

**WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
CREEL SURVEY REPORT**

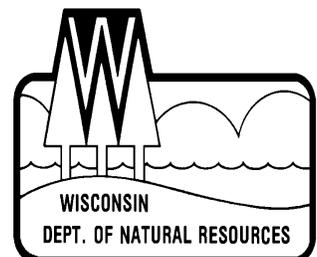
**LONG LAKE  
CHIPPEWA COUNTY**

**2012-2013**



**Treaty Fisheries Publication**

**March, 2013**



## INTRODUCTION

The Wisconsin Department of Natural Resources regularly conducts fishery surveys of area 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 WDNR 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 Chippewa tribal bands. The six Chippewa 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.

Information is also collected on the effects of sport angler harvest on fish populations. Because it would be impractical and costly to conduct a complete “census” of the fish harvested by sport anglers on area lakes, a creel survey is conducted to estimate the amount of fish harvested by sports anglers.

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

Long Lake is located SE of Bloomer, Wisconsin in the south central part of Chippewa County.

### Physical Characteristics

Long Lake is a 1052 acre drainage lake. It has a maximum depth of 101 feet. The lake's water clarity is moderate. There is a county park with a public boat landing on the west side of lake on Highway 40.

### Seasons Surveyed

An open water creel survey was conducted from the opening day of gamefish season on May 5, 2012 and ran through the end of October. Winter creel was conducted from December 1<sup>st</sup> through the close of the gamefish season on March 3, 2013.

### Harvest Regulations

The following seasons, daily bag limits, and length limits were in place on this lake in 2012-2013:

Walleye*	05/05-3/03	3	**
Largemouth Bass	05/05-03/03	1	18"
Smallmouth Bass	05/05-03/03	1	18"
Muskellunge	05/26-11/30	1	40"
Northern Pike	05/05-03/03	5	none
Panfish	all year	10	none

\*The walleye bag limit may have been reduced due to tribal declarations.

\*\*No minimum length limit, but from 14"-18" may not be kept, and only one fish over 18" allowed.

## SPECIES CATCH AND HARVEST INFORMATION

Angling information is summarized on a single page for each species. If a page for a particular species is not present in this section it is because no one reported fishing for that species and/or none were caught. Each species page has up to five graphs covering the following:

### FIGURE 1

#### ESTIMATED FISHING EFFORT

Total calculated number of hours during each month that anglers spent fishing for this species.

### FIGURE 2

#### ESTIMATED ANGLER CATCH AND HARVEST RATES

Calculated number of hours it takes an angler to catch or harvest a fish of this species. Only information from anglers who were **specifically** targeting this species is reported here.

### FIGURE 3

#### ESTIMATED ANGLER CATCH AND HARVEST

Calculated number of fish of this species caught or harvested by all anglers. This estimate also includes **incidental** catch and harvest of fish by anglers that were not specifically targeting this species.

### FIGURE 4

#### LENGTH DISTRIBUTION OF HARVESTED FISH MEASURED BY CLERK

All fish of this species measured by the clerk during the entire creel survey season.

## **FIGURE 5**

### **AVERAGE LENGTH AND LARGEST FISH HARVESTED**

Average length and the largest fish of this species harvested each month.

Only those fish measured by the creel clerk are reported here.

## **Seasonal Angler Effort Summary**

The table provides a summary by month of the total angler hours and total angler hours per acre. Also, the table compares county average and statewide average to current survey results.

## **ACKNOWLEDGEMENTS**

This survey could not have been completed if not for the efforts of the technical staff of the Treaty Fisheries Unit, especially Andrew Dumask (open water) and Jason Meacham (winter) who collected the angler interviews. Gene Hatzenbeler provided logistic support for the survey. Todd Brecka delivered and maintained all equipment. Jill Sunderland assisted with training and the scheduling for the creel clerks. Misty Rood and Mac McInroy were responsible for data entry and quality assurance. Jake Jacobson and Mac McInroy filled in when clerks needed a day off.

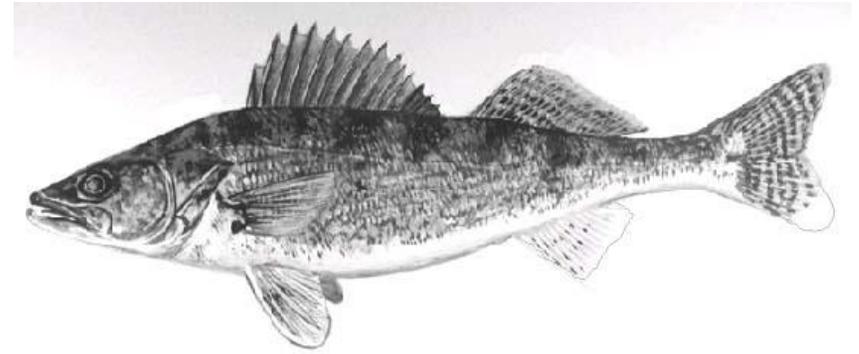
The Department would like to thank Jeannie Forrester. She generously allowed the department to keep a boat and snowmobile at her property during this survey.

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.

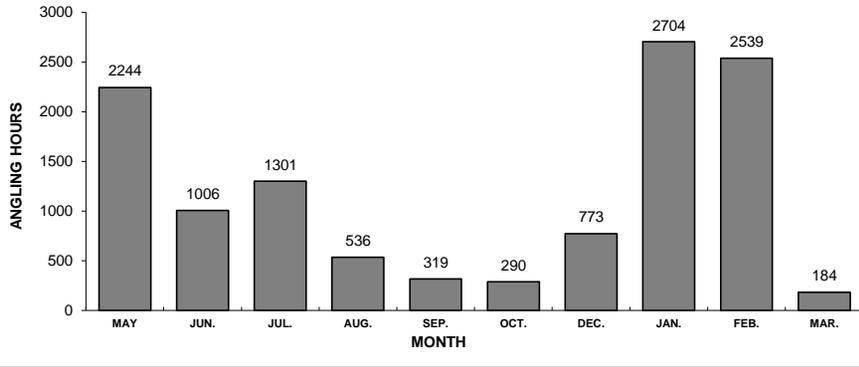
Additional copies of this report and those covering other local lakes can be obtained from Treaty Fisheries Biologist in Spooner WI or WDNR Webpage.

Question about the report can be directed to Gene Hatzenbeler  
WDNR Spooner Office  
810 W. Maple Street  
Spooner, WI 54801  
Phone: (715)635-4164  
Email: Gene.Hatzenbeler@Wisconsin.gov

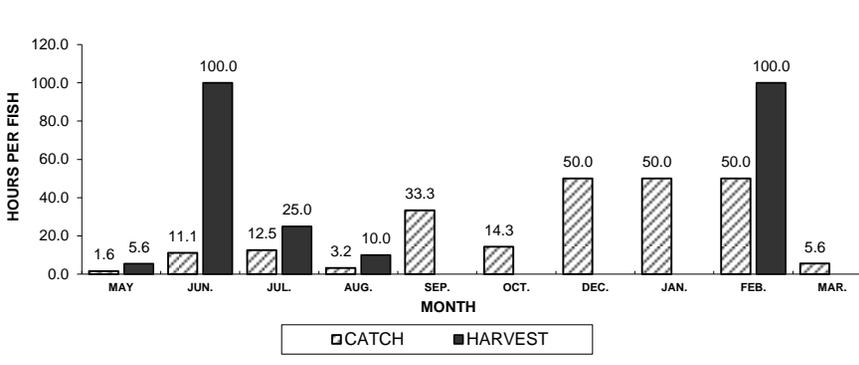
# WALLEYE



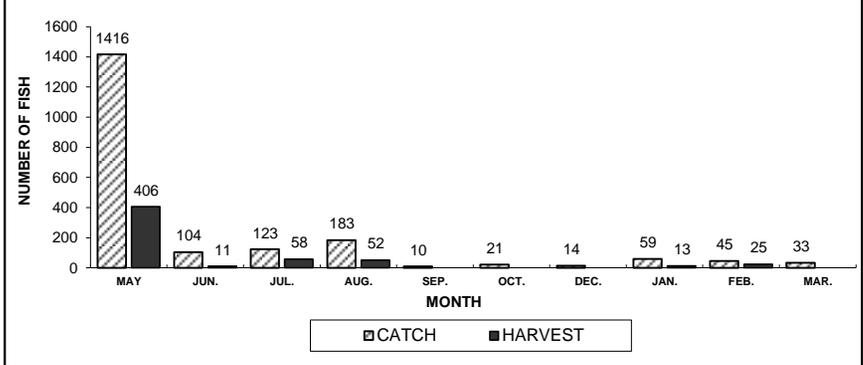
**FIGURE 1. ESTIMATED FISHING EFFORT**



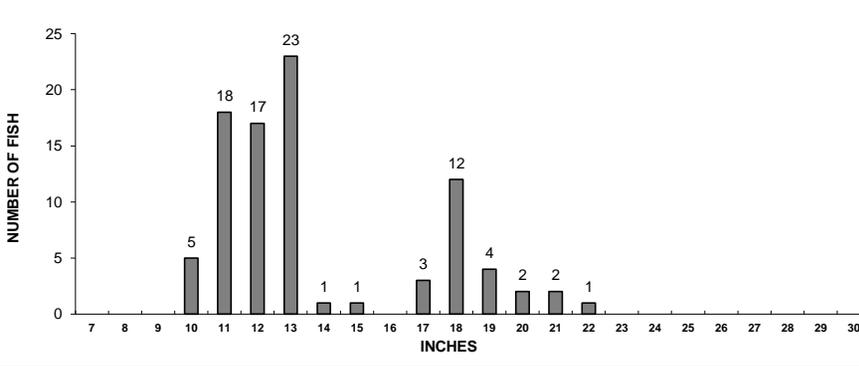
**FIGURE 2. ESTIMATED ANGLER CATCH AND HARVEST RATES**



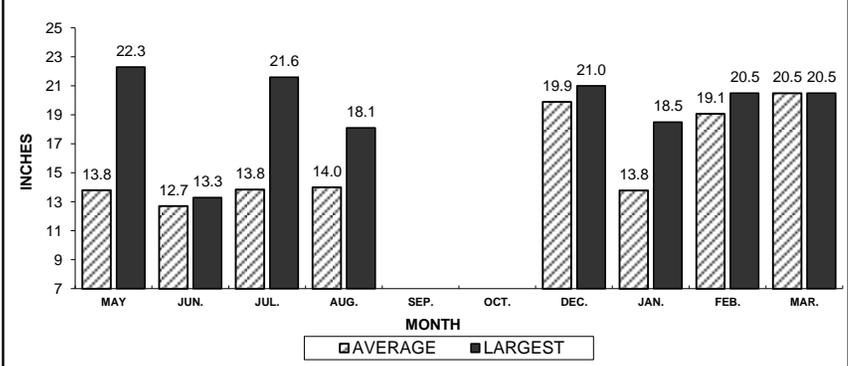
**FIGURE 3. ESTIMATED ANGLER CATCH AND HARVEST**



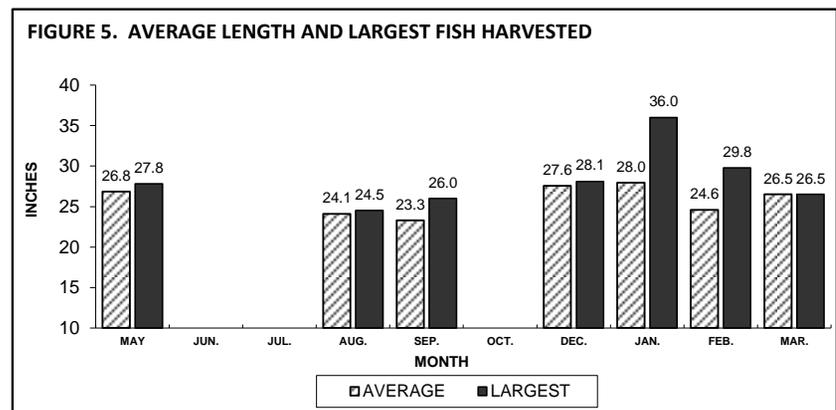
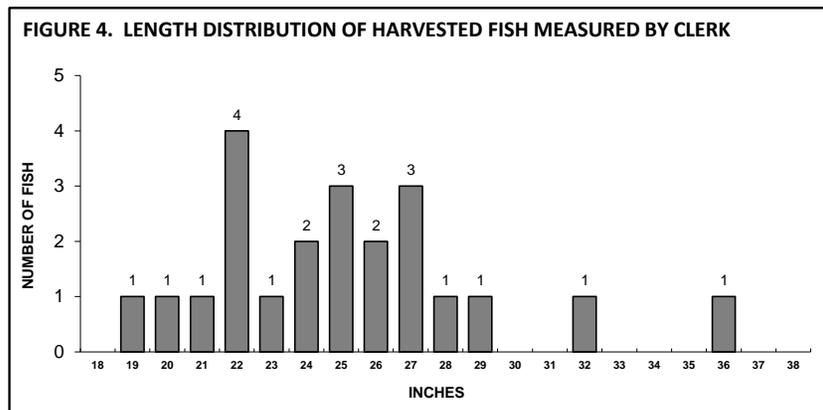
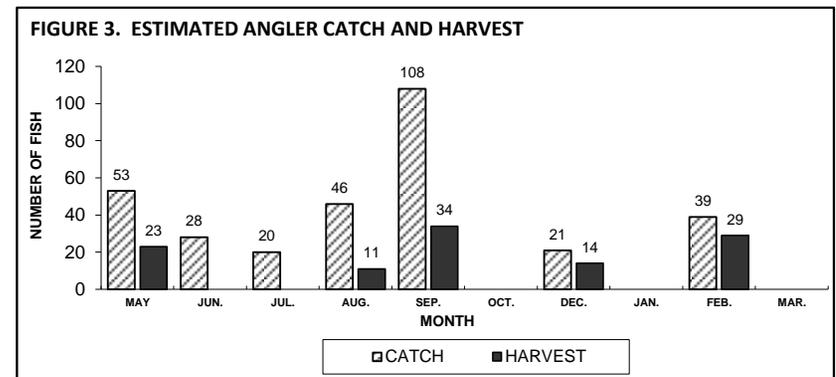
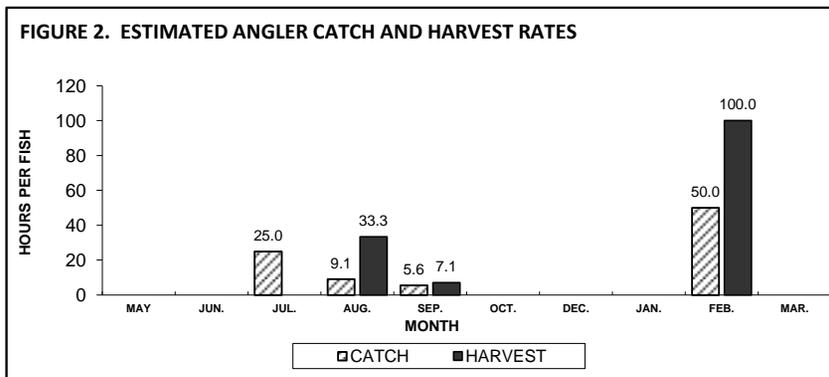
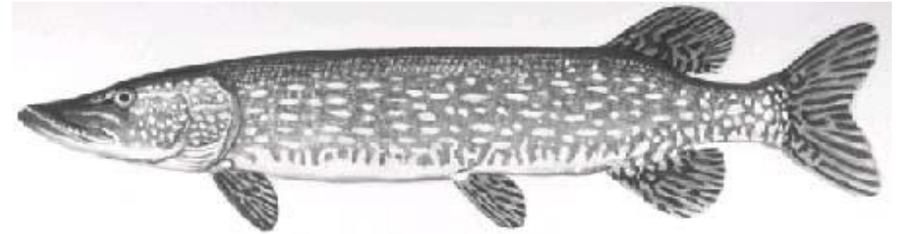
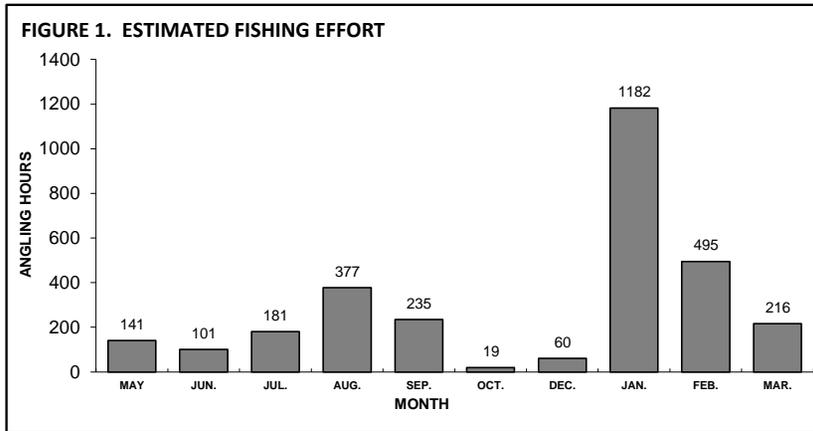
**FIGURE 4. LENGTH DISTRIBUTION OF HARVESTED FISH MEASURED BY CLERK**



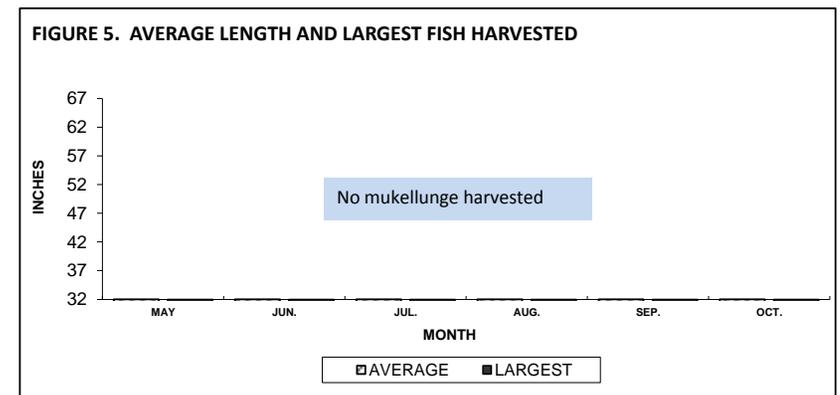
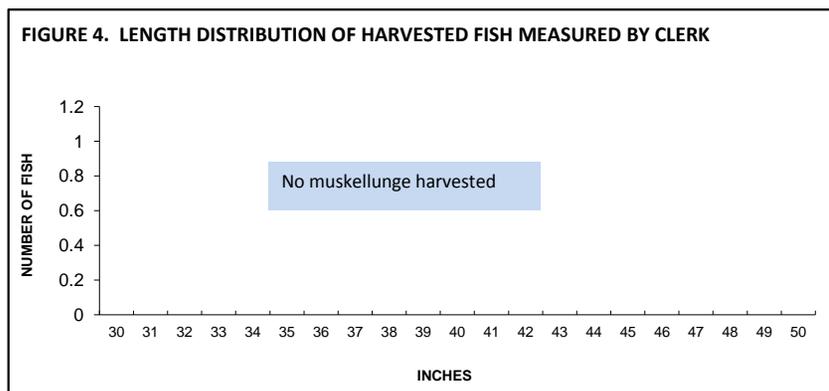
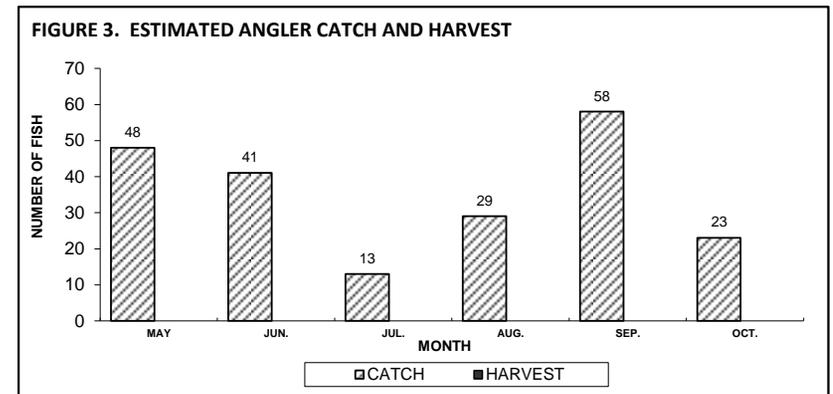
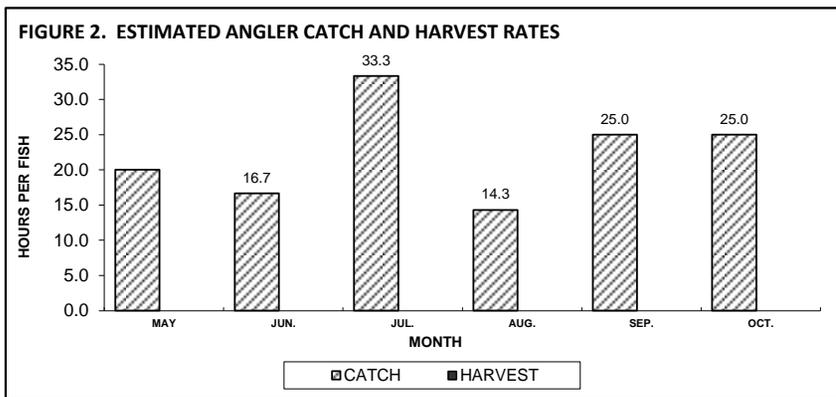
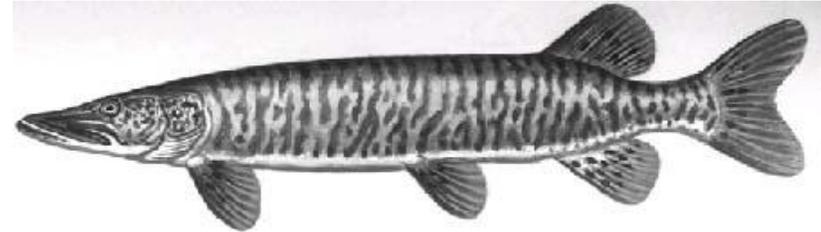
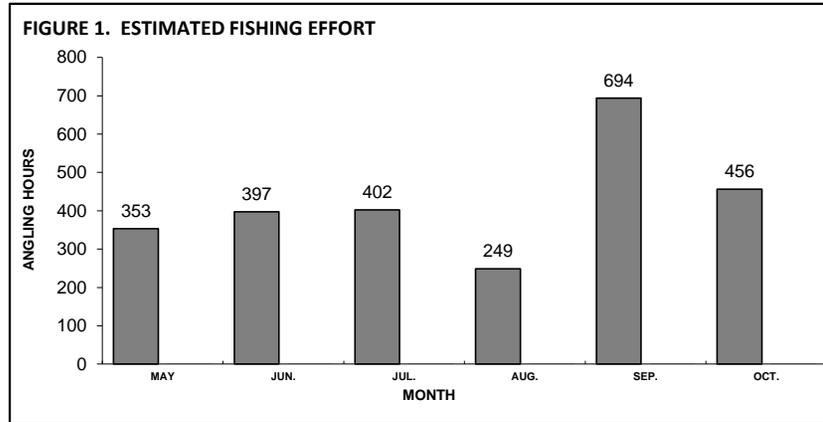
**FIGURE 5. AVERAGE LENGTH AND LARGEST FISH HARVESTED**



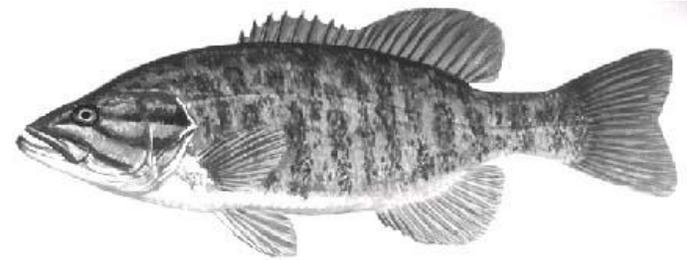
# NORTHERN PIKE



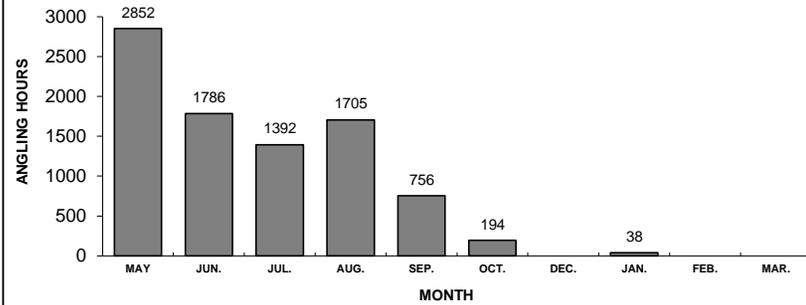
# MUSKELLUNGE



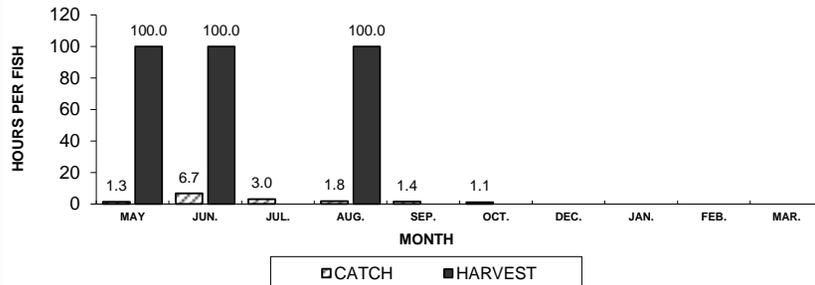
# SMALLMOUTH BASS



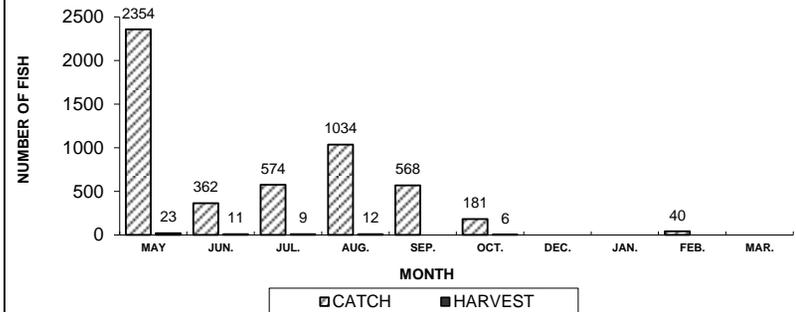
**FIGURE 1. ESTIMATED FISHING EFFORT**



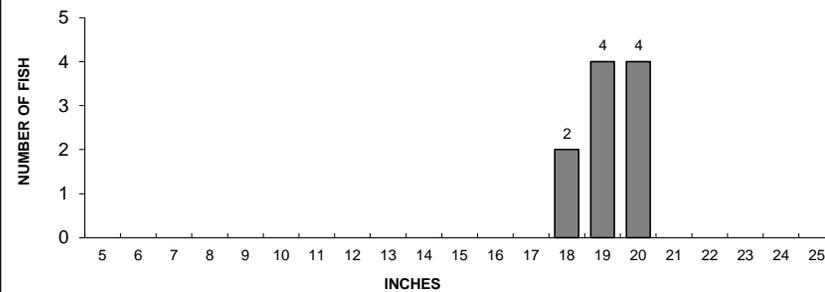
**FIGURE 2. ESTIMATED ANGLERS CATCH AND HARVEST RATES**



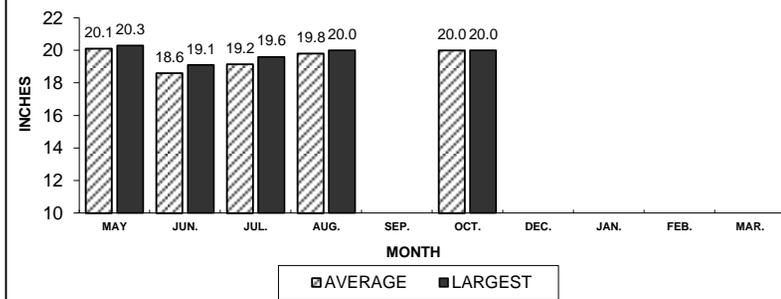
**FIGURE 3. ESTIMATED ANGLER CATCH AND HARVEST**



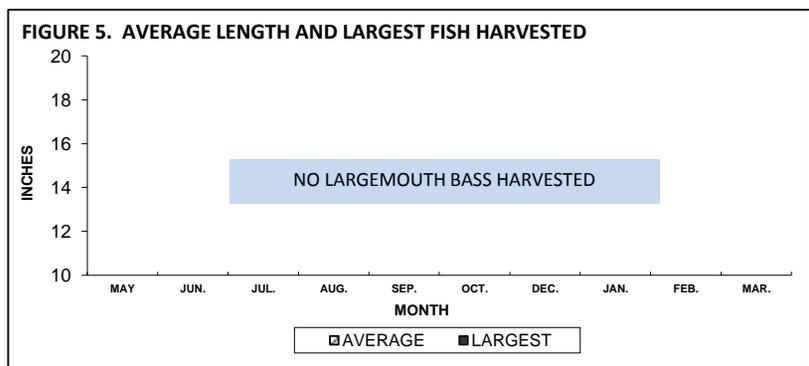
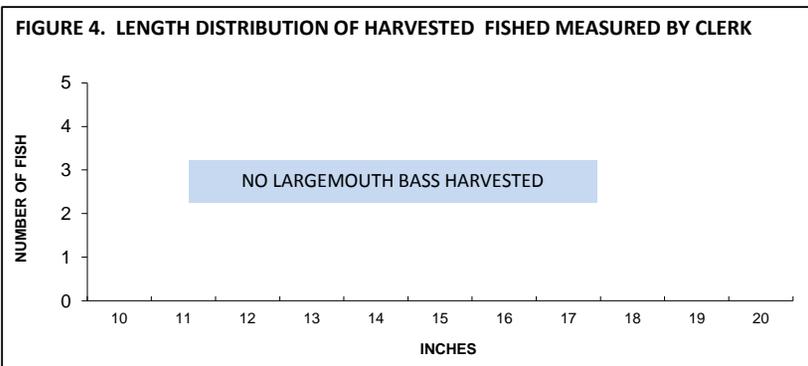
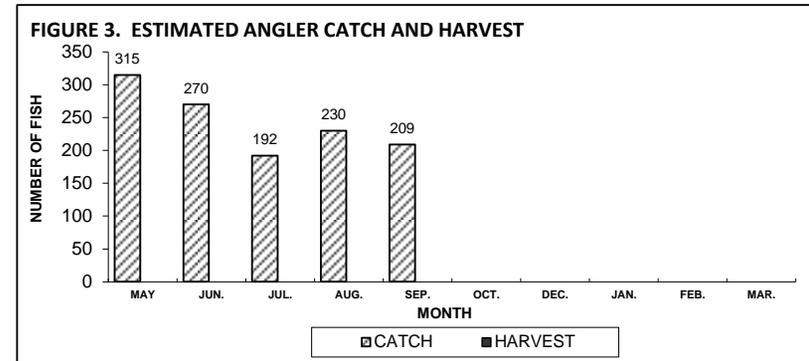
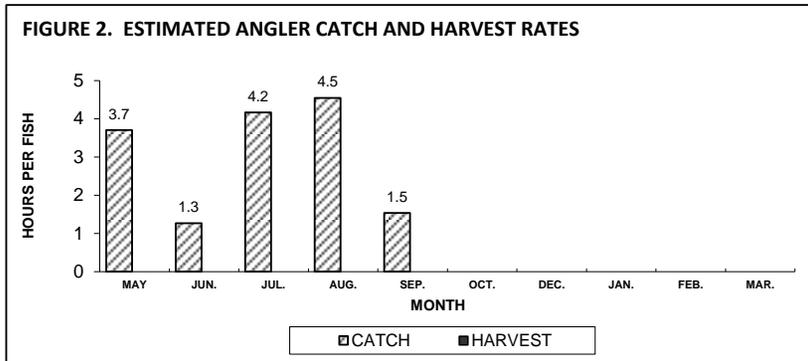
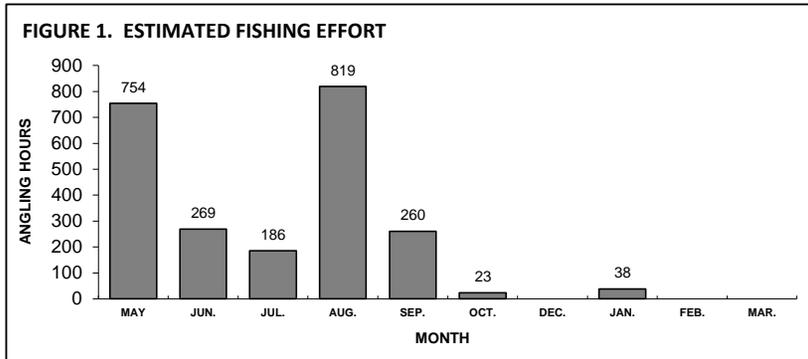
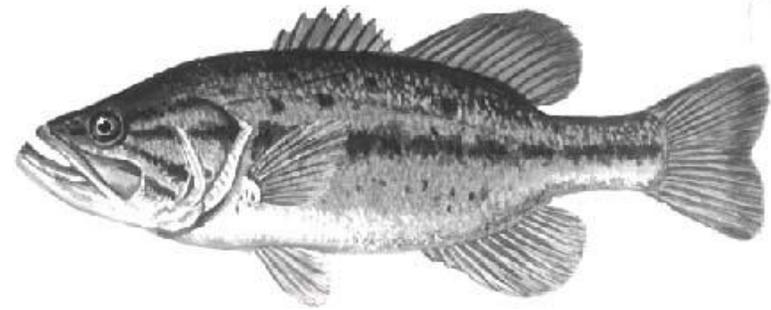
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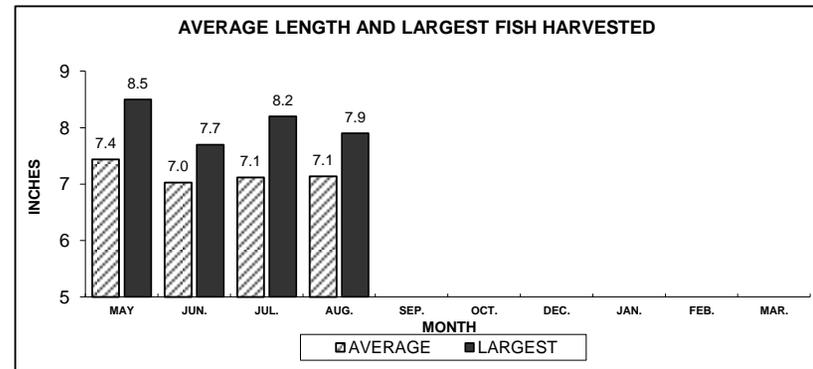
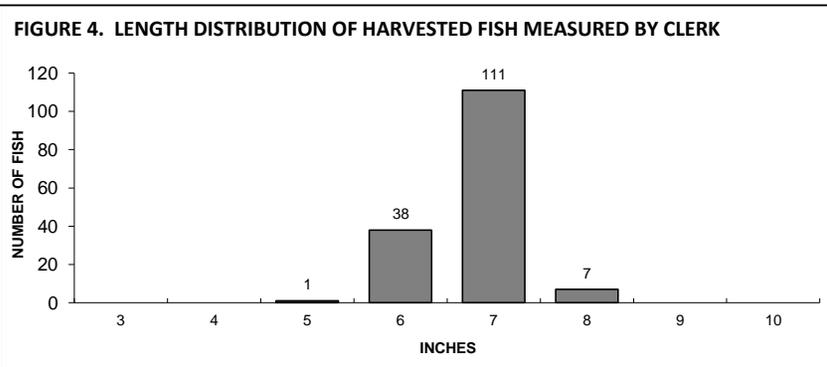
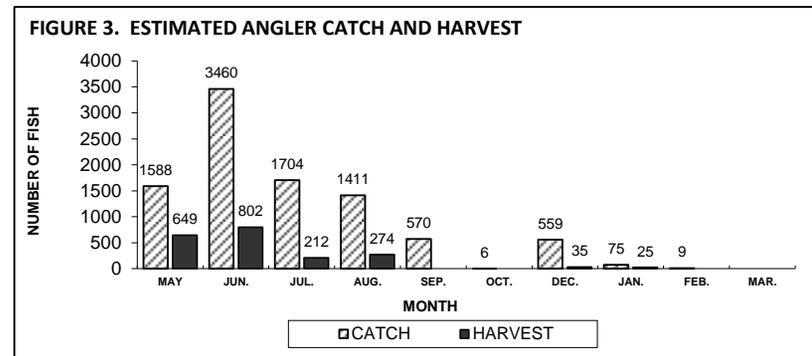
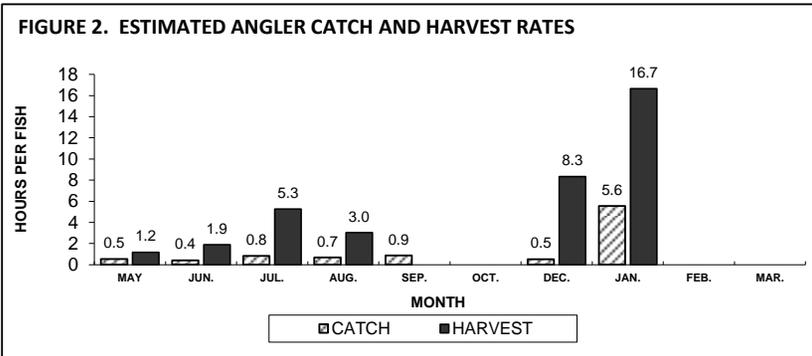
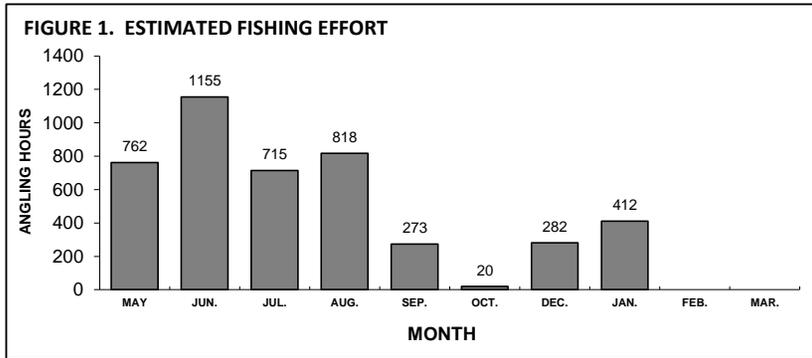
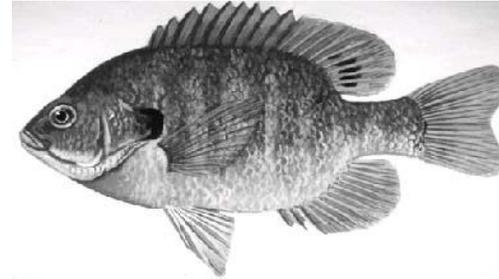
**FIGURE 5. AVERAGE LENGTH AND LARGEST FISH HARVESTED**



# LARGEMOUTH BASS



# BLUEGILL



# BLACK CRAPPIE

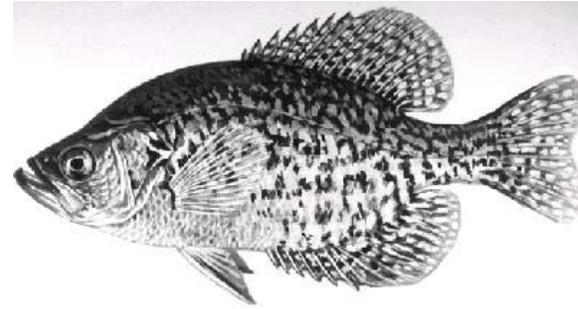


FIGURE 1. ESTIMATED FISHING EFFORT

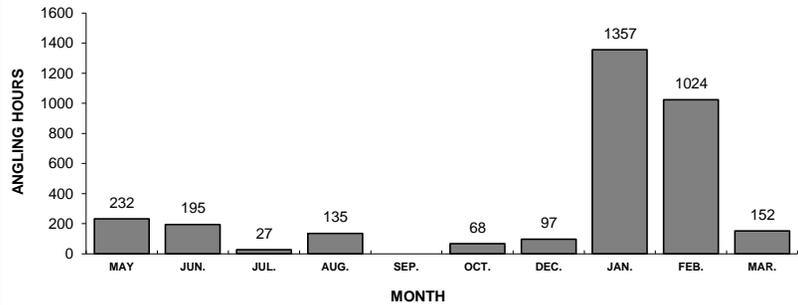


FIGURE 2. ESTIMATED ANGLER CATCH AND HARVEST RATES

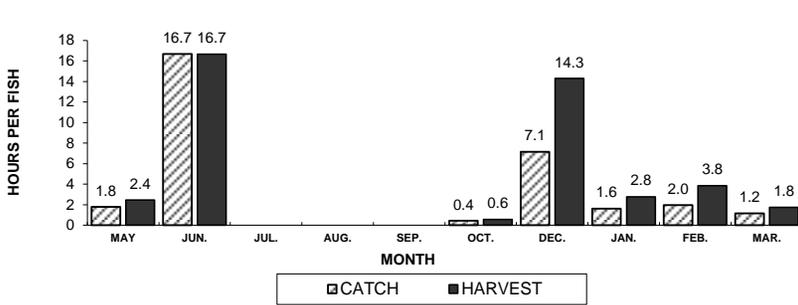


FIGURE 3. ESTIMATED ANGLER CATCH AND HARVEST

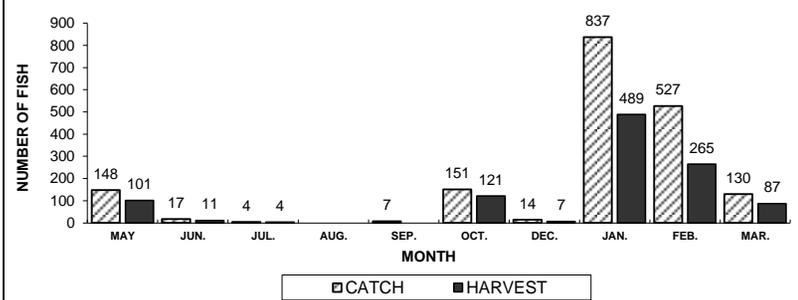


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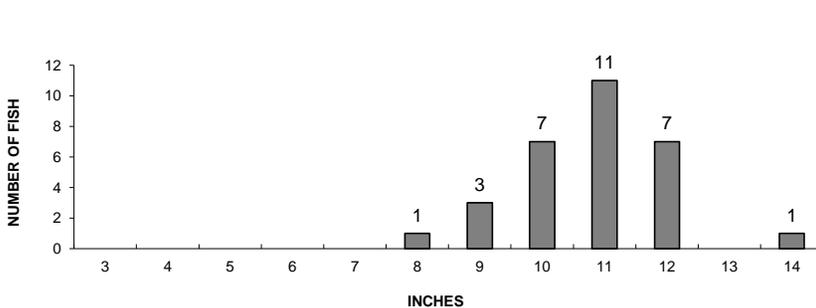
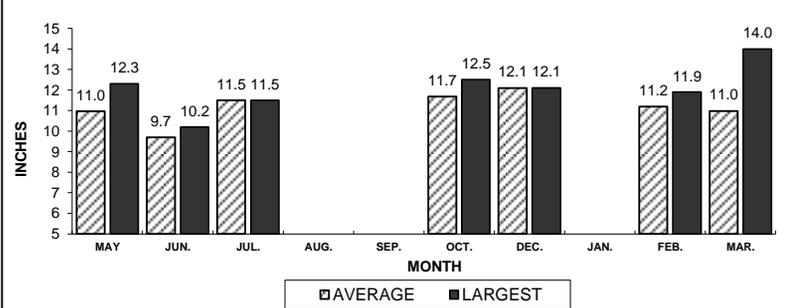
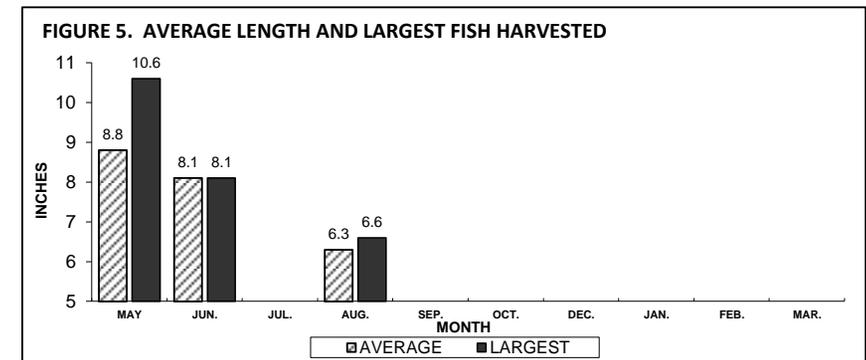
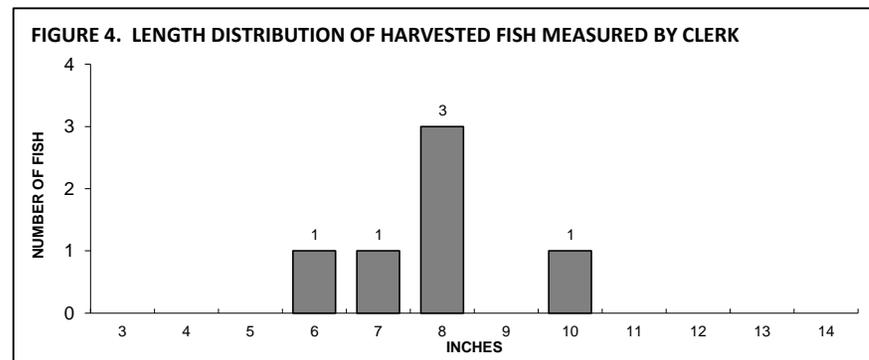
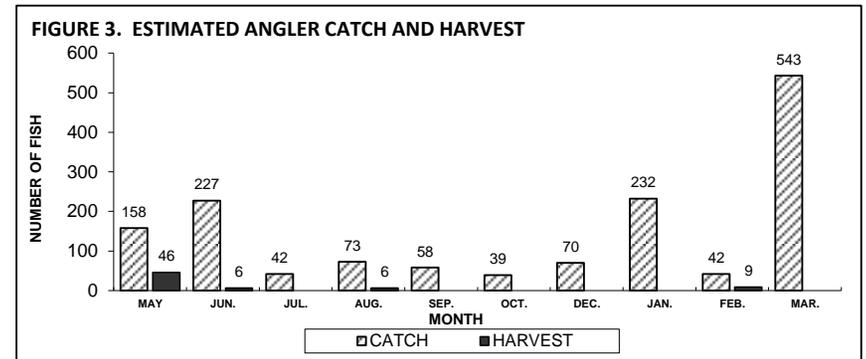
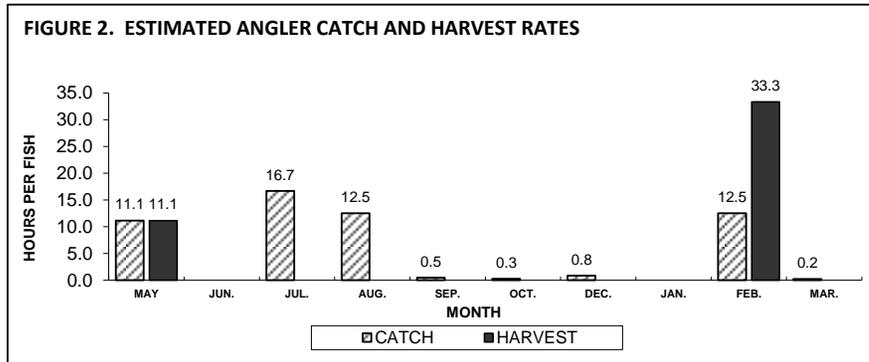
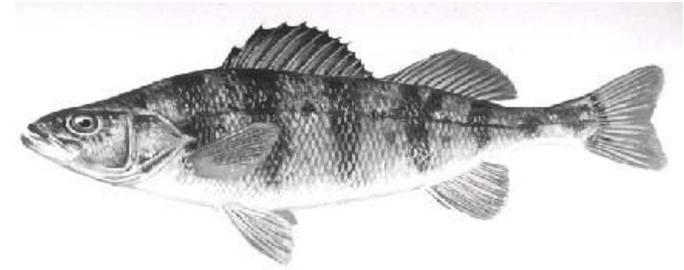
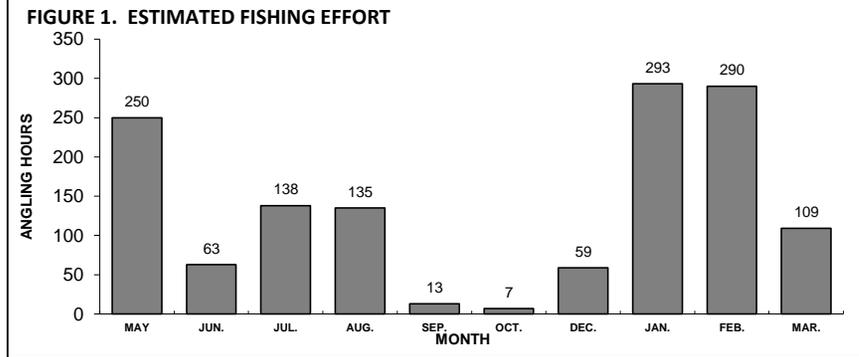


FIGURE 5. AVERAGE LENGTH AND LARGEST FISH HARVESTED



# YELLOW PERCH



# ROCK BASS

FIGURE 1. ESTIMATED FISHING EFFORT

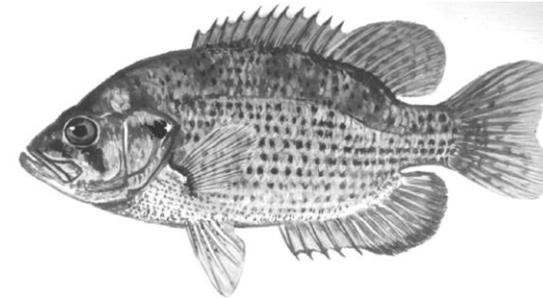
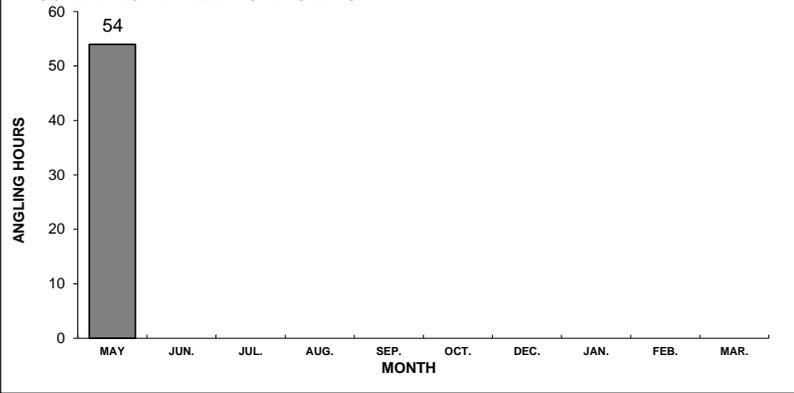


FIGURE 2. ESTIMATED ANGLER CATCH AND HARVEST RATES

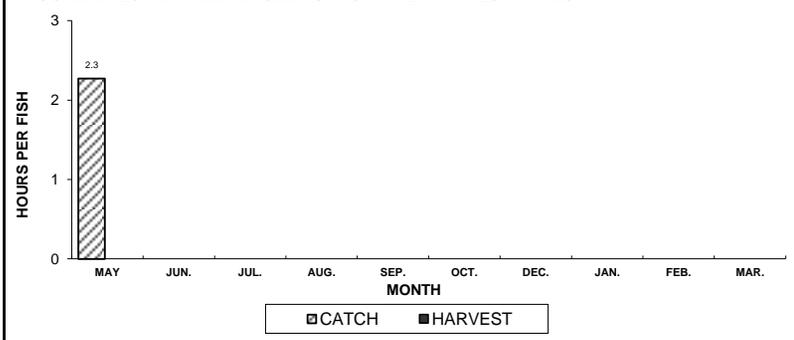


FIGURE 3. ESTIMATED ANGLER CATCH AND HARVEST

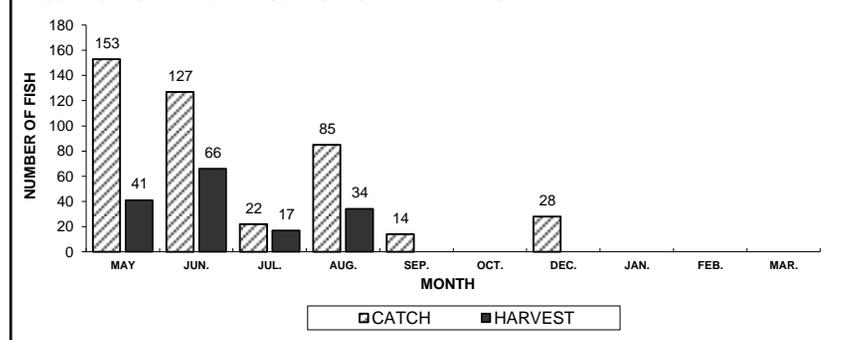


FIGURE 4. LENGTH DISTRIBUTION OF HARVESTED FISH MEASURE BY CLERK

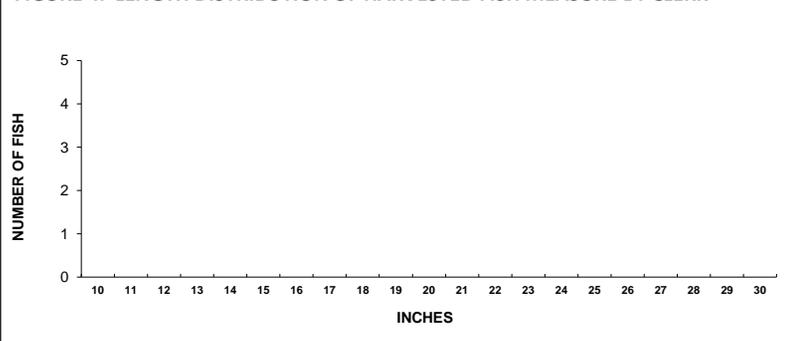
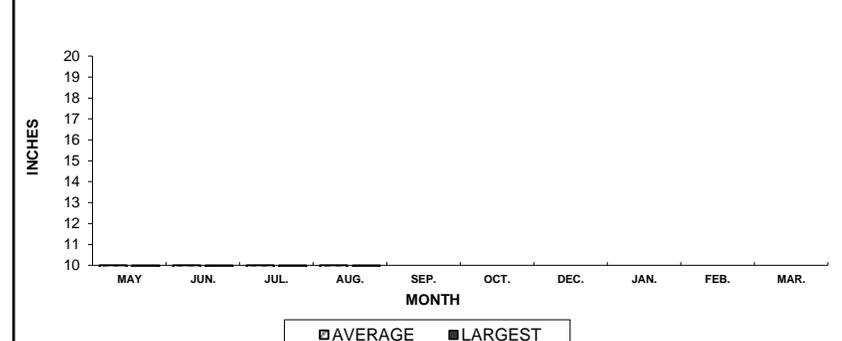
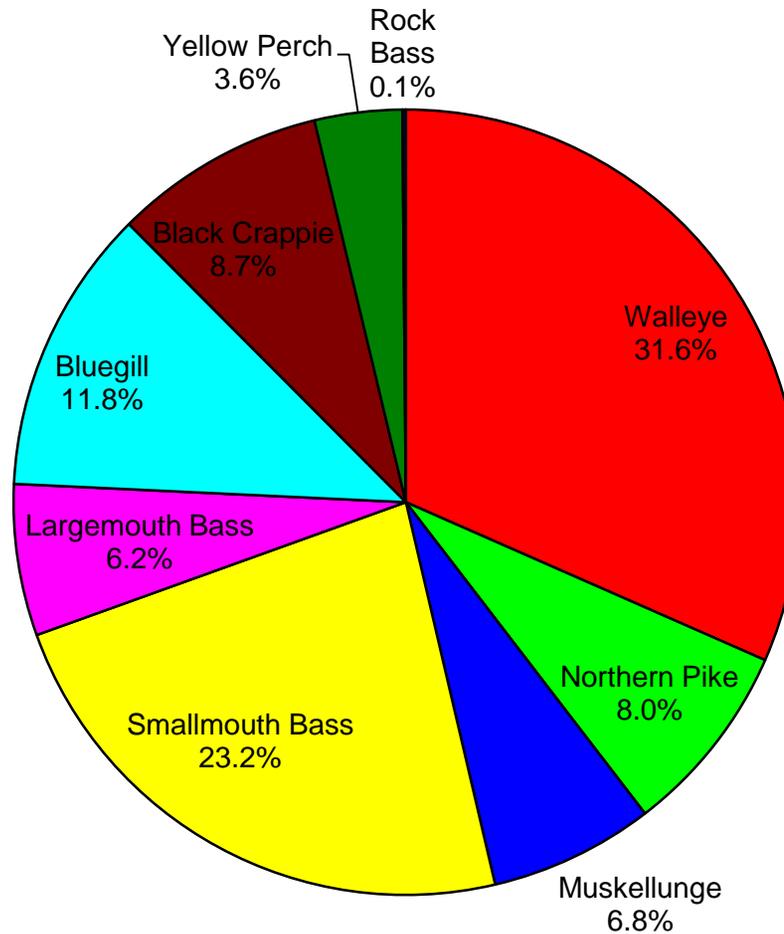


FIGURE 5. AVERAGE LENGTH AND LARGEST FISH HARVESTED



## TOTAL ANNUAL ANGLER DIRECTED EFFORT BY SPECIES Long Lake 2012-13

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.



## SEASONAL ANGLER EFFORT SUMMARY 2012-13

Estimated angler fishing effort on Long Lake for each month surveyed and by season.

Month	Number of Angler Party Interviews	Total Angler Hours	Total Angler Hours/Acre	Chippewa County Average Hours/Acre	Statewide Average Hours/Acre
May	86	5821	5.5	3.5	5.8
June	82	3756	3.6	3.3	6.1
July	65	2990	2.8	2.9	6.4
August	68	2962	2.8	2.4	5.4
September	48	1967	1.9	2.0	3.8
October	34	944	0.9	0.8	1.6
December	17	946	0.9	0.6	1.7
January	40	3988	3.8	1.1	1.5
February	21	2726	2.6	1.0	1.3
March	4	408	0.4		**
*Summer Total	465	18440	17.5	14.8	29.1
*Winter Total	82	8068	7.7	2.7	4.5
Grand Total	547	26508	25.2	17.6	33.6

\*"Summer" is May-October; "Winter" is December-March

\*\*Too few lakes have been surveyed in March to give a meaningful statewide average.

**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 this 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 if you wish to compare effort on this lake to others.

**County Average Hours/Acre** is the average angler effort in hours per acre for county lakes that have been surveyed since 1990. This value can be useful in comparisons as well.

**Statewide Average Hours/Acre** is the average angler effort in hours per acre for inland lakes in the state surveyed between 1990 and 1995. This value can be used to compare this lake to other lakes statewide.

**CREEL SURVEY HISTORY/SYNOPSIS**

LONG LAKE, CHIPPEWA COUNTY

CREEL YEAR: 2012-13

<b>SPECIES</b>	<b>DIRECTED EFFORT (Hours)</b>	<b>PERCENT OF TOTAL</b>	<b>TOTAL CATCH</b>	<b>SPECIFIC CATCH RATE (Hrs/Fish)</b>	<b>TOTAL HARVEST</b>	<b>SPECIFIC HARVEST RATE (Hrs/Fish)</b>	<b>MEAN LENGTH OF HARVESTED FISH</b>
Walleye	11896	31.6%	2008	6.3	565	20.0	14.1
Northern Pike	3007	8.0%	315	33.3	111	50.0	25.5
Muskellunge	2551	6.8%	212	20.0	0		0.0
Smallmouth Bass	8723	23.2%	5113	1.9	61	100.0	19.5
Largemouth Bass	2349	6.2%	1216	2.9	0		0.0
Bluegill	4437	11.8%	9382	0.6	1997	2.6	7.2
Black Crappie	3287	8.7%	1835	1.8	1085	3.0	11.2
Yellow Perch	1357	3.6%	1484	1.9	67	50.0	8.3
Rock Bass	54	0.1%	429	2.3	158		7.8

CREEL YEAR: 2000-01

<b>SPECIES</b>	<b>DIRECTED EFFORT (Hours)</b>	<b>PERCENT OF TOTAL</b>	<b>TOTAL CATCH</b>	<b>SPECIFIC CATCH RATE (Hrs/Fish)</b>	<b>TOTAL HARVEST</b>	<b>SPECIFIC HARVEST RATE (Hrs/Fish)</b>	<b>MEAN LENGTH OF HARVESTED FISH</b>
Walleye	15042	39.0%	6796	2.3	1323	11.5	13.3
Northern Pike	1430	3.7%	371	12.9	29	195.9	25.5
Muskellunge	3072	8.0%	71	72.6	4	737.7	0.0
Smallmouth Bass	12198	31.6%	5569	2.4	50	322.2	18.3
Largemouth Bass	1208	3.1%	97	18.2	4	290.0	18.0
Bluegill	2041	5.3%	2538	1.0	868	2.7	7.6
Pumpkinseed	87	0.2%	63	1.5	11	12.0	6.8
Black Crappie	2366	6.1%	1151	2.3	776	3.3	10.6
Yellow Perch	724	1.9%	426	6.7	488	7.7	9.9
Rock Bass	385	1.0%	1521	2.0	464	4.3	8.5