

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

GEORGE LAKE

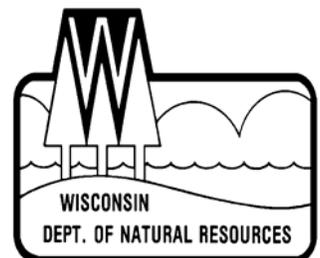
ONEIDA COUNTY

2010-11



Treaty Fisheries Publication

**Compiled by Tim Tobias
Treaty Fisheries Technician**



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
Figure 5. Largemouth Bass.....	11

Panfish

Figure 6. Yellow Perch	12
Figure 7. Bluegill	13
Figure 8. Pumpkinseed.....	14
Figure 9. Rock Bass	15
Figure 10. Black Crappie	16

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.

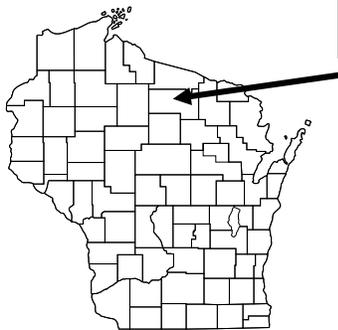
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

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

GENERAL LAKE INFORMATION



George Lake

Location

George Lake is located in Oneida County 4 miles southeast of the City of Rhinelander.

Physical Characteristics

George Lake is a 435-acre drainage lake with a maximum depth of 26 feet. Littoral substrate consists primarily of sand and gravel, with lesser amounts of muck, and rock. George Lake is a soft water drainage lake with slightly acidic, light brown water of moderate transparency.

Seasons Surveyed

The period referred to in this report as the 2010-11 fishing season ran from May 1, 2010 through March 6, 2011. The open water creel survey ran from May 1 through October 31, 2010 and the ice fishing creel survey ran from December 1, 2010 through March 6, 2011.

Weather

Ice-out on George Lake was around March 30, 2010. Fishable-ice formed on George Lake in early December.

Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on George Lake during the 2010-fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass& Smallmouth Bass	5/01-6/18	Catch & Release	
	6/19-3/06	5	14"
Musky	5/29-11/30	1	34"
Northern Pike	5/01-3/06	5	none
Walleye	5/01-3/06	3*	none 1 > 14"
Panfish	year round	25	none
Rock Bass	year round	none	none

* The statewide bag limit was 5 walleye, but due to tribal declarations it was reduced on George 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 6 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 third time the Department conducted a creel survey on George Lake. The last treaty surveys took place in 1999.

General Angler Information

Anglers spent 22,288 hours or 51.2 hours per acre fishing George Lake during the 2010 season (Table 1). That was more than the Oneida County average of 37.6 hours per acre. July was the most heavily fished month (9.9 hours per acre). Fishing effort was lightest in October and January (2.4

hours per acre).

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Walleyes received 15.5 percent of the directed fishing effort (5,918 hours) during the 2010 season. Walleye fishing effort was greatest in February (1,326 hours).

The unusually high February walleye effort and low catch rate was attributed to a one-day ice-fishing tournament that heavily influenced survey results.

December had the least amount of walleye fishing effort (200 hours).

Total catch of walleyes was 1,145 fish with a harvest of 466 fish. Highest catch (451 fish) and harvest (148 fish) occurred in August. Anglers fished 6.0 hours to catch and 13.6 hours to harvest a walleye during 2010.

The mean length of harvested walleyes was 13.8 inches and the largest walleye measured was a 24.1-inch fish.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 3,624 hours during the 2010 season.

Northern pike fishing effort was greatest in February (1,224 hours).

Total catch of northern pike was 459 fish with a harvest of 123 fish.

The mean length of harvested northern pike was 23.8 inches and the largest northern pike measured was a 32.4-inch fish.

Muskellunge (Table 2, Figure 3)

Anglers spent 4,794 hours targeting muskellunge during the 2010 season.

Muskellunge fishing effort was greatest in August (1,180 hours).

Total catch of muskellunge was 284 fish.

Highest catch (69 fish) occurred in July. Anglers fished 20.9 hours to catch a muskellunge during 2010.

Smallmouth Bass (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 2,681 hours during the 2010 season. Smallmouth bass fishing effort was greatest in July (888 hours).

Total catch of smallmouth bass was 770 fish with 63 being harvested. Highest catch (245 fish) occurred in August. Anglers fished 5.2 hours to catch a smallmouth bass during 2010.

Largemouth Bass (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 1,535 hours during the 2010 season. Largemouth bass fishing effort was greatest in August (551 hours).

Total catch of largemouth bass was 186 fish with no harvest. Highest catch (84 fish) occurred in August. Anglers fished 22.0 hours to catch a largemouth bass during 2010.

Panfish (Table 2, Figures 6-10)
Bluegills were the most sought after panfish species during the survey. Fishing effort directed at bluegills was 7,097 hours.

Total catch of bluegills was 9,473 fish with 2,614 harvested. The mean length of bluegills harvested was 6.8 inches.

Black crappies were the second most sought after panfish species during the survey. Fishing effort directed at black crappies was 6,829 hours.

Anglers caught 2,220 black crappies and harvested 1,397 fish. The mean length of black crappies harvested was 10.8 inches.

Yellow perch were the third most sought after panfish species during the survey. Fishing effort directed at yellow perch was 3,675 hours.

Total catch of yellow perch was 1,830 fish with 348 harvested. The mean length of yellow perch harvested was 8.3 inches.

Pumpkinseeds and rock bass were also caught during the 2010 season.

ACKNOWLEDGMENTS

Completion of this survey was possible because of the efforts of the technical staff of the fisheries management and Treaty Fisheries Unit. Treaty staff responsible for ensuring completion of this survey included Jeff Blonski, Steve Kramer, Joelle Underwood, Marty Kiepke, Jason Halverson, and Tim Tobias. Fisheries management staff included John Kubisiak and Steve Timler. Jason Halverson was the creel clerk on George 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.

The Department thanks the cooperator, Jim & Donna Forsyth, who generously allowed the Department to keep a boat and snowmobile on their property during this survey.

This creel report was reviewed by John Kubisiak and Dennis Scholl of the Wisconsin Department of Natural Resources.

Additional copies of this report and those covering other local lakes can be obtained from the Woodruff DNR or online at: <http://dnr.wi.gov/fish/ceded/reports.html>

Table 1. Sportfishing effort summary, George Lake, 2010-11 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Oneida County Average Hours/Acre	Statewide Average Hours/Acre
May	2439	5.6	5.4	5.8
June	3789	8.7	7.3	6.1
July	4319	9.9	8.3	6.4
August	3777	8.7	6.3	5.4
September	1584	3.6	3.8	3.8
October	1024	2.4	1.8	1.6
December	2007	4.6	1.3	1.7
January	1027	2.4	1.7	1.5
February	2047	4.7	1.7	1.3
March	276	0.6	0.3	**
*Summer Total	16932	38.9	32.7	29.1
*Winter Total	5356	12.3	4.9	4.5
Grand Total	22288	51.2	37.6	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 George 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 George 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 George Lake to other lakes statewide.

Table 2. Comparison of creel survey synopses, George Lake, 2010-11 and 1999-00 fishing seasons.

CREEL YEAR: 2010-11

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	5918	15.39%	1145	6.0	466	13.6	13.8
Northern Pike	3624	9.43%	459	16.1	123	42.9	23.8
Muskellunge	4794	12.47%	284	20.9	3	1428.6	35.5
Smallmouth Bass	2681	6.97%	770	5.2	63	58.8	15.0
Largemouth Bass	1535	3.99%	186	22.0	0		
Yellow Perch	3675	9.56%	1830	3.1	348	16.0	8.3
Bluegill	7097	18.46%	9473	0.8	2614	2.9	6.8
Pumpkinseed	2290	5.96%	673	4.9	86	32.3	6.1
Rock Bass	5	0.01%	694		42		7.1
Black Crappie	6829	17.76%	2220	3.2	1397	5.0	10.8

* 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: 1999-00

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	10678	27.75%	1768	6.3	722	14.8	13.5
Northern Pike	4680	12.16%	2155	5.0	383	19.3	20.4
Muskellunge	4510	11.72%	94	64.1	0		
Smallmouth Bass	1032	2.68%	253	16.5	0		
Largemouth Bass	1078	2.80%	104	42.0	0		
Yellow Perch	3952	10.27%	966	6.0	653	8.2	8.0
Bluegill	6103	15.86%	3400	1.9	1902	3.3	6.7
Pumpkinseed	53	0.14%	7	7.3	0		
Rock Bass		0.00%	414		108		8.2
Black Crappie	6391	16.61%	1359	5.1	1070	6.5	10.3

WALLEYE

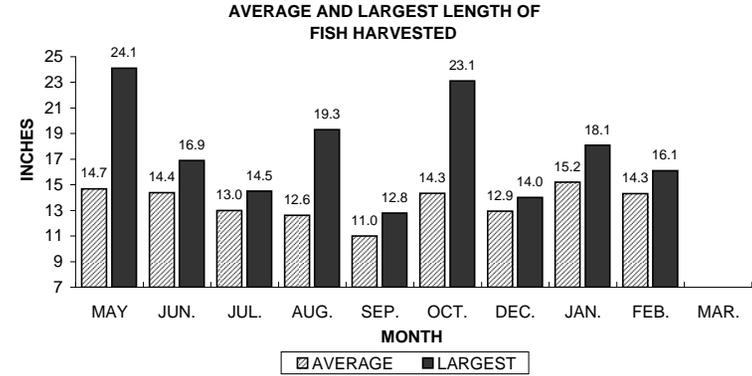
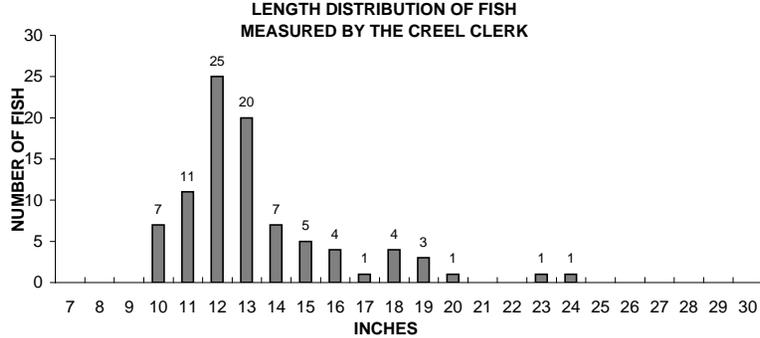
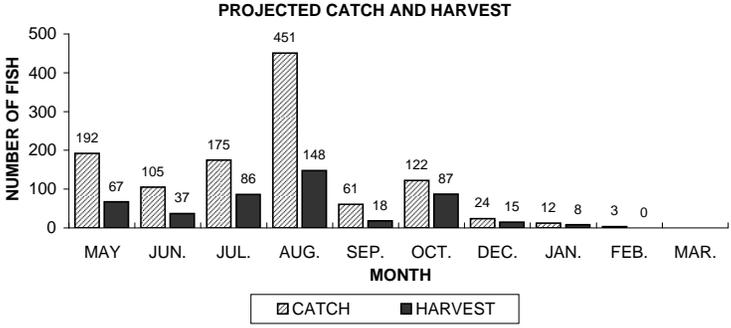
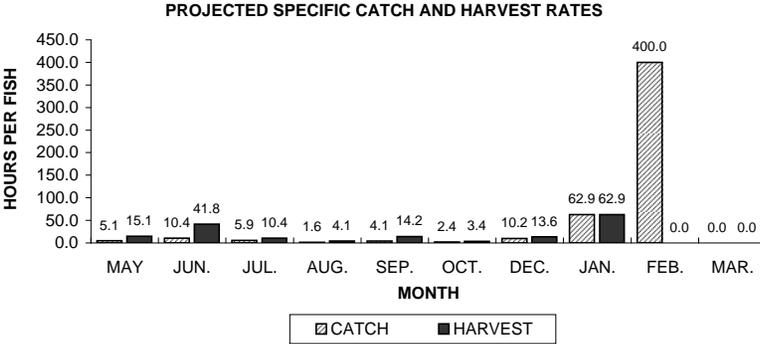
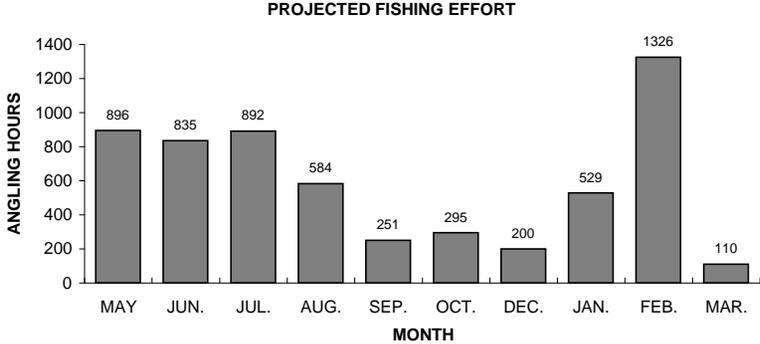
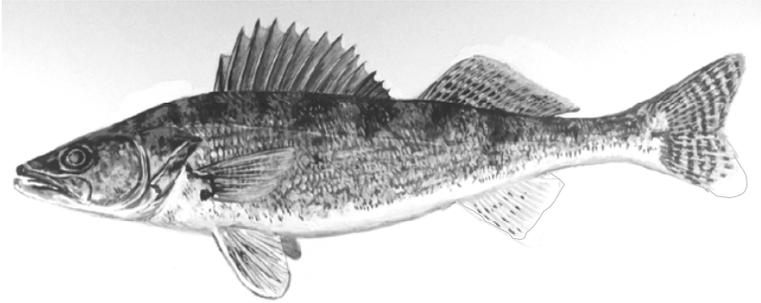


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

NORTHERN PIKE

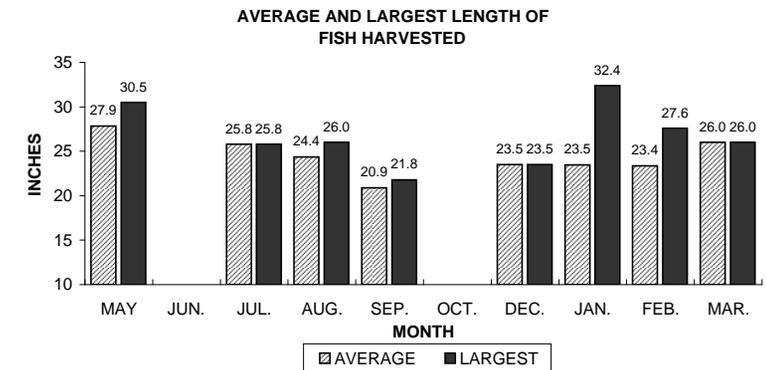
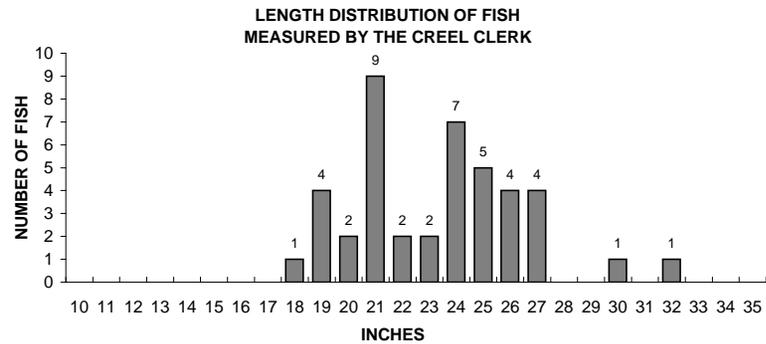
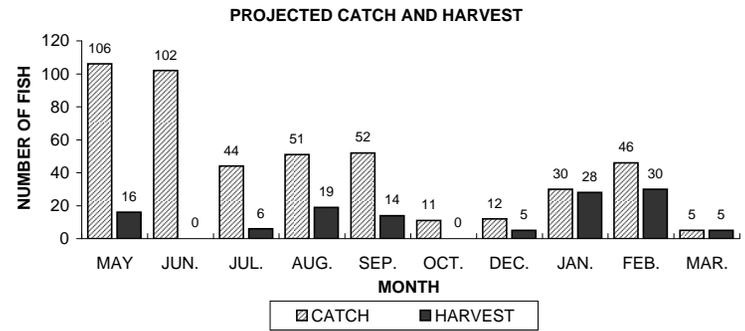
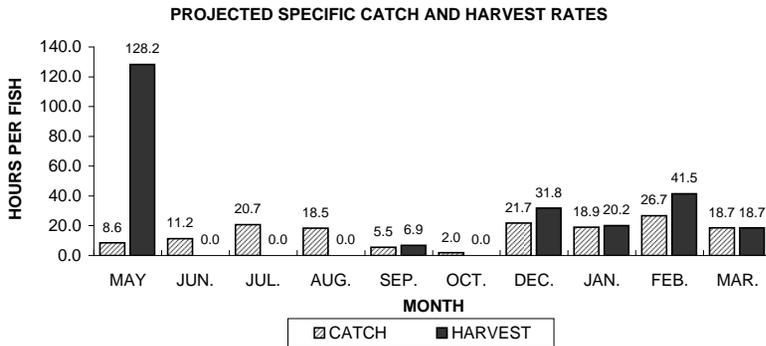
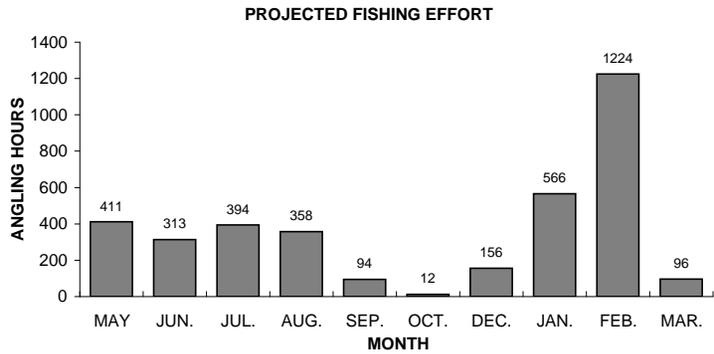
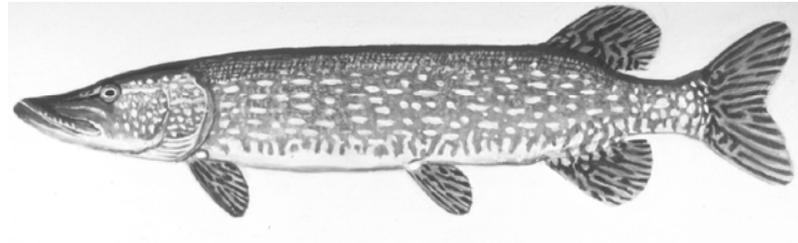
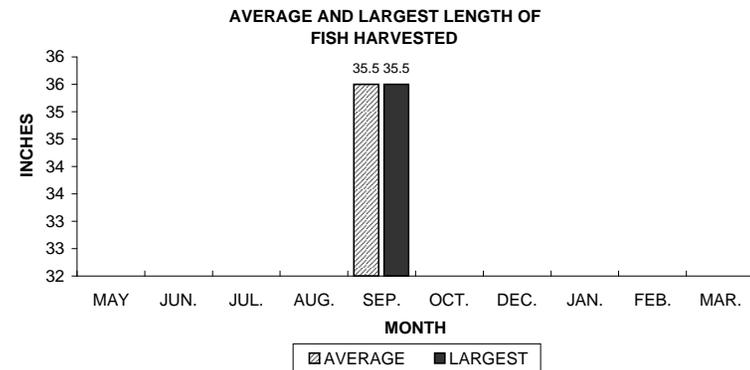
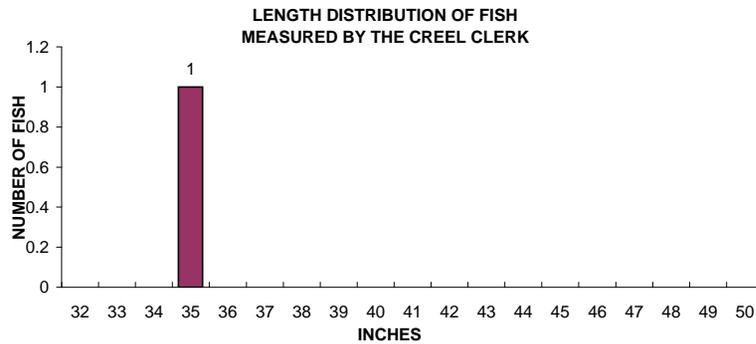
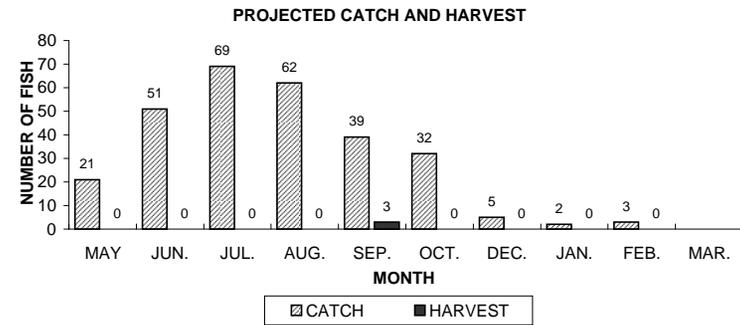
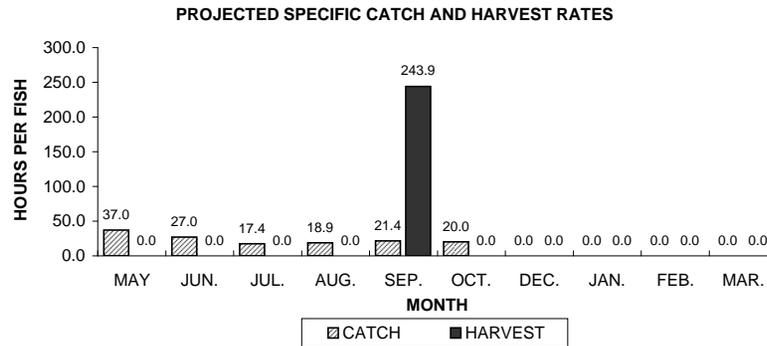
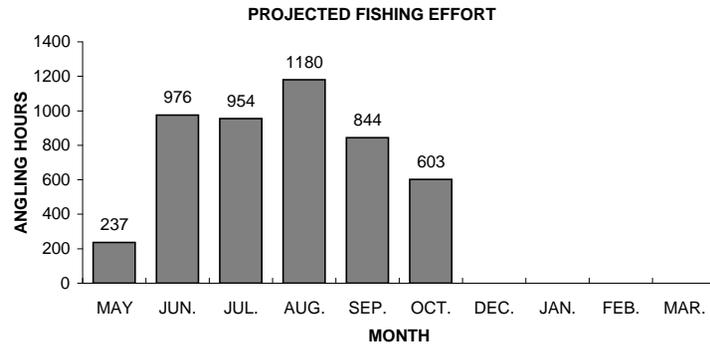
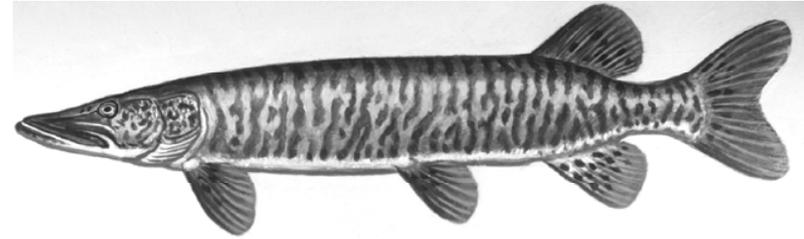


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

MUSKELLUNGE



6

Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

SMALLMOUTH BASS

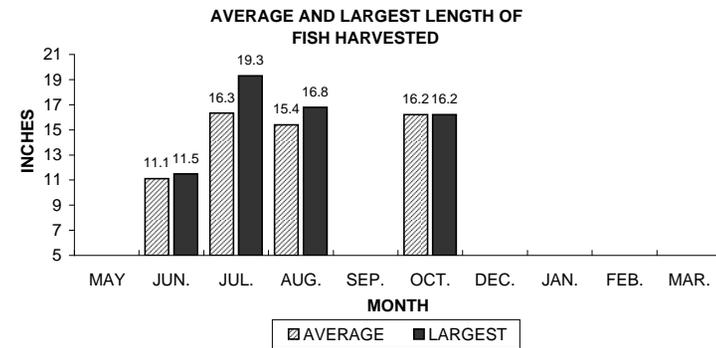
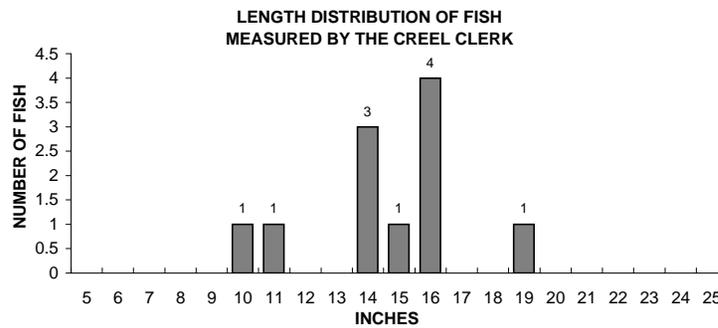
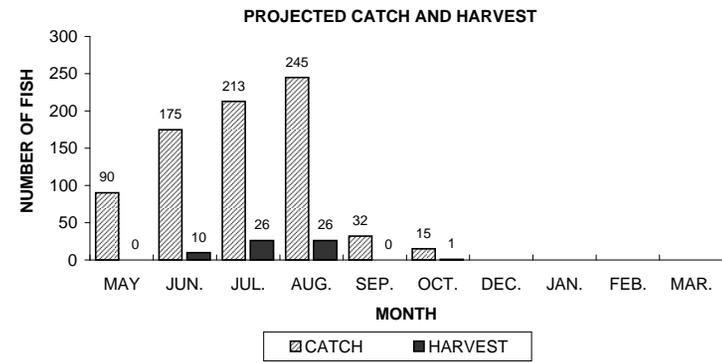
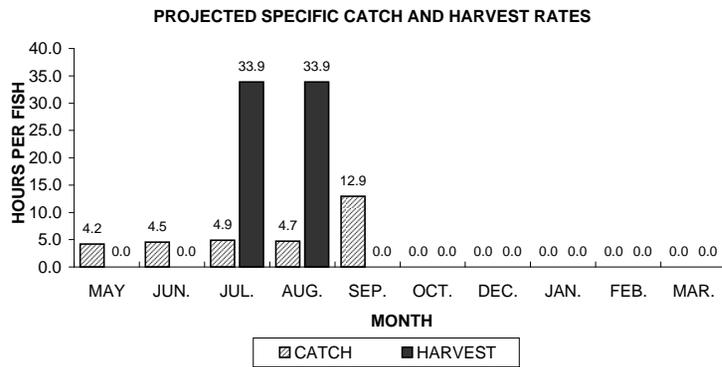
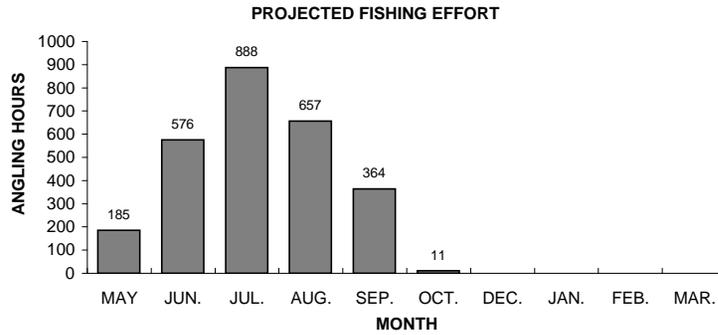
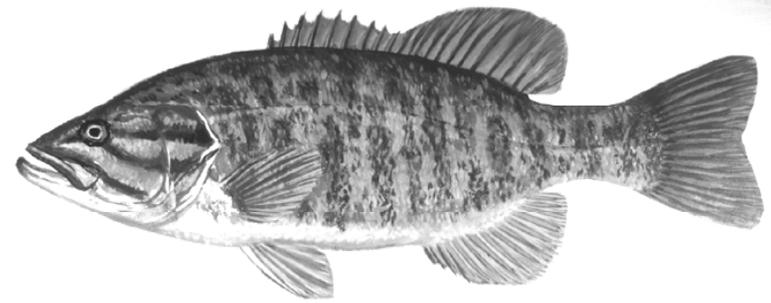


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

LARGEMOUTH BASS

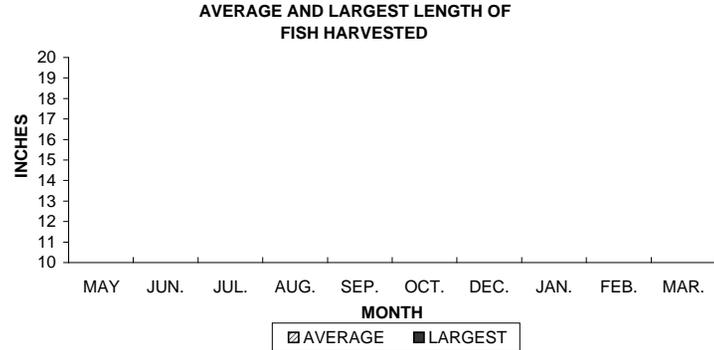
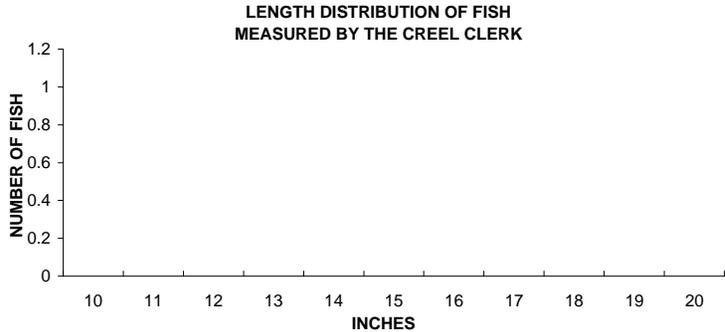
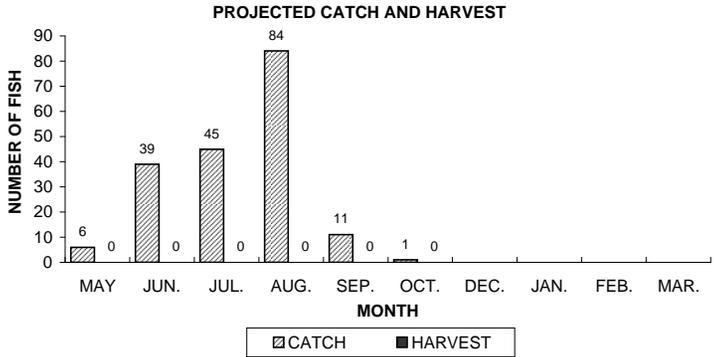
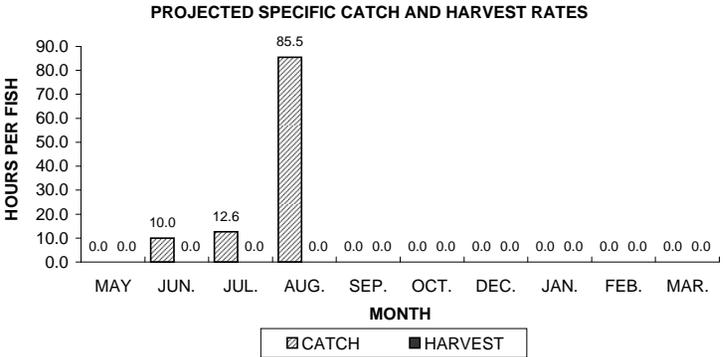
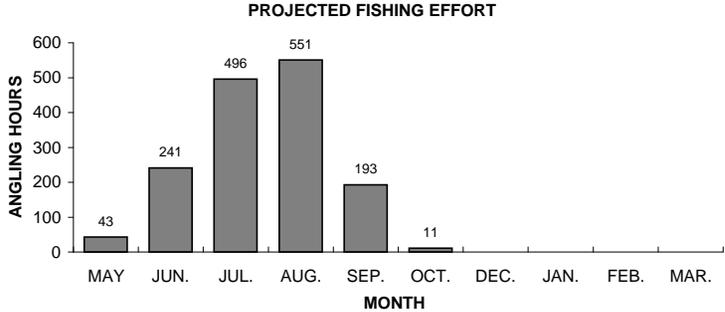
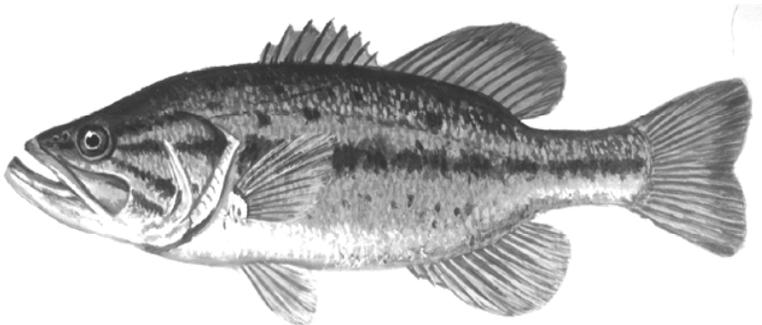


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

YELLOW PERCH

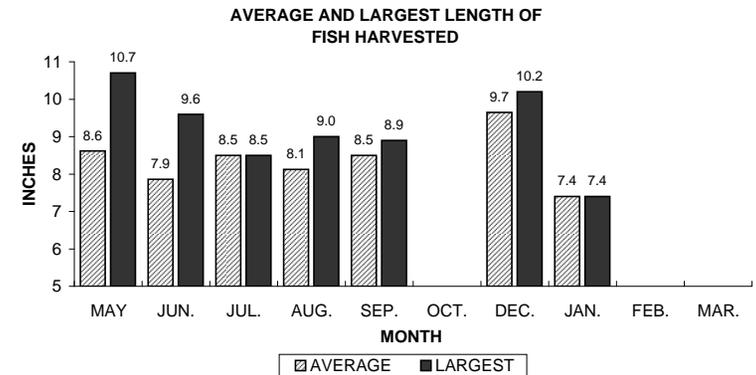
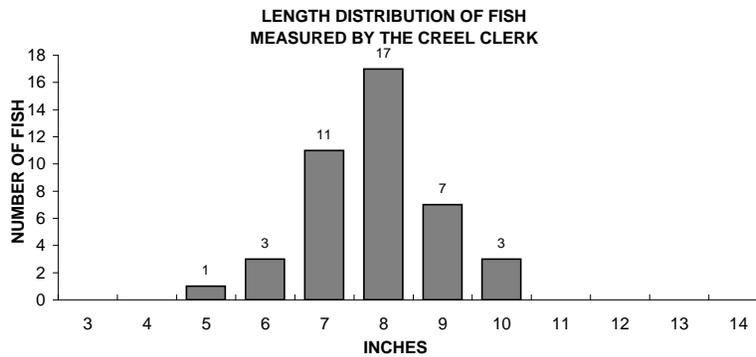
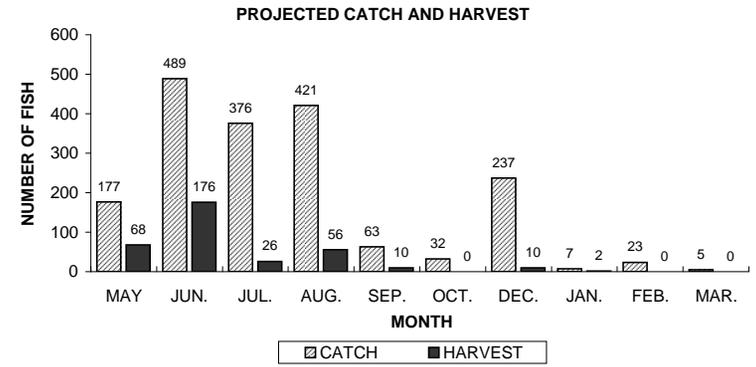
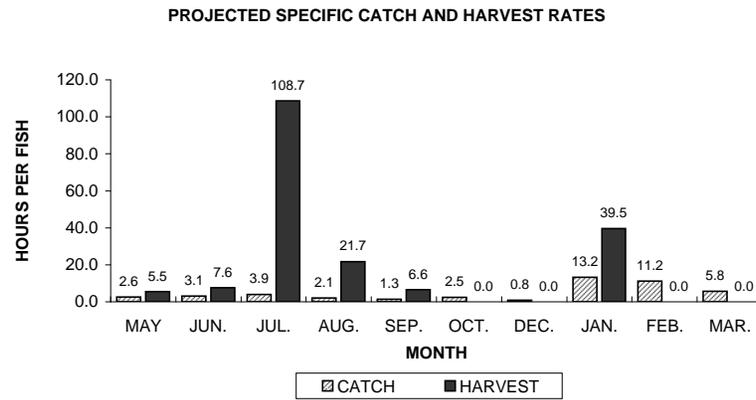
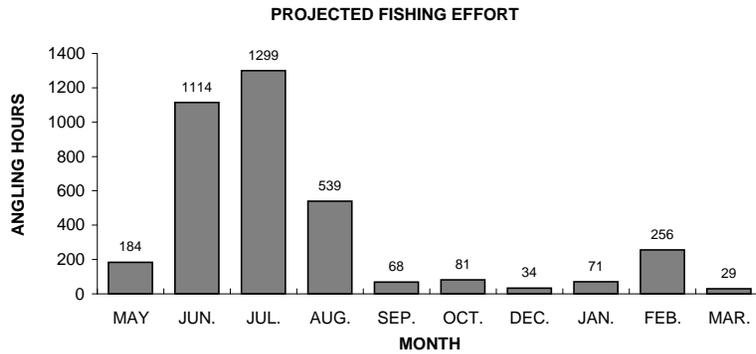
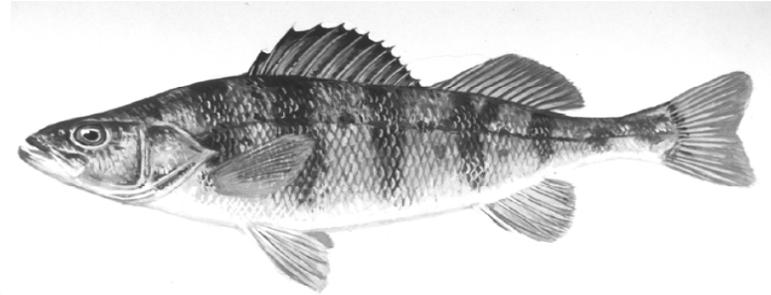


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

BLUEGILL

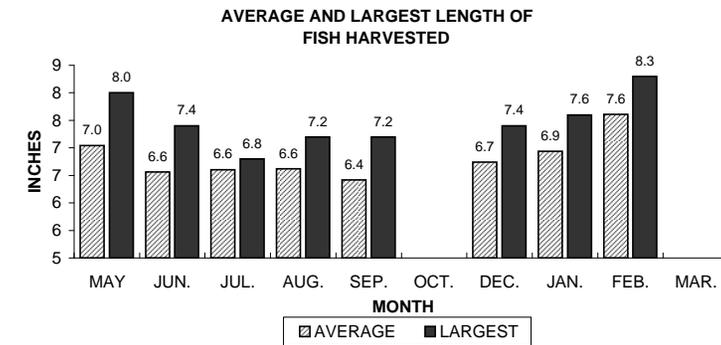
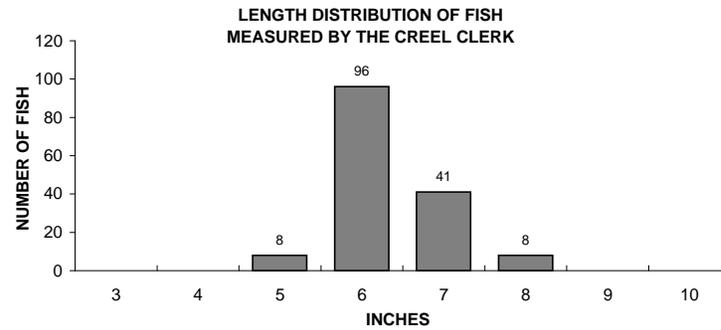
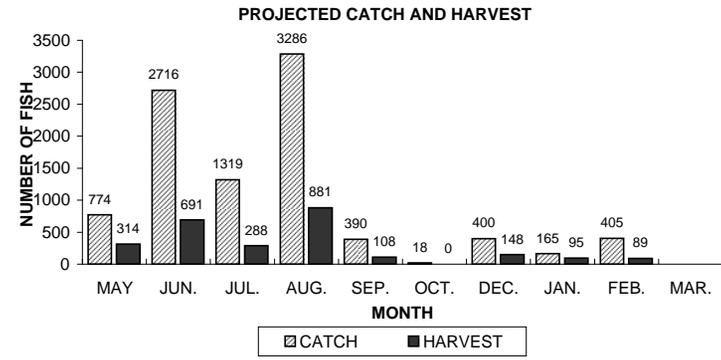
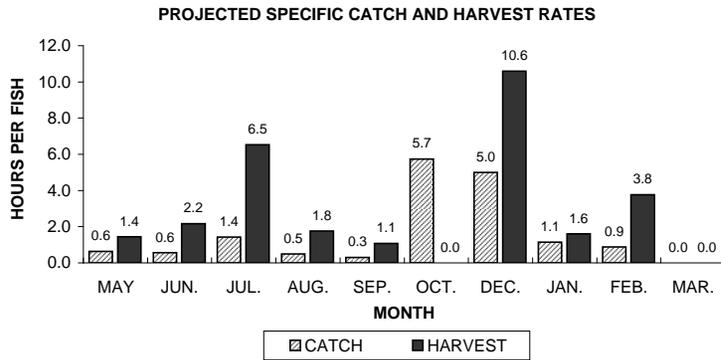
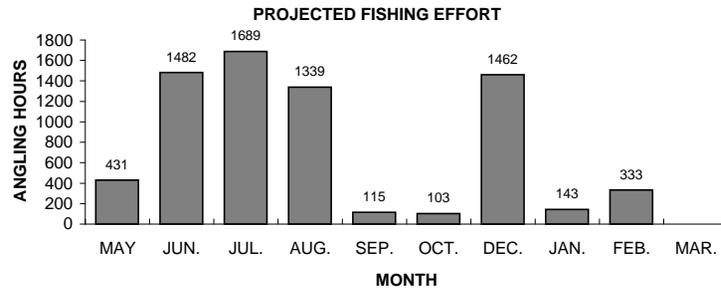
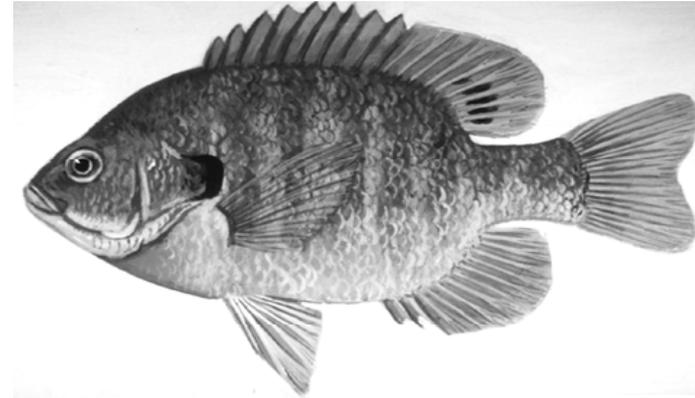


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

PUMPKINSEED

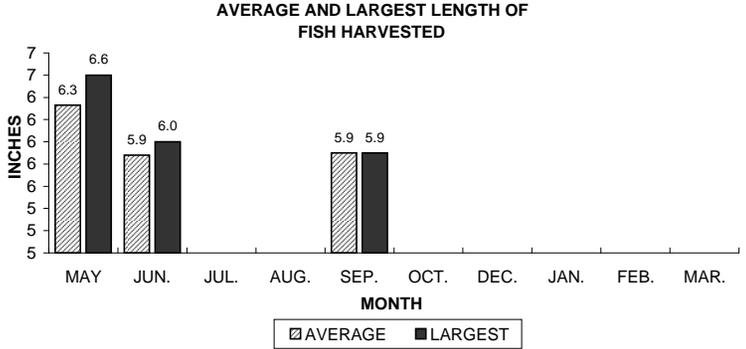
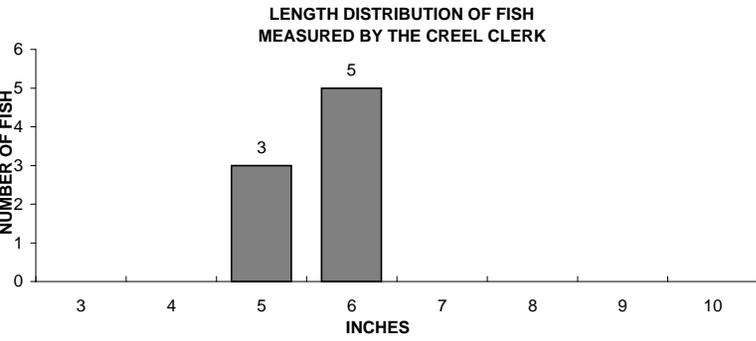
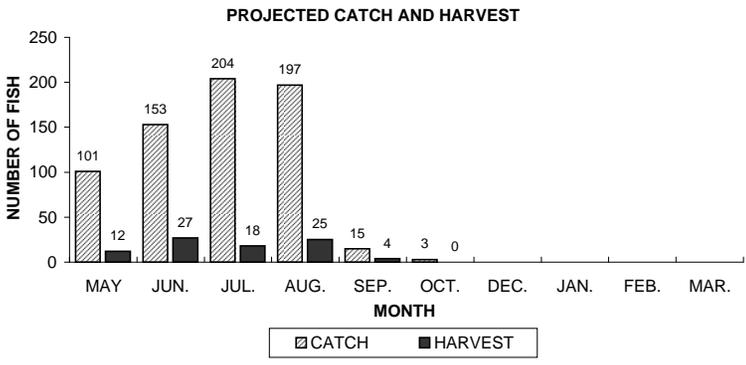
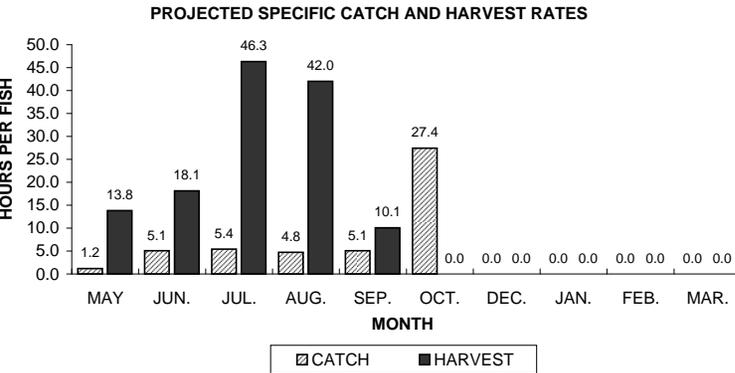
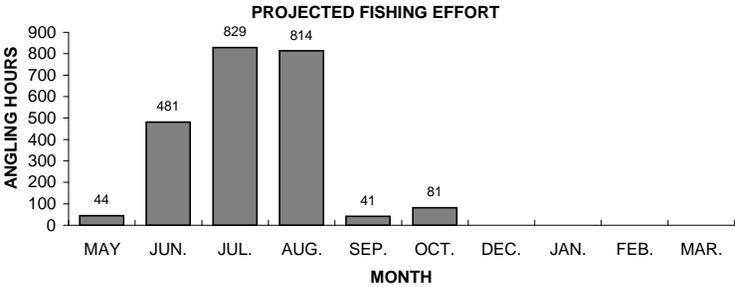
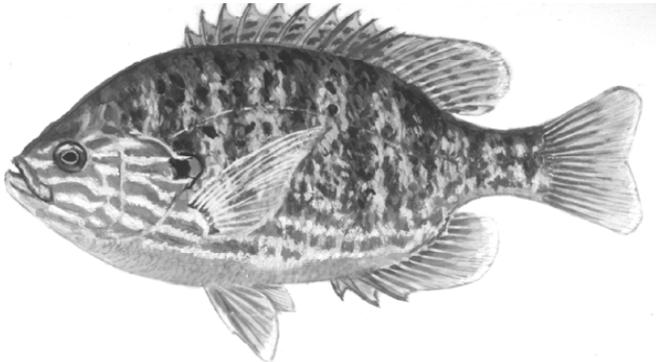


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

ROCK BASS

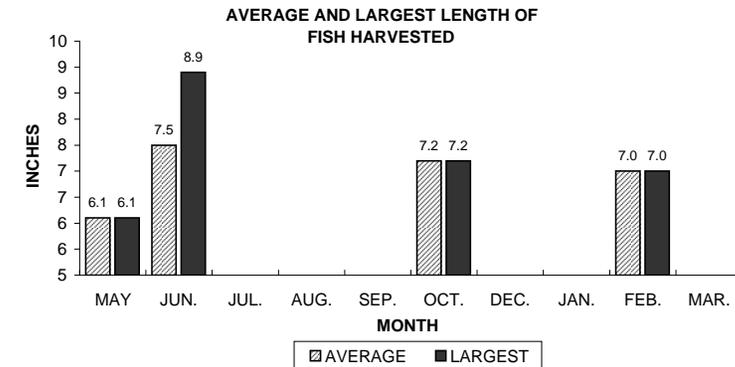
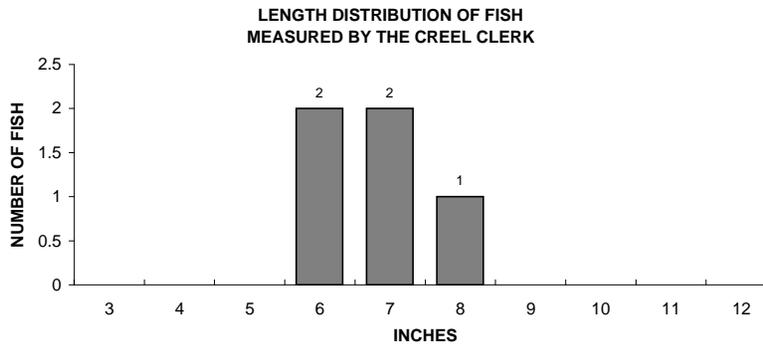
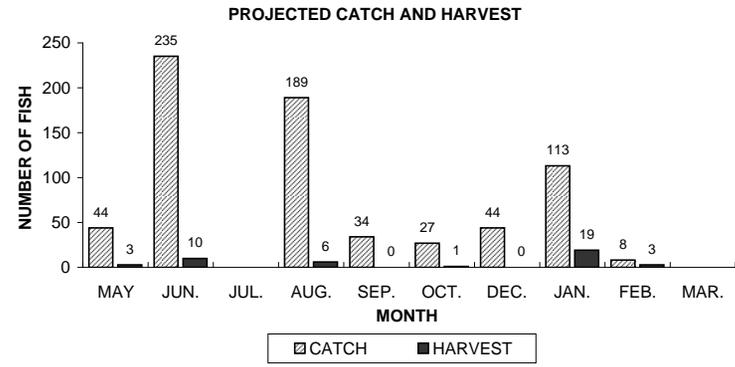
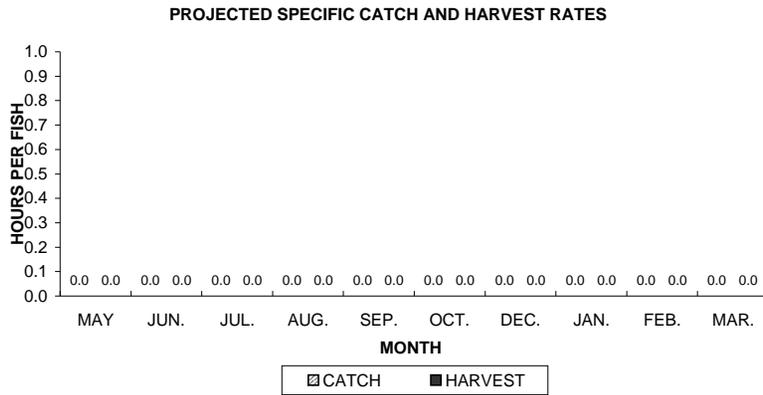
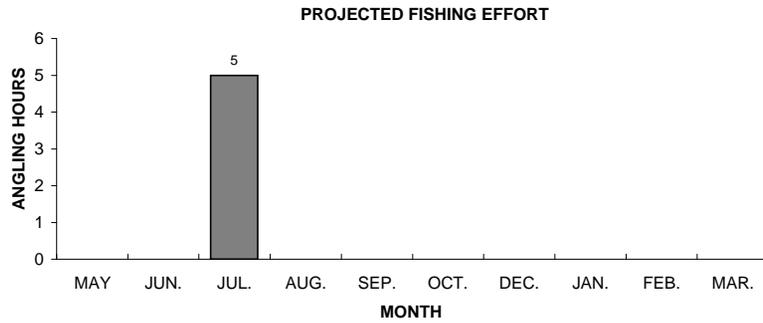
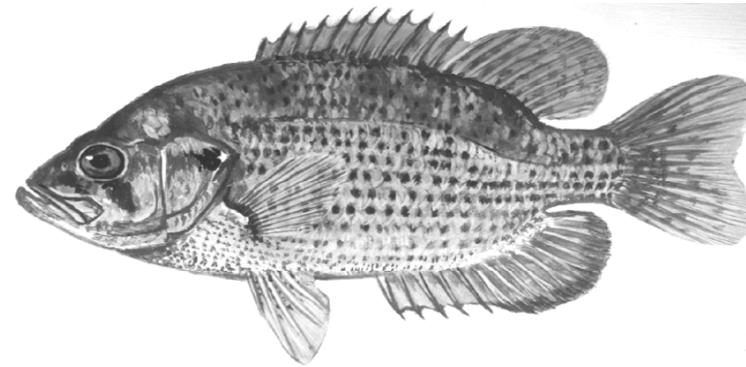


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.

BLACK CRAPPIE

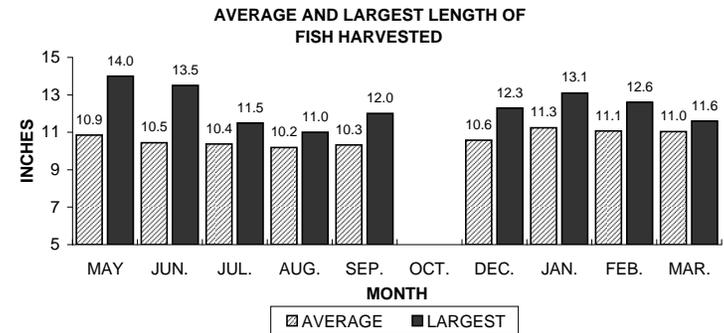
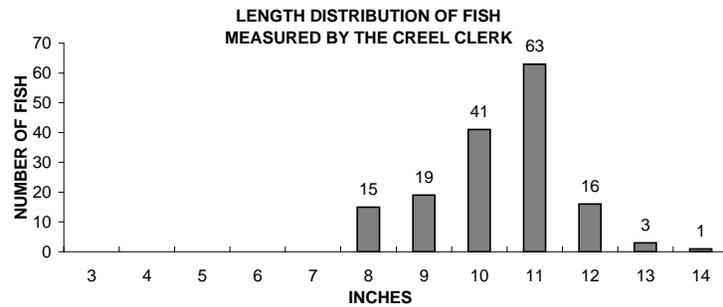
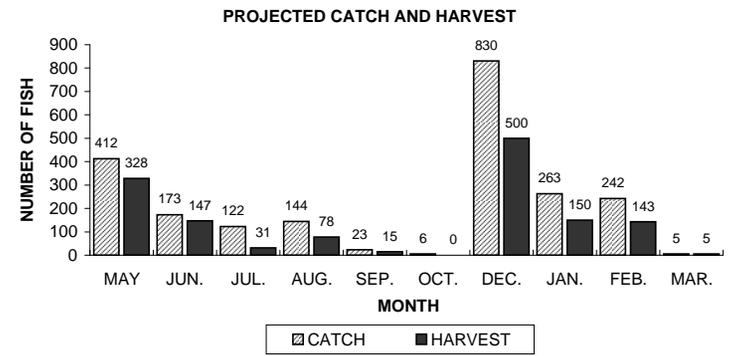
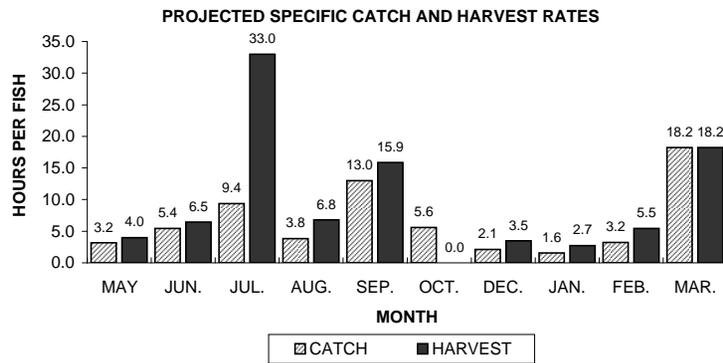
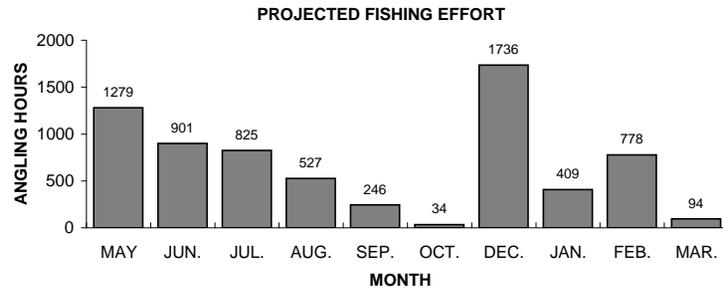
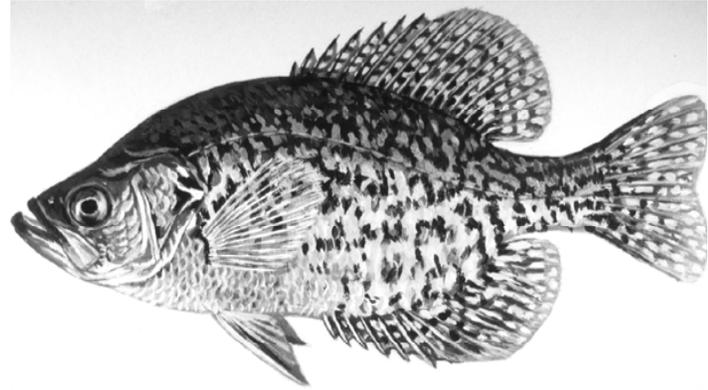


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, George Lake, during 2010-11.