WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Fisheries Information Sheet

LAKE: WINNEBAGO **COUNTY: CALUMET** **YEAR: 2023**

Introduction

On May 23, 2023 the Wisconsin Department of Natural Resources (DNR) conducted a spring electrofishing (SEII) survey in Stockbridge Harbor, Lake Winnebago in Calumet County. The survey included approximately 2.0 miles of electrofishing and targeted primarily bass and panfish species. The survey station included .5 miles of sampling targeting all species encountered and the remaining 1.5 miles was targeting gamefish species. Water temperature was 67 degrees Fahrenheit. Primary sampling objectives of this survey are to characterize species composition, relative abundance, and size structure.

Image 1: Aerial view of Stockbridge Harbor, Lake Winnebago.

BLUEGILL

A total of 9 bluegill were captured. Lengths ranged from 4.4-6.2 inches and the average length was 5.3 inches.

# Captured Per Mile= 18	
(PSD) Quality Size ≥ 6”	22
(RSD) Preferred Size ≥ 8”	0

Table 1: PSD-Q and PSD-P values for bluegill captured in the 2023 survey.

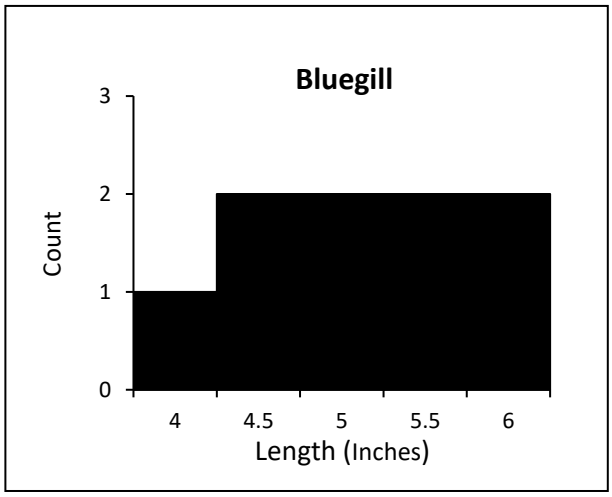

Figure 1: Bluegill catch rates observed in Sunset Bay SEII survey.

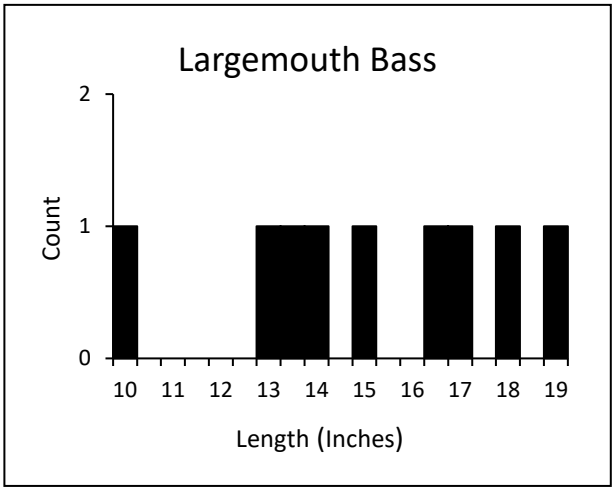

Figure 2: Largemouth bass catch rates observed in Sunset Bay SEII survey.

LARGEMOUTH BASS

A total of 9 largemouth bass were captured. Lengths ranged from 9.6-18.8 inches and average length was 14.8 inches.

# Captured Per Mile= 4.5	
(PSD) Quality Size ≥ 12”	89
(PSD) Preferred Size ≥ 15”	44

Table 2: PSD-Q and PSD-P values for largemouth bass captured in the 2023 survey.

WALLEYE

A total of 21 walleye were captured. Lengths ranged from 15.6-22.1 inches and average length was 18.3 inches.

# Captured Per Mile= 7.5	
(PSD) Quality Size ≥ 15”	47
(RSD) Preferred Size ≥ 20”	20

Table 4: PSD-Q and PSD-P values for walleye captured in the 2023 survey.

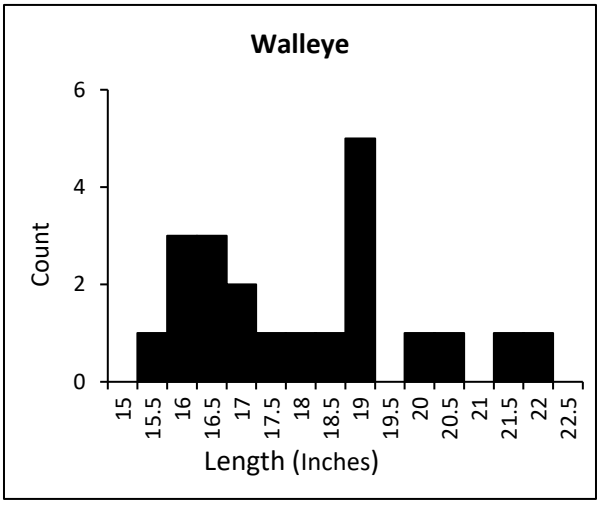

Figure 3: Walleye catch rates observed in Sunset Bay SEII survey

Summary

A total of 54 fish were sampled in this survey, representing 10 different species. Non-game species sampled included common carp, freshwater drum, common shiner and golden shiner. Bluegills were the only native panfish species sampled. Native gamefish species sampled included largemouth bass, smallmouth bass and walleye.

Largemouth bass were the dominant gamefish species captured in our survey and showed slightly higher than average catch rates compared to data collected from 2015. When comparing 2023 SEII data to 2015 SEII data largemouth bass catch rates increased from 2.5 to 4.5 per mile. Average length also slightly increased from 13.4 inches in 2015 to 14.8 inches in this year’s survey. Overall, the largemouth bass population can be characterized as having low-moderate abundance and high size structure compared to statewide averages.

Another gamefish species that is not specifically targeted in this survey but is captured frequently is walleye. Catch rates were significantly lower at 7.5 per mile compared to the catch of 94 per mile in 2015. While having a significant decrease in catch rates, 7.5 walleyes per mile still ranks in the 45th percentile among statewide averages and shows moderate densities. Although catch rates were lower than the 2015 survey, size structure showed very positive results. Average length increased from 10.1 inches in 2015 to 14.4 inches this year. Also, proportional stock density of quality sized fish greater than 15 inches increased from 4 to 47 in this year’s survey compared to 2015 ranking in the 59th percentile among statewide averages. These results indicate moderate size structure for the walleye population.

Bluegill were the only represented panfish species caught in this survey. There was an average catch rate of 18 bluegills per mile in this year's survey increasing from 0 per mile caught in 2015. Average length for bluegills in this year's survey was 5.3 inches while proportional stock density of quality sized fish greater than 6 inches was 22. A psd value of 22 shows a low-moderate size structure for bluegills.

Overall catch rates for both targeted species (largemouth bass and bluegill) were low-moderate in this survey. Ranking in the 26th percentile for largemouth bass and 19th percentile for bluegill among statewide catch per effort averages. The shocking transect for this survey did not provide much suitable spawning habitat for either species. Given the low catch rates and lack of habitat, this site will no longer be sampled for spring electrofishing (SEII) surveys. There are sites on the lake with better spawning habitat that should show a better representation of the largemouth bass and bluegill populations.

Table 1. General fishing regulations for Lake Winnebago, in Winnebago, Fond du Lac, Calumet and Outagamie County, Wisconsin.

SPECIES	SEASON DATES	DAILY BAG LIMIT	SIZE LIMIT
Panfish	Open all year	25	No size limit
Walleye	Open all year	3	No size limit
Northern Pike	May 6, 2023-March 3, 2024	2	26"
Largemouth/Smallmouth Bass	Open all year	5	14"

Acknowledgements

For answers to questions about fisheries management activities on Lake Winnebago, contact:

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Appendix 1. Spring electrofishing II trend data from 2015-2023

2015	Catch/mile	Average Length	Quality PSD	Preferred PSD
Largemouth Bass	2.5	13.4	100	0
Bluegill	0	0	0	0
Black Crappie	2	10.6	100	100
Yellow Perch	0	0	0	0
Walleye	94	10.1	4	1

2023	Catch/mile	Average Length	Quality PSD	Preferred PSD
Largemouth Bass	4.5	14.8	89	44
Bluegill	18	5.3	22	0
Black Crappie	0	0	0	0
Yellow Perch	0	0	0	0
Walleye	7.5	14.4	47	20