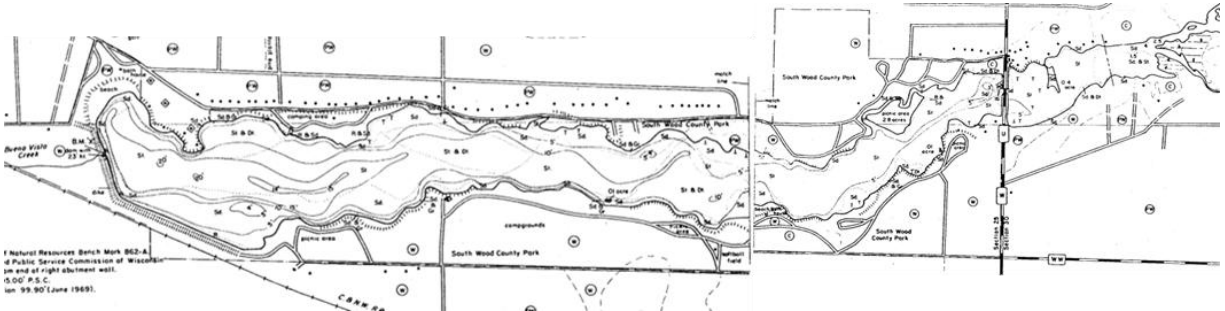


**WISCONSIN DEPARTMENT of NATURAL RESOURCES**  
**Fisheries Survey Report for Wazeecha Lake, Wood County, Wisconsin**  
**2025**

WATERBODY IDENTIFICATION CODE 1391200



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## **Executive Summary**

Wazeecha Lake is a 140-acre reservoir on Buena Vista Creek and is classified as a complex-riverine lake containing northern pike, walleye, largemouth bass, smallmouth bass, bluegill, yellow perch, black crappie, pumpkinseed and rock bass. Overall anglers can expect a good northern pike and bass fishery, abundances are moderate and size structure is excellent. Walleye are stocked in the lake, which has resulted in a fishery that has met a target goal of at least 1.5 adults per acre, with over 35% of the walleyes being 15 inches or larger. Wazeecha Lake is a less than average panfish lake compared to other similar lakes, yet these panfish provide excellent prey to the gamefish populations. Bluegill and yellow perch are the dominant panfish species, relative abundance is moderate but size structure is poor. Bluegill growth rates are not slow, potentially a more conservative bag limit could improve bluegill size structure. Habitat present supports cool water species like northern pike and walleye as there is depth for thermal refugia during the summer and Buena Vista Creek is classified trout water. There is a decent amount of wood structure and rock for bass yet there are opportunities to always add more wood through fish habitat projects.

## Introduction

Wazeecha Lake is a 140-acre lake in Wood and Portage County, Wisconsin, having 5.3 miles of shoreline, a maximum depth of 20 feet, an average depth of 8 feet and a 1.5 mile east-west fetch (Figure 1). The lake is a man-made lake – a reservoir. This lake is classified as a complex-riverine lake containing walleye, largemouth bass, smallmouth bass, northern pike, bluegill, black crappie and yellow perch. Most of the lake is surrounded by South Wood County Park, there is a public boat launch and ample shoreline fishing opportunities. This is a popular recreation lake with a campground, beaches, bike and walking trail, campground and more. Wazeecha Lake is home to the annual Wisconsin State Water Ski Show competition.

Walleyes have been stocked over the last 20 years (Table 1). Mean length of walleyes stocked over the years were typically 1.5-9.0 inches. The Wisconsin Walleye Initiative ([The Wisconsin Walleye Initiative 2022](#)) began in 2015 with an average of 2,800 extended growth walleye were consistently stocked on odd years. Extended growth walleye are larger in average size (6.5-8.1 inches). DNR fisheries staff conducted annual fall electrofishing surveys targeting walleyes to evaluate the walleye stockings, looking for any signs of natural reproduction and survival of fish stocked in previous years. No evidence of natural reproduction was found based on those surveys.

Fishing regulations for Wazeecha Lake are the standard statewide regulations for panfish (daily bag limit of 25), largemouth and smallmouth bass (14-inch minimum, daily bag limit of 5) and northern pike (26-inch minimum, daily bag limit of 2). The walleye regulation is an 18-inch minimum length limit and the daily bag limit is 3.

## SURVEY EFFORT

Wisconsin Rapids Fisheries staff conducted a comprehensive fisheries survey in 2025 to assess the gamefish and panfish populations and evaluate the walleye stockings. This was the first survey for the lake that included early-spring and late-spring surveys using fyke nets and electrofishing. In 2011, a late-spring electrofishing survey for Wazeecha Lake took place with the primary target of largemouth bass and panfish.

## Methods

A DNR standard spring fyke netting survey took place from March 31, 2025, through April 11, 2025. The number of nets that fished each night ranged from four to six, the total number of net nights was 40. Water temperature ranged from 39.9-45.8° F. All northern pike, walleye and largemouth bass were marked with a fin clip and if recaptured were given a second fin clip. All walleye and northern pike were sexed (male, female, unknown), all fish were measured for total length (0.1 inch), a structure was taken to estimate age from a subsample and genetic tissue from a subsample of walleyes.

On the night of April 9, 2025, a nighttime electrofishing effort using a maxi-boom shocker took place to target walleye for the purposes of marking more fish for a mark-recapture population estimate, the secondary target was largemouth bass and northern pike. Pulsed direct current was used with a pulse rate of 60%, duty cycle of 30, energy output of 140 volts and 10 Amperes. Water temperature was 44.5° F and 2.8 miles of shoreline was shocked. Two dippers collected fish. Fish collected were examined for a fin clip, clipped if not previously or

given a second clip if previously clipped, sexed, measured for total length and an age structure or genetics tissue sample collected if needed.

On the night of April 13, 2025, a nighttime electrofishing effort took place to target walleye and northern pike. Pulsed direct current was used with a pulse rate of 60%, duty cycle of 30, energy output of 140 volts and 12 Amperes. The water temperature was 50.4° F, the entire shoreline of the lake that was shockable (4.5 miles) was electrofished, this was the recapture survey to estimate the population size of walleye and northern pike. Fish collected were examined for a fin clip, sexed, measured for total length and an age structure or genetics tissue sample collected if needed. Visibility was poor during this survey; the wind blew the sediment load at the upper end of the lake down and throughout the lake.

On the night of May 13, 2025, a late-spring electrofishing survey for largemouth bass and panfish took place. The water temperature was 60.2-67.2° F. In total, 4.2 miles of shoreline were surveyed. Panfish were collected for 1.7 miles and largemouth bass, walleye and northern pike were collected for 4.2 miles of the shoreline. Pulsed direct current was used with a pulse rate of 60%, duty cycle of 30, energy output of 200 volts and 18-22 Amperes. All fish captured were measured to the nearest 0.1 inch. Aging structures were collected if needed for panfish and gamefish. All gamefish were examined for a fin clip.

A Peterson mark-recapture estimator was used to estimate the population size for walleye and northern pike (Ricker 1975). Relative abundance, size structure and growth were evaluated. Relative abundance was indexed using catch per unit of effort (CPUE) which is the number of fish captured per unit of effort (number of net-nights or miles sampled). For largemouth bass, CPUE is indexed for those fish equal to or greater than 8 inches and for bluegill those equal to or greater than 3 inches and 6 inches. These CPUE values are compared to values for lakes that are similar to Wazeecha Lake and historic data for the lake. Proportional Stock Density (PSD) is an index used to describe size structure of fish (Neumann et al 2012). PSD is calculated by dividing the number of quality or preferred size fish by the number of stock size fish for a given species. For example, largemouth bass stock size = 8 inches; quality length = 12 inches; and preferred size = 15 inches. 14 inches for largemouth bass is a common length for evaluating size structure too, Proportional Stock Density of 14-inch fish (PSD-14). Bluegill stock length = 3 inches, quality size = 6 inches, preferred size = 8 inches, and memorable size = 10 inches. Growth was evaluated by examining the age a fish was for a given length and compared to statewide growth information for that species.

## Results

A total of 467 fish of nine different species were collected during fyke netting (Table 2), northern pike was the most caught species. Early-spring electrofishing targeted gamefish for fin clipping additional fish in the population and targeting them for recapture to generate a population estimate (Tables 3 and 4). A total of 659 fish of 11 different species were collected during late-spring electrofishing (Table 5), bluegill were the most caught species. Carp observed during the survey were counted only. More walleyes were caught in the late-spring electrofishing survey compared to previous survey efforts; the late-spring survey was used as the recapture run for generating a population estimate.

## WALLEYE

The adult population size was estimated to be 272 walleyes (138-639) or 1.9 adult walleyes per acre using the Peterson mark-recapture model (Ricker 1975). Since we did not know the abundance of the walleye population prior to this survey, we used 0.25 fish per acre and 0.5 fish per acre to set a target range for the number of adult walleyes to mark before our recapture effort. Our marking goal was 35 to 70 adult walleyes. We marked 53 adult walleyes during fyke netting (n=36) and early-spring electrofishing efforts (n=17). The recapture run was the late-spring electrofishing survey on May 13, 2025, and the entire shoreline of the lake was surveyed. 41 adult walleyes were caught, 8 were recaptures.

The relative abundance of walleyes was calculated to be 0.6 fish per net night, 15.7 fish per mile and 3.8 fish per mile of 15-inch and larger walleye (late-spring electrofishing). The CPUE for netting is just above the 25<sup>th</sup> percentile and considered low, yet the late-spring CPUE values are within the 64-66<sup>th</sup> percentile and is moderate compared to other lakes in Wisconsin.

121 unique walleyes were caught during all survey efforts, these fish ranged in length from 6.0 – 20.8 inches (Figure 2), 13.2% were females, 18.2% were males and 68.6% were of unknown sex. 38.6% of the walleyes were of quality length (15 inches) or larger and 3.3% were preferred size (20 inches) or larger. Growth was found to be slower or the same as the average walleye in Wisconsin depending on age (Figure 3).

## NORTHERN PIKE

The relative abundance of northern pike was 2.4 fish per net night, which is just above the 50<sup>th</sup> percentile compared to other lakes in Wisconsin. The Peterson mark-recapture model (Ricker 1975) was used to estimate the population size to be 1342 adult fish or 9.6 fish per acre. 202 northern pike were measured; they ranged in length from 9.2-38.1 inches and mean length was 20.7 inches (Figure 4). Maximum size and mean size are in the 99<sup>th</sup> and 90<sup>th</sup> percentiles, respectively compared to similar lakes. 46% of the northern pike were of quality size (21 inches), 4.8% were of preferred size (28 inches) and 1.6% were of memorable size (34 inches). 11% of the northern pike were 26 inches or larger. 21% of the fish were females, 49% were males and 30% were unknown. Growth was indexed with a subsample of northern pike in the 18-inch length bin, these ended up being all males and found to be slower than the state average northern pike (Figure 5).

## LARGEMOUTH BASS

During the comprehensive survey, 57 largemouth bass were caught during early- and late-spring electrofishing surveys (Tables 3 and 5). The relative abundance of 8-inch and larger largemouth bass was 11.3 per mile, and CPUE of all bass was 13.0 per mile which compared to the 2010 survey is higher (Table 6). Compared to similar lakes, this CPUE is just below the 75<sup>th</sup> percentile (14.4 per mile) and is considered moderate. Largemouth bass ranged in length from 5.1-19.2 inches, mean length was 13.8 inches (Figure 6). Compared to similar lakes in Wisconsin the maximum size and mean size are near the 99<sup>th</sup> and 95<sup>th</sup> percentile respectively. The percentage of largemouth bass of quality size (12 inches) or larger was 88% and 45% were preferred size (15 inches) or larger and 65% were 14 inches (minimum size limit for harvest) or larger. Size structure is excellent and above the 90<sup>th</sup> percentile compared to similar lakes.

## SMALLMOUTH BASS

14 smallmouth bass were caught during the electrofishing surveys (Tables 3 and 5), the CPUE was 2.9 fish per mile and 0.7 fish per mile for smallmouth bass 8 inches or larger. Compared to similar lakes the CPUE is above the 25<sup>th</sup> percentile. Smallmouth bass ranged in length from 5.1-19.3 inches (Figure 7). Compared to other Wisconsin lakes, the maximum size is in the 99<sup>th</sup> percentile.

## YELLOW PERCH

Yellow perch were caught fyke netting (n=78) with a CPUE of 2.0 per net night (Table 2), which is in the 50<sup>th</sup> percentile compared to other similar lakes. There were 57 caught during late-spring electrofishing (Table 5), CPUE was 34 fish per mile and is higher compared to the 2010 survey (16 fish per mile). Yellow perch ranged in length from 4.5-11.1 inches, mean length was 6.0 inches (Figure 8). Size structure was poor, 3% of yellow perch were of quality size (8 inches) or larger and 1.6% were of preferred size (10 inches) or larger. Growth was average to slower than average compared to the state average yellow perch, 5-inch and 6-inch yellow perch were used to index growth (Figure 9).

## BLACK CRAPPIE

Black crappie comprised 18.2% of the catch in fyke nets (n=85) with a CPUE of 2.1 per net night, which is low and less than the 25<sup>th</sup> percentile compared to other lakes (Table 2). Black crappies ranged in length from 4.1-10.3 inches, mean length was 7.2 inches (Figure 10). 33% of the fish were of quality size (8 inches) or larger and 1% were of preferred size (10 inches) or larger. Growth was indexed with black crappies in the 4-inch length bin and found to be slower than the average black crappie (Figure 11).

## BLUEGILL

For the survey a total of 58 bluegills were caught in the fyke nets, yet late-spring electrofishing is the primary gear used to assess bluegill populations and examine changes over time. 311 bluegills were caught electrofishing, the CPUE of 3-inch and larger fish was 179 per mile, the CPUE of 6-inch and larger fish was 28 per mile. Compared to past surveys the CPUEs are higher (Table 6). CPUE is above the 75<sup>th</sup> percentile compared to other similar lakes. Bluegills ranged in size from 2.3-8.8 inches (Tables 2 and 5; Figure 12), mean length was 4.9 inches (Table 5) and is in the 50<sup>th</sup> percentile compared to similar lakes. 17% of the bluegills were of quality size (6 inches) or larger and 0.6% were of preferred size (8 inches) or larger, size structure is poor and in the 25<sup>th</sup> percentile compared to Wisconsin lakes. Size structure was poor in 2010 too, where 16% of the bluegills were of quality size and no preferred size bluegill were caught. Growth was indexed with the 6-inch length bin and found to be the same as the average bluegill in Wisconsin (Figure 13).

## ROCK BASS

For the survey a total of 60 rock bass were captured (Tables 2 and 5). The CPUE was 22 fish per mile, which is above the 90<sup>th</sup> percentile compared to similar lakes. Rock bass ranged in size from 3.1-9.4 inches (Tables 2 and 5; Figure 14).

## OTHER FISH SPECIES

Other fish species caught or observed during the comprehensive survey included: common carp, golden shiner, pumpkinseed and white sucker.

## Discussion

The walleye population is dependent on stocking, the department has stocked extended growth fingerling (average size of 6.9 inches) walleyes on odd years at a rate of 15 per acre. These stockings were a result of the Wisconsin Walleye Initiative. For stocking to be considered a “success” and create a fishable population, we want to see at minimum 1.5 adult walleye per acre. Our population estimated there to be 1.9 walleyes per acre. Size structure was moderate, 38.6% of the walleyes were 15 inches or greater. Growth was the same as the average walleye or slower depending on age. Multiple age classes and multiple modes on the length frequency histogram are present indicating survival of the stockings. Genetic samples were collected from the walleyes, which can be used to assess the contribution of each stocking to the population.

Northern pike relative abundance is moderate and size structure is excellent compared to similar lakes. The largest northern pike caught was 38.1 inches and mean size was 20.7 inches. The fishing regulation is a 26-inch minimum length limit with a daily bag limit of 2, 11% of the pike caught were 26 inches or larger. This regulation seems appropriate as it allows northern pike to spawn twice before harvest and results in a quality fishery.

Largemouth bass and smallmouth bass are both in Wazeecha Lake and can grow to large sizes. Largemouth bass have moderate abundance and excellent size structure; this is a popular bass lake. The fishing regulation for largemouth bass has remain unchanged and is the statewide regulation – minimum length limit is 14” and the daily bag limit is 5 (Season is the first Saturday in May until first Saturday in March).

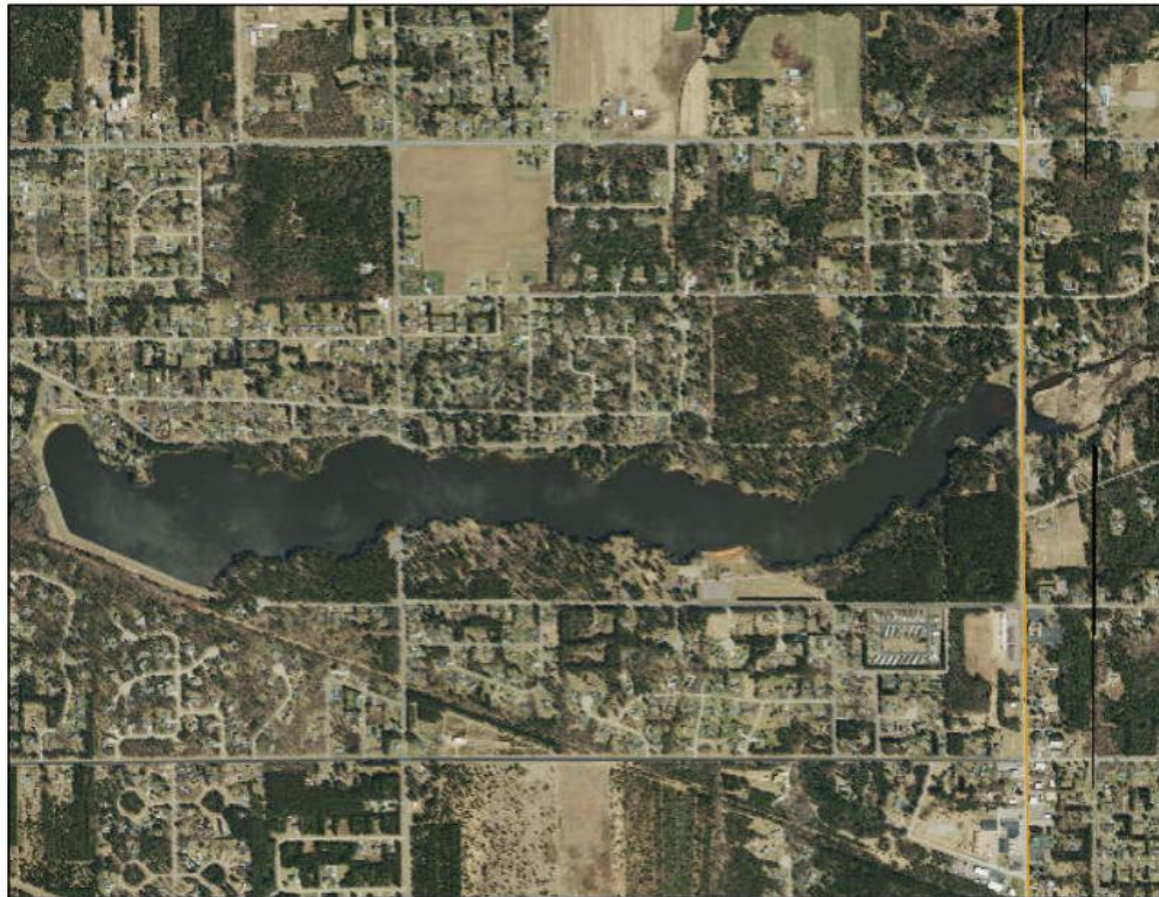
Lake Wazeecha is a below average panfish lake. Bluegills are the dominant panfish species, their abundance is moderate-high and size structure is poor, 0.6% of the bluegills were 8 inches or larger, yet growth rates are average. Pumpkinseeds are present in low abundance. Black crappie relative abundance was low, and size structure and growth were both poor. Yellow perch have moderate abundance, poor size structure and slow growth. A lower panfish bag limit (10 daily bag) may improve bluegill size structure if poor size structure is related to angler harvest, growth does not appear to be an issue.

## Recommendations



Walleye stockings are creating a fishery, continued stocking by the department or private stockings will be needed to maintain the population. There is ample prey to support this fishery.

## **Acknowledgements**

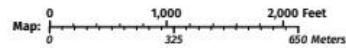
Thank you to all the volunteers who helped with this survey. Thank you to Dave Osier (DNR LTE Fisheries Technician), Lukas Erickson (DNR LTE Fisheries Technician), Lucas Koenig (DNR Fisheries Biologist-Sen.) and Jake Thompson (DNR Fisheries Biologist) for helping in the field and processing age structures. Data for this report would not have been possible without many DNR staff over the years.



**Legend:** (some map layers may not be displayed)

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Figure 1. Map of Wazeecha Lake, Wood County, Wisconsin.

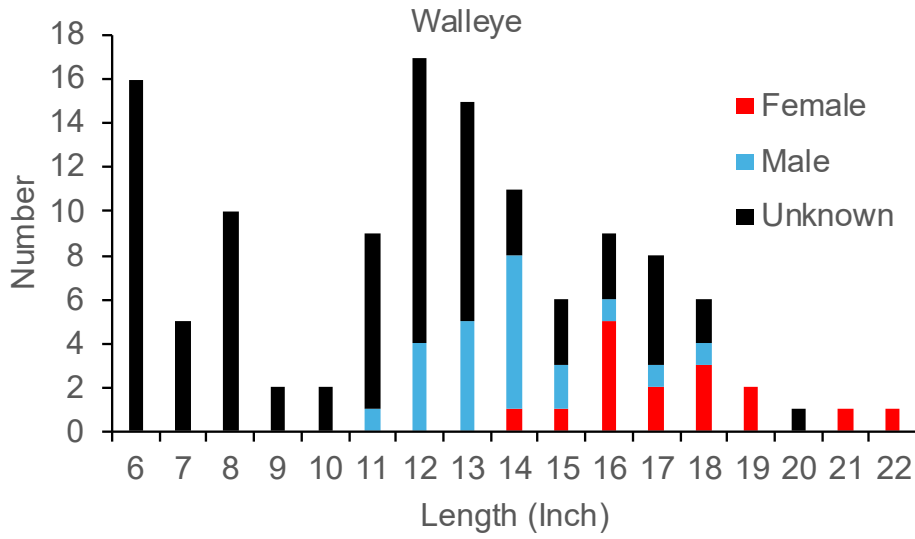


Figure 2. Length frequency of female, male and unknown sex walleye captured from fyke netting and electrofishing in Wazeecha Lake, 2025 (n=121).



Figure 3. – Mean length at age of walleye captured in Wazeecha Lake in 2025 compared to the statewide average walleye ( $\pm 1$  standard deviation).

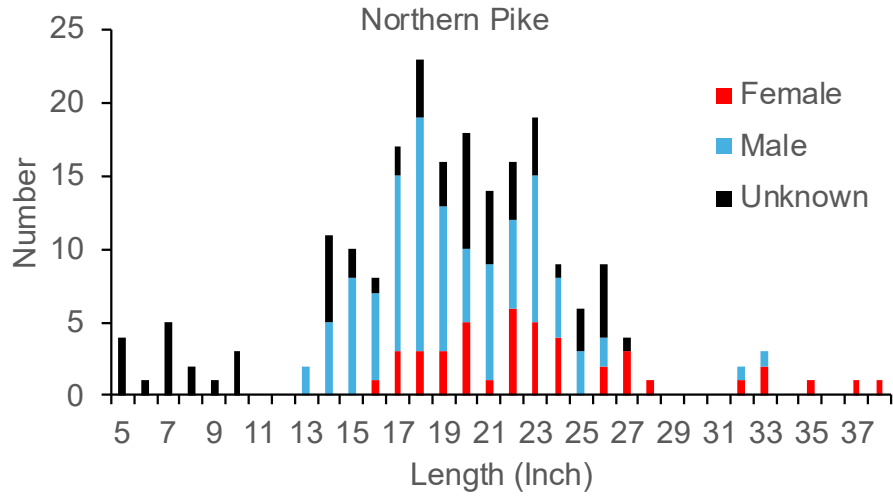


Figure 4. Length frequency of northern pike captured from fyke netting and electrofishing in Wazeecha Lake, 2025 (n=194).

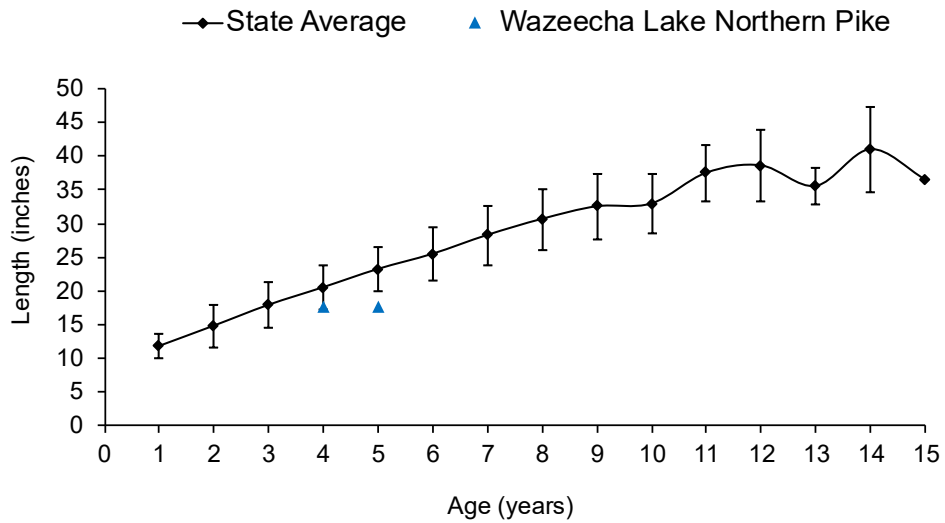


Figure 5. Mean length at age of northern pike captured in Wazeecha Lake in 2025 compared to the statewide average northern pike.

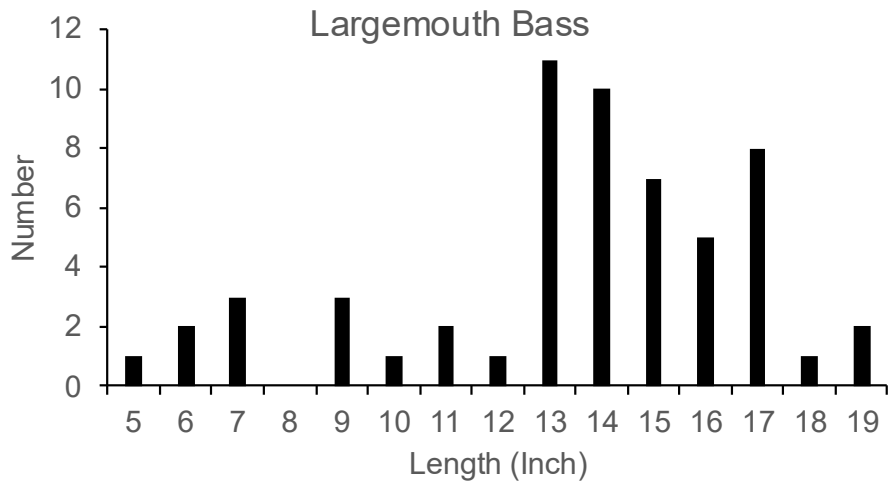


Figure 6. Length frequency of largemouth bass captured in Wazeecha Lake, 2025 during early-spring electrofishing (n=4) and late-spring electrofishing (n=53).

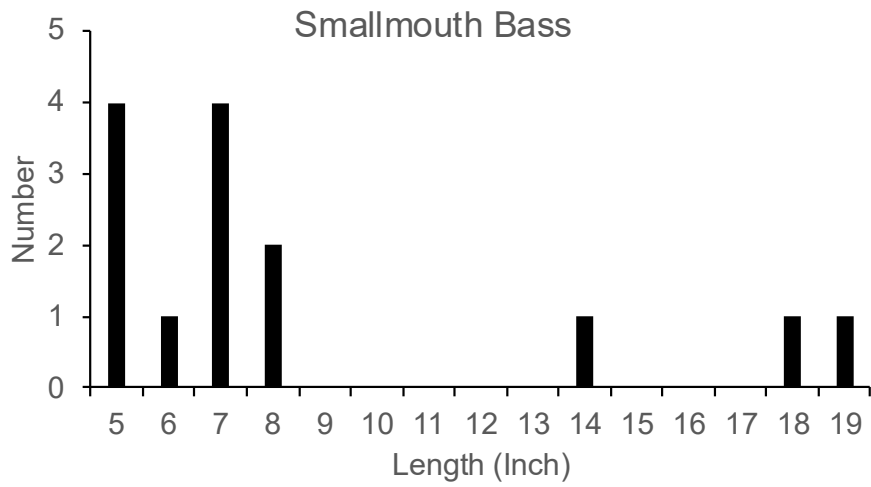


Figure 7. Length frequency of smallmouth bass captured in Wazeecha Lake, 2025 from electrofishing (n=14).

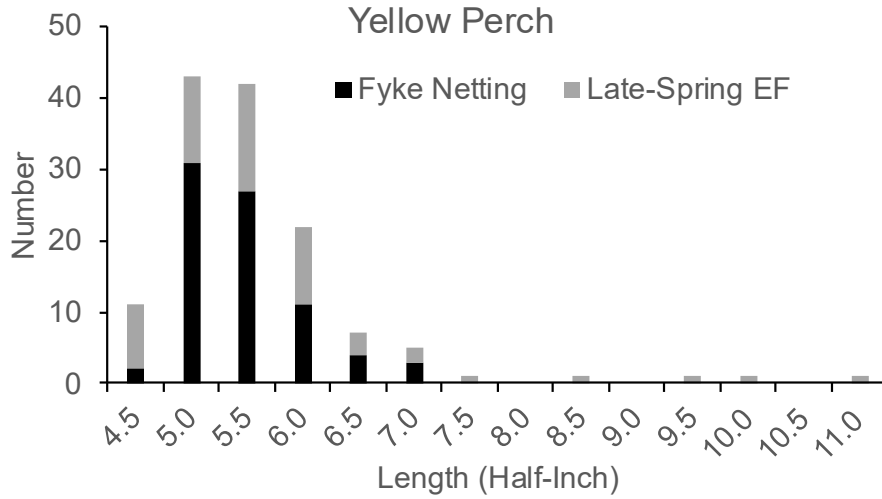


Figure 8. Length frequency of yellow perch captured in Wazeecha Lake, 2025 from fyke netting (n=78) and late-spring electrofishing (n=57).

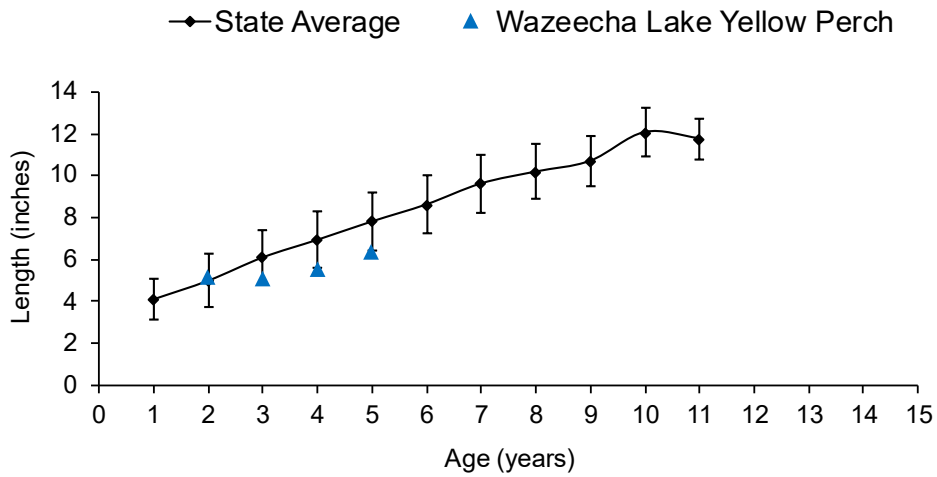


Figure 9. Mean length at age of yellow perch captured in Wazeecha Lake in 2025 compared to the statewide average yellow perch.

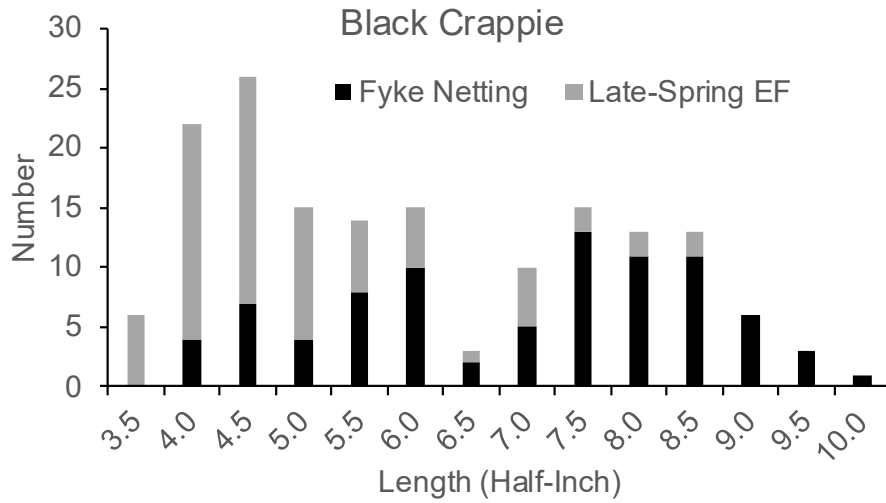


Figure 10. Length frequency of black crappie captured in Wazeecha Lake, 2025 from fyke netting (n=85) late-spring electrofishing (n= 77).

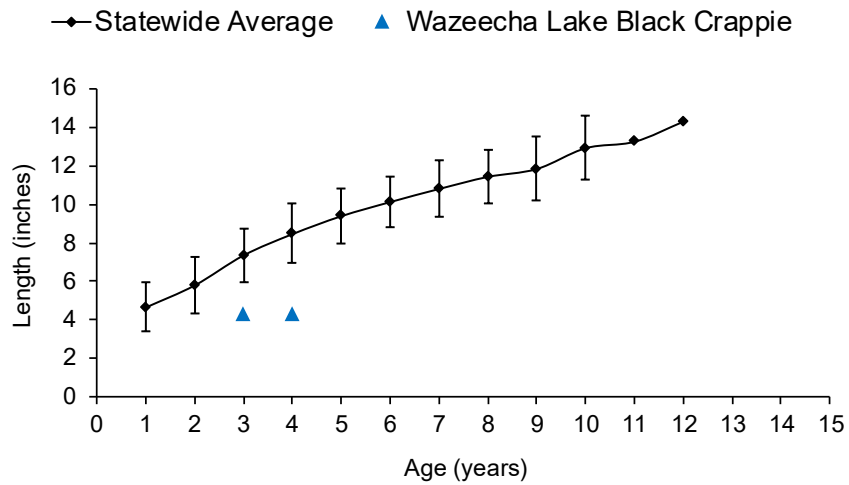


Figure 11. Mean length at age of black crappie captured in Wazeecha Lake in 2025 compared to the statewide average black crappie.

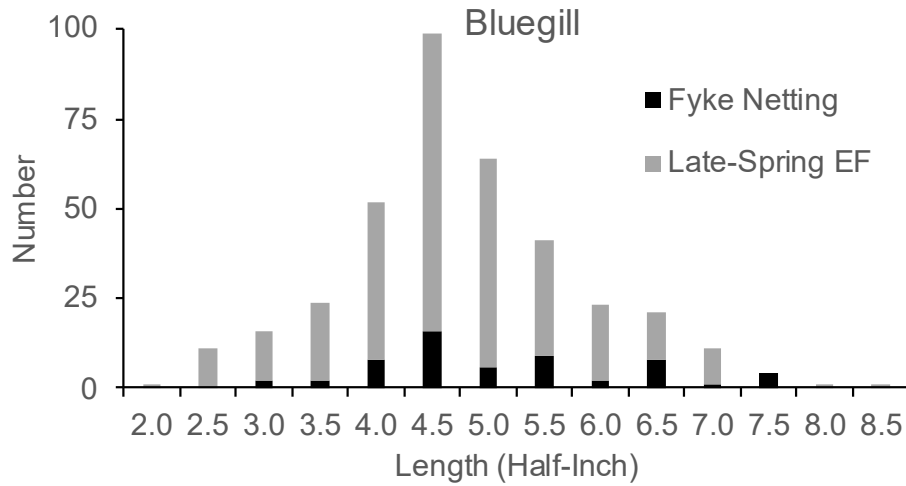


Figure 12. – Length frequency of bluegill captured in Wazeecha Lake, 2025 during fyke netting (n=58) and late-spring electrofishing (n=311).

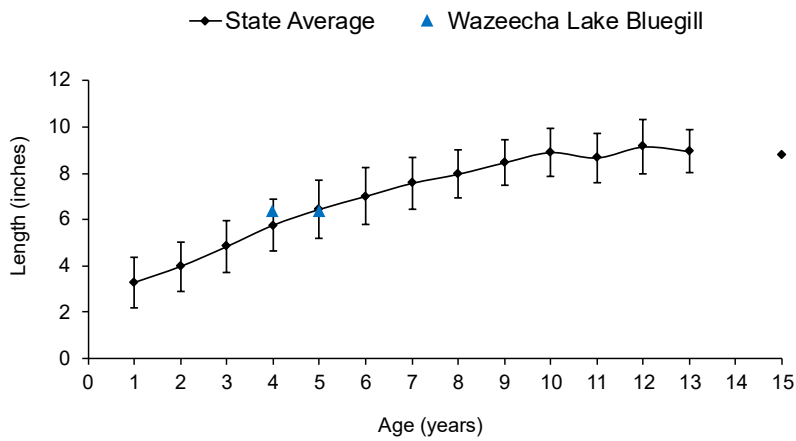


Figure 13. – Mean length at age of bluegill captured in Wazeecha Lake in 2025 compared to the statewide average bluegill.

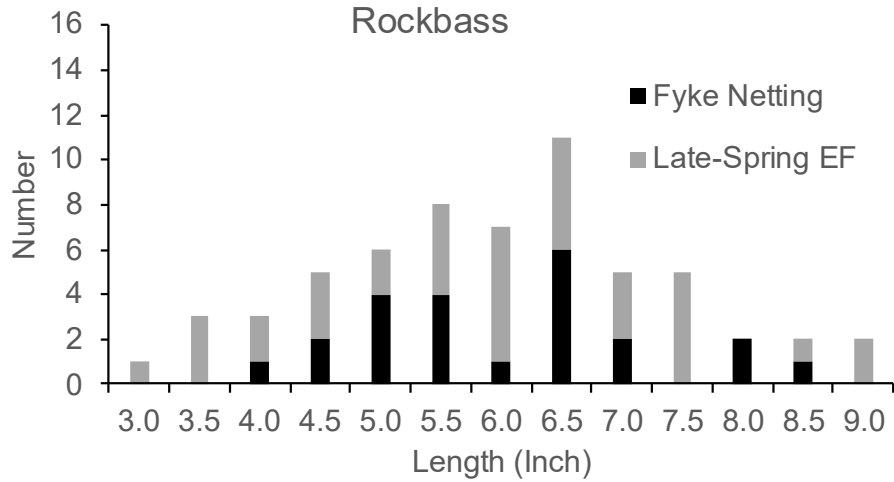


Figure 14. Length frequency of rock bass captured in Wazeecha Lake, 2025 from fyke netting (n=23) and late-spring electrofishing (n=37).

Table 1. Last 20 years of fish stocking records for Wazeecha Lake, Wood County, Wisconsin.

Year	Species	Number	Length (Inches)	Hatchery
2025	Walleye	2796	6.9	DNR
2023	Walleye	2801	6.9	DNR
2021	Walleye	2803	6.5	DNR
2019	Walleye	2789	6.7	DNR
2017	Walleye	2803	8.1	DNR
2015	Walleye	2824	7.1	DNR
2012	Walleye	5176	1.7	DNR
2011	Walleye	610	9.0	PRIVATE
2010	Walleye	5266	1.7	DNR
2010	Walleye	465	9.0	PRIVATE
2009	Walleye	550	8.0	PRIVATE
2008	Walleye	625	8.0	PRIVATE
2008	Walleye	5175	1.5	DNR
2006	Walleye	760	9.0	PRIVATE
2006	Walleye	5191	1.7	DNR

Table 2. Total number of fish caught by species in the 2025 fyke net survey in Wazeecha Lake.

<b>Fyke Netting</b>	<b>April 1 -11, 2025</b>				
<b>Common name of fish</b>	<b>Number</b>	<b>Number of Recaptures</b>	<b>Percent</b>	<b>Length Range (Inches)</b>	<b>Mean Length (Inches)</b>
Black Crappie	85		18.2	4.1-10.3	7.2
Bluegill	58		12.4	3.2-7.9	5.3
Golden Shiner	6		1.3	5.2-7.4	-
Northern Pike	156	16	33.4	9.2-38.1	20.7
Pumpkinseed	14		3.0	3.8-6.5	-
Rock Bass	23		4.9	4.2-8.6	-
Walleye	37	9	8.0	11.5-22.6	-
White Sucker	10		2.1	12.5-22.8	-
Yellow Perch	78		16.7	4.8-7.3	5.7
<b>Total</b>	<b>467</b>		<b>100.0%</b>		

Table 3. Total number of gamefish caught by species in the 2025 early spring electrofishing survey in Wazeecha Lake on April 9, 2025.

<b>Electrofishing</b>	<b>April 9, 2025</b>		
<b>Common name of fish</b>	<b>Number</b>	<b>Number of Recaptures</b>	<b>Length Range (Inches)</b>
Largemouth Bass	4	-	13.6-19.2
Smallmouth Bass	2	-	18.1-19.3
Walleye	11	2	6.4-18.4

Table 4. Total number of northern pike and walleye caught in the 2025 early spring electrofishing survey in Wazeecha Lake on April 13, 2025.

<b>Electrofishing</b>	<b>April 13, 2025</b>		
<b>Common name of fish</b>	<b>Number</b>	<b>Number of Recaptures</b>	<b>Length Range (Inches)</b>
Northern Pike	39	4	10.2-27.0
Walleye	35	6	6.1-19.5

Table 5. Total number of fish caught by species in the 2025 late-spring electrofishing survey in Wazeecha Lake on May 13, 2025.

<b>Electrofishing</b>	<b>May 13, 2025</b>				
<b>Common name of fish</b>	<b>Number</b>	<b>Number of Recaptures</b>	<b>Percent</b>	<b>Length Range (Inches)</b>	<b>Mean Length (Inches)</b>
Black Crappie	77		11.7	3.6-8.6	5.2
Bluegill	312		47.3	2.3-8.8	4.9
Common Carp	1		0.2	-	-
Golden Shiner	11		1.7	-	-
Largemouth Bass	54	1	8.2	5.1-19.1	13.8
Northern Pike	23	3	3.5	7.6-25.4	-
Pumpkinseed	9		1.4	4.6-6.7	-
Rock Bass	37		5.6	3.1-9.4	-
Smallmouth Bass	12		1.8	5.1-14.4	-
Walleye	66	13	10.0	6.0-20.8	12.3
Yellow Perch	57		8.6	4.5-11.1	6.0
<b>Total</b>	<b>659</b>		<b>100.0%</b>		

Table 6. Relative abundance (CPUE; number of fish per mile) of bluegill, largemouth bass, yellow perch and walleye from late-spring electrofishing surveys for Wazeecha Lake in 2010 and 2025.

<b>Common name of fish - CPUE</b>	<b>2010</b>	<b>2025</b>
Bluegill ( $\geq 3$ inches; Catch per mile)	79	179
Bluegill ( $\geq 6$ inches; Catch per mile)	13	28
Largemouth Bass (Catch per mile)	7	13
Largemouth Bass ( $\geq 8$ inches; Catch per mile)	7	11
Yellow Perch (Catch per mile)	16	34
Walleye (Catch per mile)	10	16