# WISCONSIN DEPARTMENT OF NATURAL RESOURCES CREEL SURVEY REPORT

## **LAKE METONGA**

**FOREST COUNTY** 

2019-20





**Treaty Fisheries Publication** 

Compiled by Jason Halverson & Eric Brown Treaty Fisheries Technicians



### **CONTENTS**

INTRODUCTION	1
GENERAL LAKE INFORMATION	2
Location	2
Physical Characteristics	2
Seasons Surveyed	2
Weather	2
Fishing Regulations	2
SPECIES CATCH AND HARVEST INFORMATION	2
CREEL SURVEY RESULTS AND DISCUSSION	3
Survey Logistics	3
General Angler Information	3
RESULTS BY SPECIES	3
ACKNOWLEDGMENTS	4
SUMMARY TABLES	
Table 1. Sportfishing effort summary Table 2. Creel survey synopses	5
SPECIES CATCH AND HARVEST FIGURES	
Gamefish	
Figure 1. Walleye	7
Figure 2. Northern Pike	8
Figure 3. Smallmouth Bass	ç
Figure 4. Largemouth Bass	10
Panfish	
Figure 5. Yellow Perch	11
Figure 6. Bluegill	12
Figure 7. Rock Bass	13
Other Species	
Figure 8. Bullheads	14

Cover Art: Steve Hilt, Portland, OR Fish Graphics: Virgil Beck, Stevens Point, WI

#### 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. Wisconsin Department of Natural Resources (WDNR) 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. The other key component of the fishery that we often need to measure is harvest.

On many lakes in the Ceded Territory of northern Wisconsin, harvest of fish is divided between sport anglers and the six Chippewa tribes who harvest fish under rights granted by federal treaties. The tribes harvest fish mostly using a highly efficient method, spearing, during a relatively short time period in the spring. Every fish in the spear harvest is counted – a complete "census" of the harvest.

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

A creel survey is an assessment tool used to sample the fishing activities of anglers on a body of water and make projections, or 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 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. The survey is run during daylight hours, and shift times change from month to month as day length changes.

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 completed-trip 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 WDNR 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 WDNR 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.

GENERAL LAKE INFORMATION



#### 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 rock. Lake Metonga contains slightly alkaline, clear water of very high transparency.

#### Seasons Surveyed

The period referred to in this report as the 2019-20 fishing season ran from May 4, 2019 through March 1, 2020. The openwater creel survey ran from May 4 through October 31, 2019, and the ice fishing creel survey ran from December 1, 2020 through March 1, 2020.

#### Weather

Ice-out on Lake Metonga was around

April 30, 2019. Fishable ice formed on Lake Metonga in mid-December.

#### Fishing Regulations

The following seasons, daily bag limits, and length limits were in place on Lake Metonga during the 2019-20 fishing season:

Species	Season	Bag Limit	Min. Size				
Largemouth Bass	5/4-3/1	5	14"				
Smallmouth Bass	5/4-6/14	Catch&Release					
	6/15-3/1	5	14"				
Northern Pike	5/4-3/1	5	none				
Walleye	5/4-3/1	3	15"				
20"-24" Protected Slot, 1>24"							
Panfish	year round	25	none				
Rock Bass	year round	none	none				

## SPECIES CATCH AND HARVEST INFORMATION

Angling effort, catch, and harvest information is summarized for each species in Table 2 and Figures 1-8. Table 2 also includes a comparison of these statistics with the previous creel survey. Information presented about species whose fishing season extends beyond March 1 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

# 1. ESTIMATED FISHING EFFORT Total calculated number of hours during each month that anglers spent fishing for a species.

## 2. ESTIMATED CATCH AND HARVEST

Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

## 3. ESTIMATED SPECIFIC CATCH AND HARVEST RATES

Calculated 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 FISH

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

#### 5. LARGEST AND AVERAGE LENGTH OF HARVESTED FISH

Monthly largest and average length of harvested fish of a species. 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 tenth time the WDNR conducted a creel survey on Lake Metonga. The last creel survey took place in 2016-17.

#### **General Angler Information**

Anglers spent 43,382 hours, or 21.8 hours per acre, fishing Lake Metonga during the 2019-20 season (Table 1). That was less than the Forest County average of 26.4 hours per acre, and more than the fishing effort documented during the 2016-17 creel survey (21.1 hours per acre). February was the most heavily fished month (12,213 hours), and fishing effort was lightest in December (1,726 hours). The creel clerks were able to conduct 1,066 interviews throughout the survey.

#### RESULTS BY SPECIES

#### Walleye (Table 2, Figure 1)

Walleye received the most fishing effort of any gamefish species during the season. Anglers spent 5,113 hours targeting Walleye. The greatest fishing effort for Walleye was in May (1,124 hours). October had the least amount of Walleye fishing effort (57 hours). Total catch of Walleye was 4,303 fish, with a harvest of 211. Highest catch (965 fish) occurred in January, and highest harvest (51 fish) occurred in September. Anglers fished an average of 6.7 hours to catch and 26.4 hours to harvest a Walleye during the survey. The mean length of harvested Walleye was 17.2 inches, and the largest Walleye measured was 19.9 inches.

#### Northern Pike (Table 2, Figure 2)

Fishing effort directed at Northern Pike was 908 hours during the 2019-20 season. Northern Pike fishing effort was greatest in February (485 hours). Total catch of Northern Pike was 235 fish, with a harvest of 56. Anglers fished an average of 6.9 hours to catch a Northern Pike during the survey. The mean length of harvested Northern Pike was 27.7 inches, and the largest measured was 36.5 inches.

#### **Smallmouth Bass** (Table 2, Figure 3)

Fishing effort targeted at Smallmouth Bass was 3,561 hours during the 2019-20 season. Smallmouth Bass fishing effort was greatest in June (1,074 hours). Total catch of Smallmouth Bass was 4,411 fish, with 59 harvested. Highest catch (1,191 fish) occurred in June. Anglers fished an average of 1.3 hours to catch a Smallmouth Bass during the survey. The mean length of harvested Smallmouth Bass was 18.6 inches, and the largest Smallmouth Bass measured was 20.4 inches.

#### **Largemouth Bass** (Table 2, Figure 4)

Fishing effort directed at Largemouth Bass was 135 hours during the 2019-20 season. Largemouth Bass fishing effort was greatest in May (98 hours). Total catch of Largemouth Bass was 46 fish, with no harvest documented. Highest catch (19 fish) occurred in June. Anglers fished an average of 7.1 hours to catch a Largemouth Bass during the survey.

#### Panfish (Table 2, Figures 5-7)

Yellow Perch were the most sought after panfish species during the survey. Fishing effort directed at Yellow Perch was 36,450 hours. Total catch of Yellow Perch was 147,196 fish, with 56,238 being harvested. The mean length of harvested Yellow Perch was 8.7 inches, and the largest measured was a 15.2 inches.

**Bluegill** received 257 hours of directed fishing effort. Total catch of Bluegill was 58 fish, with 11 harvested. The mean length of Bluegill harvested was 7.3 inches.

**Black Crappie** received 133 hours of directed fishing effort. There was no catch or harvest of Black Crappie documented during the survey.

**Pumpkinseed** received no directed fishing effort during the survey; however, anglers caught 31 Pumpkinseed with no harvest documented.

Rock Bass received only 31 hours of directed fishing effort. Anglers caught 118 Rock Bass but there was no harvest documented.

#### Other Species (Table 2, Figure 8)

**Bullheads** received only 6 hours of directed fishing effort. Total catch of Bullheads was 2,531 fish, with 230 harvested.

#### **ACKNOWLEDGMENTS**

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

We also thank our cooperators, Dewey and Elaine Karcz and Tom Konen and Barb Hilbert, who generously allowed the WDNR to keep a boat and/or snowmobile on their property during this survey.

Completion of this survey was possible because of the efforts of the following fisheries management and treaty fisheries staff: Lawrence Eslinger, Jason Halverson, Eric Brown, Bob Consolo, Joelle Underwood, and John Kubisiak. Creel clerks on Lake Metonga during the survey period were Shannon Morrell, Hunter Lamer and Samantha Perius.

This creel report was reviewed by John Kubisiak, Lawrence Eslinger, and Greg Matzke of the WDNR.

Additional copies of this report, and those covering other local lakes, can be obtained from the Woodruff WDNR or online at:

http://dnr.wi.gov/topic/Fishing/north/trtycrlsrvys.html

Table 1. Sportfishing effort summary, Lake Metonga, 2019-20 season. Compared to 2016-17 creel results, Forest County, and Ceded Territory averages.

Month	Number of Angler Party Interviews	Total Angler Hours	Total Angler Hours/Acre	2016-17 Total Angler Hours/Acre	Forest County Average Hours/Acre	Ceded Territory Average Hours/Acre
May	60	2052	1.0	1.6	3.8	4.9
June	65	2995	1.5	2.0	4.5	6.3
July	89	4165	2.1	2.6	5.3	6.7
August	155	4714	2.4	2.3	4.3	5.3
September	144	4547	2.3	2.5	2.4	3.3
October	116	1818	0.9	1.5	0.8	1.5
December	29	1726	0.9	1.6	1.2	1.1
January	138	8274	4.2	3.9	2.2	1.7
February	238	12213	6.1	2.8	1.8	1.6
March	32	880	0.4	0.3	0.2	0.2
*Summer Total	629	20290	10.2	12.5	21.1	27.9
*Winter Total	437	23092	11.6	8.5	5.4	4.6
Grand Total	1066	43382	21.8	21.1	26.4	32.5

<sup>\*&</sup>quot;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.

**2016-17 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.

**Forest County Average Hours/Acre** is the average angler effort in hours per acre for Forest 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, 2019-20 and 2016-17 fishing seasons.

CREEL YEAR: 2019-20

				SPECIFIC		SPECIFIC	MEAN
	DIRECTED			CATCH		HARVEST	LENGTH OF
	EFFORT	PERCENT	TOTAL	RATE	TOTAL	RATE	HARVESTED
SPECIES	(Hours)	OF TOTAL	CATCH	(Hrs/Fish) *	HARVEST	(Hrs/Fish) **	FISH
Walleye	5113	11.0%	4303	6.7	211	26.4	17.2
Northern Pike	908	1.9%	235	6.9	56	20.0	27.7
Smallmouth Bass	3561	7.6%	4411	1.3	59	130.5	18.6
Largemouth Bass	135	0.3%	46	7.1			
Yellow Perch	36450	78.2%	147196	0.3	56238	0.7	8.7
Bluegill	257	0.6%	58		11		7.3
Black Crappie	133	0.3%	0				
Pumpkinseed	0	0.0%	31				
Rock Bass	31	0.1%	118				
Bullhead species	6	0.0%	2531	2.3	230		

<sup>\*</sup> A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

CREEL YEAR: 2016-17

	DIRECTED			SPECIFIC CATCH		SPECIFIC HARVEST	MEAN LENGTH OF
	EFFORT	PERCENT	TOTAL	RATE	TOTAL	RATE	HARVESTED
SPECIES	(Hours)	OF TOTAL	CATCH	(Hrs/Fish)	HARVEST	(Hrs/Fish)	FISH
Walleye	10389	20.9%	2284	5.0	678	15.8	18.3
Northern Pike	2505	5.0%	844	8.0	226	23.3	26.6
Smallmouth Bass	5297	10.7%	6270	1.5	57	322.6	17.9
Largemouth Bass	406	0.8%	300	9.3	4		16.4
Yellow Perch	28863	58.1%	48498	0.6	18556	1.6	9.1
Bluegill	1281	2.6%	84	30.0	22	232.6	8.2
Black Crappie	815	1.6%	8		8		12.9
Pumpkinseed	0	0.0%	70		26		8.7
Rock Bass	90	0.2%	577	0.9	47	2.0	8.9
Black Bullhead	55	0.1%	84	1.4	69	1.4	12.4

<sup>\*\*</sup> A blank cell in this column indicates that no fish of a given species were harvested by anglers who specifically targeted that species.

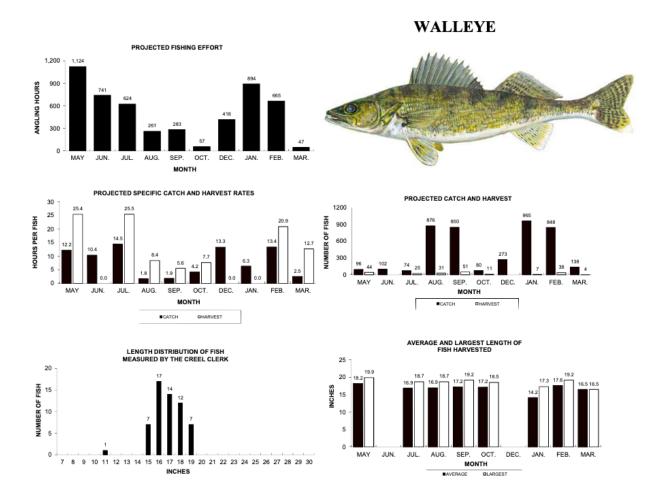


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

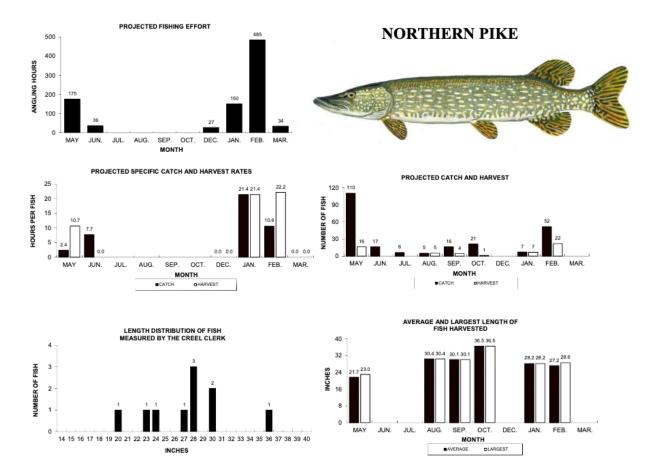
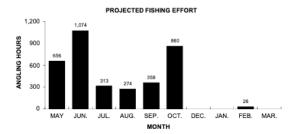
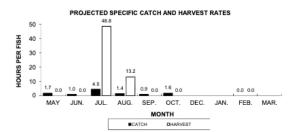


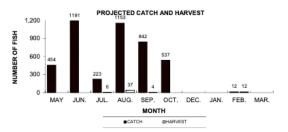
Figure 2. Northern Pike sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

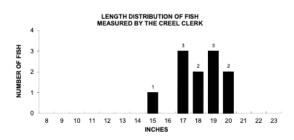
#### **SMALLMOUTH BASS**











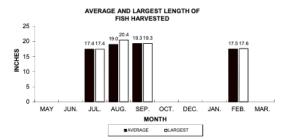


Figure 3. Smallmouth Bass sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

9

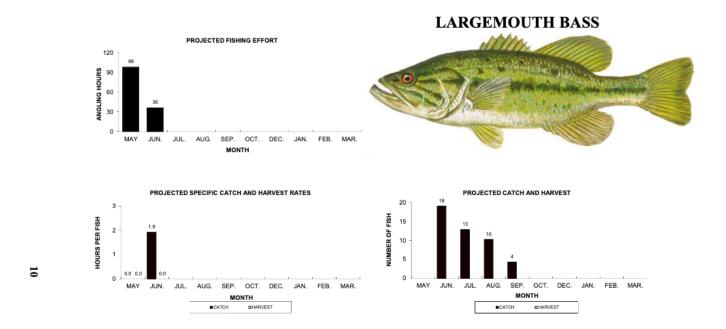


Figure 4. Largemouth Bass sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

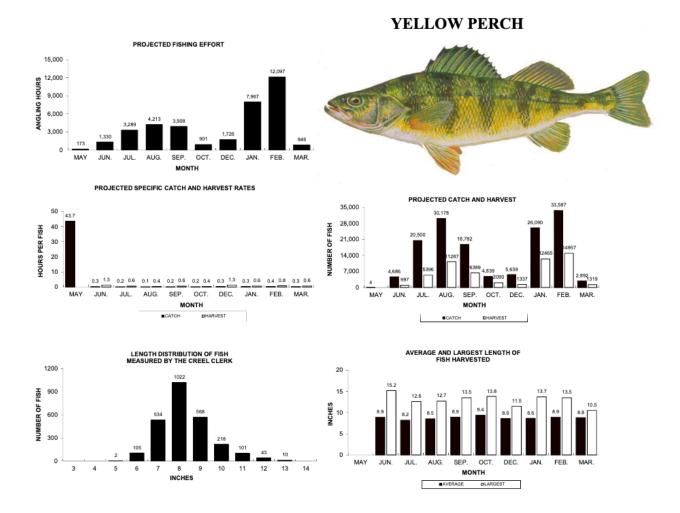


Figure 5. Yellow Perch sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

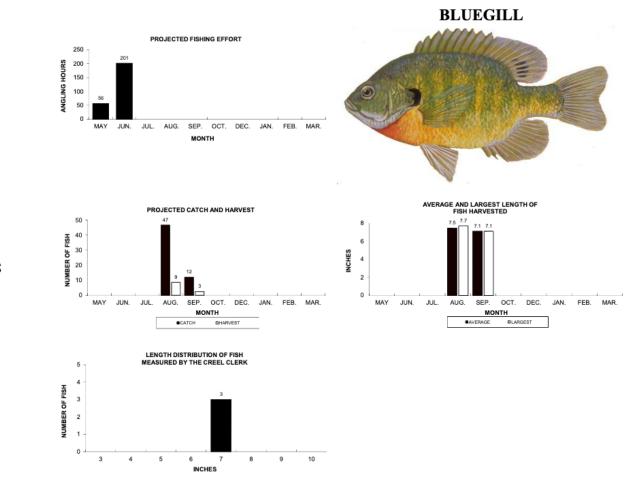


Figure 6. Bluegill sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

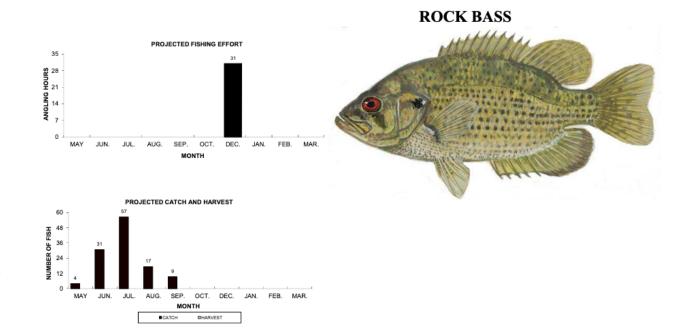


Figure 7. Rock Bass sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

Figure 8. Bullhead sportfishing effort, catch, harvest, and length distribution, Lake Metonga, during 2019-20.

14