



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Fisheries Information Sheet

LAKE: MIDDLE GENESEE

COUNTY: Waukesha

YEAR: 2023

Introduction

On June 9, 2023 the Wisconsin Department of Natural Resources (DNR) conducted a two-person spring electrofishing (SEII) survey on Middle Genesee Lake (WBIC 778300) in Waukesha County. The survey included the entire shoreline (approximately 1.75 miles) and targeted primarily largemouth bass and panfish species. The survey station included 15 minutes of sampling targeting all species encountered and the remaining 45 minutes was targeting gamefish species. Water temperature was 62 degrees Fahrenheit and air temperature was 71 degrees Fahrenheit. Water clarity was moderately clear and the wind was calm, providing for good electrofishing conditions and catchability. The results of the 2023 survey will be compared to similar lakes and the SEII survey the DNR conducted on the lake in 2010.

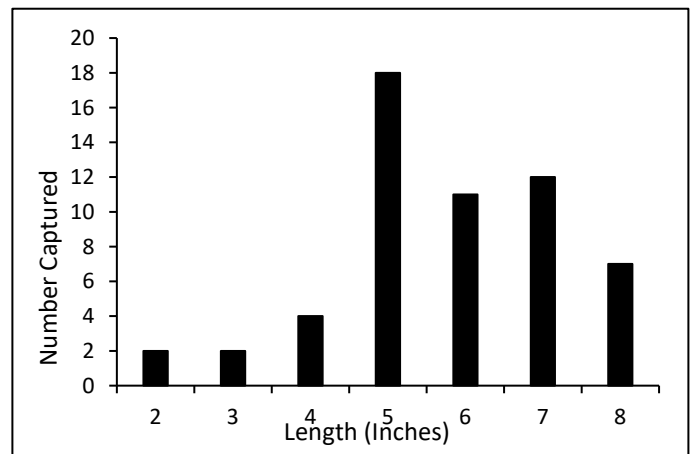
A total of 155 fish were sampled in the survey, representing a moderately diverse fishery of six different species. The only non-game species sampled included yellow bullhead. Native panfish species sampled included bluegill, yellow perch and pumpkinseed. Largemouth bass were the most frequently encountered gamefish showing good size structure with the largest bass sampled being 19.8 inches.

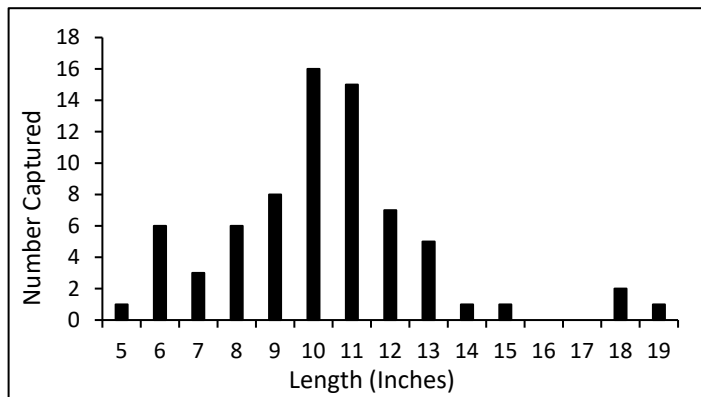
BLUEGILL



A total of 56 bluegill were sampled. Lengths ranged from 2.8 to 8.6 inches and the average length was 6.1 inches.

| | |
|----------------------------------|----|
| # Captured Per Mile = 112 | |
| Quality Size \geq (6 inches) | 30 |
| Preferred Size \geq (8 inches) | 7 |





LARGEMOUTH BASS



A total of 72 largemouth bass were sampled. Lengths ranged from 5.9 to 19.8 inches and average length was 9.7 inches.

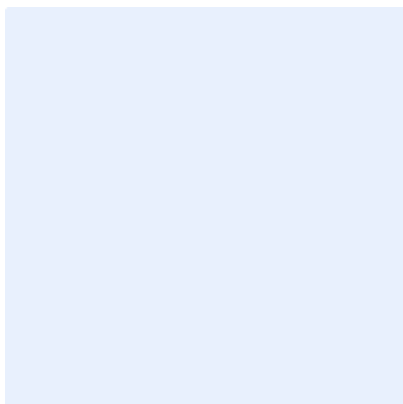
| | |
|-----------------------------------|----|
| # Captured Per Mile = 41.1 | |
| Quality Size \geq (12 inches) | 17 |
| Preferred Size \geq (15 inches) | 4 |

YELLOW PERCH



A total of 4 yellow perch were sampled. Lengths ranged from 3.6 to 8.0 inches and the average length was 5.0 inches.

| | |
|-----------------------------------|---|
| # Captured Per Mile = 10 | |
| Quality Size \geq (8 inches) | 4 |
| Preferred Size \geq (10 inches) | 0 |



NORTHERN PIKE



A total of 3 northern pike measuring 30.1, 27.7 and 17 inches were sampled for an average length of 25.1 inches.

| | |
|-----------------------------------|---|
| # Captured Per Mile = 1.7 | |
| Quality Size \geq (21 inches) | 2 |
| Preferred Size \geq (28 inches) | 1 |

OTHER SPECIES

A total of eighteen yellow bullhead were sampled for a catch rate of 36/mile. Yellow bullhead is a native species and provide ecological services by increasing species diversity, resulting in a more balanced predator-prey relationship in Middle Genesee Lake.

Summary

The overall species diversity present in this survey indicates moderate fisheries habitat potential found in this 98-acre lake. Middle Genesee Lake has a maximum depth of 40 feet deep and extensive littoral habitat including 24% of the surface acreage being less than 3 feet deep. Spawning, nursery, summer and winter habitat is adequate for maintaining naturally reproducing gamefish, panfish and non-game fish species. Catch rates can be confounded by weather conditions, gear and timing, therefore caution should be used when interpreting electrofishing catch rate data.

The 2023 bluegill catch rate of 112 per mile was higher than in 2010 (88 per mile). Bluegill average length slightly increased from 5.6 inches in 2010, to 6.1 inches in 2023. Largemouth bass catch rate was similar between survey years, 41.1 per mile in 2023 and 41.7 per mile in 2010. Largemouth bass average size slightly decreased from 10.4 inches in 2010, to 9.7 inches in 2023. Based on the catch rates and size structure, both largemouth bass and bluegill appear to be naturally reproducing and are very stable with typical levels of variation. The subtle changes in the size structure and abundance are likely limited by the small sample size and the frequency of the two surveys being separated by 13 years.

High levels of nutrients, aquatic plant growth and overall productivity are supporting a moderately abundant largemouth bass and bluegill population with average size structure in Middle Genesee Lake. Periodic changes in fisheries habitat can be driven by several factors including increased frequency and severity of precipitation (directly resulting in increased external nutrient loading), sustained high water levels (as seen in 2013-2020), internal nutrient loading (wind and wave action), warm water temperatures, increased riparian land development and other anthropogenic influences.

Based on these fisheries surveys and the healthy number of native species, the Middle Genesee Lake fishery appears to currently be in a very productive, healthy state. However, continued habitat protection and enhancement will ensure continued sustainability of this important sport fishery.

Table 1. General fishing regulations for Middle Genesee Lake, in Waukesha County, Wisconsin.

| SPECIES | DAILY BAG LIMIT | MINIMUM SIZE LIMIT |
|-----------------|-----------------|--------------------|
| Largemouth bass | 5 | 14 inches |
| Northern pike | 2 | 26 inches |
| Panfish | 25 | No minimum |

Acknowledgements

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

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