WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NAMEKAGON LAKE

2021 – 2022 CREEL SURVEY REPORT

BAYFIELD COUNTY

Treaty Fisheries Publication

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CONTENTS

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INTRODUCTION

The Wisconsin Department of Natural Resources (DNR) regularly conducts fishery surveys on lakes and reservoirs to gather information on species composition, population size, reproductive success, size/age distribution, and growth rates. The information from the netting and electrofishing surveys helps the ~~W~~DNR determine the best management practices for that body of water. Another important aspect of a fishery is the amount of harvest that ~~is occurring~~ on the lake. This information is collected by creel census or creel survey.

On lakes in the Ceded Territory of Wisconsin, harvest of fish is divided between sport anglers and the six Ojibwe tribal bands. The six Ojibwe tribal bands harvest fish under rights governed by federal treaties of 1837 and 1842. Most tribal fish harvest is done by spearing during a short period of time in the spring. All speared fish are individually counted by tribal creel clerks, allowing for a complete "census" of the tribal fish harvest in the spring.

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, a creel survey is conducted to estimate the amount of fish harvested by sports anglers.

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.

A creel survey is a sampling tool used to measure the fishing activities of the sport anglers and to estimate the amount of fish harvested on a body of water. Creel surveys are designed to have a creel clerk on a lake, ~~work~~ random shifts, ~~and~~ forty hours each week throughout the fishing season. Each month these shifts cover a sample of all the daylight hours. Creel clerks travel their lakes using a boat, snowmobile, or vehicle to count and to interview anglers.

The information collected from anglers during the interview includes the species of fish being targeted, catch and harvest, lengths of harvested fish, and hours of fishing effort. Typically, only anglers that have completed their fishing trip are interviewed because it provides the most accurate information~~,~~ and ~~it~~ avoids the need to disturb anglers while they are fishing.

You may have encountered one of the DNR creel clerks on a recent fishing trip. The survey only takes a moment of your time, and we appreciate your cooperation during an interview. The information collected gives the DNR valuable knowledge required for management of the fishery.

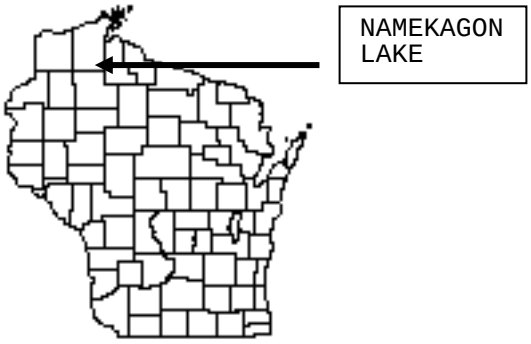
The data collected during the survey is processed by a computer program and summarized by month to calculate estimates of the total fishing pressure, fishing effort directed at each species, catch and harvest rates, and the number of fish caught and harvested.

This creel survey report will provide you with four types of estimated information for this body of water:

1. Overall fishing pressure
2. Fishing effort directed at each species
3. Catch and harvest rates
4. Numbers of fish caught and harvested.

Also included in this report are physical information about the lake, discussion of results of this survey and detailed summaries by species.

GENERAL LAKE INFORMATION



LOCATION

Namekagon Lake is in Bayfield County near the town of Cable.

PHYSICAL CHARACTERISTICS

Namekagon Lake is a 3227-acre drainage lake with a maximum depth of 51 feet. It is the headwaters of the Namekagon River.

SEASONS SURVEYED

The period referred to in this report as the 2021-22 fishing season ran from May 1, 2021 through March 6, 2022. The open-water creel survey ran from May 1 through Oct. 31, 2021 and the ice fishing creel survey ran from Dec. 1, 2021 through March 6, 2022.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Namekagon Lake during the 2021-22 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth Bass	5/1-3/6	5	14"
	C&R all other times of year		
Smallmouth Bass	6/19-3/6	1	18"
	C&R all other times of year		
Musky	5/29-12/31	1	50"
	On open water only		
Northern Pike	5/1-3/6	5	None
Walleye	5/1-3/6	3	15"
	20"-24" Protected Slot, 1>24"		
Panfish	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 1 and Figures 1-11, along with a comparison of these statistics with the previous creel survey in Table 2. Information about species with fishing seasons extending beyond March 7 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **DIRECTED FISHING EFFORT**
   The estimated number of hours during each month that anglers spent fishing for a species.

2. **TOTAL CATCH AND HARVEST**
   The estimated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

3. **SPECIFIC CATCH AND HARVEST RATES**
   The 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 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**
   The largest and average (mean) length of a species of fish harvested. Only fish measured by the creel survey clerk are reported.

ACKNOWLEDGMENTS

The completion of this survey was possible because of the efforts of the following treaty assessment staff: Gene Hatzenbeler, Todd Brecka, Misty Rood, Bill Sobaski, Chance Brown, and Reed Miller. We would especially like to recognize the efforts of our creel clerk Marty Kangas who collected the angler interviews.

The department would like to thank Lakewoods Resort. They generously allowed the department to keep a boat and snowmobile at their property during this survey.

We would also like to thank all the anglers who took the time to offer information about their fishing trip to the survey clerk. Without your cooperation this survey would not have been possible.

Additional copies of this report and those covering other local lakes can be obtained from the treaty fisheries biologist in Spooner or WDNR webpage.

Questions about the report can be directed to
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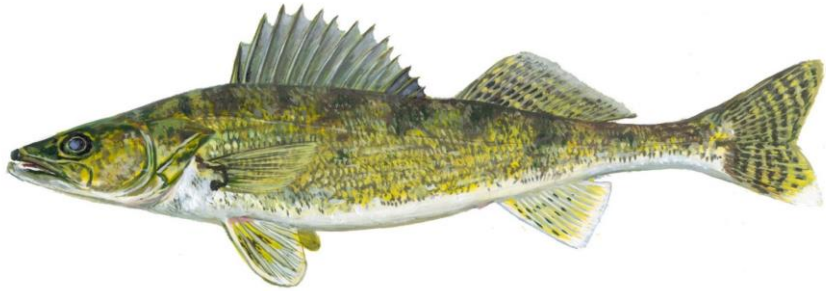
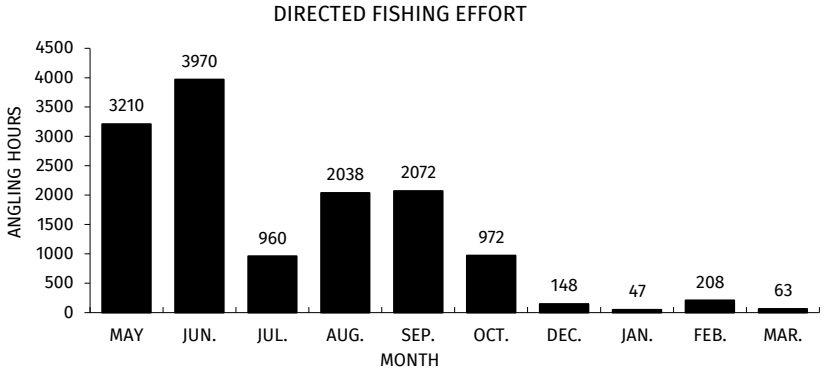
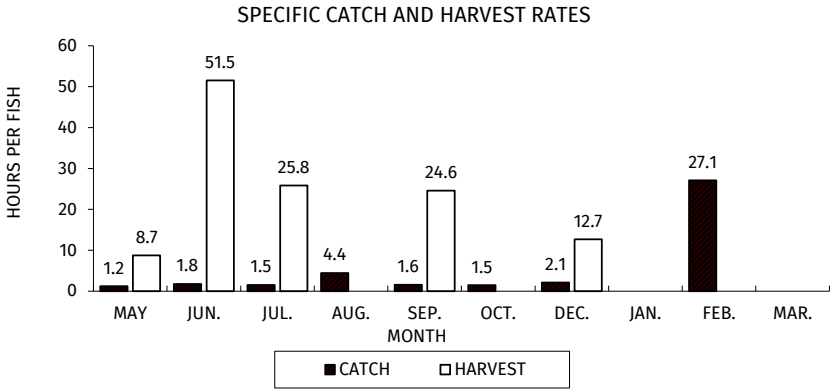
Spooner, WI 54801
Phone: (715)416-5012
Email: Gene.Hatzenbeler@Wisconson.gov

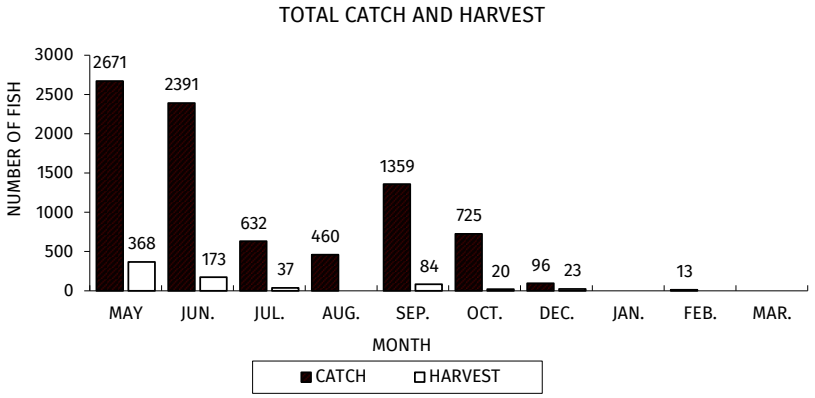
Additional copies of this report and those covering other local lakes, can be obtained from the DNR Spooner Service Center or online at:
http://dnr.wisconsin.gov/topic/Fishing/north/trtycrlsrvys.html

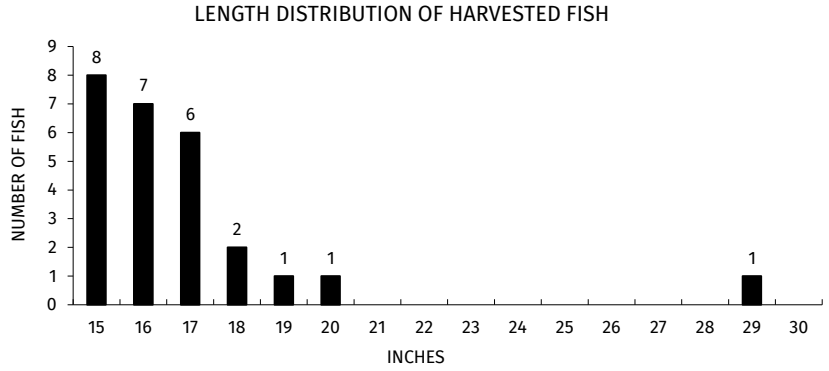
WALLEYE











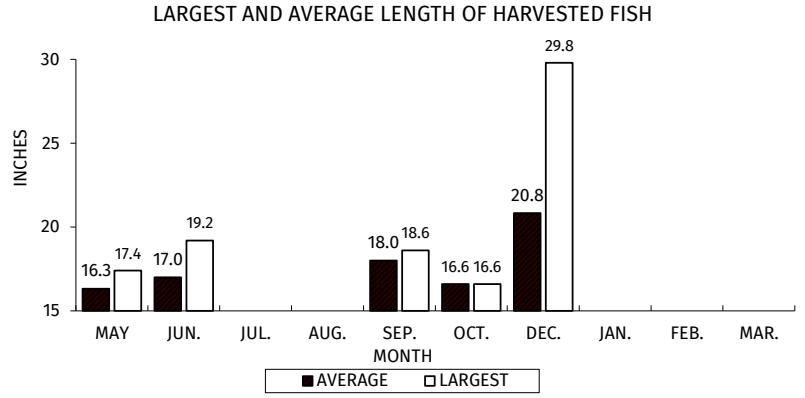


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

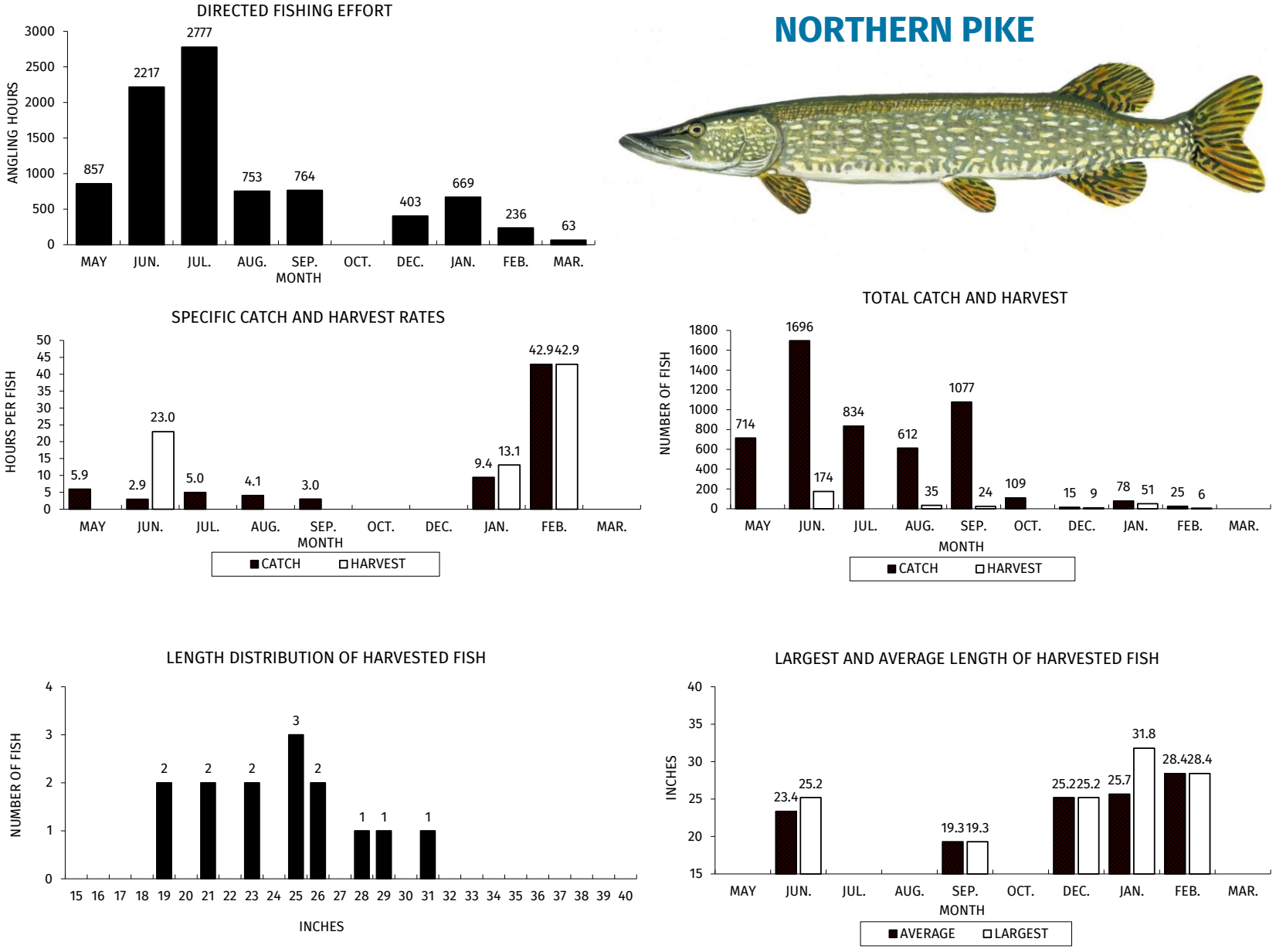


Figure 2. Northern Pike sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

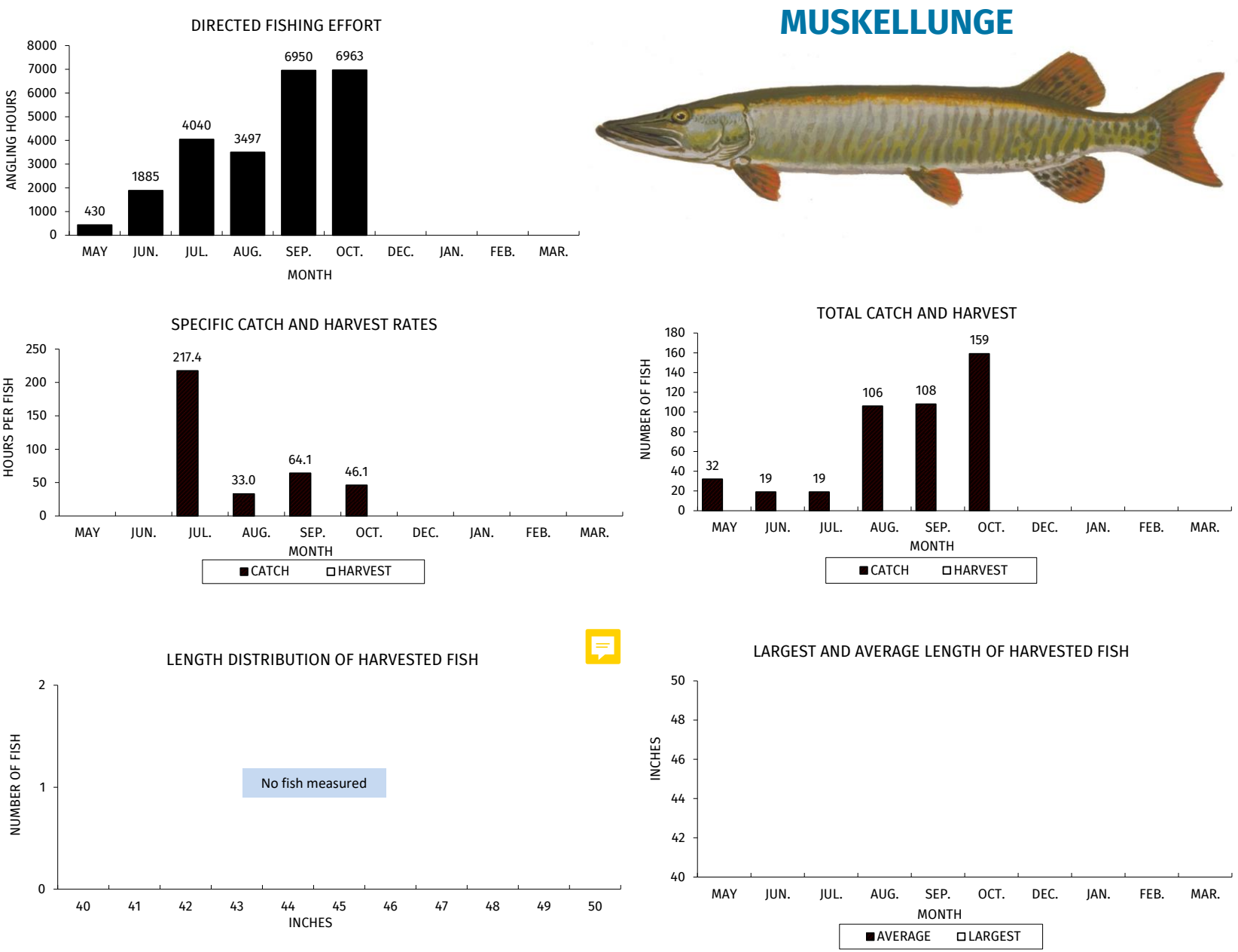
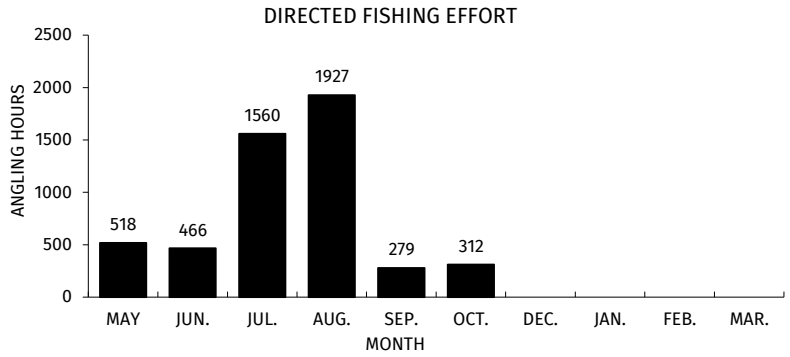
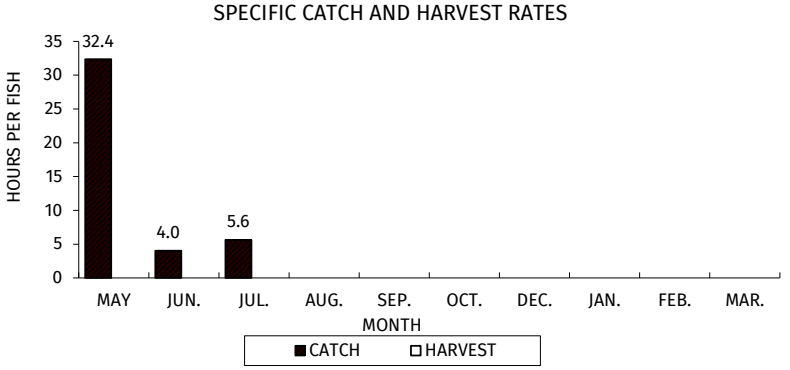
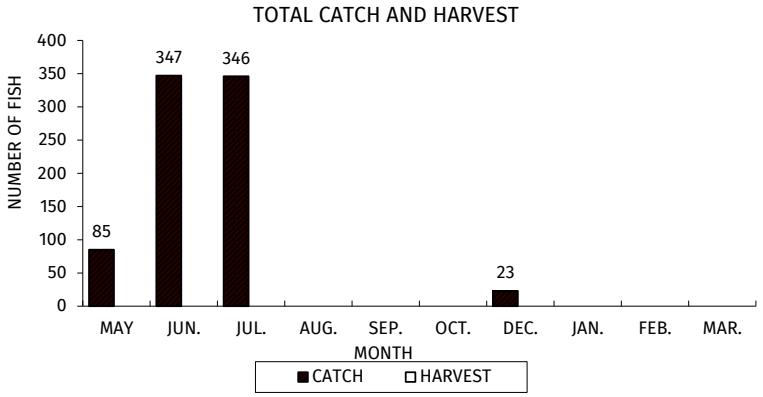


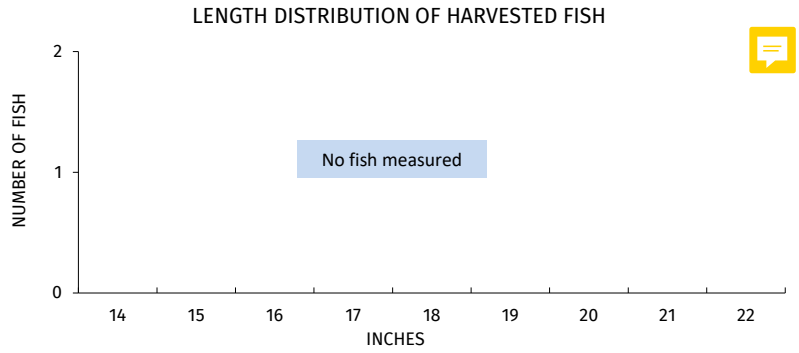
Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

SMALLMOUTH BASS









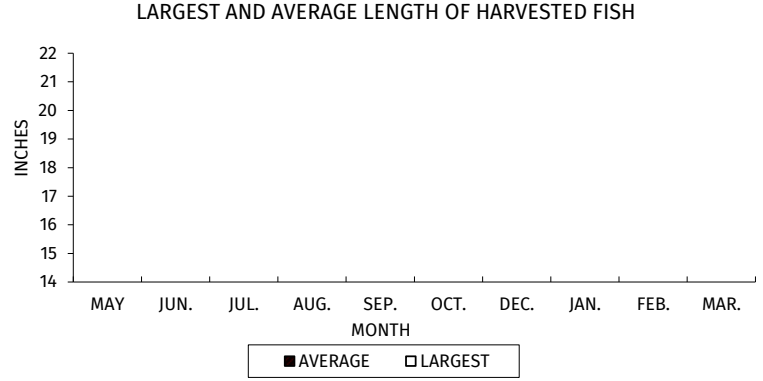
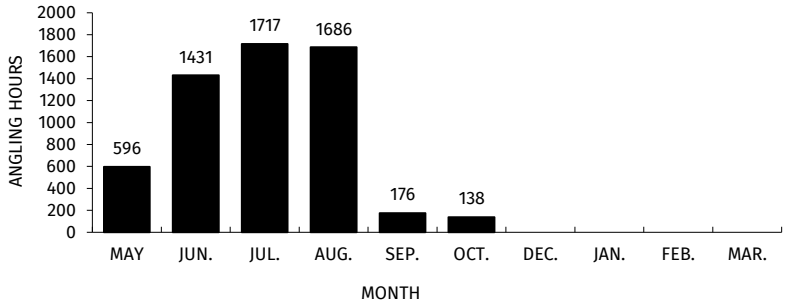
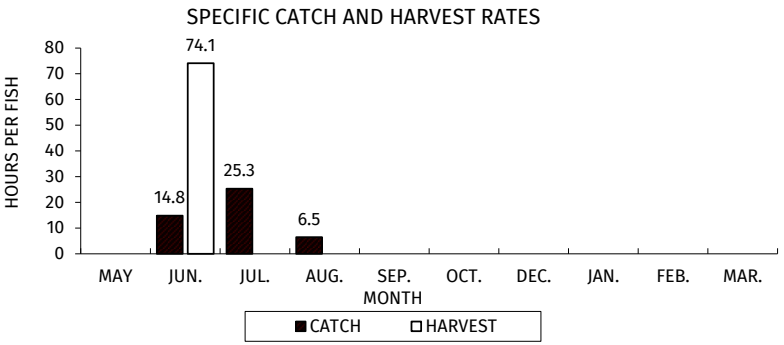
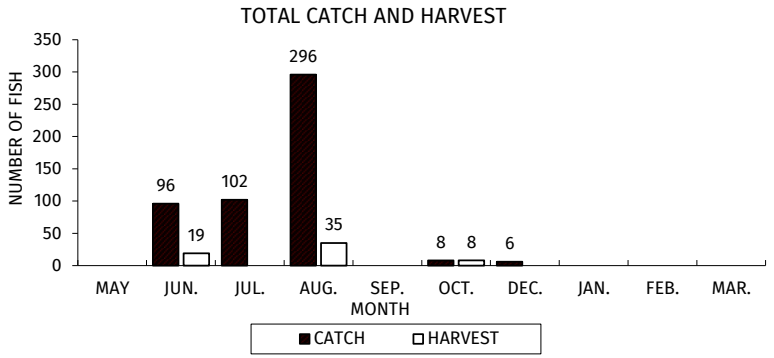


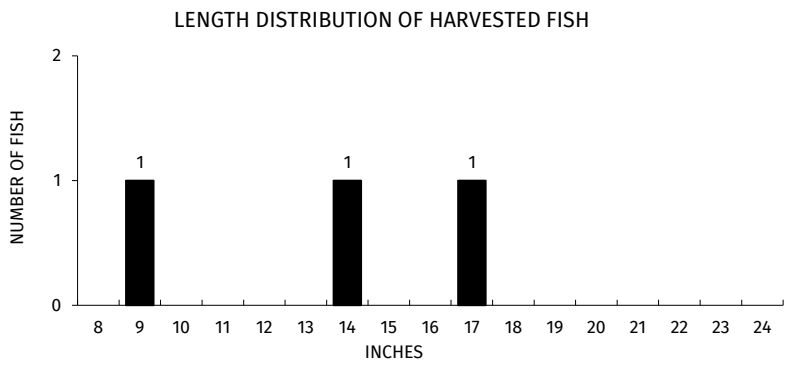
Figure 4. Smallmouth Bass sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

LARGEMOUTH BASS









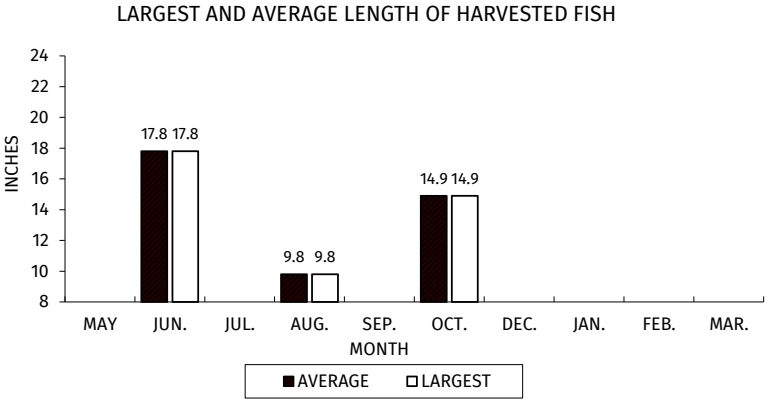
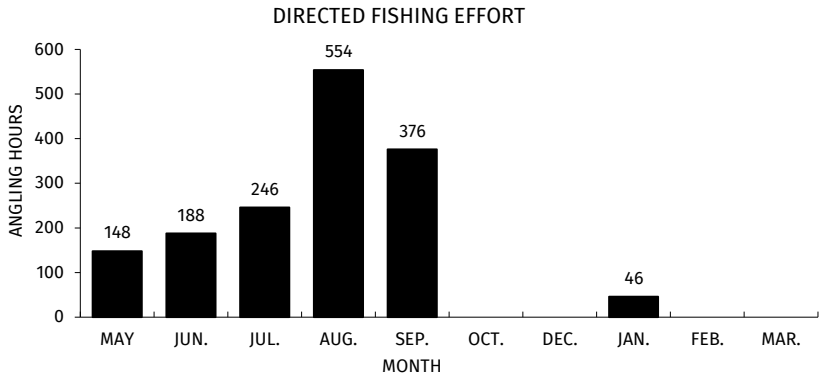
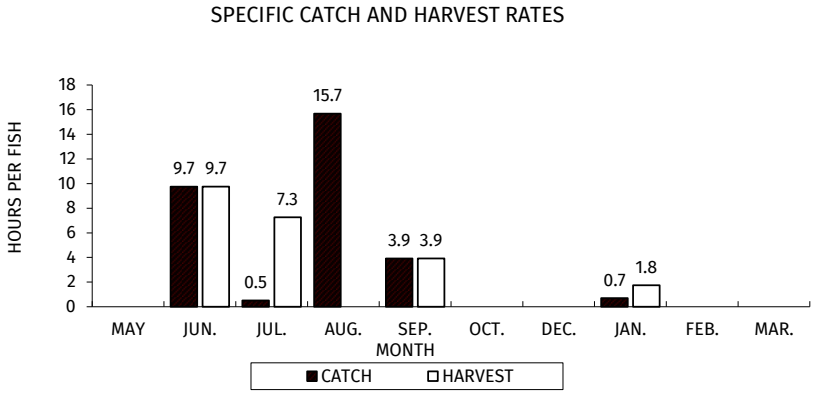
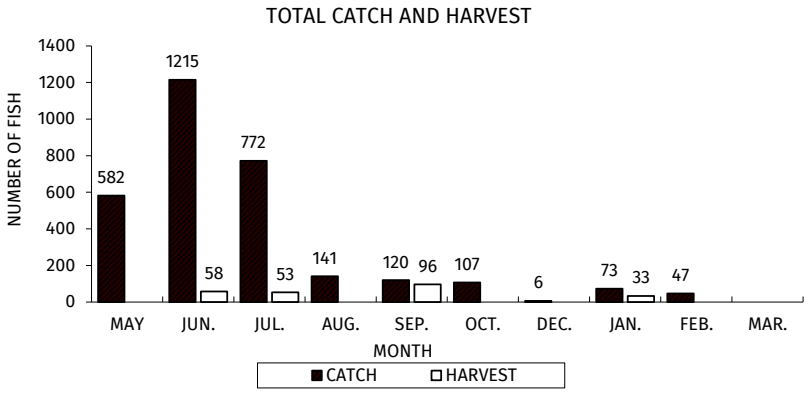


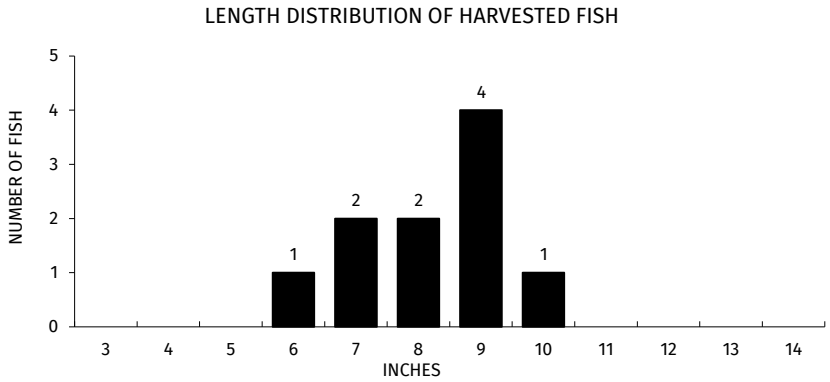
Figure 5. Largemouth Bass sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

YELLOW PERCH









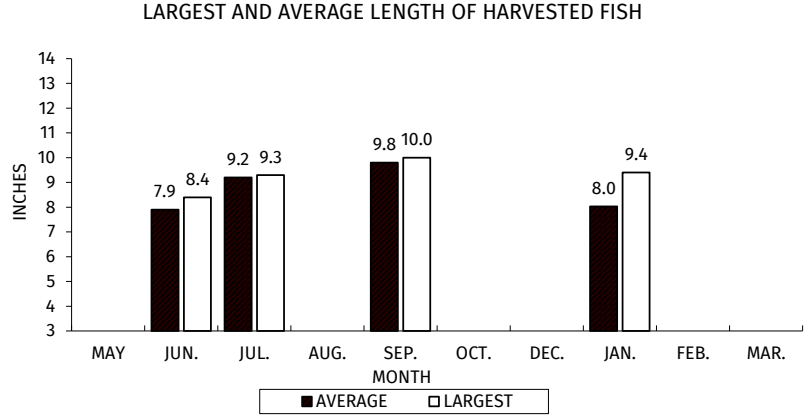


Figure 6. Yellow Perch sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

BLUEGILL

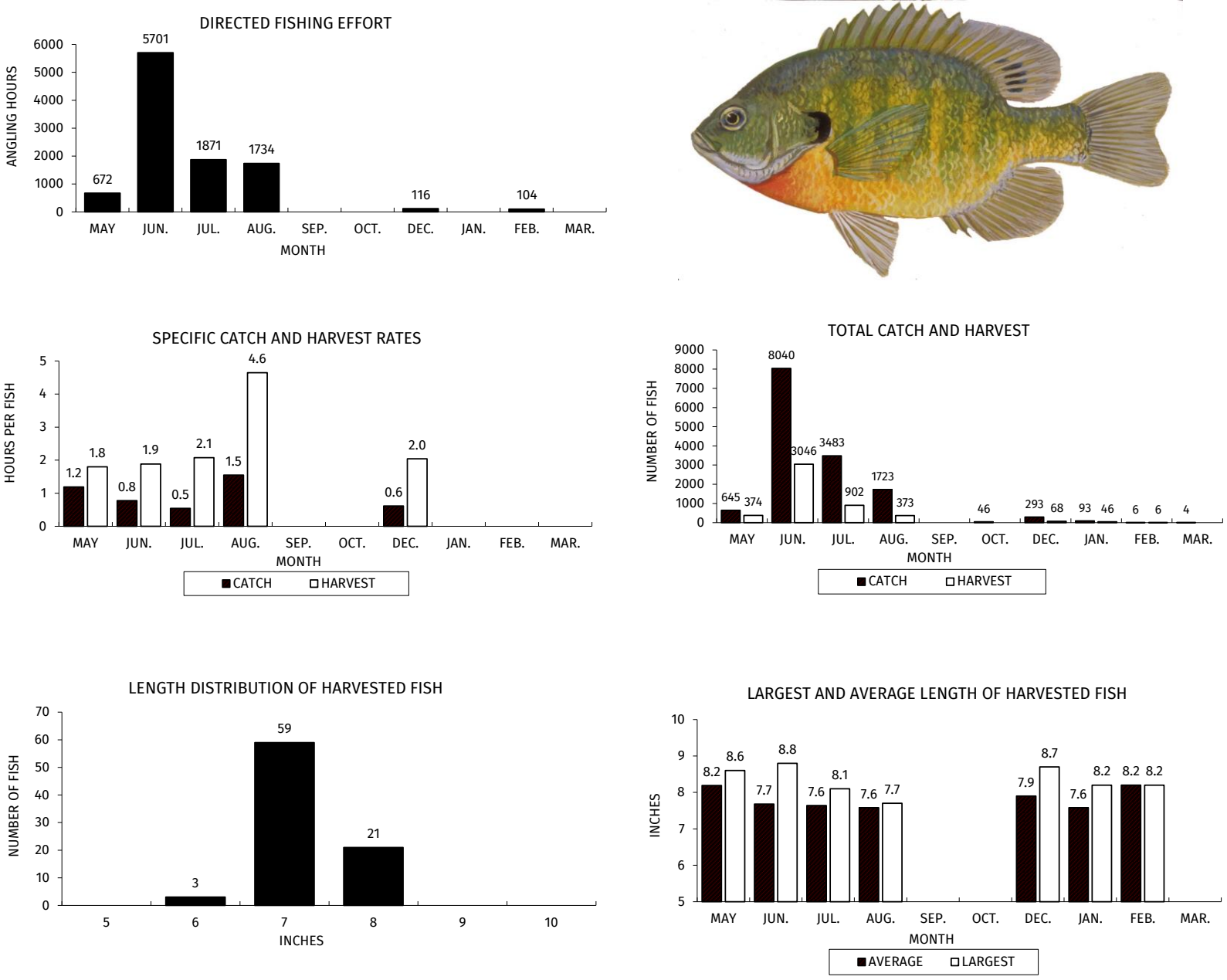
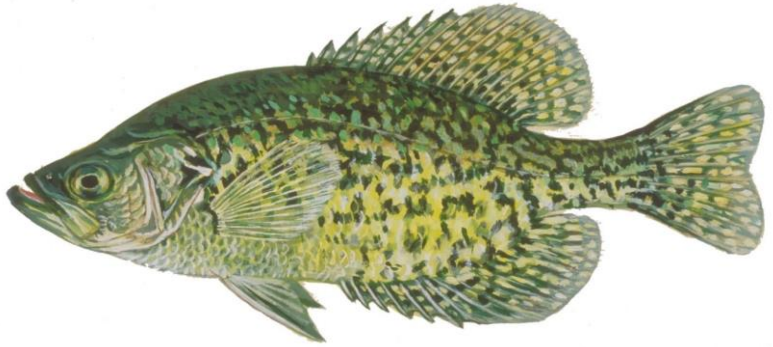
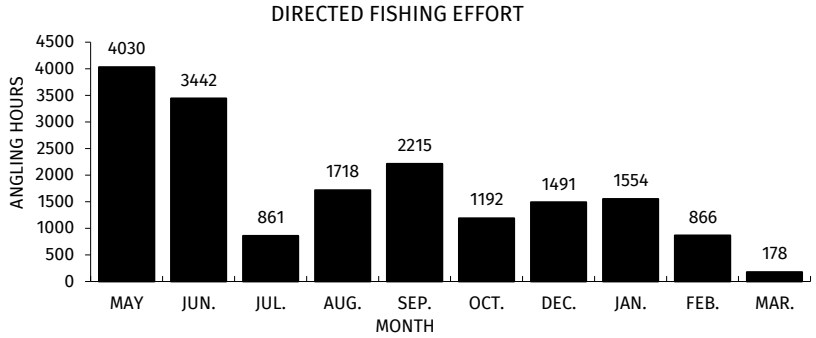
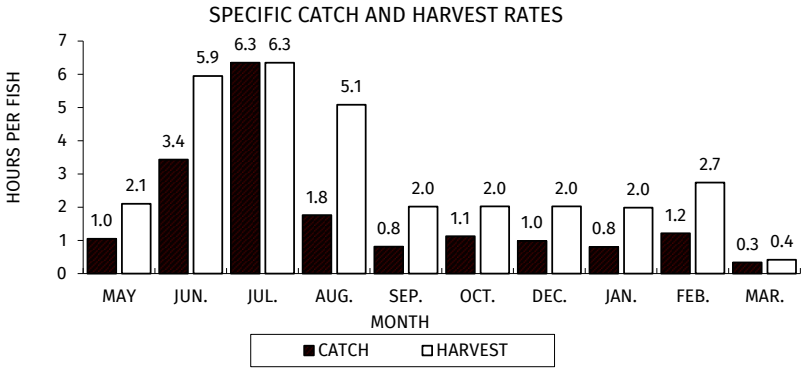


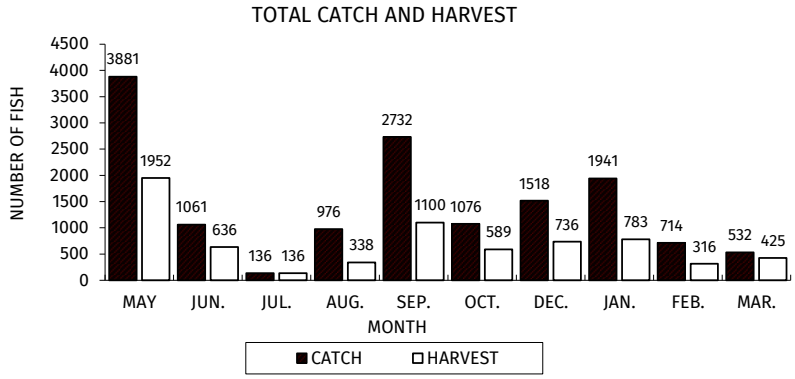
Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

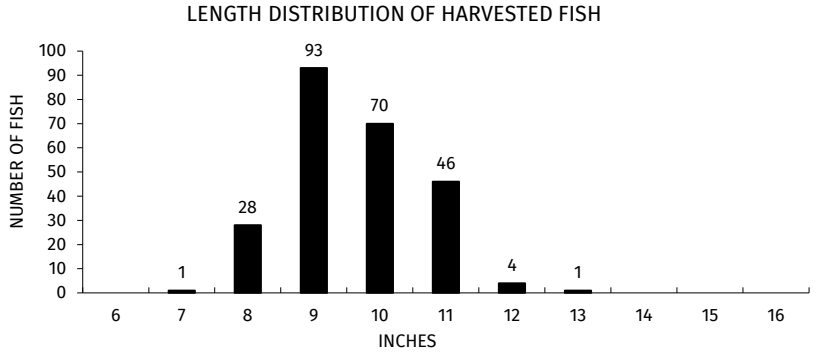
BLACK CRAPPIE











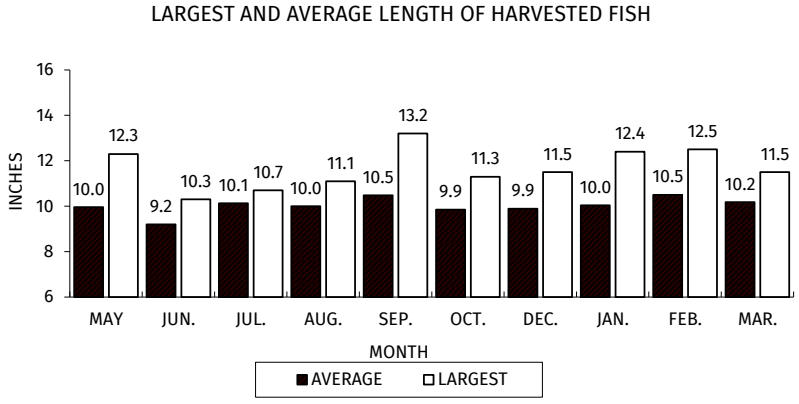
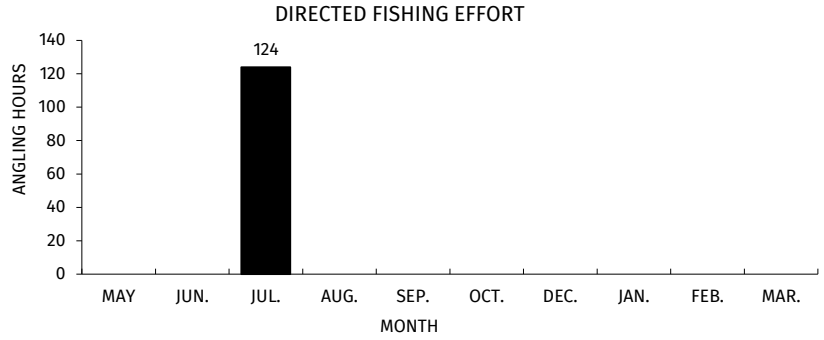
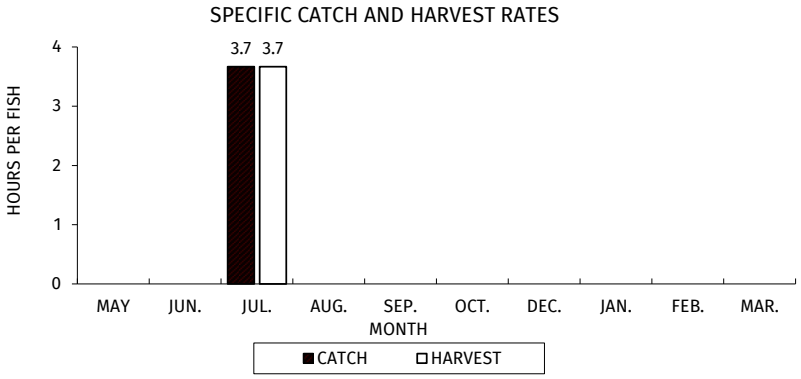
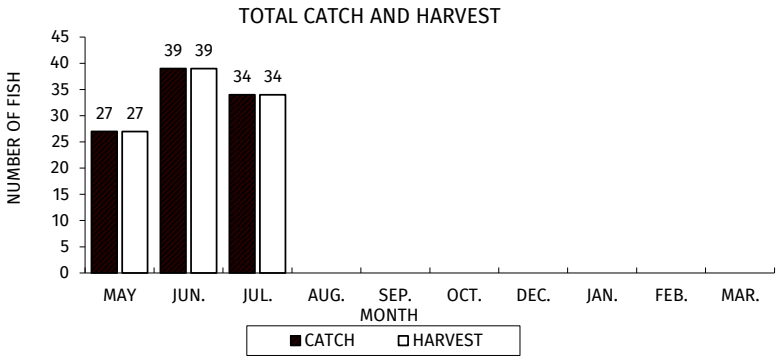


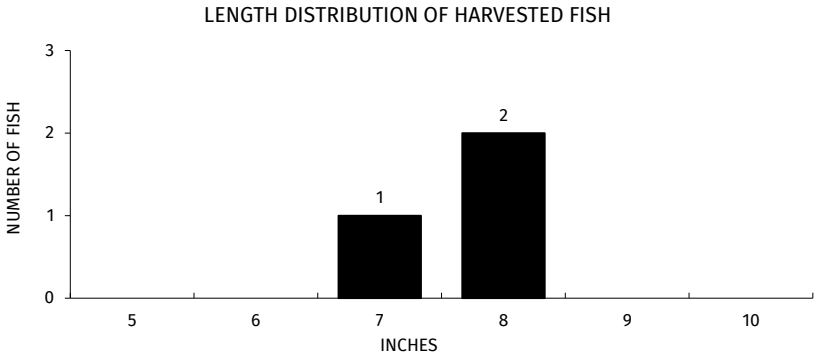
Figure 8. Black Crappie sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

PUMPKINSEED









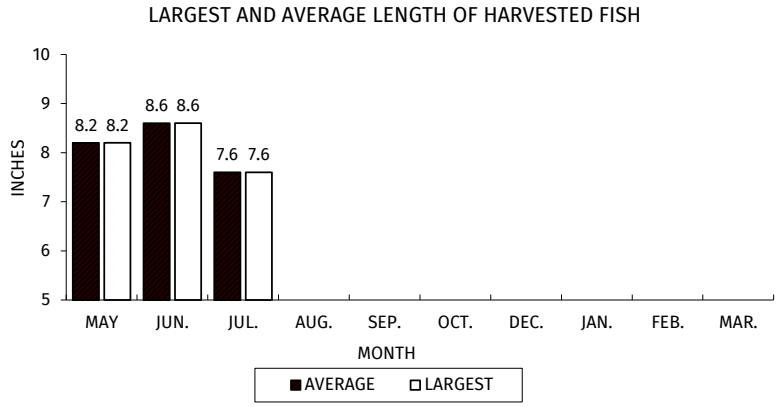
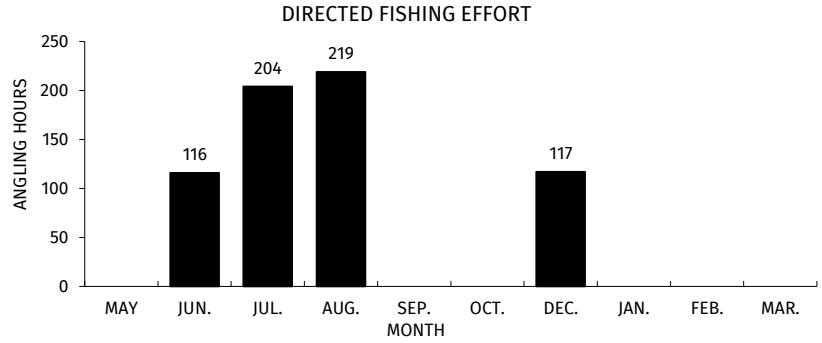
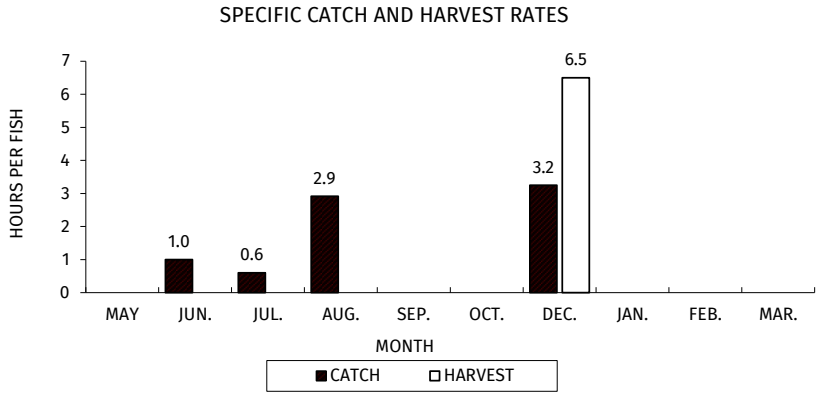
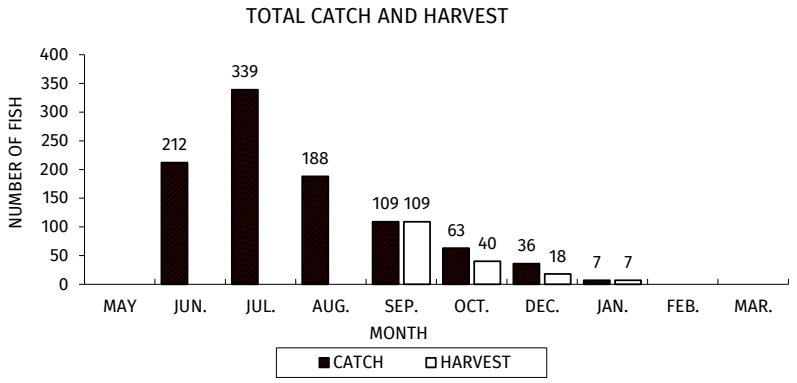


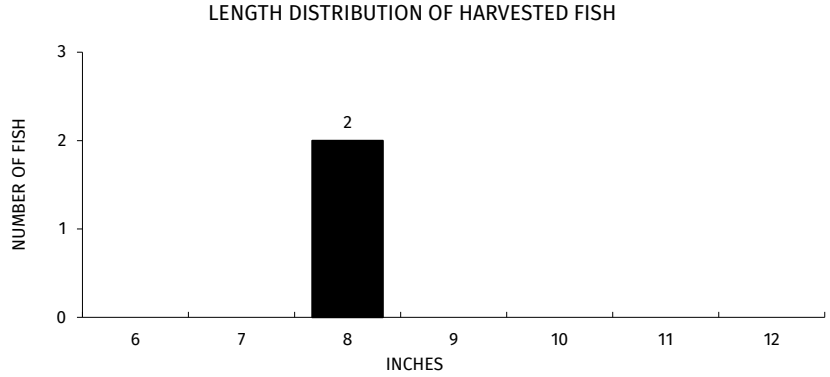
Figure 9. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

ROCK BASS









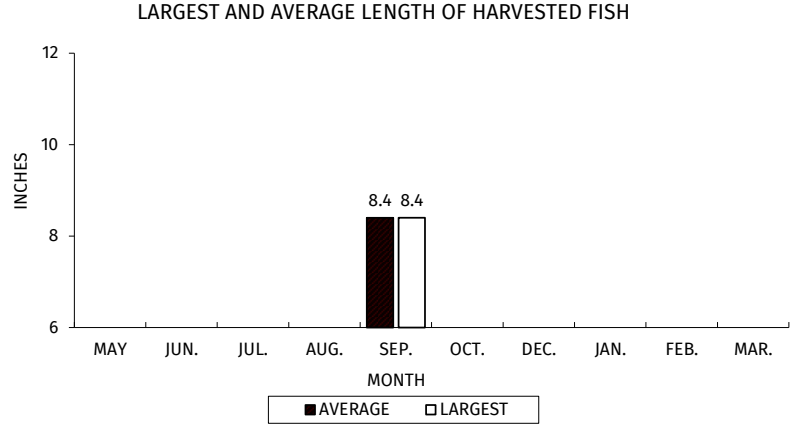


Figure 10. Rock Bass sportfishing effort, catch, harvest, and length distribution, Namekagon Lake, during 2021-2022.

FIGURE 11. TOTAL ANNUAL ANGLER DIRECTED EFFORT BY SPECIES

Namekagon Lake 2021-2022

This graph illustrates the percentage of time that anglers spent fishing for each species during the entire creel survey. The percentages are based on the species of fish anglers told the clerk they were fishing for, not what they actually caught. If a particular species is not present in the graph it is because no one reported they were fishing for that species.

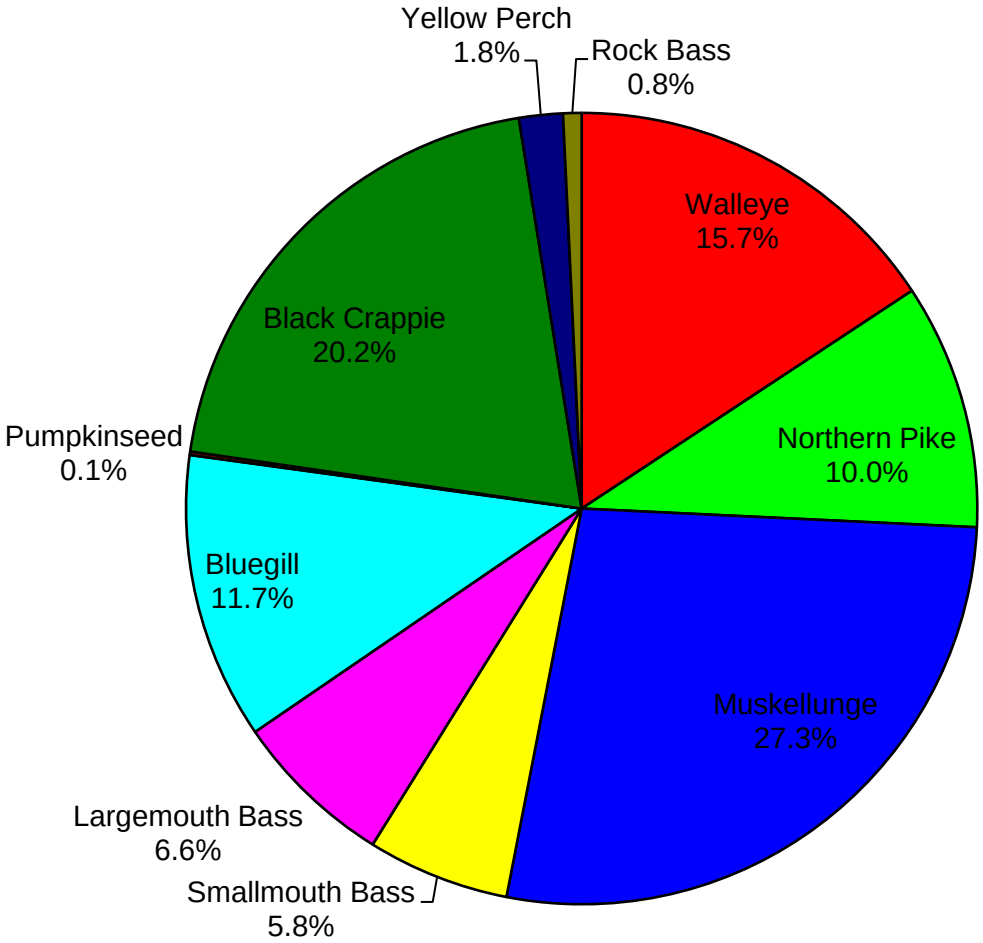


Table 1. Sportfishing effort summary, Namekagon Lake, 2021-22 season; compared to 2002-03 creel results, Bayfield County averages, and Ceded Territory averages.

Month	Number of Angler Party Interviews	Total Angler Hours	Total Angler Hours/Acre	2002-03 Total Angler Hours/Acre	Bayfield County Average Hours/Acre	Ceded Territory Average Hours/Acre
May	48	7977	2.5	3.2	3.2	4.8
June	56	14463	4.5	5.0	4.8	6.2
July	52	9361	2.9	6.0	5.0	6.6
August	34	8828	2.7	4.7	3.8	5.2
September	27	9538	3.0	2.4	2.0	3.2
October	63	9231	2.9	1.5	1.0	1.4
December	26	2014	0.6	0.7	0.6	1.1
January	19	1833	0.6	0.8	0.8	1.7
February	25	1170	0.4	0.6	0.8	1.6
March	3	178	0.1	0.0	0.1	0.2
Summer Total	280	59,398	18.4	22.8	19.9	27.4
Winter Total	73	5,194	1.6	2.1	2.4	4.6
Grand Total	353	64,592	20.0	24.9	22.2	32.0

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 Namekagon Lake 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 Namekagon Lake to other lakes.

2002-03 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 Namekagon Lake.

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 Namekagon Lake to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Namekagon Lake, 2021-22 and 2002-03 fishing seasons.

CREEL YEAR: 2021-2022

SPECIES	DIRECTED EFFORT (Hours)	PERCENT OF TOTAL	TOTAL CATCH	SPECIFIC CATCH RATE (Hrs/Fish)	TOTAL HARVEST	SPECIFIC HARVEST RATE (Hrs/Fish)	MEAN LENGTH OF HARVESTED FISH
Walleye	13,688	15.7%	8,347	1.7	705	23.7	17.3
Northern Pike	8,739	10.0%	5,160	4.4	299	57.1	24.7
Muskellunge	23,765	27.3%	443	61.7	0	*	**
Smallmouth Bass	5,062	5.8%	801	12.4	0	*	**
Largemouth Bass	5,744	6.6%	508	13.5	62	294.1	14.2
Yellow Perch	1,558	1.8%	3,063	2.2	240	8.9	8.6
Bluegill	10,198	11.7%	14,333	0.8	4,815	2.2	7.7
Black Crappie	17,547	20.2%	14,567	1.2	7,011	2.5	10.1
Pumpkinseed	124	0.1%	100	3.7	100	3.7	8.1
Rock Bass	656	0.8%	954	1.2	174	36.2	8.4

CREEL YEAR: 2002-03

SPECIES	DIRECTED EFFORT (Hours)	PERCENT OF TOTAL	TOTAL CATCH	SPECIFIC CATCH RATE (Hrs/Fish)	TOTAL HARVEST	SPECIFIC HARVEST RATE (Hrs/Fish)	MEAN LENGTH OF HARVESTED FISH
Walleye	22995	23.52%	7327	3.3	2899	8.2	14.2
Northern Pike	15029	15.37%	14107	2.2	2622	6.5	22.2
Muskellunge	24659	25.22%	306	92.0	0	*	**
Smallmouth Bass	3061	3.13%	1577	2.9	21	143.8	**
Largemouth Bass	3157	3.23%	618	9.5	30	104.5	16.2
Yellow Perch	2573	2.63%	4845	2.3	2094	4.6	9.0
Bluegill	13945	14.26%	33775	0.5	8357	1.7	7.2
Black Crappie	10457	10.70%	6765	1.6	5188	2.1	10.1
Pumpkinseed	610	0.62%	1526	0.7	396	1.8	6.6
Rock Bass	1275	1.30%	1828	2.0	207	10.9	8.2

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