

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

SNIPE LAKE

VILAS COUNTY

2009-10

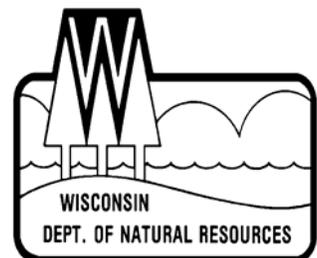


Treaty Fisheries Publication

**Compiled by Tim Tobias
Treaty Fisheries Technician**



June 2010



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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.

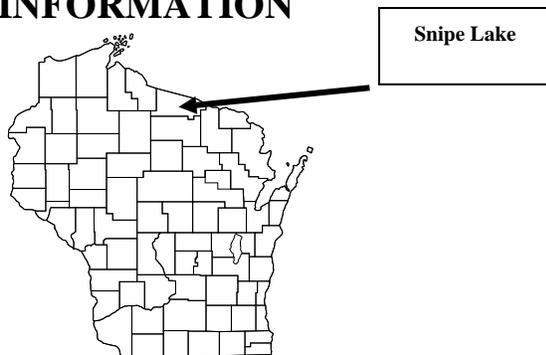
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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 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 6 miles 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 2009-fishing season ran from May 2, 2009 through March 7, 2010. The open water creel survey ran from May 2 through October 31, 2009 and the ice fishing creel survey ran from December 1, 2009 through March 7, 2010.

Weather

Ice-out on Snipe Lake was around April 17, 2009, 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 mid 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 2009-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass & Smallmouth Bass	5/02-6/19	Catch & Release	
	6/20-3/07	5	14"
Musky	5/23-11/30	1	34"
Northern Pike	5/02-3/07	5	none
Walleye	5/02-3/07	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 effort, catch and harvest information is summarized for each species in Table 2 and Figures 1-10. Table 2 also includes a comparison of these statistics with the previous creel survey. Information presented about species whose fishing season extends beyond March 7 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 fifth time the department conducted a creel survey on Snipe Lake. Past creel surveys were conducted in 1995, 2000, 2003 and 2006.

General Angler Information

Anglers spent 3,488 hours or 14.6 hours per acre fishing Snipe Lake during the 2009 season (Table 1). That was much lower than the statewide average of 33.6 hours per acre and the Vilas County average of 34.8 hours per acre. July was the most heavily fished month (4.2 hours per acre). December received the least amount of fishing effort (0.2 hours).

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Anglers spent 2,285 hours targeting walleye during the 2009 season. Walleye fishing effort was greatest in May (683 hours). January had the least amount of walleye fishing effort (13 hours).

Catch was 3,955 fish and with a harvest of 355 fish. Highest catch (1,461 fish) occurred in June. Anglers fished 0.6 hours to catch a walleye and 6.4 hours to harvest during 2009.

Northern Pike (Table 2, Figure 2)

Although northern pike were not accounted for during our netting survey, there were 29 hours of directed effort during the 2009 season. Our survey estimated 6 northern pike caught and none harvested.

Muskellunge (Table 2, Figure 3)

Muskellunge received the second most fishing pressure in Snipe Lake during the 2009 season. Anglers spent 885 hours targeting muskellunge. Muskellunge fishing effort was greatest in July (314 hours).

Total catch was 113 fish with no fish harvested. Highest catch (42 fish) occurred in July. Anglers fished 13.9 hours to catch a muskellunge during 2009.

Smallmouth Bass (Table 2, Figure 4)

Fishing effort targeted at smallmouth bass was 201 hours during 2009. Smallmouth bass fishing effort was greatest in August (92 hours).

Catch was 14 fish. Highest catch (5 fish) occurred in August and September. Anglers fished 15.6 hours to catch a smallmouth bass during 2009.

Largemouth Bass (Table 2, Figure 5)

Our survey indicated that only 3 hours of fishing effort was directed at largemouth bass. Largemouth bass are not currently a major part of the Snipe Lake fishery.

Panfish (Table 2, Figures 5-7)

Total panfish effort was 787 hours during the 2009 season. Catch was 865 fish with a harvest of 536 fish.

Yellow perch was the most sought after panfish during the survey. Yellow perch comprised 65% of panfish effort, 91% of panfish catch and 97% of panfish harvest. Anglers fished 48 minutes to catch and 1.0 hour to harvest a yellow perch. Total catch of yellow perch was 790 with 522 fish harvested.

The mean length of harvested yellow perch was 8.3 inches and the largest yellow perch measured was a 9.8-inch fish measured in May.

Bluegill only accounted for 157 hours of directed effort during the 2009 season.

Anglers caught 44 bluegill and harvested 13 during the 2009 survey.

The mean length of harvested bluegill was 7.6 inches and the largest bluegill measured was 8.0 inches.

Other fish species caught during the 2009 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 Jeff Blonski, Marty Kiepeke, Steve Kramer, Tim Tobias and Joelle Underwood. John Logan and Doug Day 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.

This creel report was reviewed by Mike Coshun, Steve Gilbert and Dennis Scholl of the Wisconsin Department of Natural Resources, Woodruff, Wisconsin.

Additional copies of this report and those covering other local lakes can be obtained from the Woodruff DNR. Requests should be directed to:

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Table 1. Sportfishing effort summary ,Snipe Lake, 2009-10 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Vilas County Average Hours/Acre	Statewide Average Hours/Acre
May	756	3.2	5.4	5.8
June	560	2.3	6.9	6.1
July	1000	4.2	7.5	6.4
August	376	1.6	6.5	5.4
September	401	1.7	4.2	3.8
October	145	0.6	2.0	1.6
December	56	0.2	0.5	1.7
January	133	0.6	0.8	1.5
February	63	0.3	1.0	1.3
March	0	0.0	0.2	--
*Summer Total	3237	13.5	32.5	29.1
*Winter Total	251	1.1	2.4	4.5
Grand Total	3488	14.6	34.8	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, 2006 and 2009 fishing seasons.

CREEL YEAR: 2009-10

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	2285	54.53%	3955	0.6	355	6.4	16.7
Northern Pike	29	0.69%	6		0		
Muskellunge	885	21.12%	113	13.9	0		
Smallmouth Bass	201	4.80%	14	15.6	0		
Largemouth Bass	3	0.07%	0		0		
Yellow Perch	513	12.24%	790	0.8	522	1.0	8.3
Bluegill	157	3.75%	44	6.0	13	43.5	7.6
Pumpkinseed	0	0.00%	9		0		
Rock Bass	12	0.29%	21	1.3	0		
Black Crappie	105	2.51%	1	95.2	1	95.2	9.0

* 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: 2006-07

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	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		

WALLEYE

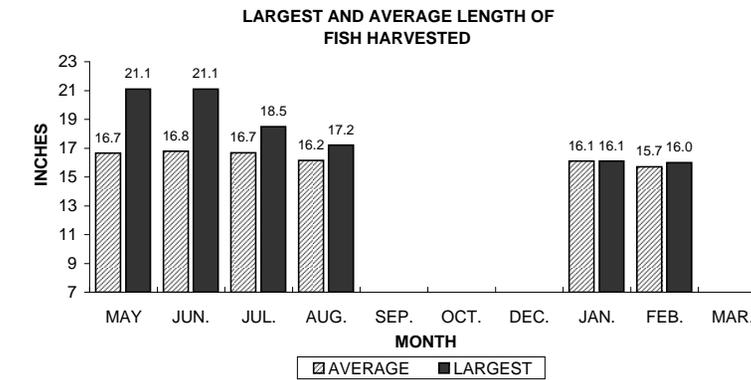
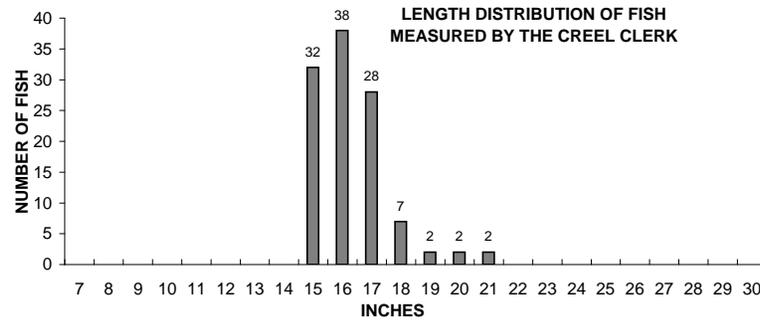
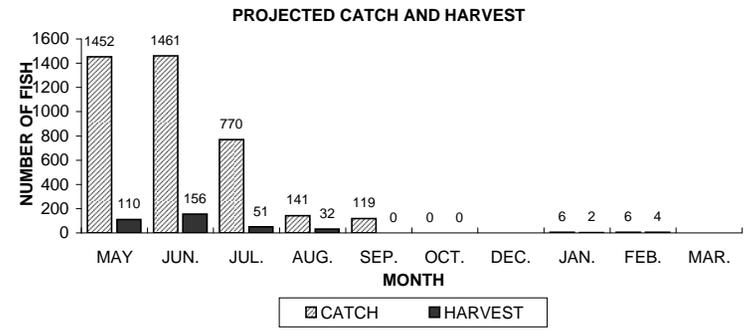
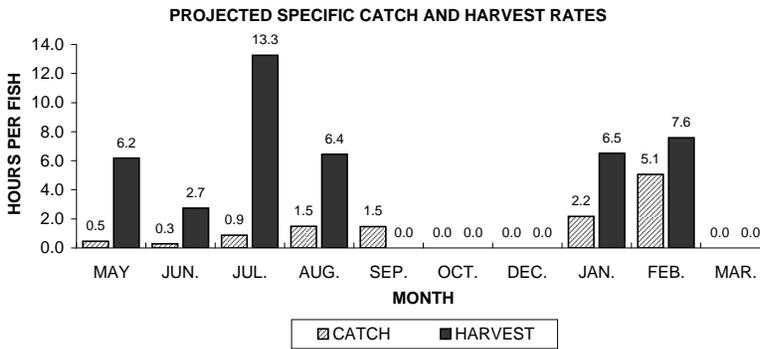
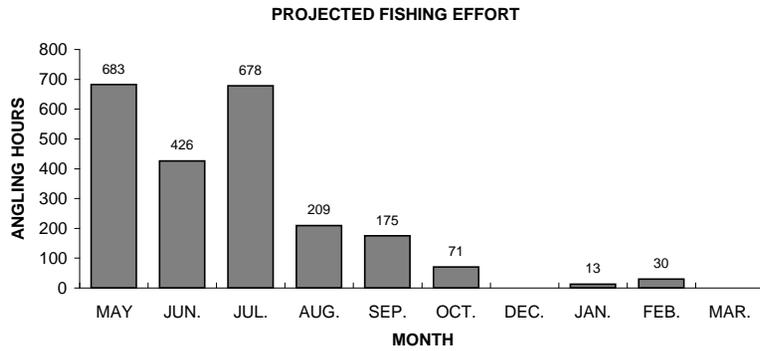
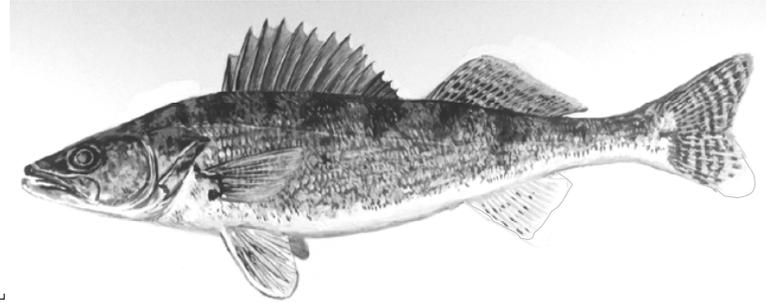


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

NORTHERN PIKE

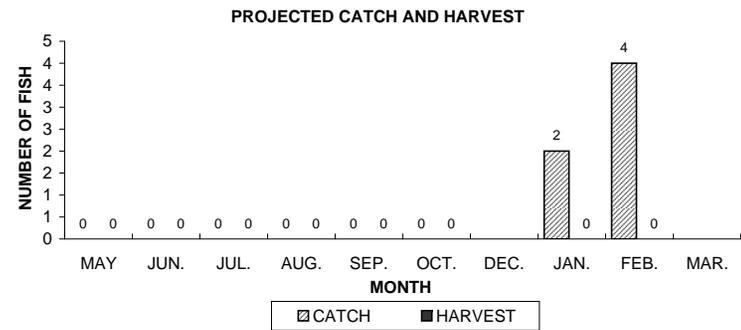
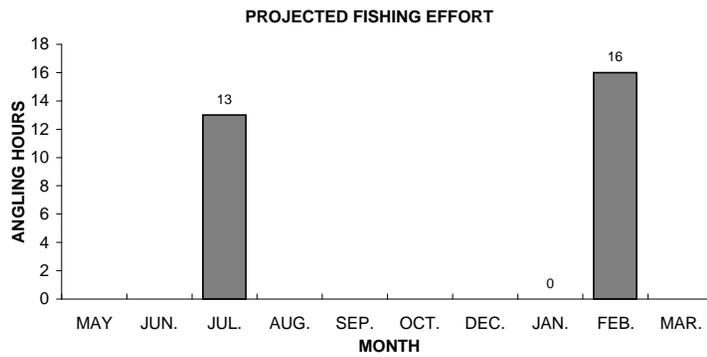
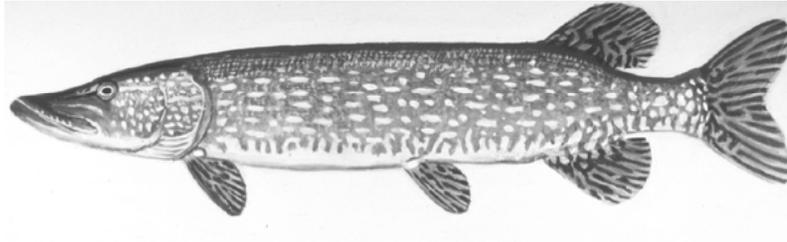


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

MUSKELLUNGE

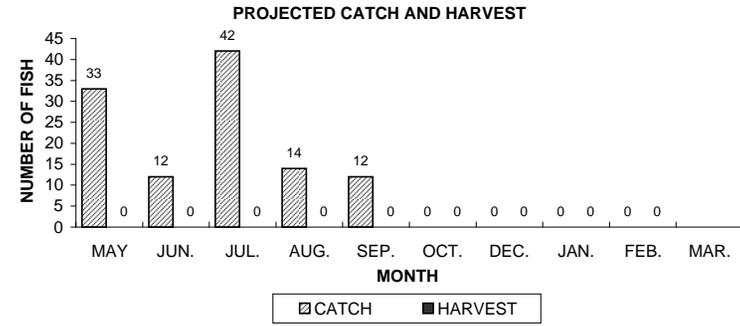
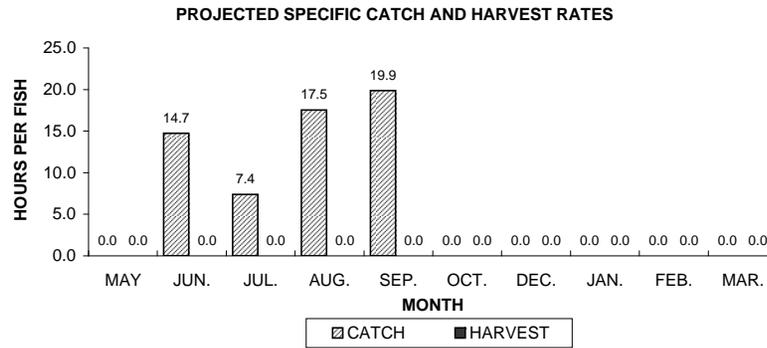
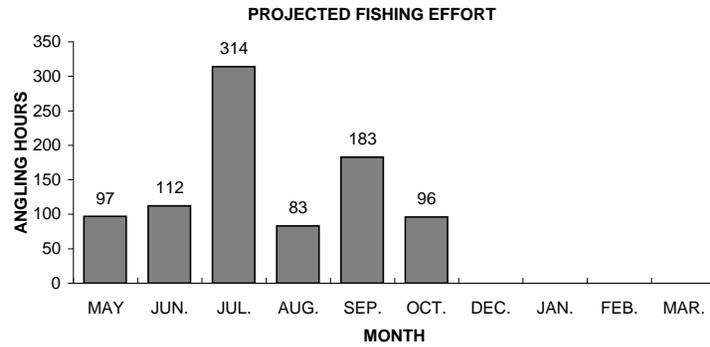
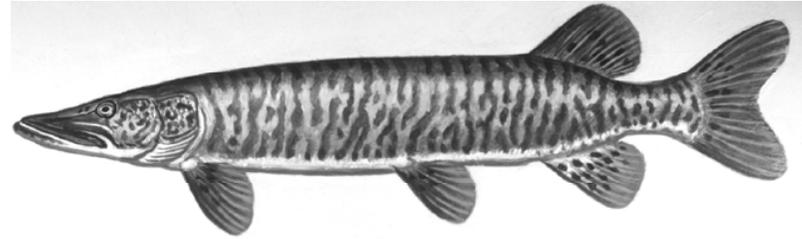


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

SMALLMOUTH BASS

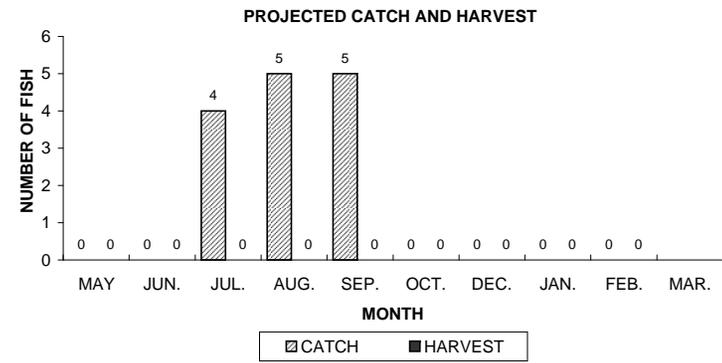
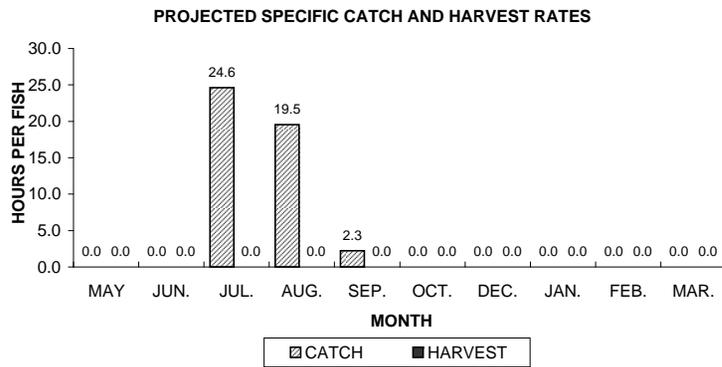
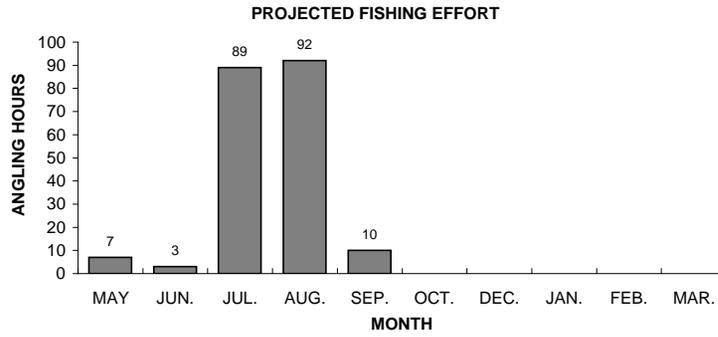
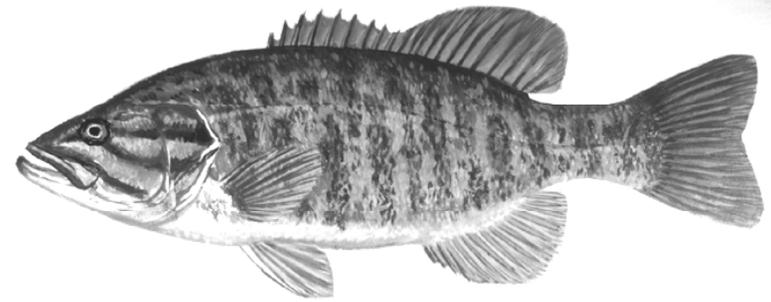


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

LARGEMOUTH BASS

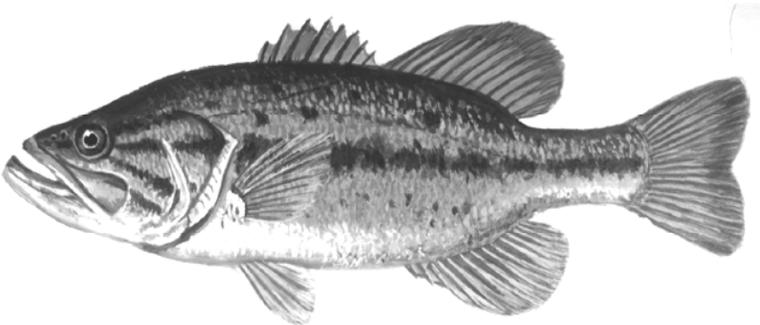
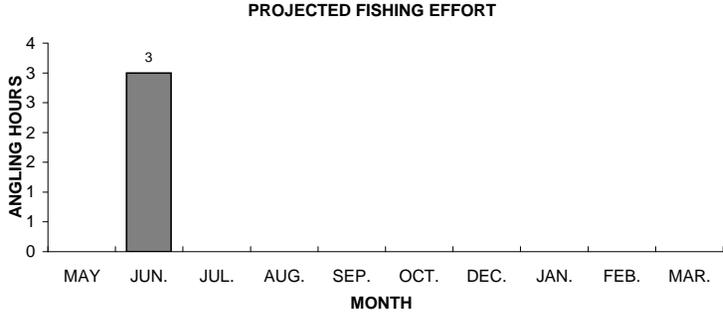


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

YELLOW PERCH

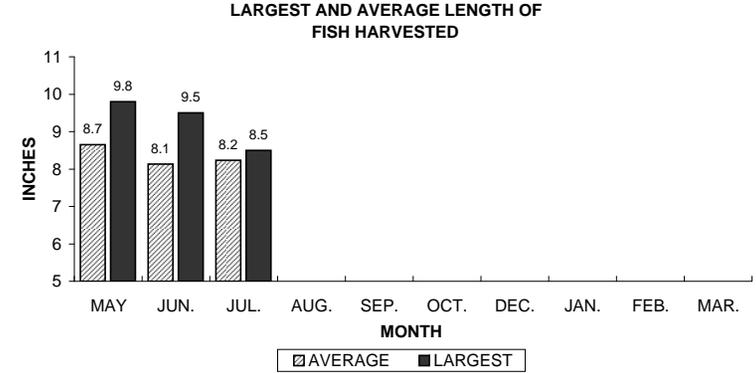
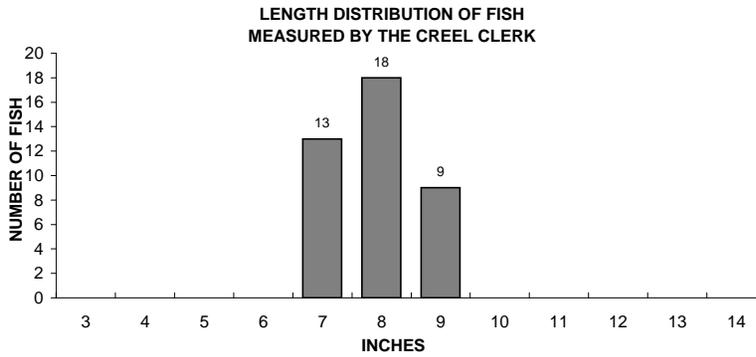
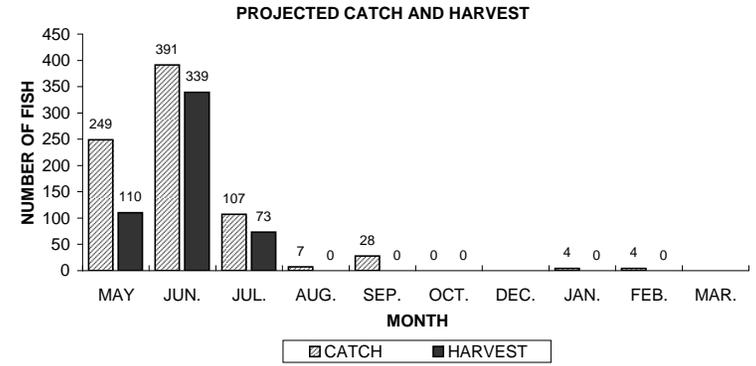
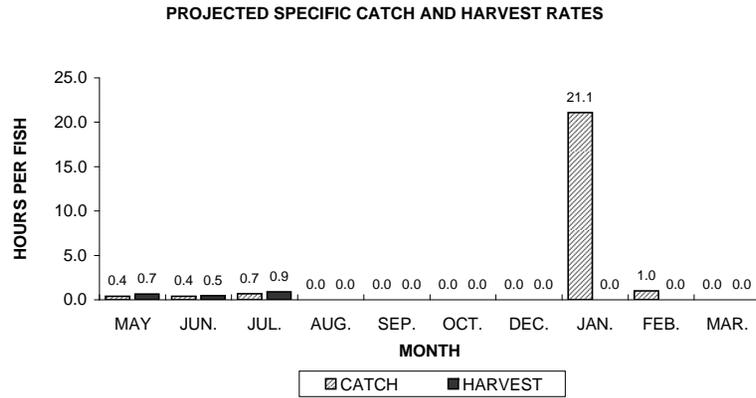
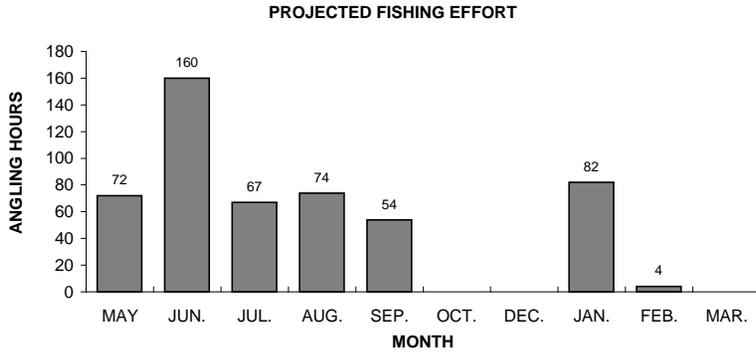
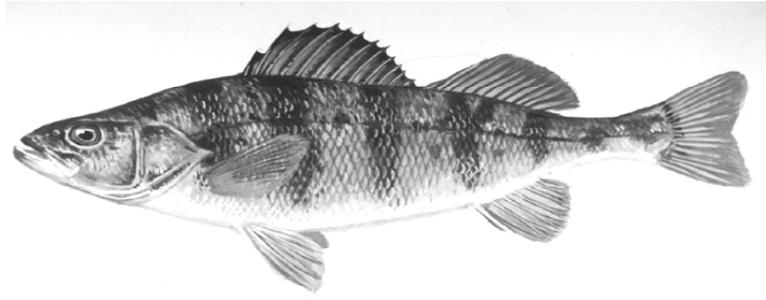


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

BLUEGILL

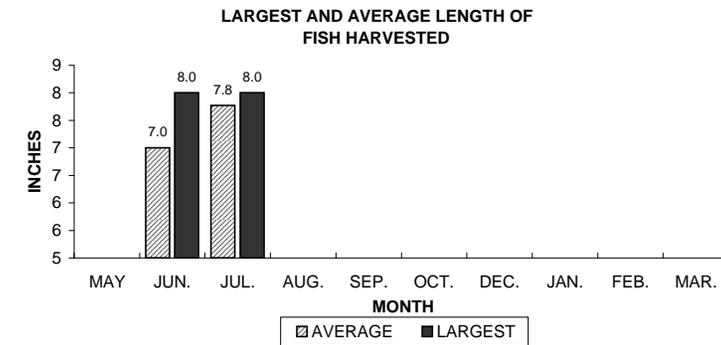
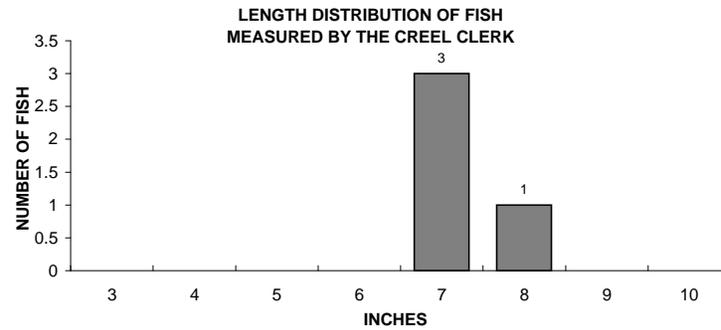
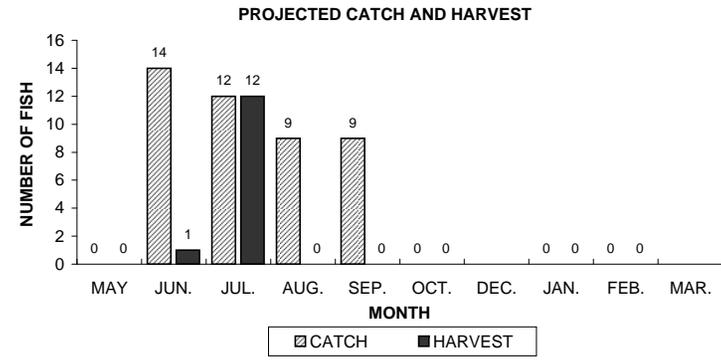
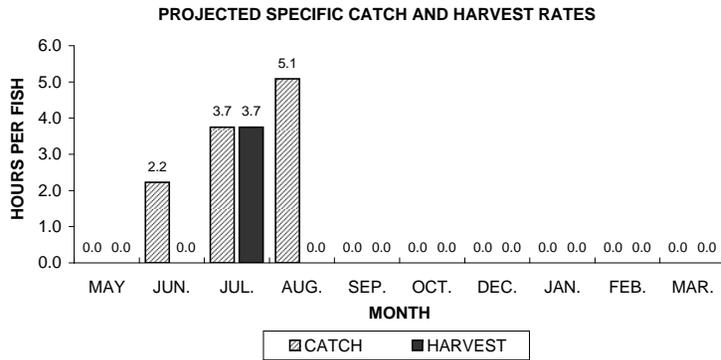
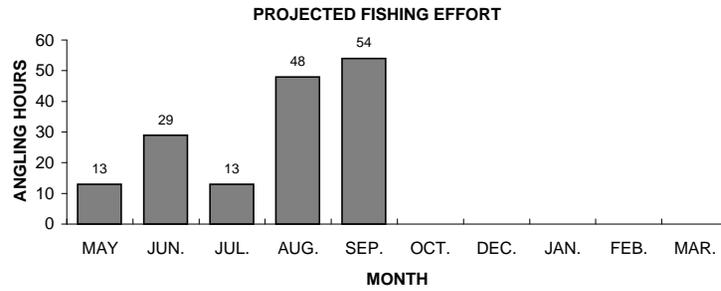
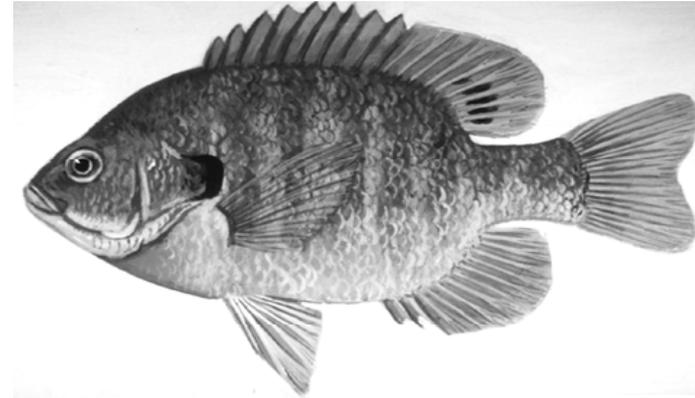


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

PUMPKINSEED

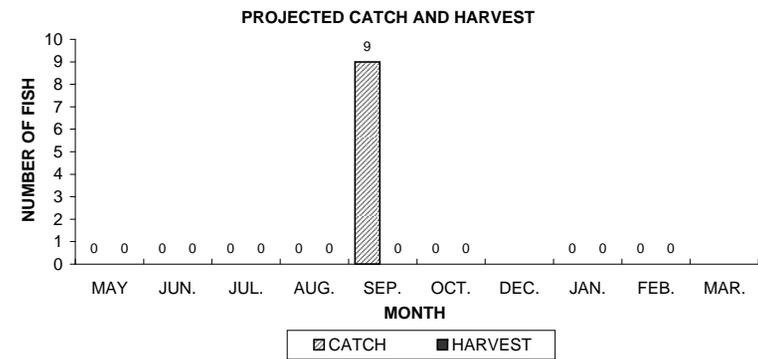
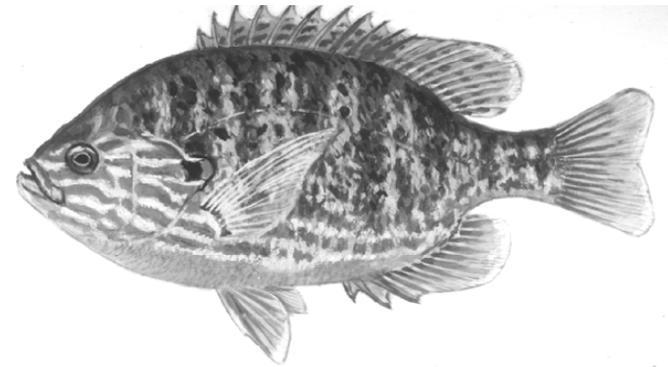


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

ROCK BASS

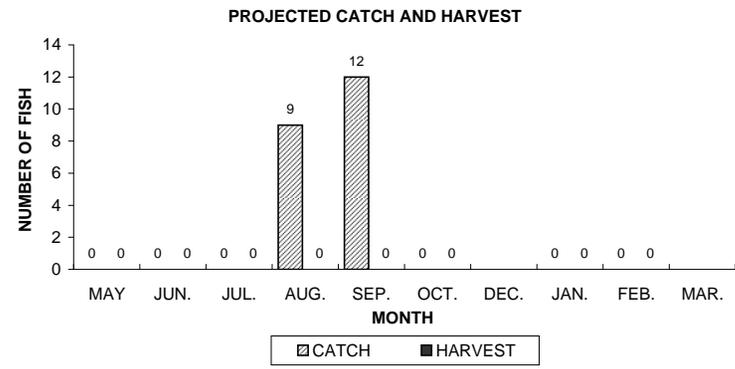
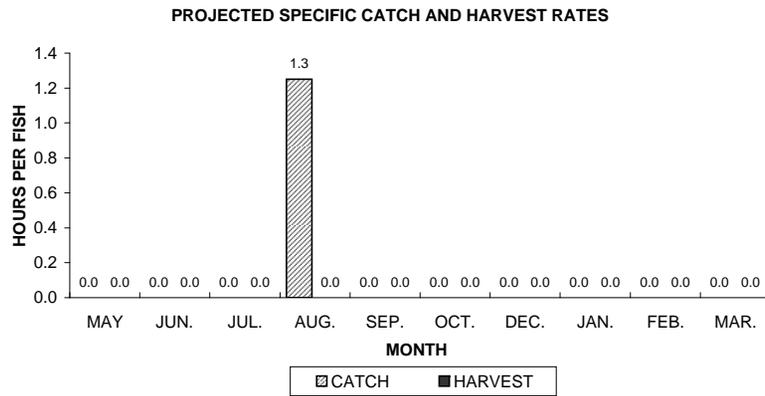
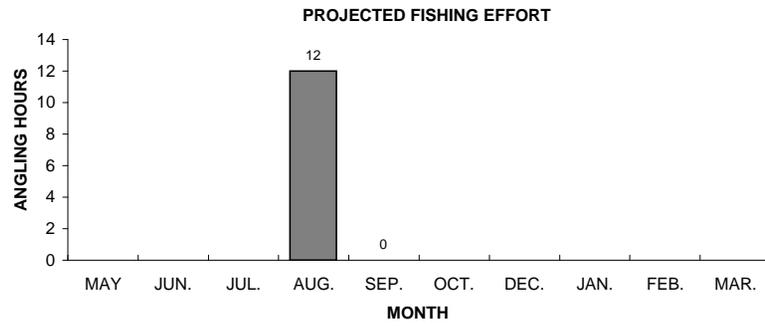
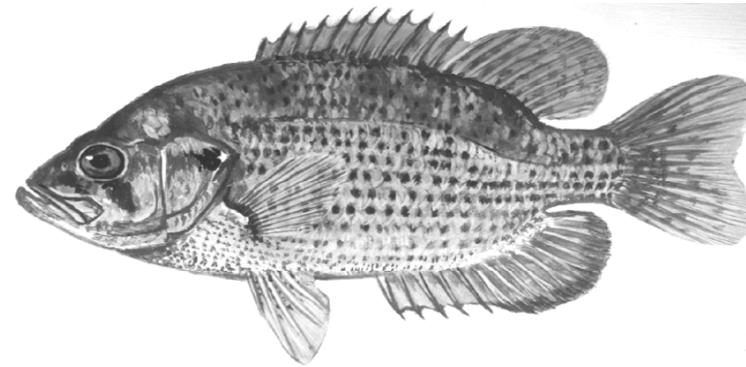


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.

BLACK CRAPPIE

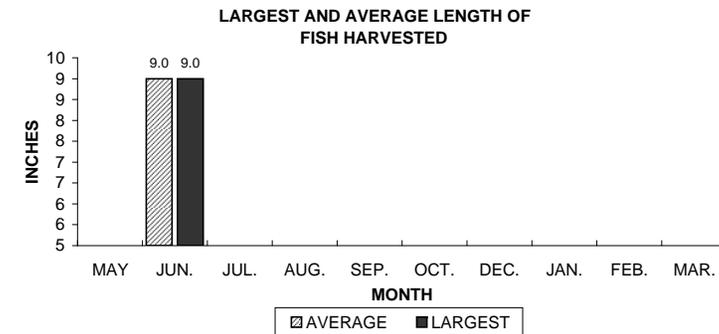
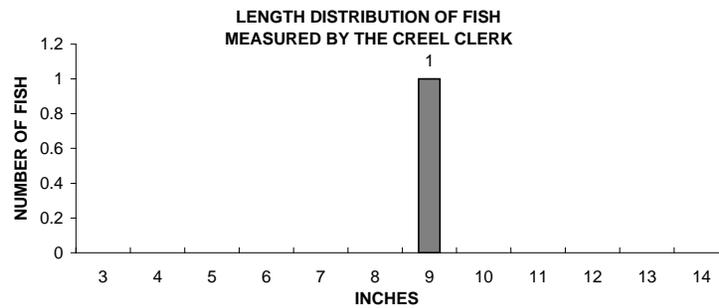
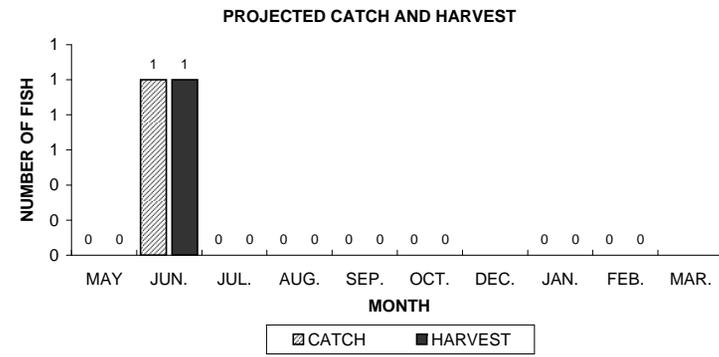
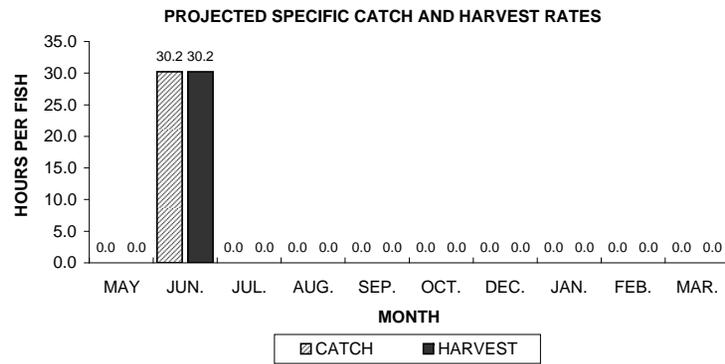
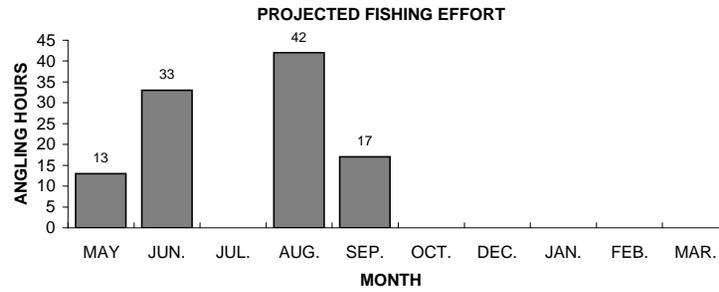
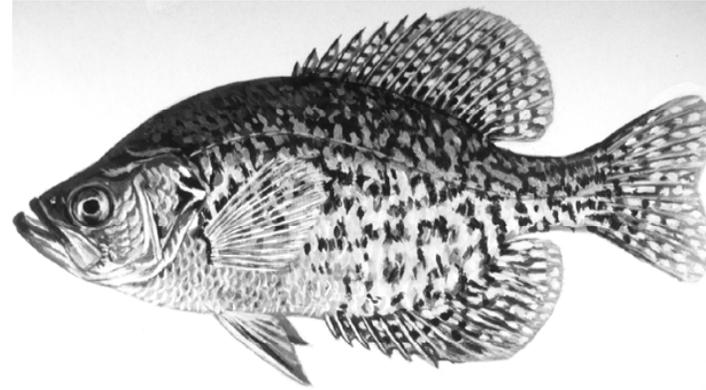


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Snipe Lake, during 2009-10.