# WISCONSIN DEPARTMENT OF NATURAL RESOURCES
# CREEL SURVEY REPORT

# Sevenmile Lake

## ONEIDA COUNTY

# 2008-09

**Treaty Fisheries Publication**

**Written by Tim Tobias**
**Treaty Fisheries Technician**

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**SUMMARY TABLES**



**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.

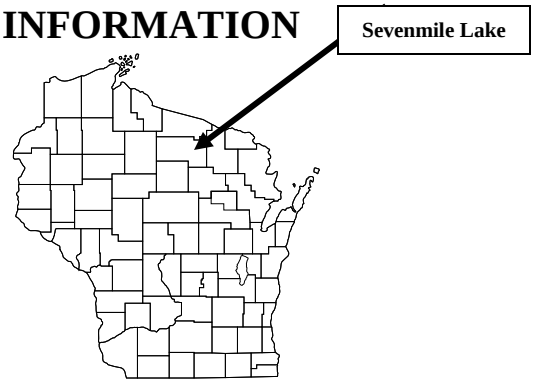
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides projections of:

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

# GENERAL LAKE INFORMATION




**Location**
Sevenmile Lake is located in Oneida County approximately 9 miles east of the City of Eagle River.

**Physical Characteristics**
Sevenmile Lake is a 503-acre drainage lake of low fertility, light brown water and a maximum depth of 43 feet. Littoral substrate consists primarily of sand and muck with smaller amounts of gravel and rubble.

**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, 2008 through October 31, 2008 and the ice fishing creel survey ran from December 1, 2008 through March 1, 2009.

**Weather**
Ice-out on Sevenmile Lake was around April 20. Spring, summer and fall weather were cool and dry. Fishable-ice formed on Sevenmile Lake in December.

**Sportfishing Regulations**
The following seasons, daily bag limits, and length limits were in place on Sevenmile Lake during the 2008-09 fishing season:

| | | | |
|---|---|---|---|
| Largemouth Bass& | 5/03-6/20 | Catch & Release | |
| Smallmouth Bass | 6/21-3/01 | 1 | 14" |
| Northern Pike | 5/03-3/01 | 5 | none |
| Muskellunge | 5/03-3/01 | 1 | 34" |
| Walleye | 5/03-3/01 | 2 | no minimum one>14" |
| 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 2 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 12,251 hours or 24.4 hours per acre fishing Sevenmile Lake during the 2008 season (Table 1). That was less than the Oneida County average of 37.2 hours per acre. August was the most heavily fished month (6.5 hours per acre). Fishing effort was lightest in January (0.7 hours per acre).

# SPECIES INFORMATION

**Walleye** (Table 2, Figure 1)
Fishing effort targeted at walleye was 3,217 hours. Walleye fishing effort was greatest in August (610 hours). October had the least amount of walleye fishing effort (31 hours).

Catch was 314 fish with a harvest of 230 fish. Highest catch (155 fish) occurred in June and harvest (133 fish) also occurred in June. Anglers fished 11.0 hours to catch a walleye and 14.2 hours to harvest during 2008.

The mean length of harvested walleye was 15.9 inches and the largest walleye measured was a 28.3-inch fish harvested in June.

**Northern Pike** (Table 2, Figure 2)
There were 471 hours of directed effort for northern pike on Sevenmile Lake during the 2008 season.

Catch was 440 fish with a harvest of 135 fish. Highest catch (185 fish) occurred in May. Anglers fished 5.9 hours to catch a northern pike during the 2008 season.

**Muskellunge** (Table 2, Figure 3)
There were 6,076 hours of directed effort for muskellunge on Sevenmile Lake during the 2008 season.

Catch was 241 fish with a harvest of 5 fish. Highest catch (71 fish) occurred in August. Anglers fished 26.7 hours to catch a muskellunge during the 2008 season.

**Smallmouth Bass** (Table 2, Figure 4)
There were 719 hours of directed effort for smallmouth bass on Sevenmile Lake during the 2008 season.

Catch was 586 fish with a harvest of 20 fish. Highest catch (291 fish) occurred in July. Anglers fished 2.6 hours to catch a smallmouth bass during the 2008 season.

**Largemouth Bass** (Table 2, Figure 5)
There were 471 hours directed effort for

largemouth bass on Sevenmile Lake during the 2008 season.

Catch was 183 fish with a harvest of 13 fish. Highest catch (82 fish) occurred in August. Anglers fished 6.8 hours to catch a largemouth bass during the 2008 season.

**Panfish** (Table 2, Figures 6-10)
Panfish accounted for 38 percent of the total directed effort or 6,837 hours during the 2008 season.

**Yellow perch** (Table 2, Figure 6)
Yellow perch was the most sought after panfish species with 14 percent of the directed effort. Yellow perch fishing effort was greatest in August (679 hours). December had the least amount of yellow perch effort (20 hours).

Catch was 3,799 fish with a harvest of 683 fish. Highest catch (1,100 fish) occurred in July. Anglers fished 42 minutes to catch a yellow perch and 3.8 hours to harvest during the 2008 season.

The mean length of harvested yellow perch was 7.5 inches and the largest yellow perch measured was a 10.1 inch fish harvested in June.

**Bluegill** (Table 2, Figure 7)
Bluegill was the second most sought after panfish species 13.5 percent of the directed effort. Bluegill fishing effort was greatest in August (840 hours). December had the least amount of bluegill effort (0 hours).

Catch was 5,239 fish with a harvest of 1,227 fish. Highest catch (2,086 fish) occurred in August. Anglers fished 30 minutes to catch a bluegill and 2.0 hours to harvest during the 2008 season.

The mean length of harvested bluegill was 6.9 inches and the largest bluegill measured was a 8.4 inch fish harvested in July.

Pumpkinseed, rock bass and black crappie were also caught, but in moderate numbers (Table 2, Figures 8-10).

## ACKNOWLEDGMENTS

Scott Yonker and Bob Consolo were the creel clerks on Sevenmile Lake during the survey period.

The department thanks the cooperators, Roger & Judie Brown and Lindy's Hideaway, 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, John Kubisiak 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:

Mike Coshun
Treaty Fisheries Biologist
WI Department of Natural Resources
8770 Hwy. J
Woodruff, WI 54568
e-mail:
Michael.Coshun@dnr.state.wi.us

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

| Month | Total Angler Hours | Total Angler Hours/Acre | Oneida County Average Hours/Acre | Statewide Average Hours/Acre |
|---|---|---|---|---|
| May | 967 | 1.9 | 5.4 | 5.8 |
| June | 2514 | 5.0 | 7.3 | 6.1 |
| July | 2598 | 5.2 | 8.3 | 6.4 |
| August | 3290 | 6.5 | 6.3 | 5.4 |
| September | 1061 | 2.1 | 3.7 | 3.8 |
| October | 581 | 1.2 | 1.7 | 1.6 |
| December | 432 | 0.9 | 1.2 | 1.7 |
| January | 330 | 0.7 | 1.5 | 1.5 |
| February | 480 | 1.0 | 1.5 | 1.3 |
| March | 0 | 0.0 | 0.2 | ** |
| *Summer Total | 11010 | 21.9 | 32.8 | 29.1 |
| *Winter Total | 1242 | 2.5 | 4.4 | 4.5 |
| Grand Total | 12251 | 24.4 | 37.2 | 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 Sevenmile 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 Sevenmile 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 Sevenmile Lake to other lakes statewide.

**Table 2. Comparison of creel survey synopses, Sevenmile Lake, 2008-09 and 1997-98 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 | 3217 | 18.08% | 314 | 11.0 | 230 | 14.2 | 15.9 |
| Northern Pike | 471 | 2.65% | 440 | 5.9 | 135 | 7.0 | 23.8 |
| Muskellunge | 6076 | 34.15% | 241 | 26.7 | 5 | 1250.0 | 34.8 |
| Smallmouth Bass | 719 | 4.04% | 586 | 2.6 | 20 | 49.8 | 17.7 |
| Largemouth Bass | 471 | 2.65% | 183 | 6.8 | 13 | 166.7 | 15.0 |
| Yellow Perch | 2508 | 14.10% | 3799 | 0.7 | 683 | 3.8 | 7.5 |
| Bluegill | 2407 | 13.53% | 5239 | 0.5 | 1227 | 2.0 | 6.9 |
| Pumpkinseed | 523 | 2.94% | 855 | 1.0 | 289 | 3.2 | 7.5 |
| Rock Bass | 814 | 4.58% | 3921 | 0.5 | 550 | 1.6 | 7.9 |
| Black Crappie | 585 | 3.29% | 191 | 6.8 | 56 | 14.3 | 12.0 |



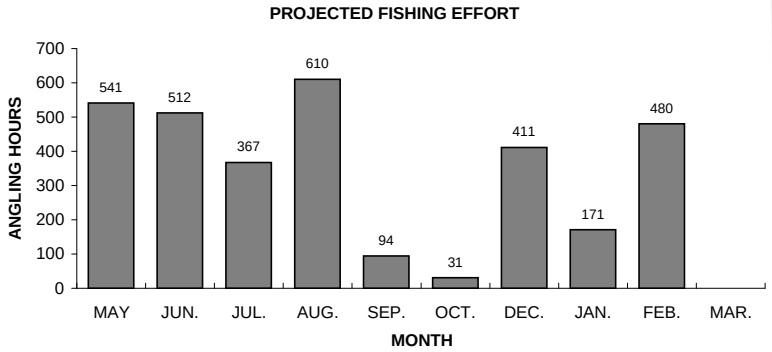
* A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

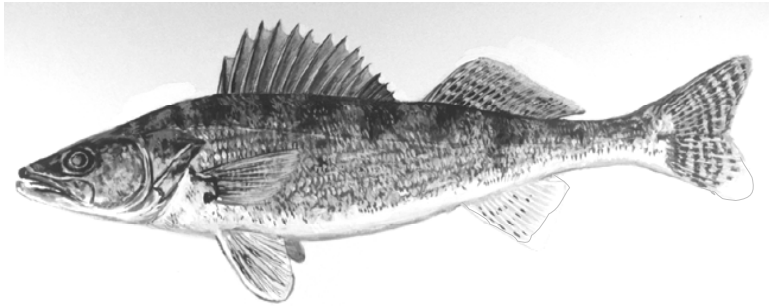
** A blank cell in this column indicates that no fish of a given species were harvested by anglers who specifically targeted that species.

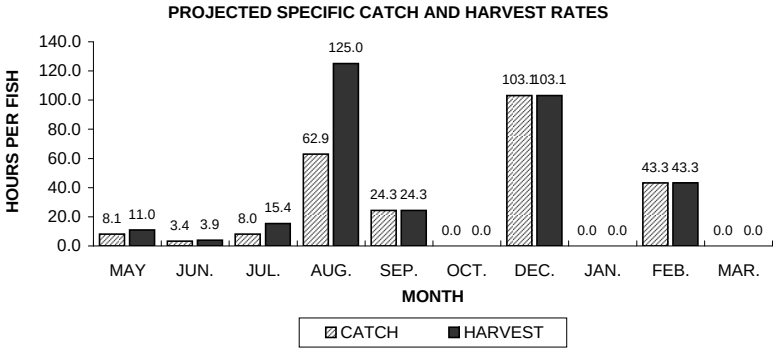
CREEL YEAR: 1997-98

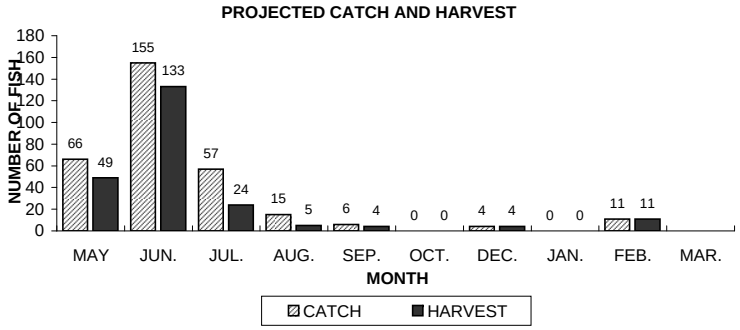
| SPECIES | DIRECTED EFFORT (Hours) | PERCENT OF TOTAL | TOTAL CATCH | SPECIFIC CATCH RATE (Hrs/Fish) | TOTAL HARVEST | SPECIFIC HARVEST RATE (Hrs/Fish) | MEAN LENGTH OF HARVESTED FISH |
|---|---|---|---|---|---|---|---|
| Walleye | 5476 | 29.61% | 1240 | 5.0 | 429 | 12.9 | 14.0 |
| Northern Pike | 1898 | 10.26% | 214 | 12.0 | 92 | 29.2 | 20.9 |
| Muskellunge | 5283 | 28.56% | 365 | 17.2 | 5 | 1111.1 | 42.0 |
| Smallmouth Bass | 366 | 1.98% | 37 | 20.0 | 9 | 78.7 | 12.0 |
| Largemouth Bass | 472 | 2.55% | 5 | 102.0 | 0 | 0.0 | |
| Yellow Perch | 2718 | 14.70% | 3356 | 1.0 | 521 | 8.5 | 9.0 |
| Bluegill | 1276 | 6.90% | 34 | 46.9 | 11 | 172.4 | |
| Pumpkinseed | 30 | 0.16% | 5 | 6.5 | 0 | 0.0 | |
| Rock Bass | 309 | 1.67% | 237 | 3.1 | 81 | 6.8 | |
| Black Crappie | 667 | 3.61% | 68 | 9.8 | 41 | 16.4 | |

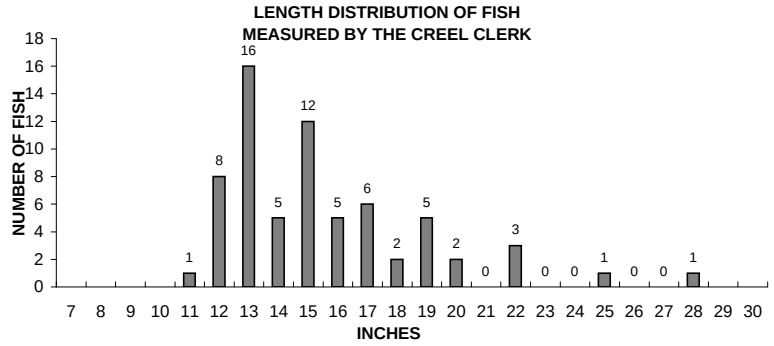
# WALLEYE





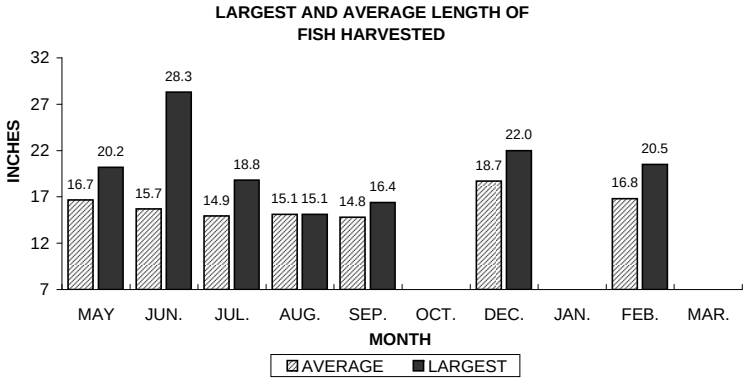
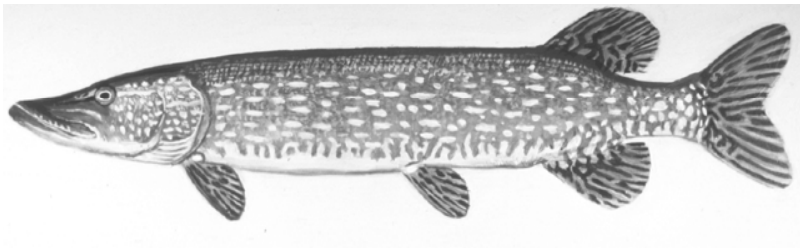
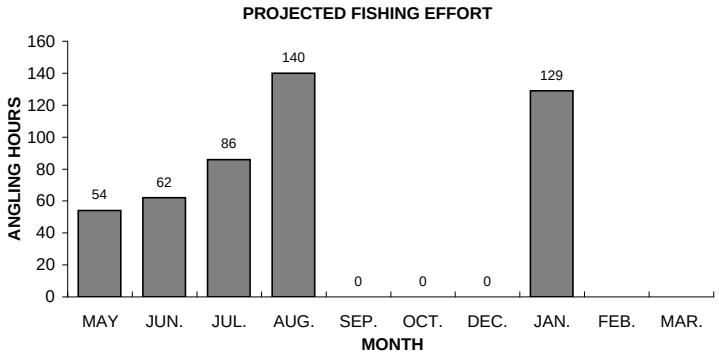
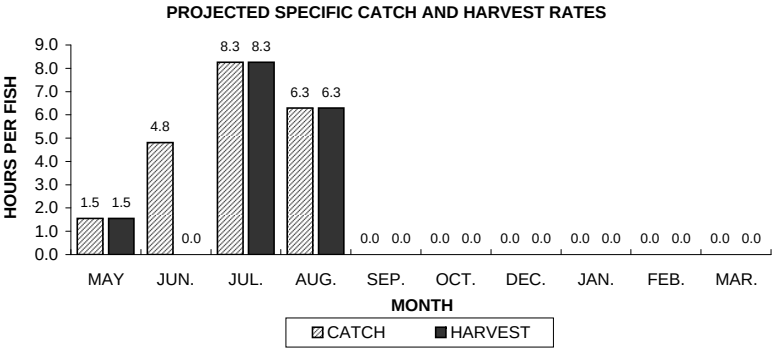



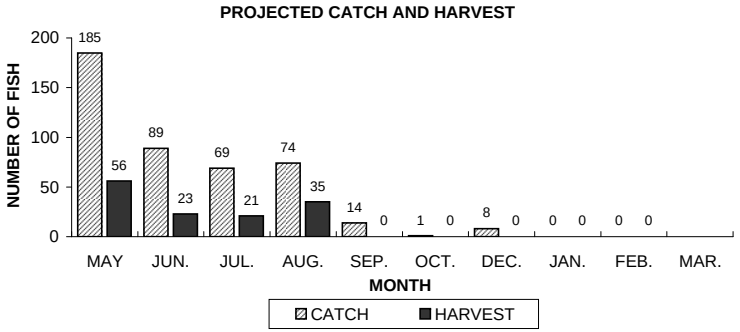

**Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

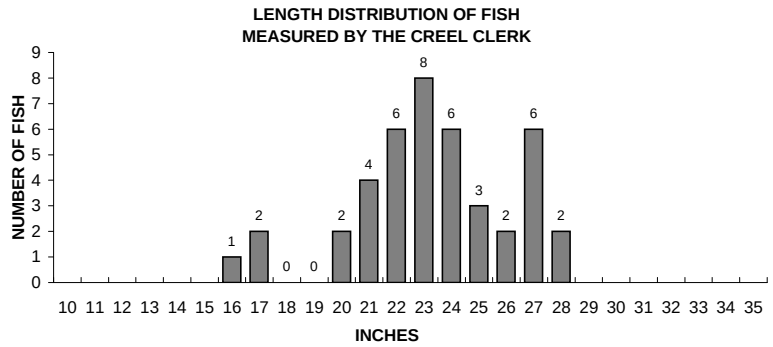
# NORTHERN PIKE





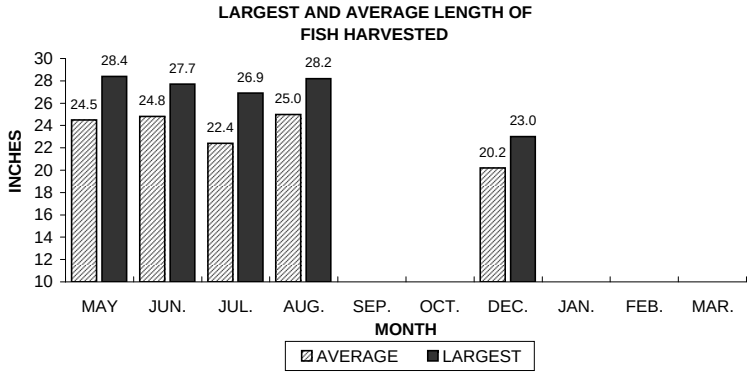
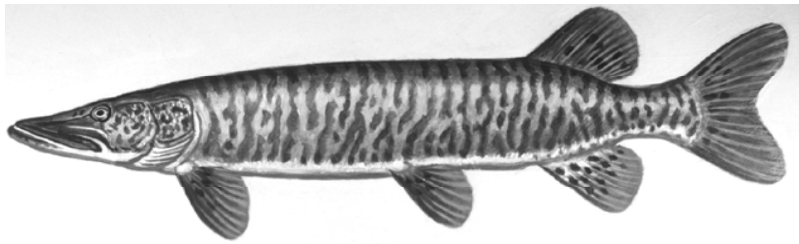
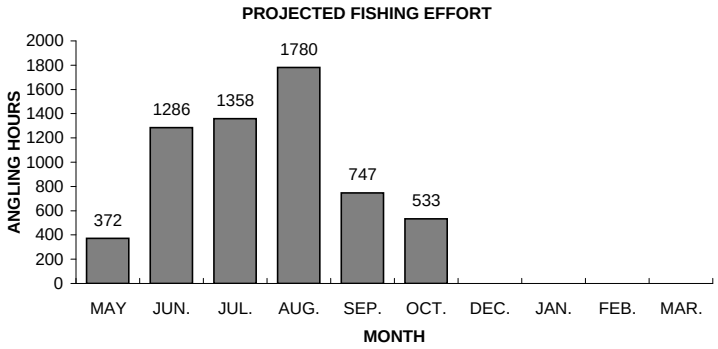
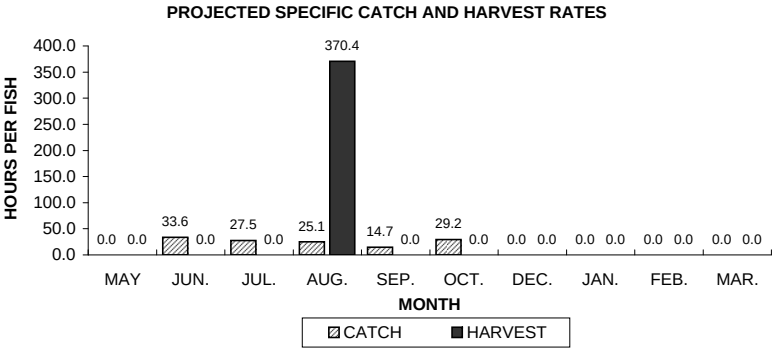



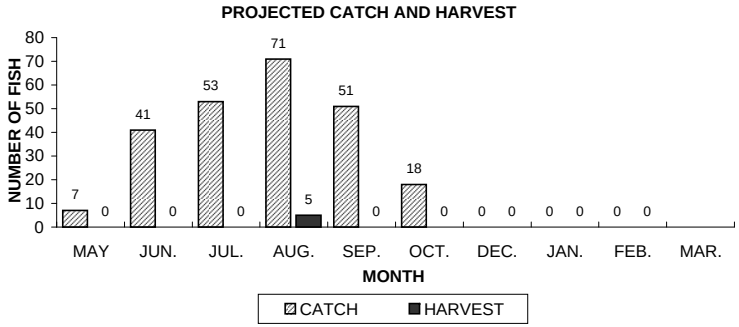

**Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

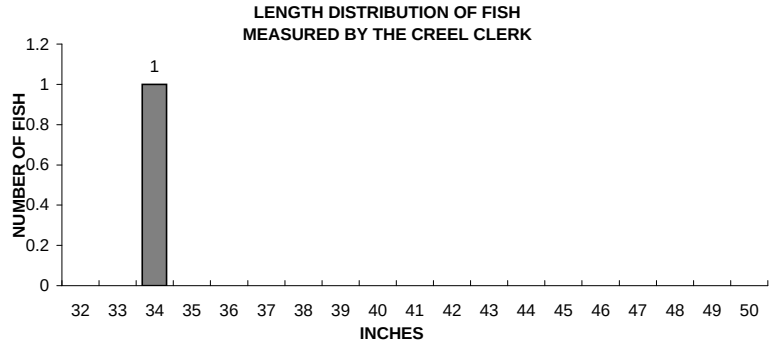
# MUSKELLUNGE





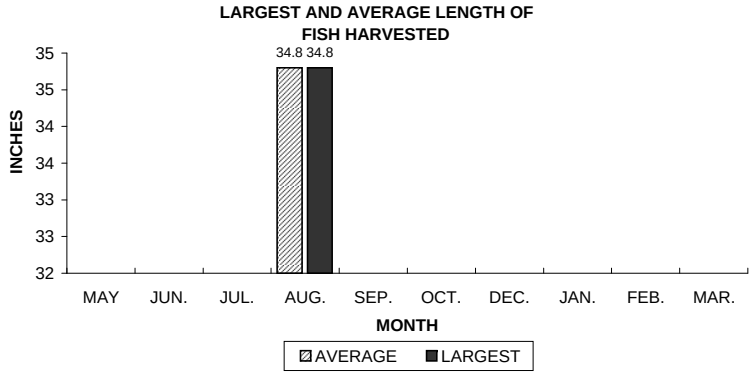
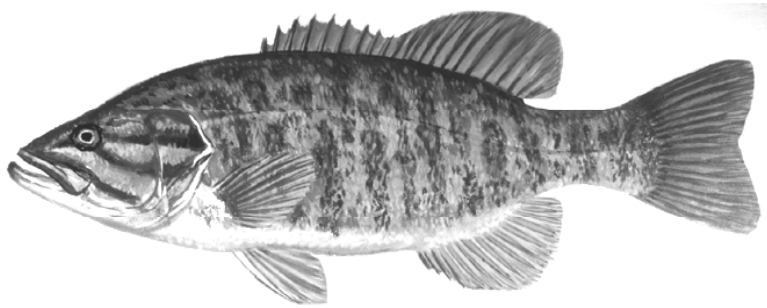
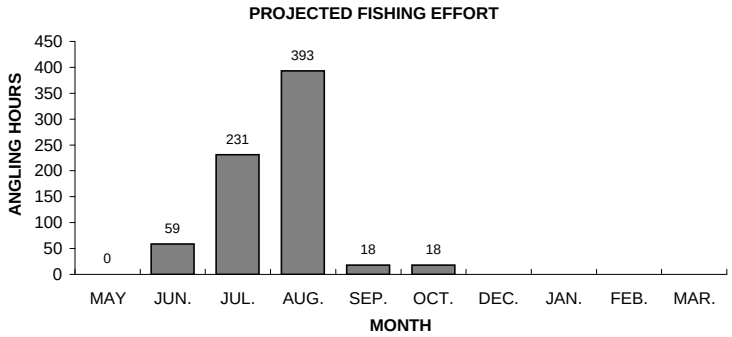



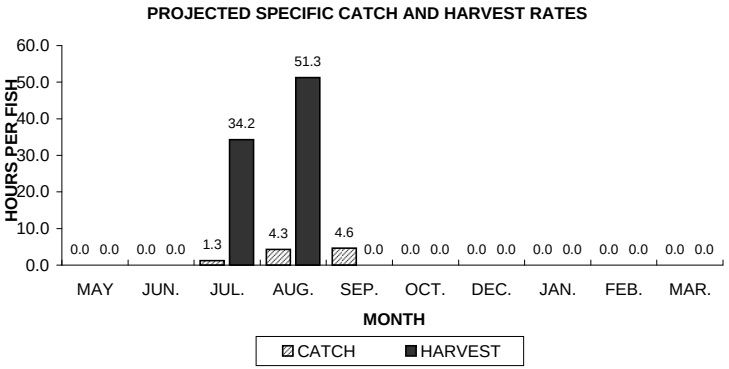


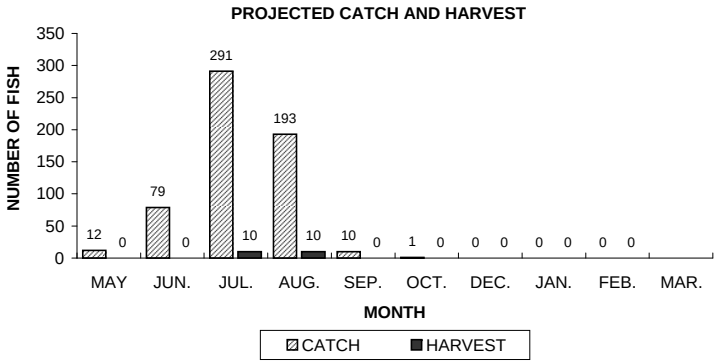

**Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

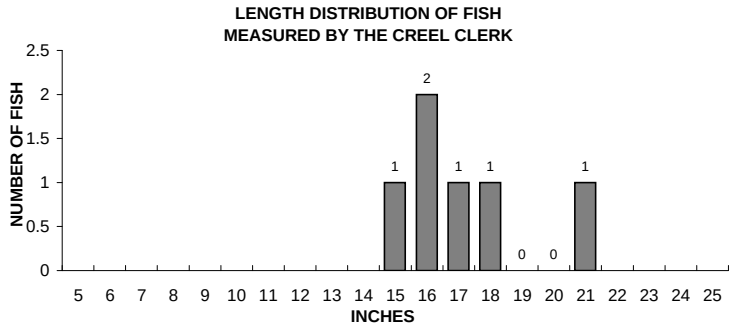
# SMALLMOUTH BASS





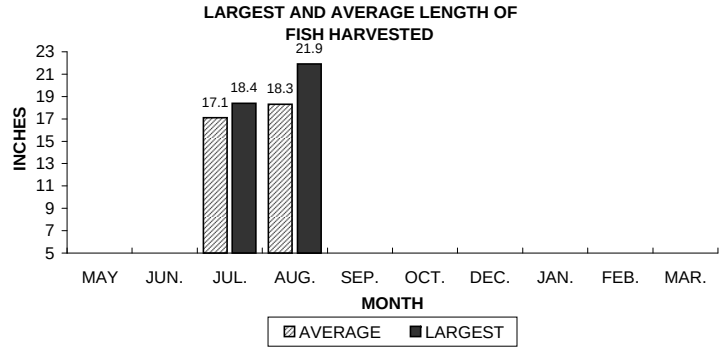
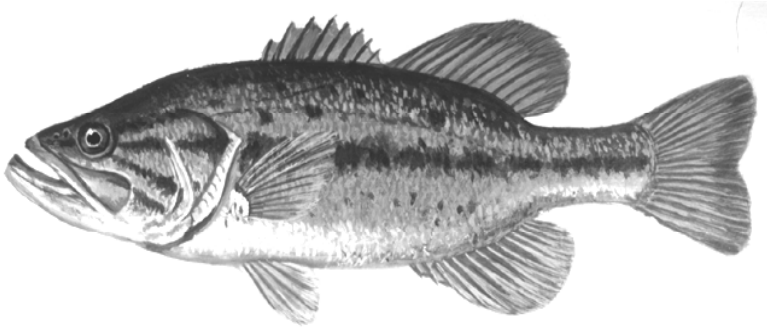
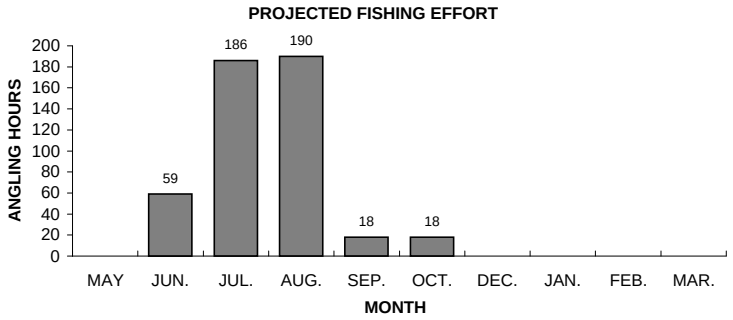



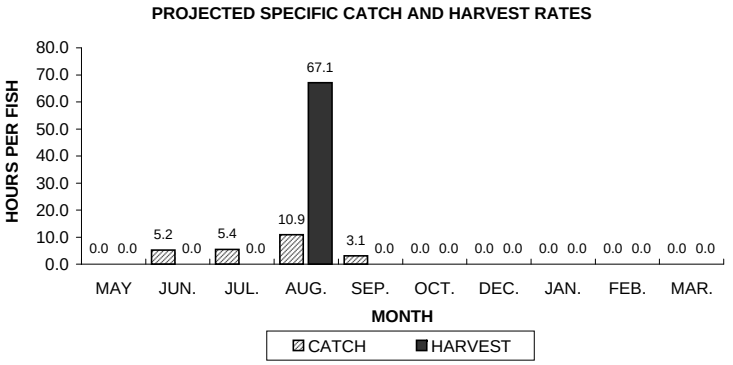


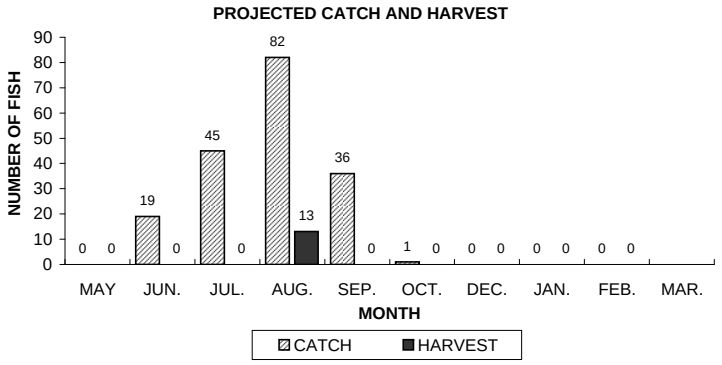

**Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

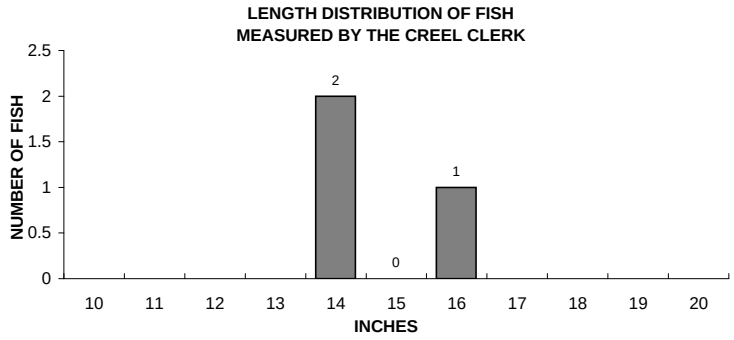
# LARGEMOUTH BASS





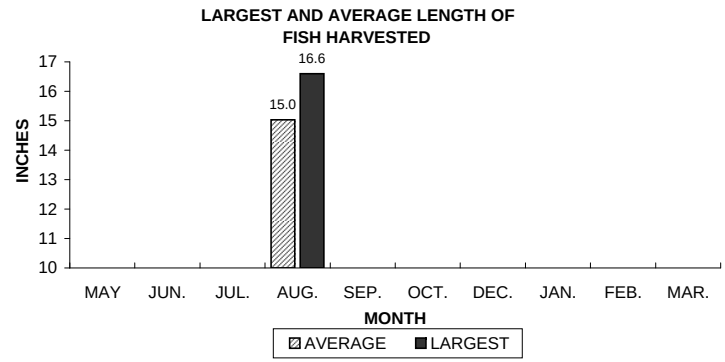
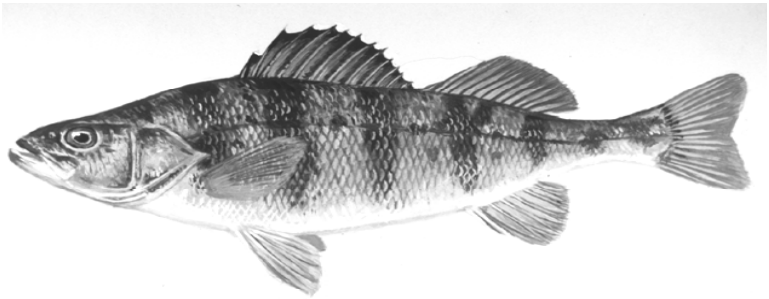
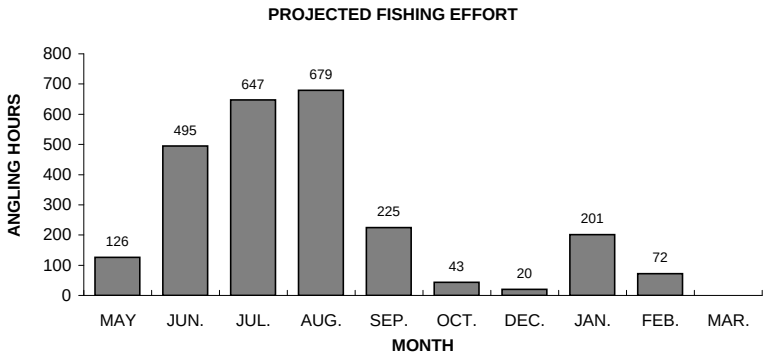



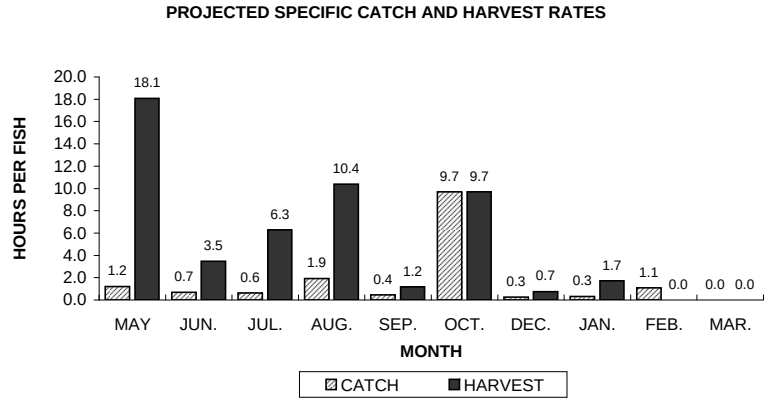


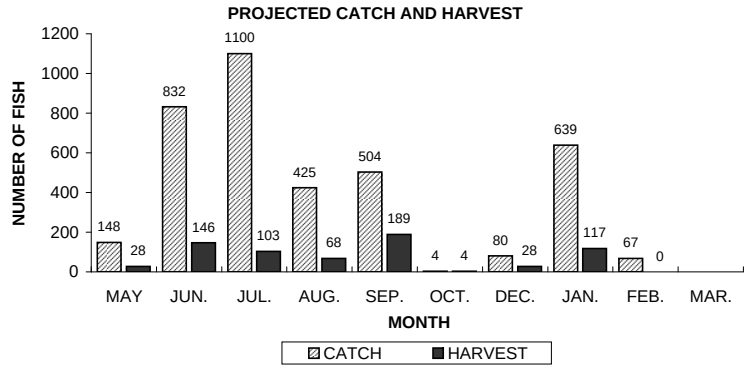

**Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

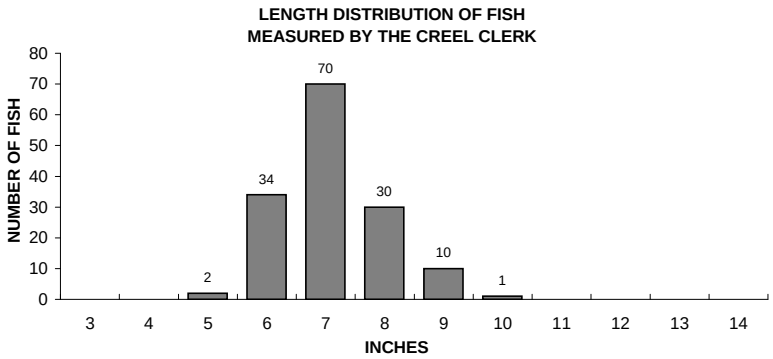
# YELLOW PERCH





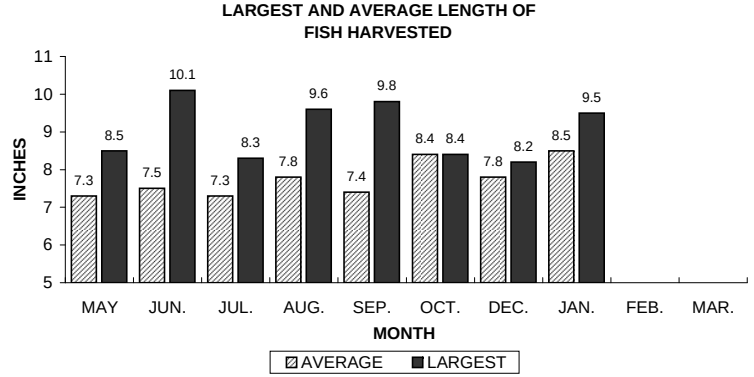
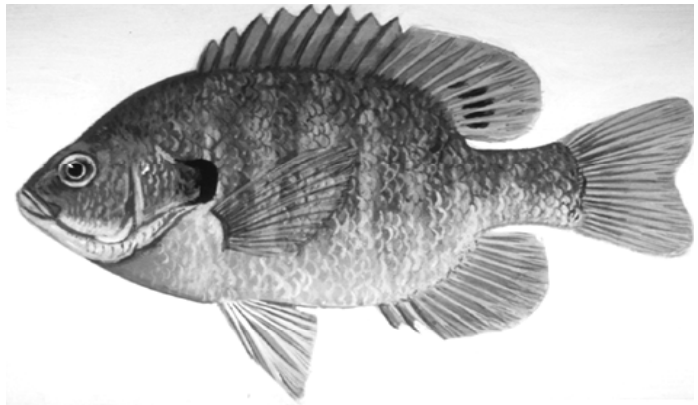
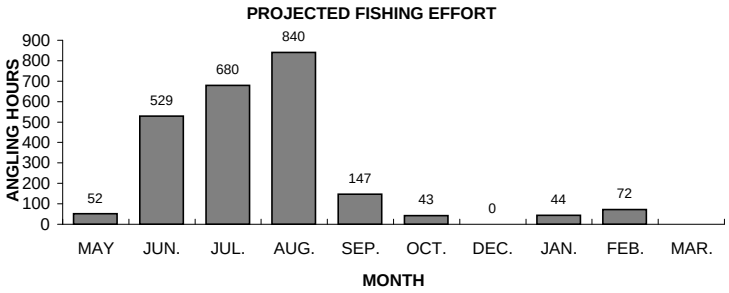
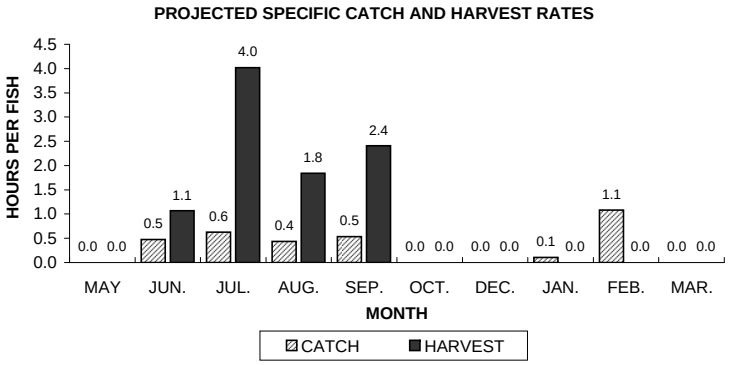



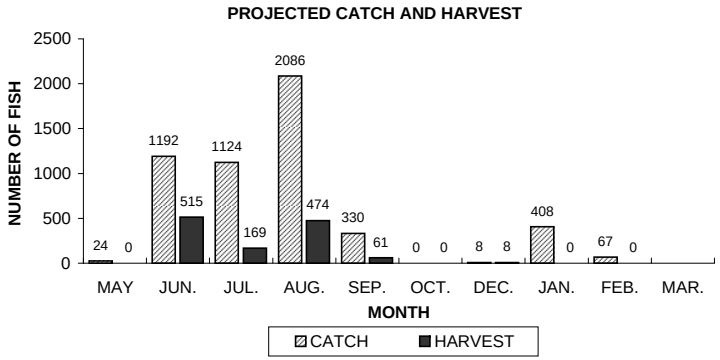

**Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

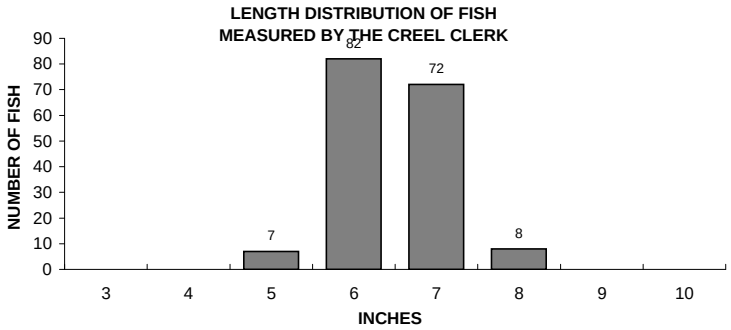
# BLUEGILL





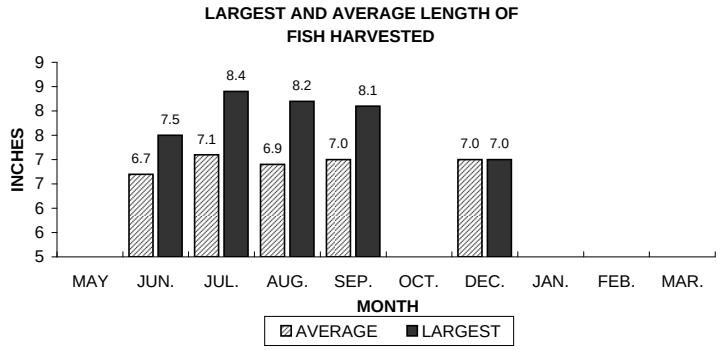
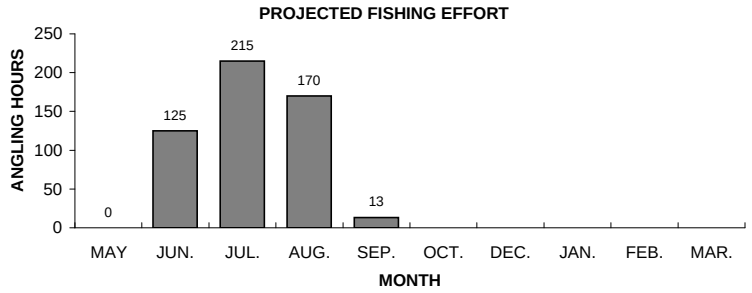
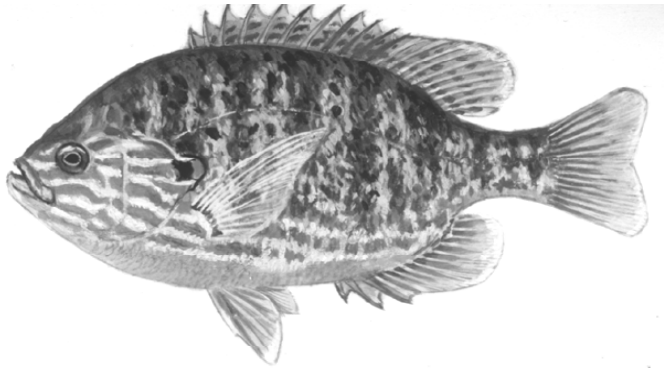
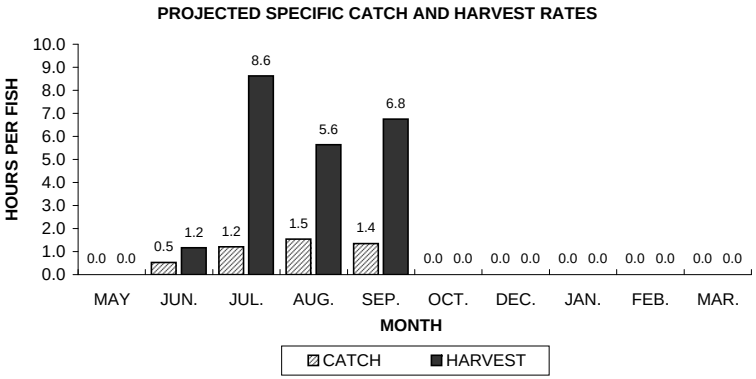



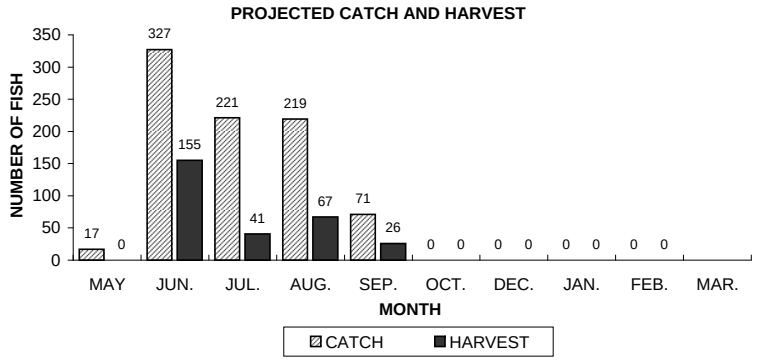

**Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

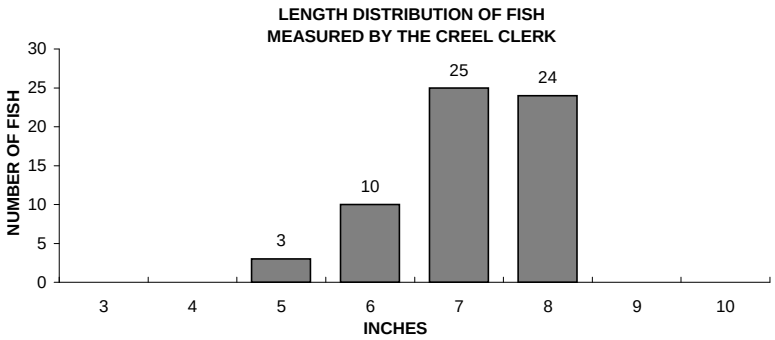
# PUMPKINSEED





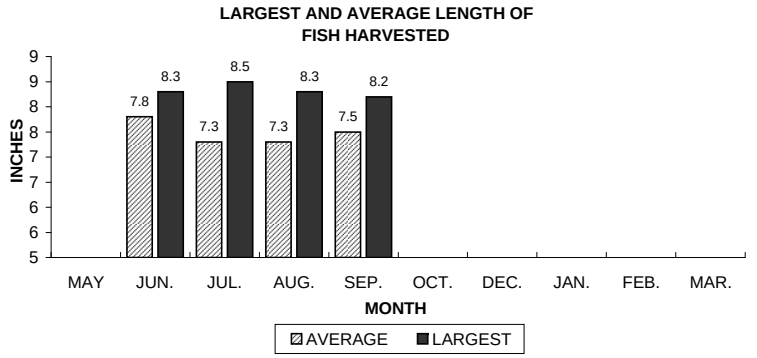
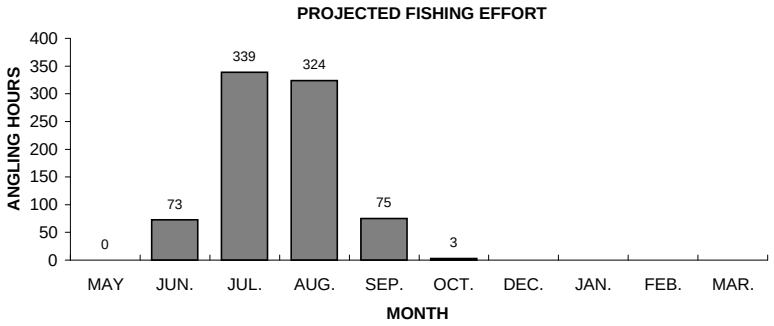
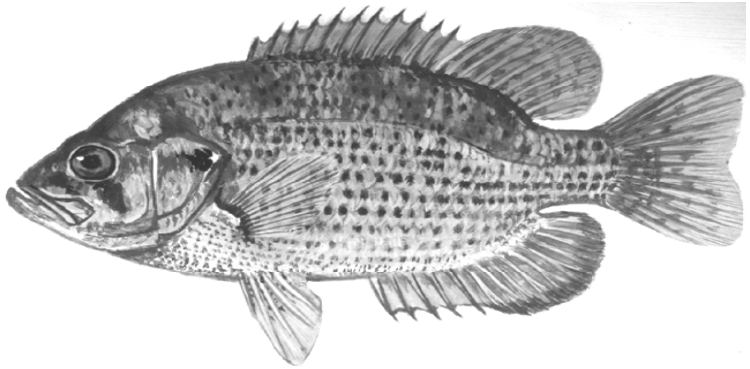



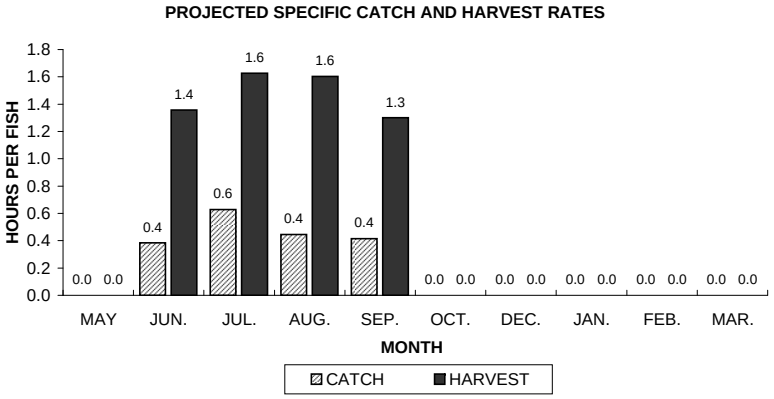


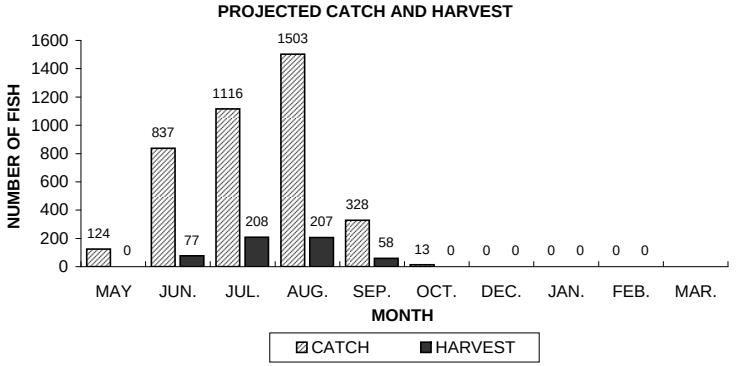

**Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

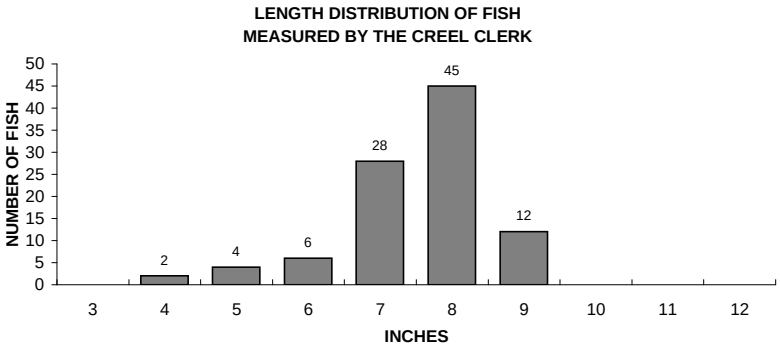
# ROCK BASS





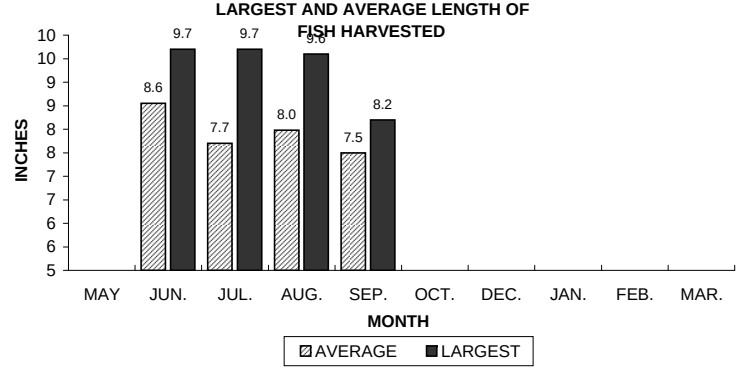
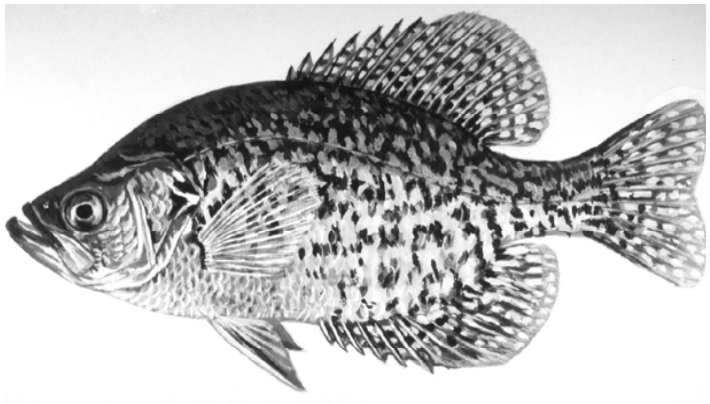
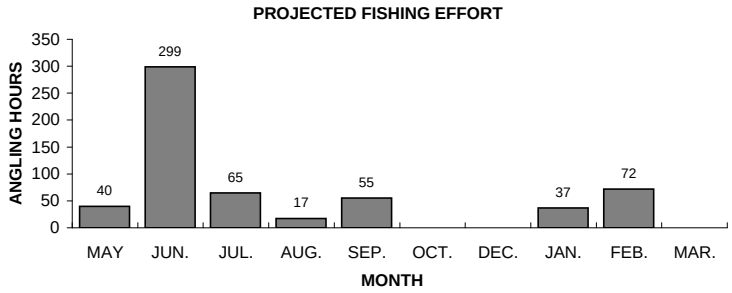



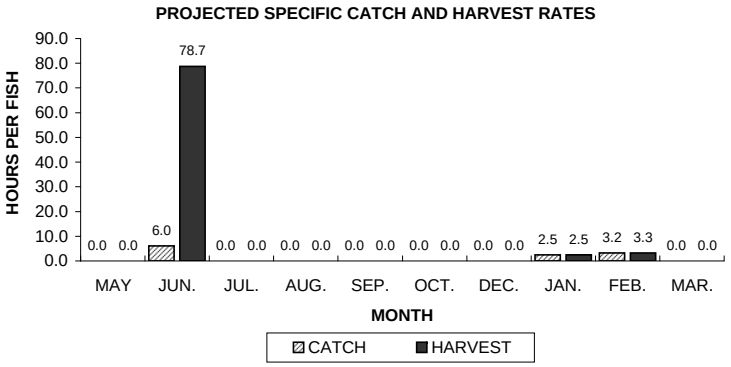


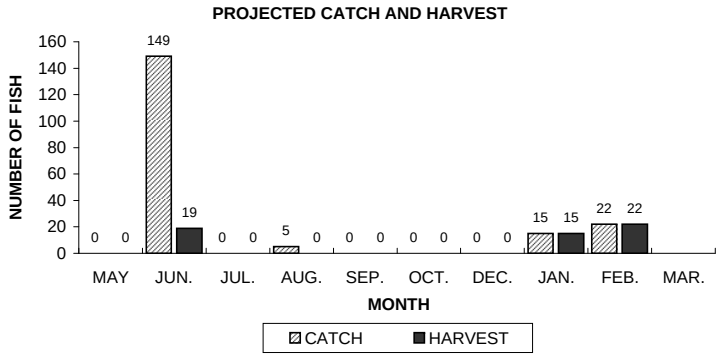

**Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**

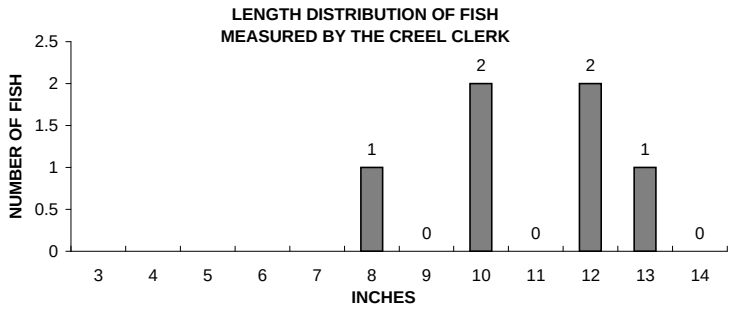
# BLACK CRAPPIE





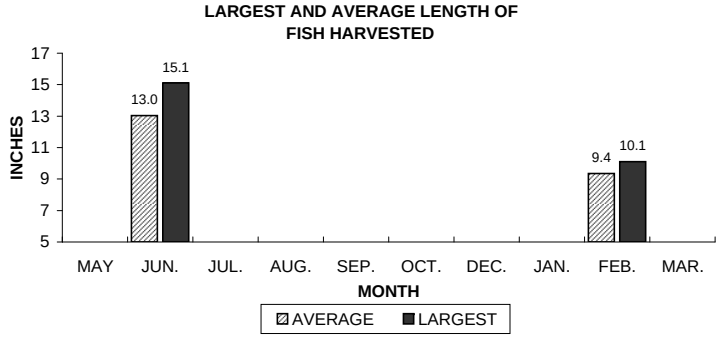






**Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Sevenmile Lake, during 2008-09.**