

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

**CATFISH LAKE
(Eagle River Chain)**

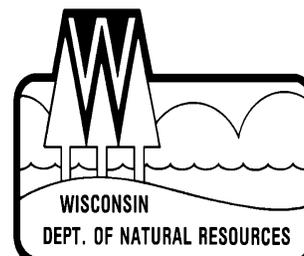
VILAS COUNTY

2013-14



Treaty Fisheries Publication

**Compiled by Jason Halverson &
Jeff Blonski
Treaty Fisheries Technicians**



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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 good 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). But 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 also measure the sport harvest to assess its impact on the fishery. But because it would be highly impractical and very costly to conduct a complete census of every angler who fishes on a lake, 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 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, except during the month of 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 numbers of anglers on a lake at predetermined times, and to interview anglers who have completed their fishing trip to collect data on what species they fished for, catch, harvest, lengths of fish harvested, marks (finclips 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 projections of total catch and harvest of each species, catch and harvest rates, and total fishing effort, by month and for the year in total. Keep in mind that these are only projections based on the best information available, and not a complete accounting of effort, catch, and harvest. Accurate projections 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.

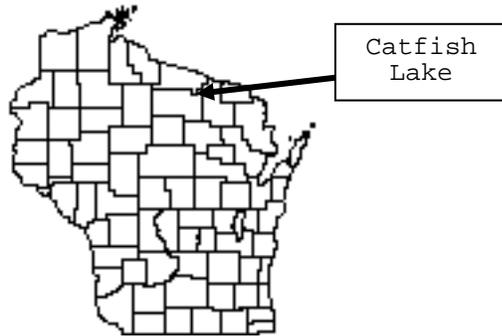
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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 Catfish Lake; discussion of results of the survey; and detailed summaries, by species of fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



Location

Catfish Lake is part of the Eagle River Chain of Lakes, located in Vilas County near the Town of Eagle River.

Physical Characteristics

Catfish Lake is the largest lake in the chain at 978 acres with a maximum depth of 30 feet and it accounts for 28% of the total chain average. Littoral substrate consists primarily of sand, with lesser amounts of muck, and gravel. Catfish Lake is a soft water lake with slightly acidic, stained water.

Seasons Surveyed

The period referred to in this report as the 2013-14 fishing season ran from May 4, 2013 through March 2, 2014. The open water creel survey ran from May 4 through October 31, 2013 and the ice fishing creel survey ran from December 1, 2013 through March 2, 2014.

Weather

Ice-out on Catfish Lake was around May 7, 2013. Fishable-ice formed on Cranberry Lake in Late November.

Fishing Regulations

The following seasons, daily bag limits, and length limits were in place on Catfish Lake during the 2013-14 fishing season:

| Species | Season | Bag Limit | Min. Size |
|-----------------------------------|------------|-----------------|--|
| Largemouth Bass & Smallmouth Bass | 5/4-6/14 | Catch & Release | |
| | 6/15-3/2 | 1 | 14" |
| Musky | 5/25-11/30 | 1 | 40" |
| Northern Pike | 5/4-3/2 | 5 | none |
| Walleye | 5/4-3/2 | 2* | No Minimum, 14"-18" Protected Slot, 1>18" Chain Wide Daily Bag Limit of 3 |
| Panfish | year round | 25 | none |
| Rock Bass | year round | none | none |

*Due to tribal harvest declarations, the walleye bag limit was set at 2 on Catfish Lake.

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 2 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

- PROJECTED FISHING EFFORT**
Total calculated number of hours during each month that anglers spent fishing for a species.
- PROJECTED 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. **PROJECTED 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 projections contained in the report. This was the third time the department has conducted a creel survey on Catfish Lake. The last creel survey took place in 2000-01.

General Angler Information

Anglers spent 28,785 hours or 29.4 hours per acre fishing Catfish Lake during the 2013-14 season (Table 1). That was less than the Vilas County average of 35.2 hours per acre. June was the most heavily fished month (7.8 hours per acre). Fishing effort was lightest in February (0.4 hours per acre) for those months when the entire month was creeled. Deep snow and slush on the lakes made winter access difficult for anglers. Overall winter fishing effort may have been negatively impacted by the unusually cold weather of the 2013-14 winter.

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Walleyes received the most fishing effort during the 2013 season. Anglers spent 12,110 hours targeting walleyes. The greatest fishing effort for walleyes was in June (3,772 hours). December had the least amount of walleye fishing effort (147 hours).

Total catch of walleyes was 5,610 fish with a harvest of 1,750 fish. Highest catch (1,827 fish) occurred in May and peak harvest (598 fish) occurred in June. Anglers fished 2.2 hours to catch and 7.0 hours to harvest a walleye during 2013-14.

The mean length of harvested walleyes was 13.0 inches and the largest walleye measured was a 20.7 inch fish.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 1,888 hours during the 2013-14 season. Northern pike fishing effort was greatest in June (506 hours).

Total catch of northern pike was 1,363 fish with a harvest of 137 fish.

The mean length of harvested northern pike was 20.7 inches and the largest northern pike measured was a 30.4 inch fish.

Muskellunge (Table 2, Figure 3)

Anglers spent 11,915 hours targeting muskellunge during the 2013-14 season. This is due to number of major musky tournaments throughout the musky season that are conducted on the chain. Muskellunge fishing effort was greatest in August (4092 hours).

Total catch of muskellunge was 456 fish with a harvest of 13 fish. Highest catch (254 fish) occurred in August. Anglers fished 28.8 hours to catch a muskellunge during 2013-14.

Smallmouth Bass (Table 2, Figure 4)

Fishing effort targeted at smallmouth bass was 757 hours during the 2013-14 season. Smallmouth bass fishing effort was greatest in August (426 hours).

Total catch of smallmouth bass was 327 fish with 18 harvested. Highest catch (130 fish) occurred in August. Anglers fished 4.5 hours to catch a smallmouth bass during 2013-14.

Largemouth Bass (Table 2, Figure 5)

Fishing effort directed at largemouth bass was 565 hours during the 2013-14 season. Largemouth bass fishing effort was greatest in July (252 hours).

Total catch of largemouth bass was 417 fish with no documented harvest. Highest catch (241 fish) occurred in July. Anglers fished 3.8 hours to catch a largemouth bass during 2013-14.

Panfish (Table 2, Figures 6-10)

Black crappies were the most sought after panfish species during the survey. Fishing effort directed at black crappies was 7,668 hours.

Anglers caught 7,018 black crappies and harvested 3,170 fish. The mean length of black crappies harvested was 10.4 inches.

Yellow perch were the second most sought after panfish species during the survey. Fishing effort directed at yellow perch was 7,566 hours.

Total catch of yellow perch was 4,692 fish with 1,675 harvested. The mean length of yellow perch harvested was 8.7 inches.

Bluegills were the third most sought after panfish species during the survey. Fishing effort directed at bluegills was 4,923 hours.

Total catch of bluegills was 2,707 fish with 840 harvested. The mean length of bluegills harvested was 7.5 inches.

Pumpkinseeds and rock bass were also caught during the 2013 season.

ACKNOWLEDGMENTS

Completion of this survey was possible because of the efforts of the following Fisheries Management and Treaty Fisheries staff: Jonathan Pyatskowitz, Jeff Blonski, Joelle Underwood, Marty Kiepke, Jason Halverson, Tim Tobias, Steve Gilbert, Dennis Scholl, and Madison fisheries staff including Joe Hennessy, Tom Cichosz, Jon Hansen, and Heidi Nelson. Tom Lima, Lynn Robinson, John Logan, Dean Johnson, Mike Rynski, Rich Cechal, John Davis, and Marty Kiepke were the creel clerks on the Eagle River Chain during the survey period.

We also 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 all of the cooperators, Gail Ely, Bill Landwehr, Vern & Diane Kramer, James (Yukon Jack) & Joyce Mecikalski, Vince Wagner, Richard Matkin, Bill & Sandy Jacobs, Gerda & Dean Safer of Gypsy Villa Resort, Chris Hartman of Wild Eagle Lodge, Shari Buller & Joe Panci of Trees For Tomorrow, Boat Sport Marina, and Twelve Pines Resort, who generously allowed the Department to keep a boat and snowmobile on their property during this survey.

This creel report was reviewed by Dennis Scholl and Steve Gilbert 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/trtycrclsrvys.html>

Table 1. Sportfishing effort summary, Catfish Lake, 2013-14 season.

| Month | Total Angler Hours | Total Angler Hours/Acre | Vilas County Average Hours/Acre | Ceded Territory Average Hours/Acre |
|---------------|---------------------------|--------------------------------|--|---|
| May | 4146 | 4.2 | 5.4 | 5.1 |
| June | 7669 | 7.8 | 7.0 | 6.4 |
| July | 4674 | 4.8 | 7.5 | 6.9 |
| August | 5885 | 6.0 | 6.6 | 5.4 |
| September | 2903 | 3.0 | 4.3 | 3.3 |
| October | 1935 | 2.0 | 2.0 | 1.5 |
| December | 443 | 0.5 | 0.6 | 1.1 |
| January | 744 | 0.8 | 0.8 | 1.6 |
| February | 388 | 0.4 | 0.9 | 1.5 |
| March | 0 | 0.0 | 0.1 | 0.2 |
| *Summer Total | 27210 | 27.8 | 32.8 | 28.6 |
| *Winter Total | 1575 | 1.6 | 2.4 | 4.4 |
| Grand Total | 28785 | 29.4 | 35.2 | 33.0 |

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

Total Angler Hours is the estimated total number of hours that anglers spent fishing on Catfish 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 Catfish Lake to other lakes.

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.

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 Catfish Lake to other lakes statewide.

Table 2. Comparison of creel survey synopses, Catfish Lake, 2013-14 and 2000-01 fishing seasons.

CREEL YEAR: 2013-14

| 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 | 12110 | 25.27% | 5610 | 2.2 | 1750 | 7.0 | 13.0 |
| Northern Pike | 1888 | 3.94% | 1363 | 6.1 | 137 | 15.6 | 20.7 |
| Muskellunge | 11915 | 24.87% | 456 | 28.8 | 13 | 909.1 | 45.5 |
| Smallmouth Bass | 757 | 1.58% | 327 | 4.5 | 18 | 87.0 | 17.2 |
| Largemouth Bass | 565 | 1.18% | 417 | 3.8 | 0 | | |
| Yellow Perch | 7566 | 15.79% | 4692 | 2.1 | 1675 | 4.9 | 8.7 |
| Bluegill | 4923 | 10.27% | 2707 | 1.9 | 840 | 5.9 | 7.5 |
| Pumpkinseed | 151 | 0.32% | 93 | 3.5 | 36 | 4.2 | 6.9 |
| Rock Bass | 370 | 0.77% | 400 | 3.9 | 67 | 6.7 | 8.0 |
| Black Crappie | 7668 | 16.00% | 7018 | 1.2 | 3170 | 2.5 | 10.4 |

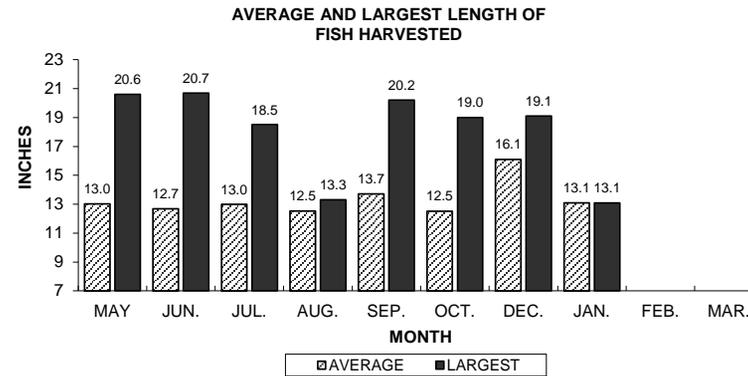
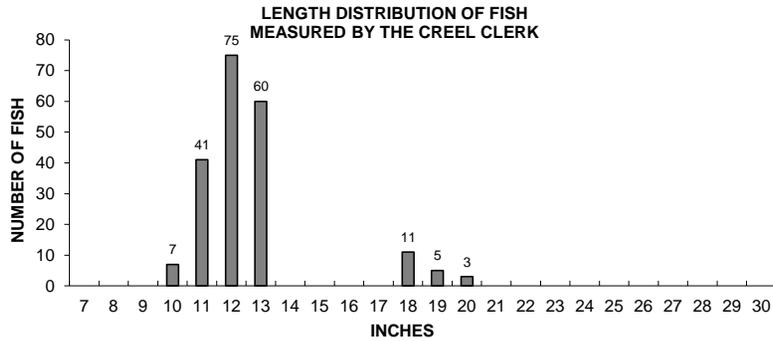
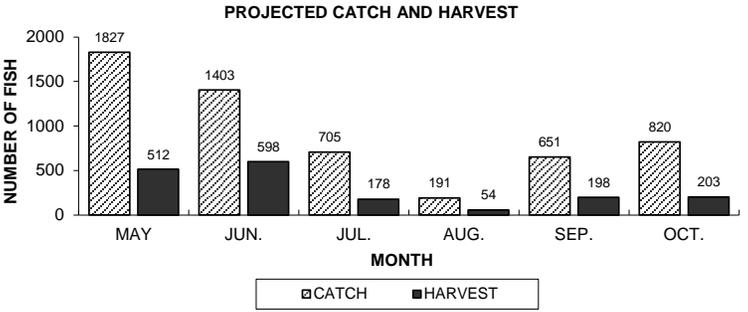
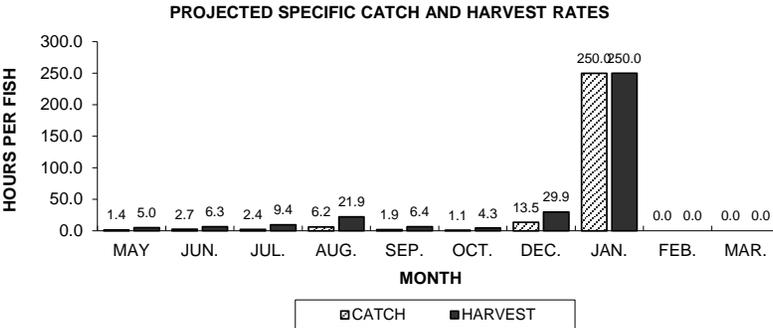
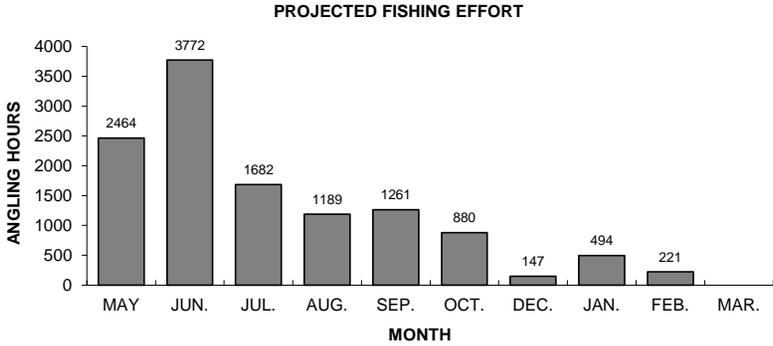
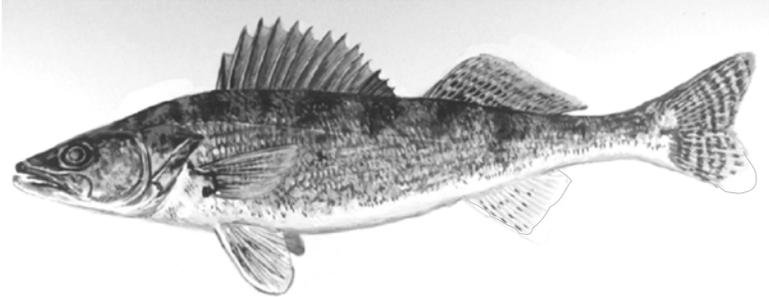
9 * A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

** 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: 2000-01

| 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 | 9363 | 25.40% | 2573 | 3.7 | 679 | 14.1 | 12.4 |
| Northern Pike | 1077 | 2.92% | 721 | 8.7 | 118 | 23.8 | 23.3 |
| Muskellunge | 14798 | 40.15% | 1027 | 15.1 | 20 | 714.3 | 38.4 |
| Smallmouth Bass | 319 | 0.87% | 270 | 46.3 | 17 | 169.5 | 18.8 |
| Largemouth Bass | 228 | 0.62% | 0 | 0.0 | 0 | 0.0 | |
| Yellow Perch | 5407 | 14.67% | 7929 | 1.0 | 1742 | 4.4 | 7.8 |
| Bluegill | 2334 | 6.33% | 1077 | 2.3 | 0 | 0.0 | |
| Pumpkinseed | 212 | 0.58% | 14 | 15.3 | 14 | 15.3 | 6.7 |
| Rock Bass | 1094 | 2.97% | 1439 | 4.1 | 259 | 8.1 | 6.9 |
| Black Crappie | 2028 | 5.50% | 636 | 3.7 | 317 | 6.7 | 10.8 |

WALLEYE



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

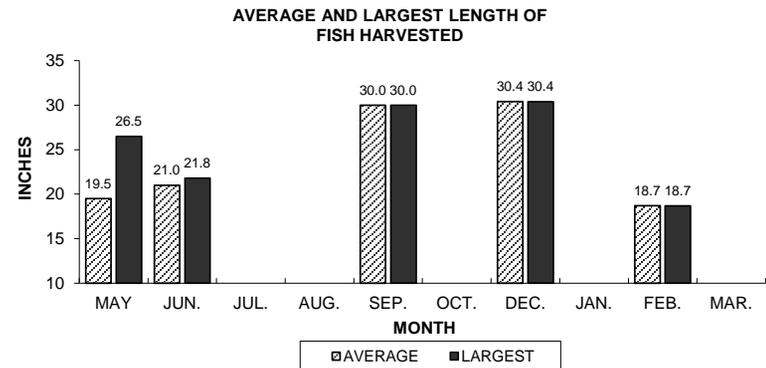
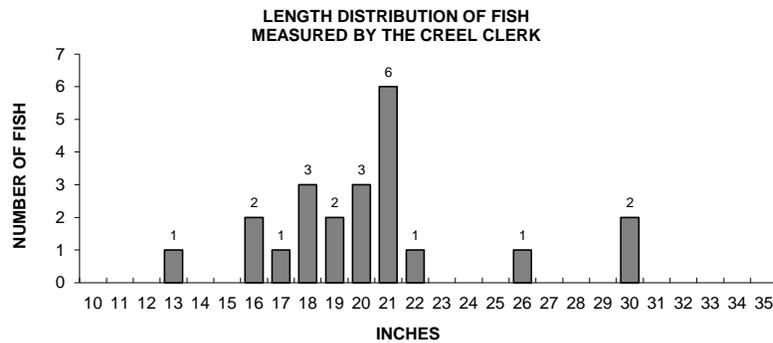
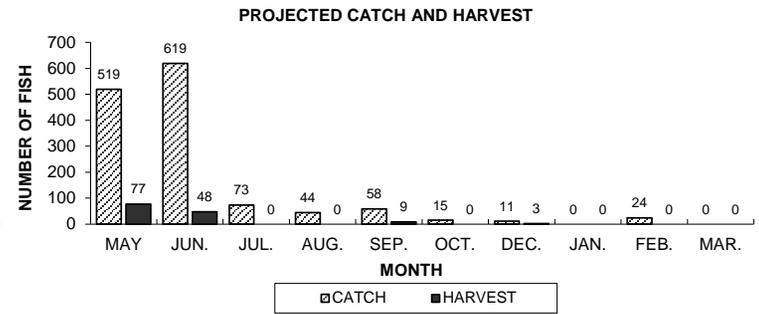
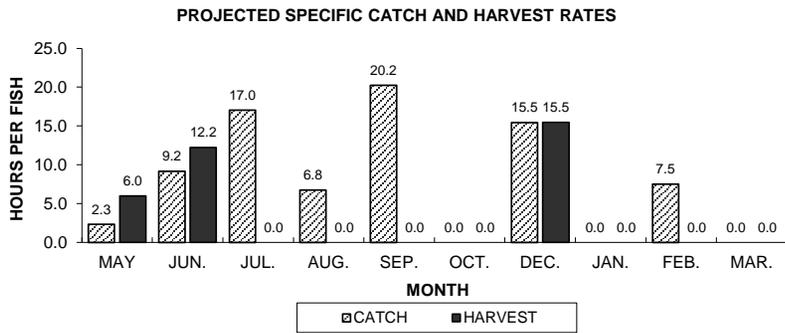
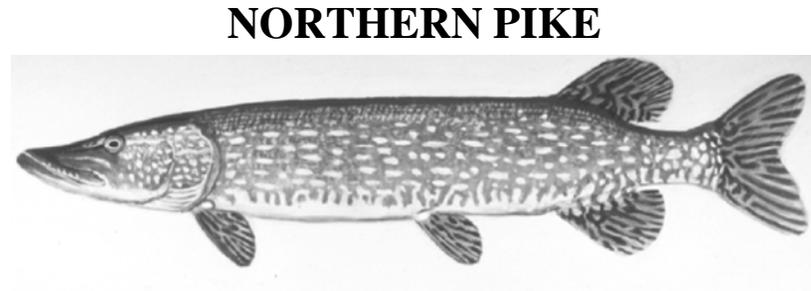
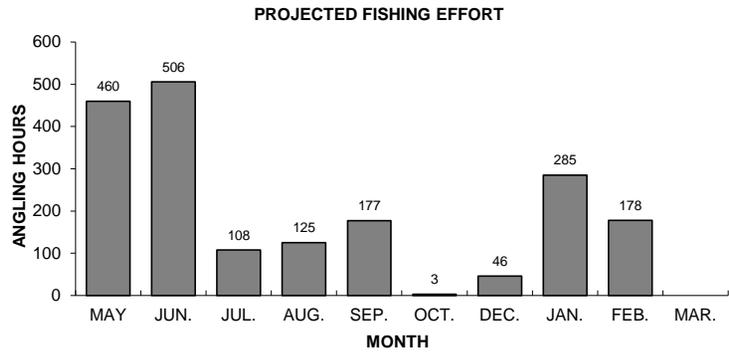
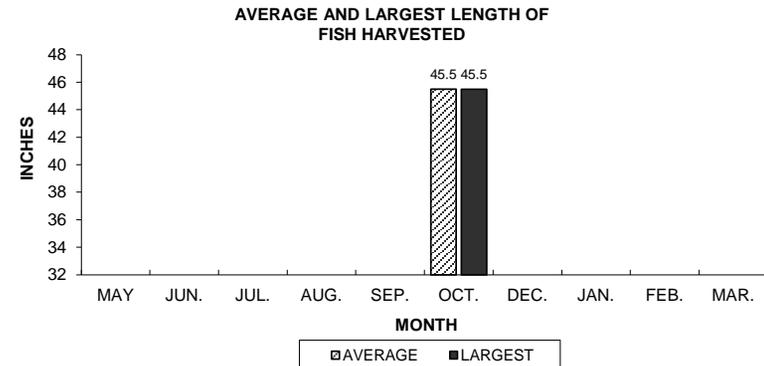
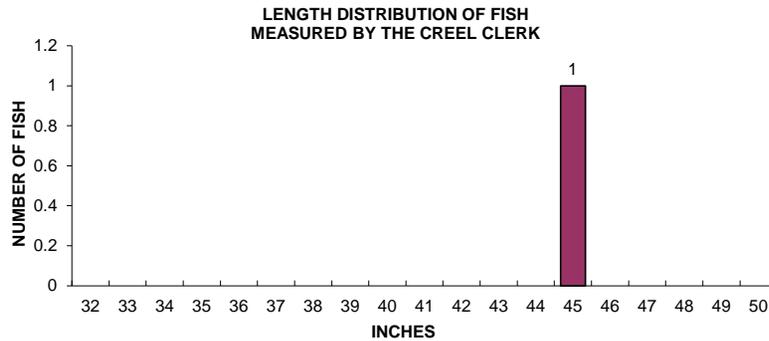
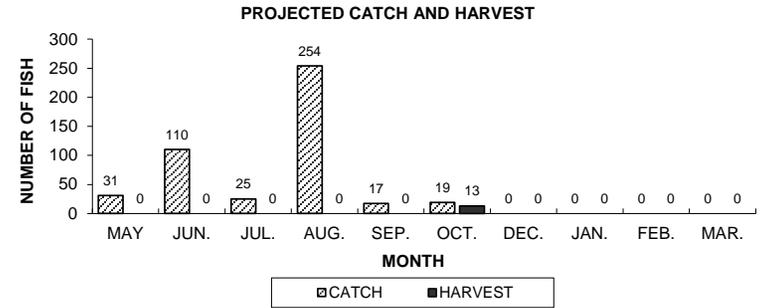
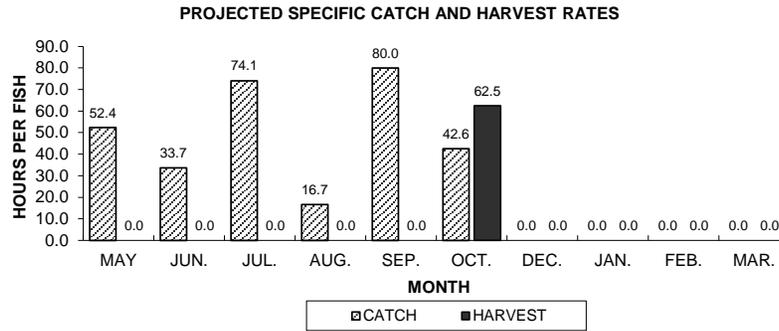
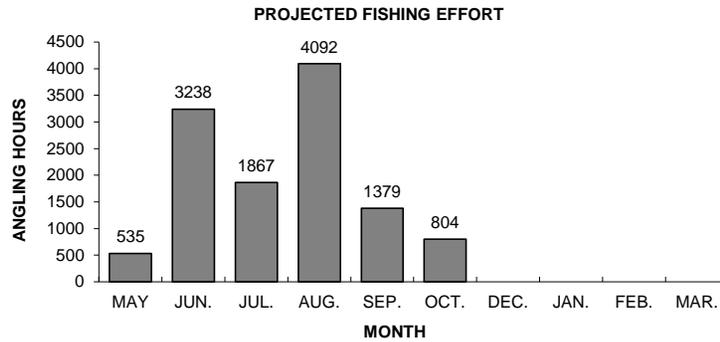
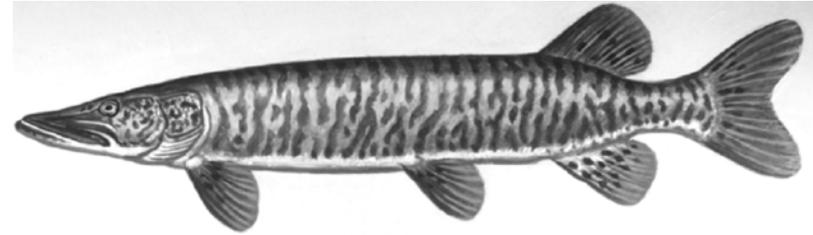


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

MUSKELLUNGE



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Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

SMALLMOUTH BASS

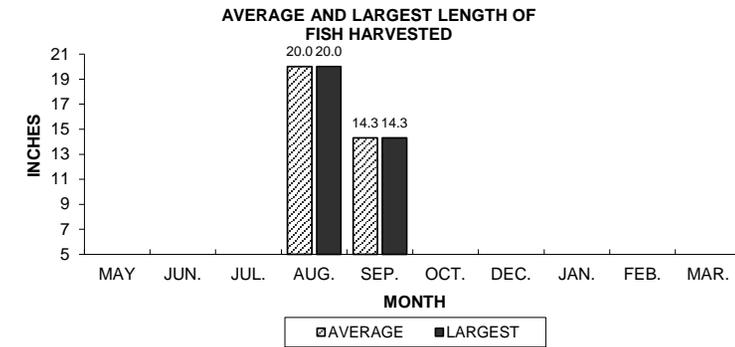
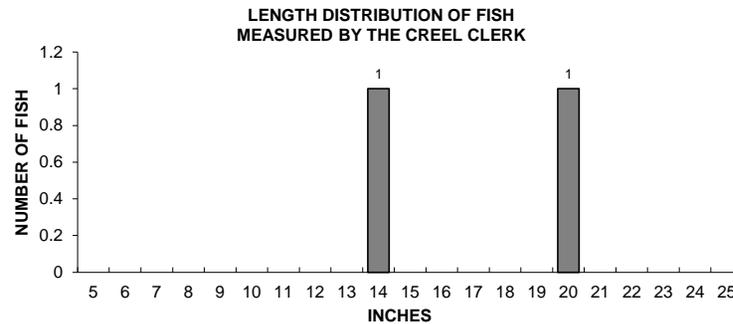
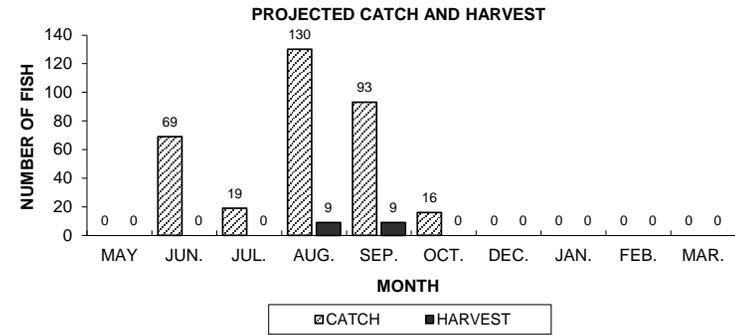
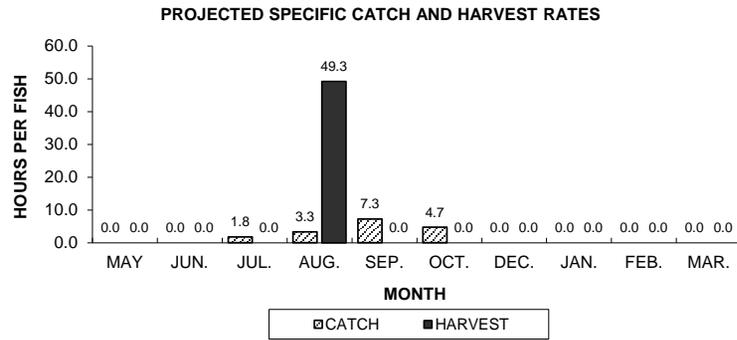
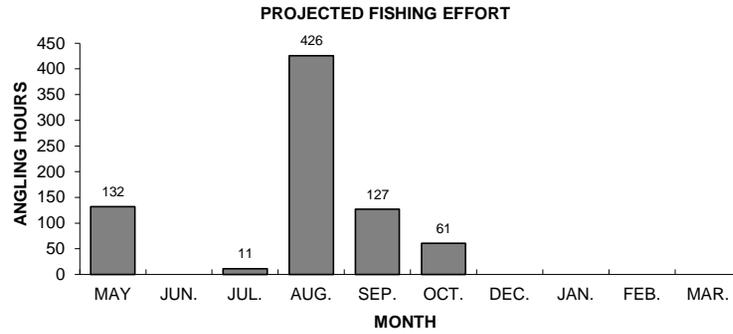
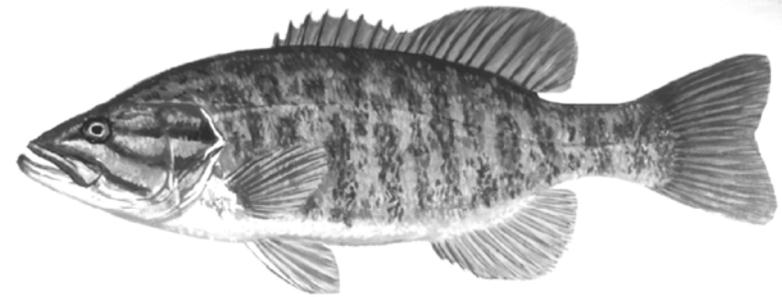
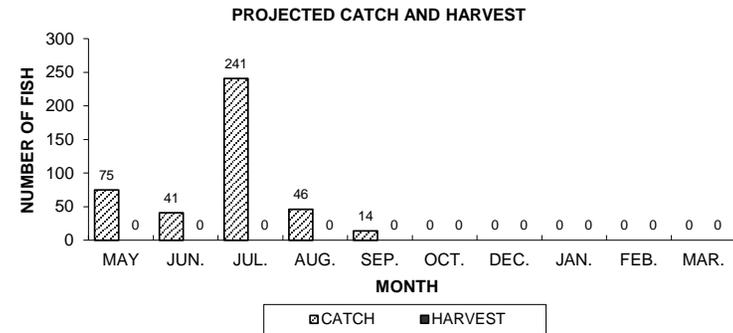
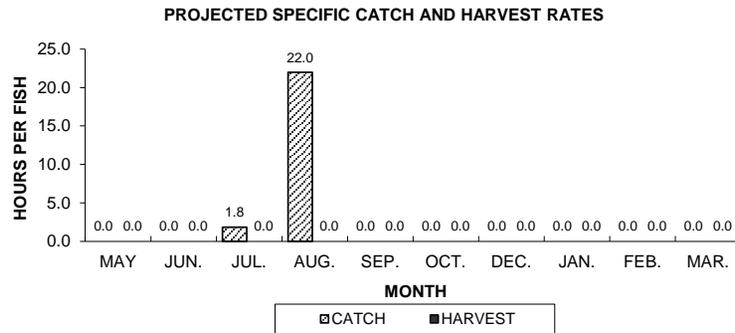
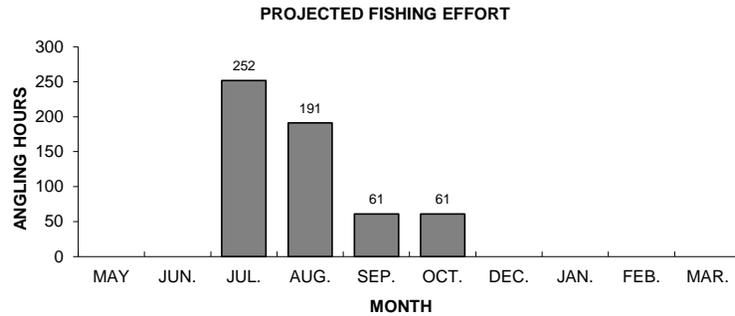
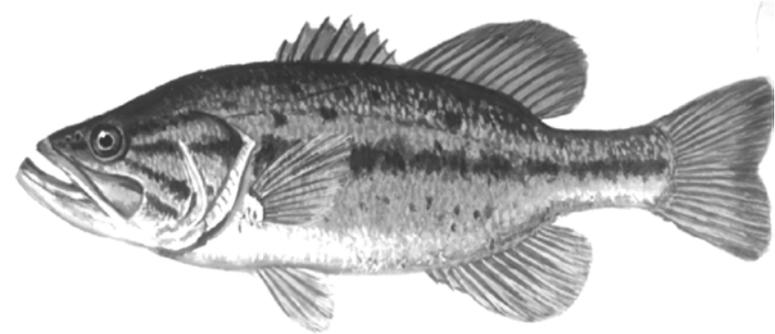


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

LARGEMOUTH BASS



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Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

YELLOW PERCH

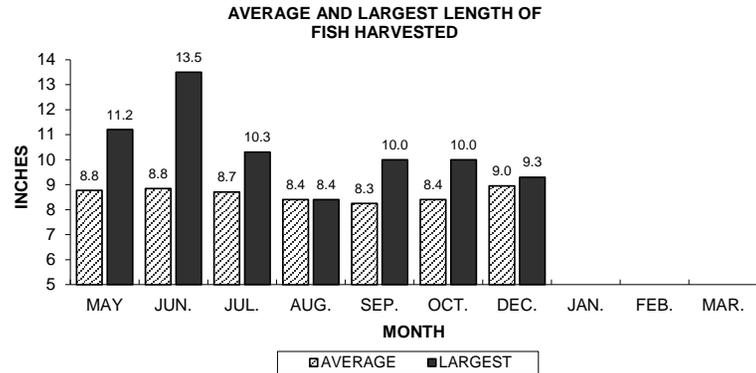
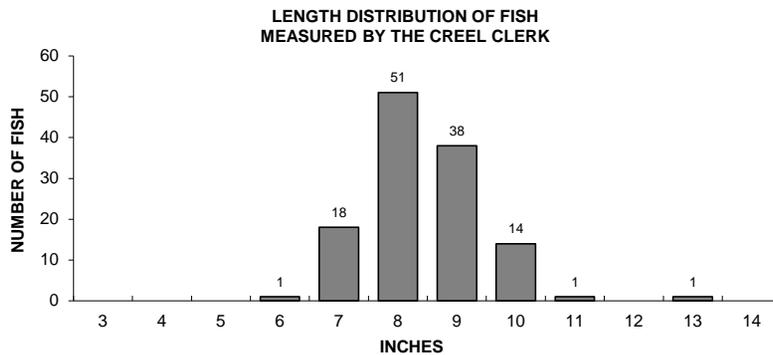
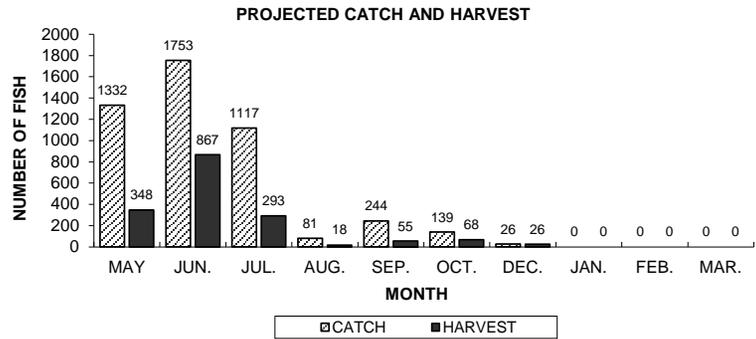
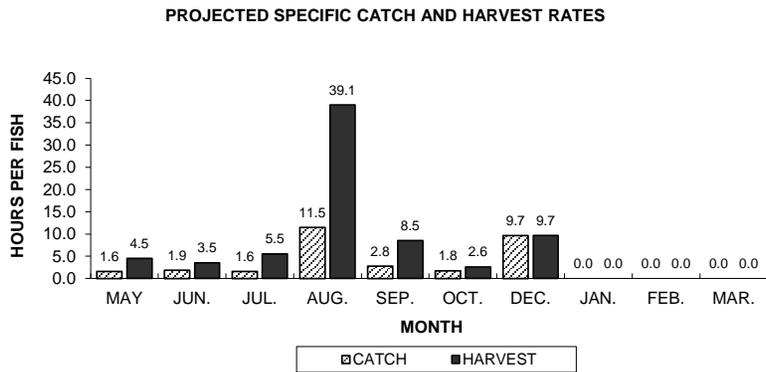
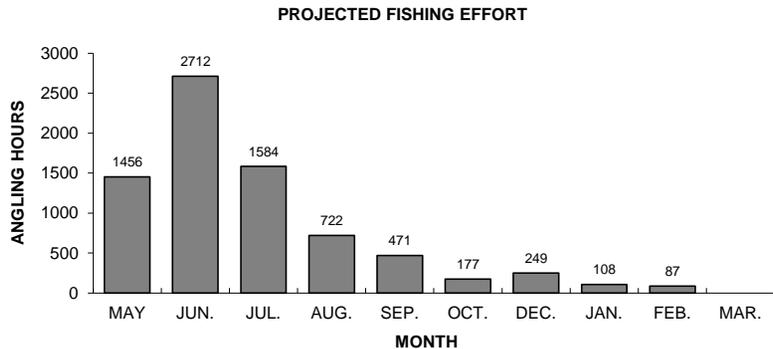


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

BLUEGILL

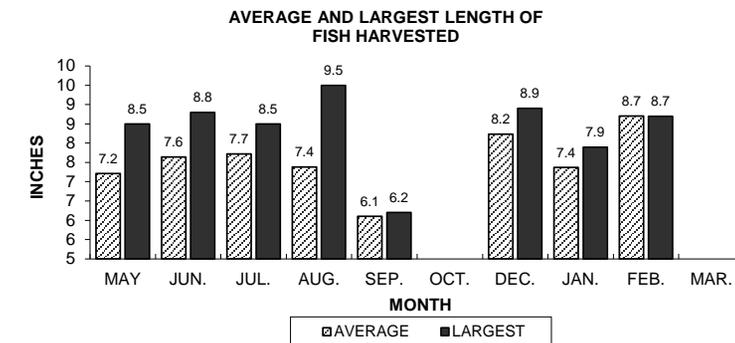
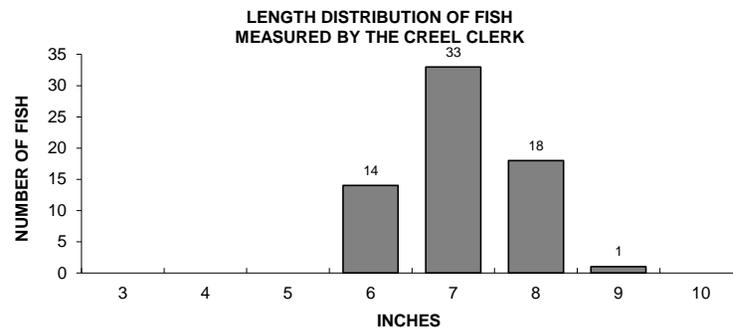
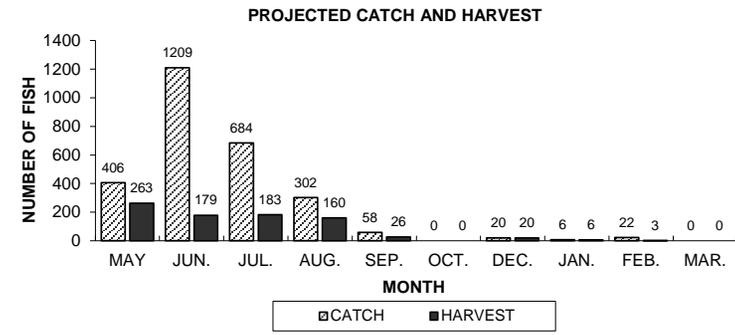
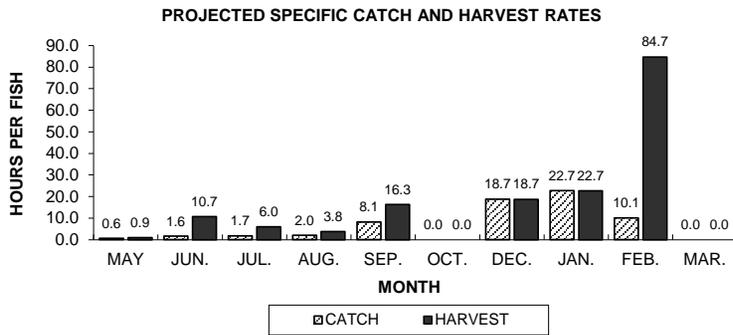
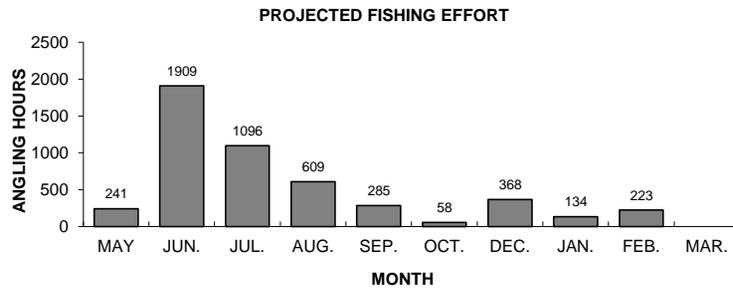
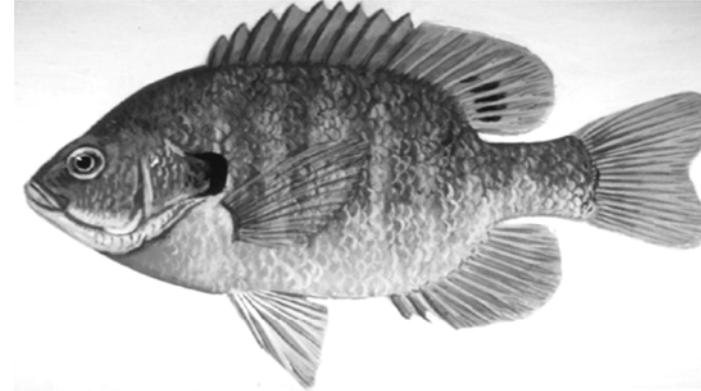


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

PUMPKINSEED

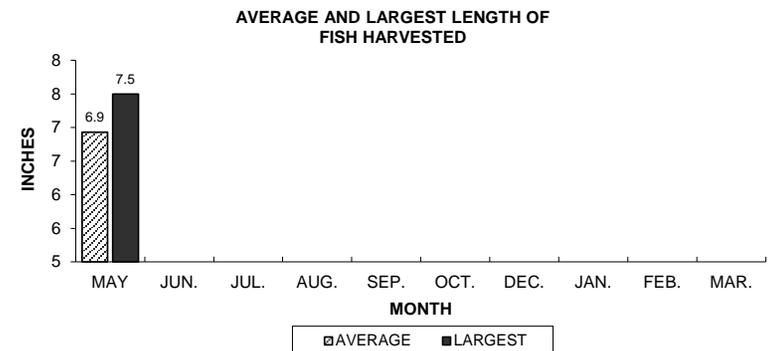
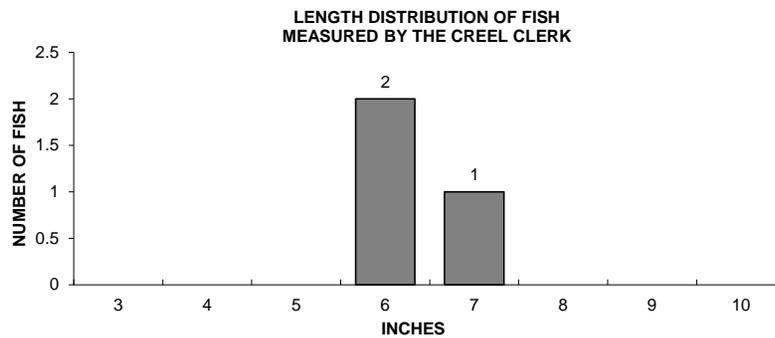
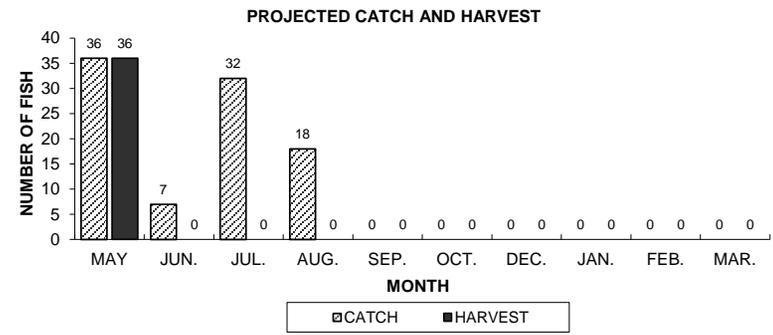
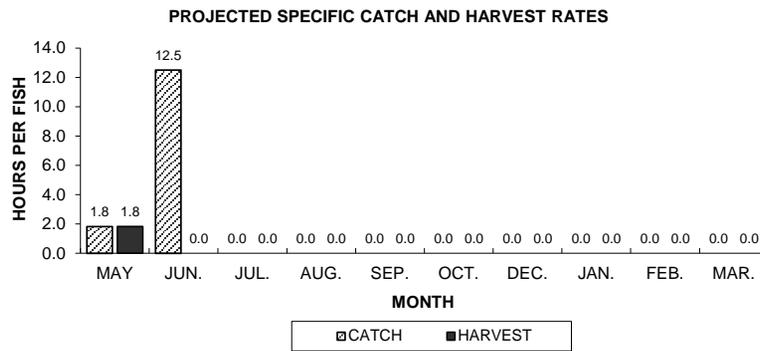
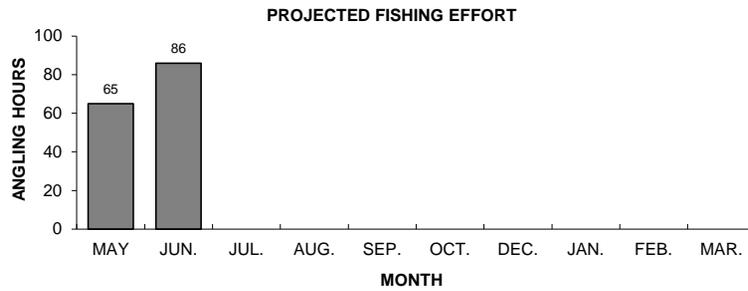
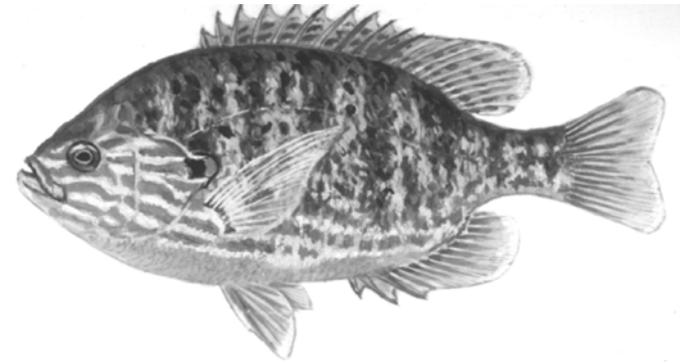


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

ROCK BASS

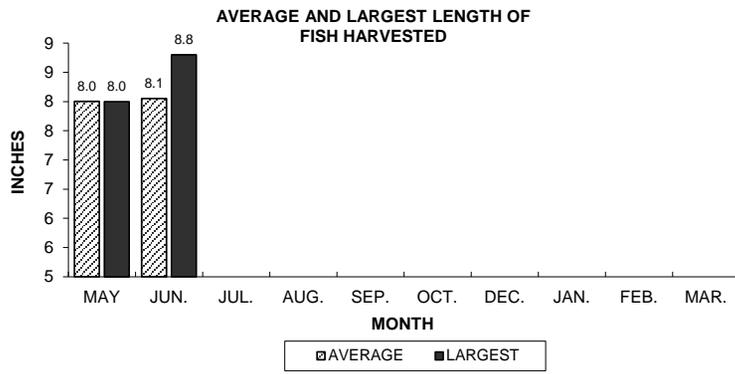
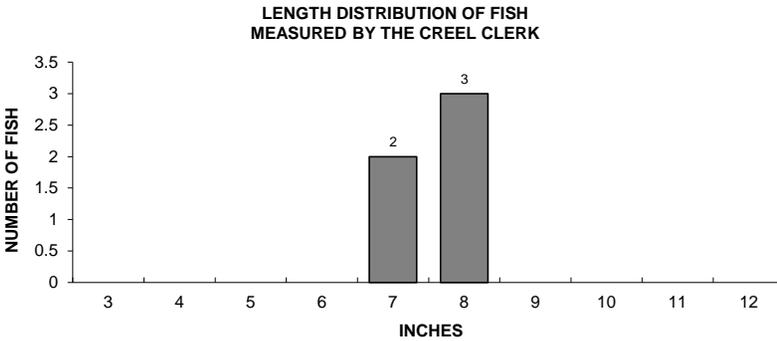
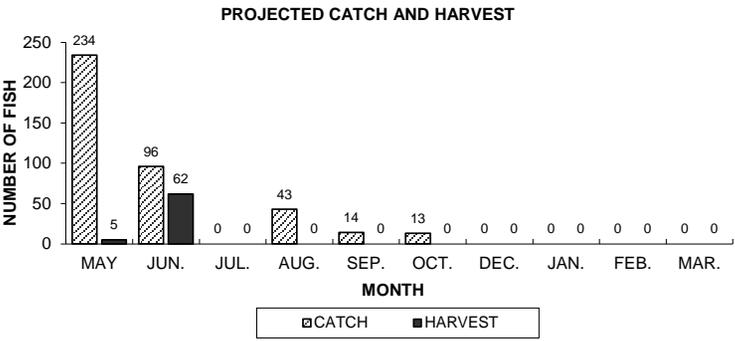
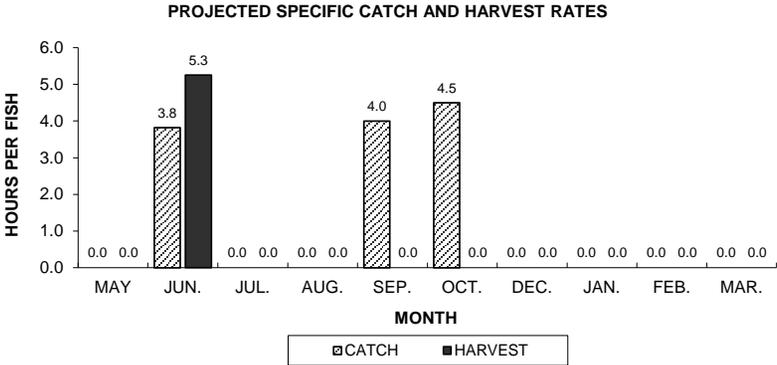
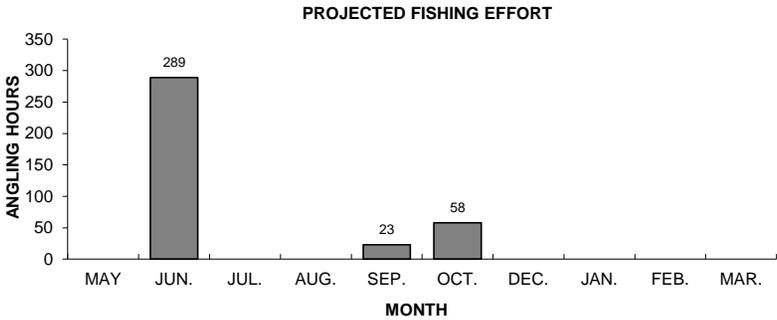
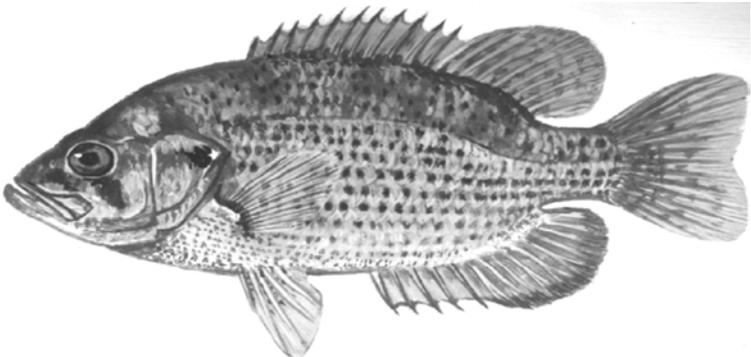


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.

BLACK CRAPPIE

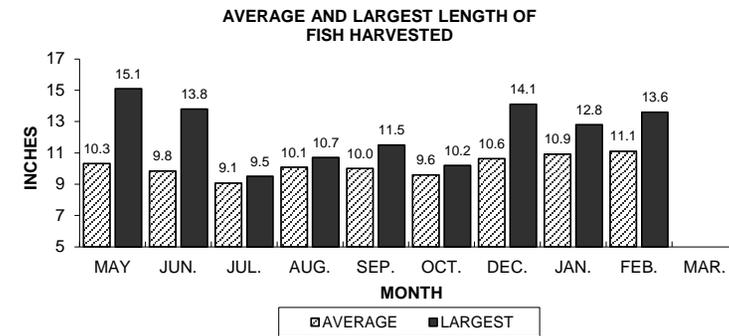
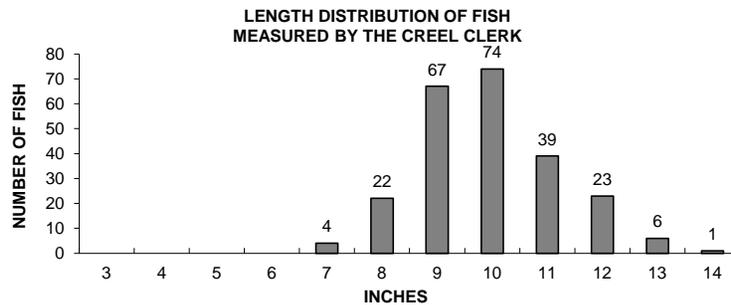
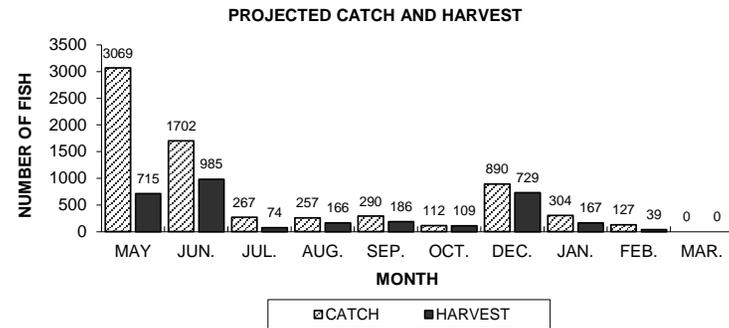
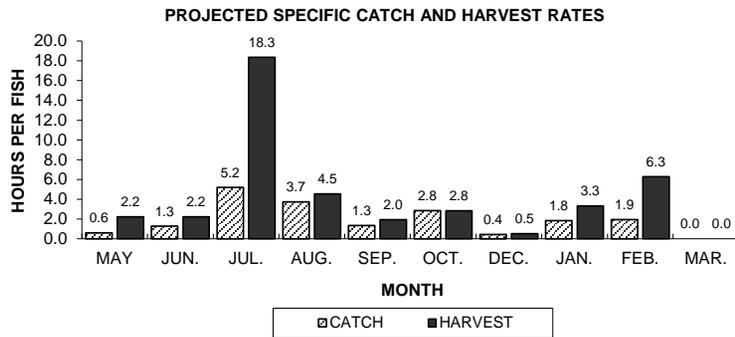
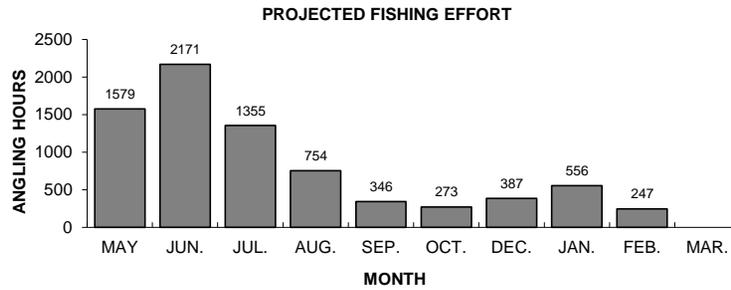
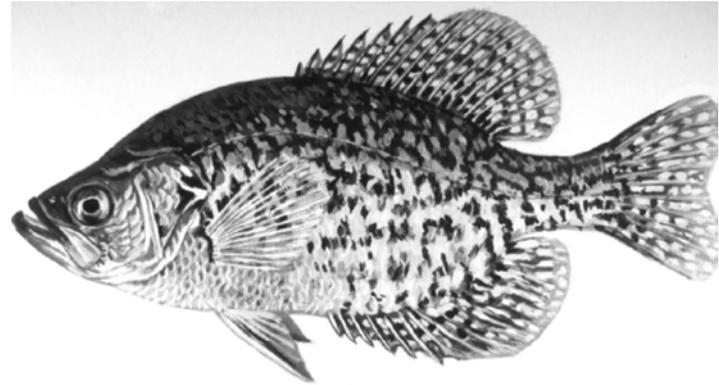


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Catfish Lake, during 2013-14.