

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

**FAY LAKE**

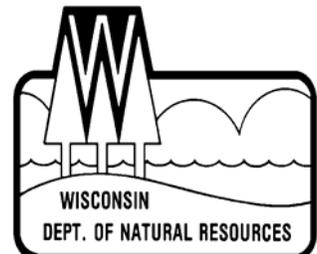
**FLORENCE COUNTY**

**2007-08**



**Treaty Fisheries Publication**

**Written by Steve Kramer  
Treaty Fisheries Technician  
Wisconsin DNR  
Woodruff, Wisconsin**



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**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.

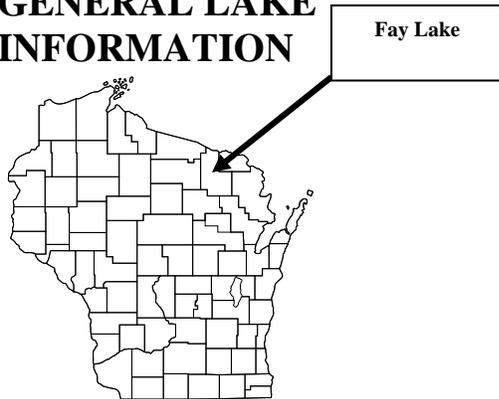
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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

## GENERAL LAKE INFORMATION



### Location

Fay Lake is located in on the western edge of Florence County 24 miles southwest of the town of Florence.

### Physical Characteristics

Fay Lake is an 247-acre drainage lake of medium fertility with a maximum depth of 10 feet. Littoral substrate consists of rubble, silt, gravel and sand.

### Seasons Surveyed

The period referred to in this report as the 2007-08 fishing season ran from May 5, 2007 through March 2, 2008. The open water creel survey ran from May 5 through October 31, 2007 and the ice fishing creel survey ran from December 1, 2007 through March 2, 2008.

### Weather

Ice-out on Fay Lake was around April 16, 2007 which is considered normal for

northern Wisconsin. Spring, summer and fall weather was normal. Fishable-ice formed on Fay Lake in early December.

### Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Fay Lake during the 2007-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass& Smallmouth Bass	5/05-6/15	Catch & Release	
	6/16-3/02	1	14"
Northern Pike	5/05-3/02	5	none
Walleye	5/05-3/02	1	28"
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 4 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 9,768 hours or 39.5 hours per acre fishing Fay Lake during the 2007 season (Table 1). That was more than the statewide average of 33.6 hours per acre. May was the most heavily fished month (8.8 hours per acre). Fishing effort was lightest in October (0.5 hours per acre).

## SPECIES INFORMATION

### Walleye (Table 2, Figure 1)

Fishing effort targeted at walleye was 1,539 hours. Walleye fishing effort was greatest in January (199 hours). October had the least amount of walleye fishing effort (4 hours).

Catch was 33 fish with a harvest of 17 fish. Highest catch (14 fish) occurred in July and harvest (7 fish) occurred in July. Anglers fished 48 hours to catch a walleye during 2007.

The mean length of harvested walleye was 17.4 inches and the largest walleye measured was a 19.2-inch fish harvested in June.

### Northern Pike (Table 2, Figure 1)

Fishing effort targeted at northern pike was 3,699 hours. Northern pike fishing effort was greatest in July (732 hours). October had the least amount of northern pike fishing effort (93 hours).

Catch was 1,281 fish with a harvest of 345 fish. Highest catch (315 fish) occurred in June and harvest (142 fish) occurred in December. Anglers fished 3.4 hours to catch a northern pike and 10.8 hours to harvest a northern pike during 2007.

The mean length of harvested northern pike was 20.5 inches and the largest northern pike measured was a 31.5-inch fish harvested in December.

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

There was no directed effort for smallmouth bass on Fay Lake during the 2007-08 season. However, an estimated eleven smallmouth bass were caught during the creel.

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

Fay Lake has a moderate density largemouth bass population. Fishing effort directed at largemouth bass was 500 hours during the 2007 season. Catch was 280 fish and harvest 7 fish.

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

Panfish accounted for 68% of the total

directed effort or 12,478 hours during the 2007-08 season.

**Bluegill** (Table 2, Figure 6)

Bluegill was the most sought after panfish species with 36% of the directed effort. Bluegill fishing effort was greatest in June(1,532). February had the least amount of bluegill effort (239 hours).

Catch was 19,434 bluegill with a harvest of 11,375.

The mean length of harvested bluegill was 6.9 inches and the largest bluegill measured was a 10.1 inch fish harvested in December.

**Black Crappie** (Table 2, Figure 7)

Black crappies were the the second most sought after panfish species with 26% or 4,762 hours of the total directed effort. Black crappie effort peaked in July (863 hours). The lowest effort was recorded in October (35 hours).

The total estimated catch of black crappie was 5,001 with an estimated harvest of 4,035 fish.

The mean length of harvested black crappie was 8.3 inches and the largest measured was 10.6 inches.

Yellow perch, pumpkinseed and yellow bullhead were also caught, but in lower numbers.

**ACKNOWLEDGMENTS**

Completion of this survey was possible because of the efforts of the technical staff of the Treaty Fisheries Unit. Treaty staff responsible for ensuring completion of this

survey includes Steve Kramer, Joelle Underwood, Marty Kiepke, Tim Tobias, and Jason Halverson. Paul Weber, Rich Cechal and Don Morrell were the creel clerks on Fay Lake 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.

This creel survey report was reviewed by Mike Coshun and Dennis Scholl, 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:

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**Table 1. Sportfishing effort summary, Fay Lake, 2007-08 season.**

<b>Month</b>	<b>Total Angler Hours</b>	<b>Total Angler Hours/Acre</b>	<b>Statewide Average Hours/Acre</b>
May	2167	8.8	5.8
June	1884	7.6	6.1
July	1768	7.2	6.4
August	992	4.0	5.4
September	773	3.1	3.8
October	124	0.5	1.6
December	933	3.8	1.7
January	721	2.9	1.5
February	343	1.4	1.3
March	63	0.3	**
*Summer Total	7708	31.2	29.1
*Winter Total	2060	8.3	4.5
Grand Total	9768	39.5	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 Fay 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 Fay Lake to other lakes.

**Statewide Average Hours/Acre** is the average angler effort in hours per acre for inland lakes in the state surveyed between

**Table 2. Creel survey synopses, Fay Lake, 2007-08 fishing season.**

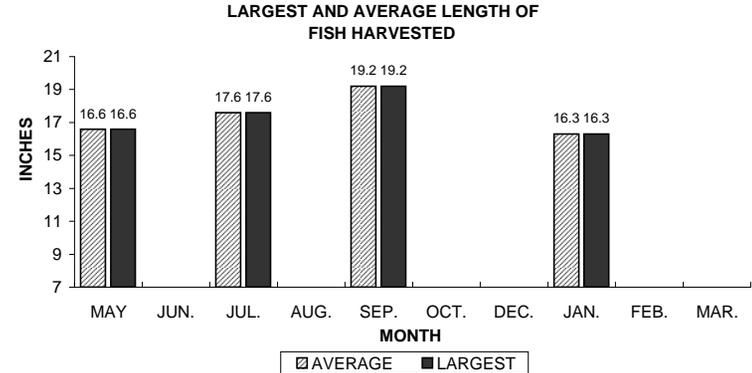
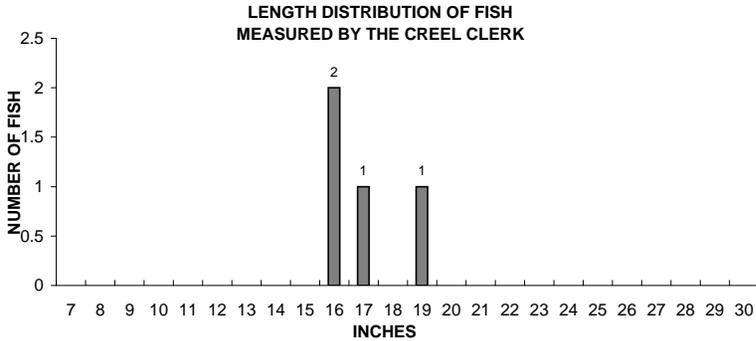
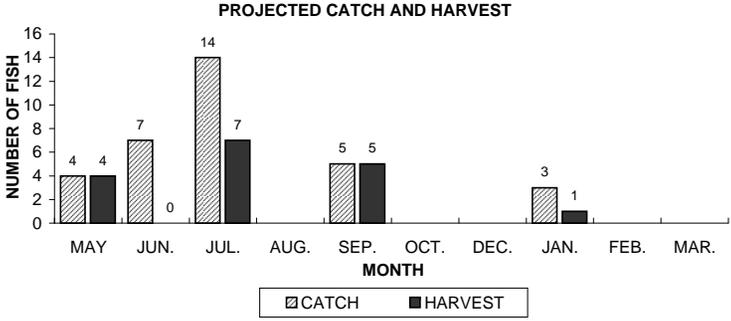
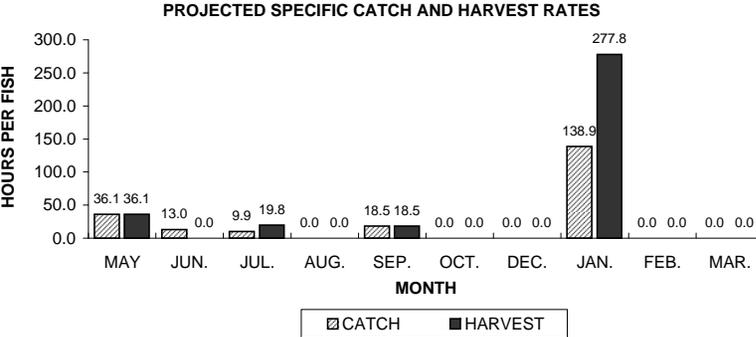
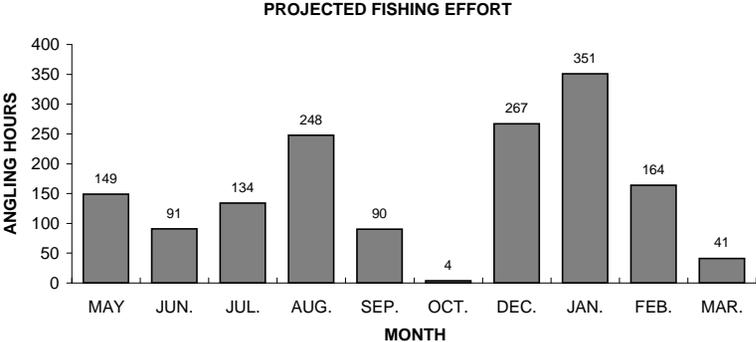
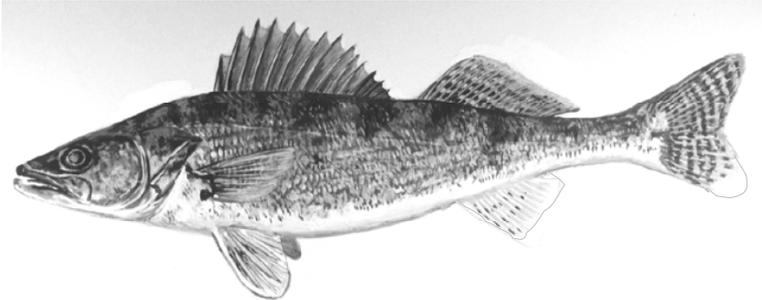
CREEL YEAR: 2007-08

<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	1539	8.42%	33	48.1	17	90.1	17.4
Northern Pike	3699	20.24%	1281	3.4	345	10.8	20.5
Smallmouth Bass	0	0.00%	11		0		
Largemouth Bass	500	2.74%	280	3.5	7	73.5	20.5
Yellow Perch	843	4.61%	437	4.7	97	10.8	7.1
Bluegill	6623	36.23%	19434	0.3	11375	0.6	6.9
Pumpkinseed	250	1.37%	119	2.5	115	2.5	6.8
Black Crappie	4762	26.05%	5001	1.0	4035	1.2	8.3
Yellow Bullhead	63	0.34%	228	1.5	87	1.5	11.0

\* 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



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# NORTHERN PIKE

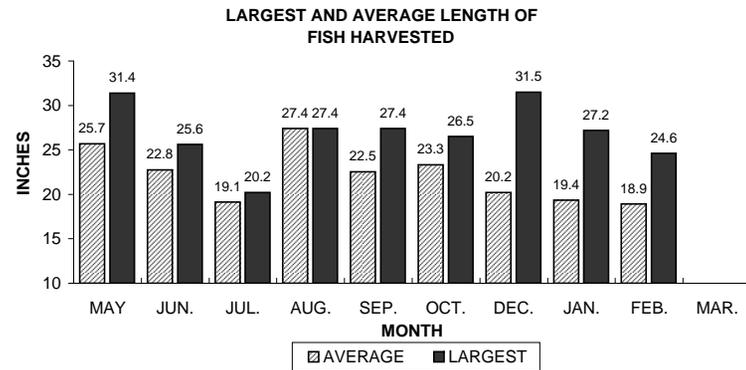
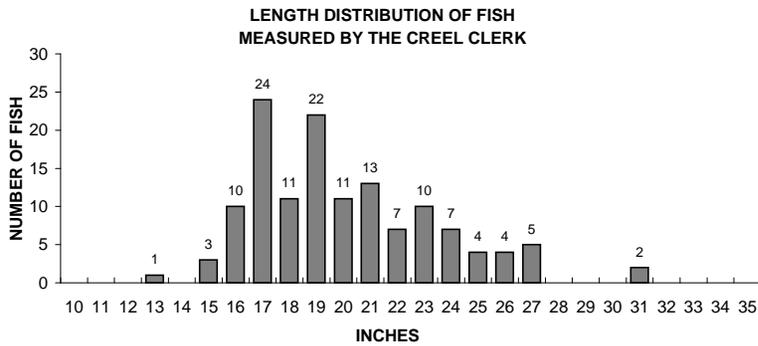
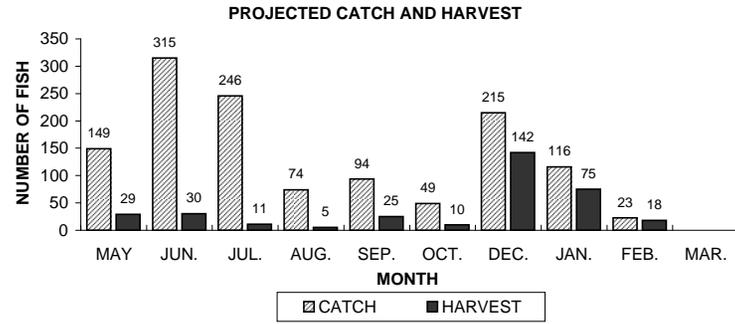
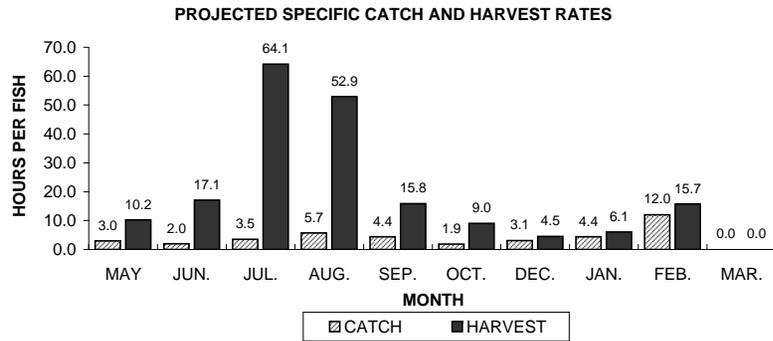
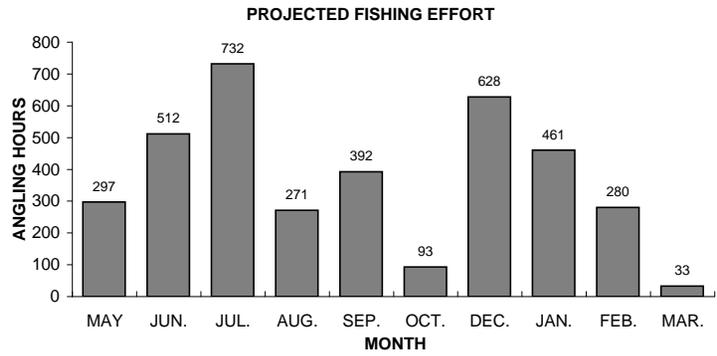
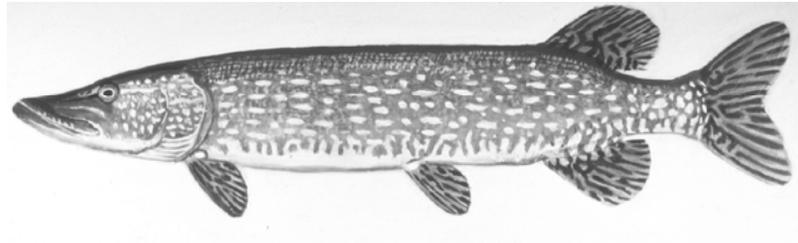
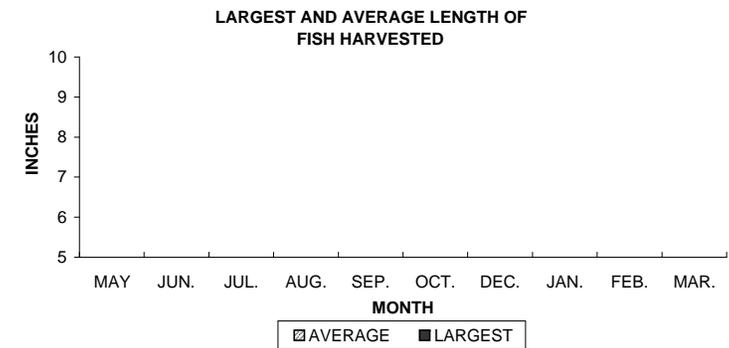
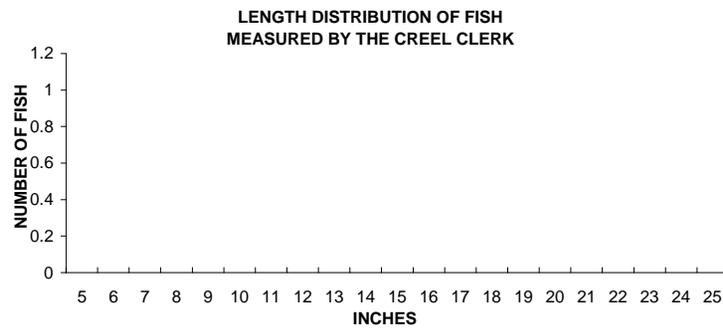
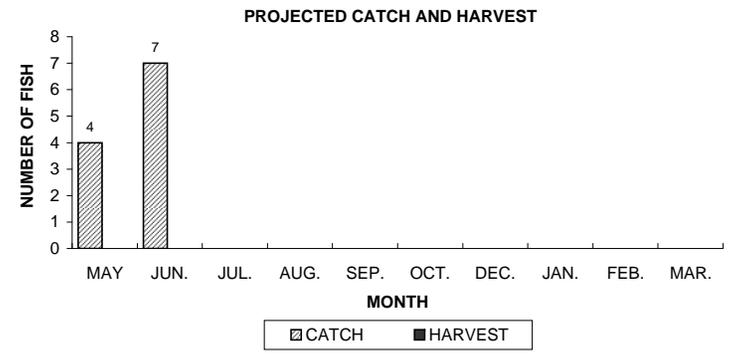
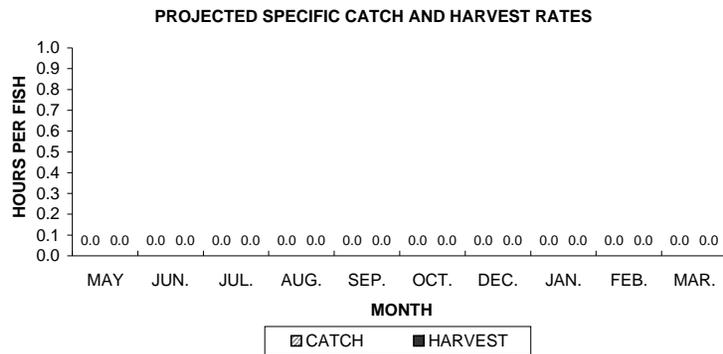
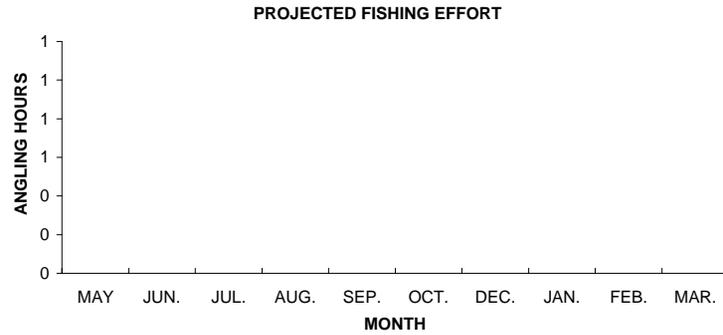
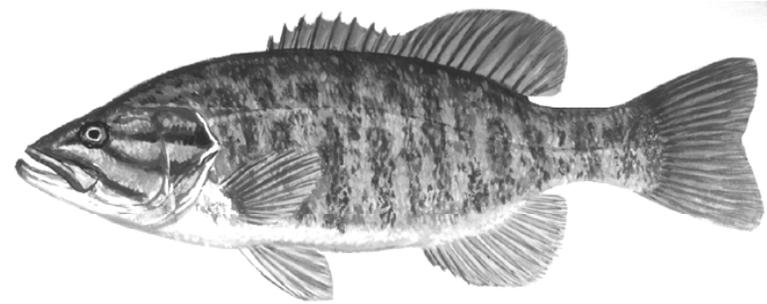


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# SMALLMOUTH BASS



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Figure 3. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# LARGEMOUTH BASS

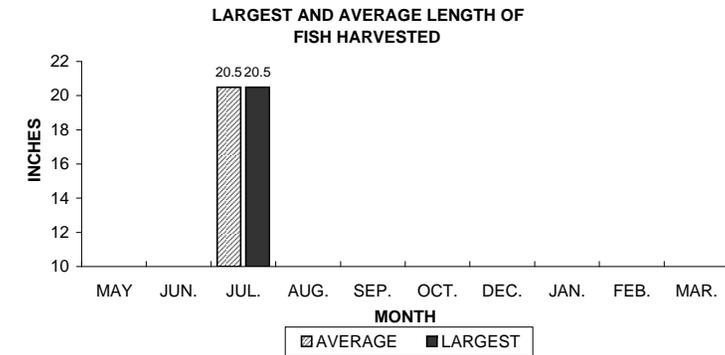
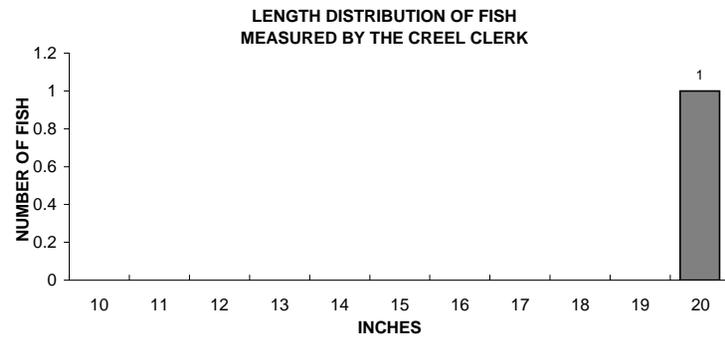
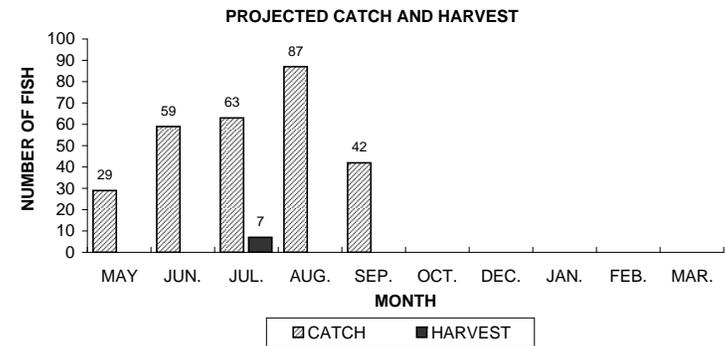
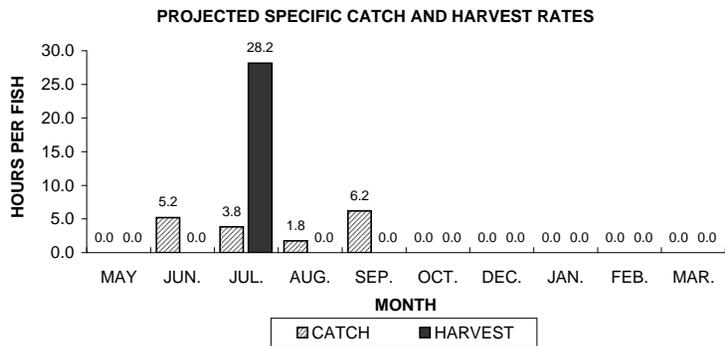
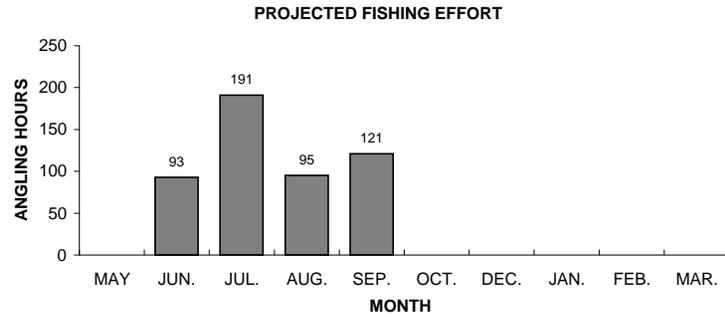
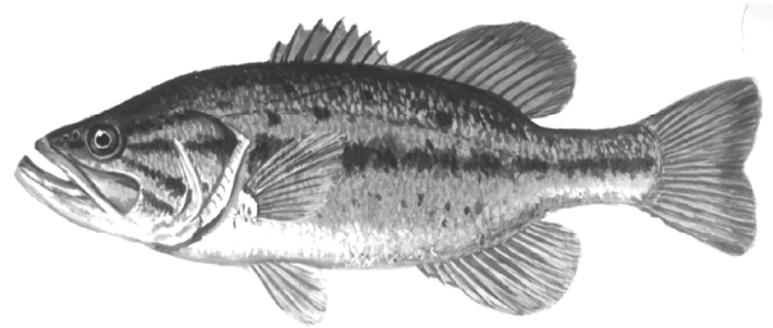


Figure 4. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# YELLOW PERCH

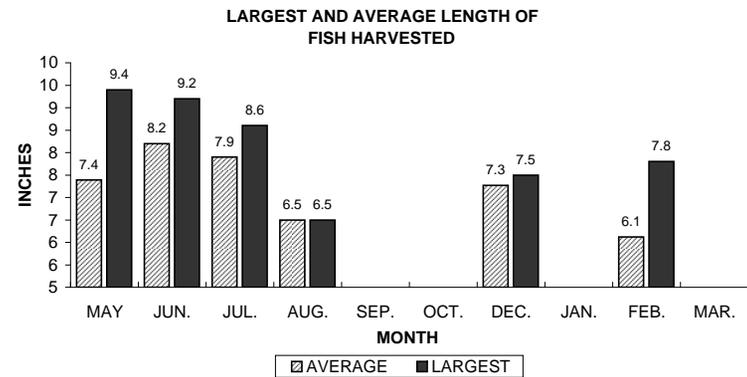
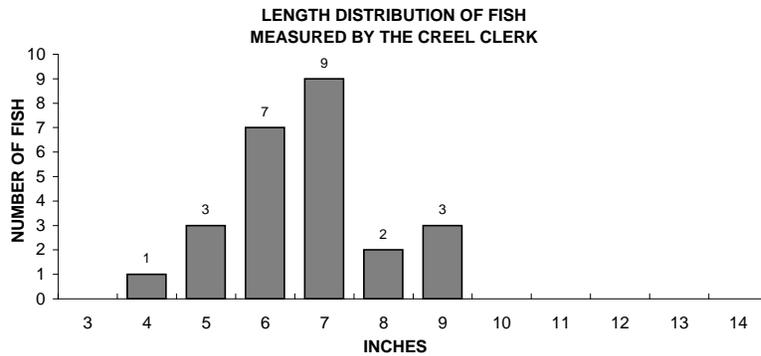
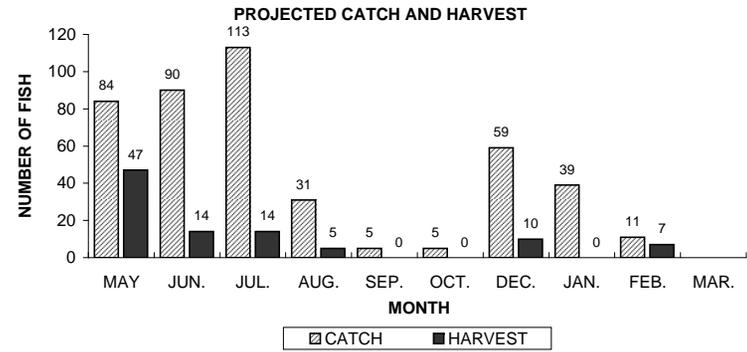
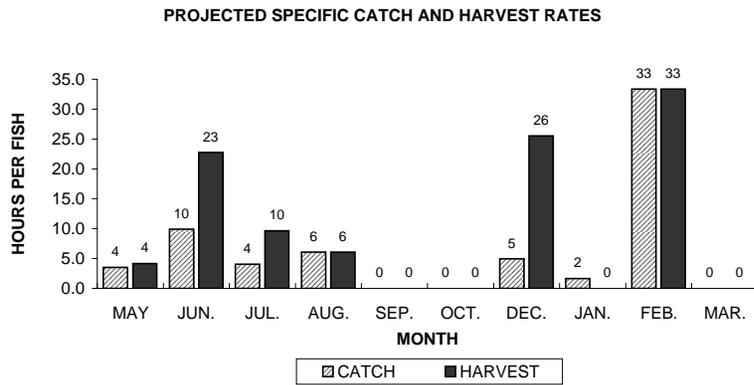
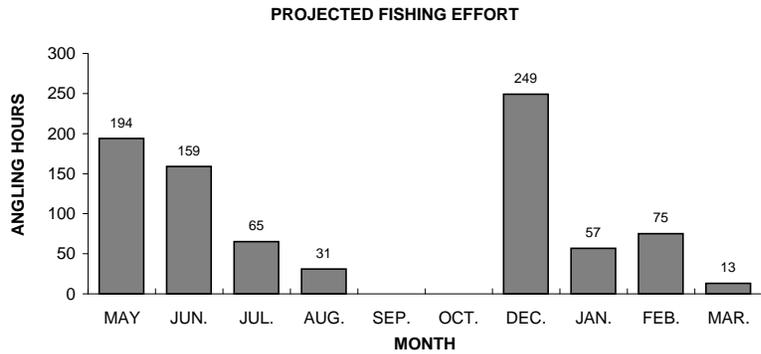
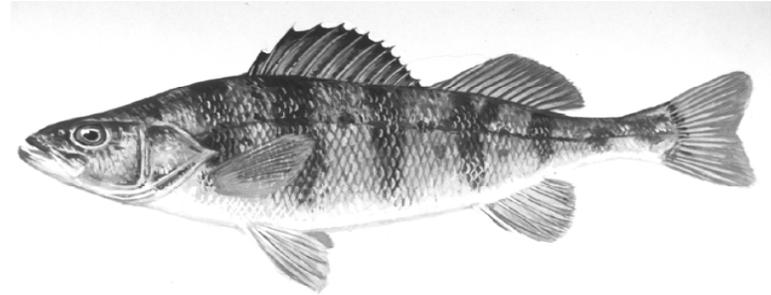


Figure 5. Yellow perch sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# BLUEGILL

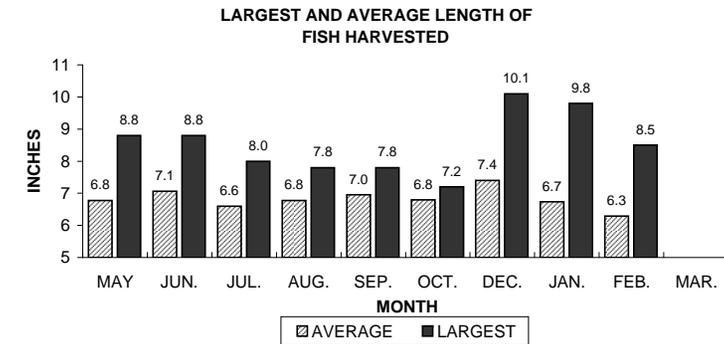
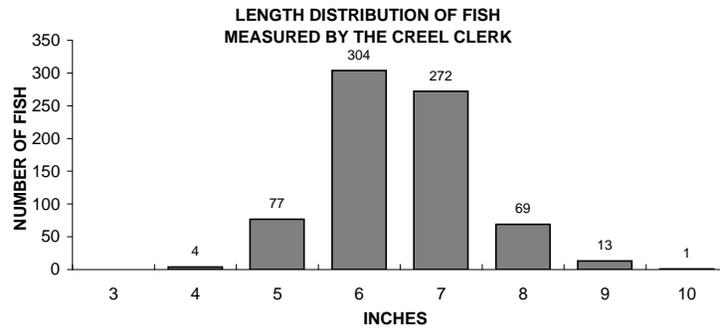
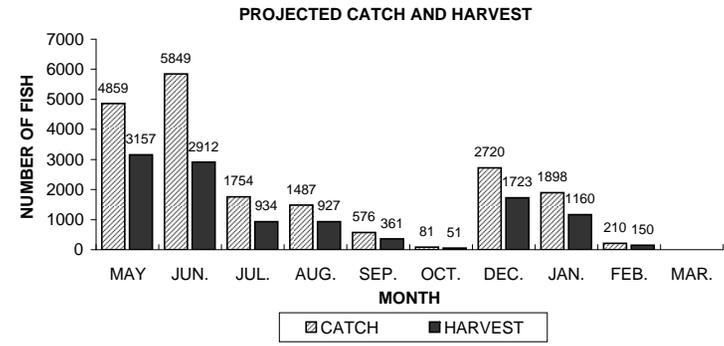
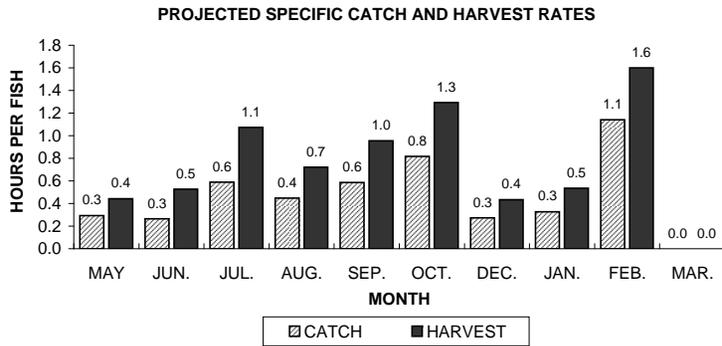
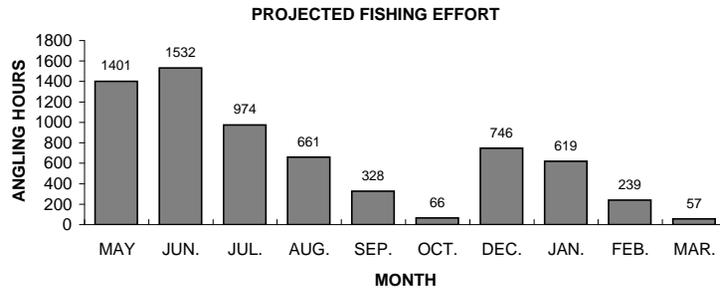
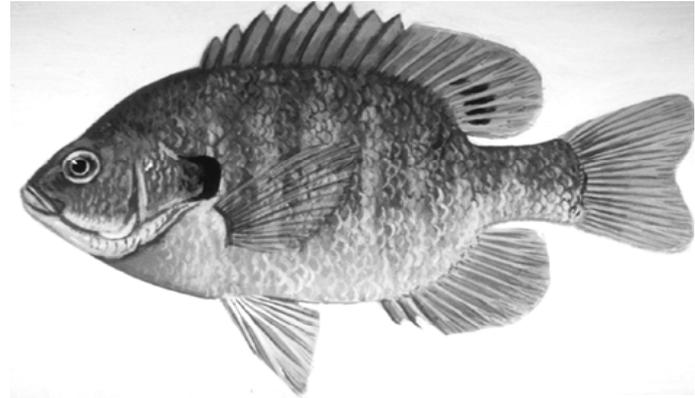


Figure 6. Bluegill sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# PUMPKINSEED

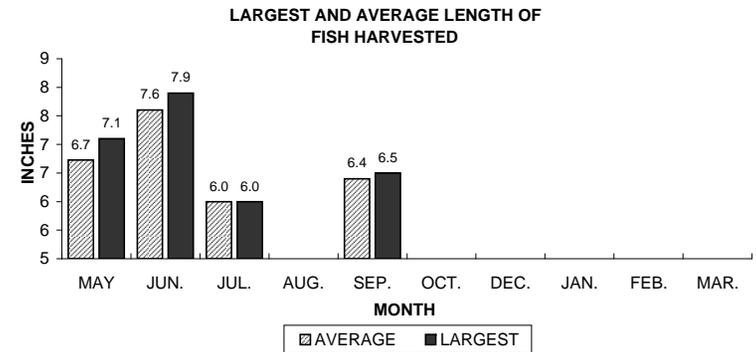
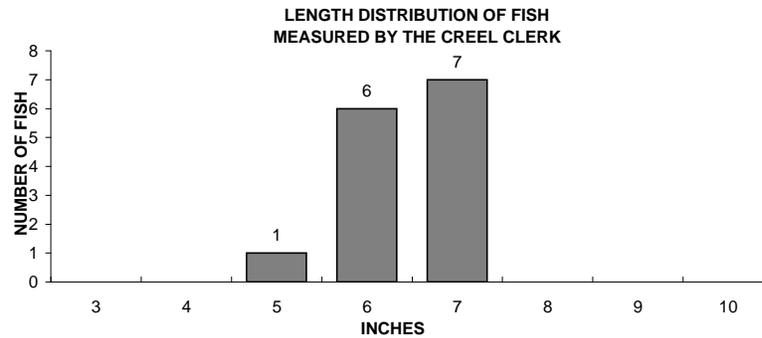
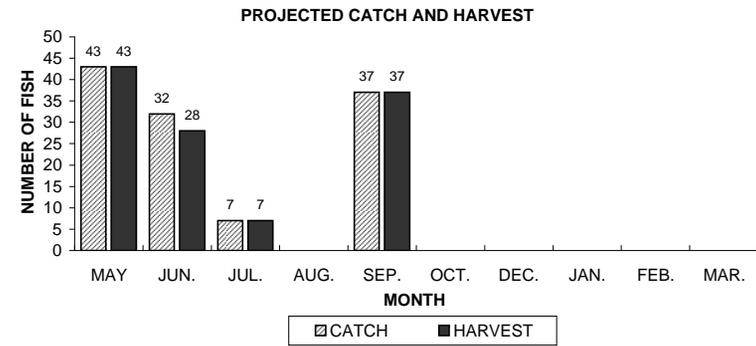
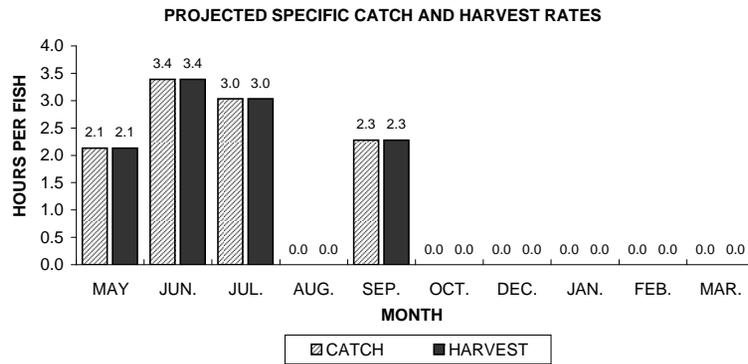
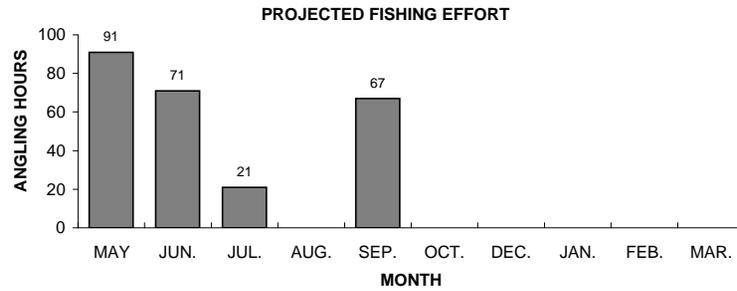
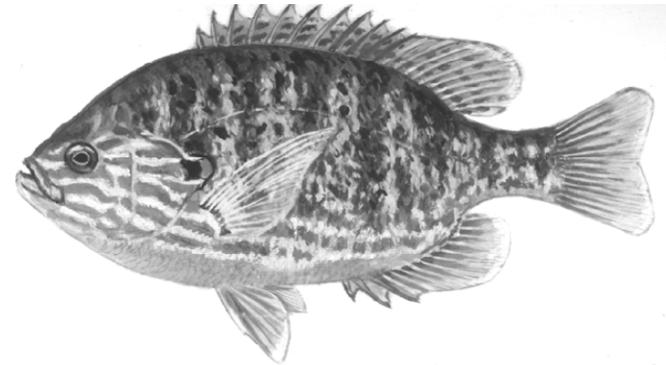


Figure 7. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# BLACK CRAPPIE

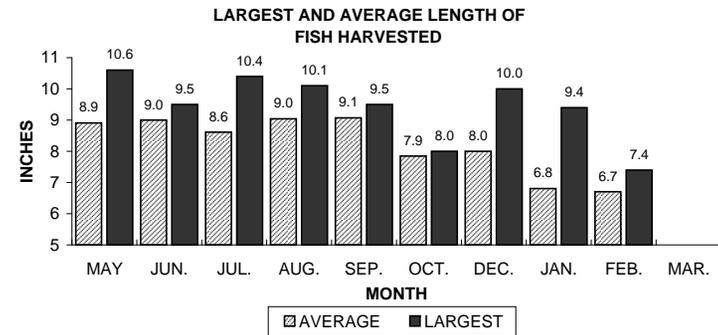
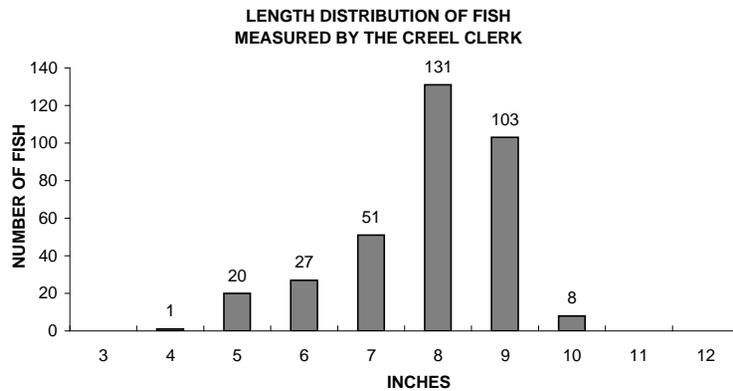
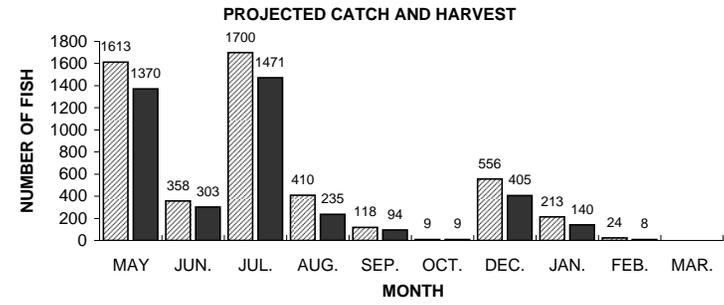
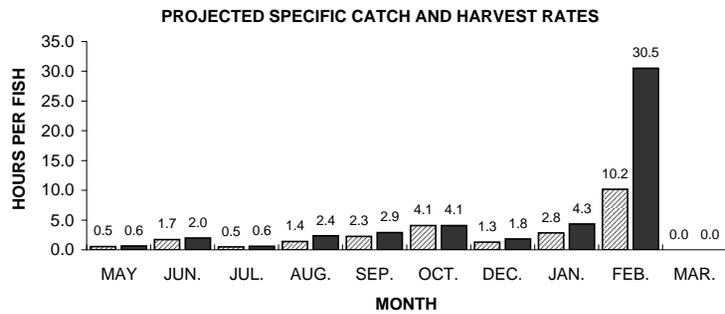
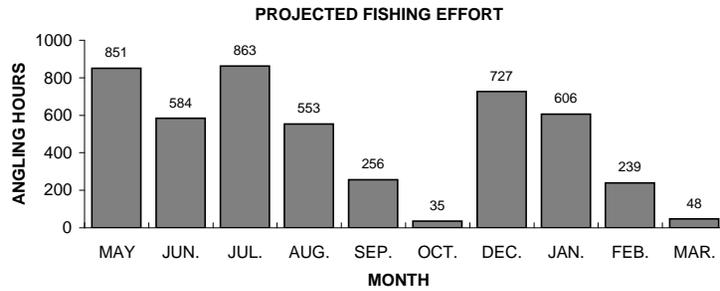
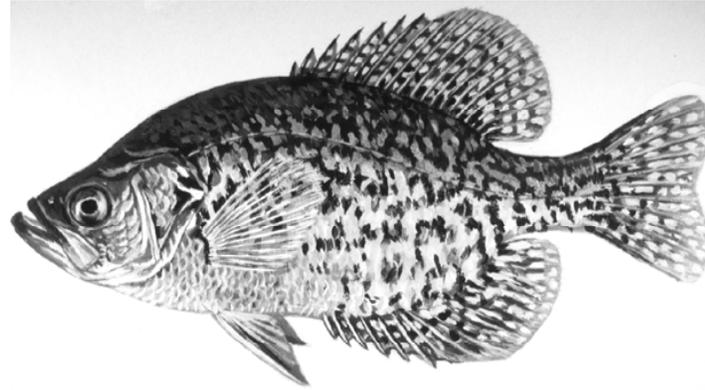


Figure 8. Black crappie sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.

# YELLOW BULLHEAD

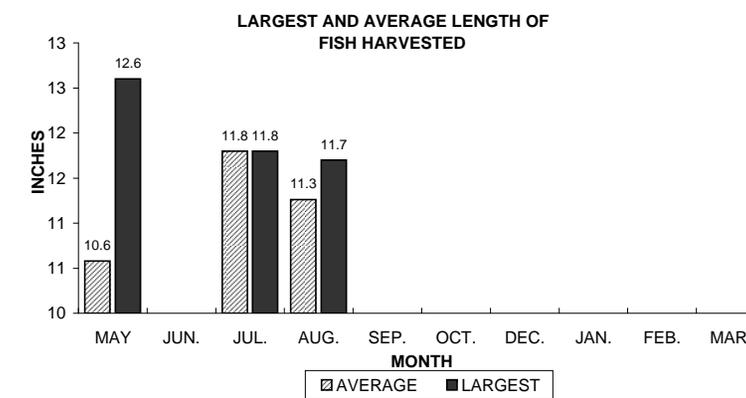
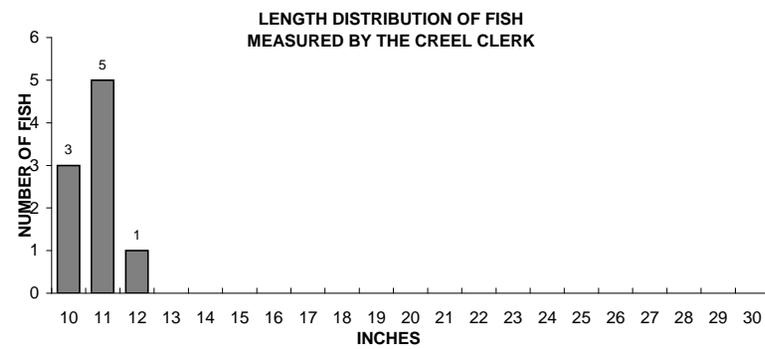
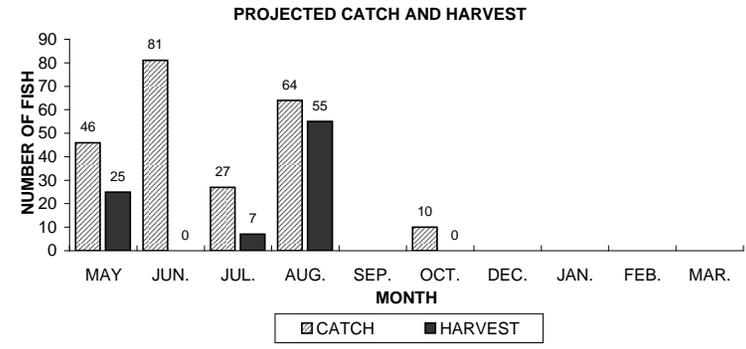
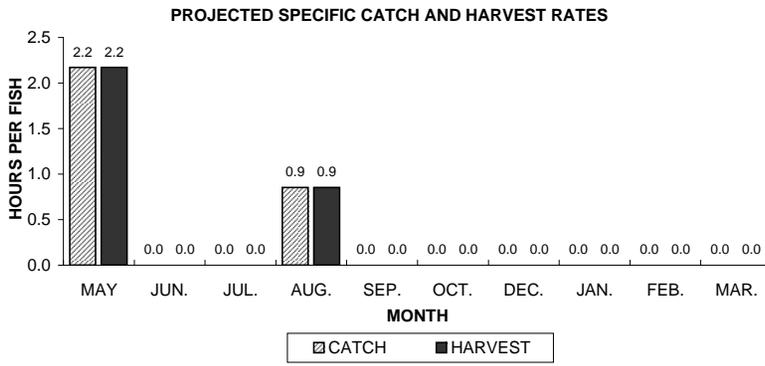
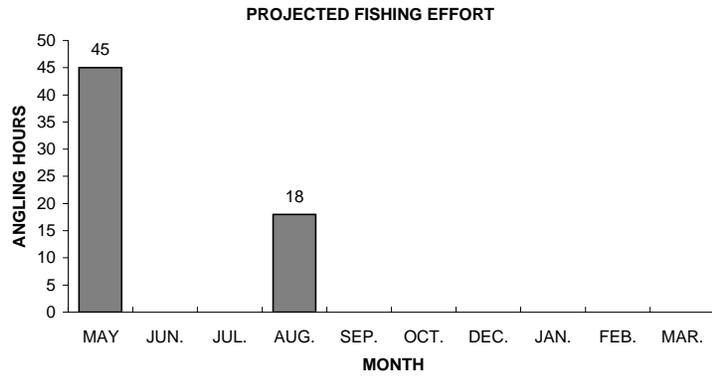
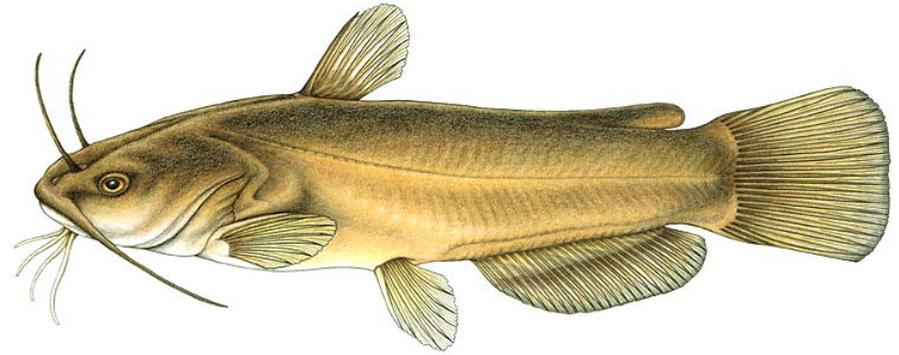


Figure 9. Yellow bullhead sportfishing effort, catch, harvest, and length distribution, Fay Lake, during 2007-08.