

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

**SNIPE LAKE**

**VILAS COUNTY**

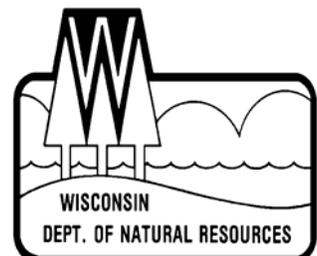
**2006-07**



**Treaty Fisheries Publication**

**Written by Steve Kramer  
Treaty Fisheries Technician**

**Edited by Dennis Scholl  
Treaty Fisheries Supervisor**



**May 2007**

# 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

### Panfish

Figure 6. Yellow Perch .....	11
Figure 7. Bluegill .....	12
Figure 8. Pumpkinseed.....	13
Figure 9. Rock Bass .....	14

**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.

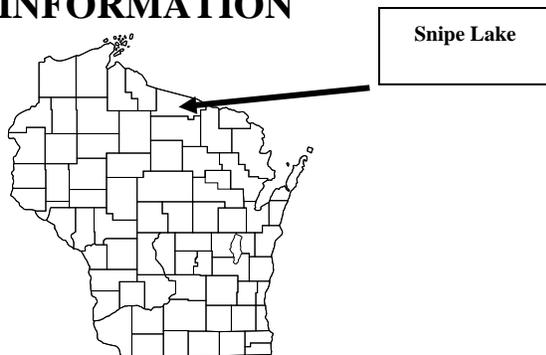
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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

## GENERAL LAKE INFORMATION



### Location

Snipe Lake is located in Vilas County west of the town of Eagle River.

### Physical Characteristics

Snipe Lake is a 239-acre seepage lake with a maximum depth of 15 feet. Littoral substrate consists primarily of sand with rock, gravel and muck. Snipe Lake is an infertile lake having clear, slightly alkaline water of very low transparency.

### Seasons Surveyed

The period referred to in this report as the 2006-fishing season ran from May 6, 2006 through March 4, 2007. The open water creel survey ran from May 6 through October 31, 2006 and the ice fishing creel survey ran from December 1, 2006 through March 4, 2007.

### Weather

Ice-out on Snipe Lake was around April 14, 2006, which is considered normal for northern Wisconsin. Ice-out typically occurs by mid-to-late April in northern Wisconsin. Spring, summer and fall weather was normal. Fishable-ice formed on Snipe Lake in early December. Fishable-ice typically forms on northern Wisconsin lakes by early December.

### Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Snipe Lake during the 2006-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass & Smallmouth Bass	5/06-6/16	Catch&Release	
	6/17-3/04	5	14"
Musky	5/27-11/30	1	34"
Northern Pike	5/06-3/04	5	none
Walleye	5/06-3/04	3*	15"
Panfish	all year	25	none
Rock Bass	all year	none	none

\* The statewide bag limit was 5 fish, but due to tribal declarations it was reduced on Snipe Lake.

## SPECIES CATCH AND HARVEST INFORMATION

Angling information is summarized for each species (Figures 1-7) 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. This was the second time the department conducted a creel survey on Snipe Lake. The previous survey took place in 2000 and 2003.

**General Angler Information**

Anglers spent 3,092 hours or 12.9 hours per acre fishing Snipe Lake during the 2006

season (Table 1). That was much lower than the statewide average of 33.6 hours per acre and the Vilas County average of 36.2 hours per acre. July was the most heavily fished month (3.2 hours per acre). February received the least amount of fishing effort (0.1 hours).

**SPECIES INFORMATION**

**Walleye** (Table 2, Figure 1)

Anglers spent 1,470 hours targeting walleye during the 2006 season. Walleye fishing effort was greatest in August (326 hours). February had the least amount of walleye fishing effort (18 hours).

Catch was 906 fish and with a harvest of 319 fish. Highest catch (240 fish) occurred in May. Anglers fished 1.6 hours to catch a walleye and 4.6 hours to harvest during 2006.

**Northern Pike** (Table 2, Figure 2)

Fishing effort directed at northern pike was 11 hours during the 2006 season.

**Muskellunge** (Table 2, Figure 3)

Muskellunge received the second most fishing pressure in Snipe Lake during the 2006 season. Anglers spent 1,200 hours targeting muskellunge. Muskellunge fishing effort was greatest in July (372 hours).

Catch was 26 fish and harvest was 0 fish. Highest catch (9 fish) occurred in August. Anglers fished 73.0 hours to catch a muskellunge during 2006.

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

Fishing effort targeted at smallmouth bass was 333 hours during 2006. Smallmouth bass fishing effort was greatest in July (131 hours).

Catch was 438 fish and a harvest of 4 fish.

Highest catch (175 fish) occurred in June. Anglers fished 1.5 hours to catch a smallmouth bass during 2006.

**Panfish** (Table 2, Figures 5-7)

Panfish effort was 150 hours during the 2006 season. Catch was 342 fish and harvest 60 fish.

Yellow perch was the most sought after panfish during the survey. Yellow perch comprised 66% of panfish effort, 34% of panfish catch and 23% of panfish harvest. Anglers fished 1.0 hours to catch and 9.0 hours to harvest a yellow perch.

The mean length of harvested yellow perch was 9.4 inches and the largest yellow perch measured was a 10.5-inch fish measured in January.

Although bluegill comprised only 33% of the effort they accounted for 60% of the catch and 77% of the harvest. Anglers fished 0.2 hours to catch and 1.1 hours to harvest a bluegill.

The mean length of harvested bluegill was 7.9 inches and the largest bluegill measured was 8.5 inches.

Other panfish caught during the 2006 survey included pumpkinseed and rock bass.

## **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, Tim Tobias, and David VanDeWater. Mitch Pierce, Rich Cechal and John Davis were the creel clerks on Snipe Lake during the survey period.

The Department thanks the cooperators Don and Carol Hiller who generously allowed the department to keep a boat and snowmobile at their property during this survey.

We also thank fish management staff who worked in conjunction with the creel survey performing in-water sampling of the fish community.

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.

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](mailto:Michael.Coshun@dnr.state.wi.us)

**Table 1. Sportfishing effort summary, Snipe Lake, 2006-07 season.**

Month	Total Angler Hours	Total Angler Hours/Acre	Vilas County Average Hours/Acre	Statewide Average Hours/Acre
May	385	1.6	5.4	5.8
June	442	1.9	7.1	6.1
July	771	3.2	7.7	6.4
August	644	2.7	6.7	5.4
September	466	1.9	4.2	3.8
October	168	0.7	2.0	1.6
December	75	0.3	0.5	1.7
January	107	0.4	0.7	1.5
February	35	0.1	0.9	1.3
March			0.1	**
*Summer Total	2876	12.0	34.1	29.1
*Winter Total	216	0.9	2.1	4.5
Grand Total	3092	12.9	36.2	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 Snipe 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 Snipe 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 Snipe Lake to other lakes statewide.

**Table 2. Comparison of creel survey synopses, Snipe Lake, 2003-04 and 2006-07 fishing seasons.**

CREEL YEAR: 2006-07

<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	1470	46.46%	906	1.6	319	4.6	16.5
Northern Pike	11	0.35%	0		0		
Muskellunge	1200	37.93%	26	73.0	0		
Smallmouth Bass	333	10.52%	438	1.5	4	87.0	15.2
Largemouth Bass	0	0.00%	0		0		
Yellow Perch	100	3.16%	118	1.0	14	9.0	9.4
Bluegill	50	1.58%	207	0.2	46	1.1	7.9
Pumpkinseed	0	0.00%	4		0		
Rock Bass	0	0.00%	13		0		
Black Crappie	0	0.00%	0		0		
extra	0	0.00%	0		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: 2003-04

<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	1017	33.71%	1215	0.8	38	26.8	16.0
Muskellunge	1642	54.42%	35	51.3	0		
Smallmouth Bass	312	10.34%	303	1.6	0		
Yellow Perch	30	0.99%	131	0.3	0		
Bluegill	16	0.53%	15	1.1	0		
Rock Bass	0	0.00%	43		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

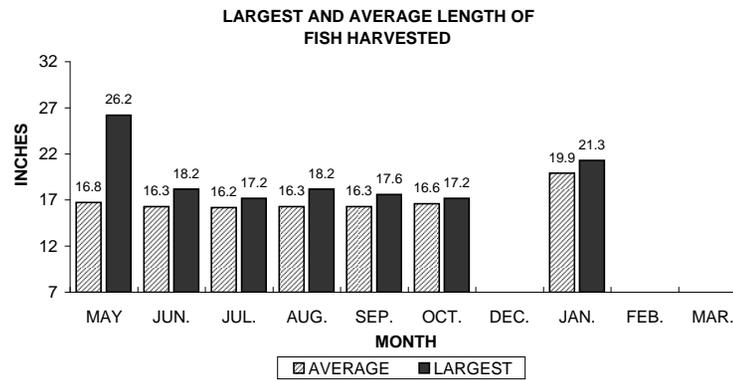
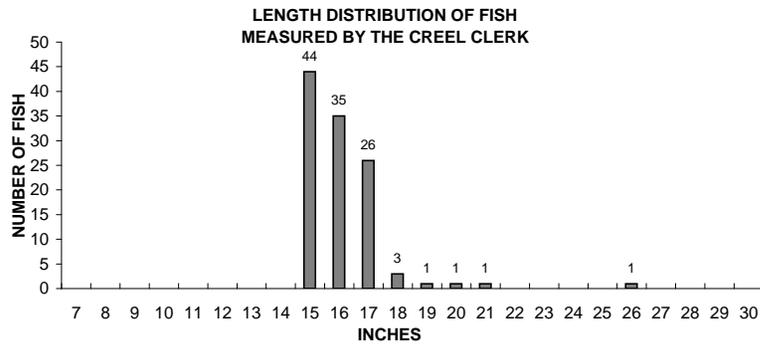
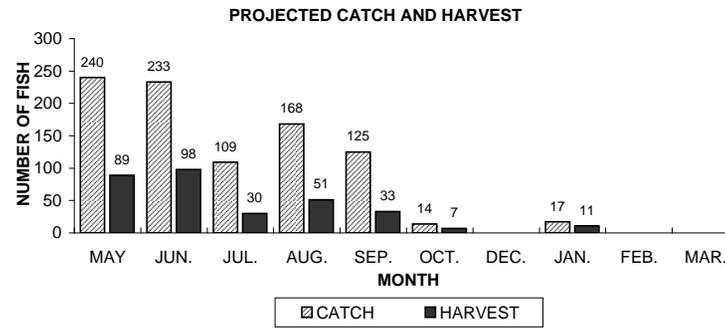
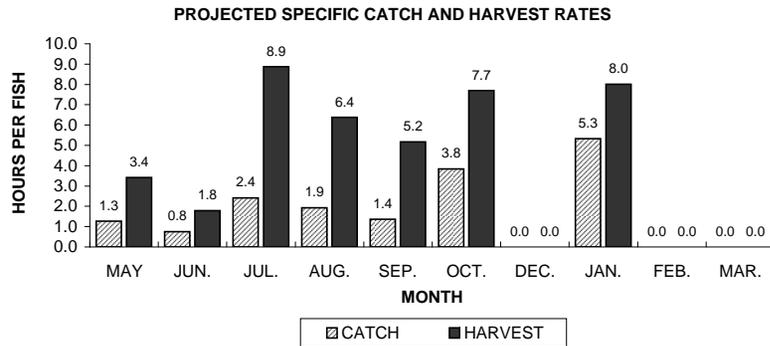
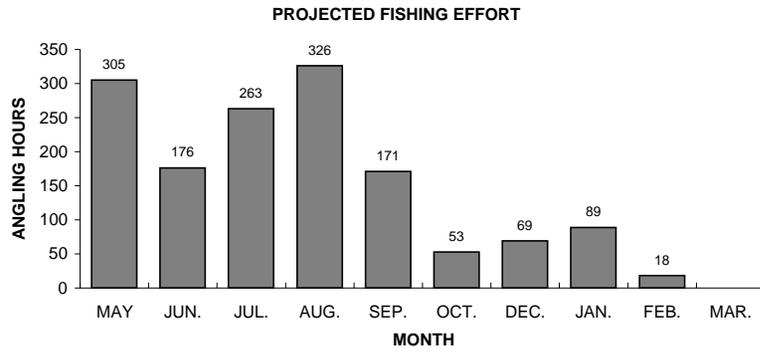
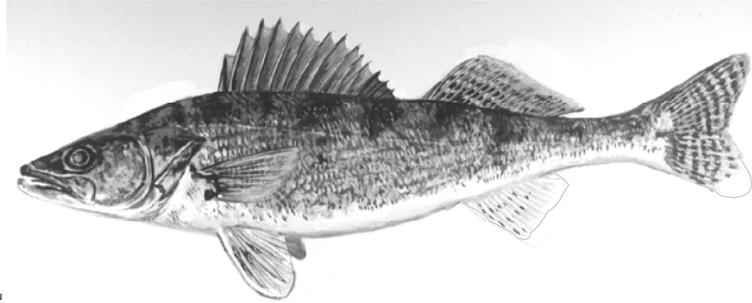


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# NORTHERN PIKE

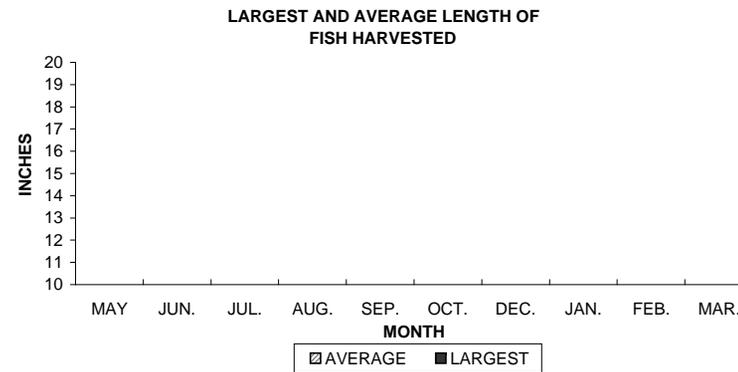
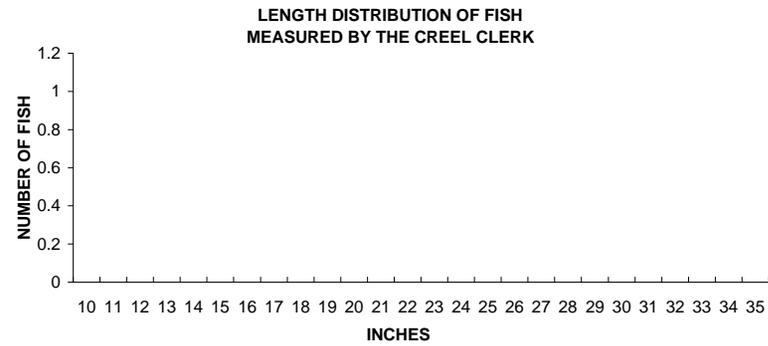
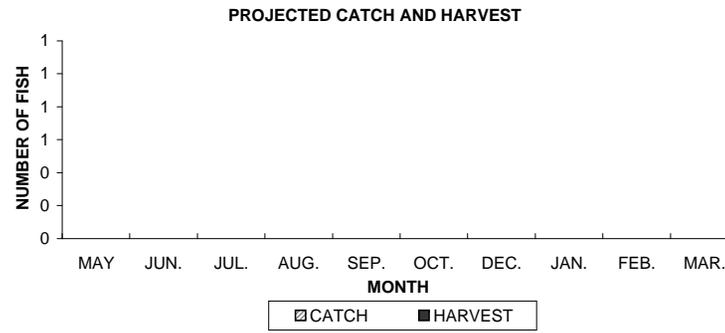
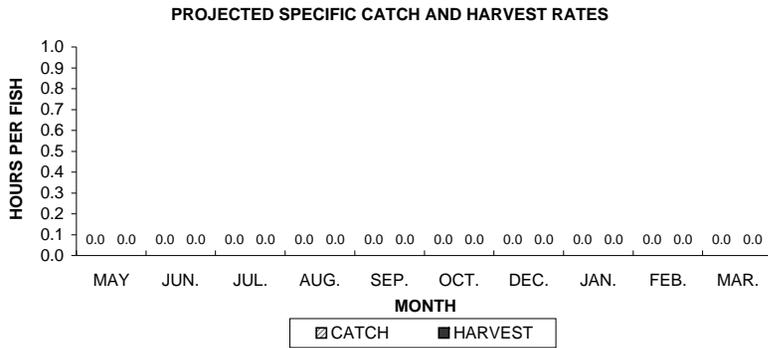
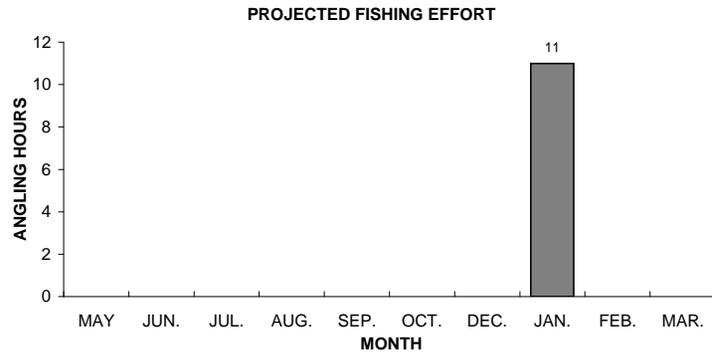
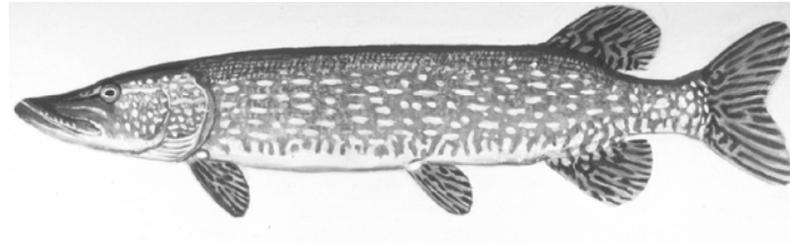


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# MUSKELLUNGE

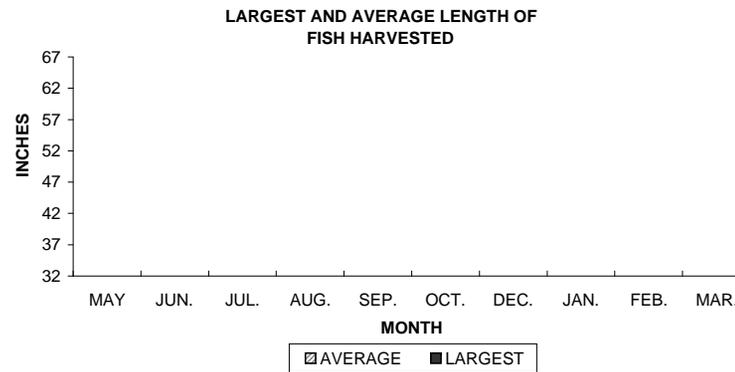
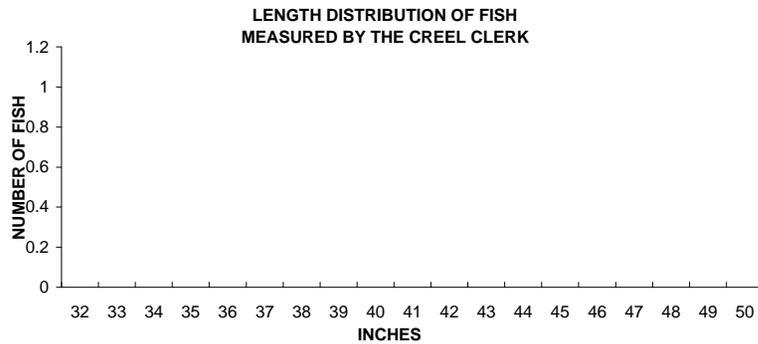
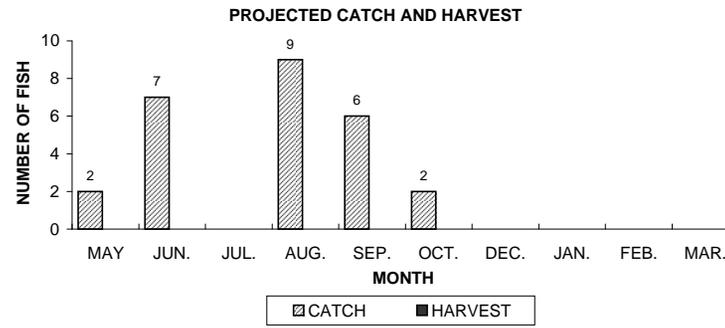
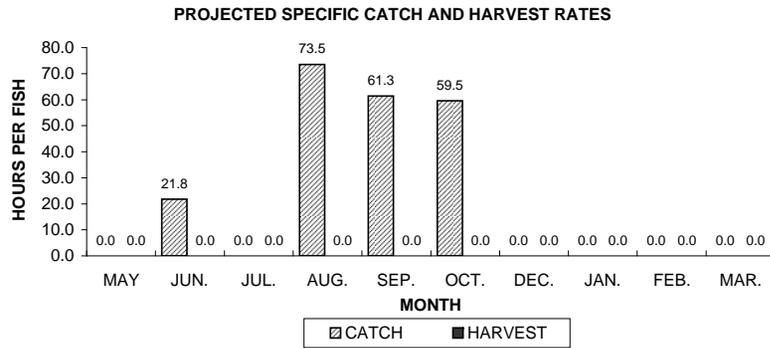
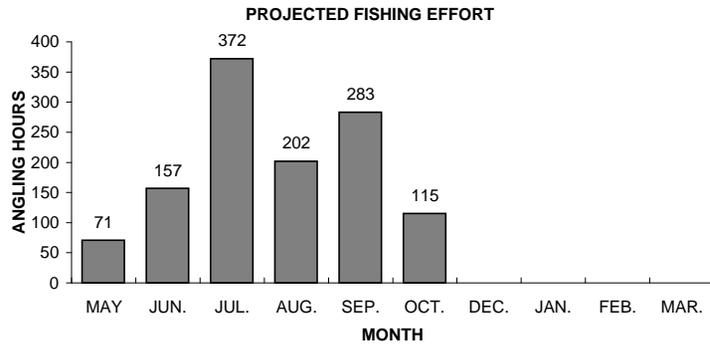
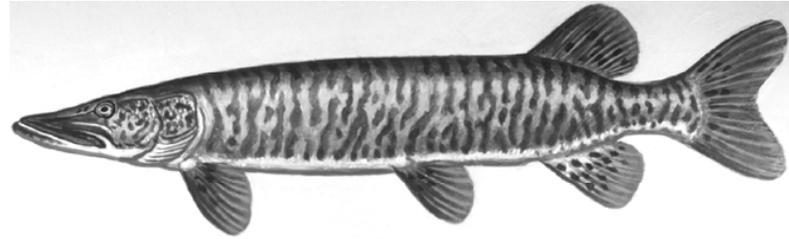


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# SMALLMOUTH BASS

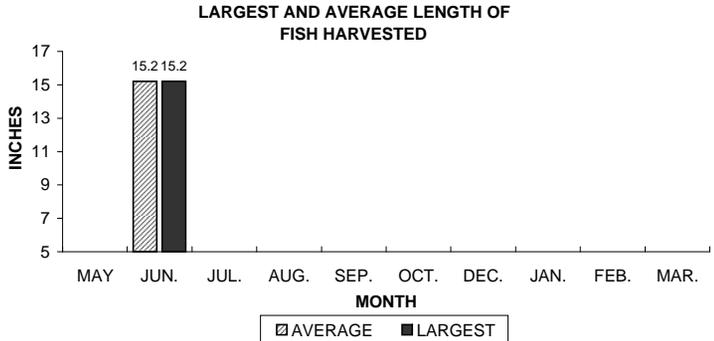
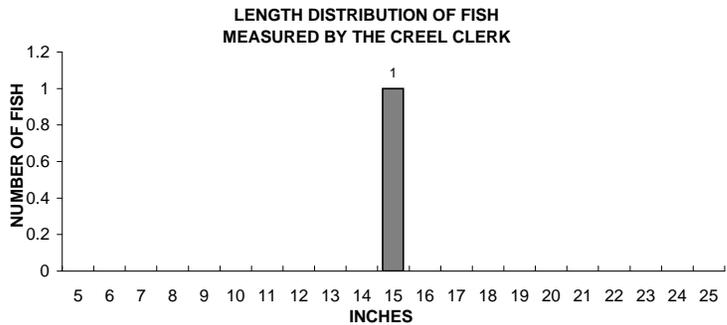
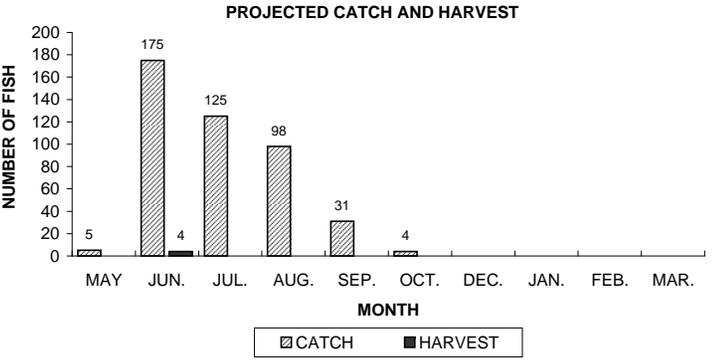
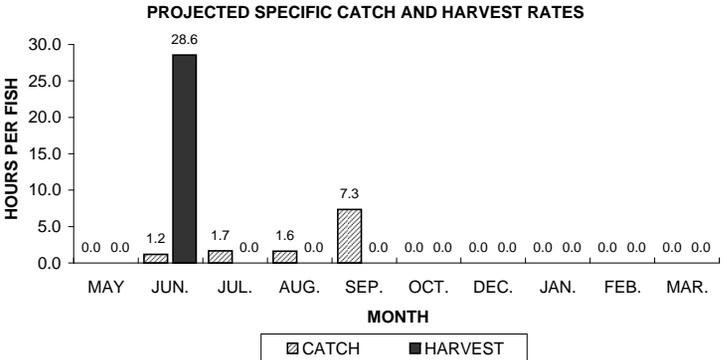
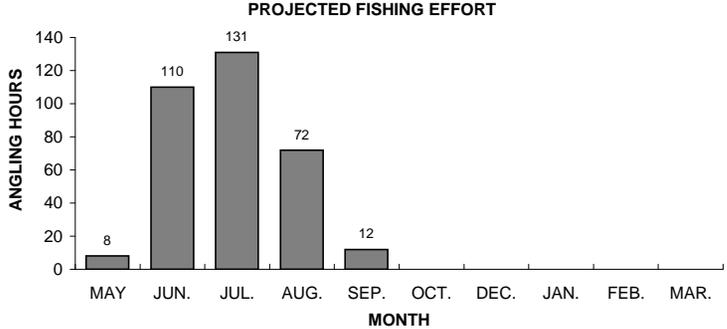
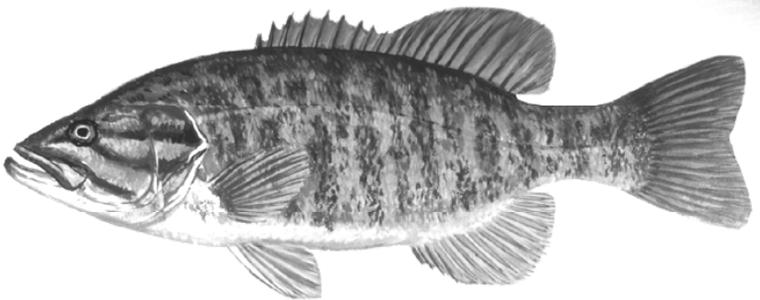


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# YELLOW PERCH

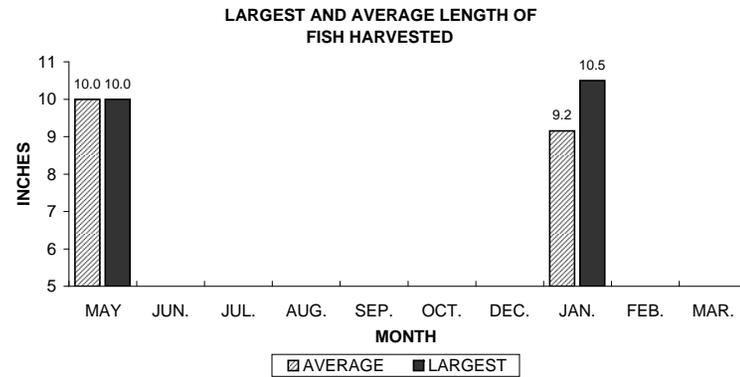
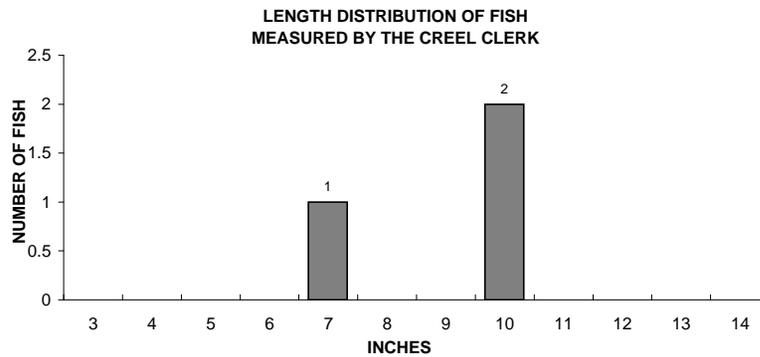
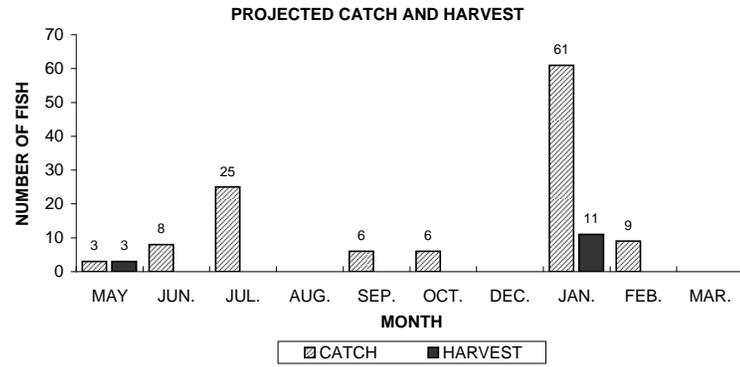
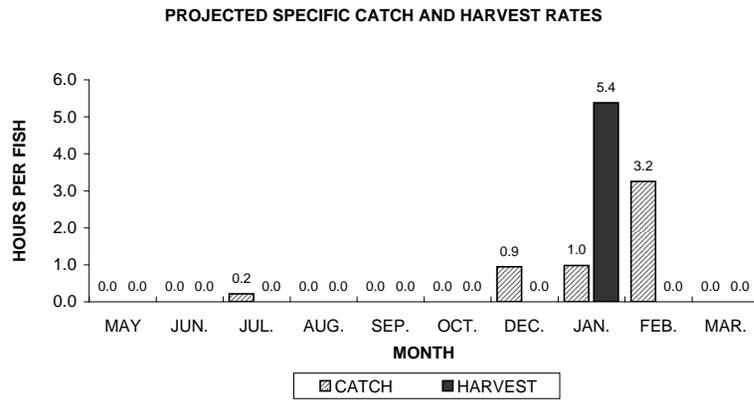
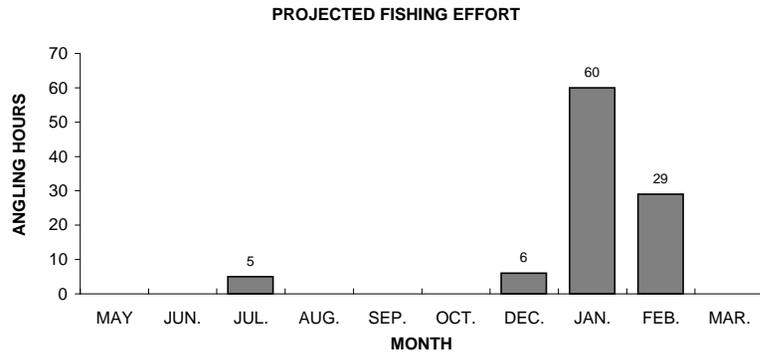
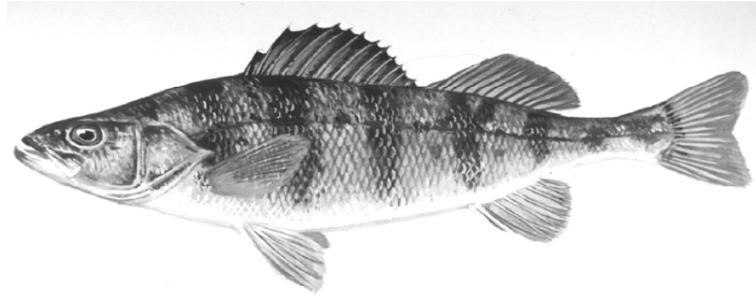


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# BLUEGILL

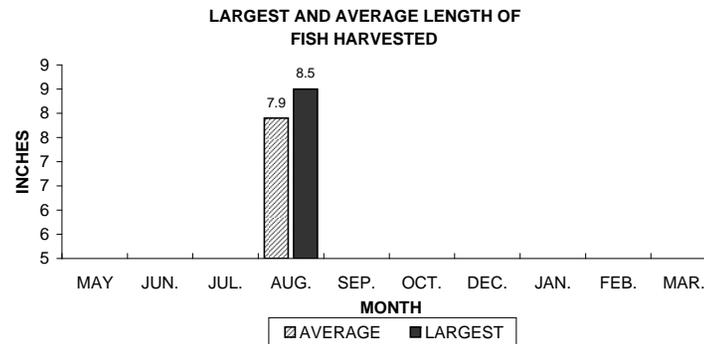
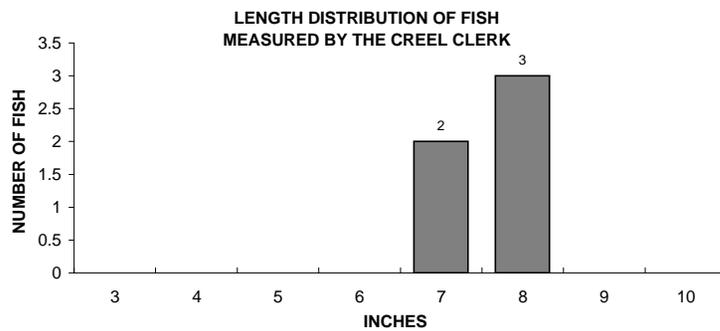
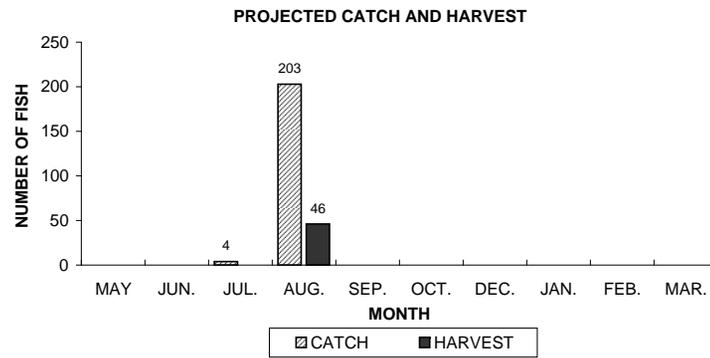
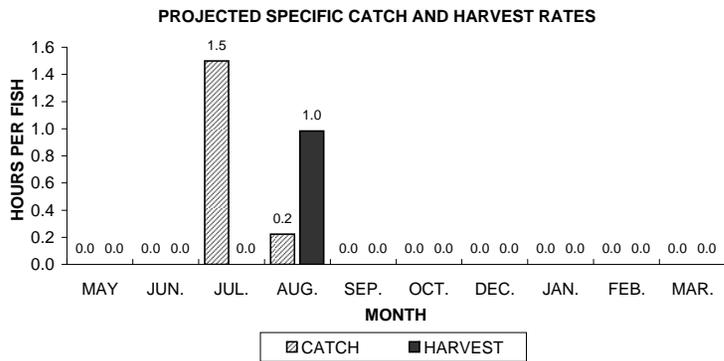
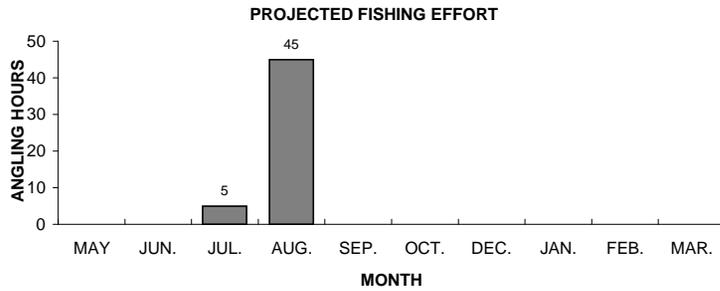
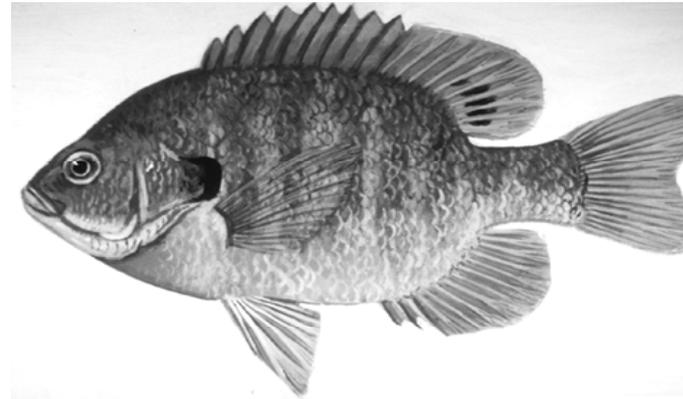


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# PUMPKINSEED

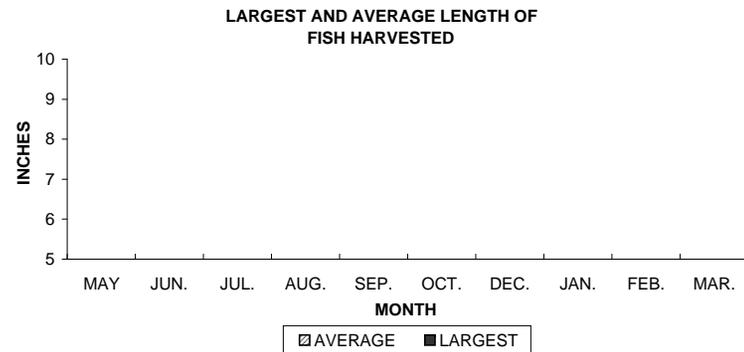
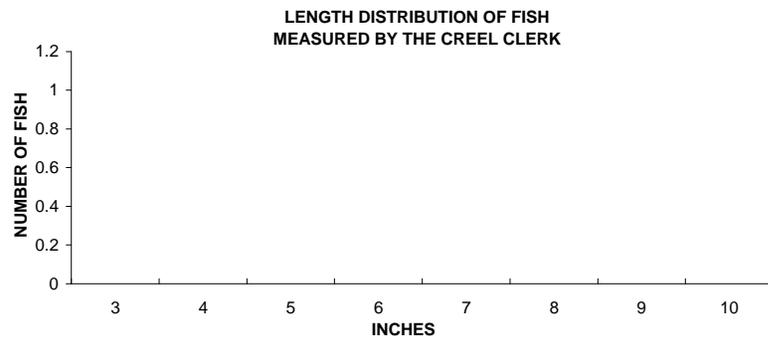
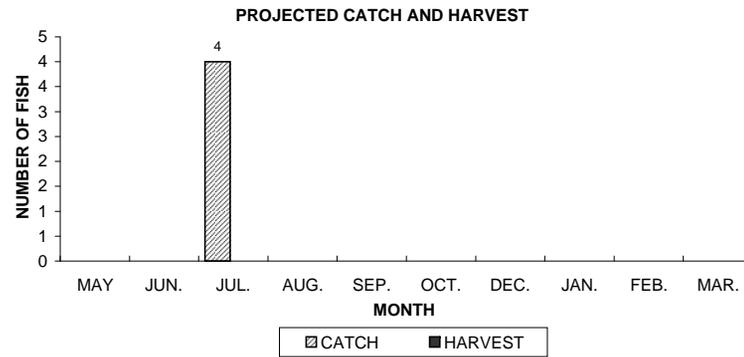
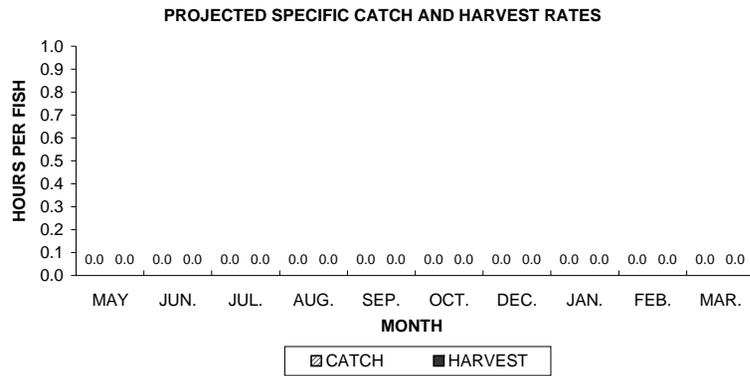
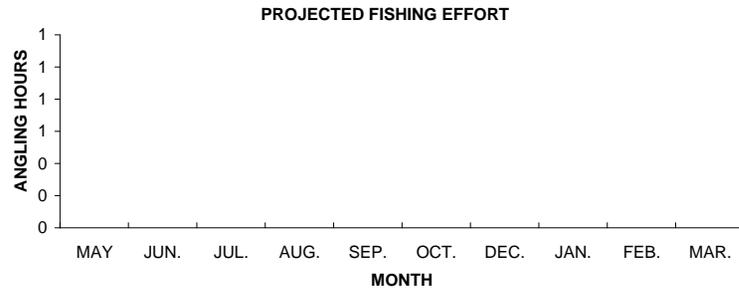
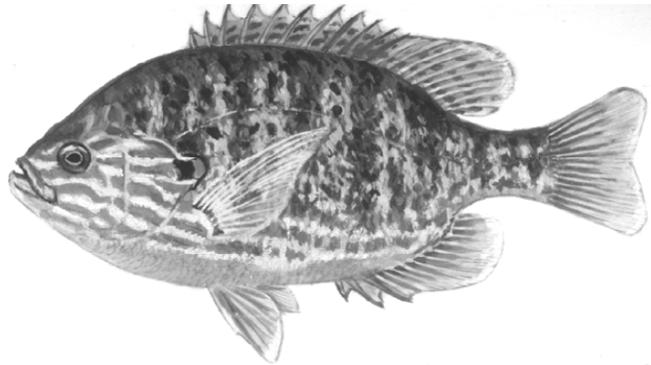


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.

# ROCK BASS

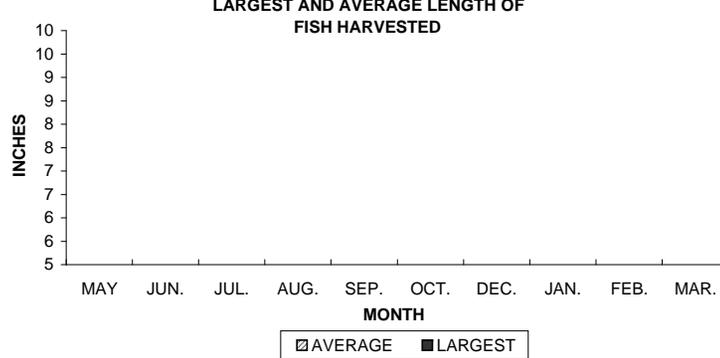
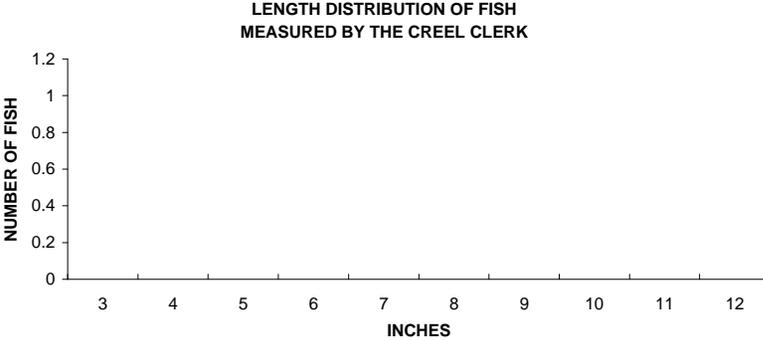
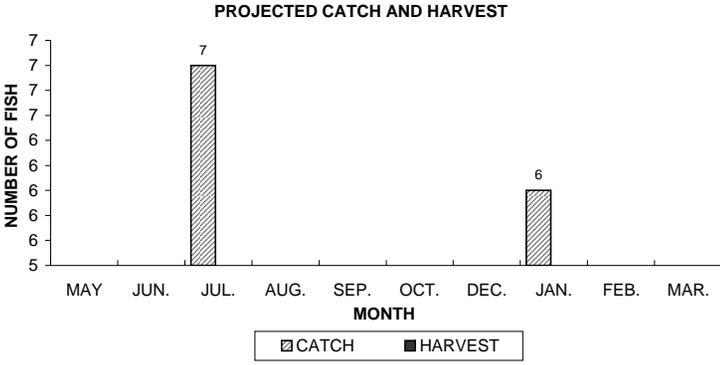
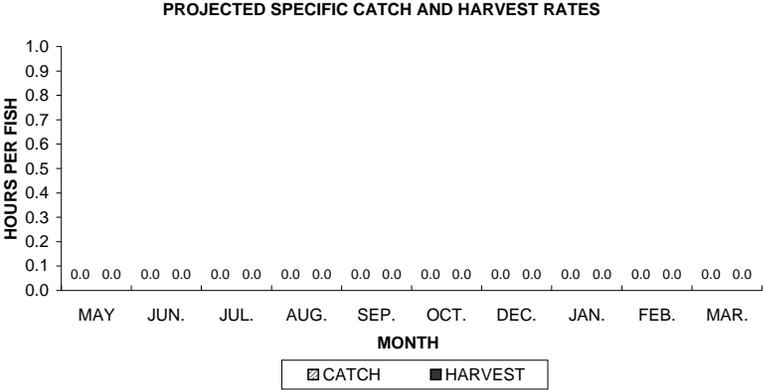
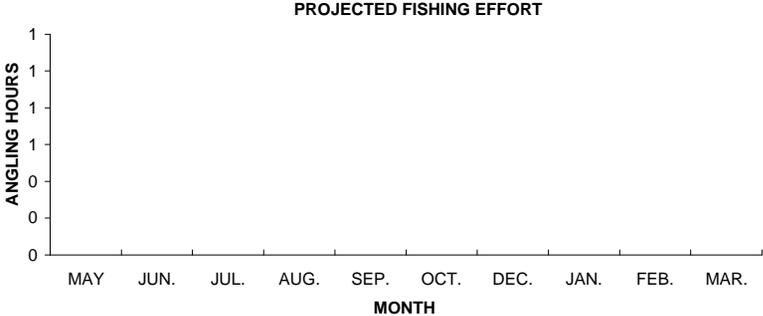
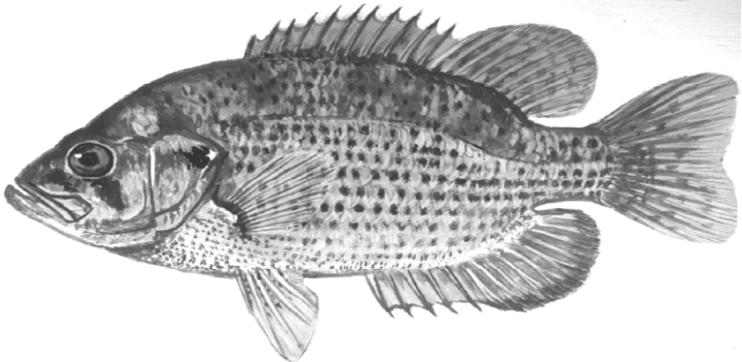


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2006-07.