waterbodies. Black crappie typically spawn in nearshore areas consisting of detritus, sand/mud or gravel substrate at approximately 58-68°F water temperatures. Electrofishing and fyke netting can be effective sampling gear for black crappie and therefore, results from both gears are presented for black crappie

2023 SIZE STRUCTURE METRICS

Waterbody	Gear	Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock	Quality	PSD	Percentile Rank	Size Rating
Wolf River Pond	Fyke Netting	309	7.5	4.0 - 13.1	5.0 and 8.0	279	91	33	26th	Low
Wolf River Pond	Electrofishing	6	9.1	5.2 - 12.4	5.0 and 8.0	6	4	66	71st	Moderate - High
Shawano Outlet	Fyke Netting	49	8.4	5.1 - 11.7	5.0 and 8.0	49	33	67	55th	Moderate
Shawano Outlet	Electrofishing	6	7.3	5.8 - 9.1	5.0 and 8.0	6	2	33	47th	Moderate
Shawano Lake	Fyke Netting	147	7.2	4.3 - 11.5	5.0 and 8.0	139	51	37	30th	Low
Shawano Lake	Electrofishing	24	7.5	6.1 - 9.7	5.0 and 8.0	24	8	33	47th	Moderate
Washington Lake	Fyke Netting	174	7.2	4.8 - 10.8	5.0 and 8.0	170	52	31	25th	Low
Washington Lake	Electrofishing	14	7.3	5.6 - 9.4	5.0 and 8.0	14	4	29	42nd	Moderate
Loon Lake	Fyke Netting	459	6.9	4.1 - 11.7	5.0 and 8.0	454	94	21	14th	Low
Loon Lake	Electrofishing	33	6.5	3.2 - 8.9	5.0 and 8.0	24	11	46	56th	Moderate

2023 ELECTROFISHING CPUE (NUMBER PER MILE)

Waterbody	CPUE Total	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Wolf River Pond	3.2	34th	Moderate	≥ 8.0 inches	2.1	49th	Moderate
Shawano Outlet	4.0	43rd	Moderate	≥ 8.0 inches	1.3	36th	Moderate
Shawano Lake	6.7	53rd	Moderate	≥ 8.0 inches	5.3	69th	Moderate - High
Washington Lake	28.0	84th	Moderate - High	≥ 8.0 inches	8.0	79th	Moderate - High
Loon Lake	20.4	79th	Moderate - High	≥ 8.0 inches	6.8	74th	Moderate - High

SHAWANO LAKE ELECTROFISHING TRENDS CPUE (NUMBER PER MILE)

CPUE by Year					Historical Median
2006	2010	2014	2018	2023	
35.3	7.0	0.5	3.0	6.7	6.7

SHAWANO LAKE ELECTROFISHING SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
69	29	0	33	33	33

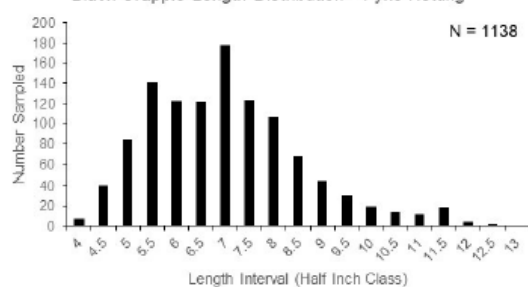
SHAWANO LAKE FYKE NETTING CPUE TRENDS

2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
5.5	6.4	45.7	17.2	12.1	12.1	77th	Moderate -

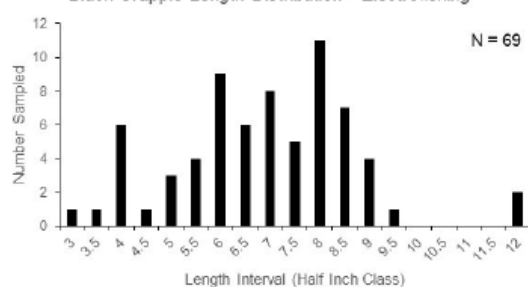
SHAWANO LAKE SIZE STRUCTURE (PSD) TRENDS FYKE NETTING

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
64	62	20	40	37	37

Black Crappie Length Distribution - Fyke Netting



Black Crappie Length Distribution - Electrofishing



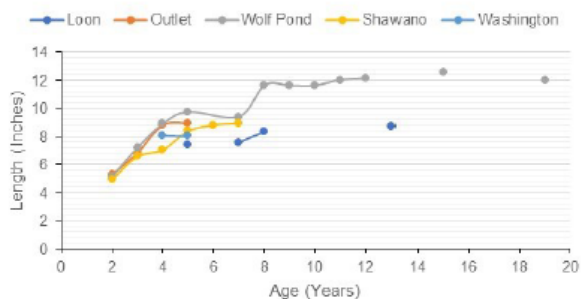
Black Crappie

- Black Crappie (*Pomoxis nigromaculatus*) are a common panfish species distributed widely across many Wisconsin waterbodies. Black crappie typically spawn in nearshore areas consisting of detritus, sand/mud or gravel substrate at approximately 58-68°F water temperatures. Electrofishing and fyke netting can be effective sampling gear for black crappie and therefore, results from both gears are presented for black crappie

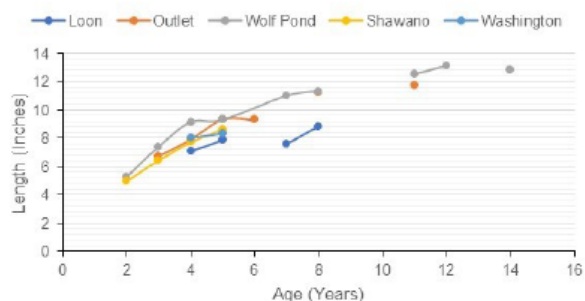
2023 GROWTH METRICS

Waterbody	Sample (n)	Length Bin (inches)	Sex	Mean Age	Age Range	Percentile Rank	Growth Rating
Wolf River Pond	4	8.0 - 8.9	M	4	3 - 5	80th	Moderate - Fast
Wolf River Pond	6	8.0 - 8.9	F	3.7	3 - 5	82nd	Moderate - Fast
Wolf River Pond	3	10.0 - 10.9	M	6.7	5 - 8	41st	Moderate
Wolf River Pond	2	10.0 - 10.9	F	6.5	5 - 8	51st	Moderate
Shawano Lake	5	8.0 - 8.9	M	4.6	4 - 5	53rd	Moderate
Shawano Lake	10	8.0 - 8.9	F	5.5	4 - 7	41st	Moderate
Washington Lake	3	8.0 - 8.9	M	4.7	4 - 5	50th	Moderate
Washington Lake	2	8.0 - 8.9	F	4.5	4 - 5	61st	Moderate
Shawano Outlet	6	8.0 - 8.9	F	4.5	4 - 5	61st	Moderate
Loon Lake	2	8.0 - 8.9	M	6.5	5 - 8	22nd	Slow
Loon Lake	6	8.0 - 8.9	F	8.3	5 - 13	9th	Slow

Black Crappie Mean Length at Age - Female



Black Crappie Mean Length at Age - Males



Walleye

- Walleye (*Sander vitreus*) are a predatory fish species found throughout many Wisconsin waterbodies. Typically walleye migrate to spawn in areas of rock or gravel substrate at approximately 40-50°F water temperatures. Fyke netting and electrofishing are both suitable gears for capturing walleye, thus data presented is from both gear types.

2023 SIZE STRUCTURE METRICS

Total Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	Percentile Rank	Size Rating
961	19.0	8.6 - 27.4	10.0 and 15.0	960	927	97	87th	High

RELATIVE ABUNDANCE (CPUE = NUMBER PER NET NIGHT)

Total Sampled	2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
1057	38.6	6.6	4.7	6.1	5.0	6.1	60th	Moderate

SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
97	99	99	96	97	97

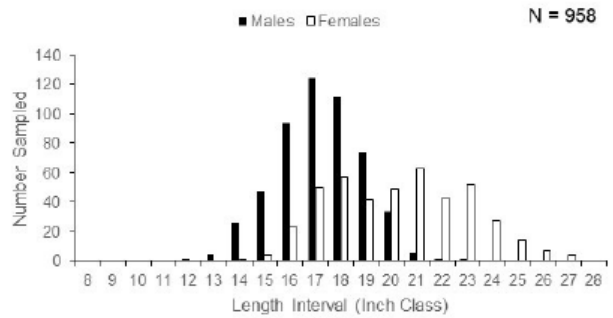
2023 ADULT ABUNDANCE (POPULATION ESTIMATE)

Marked	Captured	Recaptures	Population Estimate (95% CI)	Number per Acre
960	115	15	5257 (3,616 - 8224)	0.8

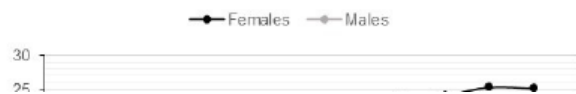
2023 GROWTH METRICS

Number Sampled	Length Bin	Sex	Mean Age	Age Range	Percentile Rank	Growth Rating
9	18.0-18.9	M	6.2	5 - 8	77th	Moderate - Fast
8	18.0-18.9	F	5.8	4 - 7	60th	Moderate

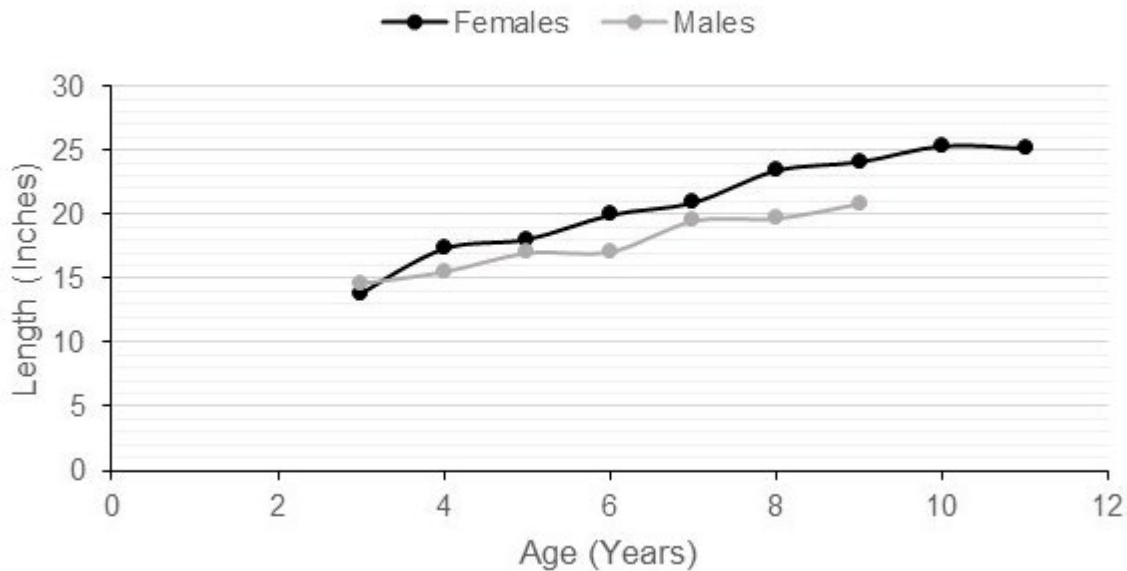
Walleye Length Distribution



Walleye Mean at Age



Walleye Mean at Age



Muskellunge

- Muskellunge (*Esox masquinongy*) are a predatory fish species found across the three main drainage basins of Wisconsin but are historically more common in the northern half of the state. Muskellunge typically spawn in shallow nearshore areas at approximately 50-60°F water temperatures. Fyke netting is the preferred sampling gear for muskellunge. All results presented for muskellunge are from spring fyke netting surveys.

2023 SIZE STRUCTURE METRICS

Total Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	Percentile Rank	Size Rating
46	38.2	19.3 - 49.8	30.0 and 38.0	43	22	51	17th	Low

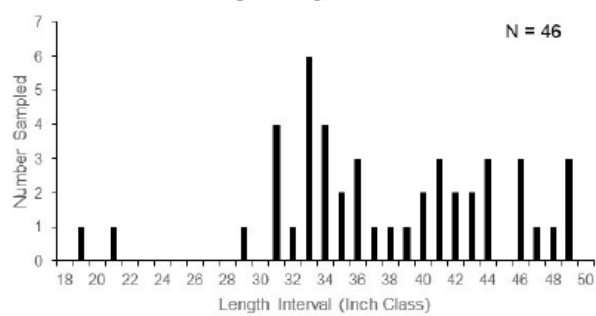
RELATIVE ABUNDANCE (CPUE = NUMBER PER NET NIGHT)

Total Sampled	2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
46	0.3	0.5	0.9	0.4	0.2	0.4	32nd	Low

SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
55	75	74	63	51	63

Muskellunge Length Distribution



Largemouth Bass

- Largemouth Bass (*Micropterus salmoides*) are a common predatory fish species found in many Wisconsin waterbodies. Largemouth bass typically spawn in shallow nearshore areas consisting of sand/mud or gravel substrate at approximately 60-70°F water temperatures. Electrofishing is the preferred sampling gear for largemouth bass. All results presented for largemouth bass are from spring electrofishing surveys.

2023 SIZE STRUCTURE METRICS

Waterbody	Total Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock Number	Quality Number	PSD	Percentile Rank	Size Rating
Wolf River Pond	7	12.6	7.5 - 15.9	8.0 and 12.0	6	2	33	16th	Low
Shawano Outlet	88	13.0	6.4 - 19.6	8.0 and 12.0	84	61	73	71st	Moderate - High
Shawano Lake	112	11.3	3.2 - 18.6	8.0 and 12.0	98	48	49	34th	Moderate
Washington Lake	6	14.2	11.7 - 16.2	8.0 and 12.0	3	2	67	63rd	Moderate
Loon Lake	13	11.3	4.0 - 17.8	8.0 and 12.0	9	6	67	63rd	Moderate

2023 RELATIVE ABUNDANCE (CPUE = NUMBER PER MILE)

Waterbody	CPUE Total	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Wolf River Pond	1.7	15th	Low	≥ 14.0 inches	1.0	27th	Low
Shawano Outlet	14.4	50th	Moderate	≥ 14.0 inches	5.9	71st	Moderate - High
Shawano Lake	14.5	50th	Moderate	≥ 14.0 inches	3.2	53rd	Moderate
Washington Lake	6.0	30th	Low	≥ 14.0 inches	4.0	59th	Moderate
Loon Lake	3.6	23rd	Low	≥ 14.0 inches	1.4	33rd	Low

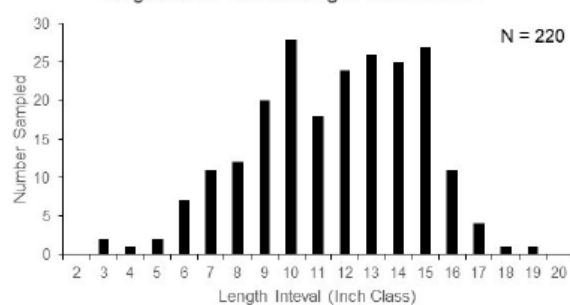
SHAWANO AND WASHINGTON LAKES SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
88	72	67	52	49	67

SHAWANO AND WASHINGTON LAKES RELATIVE ABUNDANCE TRENDS (CPUE = NUMBER PER MILE)

CPUE by Year					Historical Median
2006	2010	2014	2018	2023	
40.7	20.8	15.1	13.1	14.0	15.1

Largemouth Bass Length Distribution



Bluegill

- Bluegill (*Lepomis macrochirus*) are a very common panfish species distributed widely across many Wisconsin waterbodies. Bluegill typically spawn in nearshore areas consisting of sand/mud or gravel substrate at approximately 67-80°F water temperatures. Electrofishing is the standard sampling gear for bluegill, but fyke netting can show some information as well. When comparing bluegill populations to other waterbodies electrofishing data is to be used for our surveys.

2023 SIZE STRUCTURE METRICS

Waterbody	Gear	Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock	Quality	PSD	Percentile Rank	Size Rating
Wolf River Pond	Fyke Netting	399	6.2	3.6 - 10.0	3.0 and 6.0	399	221	56	48th	Moderate
Wolf River Pond	Electrofishing	111	5.4	3.0 - 7.8	3.0 and 6.0	111	32	29	44th	Moderate
Shawano Outlet	Fyke Netting	207	6.4	3.5 - 8.6	3.0 and 6.0	207	148	71	67th	Moderate - High
Shawano Outlet	Electrofishing	103	5.2	3.1 - 7.8	3.0 and 6.0	103	31	30	46th	Moderate
Shawano Lake	Fyke Netting	554	6.1	3.4 - 8.9	3.0 and 6.0	554	322	58	50th	Moderate
Shawano Lake	Electrofishing	217	5.4	2.5 - 7.8	3.0 and 6.0	212	76	36	53rd	Moderate
Washington Lake	Fyke Netting	203	5.0	3.6 - 7.2	3.0 and 6.0	203	32	16	9th	Low
Washington Lake	Electrofishing	32	4.4	1.7 - 6.3	3.0 and 6.0	29	3	10	14th	Low
Loon Lake	Fyke Netting	288	5.9	3.7 - 7.9	3.0 and 6.0	288	149	52	43rd	Moderate
Loon Lake	Electrofishing	158	5.1	2.3 - 8.8	3.0 and 6.0	147	36	24	34th	Moderate

2023 ELECTROFISHING CPUE (NUMBER PER MILE)

Waterbody	CPUE Total	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Wolf River Pond	58.7	39th	Moderate	≥ 7.0 inches	10.6	61st	Moderate
Shawano Outlet	68.7	43rd	Moderate	≥ 7.0 inches	6.7	52nd	Moderate
Shawano Lake	123.3	62nd	Moderate	≥ 7.0 inches	8.0	56th	Moderate
Washington Lake	64.0	42nd	Moderate	≥ 7.0 inches	0	-	-
Loon Lake	97.5	54th	Moderate	≥ 7.0 inches	6.2	51st	Moderate

SHAWANO LAKE ELECTROFISHING TRENDS CPUE (NUMBER PER MILE)

CPUE by Year					Historical Median
2006	2010	2014	2018	2023	
134.7	81.5	105.5	90.0	123.3	105.5

SHAWANO LAKE ELECTROFISHING SIZE STRUCTURE (PSD) TRENDS

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
33	30	36	21	36	33

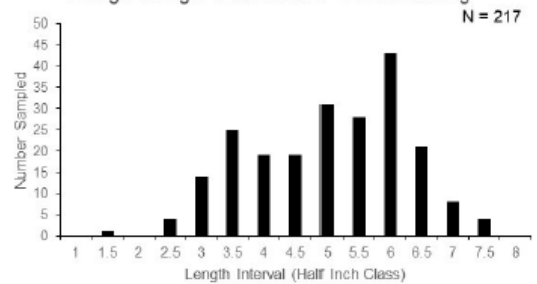
SHAWANO LAKE FYKE NETTING CPUE TRENDS

2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
21.8	14.6	22.5	26.7	7.6	21.8	52nd	Moderate

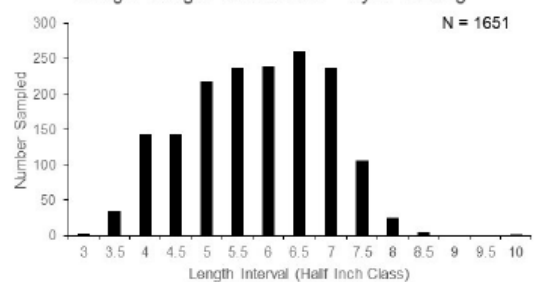
SHAWANO LAKE SIZE STRUCTURE (PSD) TRENDS FYKE NETTING

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
64	72	46	75	58	64

Bluegill Length Distribution - Electrofishing



Bluegill Length Distribution - Fyke Netting



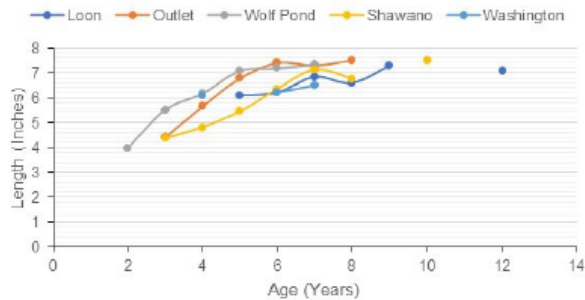
Bluegill

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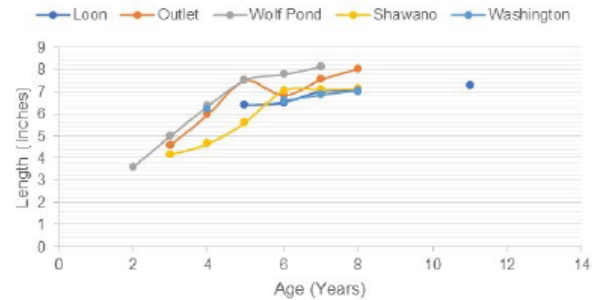
2023 GROWTH METRICS

Waterbody	Sample (n)	Length Bin (inches)	Sex	Mean Age	Age Range	Percentile Rank	Growth Rating
Wolf River Pond	6	6.0 - 6.9	M	4.2	4 - 5	70th	Moderate - Fast
Wolf River Pond	19	6.0 - 6.9	F	4.3	3 - 7	72nd	Moderate - Fast
Wolf River Pond	15	7.0 - 7.9	M	4.9	4 - 7	78th	Moderate - Fast
Wolf River Pond	2	7.0 - 7.9	F	5	5	84th	Moderate - Fast
Shawano Lake	13	6.0 - 6.9	M	6.4	5 - 8	9th	Slow
Shawano Lake	9	6.0 - 6.9	F	6.6	5 - 8	15th	Slow
Shawano Lake	8	7.0 - 7.9	M	7.4	6 - 8	12th	Slow
Shawano Lake	8	7.0 - 7.9	F	8.1	7 - 10	15th	Slow
Shawano Outlet	15	6.0 - 6.9	M	4.7	4 - 7	59th	Moderate
Shawano Outlet	10	6.0 - 6.9	F	4.5	3 - 5	69th	Moderate - Fast
Shawano Outlet	12	7.0 - 7.9	M	5.3	4 - 8	64th	Moderate
Shawano Outlet	5	7.0 - 7.9	F	6.2	5 - 8	49th	Moderate
Washington Lake	6	6.0 - 6.9	M	6.3	5 - 8	10th	Slow
Washington Lake	7	6.0 - 6.9	F	6.4	5 - 7	17th	Slow
Washington Lake	3	7.0 - 7.9	M	7.5	7 - 8	11th	Slow
Loon Lake	8	6.0 - 6.9	M	6.1	5 - 8	12th	Slow
Loon Lake	5	6.0 - 6.9	F	6.4	5 - 8	17th	Slow
Loon Lake	6	7.0 - 7.9	M	7.8	7 - 11	8th	Slow
Loon Lake	3	7.0 - 7.9	F	9.3	7 - 12	7th	Slow

Bluegill Mean Length at Age - Female



Bluegill Mean Length at Age - Males



Pumpkinseed

- Pumpkinseed (*Lepomis gibbosus*) are a common panfish species distributed widely across many Wisconsin waterbodies. Pumpkinseed typically spawn in nearshore areas consisting of sand or gravel substrate at approximately 60-70°F water temperatures. Electrofishing and fyke netting can be effective sampling gear for pumpkinseed and therefore, results from both gears are presented for pumpkinseed.

2023 SIZE STRUCTURE METRICS

Waterbody	Gear	Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock	Quality	PSD	Percentile Rank	Size Rating
Wolf River Pond	Fyke Netting	74	5.9	3.6 - 7.6	3.0 and 6.0	74	39	53	66th	Moderate
Wolf River Pond	Electrofishing	17	5.5	3.5 - 6.8	3.0 and 6.0	17	7	41	58th	Moderate
Shawano Outlet	Fyke Netting	62	6.4	4.3 - 7.4	3.0 and 6.0	62	47	76	86th	Moderate - High
Shawano Outlet	Electrofishing	65	5.5	2.8 - 7.1	3.0 and 6.0	64	22	34	51st	Moderate
Shawano Lake	Fyke Netting	195	6.2	3.4 - 8.5	3.0 and 6.0	195	123	63	77th	Moderate - High
Shawano Lake	Electrofishing	138	5.9	3.0 - 8.1	3.0 and 6.0	138	75	54	70th	Moderate - High
Washington Lake	Fyke Netting	47	5.1	3.8 - 7.8	3.0 and 6.0	47	5	11	13th	Low
Washington Lake	Electrofishing	10	5.1	3.1 - 6.7	3.0 and 6.0	10	3	30	46th	Moderate
Loon Lake	Fyke Netting	24	6.3	4.2 - 7.4	3.0 and 6.0	24	17	71	83rd	Moderate - High
Loon Lake	Electrofishing	45	5.8	2.6 - 7.5	3.0 and 6.0	42	26	62	77th	Moderate - High

2023 ELECTROFISHING CPUE (NUMBER PER MILE)

Waterbody	CPUE Total	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Wolf River Pond	9.0	54th	Moderate	≥ 7.0 inches	-	-	-
Shawano Outlet	43.3	91st	High	≥ 7.0 inches	1.3	66th	Moderate
Shawano Lake	85.3	96th	High	≥ 7.0 inches	16.0	98th	High
Washington Lake	20.0	75th	Moderate - High	≥ 7.0 inches	-	-	-
Loon Lake	27.8	82nd	Moderate - High	≥ 7.0 inches	4.3	87th	Moderate - High

SHAWANO LAKE ELECTROFISHING TRENDS CPUE (NUMBER PER MILE)

CPUE by Year					Historical Median
2006	2010	2014	2018	2023	
22.0	27.0	30.5	32.5	85.3	30.5

SHAWANO LAKE SIZE STRUCTURE (PSD) TRENDS FYKE NET-

PSD by Year					Historical Median
2006	2010	2014	2018	2023	
71	61	31	71	63	63

SHAWANO LAKE ELECTROFISHING SIZE STRUCTURE (PSD) TRENDS

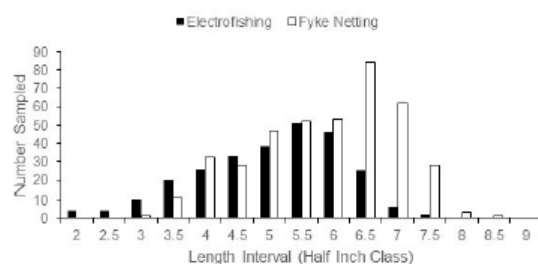
PSD by Year					Historical Median
2006	2010	2014	2018	2023	
64	57	67	41	54	57

SHAWANO LAKE FYKE NETTING CPUE TRENDS (NUMBER PER NET NIGHT)

2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
3.0	1.2	5.7	7.7	6.6	5.7	88th	Moderate - High

Species Summary

Pumpkinseed Length Distribution- Shawano Lake and Connected Waters



Yellow Perch

- Yellow Perch (*Perca flavescens*) are a common panfish species found throughout many Wisconsin waterbodies. Typically yellow perch spawn in areas of emergent or submergent vegetation or submerged brush at approximately 45-50°F water temperatures. Electrofishing and fyke netting can be effective sampling gear for yellow perch and therefore, results from both gears are presented for yellow perch.

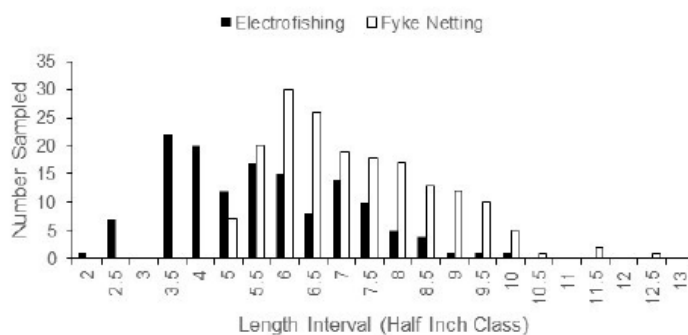
2023 SIZE STRUCTURE METRICS										
Waterbody	Gear	Number Measured	Average Length (inches)	Length Range (inches)	Stock and Quality Size (inches)	Stock	Quality	PSD	Percentile Rank	Size Rating
Wolf River Pond	Fyke Netting	17	7.4	5.8 - 10.0	5.0 and 8.0	17	5	29	69th	Moderate - High
Wolf River Pond	Electrofishing	40	6.3	2.5 - 9.7	5.0 and 8.0	32	4	13	73rd	Moderate - High
Shawano Outlet	Fyke Netting	99	8.0	5.6 - 12.6	5.0 and 8.0	99	48	48	84th	Moderate - High
Shawano Outlet	Electrofishing	22	5.8	3.7 - 8.7	5.0 and 8.0	16	2	13	73rd	Moderate - High
Shawano Lake	Fyke Netting	9	8.1	5.0 - 10.3	5.0 and 8.0	9	5	56	88th	Moderate - High
Shawano Lake	Electrofishing	14	4.7	2.6 - 5.9	5.0 and 8.0	16	1	6	58th	Moderate
Washington Lake	Fyke Netting	65	6.1	5.1 - 7.8	5.0 and 8.0	49	0	0	-	Low
Washington Lake	Electrofishing	26	4.7	2.7 - 8.4	5.0 and 8.0	10	1	10	68th	Moderate - High
Loon Lake	Fyke Netting	7	7.4	5.6 - 10.8	5.0 and 8.0	7	3	43	81st	Moderate - High
Loon Lake	Electrofishing	36	4.4	2.1 - 6.7	5.0 and 8.0	12	0	0	-	Low

2023 ELECTROFISHING CPUE (NUMBER PER MILE)							
Waterbody	CPUE Total	Percentile Rank	Overall Abundance Rating	Length Index	Length Index CPUE	Length Index Percentile Rank	Length Index Abundance Rating
Wolf River Pond	21.2	71st	Moderate - High	≥ 8.0 inches	2.1	87th	Moderate - High
Shawano Outlet	14.7	61st	Moderate	≥ 8.0 inches	1.3	77th	Moderate - High
Shawano Lake	9.3	50th	Moderate	≥ 8.0 inches	0.7	67th	Moderate - High
Washington Lake	52.0	88th	Moderate - High	≥ 8.0 inches	2.0	86th	Moderate - High
Loon Lake	22.0	73rd	Moderate - High	≥ 8.0 inches	0	-	Low

SHAWANO LAKE ELECTROFISHING TRENDS CPUE (NUMBER PER MILE)						SHAWANO LAKE SIZE STRUCTURE (PSD) TRENDS FYKE NETTING							
CPUE by Year					Historical Median	PSD by Year					Historical Median		
2006	2010	2014	2018	2023		2006	2010	2014	2018	2023			
17.3	10.5	24.5	28.0	20.0		20.0	78	89	17	10		56	56
SHAWANO LAKE ELECTROFISHING SIZE STRUCTURE (PSD) TRENDS						SHAWANO LAKE FYKE NETTING CPUE TRENDS (NUMBER PER NET NIGHT)							
PSD by Year					Historical Median	2006	2010	2014	2018	2023	Historical Median	2023 Statewide Percentile Rank	2023 Abundance Rating
2006	2010	2014	2018	2023									
33	0	0	11	6		6	0.6	0.2	0.2	0.2	0.3	0.2	17th



Yellow Perch Length Distribution - Shawano Lake and Connected Waters



Yellow Perch

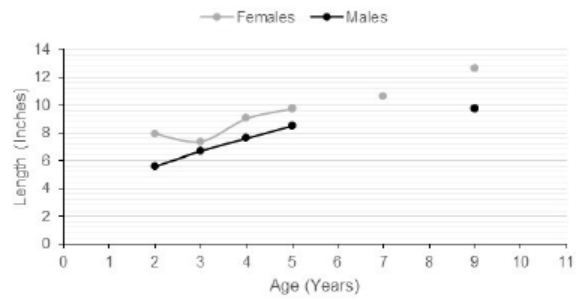
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2023 GROWTH METRICS

Waterbody	Sample (n)	Length Bin (inches)	Sex	Mean Age	Age Range	Percentile Rank	Growth Rating
Shawano Outlet	8	8.0 - 8.9	M	4.6	4 - 5	52nd	Moderate
Shawano Outlet	10	8.0 - 8.9	F	4.0	3 - 7	65th	Moderate



Yellow Perch Mean Length at Age



Species Summary