

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

**BEARSKIN LAKE**

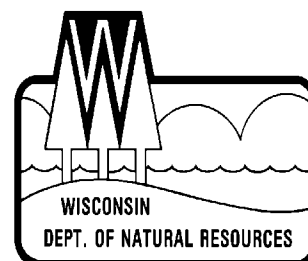
**ONEIDA COUNTY**

**2015-16**



**Treaty Fisheries Publication**

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Jeff Blonski  
Treaty Fisheries Technicians**



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**Cover Art:** Steve Hilt, Portland, OR

**Fish Graphics:** Virgil Beck, Stevens Point, WI

## INTRODUCTION

Fish populations can fluctuate due to natural forces (weather, predation, competition), management actions (stocking, regulations, habitat improvement), inappropriate development (habitat degradation), and harvest impacts. Wisconsin Department of Natural Resources fisheries crews regularly conduct fishery surveys on area 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 (species composition, population size, reproductive success, size/age distribution, and growth rates). The other key component of the fishery that we often need to measure is the 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 measure the sport 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 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 is 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 make estimates of total catch and harvest of each species, catch and harvest rates, and total fishing effort by month, as well as for the year in total. Keep in mind that these are only 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, therefore, depends on good cooperation and truthful responses by anglers when a creel clerk interviews them.

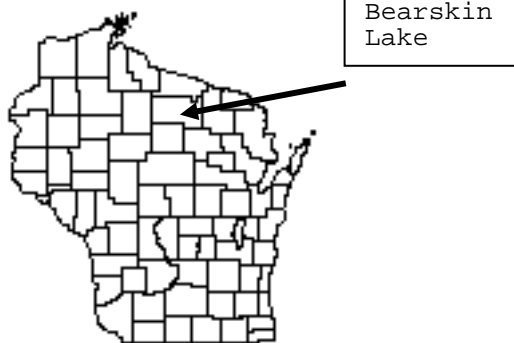
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides projections of:

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

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

## GENERAL LAKE INFORMATION



### Location

Bearskin Lake is located in Oneida County in the Town of Hazlehurst.

### Physical Characteristics

Bearskin Lake is a 400 acre drainage lake with a maximum depth of 26 feet. Littoral substrate consists primarily of gravel, rubble, muck, and sand. Bearskin Lake consists of soft, slightly acidic, clear water of moderate transparency.

### Seasons Surveyed

The period referred to in this report as the 2015-16 fishing season ran from May 2, 2015 through March 6, 2016. The open water creel survey ran from May 2 through October 31, 2015, and the ice fishing creel survey ran from December 1, 2015 through March 2, 2016.

## Weather

Ice-out on Bearskin Lake was around April 12, 2015. Fishable ice formed on Bearskin Lake in late December.

## Fishing Regulations

The following seasons, daily bag limits, and length limits were in place on Bearskin Lake during the 2015-16 fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass	5/2-3/6	1	18"
Smallmouth Bass	5/2-6/19	Catch&Release	
	6/20-3/6	1	18"
Musky	5/23-11/30	1	28"
Northern Pike	5/2-3/6	5	none
Walleye	5/2-3/6	3	No Minimum, 1>14"
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 1-10. Table 2 also includes a comparison of these statistics with the previous creel survey. Information presented about species whose fishing season extends beyond March 6 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 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.

3. **ESTIMATED CATCH AND HARVEST**  
Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.
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 those fish measured by the creel survey clerk are reported.

## **CREEL SURVEY RESULTS AND DISCUSSION**

### **Survey Logistics**

The creel survey went well. We encountered no unusual problems conducting the survey or calculating the estimates contained in the report. This was the fifth time the department conducted a creel survey on Bearskin Lake. The last creel survey took place in 2003-04.

### **General Angler Information**

Anglers spent 19,430 hours, or 48.6 hours per acre, fishing Bearskin Lake during the 2015-16 season (Table 1). That was more than the Oneida County average of 33.7 hours per acre. July was the most heavily fished month (3,820 hours). Fishing effort was lightest in December (179 hours) due to poor ice conditions. Anglers spent slightly more time (50.4 hours per acre) fishing during the 2003-04 creel survey. The creel clerks were able to conduct 611 interviews throughout the survey.

## **RESULTS BY SPECIES**

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

Walleyes received the most fishing effort during the 2015-16 season. Anglers spent 6,683 hours targeting walleye. The greatest fishing effort for walleyes was in May (2,497 hours). March had the least amount of walleye fishing effort (45 hours).

Total catch of walleyes was 4,655 fish with a harvest of 1,761 fish. Highest catch (3,621 fish) and harvest (1,116 fish) occurred in May. Anglers fished 1.5 hours to catch, and 3.9 hours to harvest, a walleye during the survey. The mean length of harvested walleyes was 13.3 inches, and the largest walleye measured was a 24.0-inch fish.

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

Fishing effort directed at northern pike was 182 hours during the 2015-16 season. Northern pike fishing effort was greatest in January (53 hours). Total catch of northern pike was 299 fish with an estimated harvest of 66 fish. The mean length of harvested northern pike was 23.1 inches, and the largest northern pike measured was a 31.2-inch fish.

### **Muskellunge** (Table 2, Figure 3)

Anglers spent 6,548 hours targeting muskellunge during the 2015-16 season. Muskellunge fishing effort was greatest in July (2,029 hours). Total catch of muskellunge was 540 fish, with a harvest of 16 fish. Highest catch (186 fish) occurred in July. Anglers fished 14.6 hours to catch a muskellunge during the survey.

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

Fishing effort targeted at smallmouth bass was 1,918 hours during the 2015-16 season. Smallmouth bass fishing effort was greatest in July (513 hours). Total catch of smallmouth bass was 1,695 fish, with 17 being harvested. Highest catch (572 fish) occurred in May. Anglers fished 1.3 hours to catch a smallmouth bass during the survey.

### **Largemouth Bass** (Table 2, Figure 5)

Fishing effort directed at largemouth bass was 174 hours during the 2015-16 season. Largemouth bass fishing effort was greatest in June (104 hours). There was no documented catch or harvest of largemouth bass.

### **Panfish (Table 2, Figures 6-10)**

**Yellow perch** were the most sought after panfish species during the survey. Fishing effort directed at yellow perch was 5,775 hours. Total catch of yellow perch was 17,380 fish, with 8,498 being harvested. The mean length of yellow perch harvested was 8.6 inches.

**Bluegills** received 1,752 hours of directed fishing effort. Total catch of bluegills was 5,098 fish, with 2,973 being harvested. The mean length of bluegills harvested was 7.5 inches.

**Black crappies** received 247 hours of directed fishing effort. Anglers caught 110 black crappies and harvested 80 fish. The mean length of black crappies harvested was 10.6 inches.

**Pumpkinseeds and rock bass** were also caught during the 2015-16 season, with limited harvest documented.

## **ACKNOWLEDGMENTS**

Completion of this survey was possible because of the efforts of the following fisheries management and treaty fisheries staff: Lawrence Eslinger, Jeff Blonski, Joelle Underwood, Jason Halverson, Marty Kiepke, John Kubisiak, Steve Timler, Tim Tobias, Steve Gilbert, and Bob Consolo. Doug Day, Marty Kiepke, and Bob Consolo were the creel clerks on Bearskin Lake during the survey period.

We 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.

The department thanks our cooperator, Jeanette Klemme, who generously allowed the department to keep a boat and snowmobile on her property during this survey.

This creel report was reviewed by John Kubisiak and Lawrence Eslinger of the Wisconsin Department of Natural Resources, Woodruff, Wisconsin.

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

<http://dnr.wi.gov/topic/Fishing/north/trtycrs rvys.html>

**Table 1. Sportfishing effort summary, Bearskin Lake, 2015-16 season.**

<b>Month</b>	<b>Number of Angler Party Interviews</b>	<b>Total Angler Hours</b>	<b>Total Angler Hours/Acre</b>	<b>2003-04 Bearskin Total Angler Hours/Acre</b>	<b>Oneida County Average Hours/Acre</b>	<b>Ceded Territory Average Hours/Acre</b>
May	92	3603	9.0	9.5	4.8	5.0
June	75	3052	7.6	7.3	6.4	6.4
July	96	3820	9.6	8.7	7.3	6.8
August	54	2301	5.8	9.5	5.7	5.5
September	50	1698	4.2	5.0	3.3	3.3
October	92	1818	4.5	6.0	1.7	1.5
December	5	179	0.4	2.3	1.2	1.1
January	72	1510	3.8	1.5	1.5	1.7
February	62	1139	2.8	0.6	1.5	1.6
March	13	311	0.8	0.0	0.3	0.2
*Summer Total	459	16292	40.7	46.0	29.2	28.5
*Winter Total	152	3138	7.8	4.4	4.5	4.6
Grand Total	611	19430	48.6	50.4	33.7	33.1

\*"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 Bearskin 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 Bearskin Lake to other lakes.

**2003-04 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 Bearskin 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 Bearskin Lake to other lakes in northern Wisconsin.

**Table 2. Comparison of creel survey synopses, Bearskin Lake, 2015-16 and 2003-04 fishing seasons.**

CREEL YEAR: 2015-16

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	6683	28.7%	4655	1.5	1761	3.9	13.3
Northern Pike	182	0.8%	299	11.7	66		23.1
Muskellunge	6548	28.1%	540	14.6	16	400.0	38.8
Smallmouth Bass	1918	8.2%	1695	1.3	17	344.8	19.0
Largemouth Bass	174	0.7%	0		0		
Yellow Perch	5775	24.8%	17380	0.4	8498	0.8	8.6
Bluegill	1752	7.5%	5098	0.4	2973	0.6	7.5
Black Crappie	247	1.1%	110	5.5	80	10.0	10.6
Pumpkinseed	0	0.0%	7		2		7.1
Rock Bass	0	0.0%	96		0		

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

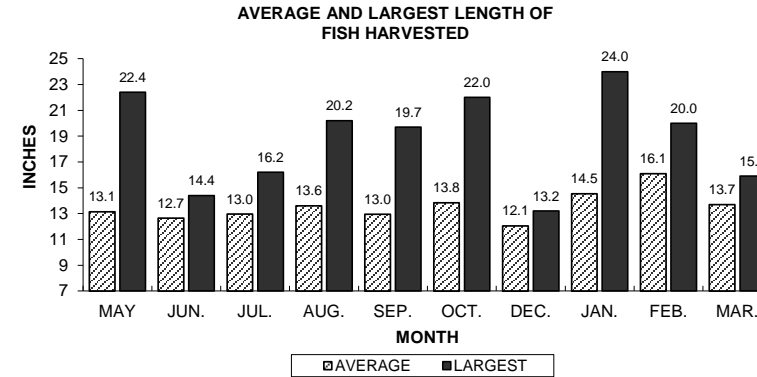
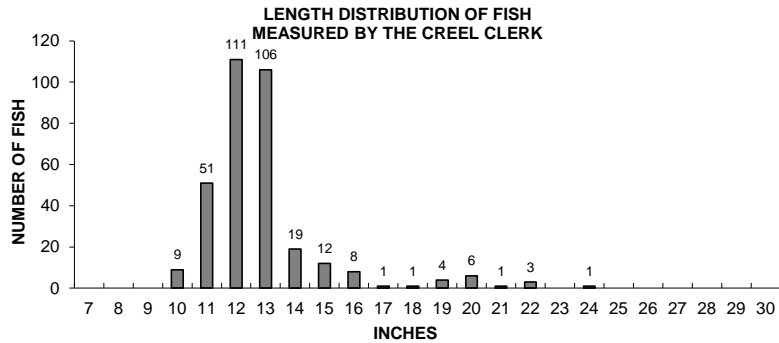
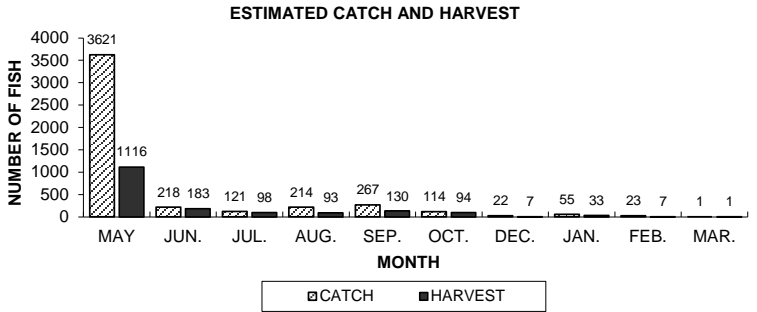
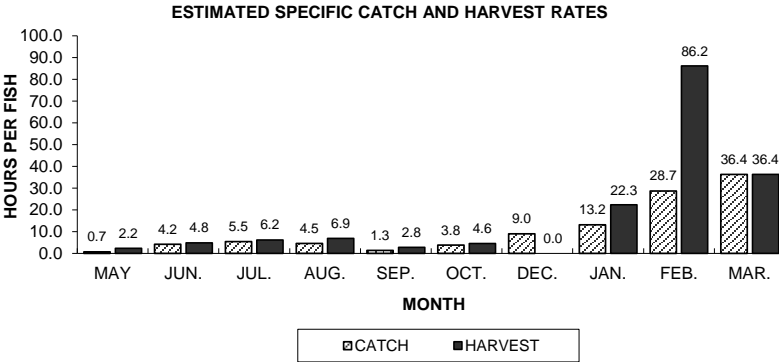
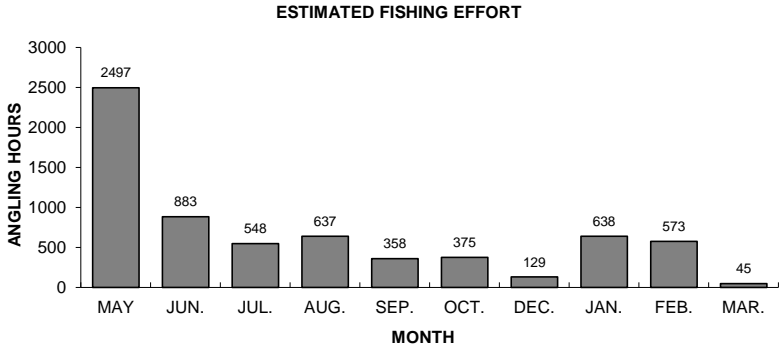
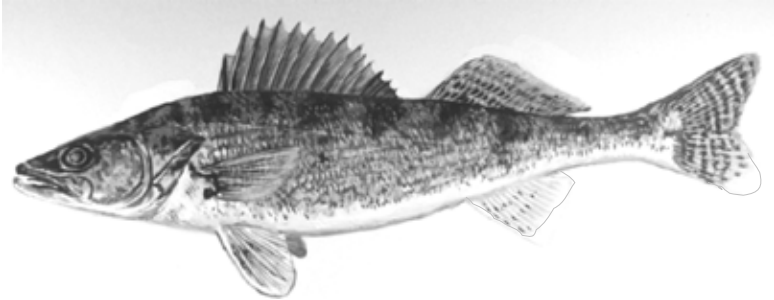
\*\* A blank cell in this column indicates that no fish of a given species were harvested by anglers who specifically targeted that species.

CREEL YEAR: 2003-04

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	11203	40.8%	5282	2.2	1536	7.3	12.4
Northern Pike	559	2.0%	447	11.2	62	15.1	22.9
Muskellunge	5784	21.0%	189	37.7	0		
Smallmouth Bass	3003	10.9%	2446	1.9	0		
Largemouth Bass	885	3.2%	229	21.5	0		
Yellow Perch	3658	13.3%	6748	0.6	1892	2.1	8.7
Bluegill	1488	5.4%	1901	1.0	307	5.1	7.7
Black Crappie	714	2.6%	257	3.5	191	4.4	11.6
Pumpkinseed	130	0.5%	5	27.1	5	27.1	6.4
Rock Bass	62	0.2%	858	0.3	42	8.5	6.8



# WALLEYE



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

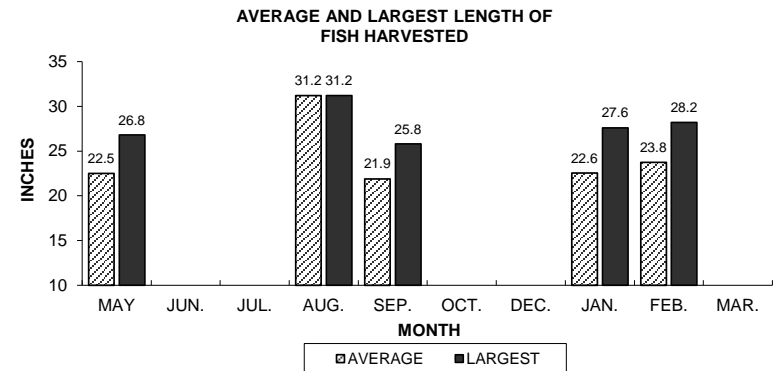
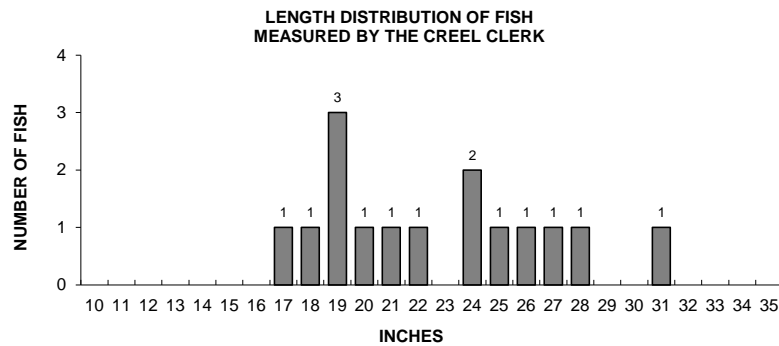
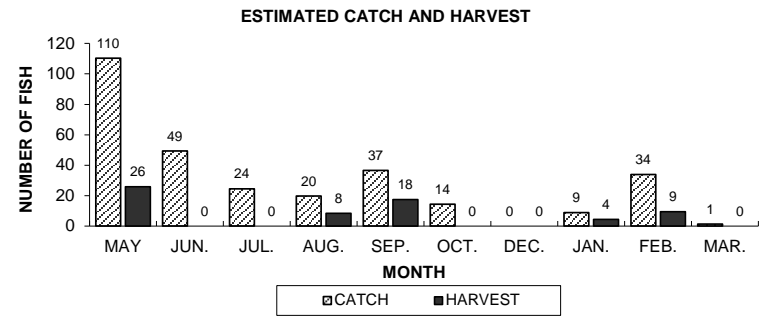
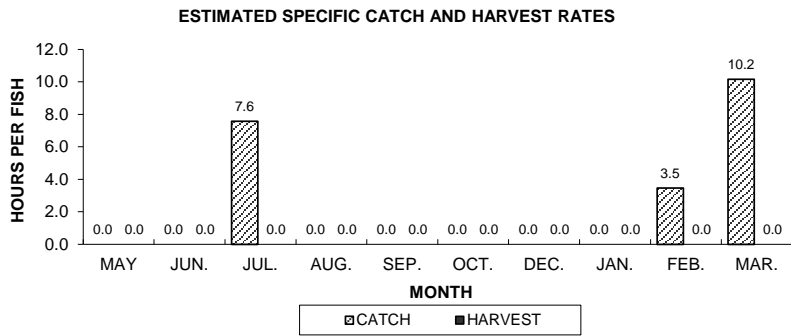
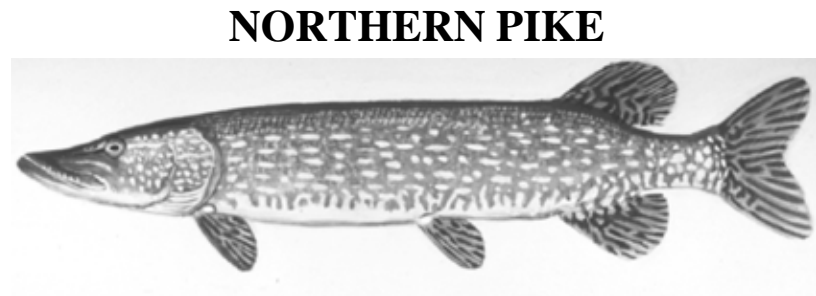
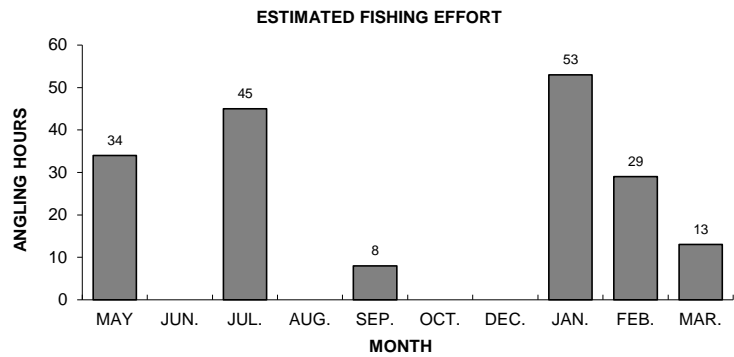
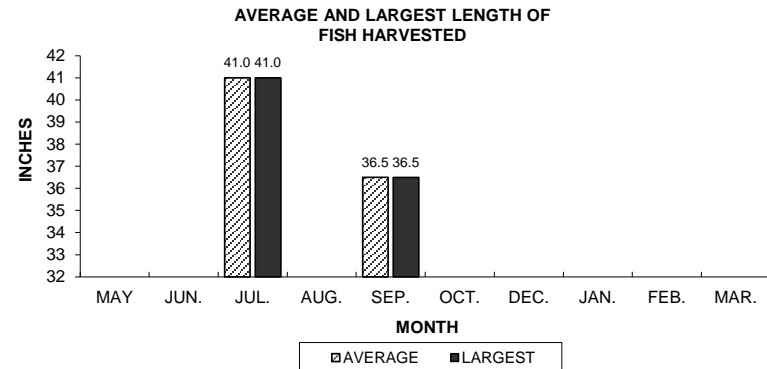
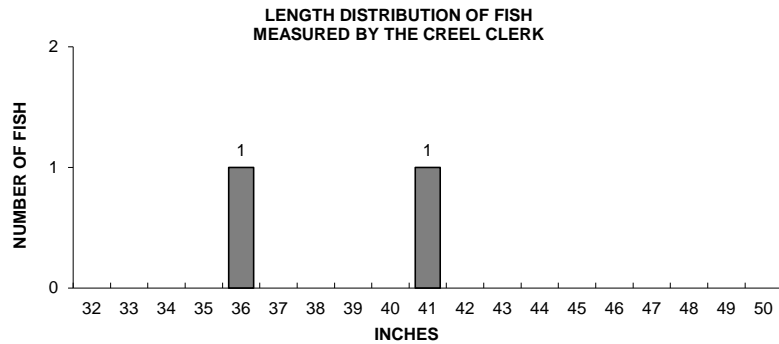
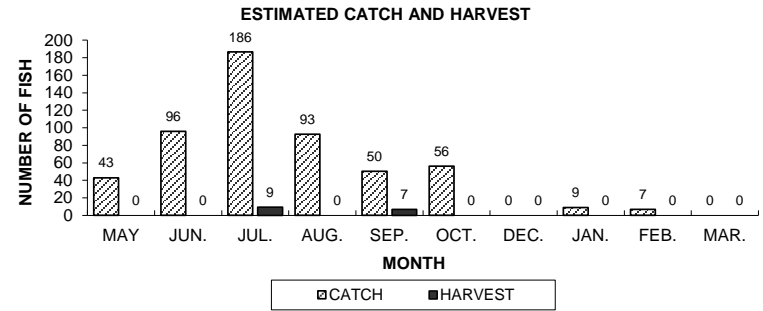
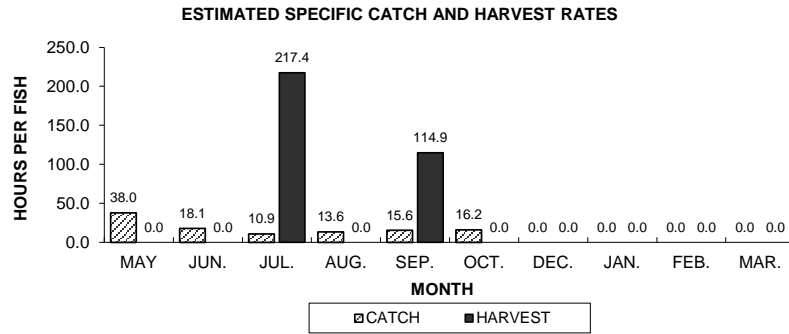
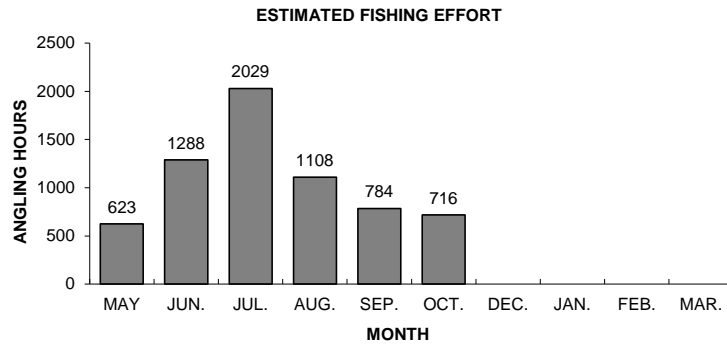


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# MUSKELLUNGE



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Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# SMALLMOUTH BASS

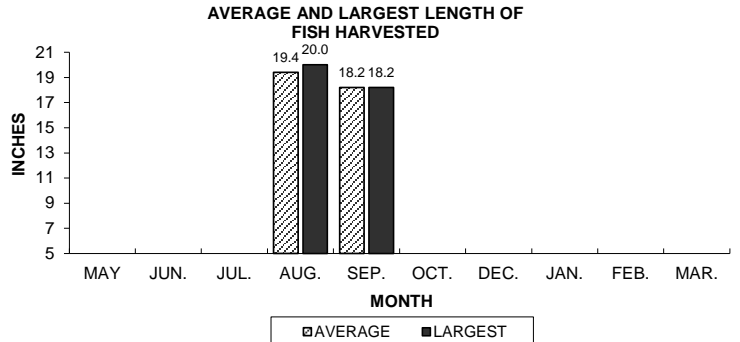
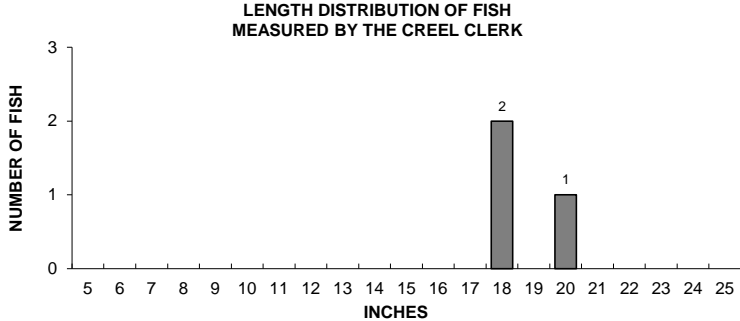
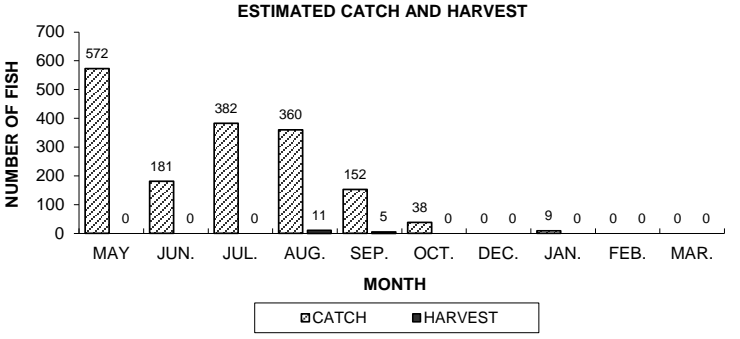
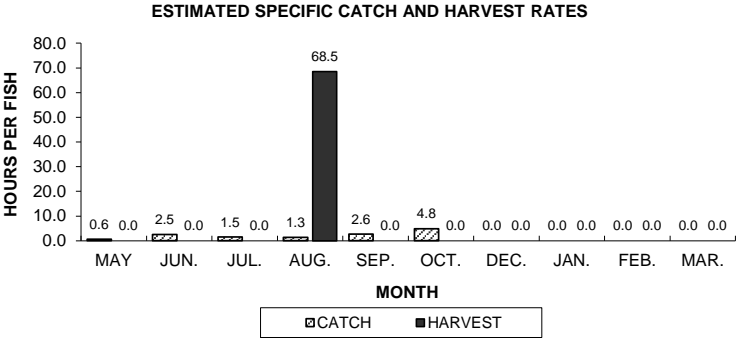
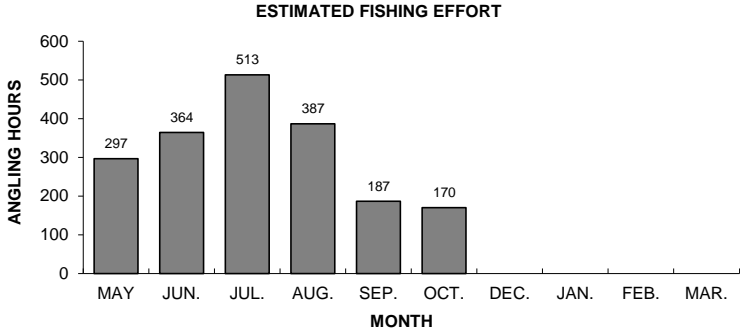
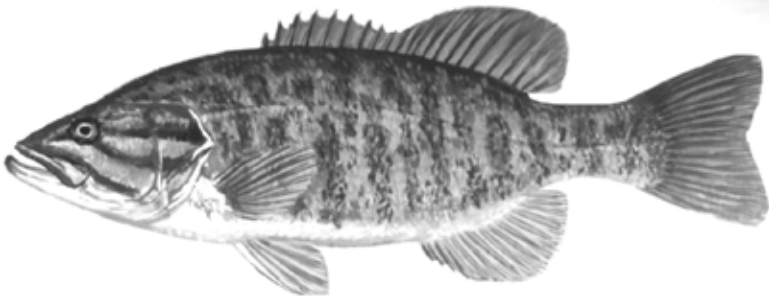
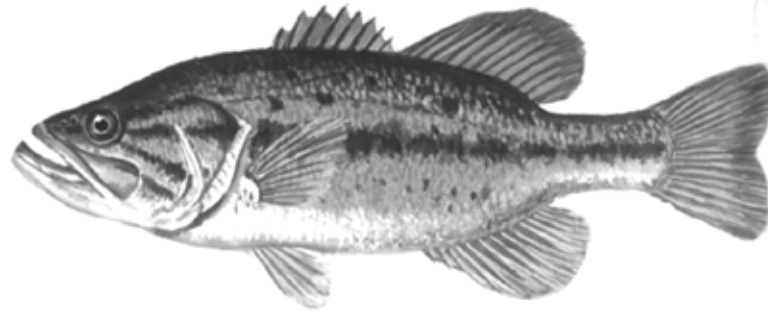


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# LARGEMOUTH BASS



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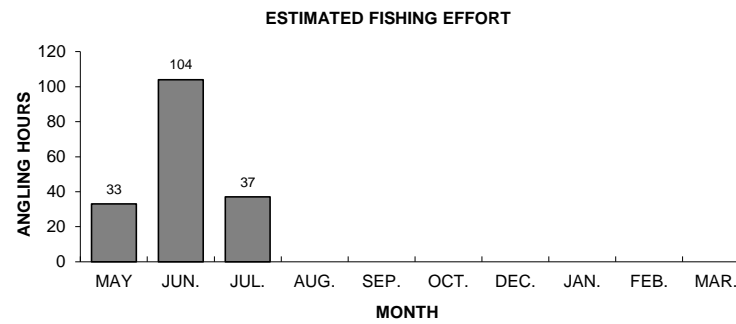


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# YELLOW PERCH

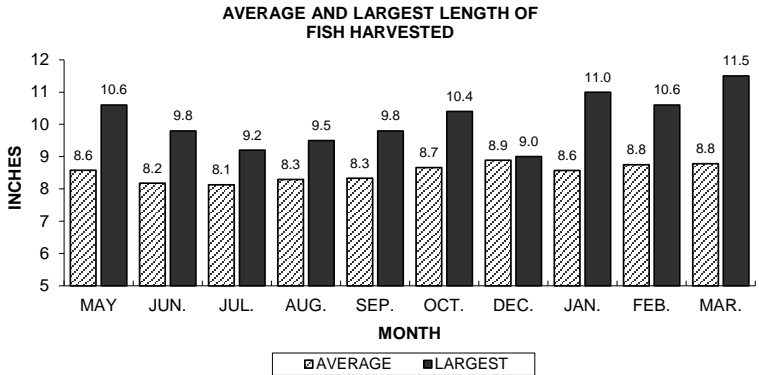
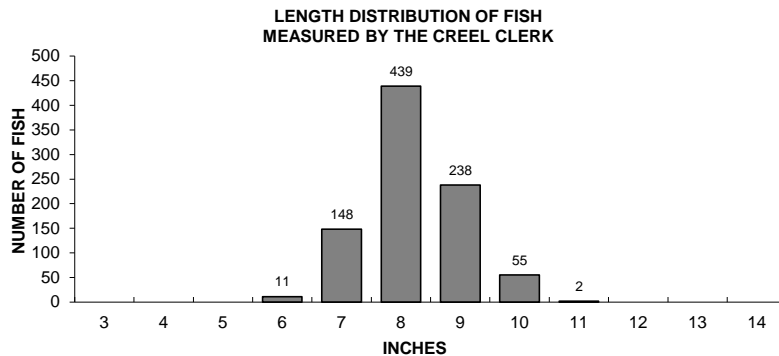
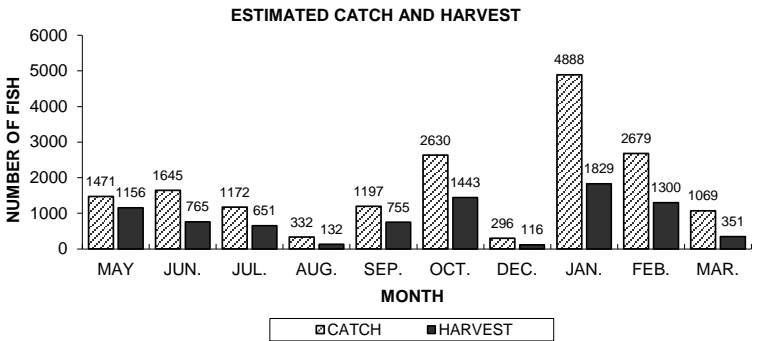
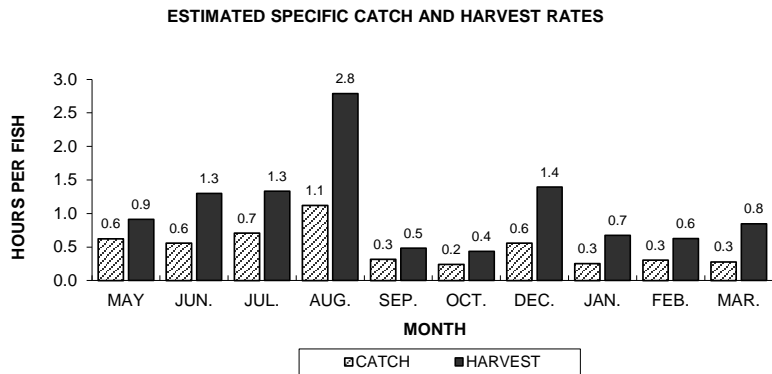
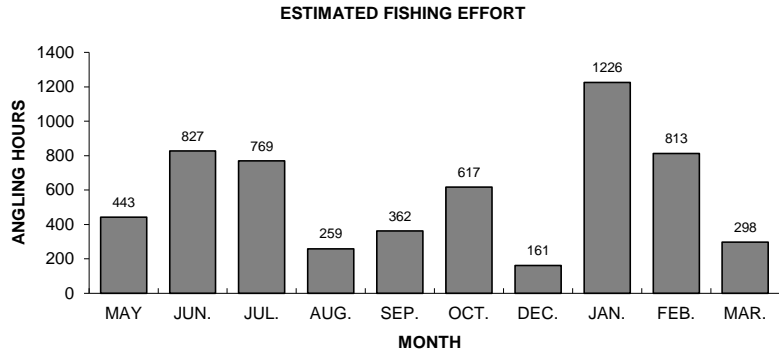


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# BLUEGILL

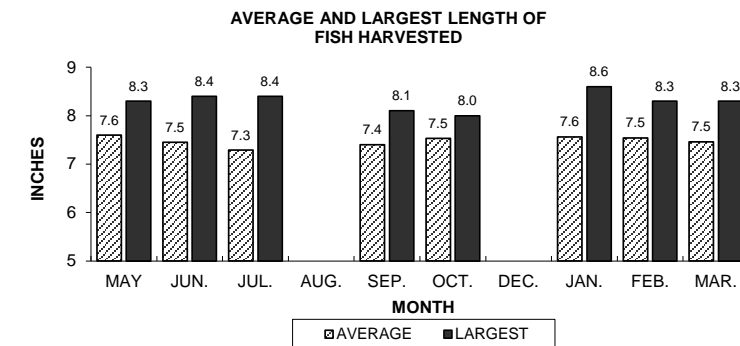
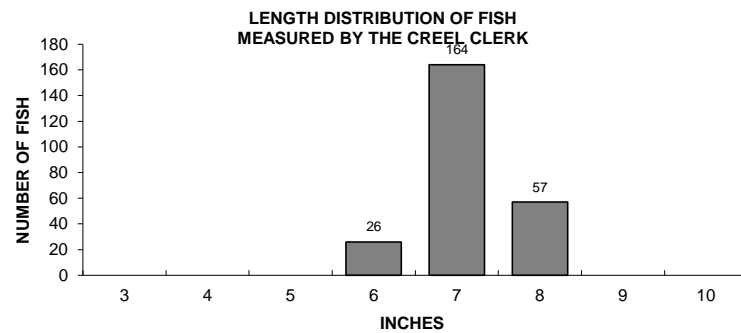
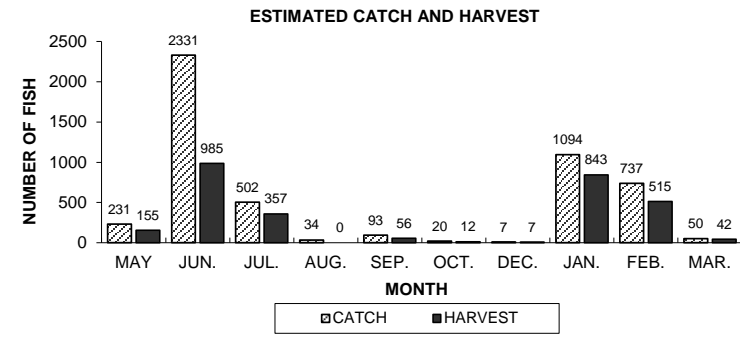
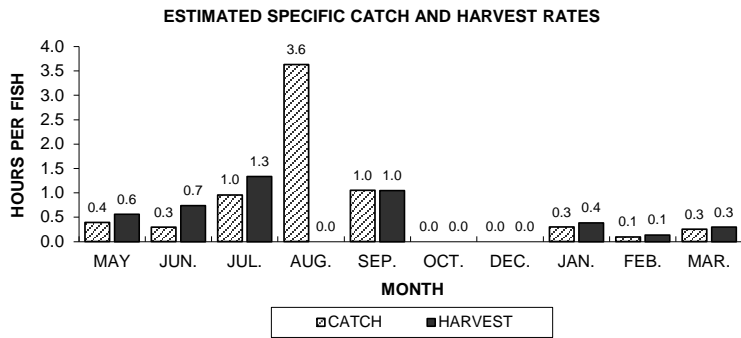
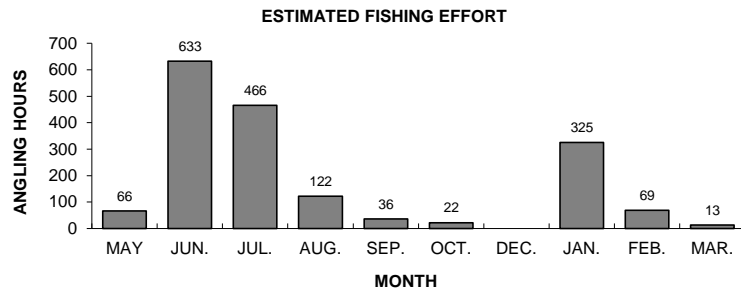


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# BLACK CRAPPIE

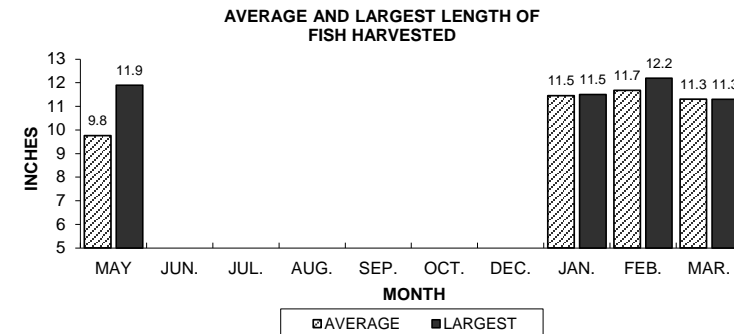
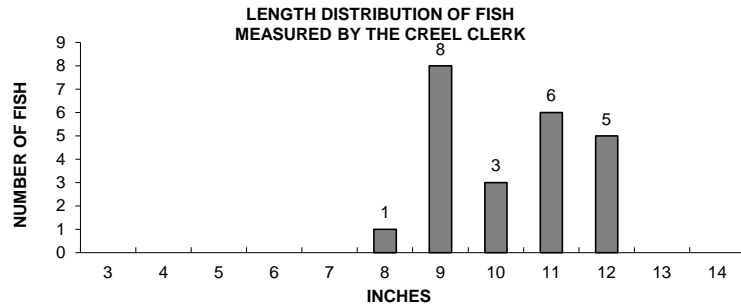
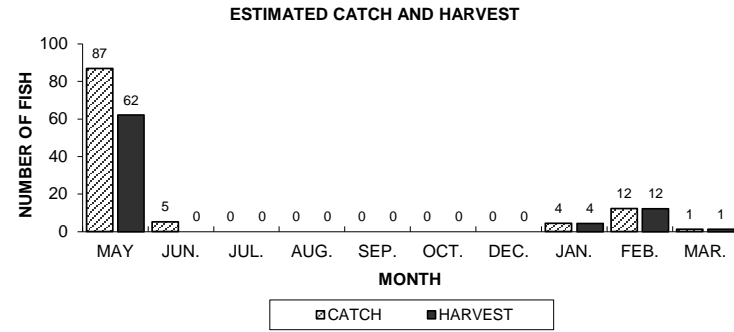
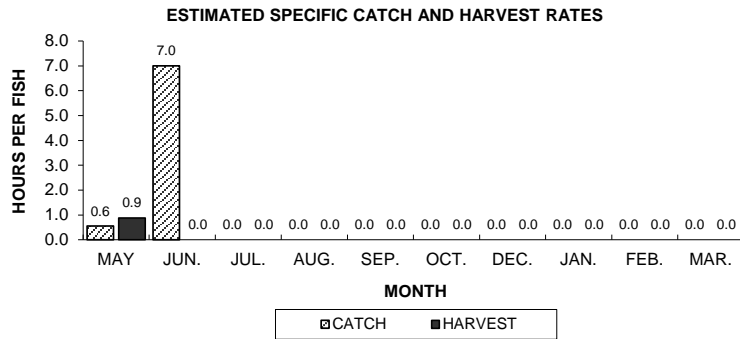
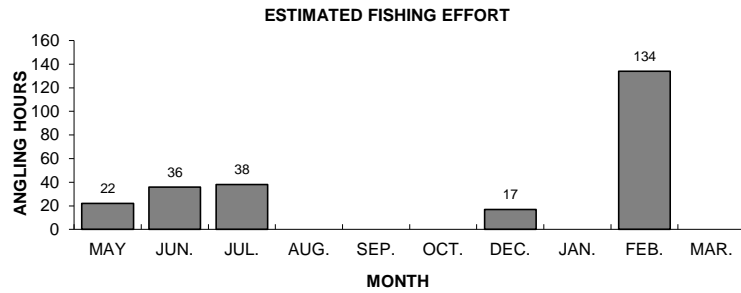


Figure 8. Black crappie sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.



# PUMPKINSEED

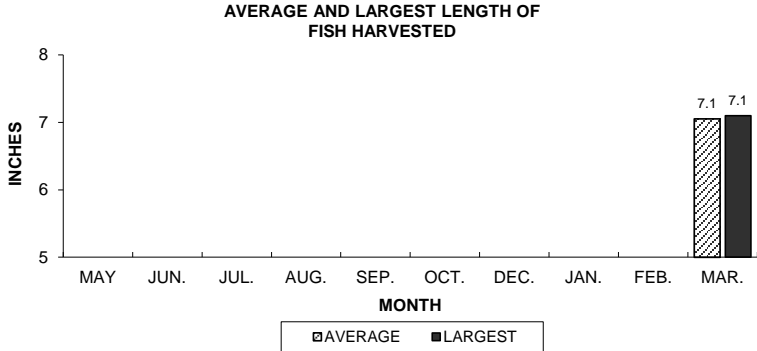
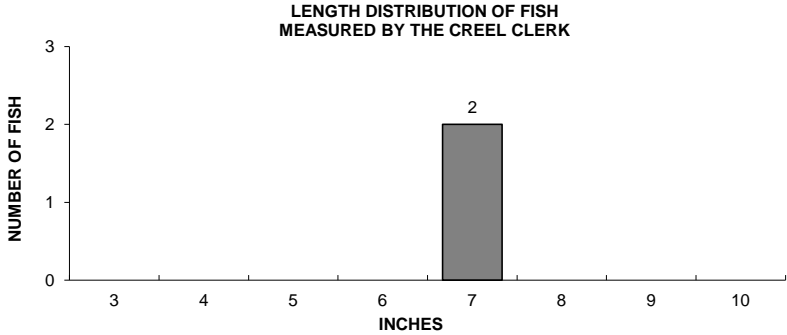
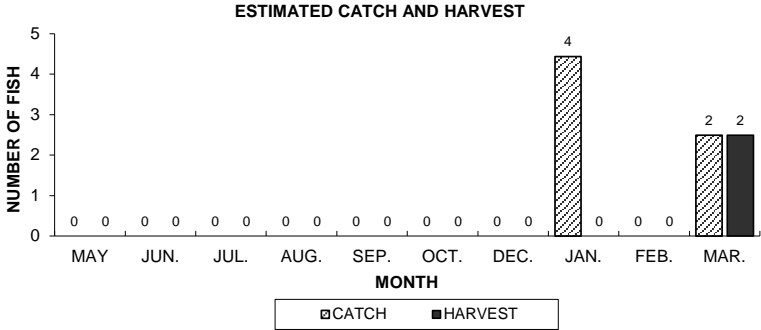
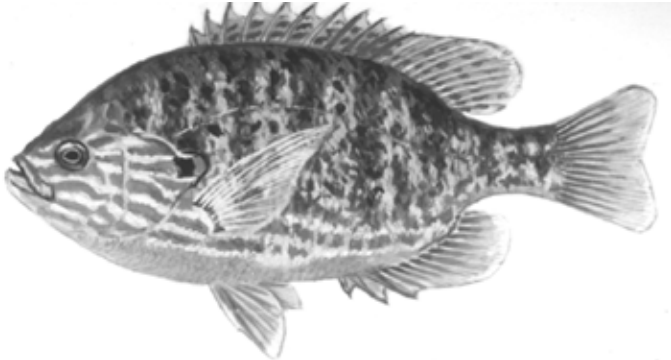
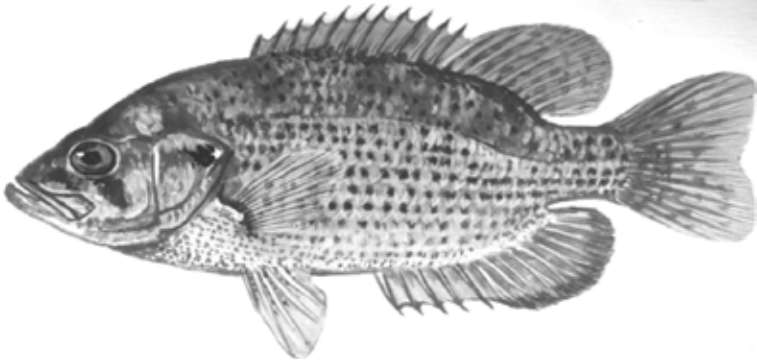


Figure 9. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.

# ROCK BASS



16

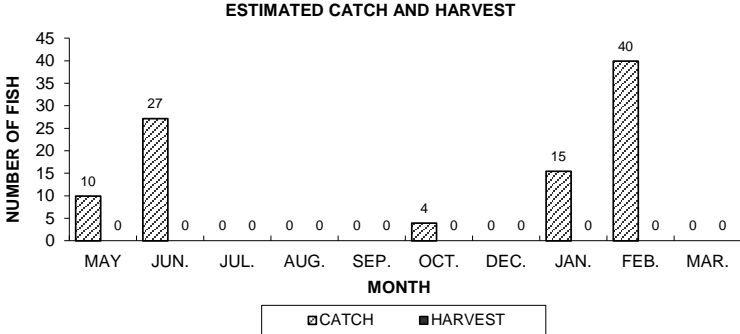


Figure 10. Rock bass sportfishing effort, catch, harvest, and length distribution, Bearskin Lake, during 2015-16.