

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

ONEIDA COUNTY

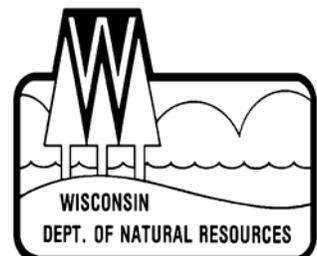
2006-07



Treaty Fisheries Publication

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Treaty Fisheries Technician**

**Edited by Dennis Scholl
Treaty Fisheries Supervisor**



May 2007

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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.

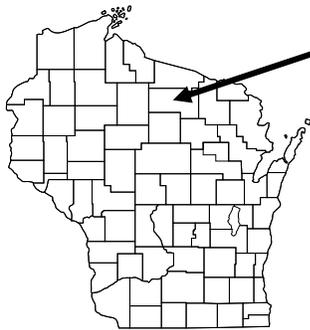
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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

GENERAL LAKE INFORMATION



NORTH
NOKOMIS
LAKE

Location

N. Nokomis Lake is located just south of the town of Newbold in Oneida County.

Physical Characteristics

N. Nokomis Lake is a 476-acre soft water spring lake having slightly alkaline clear water. Littoral substrate consists primarily of sand, with lesser amounts of gravel and muck. Maximum depth is 73 feet deep.

Seasons Surveyed

The period referred to in this report 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 N. Nokomis Lake was around April 14, 2006 which is considered normal for northern Wisconsin. Spring, summer

and fall weather was normal. Fishable-ice formed on N. Nokomis Lake in early December.

Sportfishing Regulations

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

Species	Season	Bag Limit	Min. Size
Largemouth Bass& Smallmouth Bass	5/06-6/16	Catch&Release	
Musky	6/17-11/30	5	14"
Northern Pike	5/15-11/30	1	34"
Walleye	5/06-3/01	5	none
Panfish	5/06-3/01	3*	15"
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 N. Nokomis 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 4 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **PROJECTED FISHING EFFORT**
Total calculated number of hours during each month that anglers spent fishing for a species.
2. **PROJECTED SPECIFIC CATCH AND HARVEST RATES**
Calculated number of hours it takes an angler to catch or harvest a fish of the indicated species. Only information from anglers who were specifically targeting that species is

reported.

- 3. PROJECTED CATCH AND HARVEST**
Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.
- 4. LENGTH DISTRIBUTION OF HARVESTED FISH**
All fish of a species that were measured by the clerk during the entire creel survey season.
- 5. LARGEST AND AVERAGE LENGTH OF HARVESTED FISH**
Monthly largest and average length of harvested fish of a species. Only those fish measured by the creel survey clerk are reported.

CREEL SURVEY RESULTS AND DISCUSSION

Survey Logistics

The creel survey went well. We encountered no unusual problems conducting the survey or calculating the projections contained in the report.

General Angler Information

Anglers spent 9,079 hours or 19.1 hours per acre fishing N. Nokomis Lake during the 2006 season (Table 1). That was lower than the statewide average of 33.6 hours per acre and the Oneida County average of 36.7 hours per acre. July was the most heavily fished month (5.2 hours per acre). Fishing effort was lightest in March (0.2 hours per acre).

SPECIES INFORMATION

Walleye (Table 2, Figure 1)

Anglers spent 3,186 hours targeting walleye. Walleye fishing effort was greatest in July (702 hours). September had the least amount of walleye fishing effort (50 hours).

Catch was 325 fish and harvest 163 fish. Highest catch (92 fish) occurred in June. Anglers fished 9.9 hours to catch and 19.5 hours to harvest a walleye during 2006.

The mean length of harvested walleye was 18.8 inches and the largest walleye measured was a 28.7-inch fish harvested in May.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 498 hours during the 2006 season. Northern pike fishing effort was greatest in February (149 hours).

Catch was 254 fish and harvest 23 fish. Anglers fished 14.6 hours to catch a northern pike during 2006.

The mean length of harvested northern pike was 20.4 inches and the largest northern pike measured was a 26-inch fish harvested in March.

Muskellunge (Table 2, Figure 3)

Muskellunge was the most sought after fish during the 2006 survey. Anglers spent 4,563 hours targeting muskellunge during the 2006 season. Muskellunge fishing effort was greatest in July (1,365 hours).

Catch was 150 fish and harvest was 0 fish. Highest catch (35 fish) occurred in August. Anglers fished 33.4 hours to catch a muskellunge during 2006.

Smallmouth Bass (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 611 hours during the 2006 season. Smallmouth bass fishing effort was greatest in July (261 hours).

Catch was 393 fish. Highest catch (141 fish) occurred in July.

Largemouth Bass (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 1028 hours during the 2006 season. Largemouth bass catch rates were greatest in June (267 fish).

Catch was 768 fish and harvest 6 fish.

Panfish (Table 2, Figures 6-10)
Yellow perch was the most sought after panfish during the survey. Fishing effort directed at yellow perch was 267 hours during the 2006 season. Catch was 396 fish and harvest 3 fish.

Anglers caught 537 and harvested 7 bluegills.

Fishing effort directed at black crappie was 227 hours during the 2006 season. Total catch was 75 and harvest 41 fish. The mean length of black crappie harvested was 10.3 inches.

Other panfish caught was rock bass (215 fish) and pumpkinseed (137 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, Marty Kiepke, and Jason Halverson. Dean Johnson and Bob Consolo

were the creel clerks on N. Nokomis 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.

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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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, North Nokomis Lake, 2006-07 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Oneida County Average Hours/Acre	Statewide Average Hours/Acre
May	674	1.4	5.6	5.8
June	1457	3.1	7.6	6.1
July	2456	5.2	8.7	6.4
August	1508	3.2	6.5	5.4
September	871	1.8	3.9	3.8
October	923	1.9	1.8	1.6
December	273	0.6	1.3	1.7
January	359	0.8	1.6	1.5
February	471	1.0	1.5	1.3
March	86	0.2	0.2	**
*Summer Total	7889	16.6	34.1	29.1
*Winter Total	1189	2.5	4.6	4.5
Grand Total	9079	19.1	38.7	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 North Nokomis 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 North Nokomis 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 North Nokomis Lake to other lakes statewide.

Table 2. Creel survey synopses, North Nokomis Lake, 2006-07 fishing seasons.

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	3186	29.80%	325	9.9	163	19.5	18.8
Northern Pike	498	4.66%	254	14.6	23	45.9	20.4
Muskellunge	4563	42.68%	150	33.4	0		
Smallmouth Bass	611	5.72%	393	4.0	3	200.0	18.0
Largemouth Bass	1028	9.62%	768	2.9	6	185.2	18.0
Yellow Perch	267	2.50%	396	1.1	3	102.0	7.0
Bluegill	263	2.46%	534	0.5	7	38.5	7.0
Pumpkinseed	47	0.44%	137	0.6	28	17.9	6.0
Rock Bass	0	0.00%	215		14		7.7
Black Crappie	227	2.12%	75	3.0	41	5.6	10.3
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.

WALLEYE

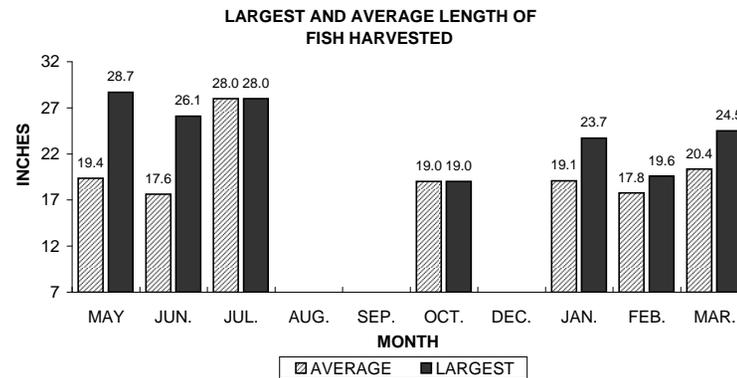
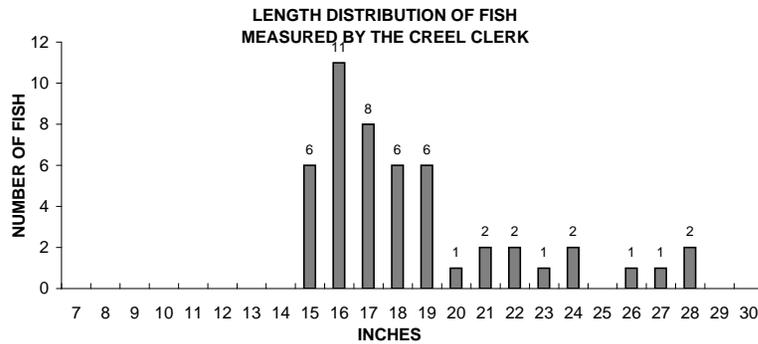
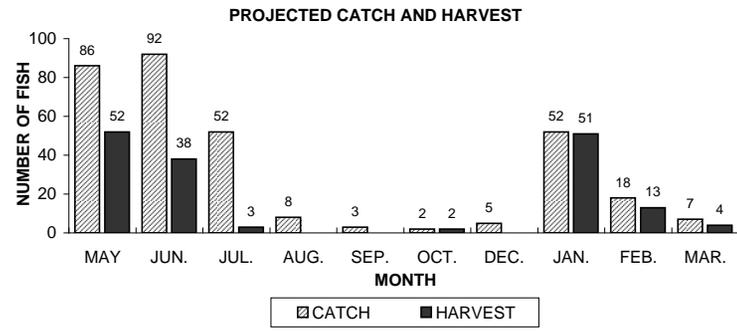
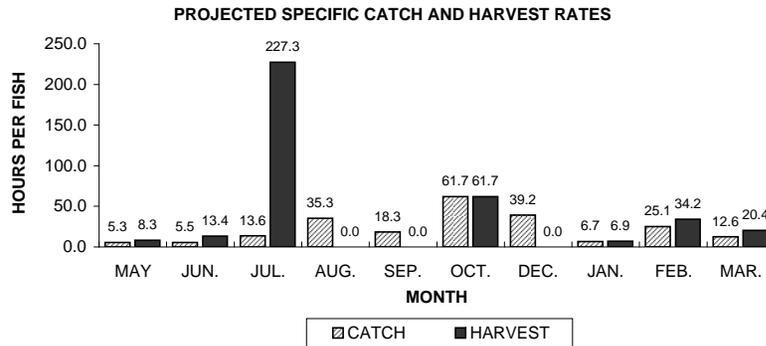
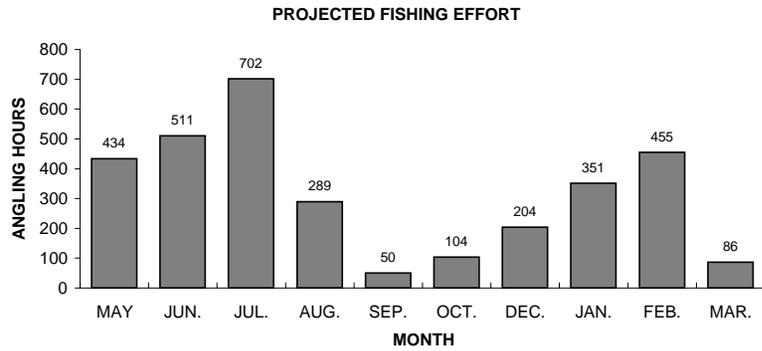
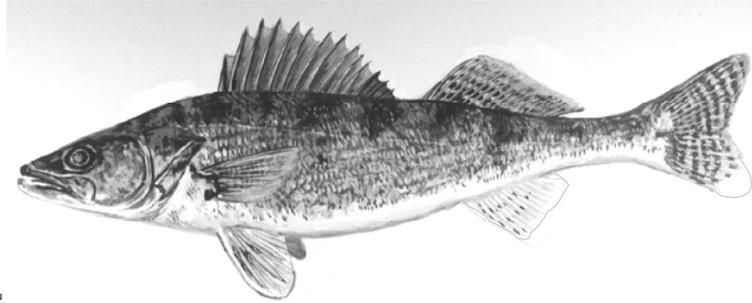


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

NORTHERN PIKE

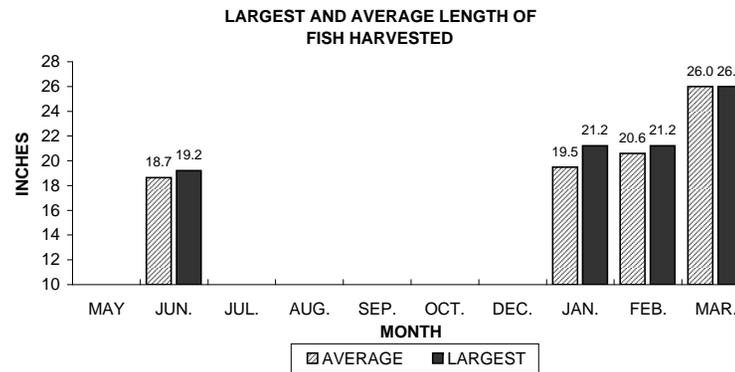
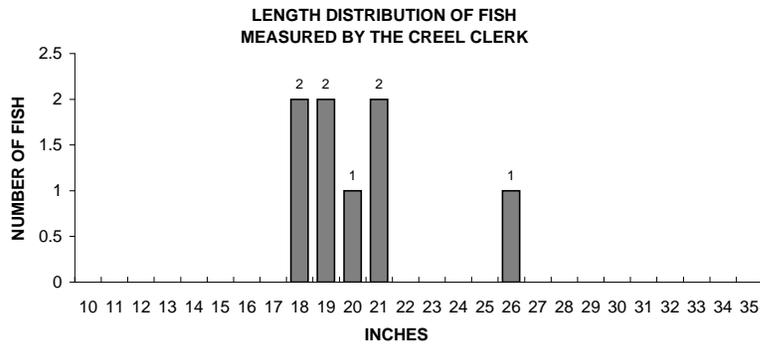
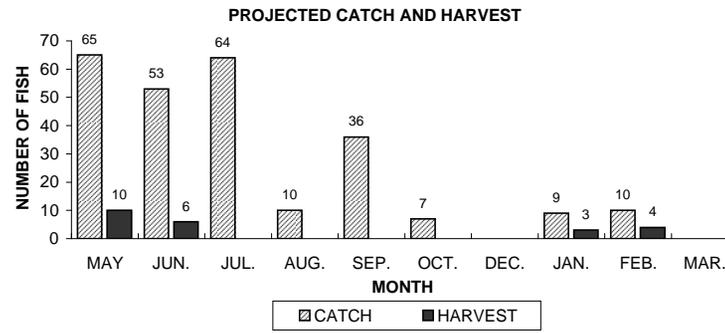
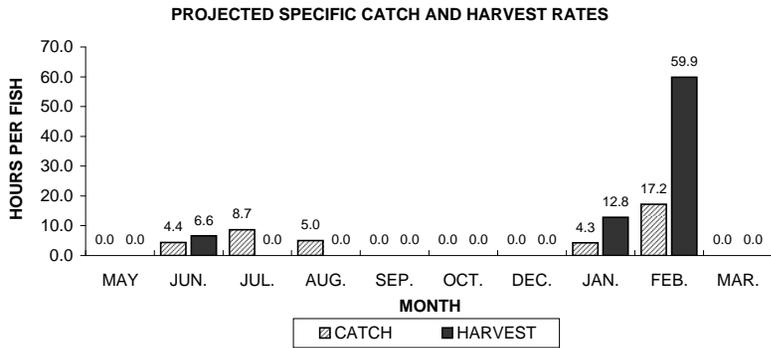
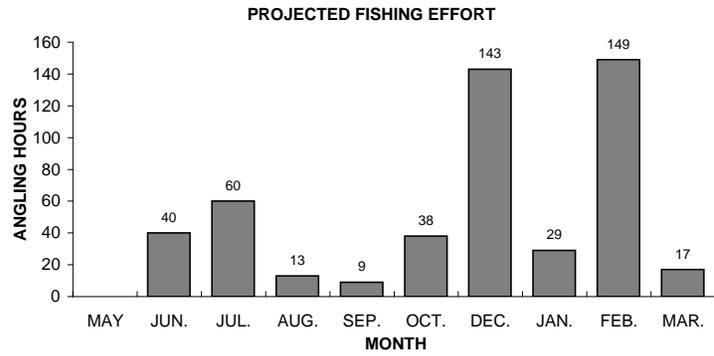
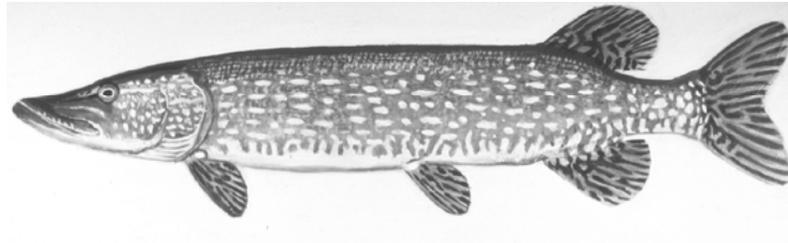


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

MUSKELLUNGE

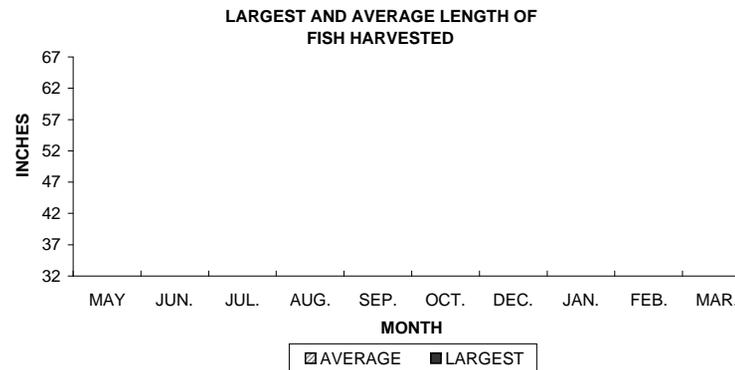
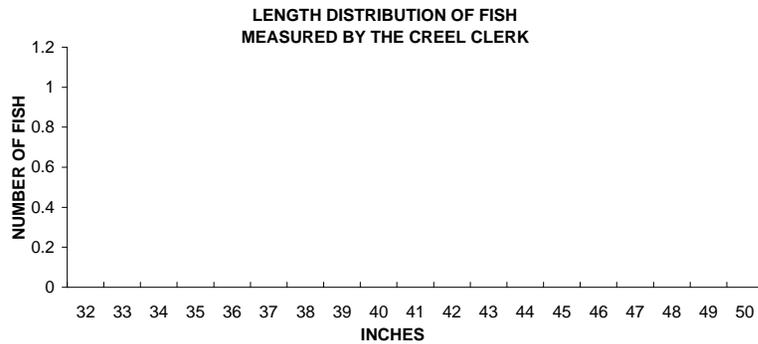
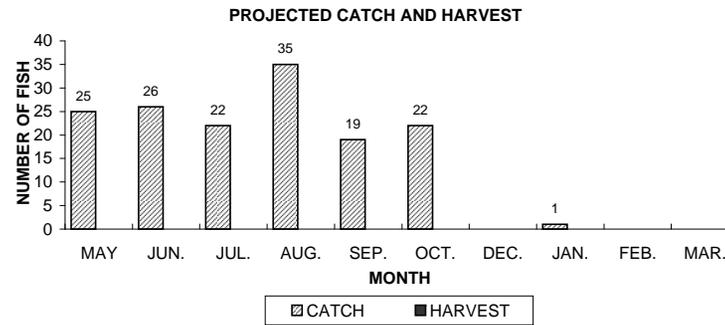
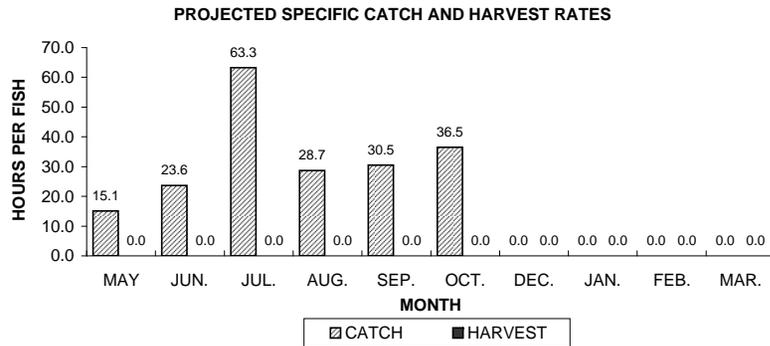
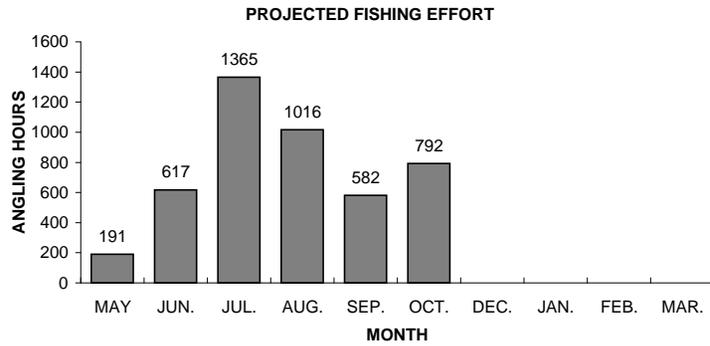
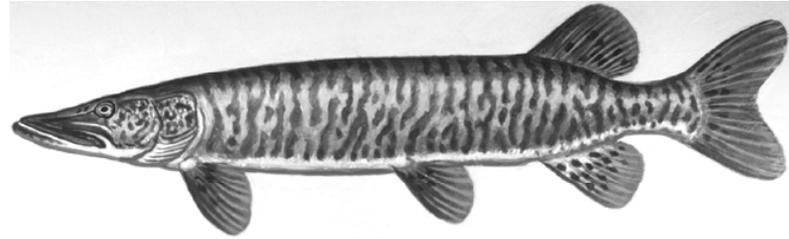


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

SMALLMOUTH BASS

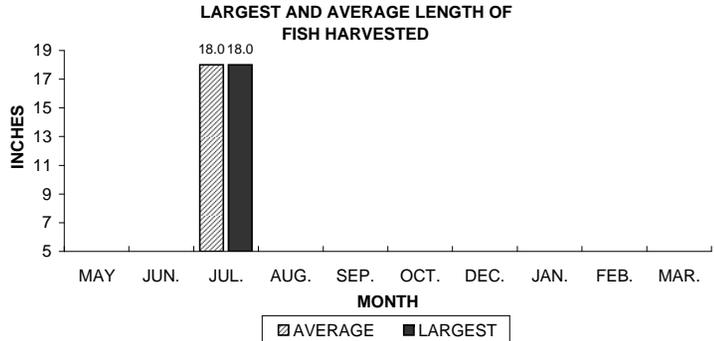
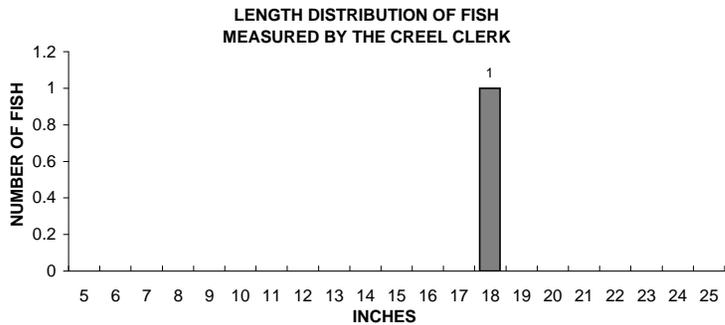
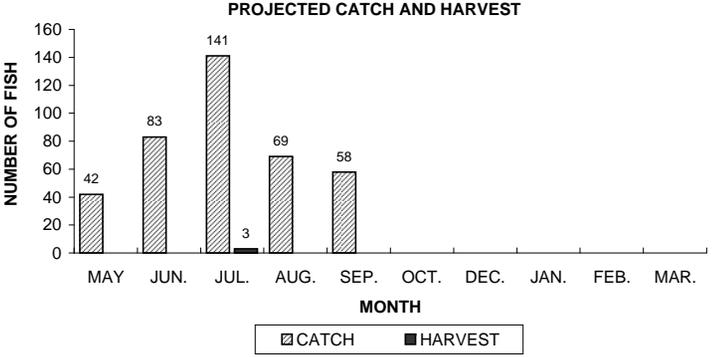
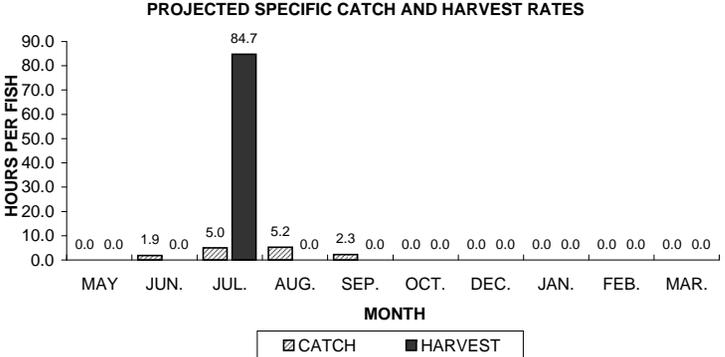
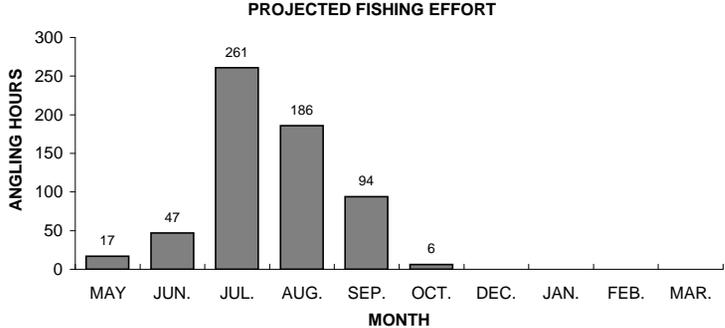
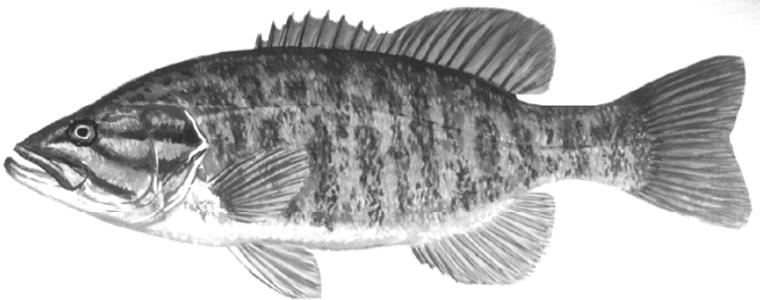


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

LARGEMOUTH BASS

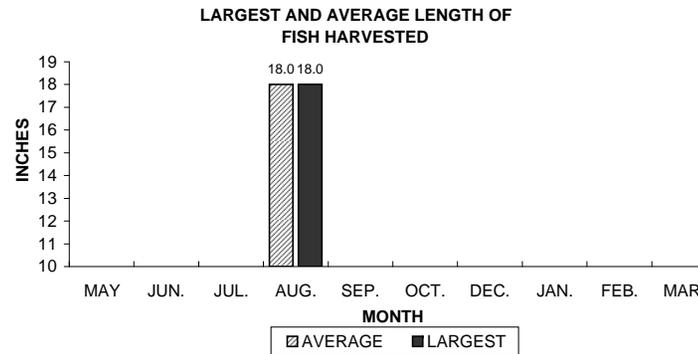
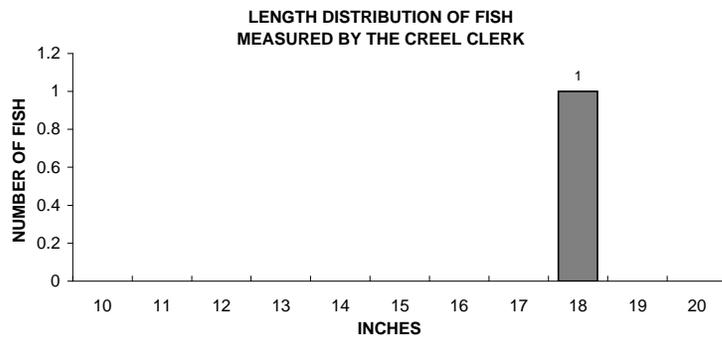
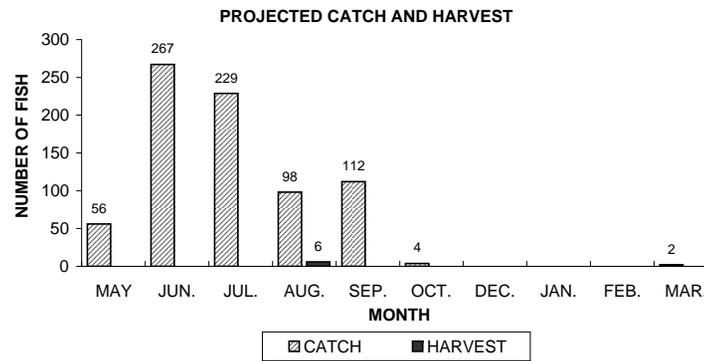
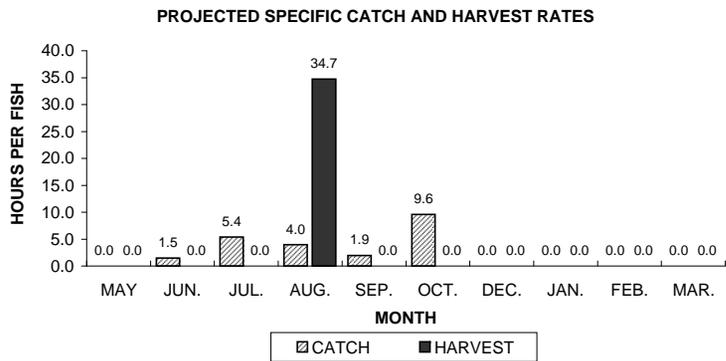
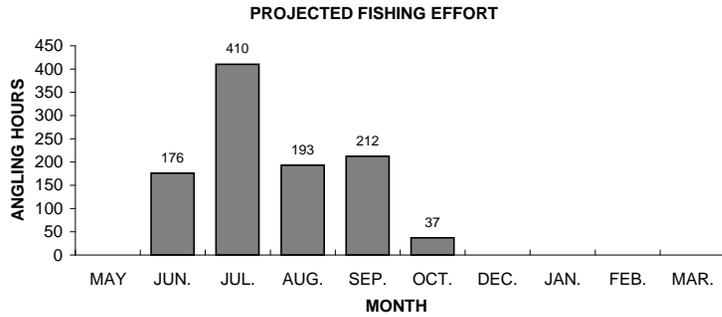
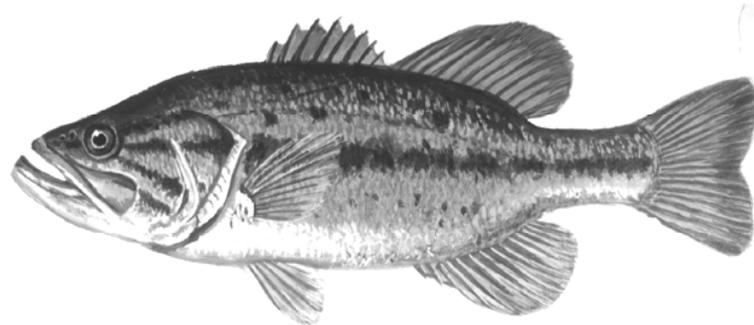


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

YELLOW PERCH

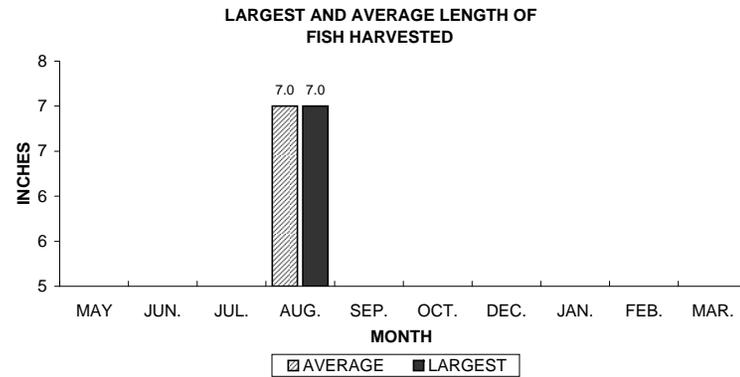
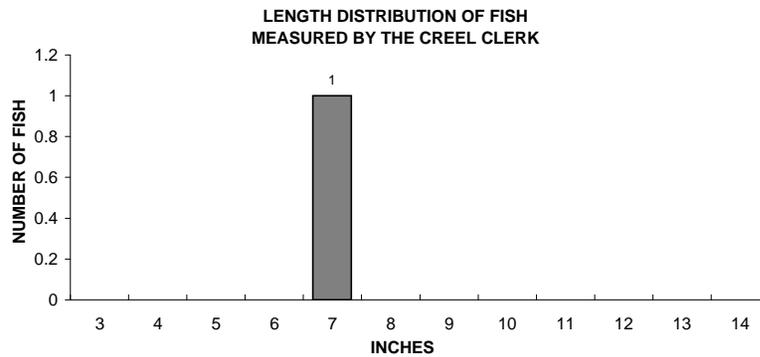
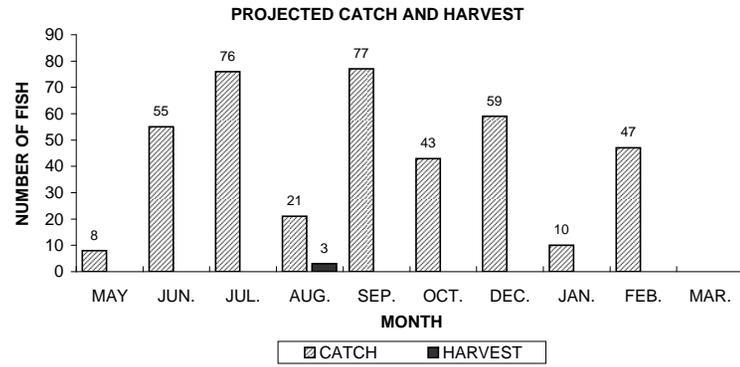
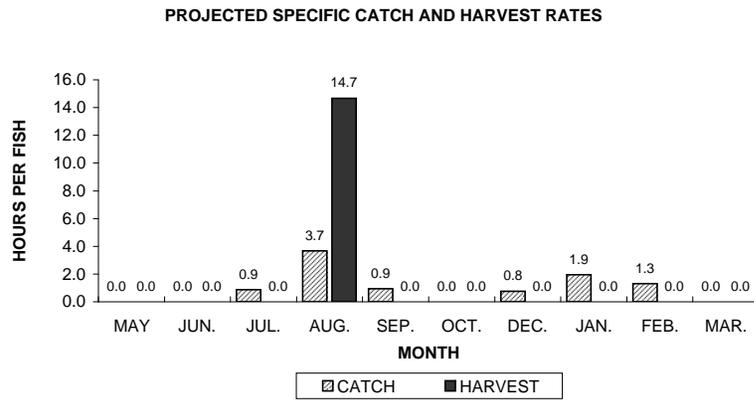
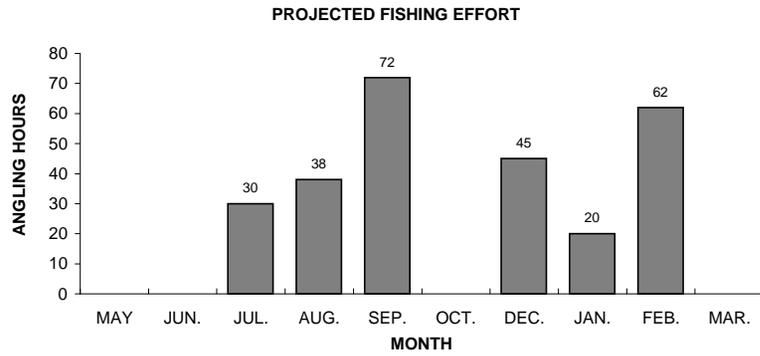
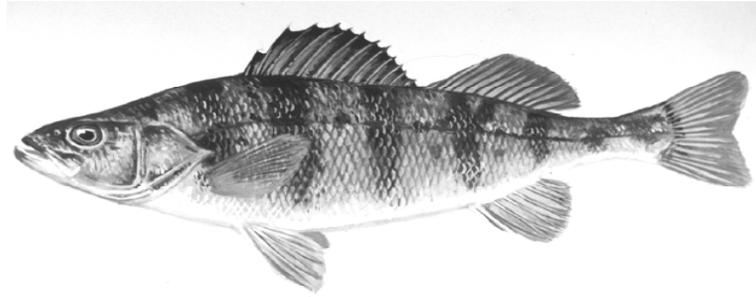


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

BLUEGILL

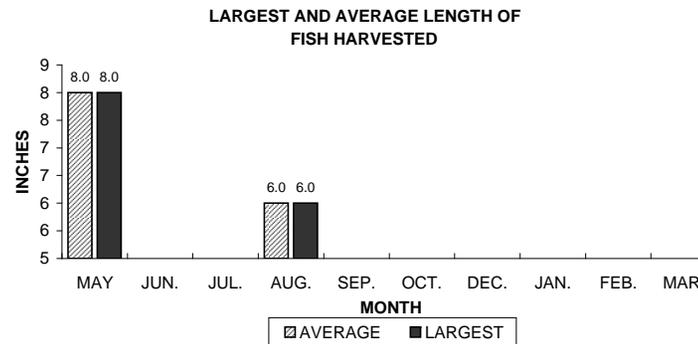
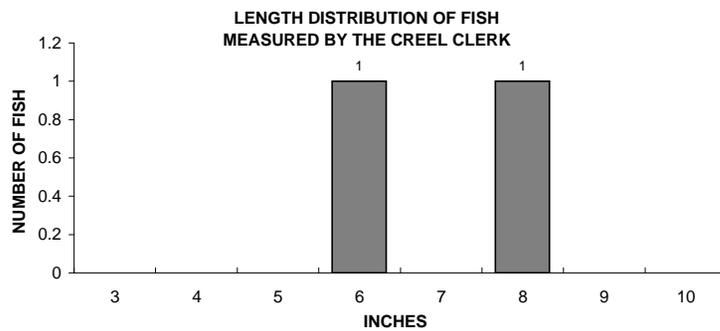
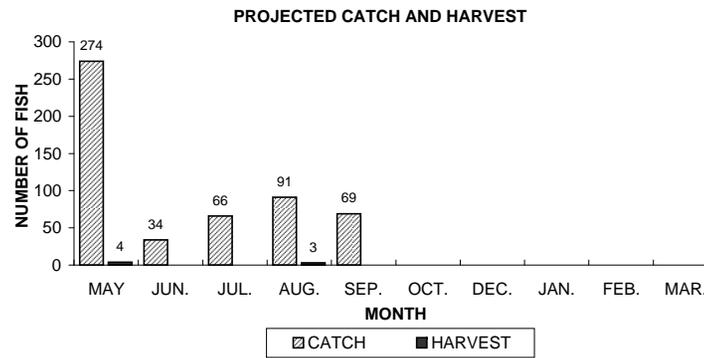
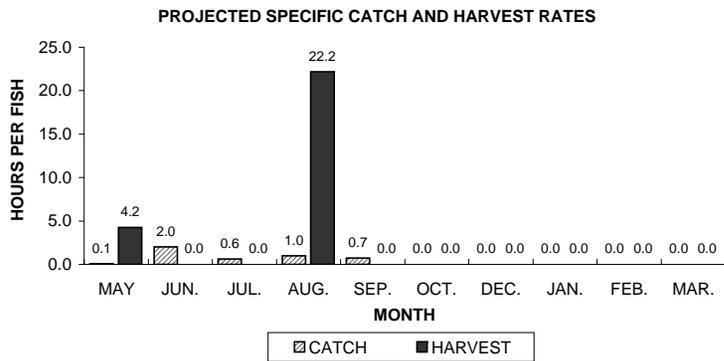
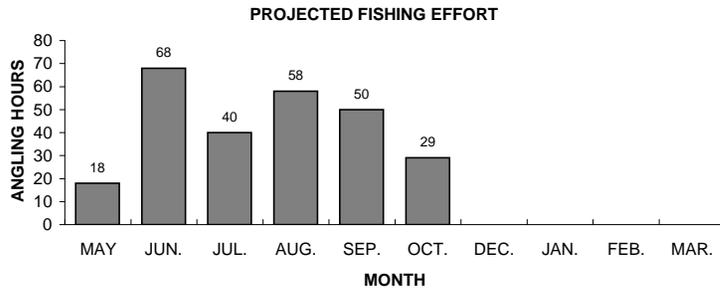
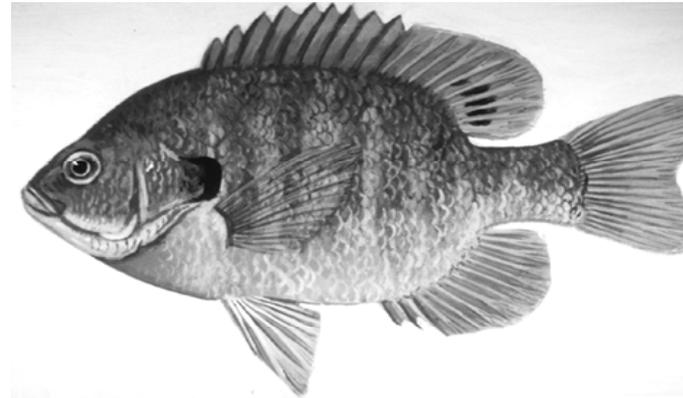


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

PUMPKINSEED

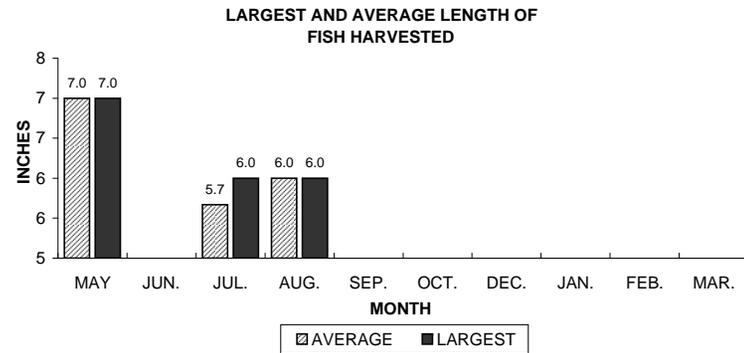
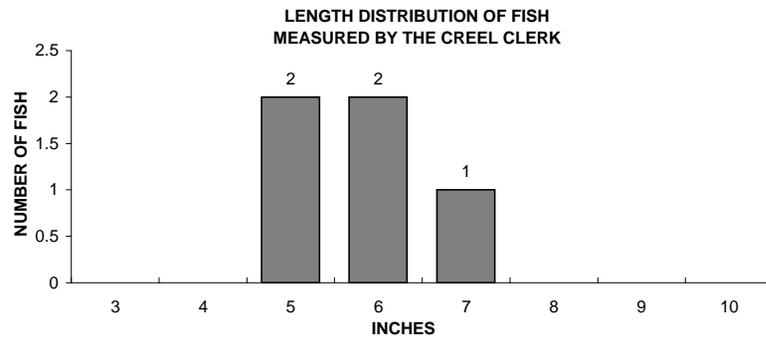
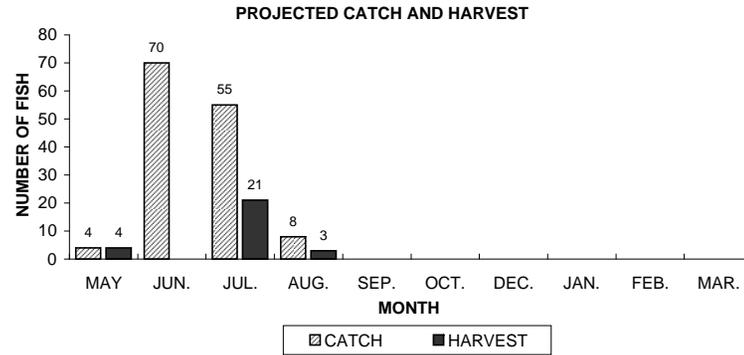
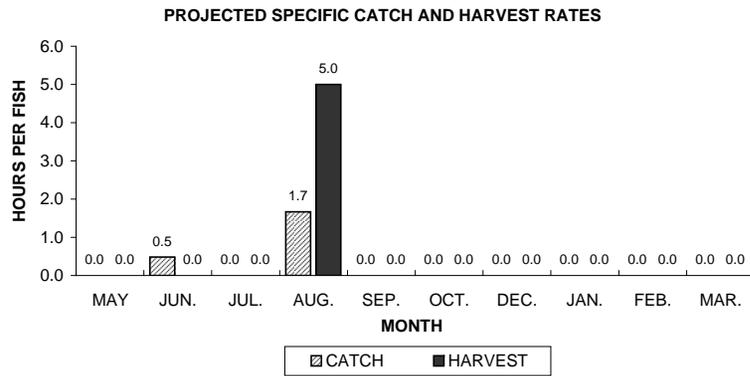
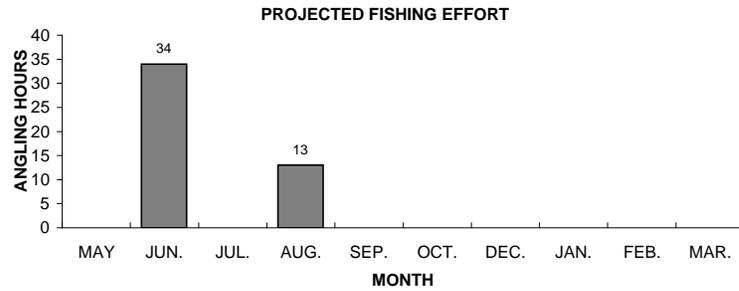
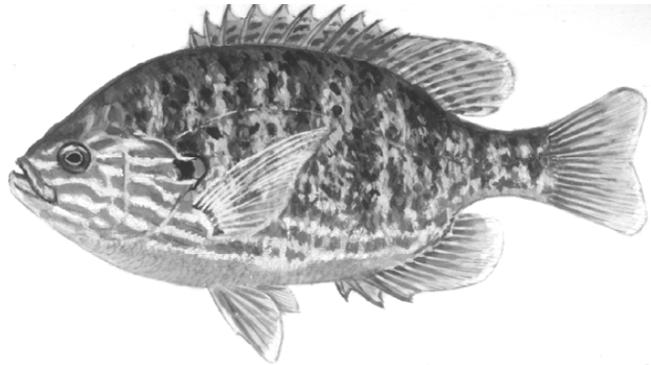


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

ROCK BASS

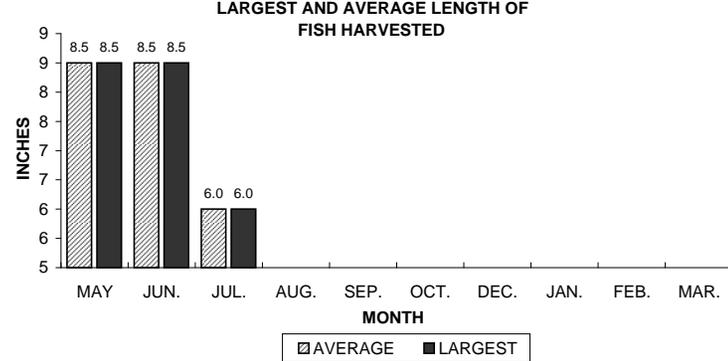
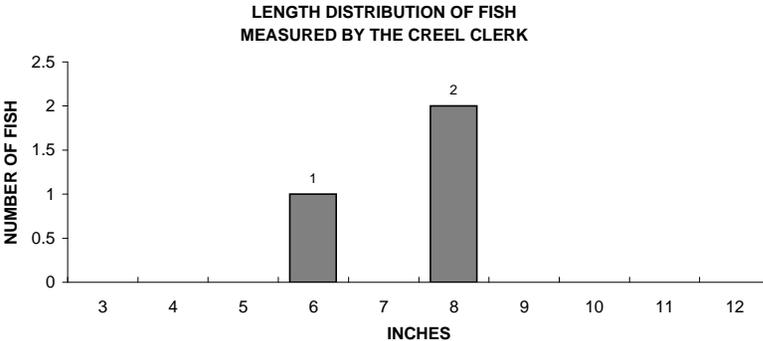
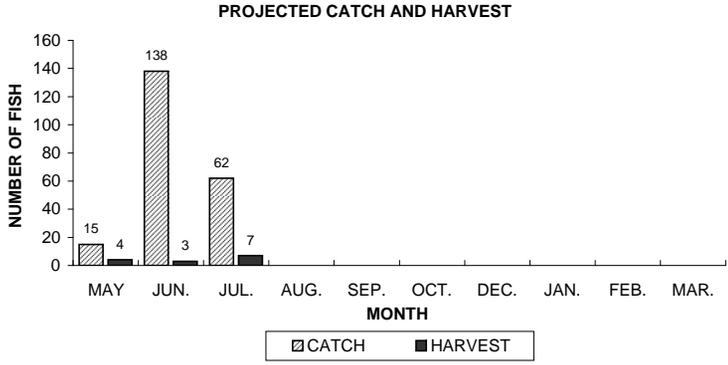
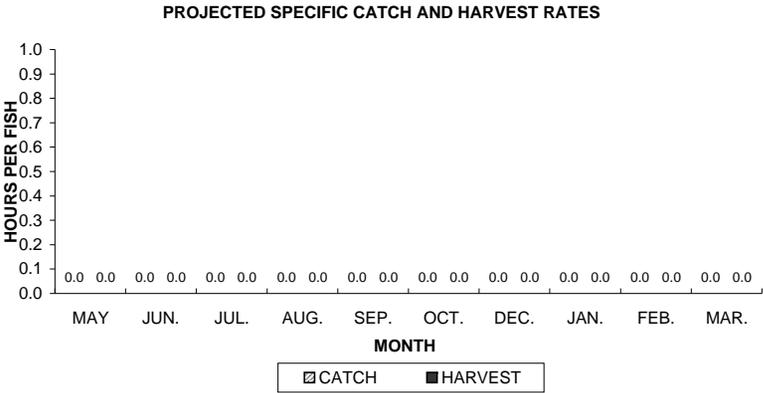
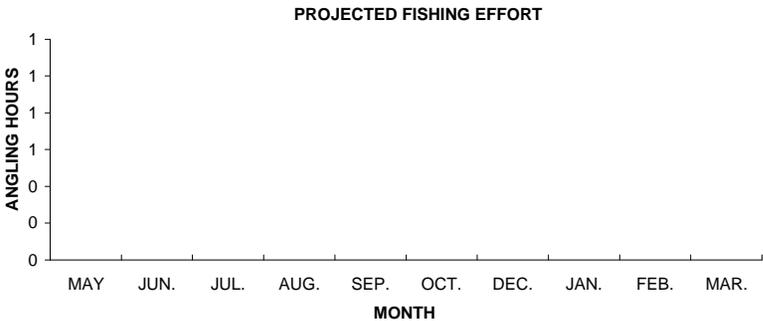
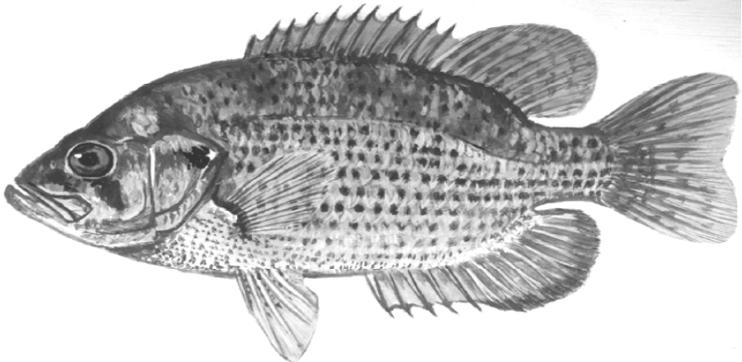


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.

BLACK CRAPPIE

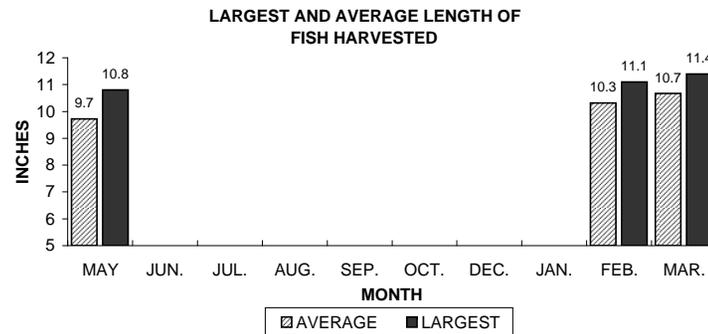
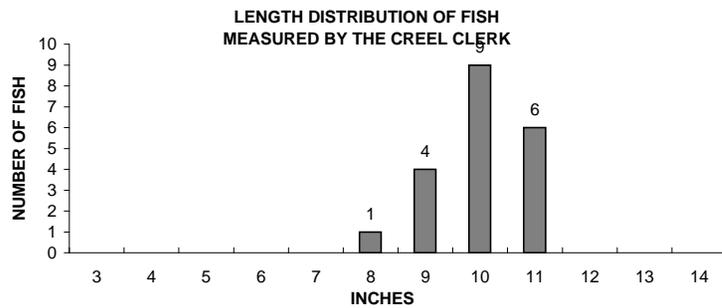
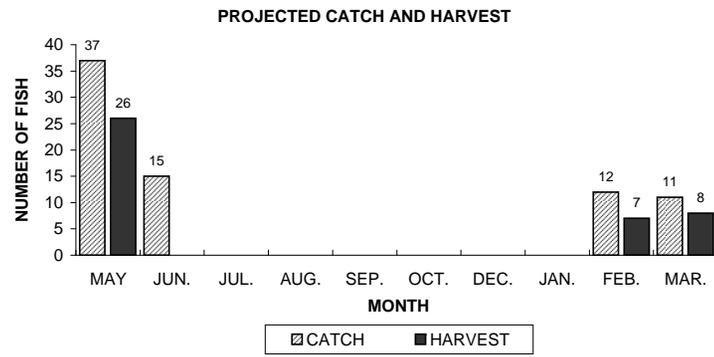
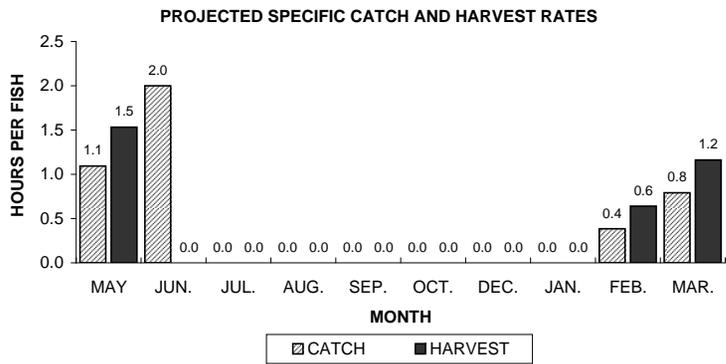
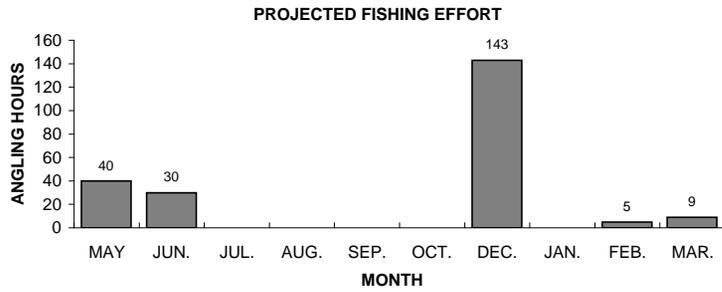
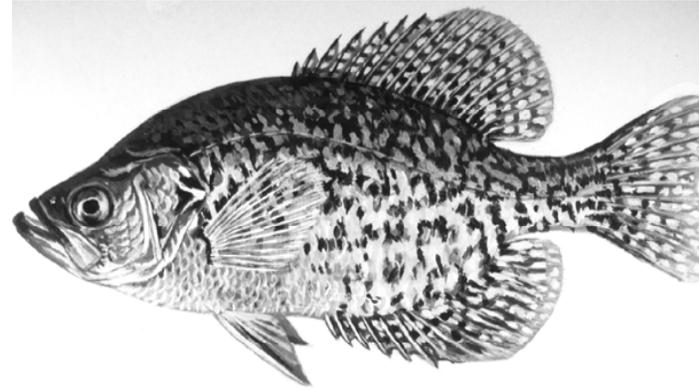


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, North Nokomis Lake, during 2006-07.