

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

Mamie Lake

(Cisco Chain)

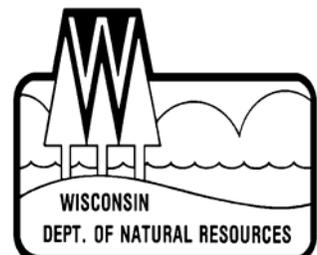
Vilas County

2008-09



Treaty Fisheries Publication

**Compiled by Tim Tobias
Treaty Fisheries Technician**



CONTENTS

INTRODUCTION	1
GENERAL LAKE INFORMATION	2
Location	2
Physical Characteristics	2
Seasons Surveyed	2
Weather	2
Sportfishing Regulations.....	2
SPECIES CATCH AND HARVEST INFORMATION	2
CREEL SURVEY RESULTS AND DISCUSSION	3
Survey Logistics	3
General Angler Information.....	3
SPECIES INFORMATION	3
ACKNOWLEDGMENTS	4

SUMMARY TABLES

Table 1. Sportfishing effort summary	5
Table 2. Creel survey synopsis	6

SPECIES CATCH AND HARVEST INFORMATION

Gamefish

Figure 1. Walleye.....	7
Figure 2. Northern Pike	8
Figure 3. Muskellunge	9
Figure 4. Smallmouth Bass	10
Figure 5. Largemouth Bass	11

Panfish

Figure 6. Yellow Perch	12
Figure 7. Bluegill	13
Figure 8. Pumpkinseed.....	14
Figure 9. Rock Bass	15
Figure 10. Black Crappie	16

Cover Art: Steve Hilt, Minocqua, WI

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 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.

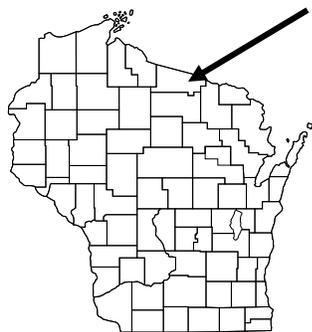
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides projections of:

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

GENERAL LAKE INFORMATION



Mamie Lake

Location

Mamie Lake is located in northern Vilas County approximately 8 miles west of the town of Land O'Lakes.

Physical Characteristics

Mamie Lake is a 360-acre Drainage Lake of high fertility, clear water of moderate transparency, and a maximum depth of 21 feet. Littoral substrate consists primarily of sand, with gravel and some rock and muck.

Seasons Surveyed

The period referred to in this report as the 2008-09 fishing season ran from May 3, 2008 through March 1, 2009. The open water creel survey ran from May 3 through October 31, 2008 and the ice fishing creel survey ran from December 1, 2008 through March 1, 2009.

Weather

Ice-out on Mamie Lake was around April 30. Spring, summer and fall weather were cool and dry. Fishable-ice formed on Mamie Lake in December.

Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Mamie Lake during the 2008-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass & Smallmouth Bass	5/03-6/20	Catch & Release	
	6/21-11/30	5	14"
Northern Pike	5/03-3/01	5	none
Walleye	5/03-3/01	3	15"
Muskellunge	5/03-11/30	1	40"
Panfish	year round	25	none
Rock Bass	year round	none	none

SPECIES CATCH AND HARVEST INFORMATION

Angling information is summarized for each species (Figures 1-10) with effort and/or catch information. Information presented about species whose fishing season extends beyond March 1 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **PROJECTED FISHING EFFORT**
Total calculated number of hours during each month that anglers spent fishing for a species.
2. **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.

General Angler Information

Anglers spent 8,387 hours or 21.0 hours per acre fishing Mamie Lake during the 2008 season (Table 1). That was less than the Vilas County average of 35.2 hours per acre. May was the most heavily fished month (4.8 hours per acre). Fishing effort was lightest in January (0.6 hours per acre).

SPECIES INFORMATION

Walleye (Table 2, Figure 1)

Fishing effort targeted at walleye was 4,496 hours. Walleye fishing effort was greatest in May (1,168 hours). October had the least amount of fishing effort (167 hours).

Catch was 1,661 fish with a harvest of 262 fish. Highest catch (673 fish) and harvest (189 fish) occurred in May. Anglers fished 2.8 hours to catch a walleye and 17.2 hours to harvest during 2008.

The mean length of harvested walleye was 17.7 inches and the largest walleye measured was a 25.5-inch fish harvested in May.

Northern Pike (Table 2, Figure 2)

There were 941 hours of directed effort for northern pike on Mamie Lake during the 2008 season.

Catch was 548 fish with a harvest of 245 fish. Highest catch (161 fish) occurred in May. Anglers fished 4.0 hours to catch a northern pike during the 2008 season.

The mean length of harvested northern pike was 23.7 inches and the largest pike measured was a 32.1-inch fish harvested in December.

Muskellunge (Table 2, Figure 3)

There was 1,330 hours of directed effort for muskellunge on Mamie Lake during the 2008 season.

Catch was 46 fish with a harvest of 0. Anglers fished 31.5 hours to catch a muskellunge during the 2008 season.

Smallmouth Bass (Table 2, Figure 4)

There were 310 hours of directed effort for smallmouth bass Mamie Lake during the 2008 season.

Catch was 364 with a harvest of 25 fish. Highest catch (144 fish) occurred in July. Anglers fished 4.3 hours to catch a smallmouth bass during the 2008 season.

Largemouth Bass (Table 2, Figure 5)
There were only 7 hours directed effort for Largemouth Bass on Mamie Lake during the 2008 season.

Panfish (Table 2, Figures 6-10)
Panfish accounted for 47% of the total directed effort or 6,414 hours during the 2008 season.

Yellow Perch (Table 2, Figure 6)
Yellow perch was the second most sought after fish species with 28.5 percent of the directed effort. Yellow perch fishing effort was greatest in September (856 hours). February had the least amount effort (96 hours).

Yellow perch catch was 6,220 fish with a harvest of 3,808 fish. Highest catch (2,132 fish) occurred in May. Anglers fished 36 minutes to catch a yellow perch and 1.0 hours to harvest during the 2008 season.

The mean length of harvested yellow perch was 8.8 inches and the largest yellow perch measured was a 13.1 inch fish harvested in October.

Bluegill (Table 2, Figure 7)
Bluegill was the second most sought after panfish species with about 9 percent of the directed fishing effort. Bluegill directed effort peaked in July (541 hours) and was lowest in February (4.0 hours).

The total estimated catch of bluegill was 782 with an estimated harvest of 325 fish.

The mean length of harvested bluegill was 7.6 inches and the largest measured was 9.2 inches caught in December.

Black Crappie (Table 2, Figure 10)
Black crappie directed effort accounted for 8 percent of the total fishing effort on Mamie

Lake. Black crappie effort peaked in September (483 hours).

The total estimated catch of black crappie was 417 with an estimated harvest of 268 fish.

The mean length of harvested black crappie was 9.8 inches and the largest measured was 13.2 inches caught in May.

Pumpkinseed and rock bass were also caught, but in lower numbers.

ACKNOWLEDGMENTS

John Logan and Mike Rynski were the creel clerks on Mamie Lake during the survey period.

The Department thanks the cooperators, Gail Glass (summer) and Paul & Lisa Steaman, who generously allowed the Department to keep a boat and snowmobile on their property during this survey.

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.

This creel survey report was reviewed by Mike Coshun, Steven Gilbert and Dennis Scholl 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. Requests should be directed to:

Treaty Fisheries Biologist
WI Department of Natural Resources
8770 Hwy. J
Woodruff, WI 54568

Table 1. Sportfishing effort summary, Mamie Lake, 2008-09 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Vilas County Average Hours/Acre	Statewide Average Hours/Acre
May	1901	4.8	5.4	5.8
June	1042	2.6	7.0	6.1
July	1315	3.3	7.6	6.4
August	1394	3.5	6.6	5.4
September	1431	3.6	4.2	3.8
October	526	1.3	2.0	1.6
December	271	0.7	0.5	1.7
January	226	0.6	0.8	1.5
February	270	0.7	0.9	1.3
March	12	0.0	0.1	**
*Summer Total	7608	19.0	32.8	29.1
*Winter Total	779	1.9	2.4	4.5
Grand Total	8387	21.0	35.2	33.6

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

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

Total Angler Hours is the estimated total number of hours that anglers spent fishing on Mamie 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 Mamie 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.

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 Mamie Lake to other lakes statewide.

Table 2. Creel survey synopses, Mamie Lake, 2008-09 fishing seasons.

CREEL YEAR: 2008-09

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	4496	33.31%	1661	2.8	262	17.2	17.7
Northern Pike	941	6.97%	548	4.0	245	7.2	23.7
Muskellunge	1330	9.85%	46	31.5	0		
Smallmouth Bass	310	2.30%	364	4.3	25	26.2	17.5
Largemouth Bass	7	0.05%	3		0		
Yellow Perch	3849	28.52%	6220	0.6	3808	1.0	8.8
Bluegill	1211	8.97%	782	1.7	325	3.7	7.6
Pumpkinseed	230	1.70%	21	11.1	14	16.7	7.0
Rock Bass	33	0.24%	43	7.3	4	7.3	8.0
Black Crappie	1091	8.08%	417	2.9	268	4.4	9.8

* 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.

WALLEYE

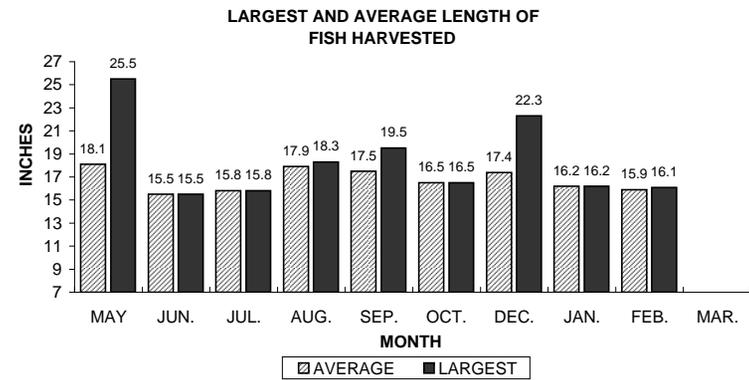
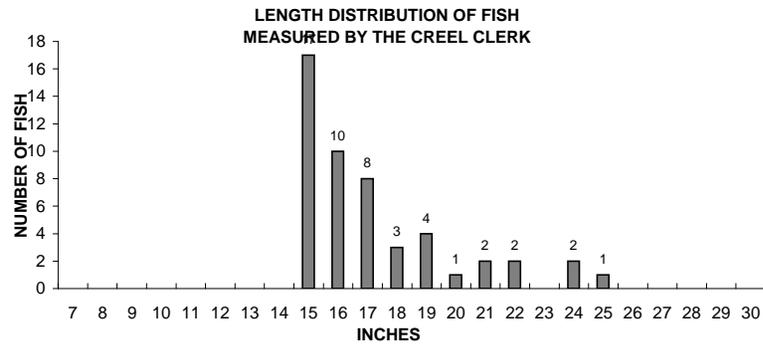
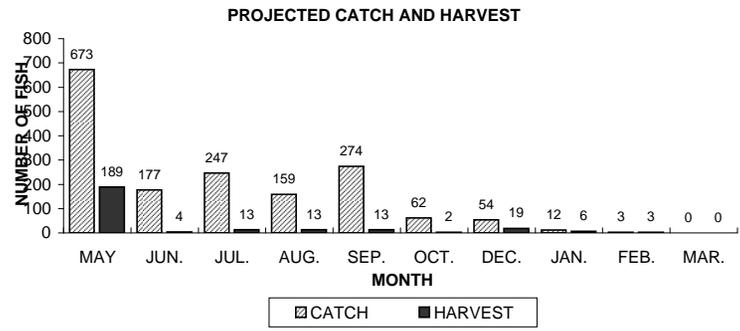
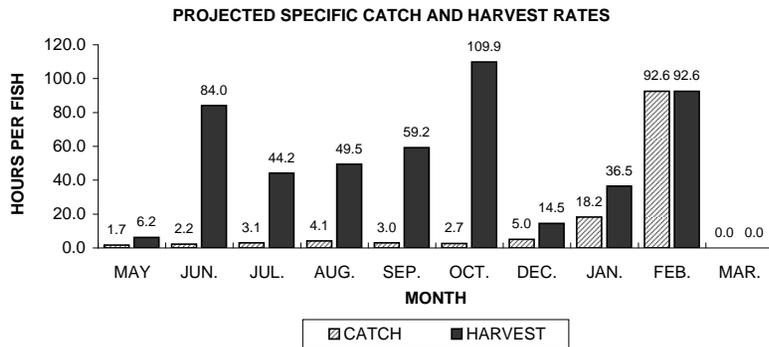
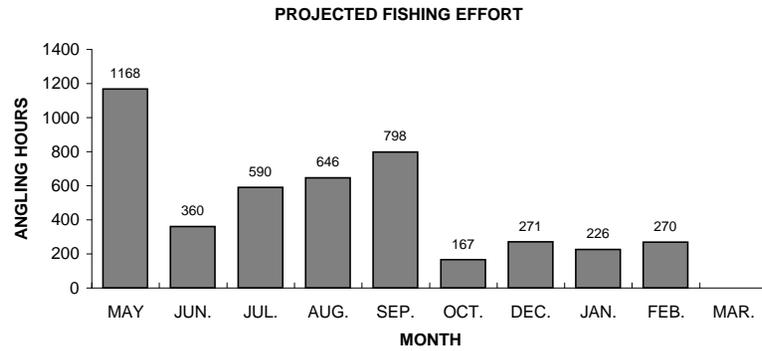
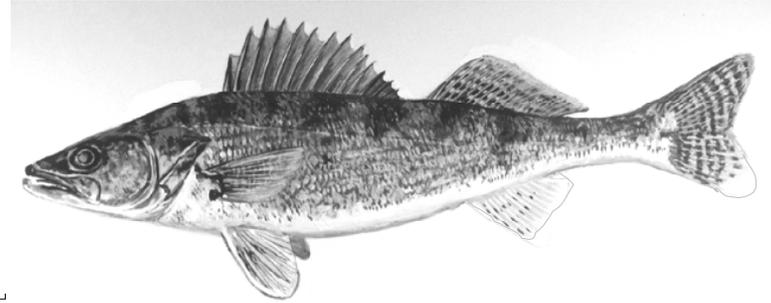


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

NORTHERN PIKE

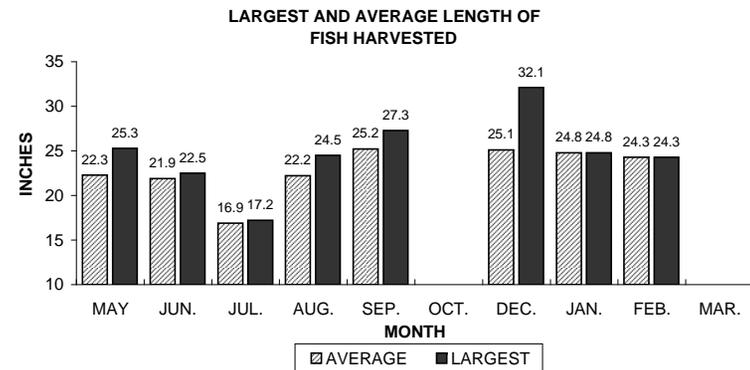
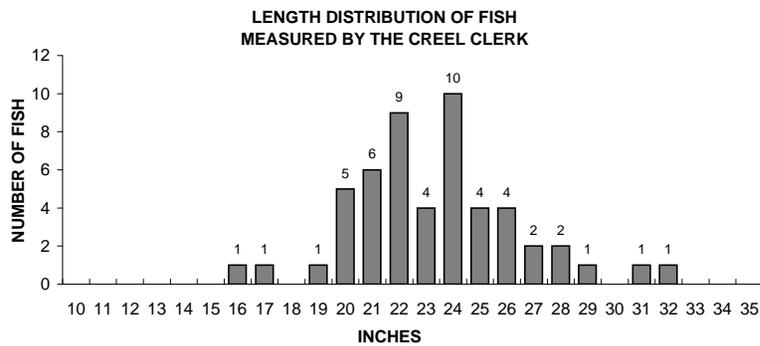
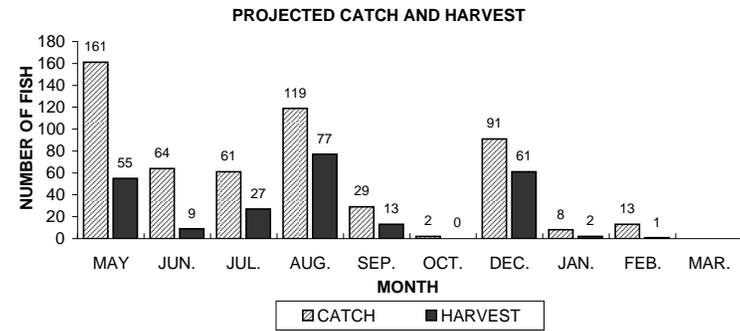
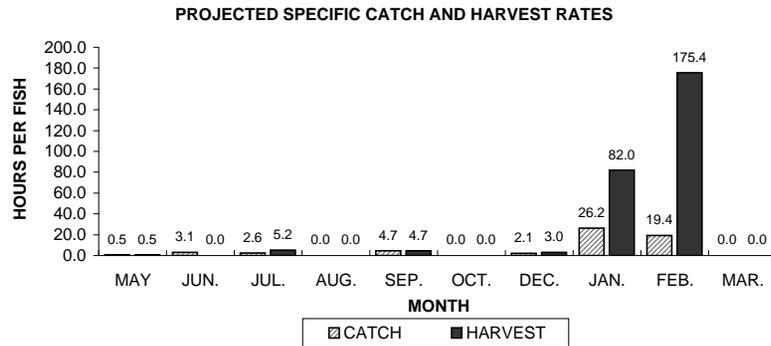
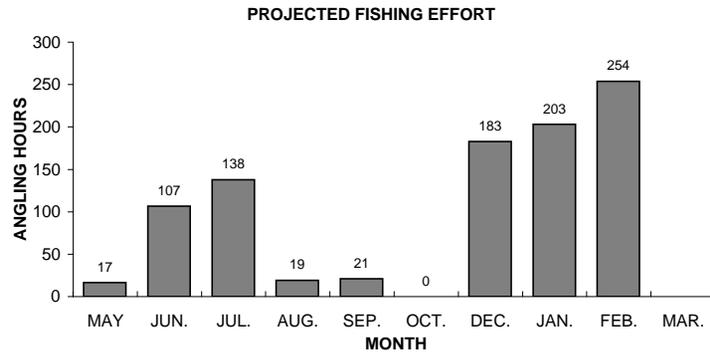
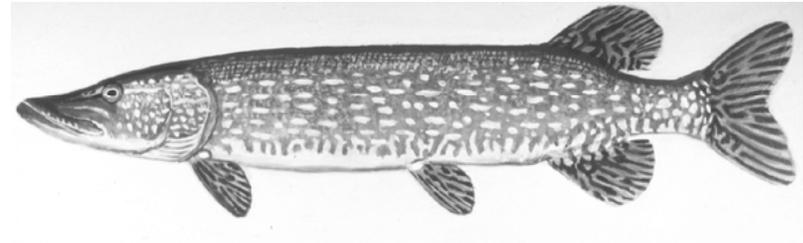
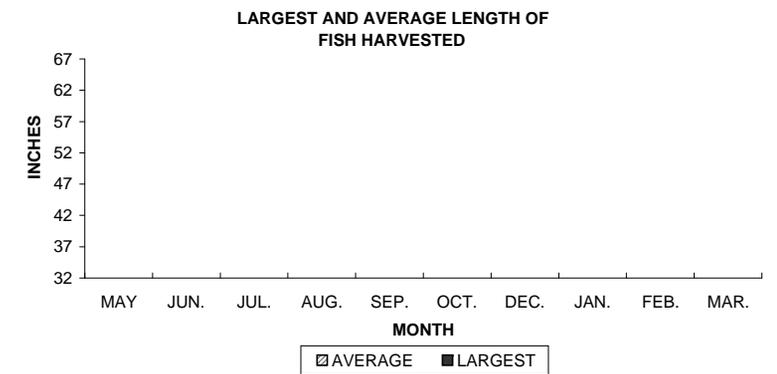
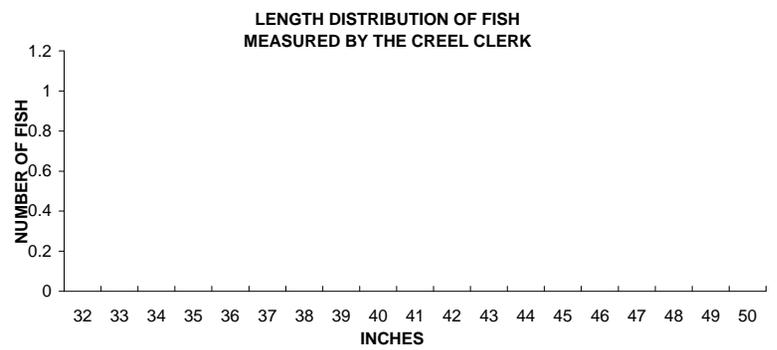
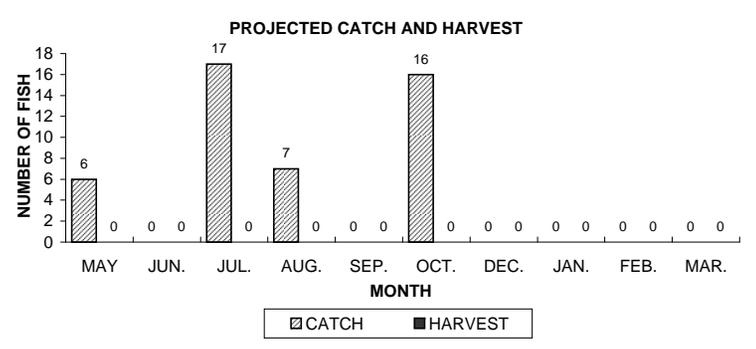
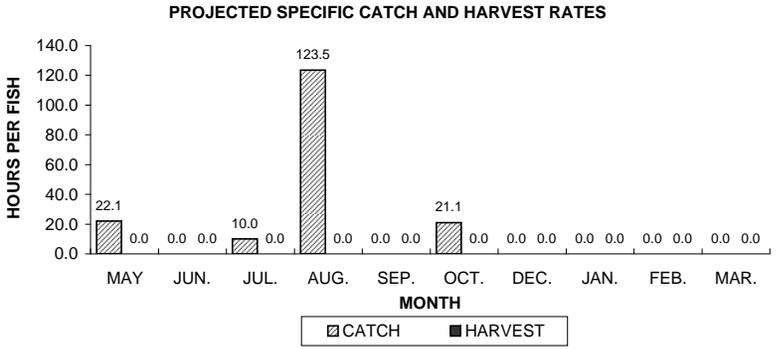
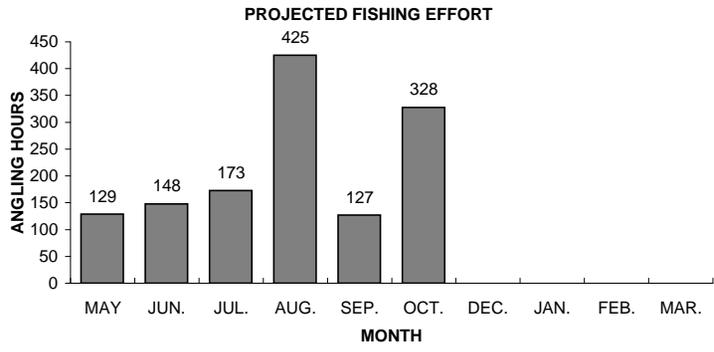


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.



6

Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

SMALLMOUTH BASS

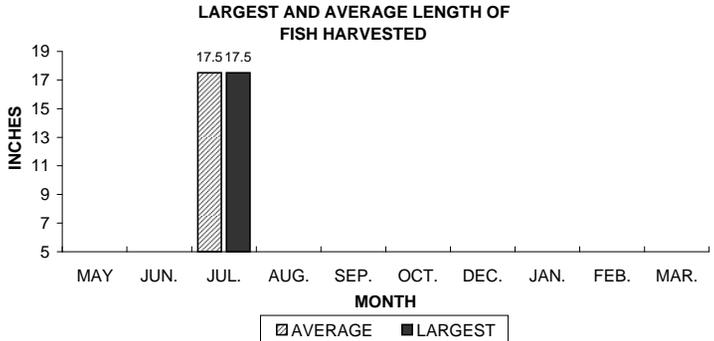
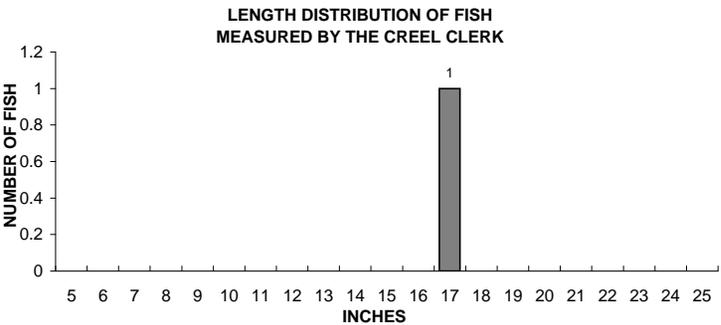
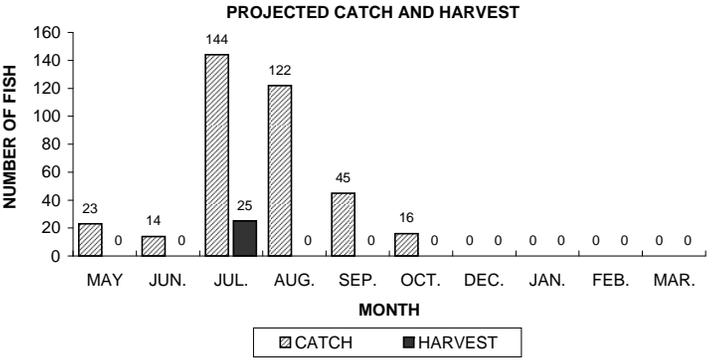
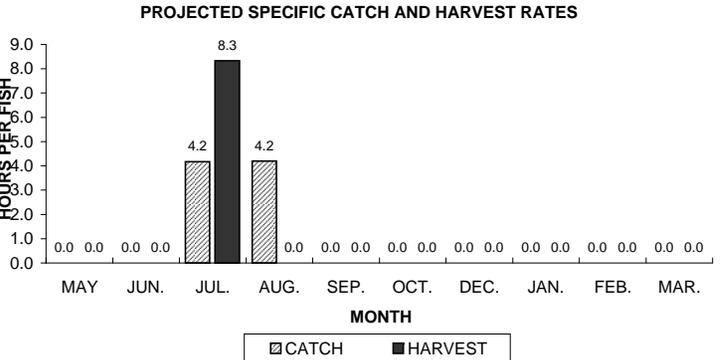
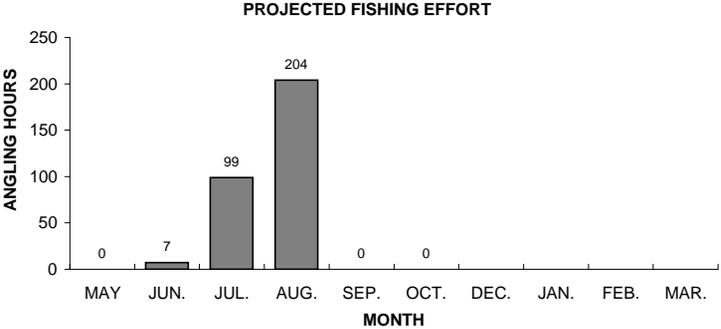
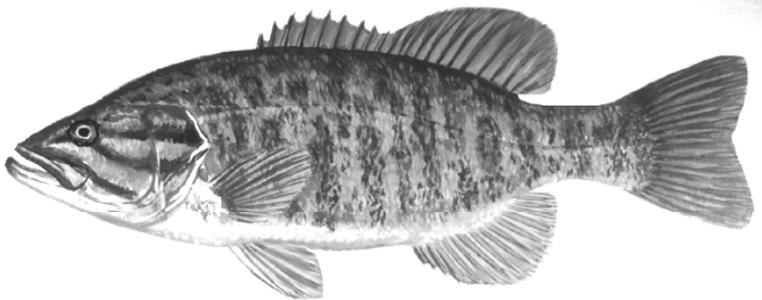


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

LARGEMOUTH BASS

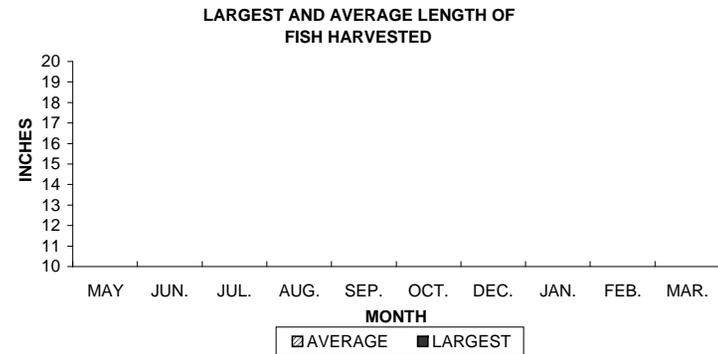
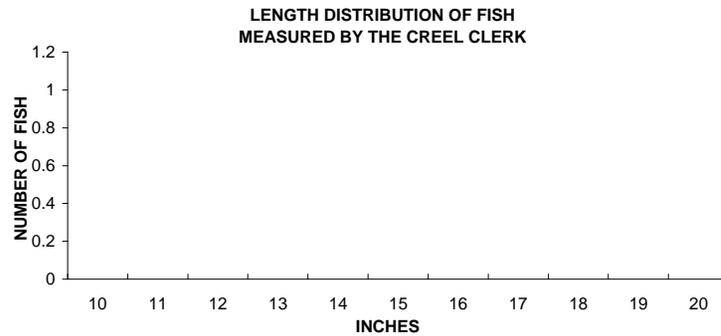
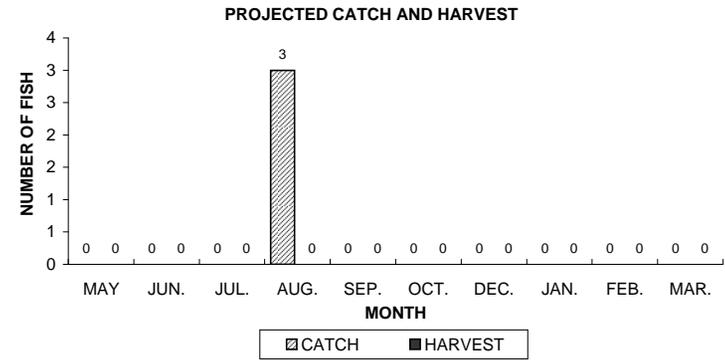
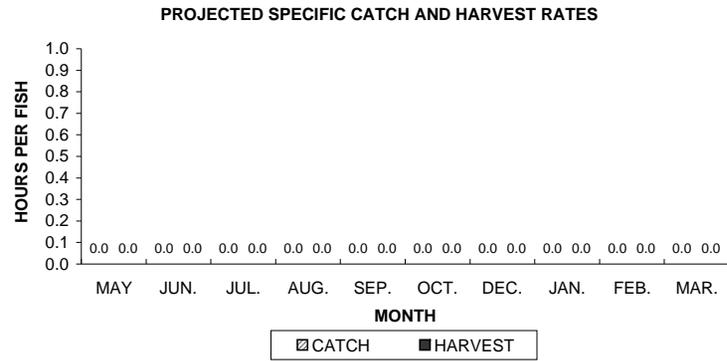
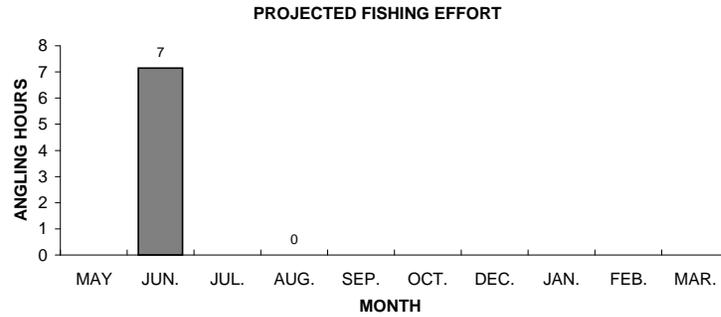
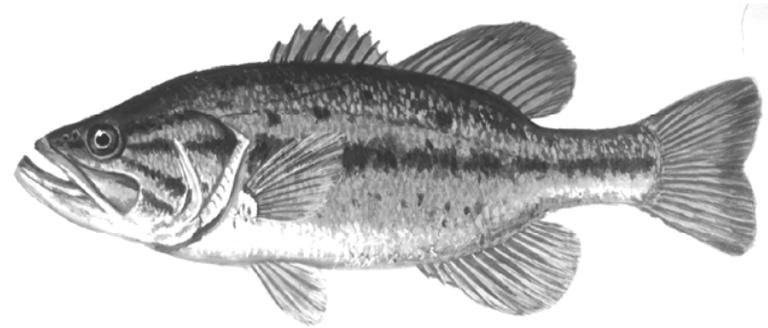


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

YELLOW PERCH

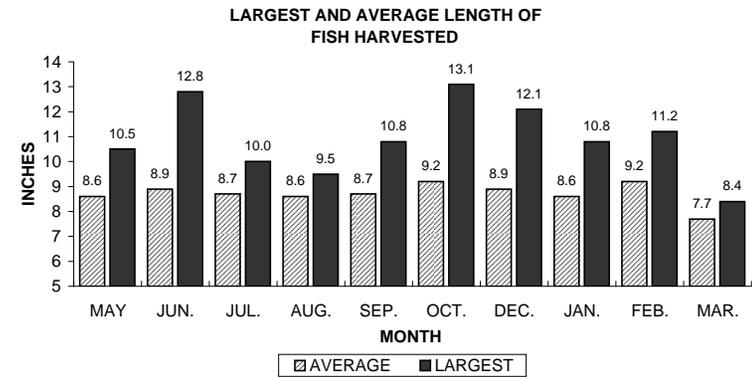
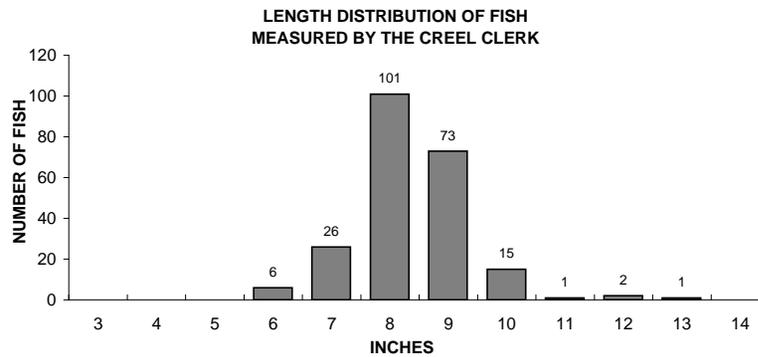
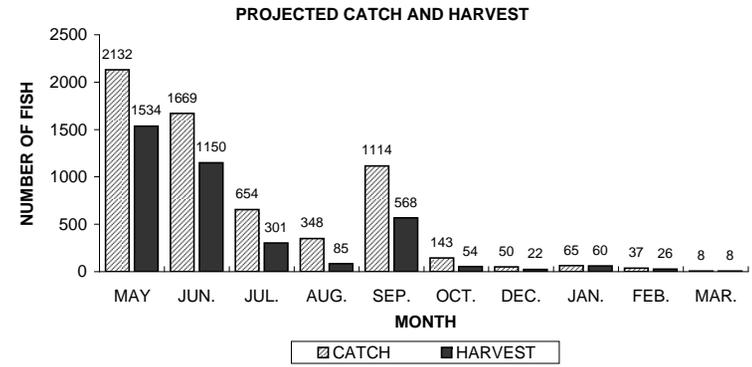
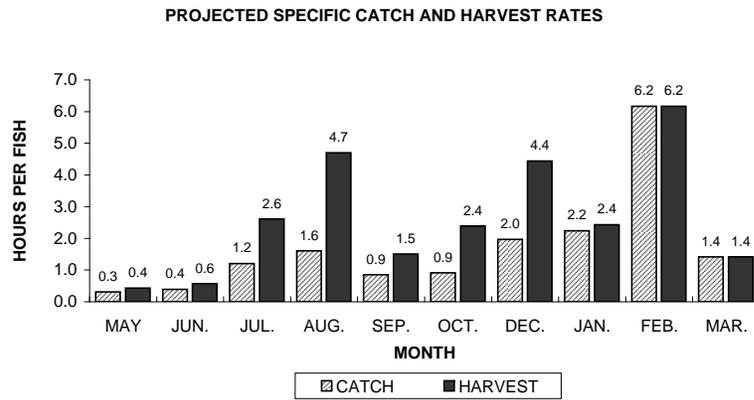
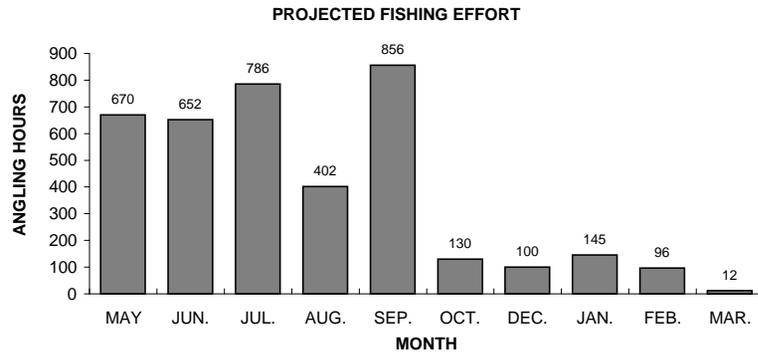
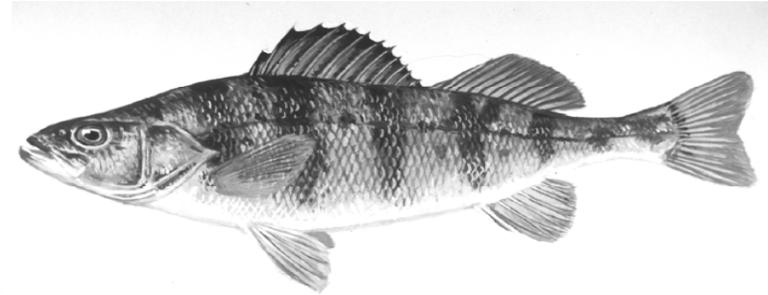


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

BLUEGILL

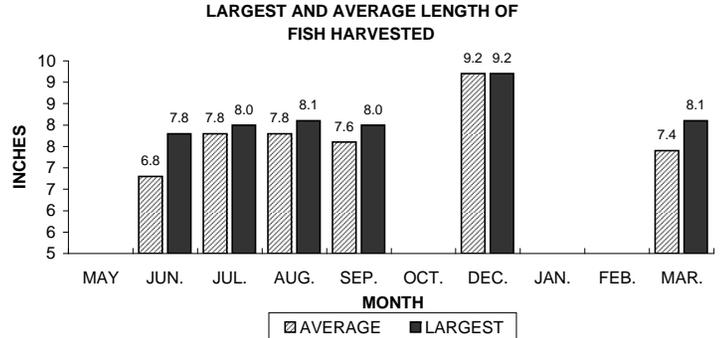
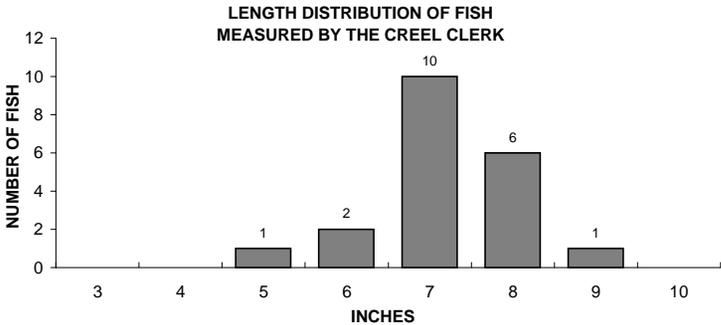
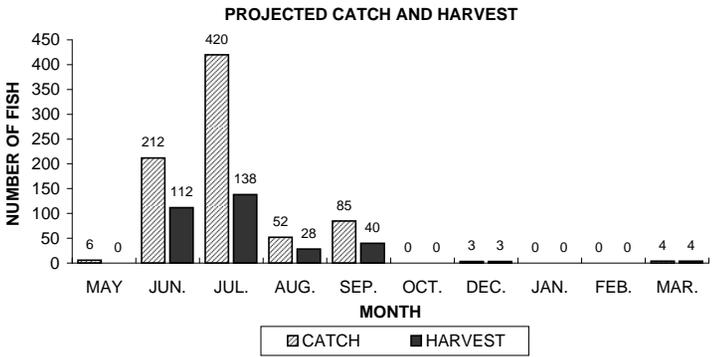
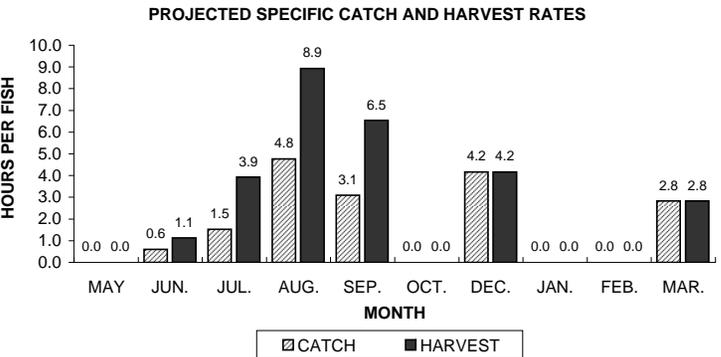
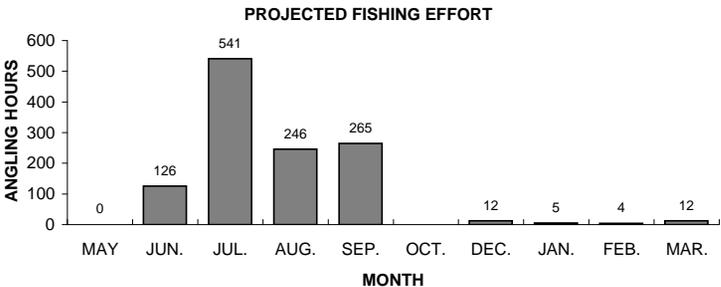
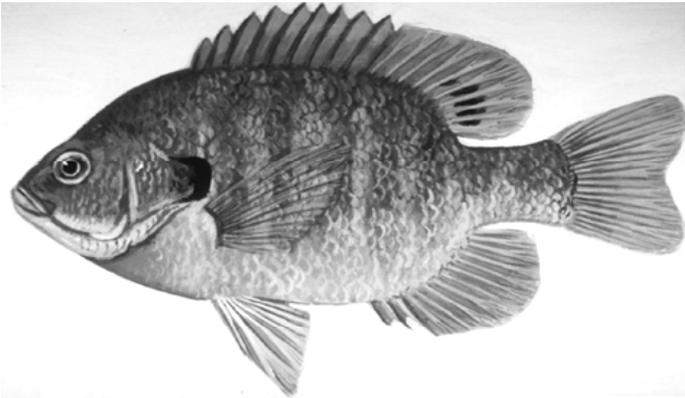


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

PUMPKINSEED

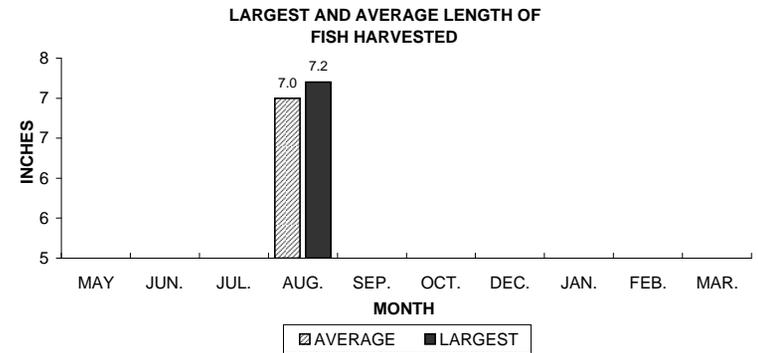
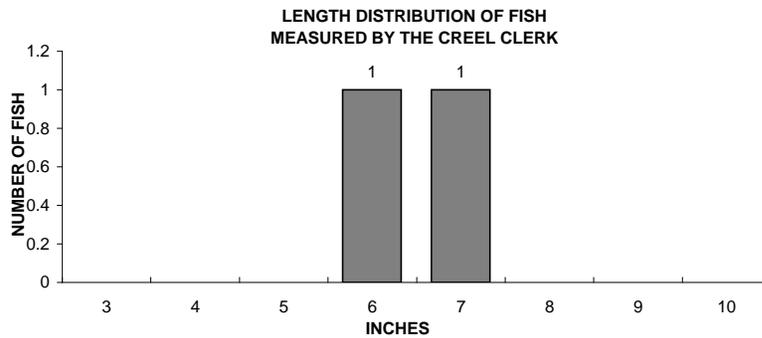
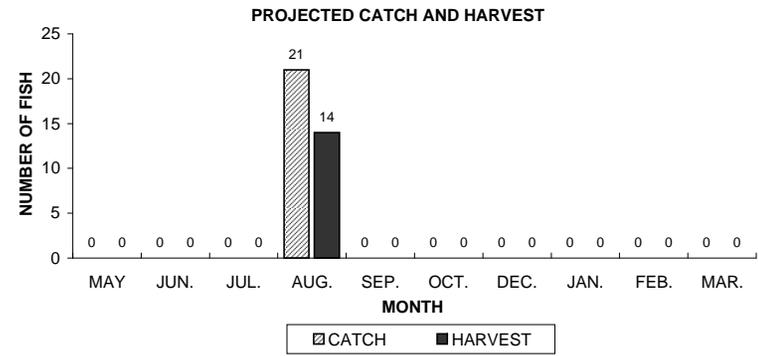
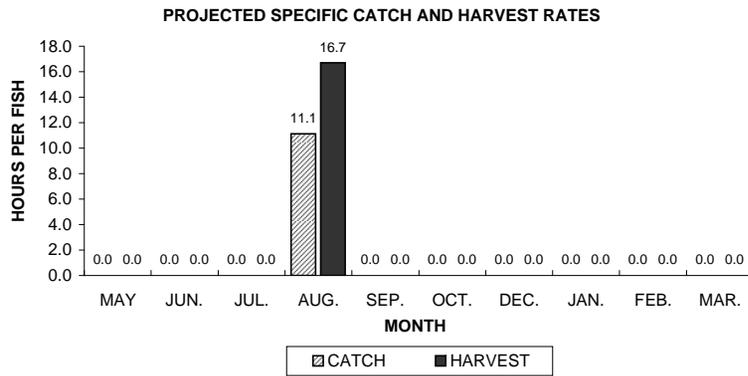
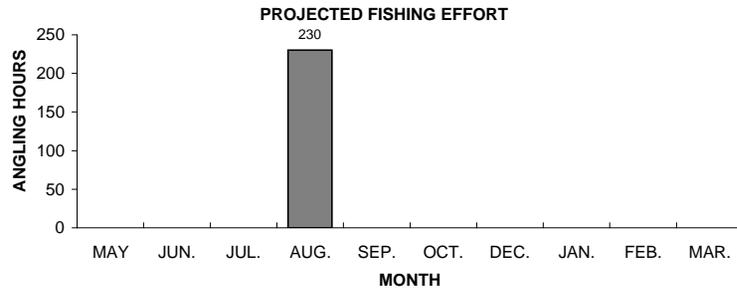
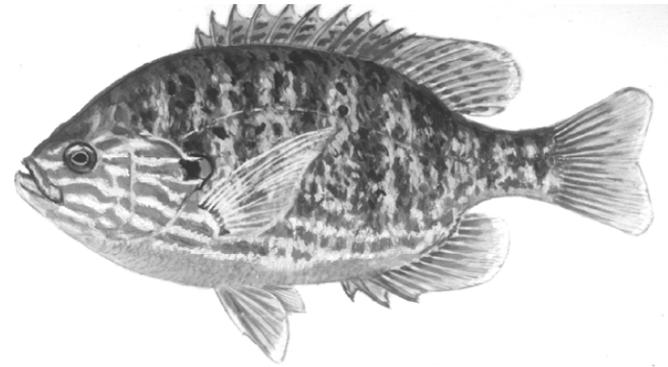


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

ROCK BASS

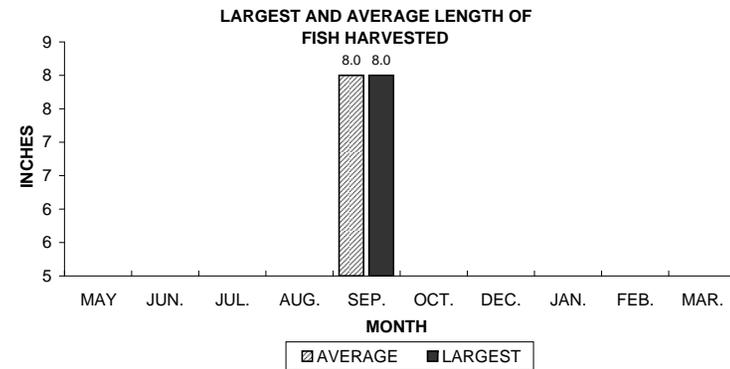
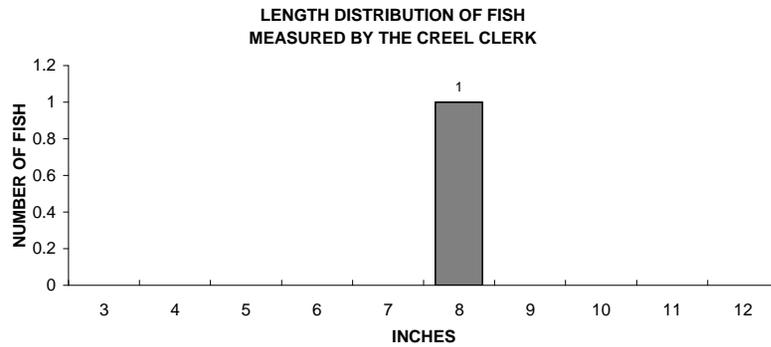
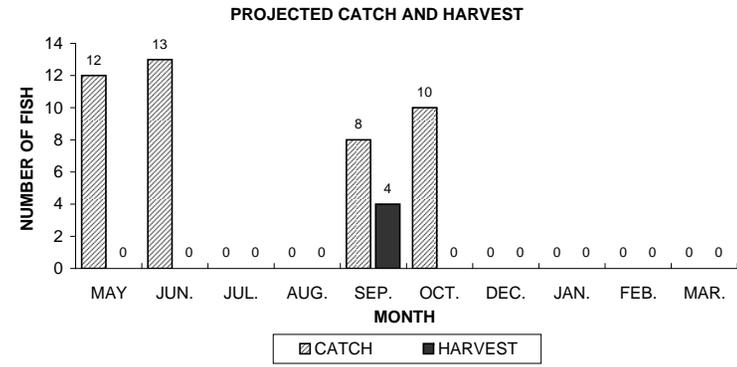
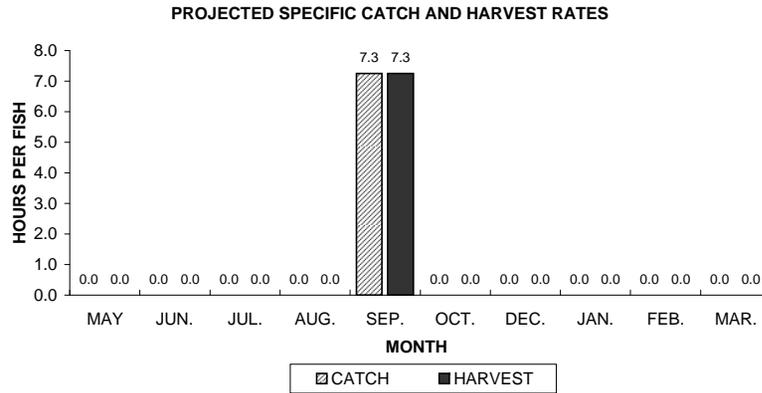
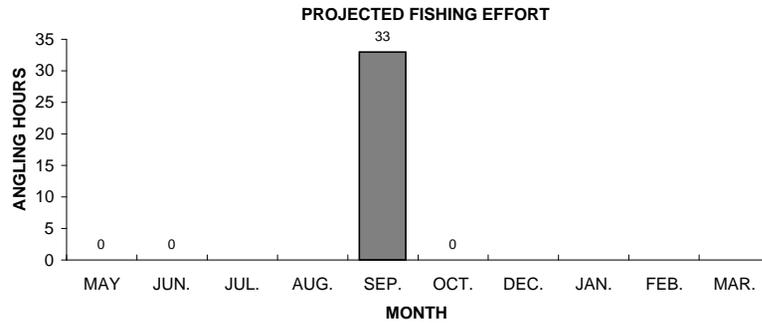
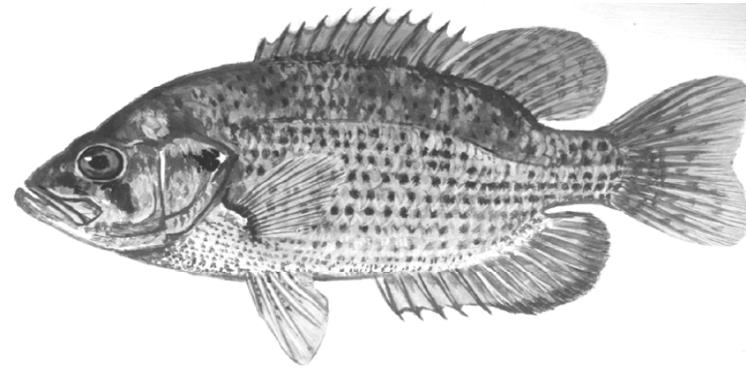


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.

BLACK CRAPPIE

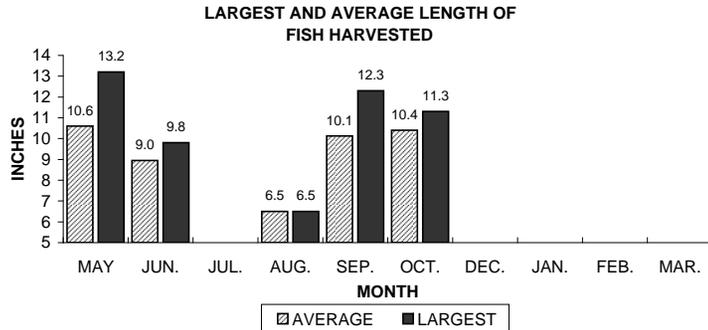
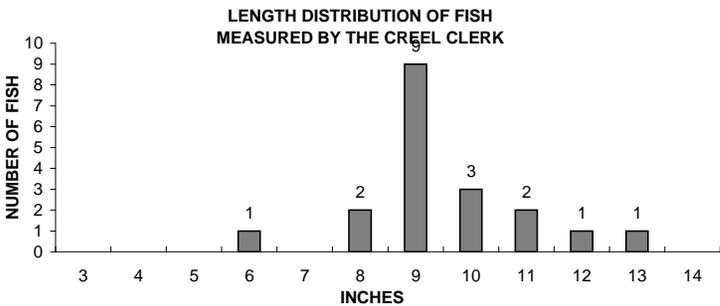
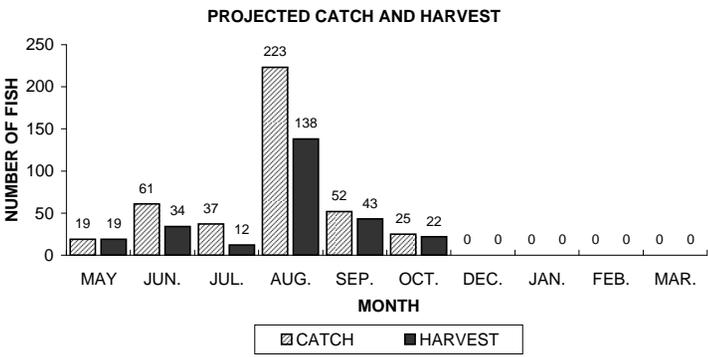
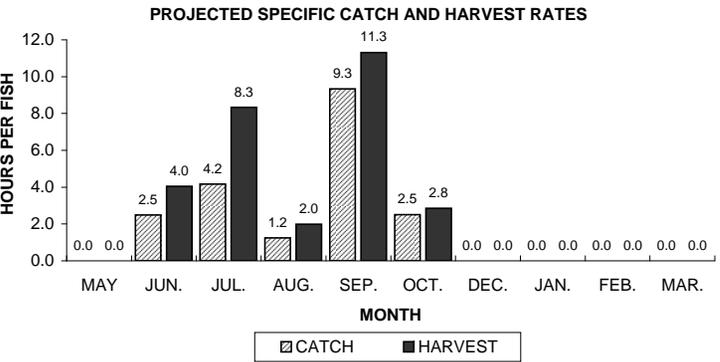
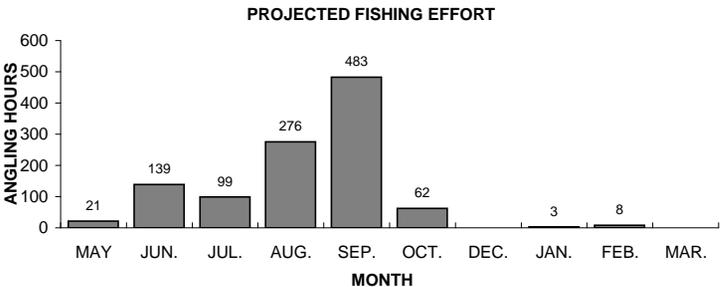
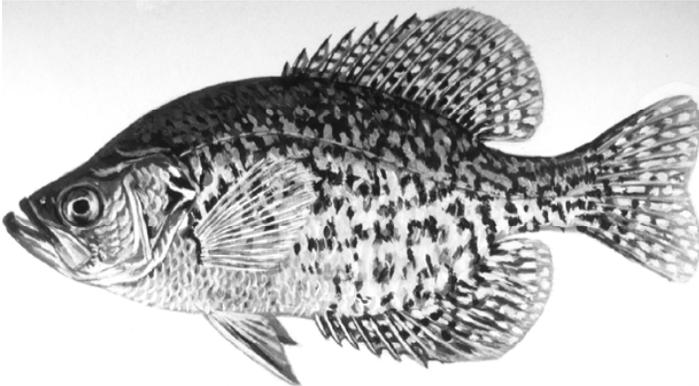


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Mamie Lake, during 2008-09.