## WISCONSIN DEPARTMENT OF NATURAL RESOURCES

## LAKE METONGA 2022-2023 CREEL SURVEY REPORT FOREST COUNTY



Treaty Fisheries Publication

> Created by

Eric Brown \& Jason Halverson DNR Treaty Fisheries Technicians


DEPT. OF NATURAL RESOURCES

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## INTRODUCTION

Fish populations can fluctuate due to a variety of factors including natural forces like climate, reproductive success, predation and competition. Human activities such as fish harvest, stocking, habitat change and invasive species introduction can also have significant impacts. The Wisconsin Department of Natural Resources (DNR) fisheries crews regularly conduct fishery surveys on lakes and reservoirs to gather the information needed to monitor changes, identify concerns, evaluate past management actions and to prescribe fishery management strategies. Netting and electrofishing surveys are used to gather data on the status of fish populations and communities, measuring such parameters as species composition, population size, reproductive success, size and age distribution and growth rates. Harvest is another key component of fisheries that we need to measure.

On many lakes in the Ceded Territory of northern Wisconsin, harvest of fish is divided between sport anglers and the six Ojibwe bands who harvest fish under rights reserved by federal treaties. The tribes harvest fish primarily using spearing, a highly efficient method, during a relatively short time in the spring. Every fish in the spear harvest is counted and reported, creating a complete census of the harvest.

We also measure the sport angler harvest to assess its impact on the fishery. It would be highly impractical and very costly to conduct a complete census of every angler who fishes on a lake, so we conduct creel surveys instead.

A creel survey is an assessment tool used to sample the fishing activities of anglers on a body of water to make estimates of harvest and other fishery parameters. Creel survey clerks work on randomly-selected days and shifts, forty hours per week. The survey is conducted during daylight hours throughout the open season for gamefish from the first Saturday in May through the first Sunday in

March. Creel surveys are not conducted in November when fishing effort is low and ice conditions are often unsafe.

Creel survey clerks travel their lakes using a boat or snowmobile to count the number of anglers at predetermined times and to interview anglers who have completed their fishing trip. Data are collected on what species they fished for, catch, harvest, lengths of fish harvested, marks (fin clips or tags) and hours of fishing effort. Collecting completedtrip data provides the most accurate assessment of angling activities, and it avoids the need to disturb anglers while they are fishing.

A computer program is used to estimate catch and harvest of each species, catch and harvest rates and fishing effort by month, as well as for the year in total. Keep in mind that these are estimates based on the best information available and not a complete accounting of effort, catch and harvest. Accurate estimates require that we sample a sufficient and representative portion of the angling activity on a lake. The accuracy of creel survey results depends on good cooperation and truthful responses by anglers when a creel clerk interviews them.

You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

This report provides estimates of: 1. Overall fishing effort (pressure)
2. Fishing effort directed at each species
3. Numbers of fish caught and harvested
4. Catch and harvest rates

Also included are a physical description of Lake Metonga, discussion of results of the survey and detailed summaries by species of fishing effort, catch and harvest.


## LOCATION

Lake Metonga is located in Forest County near the town of Crandon.

## PHYSICAL CHARACTERISTICS

Lake Metonga is a 1,991-acre drainage lake with a maximum depth of 79 feet. Littoral substrate consists primarily of sand and gravel, with lesser amounts of muck and rocks. Lake Metonga contains slightly alkaline, clear water of very high transparency.

## SEASONS SURVEYED

The period referred to in this report as the 2022-23 fishing season ran from May 7, 2022 through March 5, 2023. The summer creel survey ran from May 7 through Oct. 31, 2022, and the winter creel survey ran from Dec. 1, 2022 through March 5, 2023.

## WEATHER

Ice-out on Lake Metonga was during early May 2022. Fishable ice formed on Lake Metonga in mid-December 2022.

## FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Lake Metonga during the 2022-23 fishing season:

| SPECIES | SEASON | BAG <br> LIMIT | MIN. <br> SIZE |
| :--- | :---: | :---: | :---: |
| Largemouth Bass | $5 / 07-3 / 05$ | $5^{*}$ | $14^{\prime \prime}$ |
| Smallmouth Bass | $5 / 07-6 / 17$ | Catch\&Release |  |
|  | $6 / 18-3 / 05$ | $5^{\star}$ | $14^{\prime \prime}$ |
| *Bass species have a combined bag limit of 5. |  |  |  |
| Northern Pike | $5 / 07-3 / 05$ | 5 | None |
| Walleye | $5 / 07-3 / 05$ | 3 | $15 "$ |
|  | $20 "-24 "$ Protected Sot, 1>24" |  |  |
|  | Open all year | 25 | None |
| Rock Bass | Open all year | None | None |

## SPECIES CATCH AND HARVEST INFORMATION

Summaries of angling effort, catch and harvest information for each species are in Table 2 and Figures 1-10, along with a comparison of these statistics with the previous creel survey in Table 2. Information about species with fishing seasons extending beyond March 5, 2023 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

## 1. DIRECTED FISHING EFFORT

Estimated number of hours during each month that anglers spent fishing for a species.
2. TOTAL CATCH AND HARVEST

Estimated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.
3. SPECIFIC CATCH AND HARVEST RATES

Estimated number of hours it takes an angler to catch or harvest a fish of the indicated species. Only information from anglers who were specifically targeting that species is reported.

## 4. LENGTH DISTRIBUTION OF HARVESTED

 FISHAll fish of a species that were measured by the clerk during the entire creel survey season.

## 5. LARGEST AND AVERAGE LENGTH OF HARVESTED FISH

Largest and average (mean) length of a species of fish harvested. Only fish measured by the creel survey clerk are reported.

## CREEL SURVEY RESULTS AND DISCUSSION

## SURVEY LOGISTICS

We encountered no unusual problems conducting the survey or calculating the
projections contained in the report. This was the eleventh time the DNR conducted a creel survey on Lake Metonga. The last creel survey took place during 2019-20.

## GENERAL ANGLER INFORMATION

Anglers spent 29,326 hours, or 14.7 hours per acre, fishing Lake Metonga during the 2022-23 season (Table 1). That was significantly less than the Forest County average of 25.2 hours per acre and less than the fishing effort documented during the 2019-20 creel survey (21.8 hours per acre). This was mainly due to a large drop in yellow perch effort. January was the most heavily fished month ( 5,257 hours). Creel clerks were able to conduct 547 interviews throughout the survey.

## RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1) Walleyes received the most fishing effort of any gamefish species during the season. Anglers spent 8,440 hours targeting walleyes. Fishing effort for walleye was highest in July (1,404 hours). Total catch of walleye was 1,512 fish, and total harvest was 286 fish. Highest catch (406 fish), and highest harvest (108 fish) occurred in August. Anglers fished an estimated 8.0 hours to catch and 32.9 hours to harvest a walleye during the survey. Mean length of harvested walleye was 17.6 inches, and the largest measured was a 27.2 -inch fish.

## NORTHERN PIKE (Table 2, Figure 2)

Fishing effort directed at northern pike was 1,611 hours during the season. Northern pike fishing effort was greatest in January (575 hours). Total catch of northern pike was 426 fish, and total harvest was 53 fish. Anglers fished an estimated 16.3 hours to catch a northern pike during the survey. Mean length of harvested northern pike was 31.1 inches, and the largest measured was 36.2 inches.

## SMALLMOUTH BASS (Table 2, Figure 3)

 Fishing effort targeted at smallmouth bass was 6,238 hours during the season. Smallmouth bass fishing effort was greatest in June ( 1,893 hours). Total catch of smallmouth bass was 4,085 fish, with 18 fish harvested. Highest catch (937 fish) occurred inMay. Anglers fished an estimated 1.9 hours to catch a smallmouth bass during the survey. The largest smallmouth bass measured was 19.6 inches.

LARGEMOUTH BASS (Table 2, Figure 4) Fishing effort directed at largemouth bass was 1,197 hours during the season. Largemouth bass fishing effort was greatest in June ( 447 hours). Total catch of largemouth bass was 74 fish, with no documented harvest. The highest catch ( 27 fish) occurred in August. Anglers fished an estimated 41.9 hours to catch a largemouth bass during the survey.

## YELLOW PERCH (Table 2, Figure 5)

Yellow perch were the most sought after panfish species during the survey. Fishing effort directed at yellow perch was 17,109 hours. Total catch of yellow perch was 32,361 fish, and total harvest was 7,519 fish. The mean length of harvested yellow perch was 8.2 inches, and the largest measured was 12.4 inches.

## BLUEGILL (Table 2, Figure 6)

Bluegills received 782 hours of directed fishing effort. Total catch of bluegill was 323 fish, and total harvest was 170 fish. Mean length of bluegills harvested was 7.2 inches.

## BLACK CRAPPIE (Table 2, Figure 7)

Black crappie received 1,204 hours of directed fishing effort. Anglers caught 13 black crappies and harvested 10 fish. Mean length of black crappies harvested was 10.9 inches.

## PUMPKINSEED (Table 2, Figure 8)

Pumpkinseeds received no directed fishing effort during the survey. However, anglers caught 60 pumpkinseeds and harvested five fish.

## ROCK BASS (Table 2, Figure 9)

Rock bass received only 20 hours of directed fishing effort. Anglers caught 46 rock bass and harvested 25 fish. Mean length of rock bass harvested was 6.6 inches.

BULLHEAD SPECIES (Table 2, Figure 10) Bullhead species received only 38 hours of
directed fishing effort. Total catch of bullhead species was 961 fish, and total harvest was 797 fish.

## OTHER SPECIES

Creek chub, golden shiner, mottled sculpin and white sucker were also caught in low numbers. There was no targeted fishing effort directed towards these species.

## ACKNOWLEDGMENTS

The DNR would like to thank all the anglers who took the time to offer information about their fishing trip to the survey clerk. The survey would not have been possible without their cooperation.

We also thank our cooperators, Dewey \& Elaine Karcz and Lloyd Kanzenbach, who generously allowed the DNR to keep a boat and/ or snowmobile on their properties during the survey.

Completion of this survey was possible because of the efforts of the following DNR fisheries management and treaty fisheries staff: John Kubisiak, Lawrence Eslinger, Joelle Underwood, Jason Halverson, Eric Brown, Mark Love and Bob Consolo. Creel clerks on Lake Metonga during the survey period were Shannon Morrell, Richie Klett and Joel Mommaerts.

Additional copies of this report, and those covering other local lakes, can be obtained from the DNR Woodruff Service Center or online at:
http:// dnr.wisconsin.gov/ topic/ Fishing/ north trtycrlsrvys.html

Table 1. Sportfishing effort summary, Lake Metonga, 2022-23 season; compared to 2019-20 creel results, Forest County averages and Ceded Territory averages.

| Month | Number of <br> Angler Party <br> Interviews | Total Angler <br> Hours | Total Angler <br> Hours/ Acre | 2019-20 <br> Total Angler <br> Hours/Acre | Forest <br> County <br> Average <br> Hours/Acre | Ceded <br> Territory <br> Average <br> Hours/Acre |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| May | 81 | 2,486 | 1.2 | 1.0 | 3.5 | 4.7 |
| June | 76 | 3,280 | 1.6 | 1.5 | 4.2 | 6.1 |
| July | 119 | 4,547 | 2.3 | 2.1 | 4.9 | 6.5 |
| August | 91 | 4,695 | 2.4 | 2.4 | 4.0 | 5.1 |
| September | 75 | 3,290 | 1.7 | 2.3 | 2.3 | 3.2 |
| October | 66 | 1,305 | 0.7 | 0.9 | 0.8 | 1.4 |
| December | 6 | 1,194 | 0.6 | 0.9 | 1.2 | 1.0 |
| January | 11 | 5,257 | 2.6 | 4.2 | 2.2 | 1.7 |
| February | 19 | 2,772 | 1.4 | 6.1 | 1.9 | 1.6 |
| March | 3 | 500 | 0.3 | 0.4 | 0.2 | 0.2 |
| Summer Total | 508 | 19,603 | 9.8 | 10.2 | 19.8 | 26.9 |
| Winter Total | 39 | 9,723 | 4.9 | 11.6 | 5.5 | 4.6 |
| Grand Total | 547 | 29,326 | 14.7 | 21.8 | 25.2 | 31.2 |

Note: Summer is May-October; Winter is December-March
Number of Angler Party Interviews is the number of groups of anglers interviewed by the creel clerk. A party is considered the members of a group who fish together in the same boat, ice shanty or from shore. The clerk fills out one interview form for each group of anglers. The number of individual anglers actually contacted by the clerk is usually much greater than the number of groups listed in this table since most groups consist of more than one angler.

Total Angler Hours is the estimated total number of hours that anglers spent fishing on Lake Metonga during each month surveyed.

Total Angler Hours/ Acre is the total angler hours divided by the area of the lake in acres. This is useful in order to compare effort on Lake Metonga to other lakes.

2019-20 Total Angler Hours/ Acre is the total angler hours divided by the area of the lake in acres. This is from the previous creel survey that took place on Lake Metonga.

County Average Hours/ Acre is the average angler effort in hours per acre for county lakes that have been surveyed since 1990. This value is useful for fishing pressure comparisons with other waters.

Ceded Territory Average Hours/ Acre is the average angler effort in hours per acre for inland lakes in the Ceded Territory that have been surveyed since 1990. This value can be used to compare Lake Metonga to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Lake Metonga, 2022-23 and 2019-2020 fishing seasons.
CREEL YEAR: 2022-23

| SPECIES | DIRECTED EFFORT (Hours) | PERCENT <br> OF TOTAL | TOTAL CATCH | SPECIFIC <br> CATCH <br> RATE <br> (Hours/ Fish) | TOTAL HARVEST | SPECIFIC <br> HARVEST <br> RATE <br> (Hours/ Fish) | MEAN LENGTH OF HARVESTED FISH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 8,440 | 23.0\% | 1,512 | 8.0 | 286 | 32.9 | 17.6 |
| Northern Pike | 1,611 | 4.4\% | 426 | 16.3 | 53 | 78.6 | 31.1 |
| Smallmouth Bass | 6,238 | 17.0\% | 4,085 | 1.9 | 18 | 1,807.5 | 18.1 |
| Largemouth Bass | 1,197 | 3.3\% | 74 | 41.9 | 0 | * | ** |
| Yellow Perch | 17,109 | 46.7\% | 32,361 | 0.5 | 7,519 | 2.3 | 8.2 |
| Bluegill | 782 | 2.1\% | 323 | 4.2 | 170 | 10.6 | 7.2 |
| Black Crappie | 1,204 | 3.3\% | 13 | 348.9 | 10 | * | 10.9 |
| Pumpkinseed | 0 | 0.0\% | 60 | 0.0 | 5 | * | 6.7 |
| Rock Bass | 20 | 0.1\% | 46 | 0.8 | 25 | 0.8 | 6.6 |
| Bullhead Species | 38 | 0.1\% | 961 | 1.9 | 797 | * | 11.3 |
| Creek Chub | 0 | 0.0\% | 63 | 0.0 | 0 | * | ** |
| Golden Shiner | 0 | 0.0\% | 5 | 0.0 | 0 | * | ** |
| Mottled Sculpin | 0 | 0.0\% | 9 | 0.0 | 9 | * | ** |
| White Sucker | 0 | 0.0\% | 3 | 0.0 | 0 | * | ** |

の) CREEL YEAR: 2019-20

| SPECIES | DIRECTED EFFORT (Hours) | PERCENT <br> OF TOTAL | TOTAL CATCH | SPECIFIC <br> CATCH <br> RATE <br> (Hours/ Fish) | TOTAL HARVEST | SPECIFIC <br> HARVEST <br> RATE <br> (Hours/ Fish) | MEAN LENGTH OF HARVESTED FISH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 5,113 | 11.0\% | 4,303 | 6.7 | 211 | 26.4 | 17.2 |
| Northern Pike | 908 | 1.9\% | 235 | 6.9 | 56 | 20.0 | 27.7 |
| Smallmouth Bass | 3,561 | 7.6\% | 4,411 | 1.3 | 59 | 130.5 | 18.6 |
| Largemouth Bass | 135 | 0.3\% | 46 | 7.1 | 0 | * | ** |
| Yellow Perch | 36,450 | 78.2\% | 147,196 | 0.3 | 56,238 | 0.7 | 8.7 |
| Bluegill | 257 | 0.6\% | 58 | * | 11 | * | 7.3 |
| Black Crappie | 133 | 0.3\% | 0 | * | 0 | * | ** |
| Pumpkinseed | 0 | 0.0\% | 31 | * | 0 | * | ** |
| Rock Bass | 31 | 0.1\% | 118 | * | 0 | * | ** |
| Bullhead Species | 6 | 0.0\% | 2,531 | 2.3 | 230 | * | ** |

Note: If a species is not shown in a table, no data was collected by the creel clerks for that species.

* Indicates that no fish of this species were caught or harvested (depending on the column) by anglers who specifically targeted this species.
** Indicates that no fish were measured by the creel clerks for this species.


## WALLEYE



Figure 1. Walleye fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.


Figure 2. Northern pike fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.


Figure 3. Smallmouth bass fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.

## LARGEMOUTH BASS






Figure 4. Largemouth bass fishing effort, catch and harvest, Lake Metonga, during 2022-23.

## YELLOW PERCH



Figure 5. Yellow perch fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.

BLUEGILL



TOTAL CATCH AND HARVEST



LENGTH DISTRIBUTION OF HARVESTED FISH


LARGEST AND AVERAGE LENGTH OF HARVESTED FISH


Figure 6. Bluegill fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.

## BLACK CRAPPIE



$\omega$



LENGTH DISTRIBUTION OF HARVESTED FISH


Figure 7. Black crappie fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.


TOTAL CATCH AND HARVEST


LENGTH DISTRIBUTION OF HARVESTED FISH


Figure 8. Pumpkinseed catch, harvest and length distribution, Lake Metonga, during 2022-23.


Figure 9. Rock bass fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.


Figure 10. Bullhead species fishing effort, catch, harvest and length distribution, Lake Metonga, during 2022-23.


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    Wisconsin Department of Natural Resources
    101 S. Webster Street, Madison, Wisconsin 53707
    https:// www.dnr.wisconsin.gov
    Cover Art: Steve Hilt, Portland, OR
    Fish Graphics: Virgil Beck, Stevens Point, WI

