

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

**MOEN CHAIN
FOURTH & FIFTH LAKES**

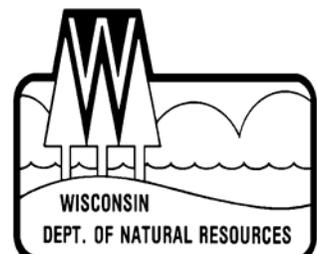
ONEIDA COUNTY

2007-08



Treaty Fisheries Publication

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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.

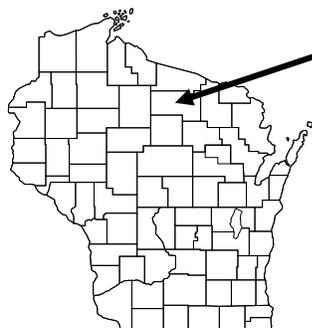
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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 Fourth & Fifth Lakes; discussion of results of the survey; and detailed summaries, by species of fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



FOURTH & FIFTH LAKE

Location

Fourth & Fifth Lakes are located in Oneida County east of the town of Rhinelander and are part of the Moen's Lake Chain.

Physical Characteristics

Fourth & Fifth are low fertility drainage lakes that encompass 498-acres. These lakes are characterized by having medium brown water of low transparency. Littoral substrate consists primarily of sand, with lesser amounts of rubble, boulders, silt and gravel. Lake level is controlled by a seven foot water control structure on the outlet of Fifth Lake.

Seasons Surveyed

The period referred to in this report 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 Fourth & Fifth Lakes was around April 14, 2007 which is normal for northern Wisconsin. Spring, summer and fall weather was normal. Fishable-ice formed on Fourth & Fifth Lakes in early December.

Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Fourth & Fifth Lakes during the 2007-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass& Smallmouth Bass	5/05-6/15	Catch&Release	
Musky	6/16-03/02	5	14"
Northern Pike	5/26-11/30	1	34"
Walleye	5/05-3/02	5	none
Panfish	5/05-3/02	3*	1>14"
Rock Bass	all year	25	none
	all year	none	none

* The statewide bag limit was 5 fish, but due to tribal declarations it was reduced on Fourth & Fifth Lakes Lake.

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 10,883 hours or 21.9 hours per acre fishing Fourth & Fifth Lakes during the 2007 season (Table 1). That was lower than the statewide average of 33.6 hours per acre and the Oneida County average of 38.7 hours per acre. July was the most heavily

fished month (5.2 hours per acre). Fishing effort was lightest in December (0.6 hours per acre).

SPECIES INFORMATION

Walleye (Table 2, Figure 1)

Anglers spent 2,466 hours targeting walleye. Walleye fishing effort was greatest in May (1,207 hours). January had the least amount of walleye fishing effort (0 hours).

Catch was 1,323 fish and harvest was 572 fish. Highest catch (780 fish) occurred in May. Anglers fished 2.0 hours to catch and 4.4 hours to harvest a walleye during 2007.

The mean length of harvested walleye was 13.5 inches and the largest walleye measured was a 18.7-inch fish harvested in January.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 399 hours during the 2007 season. Northern pike fishing effort was greatest in May (126 hours).

Catch was 379 fish and harvest 45 fish. Anglers fished 4.1 hours to catch a northern pike during 2007.

The mean length of harvested northern pike was 21.8 inches and the largest northern pike measured was a 28.2-inch fish harvested in February.

Muskellunge (Table 2, Figure 3)

Anglers spent 4,820 hours targeting muskellunge during the 2007 season. Muskellunge fishing effort was greatest in June (1,142 hours).

Catch was 279 fish and harvest was 10 fish. Highest catch (105 fish) occurred in August. Anglers fished 20.1 hours to catch a

muskellunge during 2007.

Smallmouth Bass (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 565 hours during the 2007 season. Smallmouth bass fishing effort was greatest in July (327 hours).

Catch was 359 with a harvest of 3 fish. Highest catch (150 fish) occurred in July.

Largemouth Bass (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 372 hours during the 2007 season. Largemouth bass estimated catch was greatest in July (15 fish).

Anglers fished 61.3 hours to catch a largemouth bass during 2007.

Panfish (Table 2, Figures 6-10)
Black crappie was the most sought after panfish species with 3,263 hours of effort during the 2007 season. Total catch was 3,855 and harvest of 1,566 fish. The mean length of black crappie harvested was 9.6 inches.

Bluegill was the second most sought after panfish species during the survey. Fishing effort directed at bluegill was 1,962 hours during the 2007 season. Catch was 4,768 fish with a harvest of 821 fish. The mean length of harvested bluegill was 7.3 inches.

Anglers caught 2,987 and harvested 605 yellow perch. The mean length of harvested yellow perch was 8.3 inches.

Other panfish caught were white crappie (25 fish), pumpkinseed (617 fish) and rock bass (736 fish).

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, Tim Tobias, Joelle Underwood and Jeff Blonski. Jason Halverson was the creel clerk on Fourth & Fifth Lakes 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, John Kubisiak 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, Fourth & Fifth Lakes, 2007-08 fishing season.

Month	Total Angler Hours	Total Angler Hours/Acre	Oneida County Average Hours/Acre	Statewide Average Hours/Acre
May	1737	3.5	5.6	5.8
June	1522	3.1	7.6	6.0
July	2567	5.2	8.7	6.4
August	1741	3.5	6.5	5.4
September	1354	2.7	3.9	3.8
October	673	1.4	1.8	1.6
December	317	0.6	1.3	1.7
January	376	0.8	1.6	1.5
February	556	1.1	1.5	1.3
March	40	0.1	0.2	**
*Summer Total	9594	19.3	34.1	29.0
*Winter Total	1289	2.6	4.6	4.5
Grand Total	10883	21.9	38.7	33.5

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

Table 2. Creel survey synopses, Fourth & Fifth Lakes, 2007-08 fishing season.

CREEL YEAR: 2007-08

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	2466	14.59%	1323	2.0	572	4.4	13.5
Northern Pike	339	2.01%	379	4.1	45	21.1	21.8
Muskellunge	4820	28.53%	279	20.1	10	462.3	39.5
Smallmouth Bass	565	3.34%	359	3.4	3		14.9
Largemouth Bass	372	2.20%	45	61.3	0		
Yellow Perch	1838	10.88%	2987	1.1	605	4.8	8.3
Bluegill	1962	11.61%	4768	0.5	821	2.7	7.3
Pumpkinseed	1189	7.04%	617	2.5	199	6.3	6.8
Rock Bass	83	0.49%	736	0.6	89	2.1	7.2
Black Crappie	3263	19.31%	3855	0.9	1566	2.2	9.6

* 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

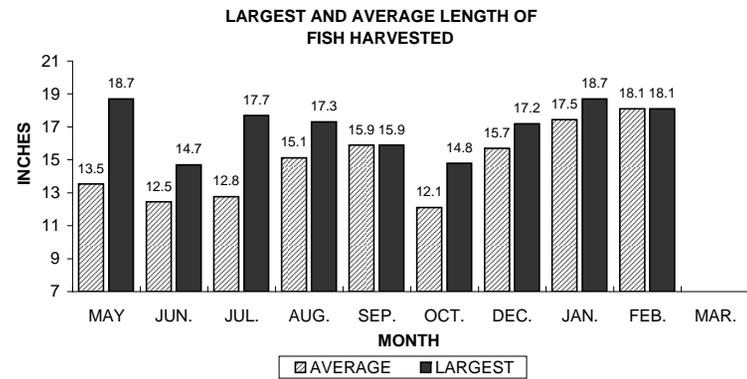
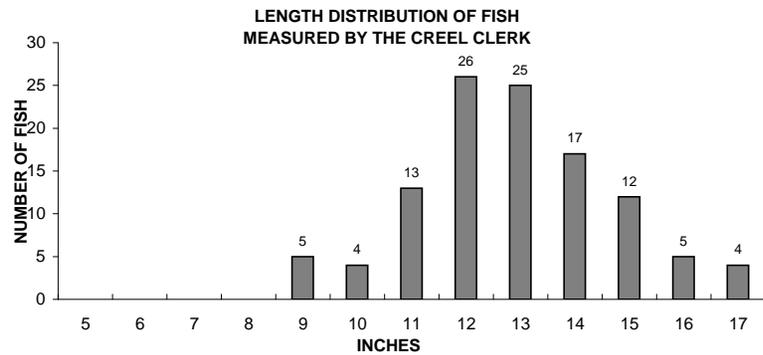
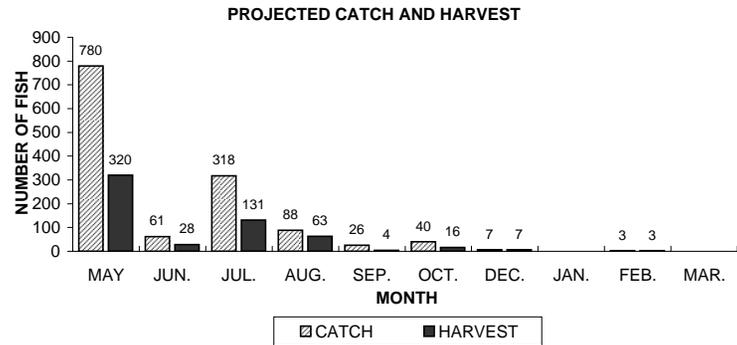
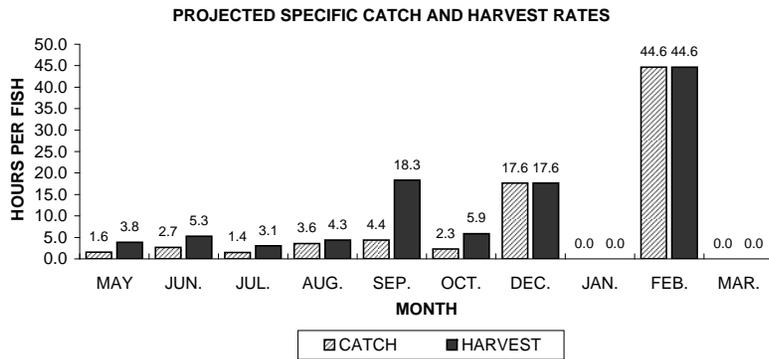
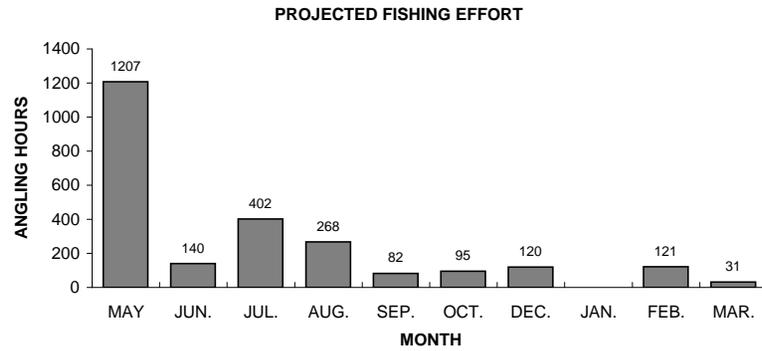
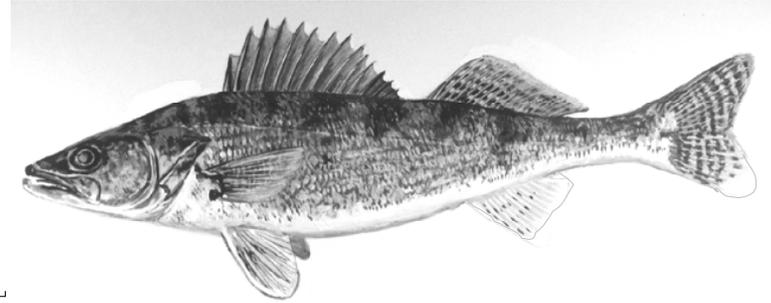


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

NORTHERN PIKE

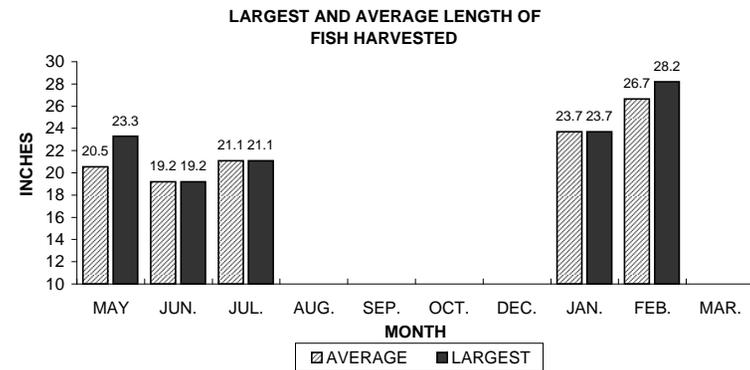
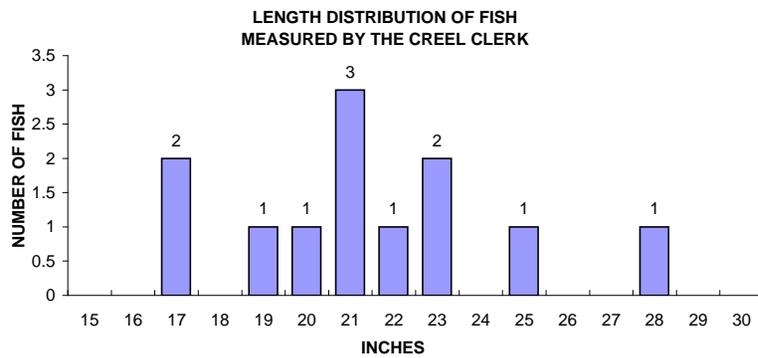
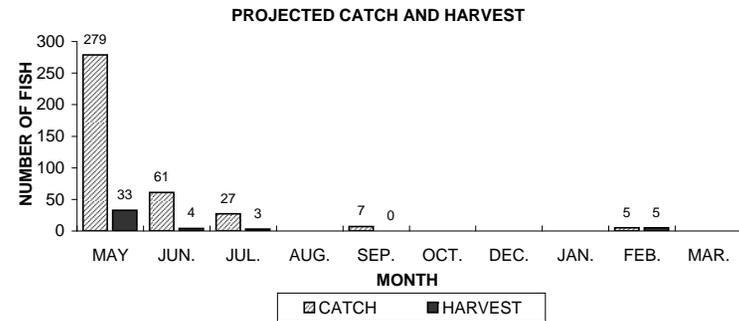
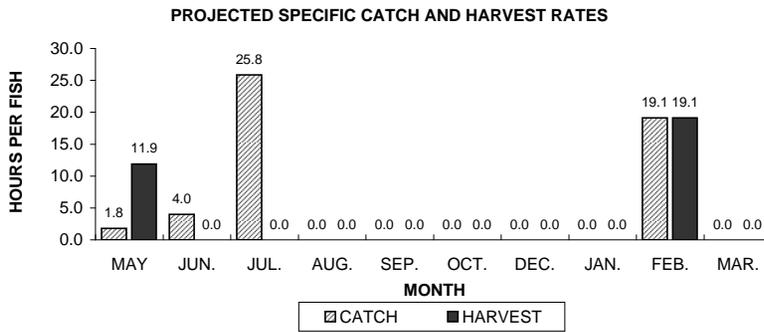
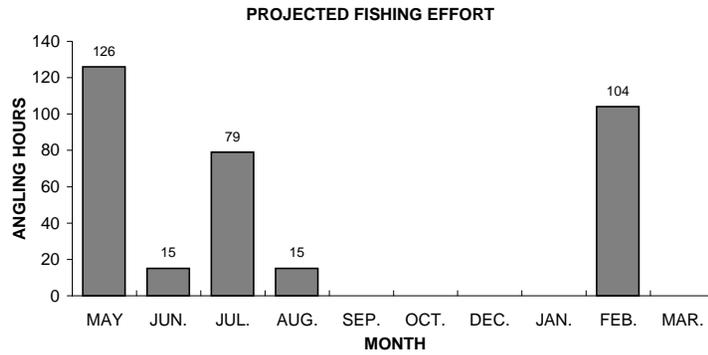
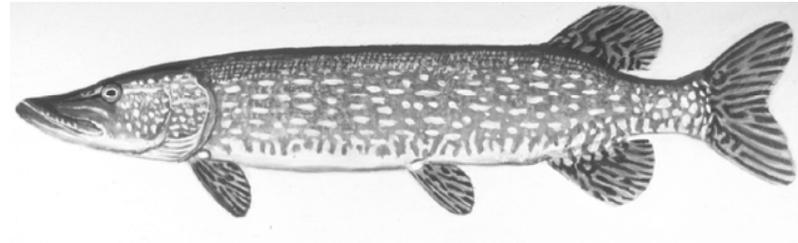


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

MUSKELLUNGE

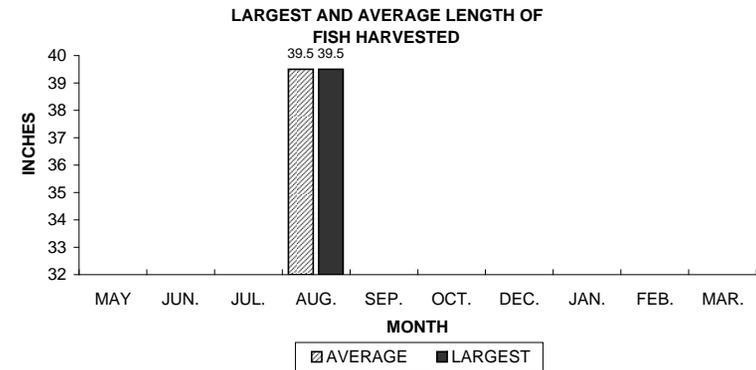
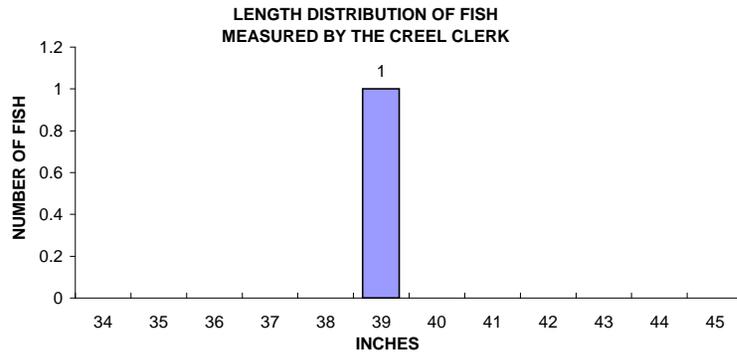
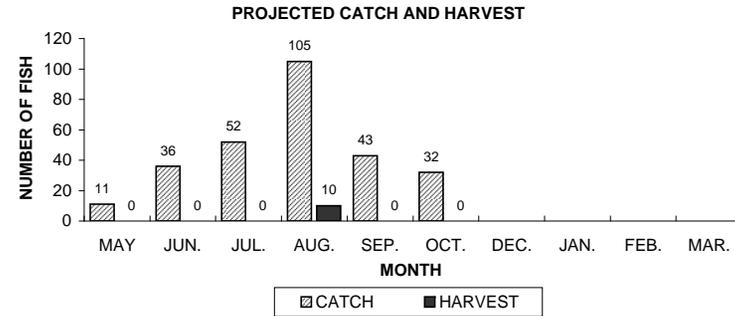
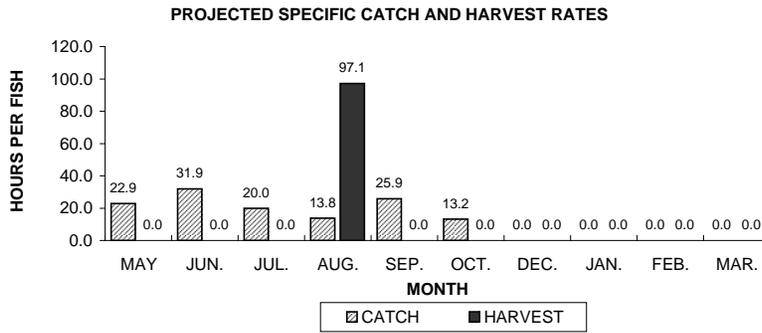
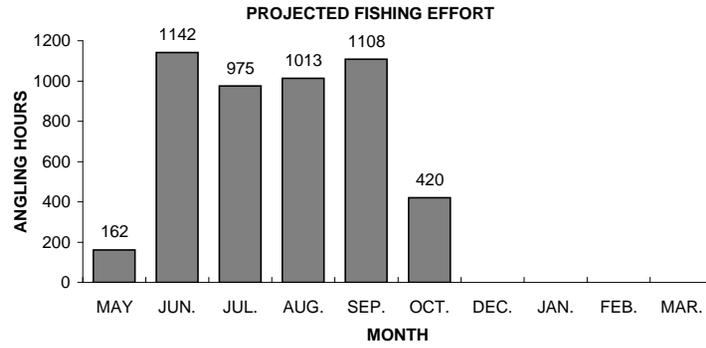
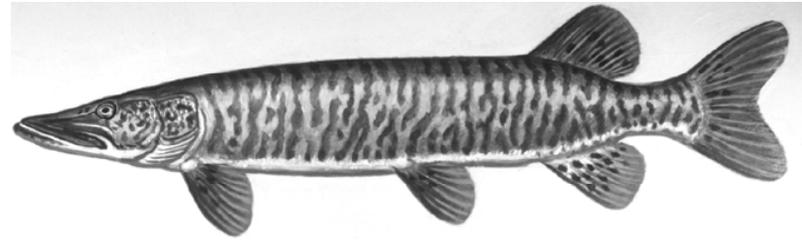


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

SMALLMOUTH BASS

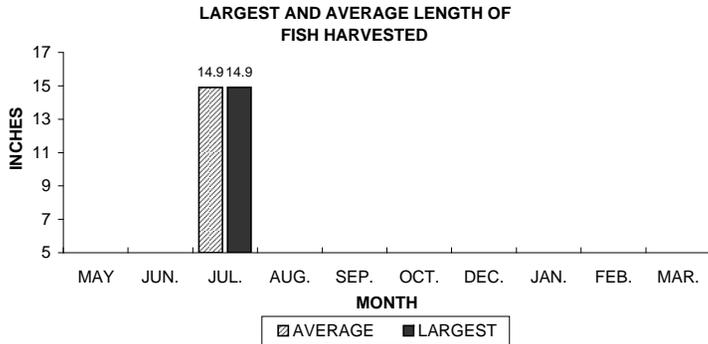
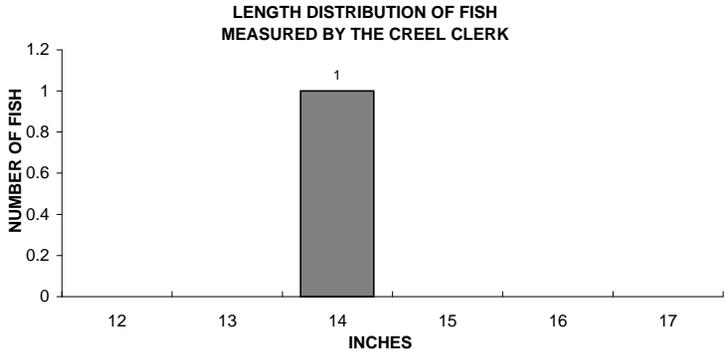
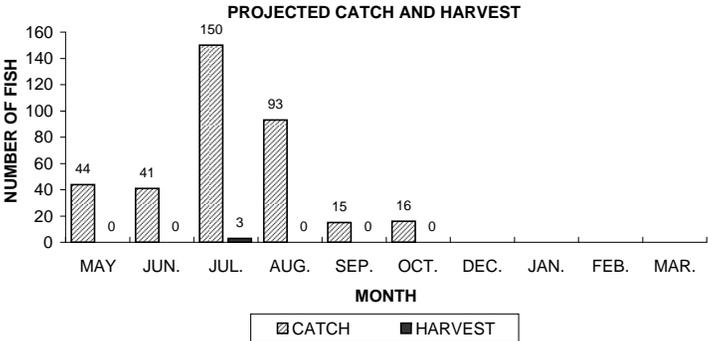
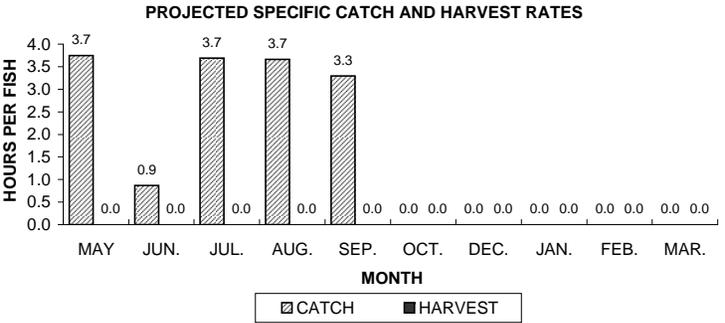
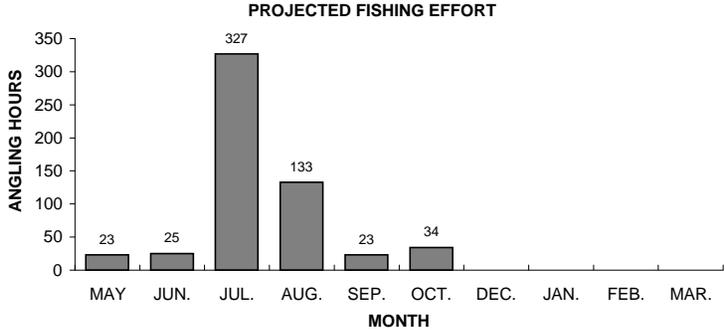
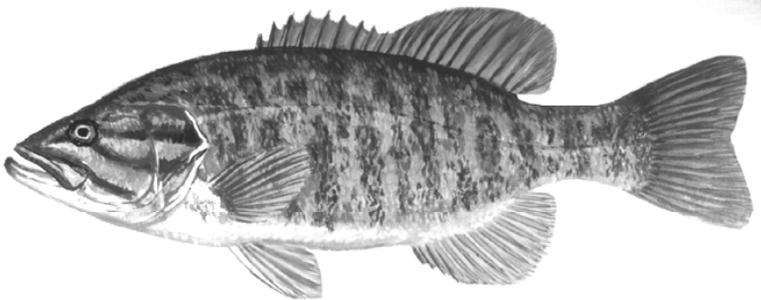


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

LARGEMOUTH BASS

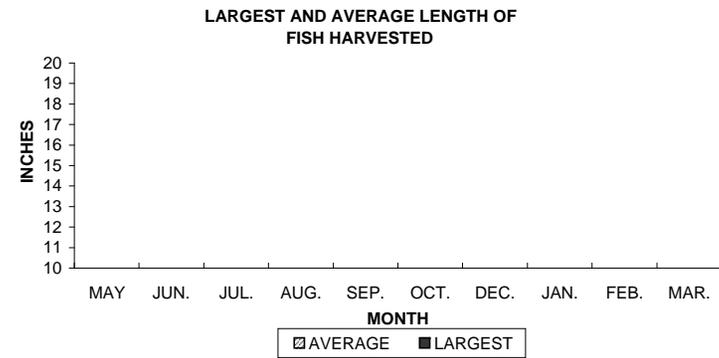
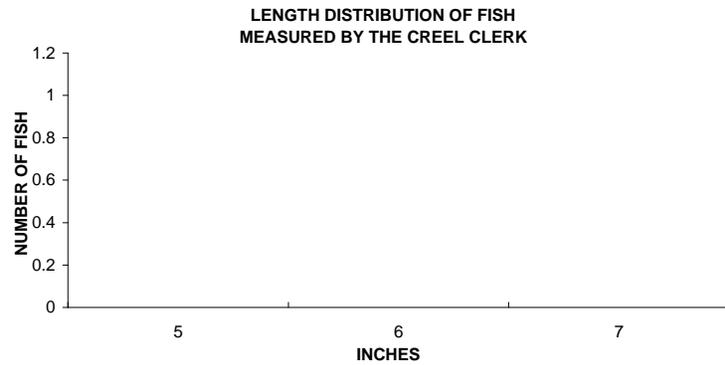
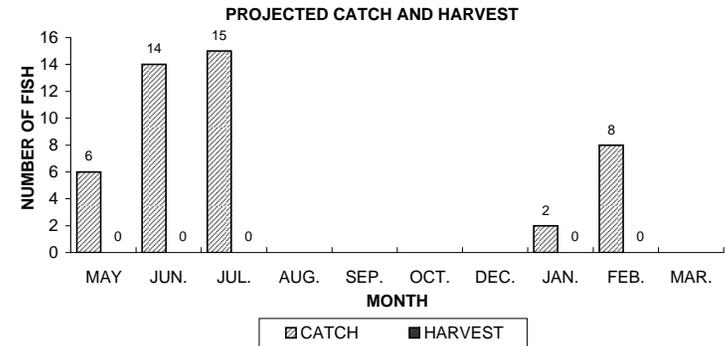
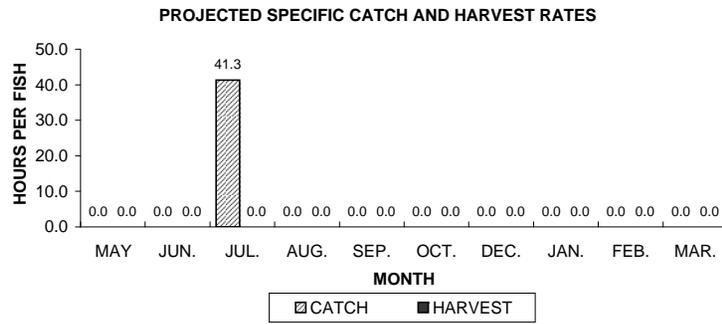
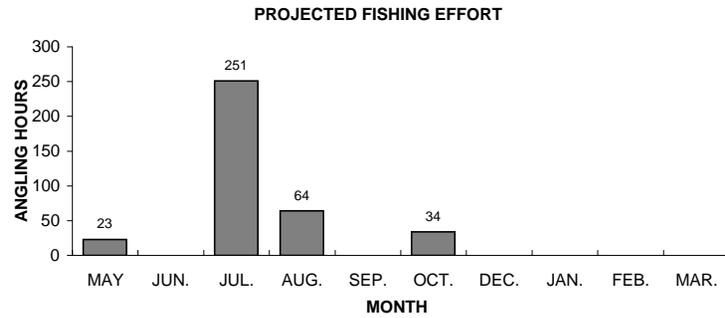
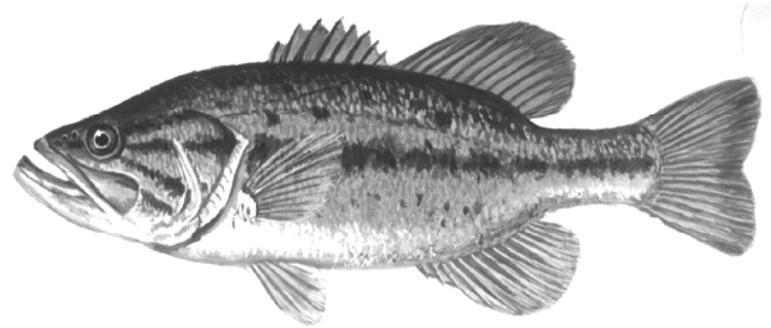


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

YELLOW PERCH

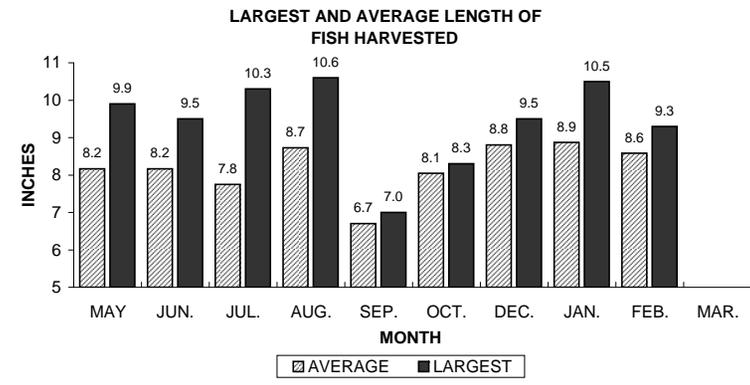
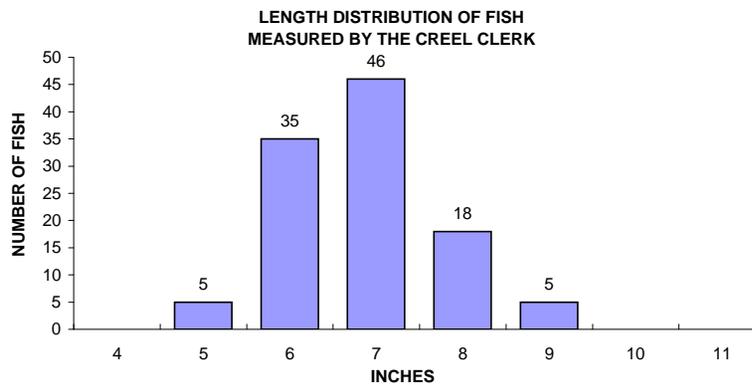
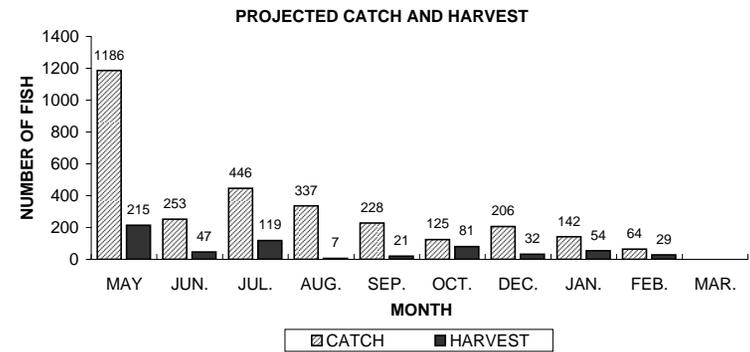
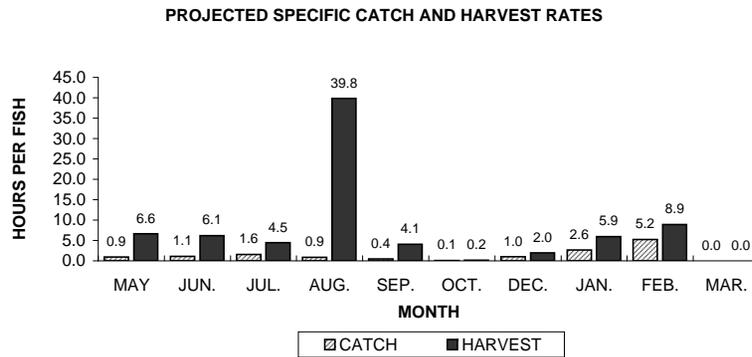
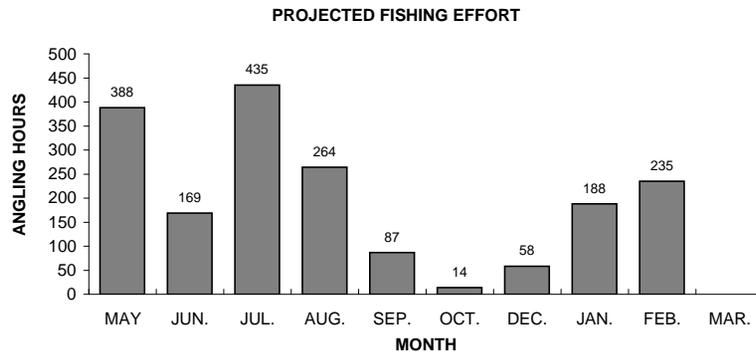
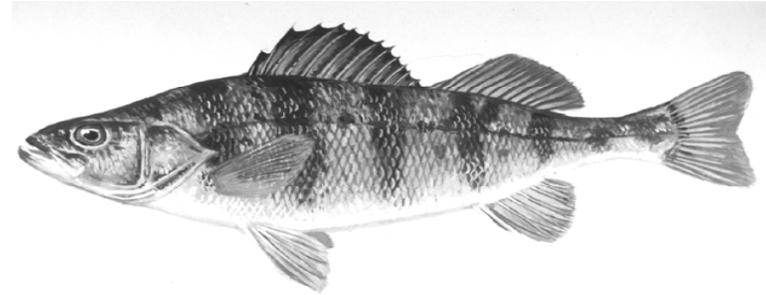


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

BLUEGILL

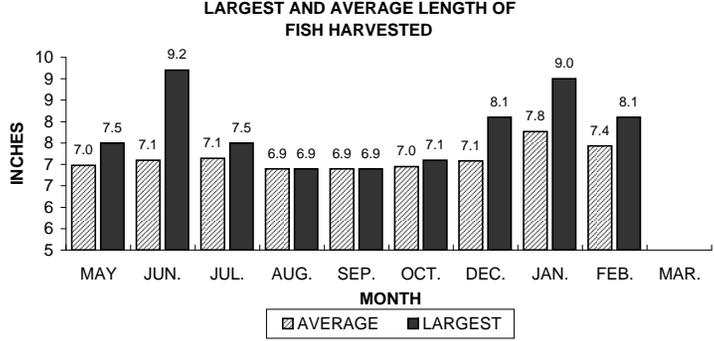
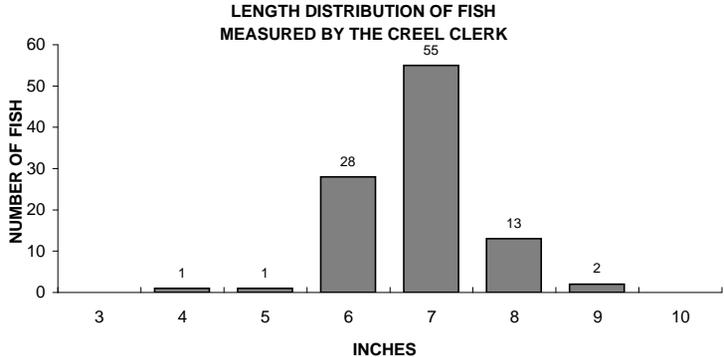
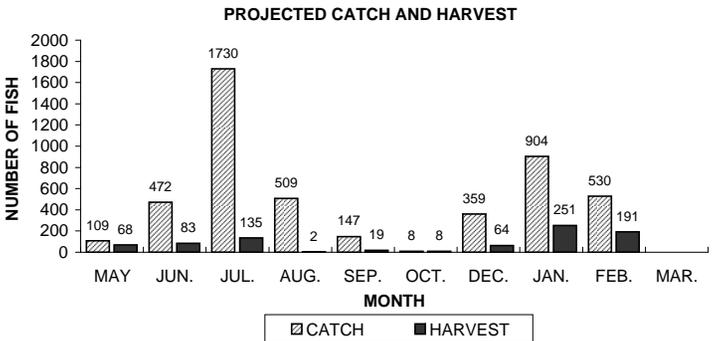
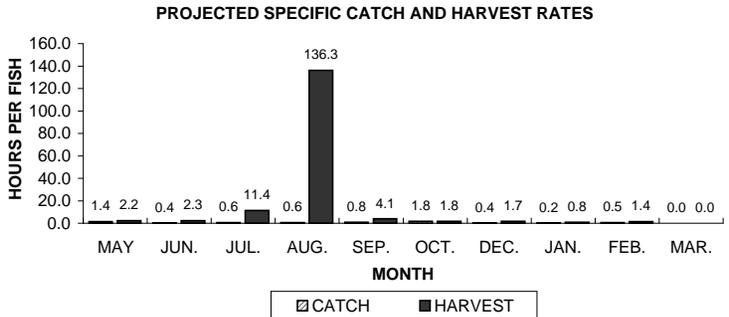
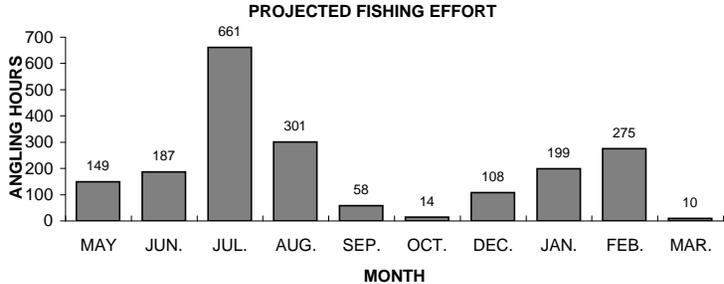
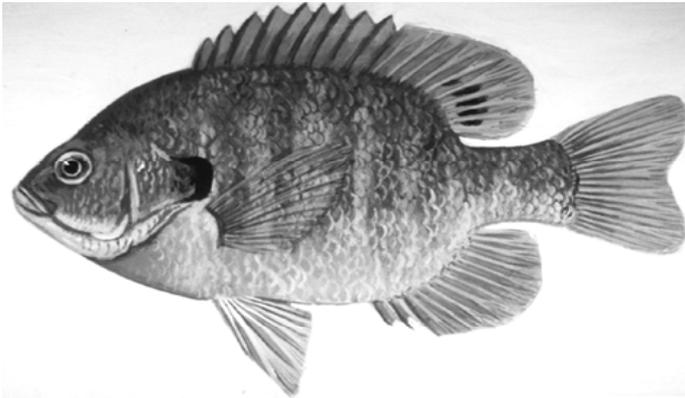


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

PUMPKINSEED

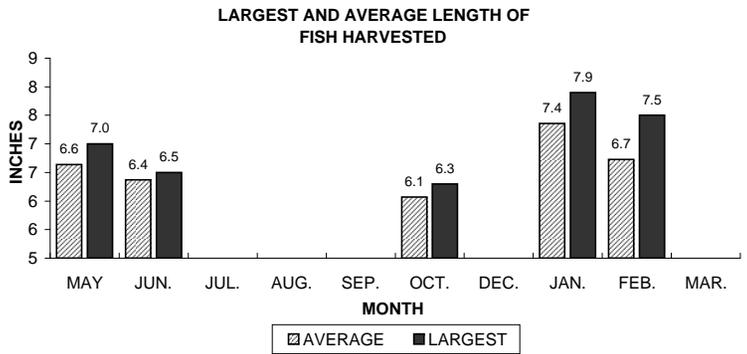
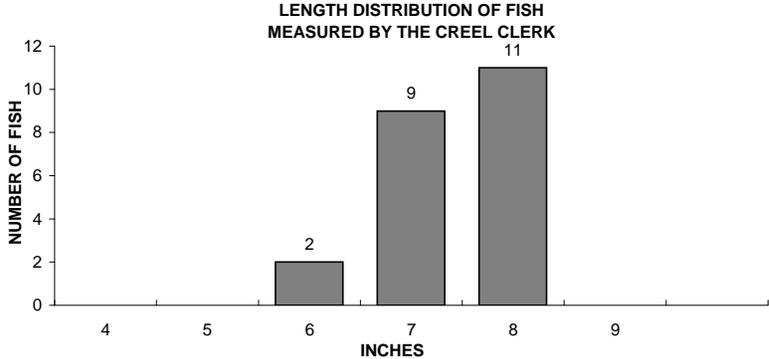
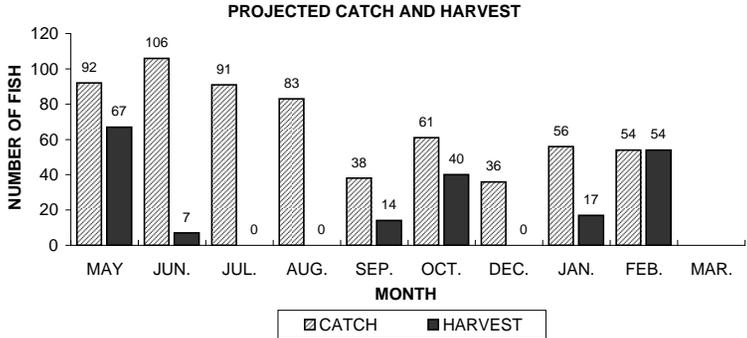
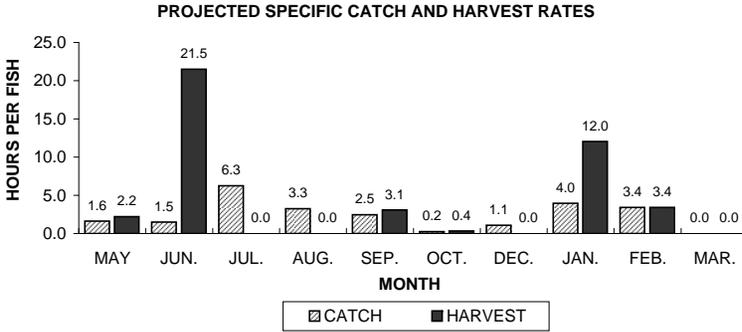
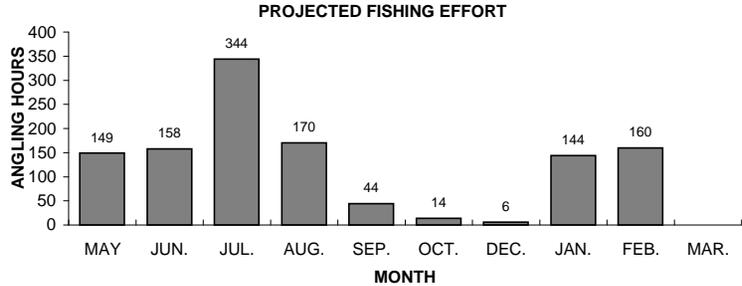
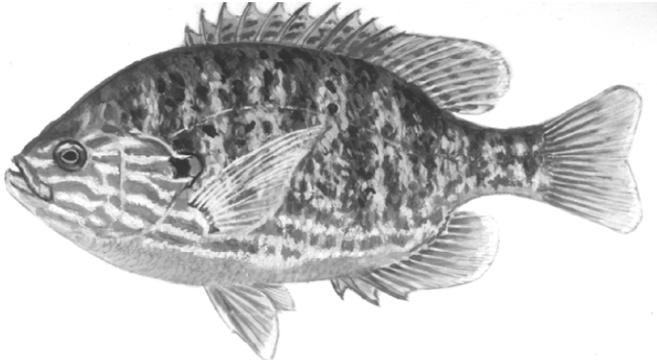


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

ROCK BASS

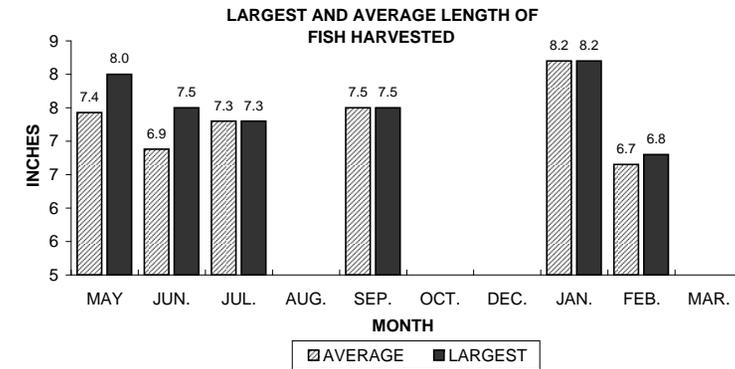
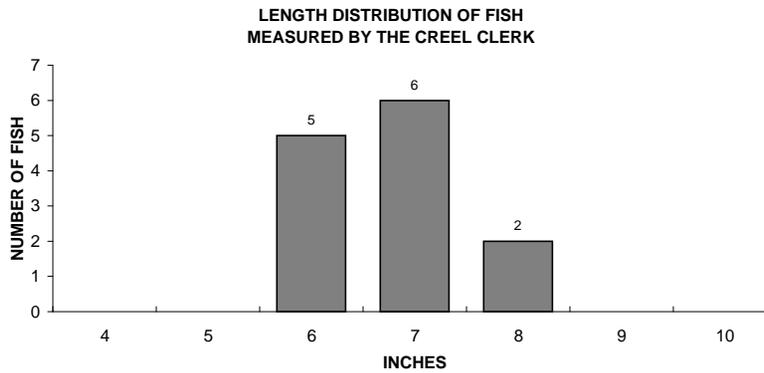
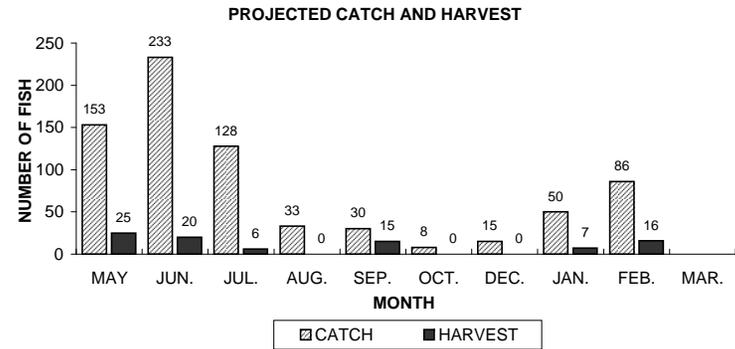
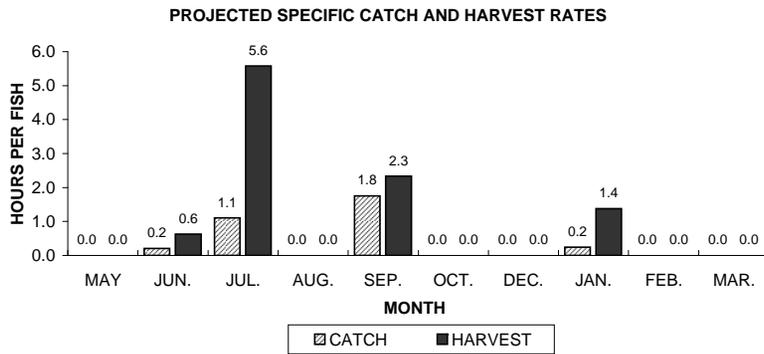
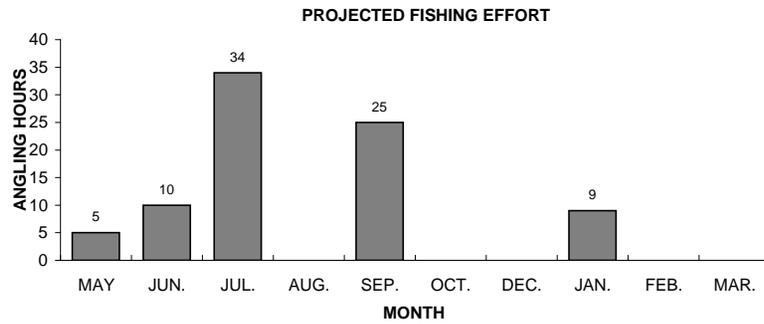
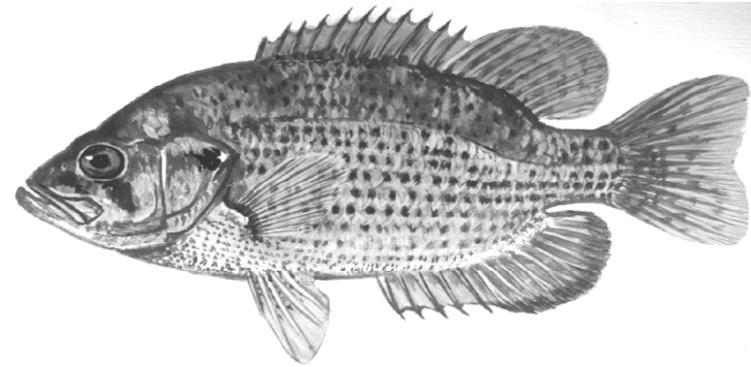


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.

BLACK CRAPPIE

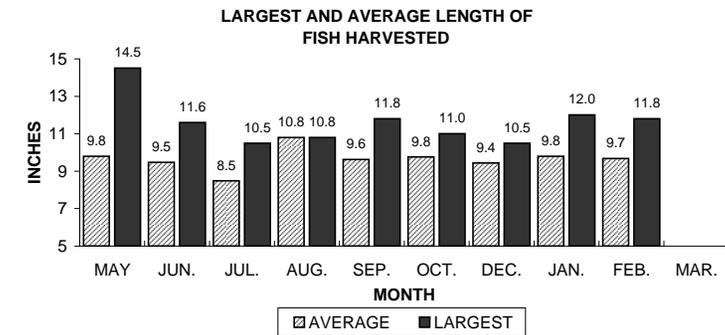
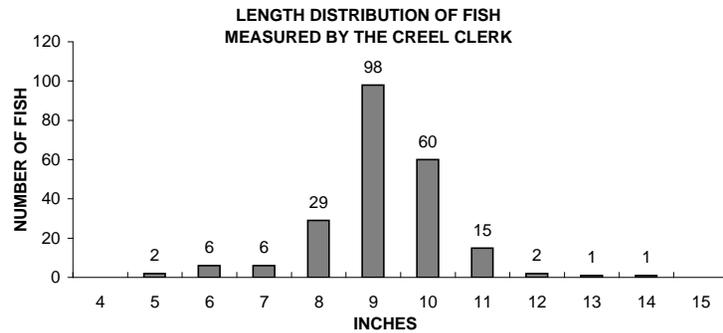
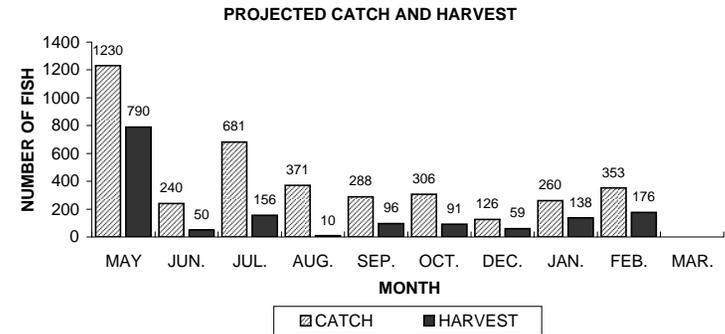
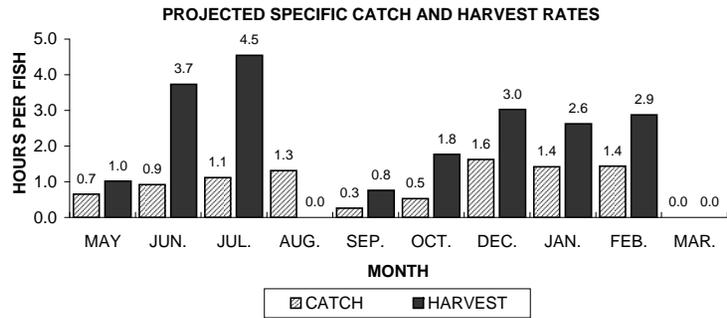
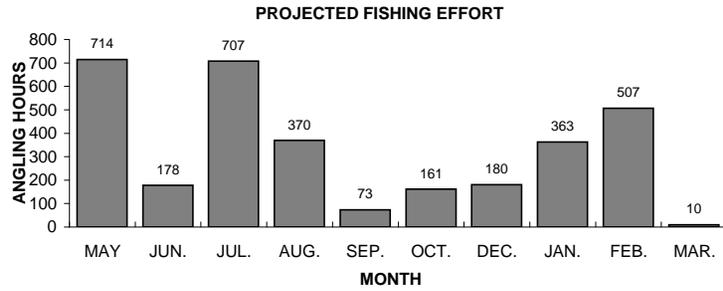
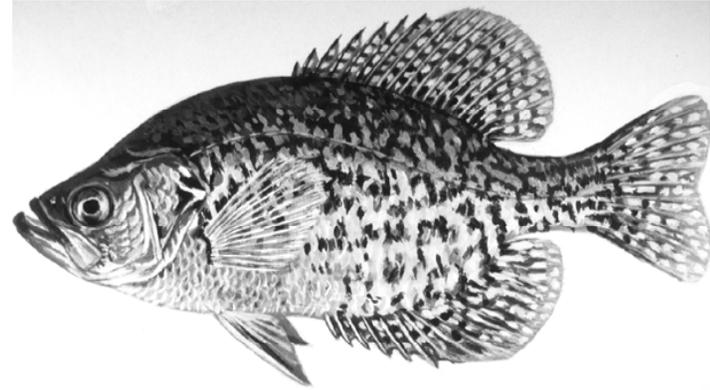


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Fourth and Fifth Lakes, during 2007-08.