

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

SPIDER LAKE

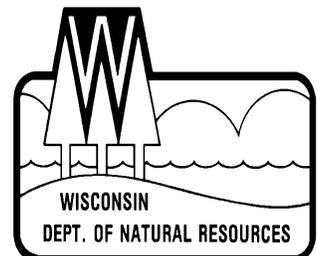
ONEIDA COUNTY

2013-14



Treaty Fisheries Publication

**Compiled by Jason Halverson &
Jeff Blonski
Treaty Fisheries Technicians**



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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.

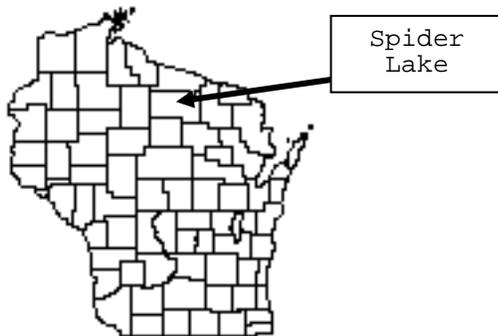
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides projections of:

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

GENERAL LAKE INFORMATION



Location

Spider Lake is located in Oneida County in the near the Town of McNaughton.

Physical Characteristics

Spider Lake is a 123 acre drainage lake with a maximum depth of 29 feet. Littoral substrate consists primarily of sand, with lesser amounts of muck, and gravel. Spider Lake is a soft water drainage lake with slightly acidic, clear water of moderate transparency.

Seasons Surveyed

The period referred to in this report as the 2013-14 fishing season ran from May 4, 2013 through March 2, 2014. The open water creel survey ran from May 4 through October 31, 2013 and the ice fishing creel survey ran from December 1, 2013 through March 2, 2014.

Weather

Ice-out on Spider Lake was around May 5, 2013. Fishable-ice formed on Spider Lake in late November.

Fishing Regulations

The following seasons, daily bag limits, and length limits were in place on Spider Lake during the 2013-14 fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass & Smallmouth Bass	5/4-6/14	Catch & Release	
Musky	6/15-3/2	5	14"
Northern Pike	5/25-11/30	1	40"
Northern Pike	5/4-3/2	5	none
Walleye	5/4-3/2	5	15"
Panfish	year round	25	none
Rock Bass	year round	none	none

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 2 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

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

3. PROJECTED CATCH AND HARVEST

Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

4. LENGTH DISTRIBUTION OF HARVESTED FISH

All fish of a species that were measured by the clerk during the entire creel survey season.

5. LARGEST AND AVERAGE LENGTH OF HARVESTED FISH

Monthly largest and average length of harvested fish of a species. Only those fish measured by the creel survey clerk are reported.

CREEL SURVEY RESULTS AND DISCUSSION

Survey Logistics

The creel survey went well. We encountered no unusual problems conducting the survey or calculating the projections contained in the report. This was the first time the department conducted a creel survey on Spider Lake.

General Angler Information

Anglers spent 3,018 hours or 24.5 hours per acre fishing Spider Lake during the 2013 season (Table 1). That was less than the Oneida County average of 37.2 hours per acre. July was the most heavily fished month (7.1 hours per acre). Fishing effort was lightest in February (0 hours per acre) for those months when the entire month was creeled. Deep snow and slush on the lakes made winter access difficult for anglers. Overall winter fishing effort may have been negatively impacted by the unusually cold weather of the 2013-14 winter.

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Anglers spent 913 hours targeting walleyes. The greatest fishing effort for walleyes was in July (274 hours). January, February, and March had no amount of walleye fishing effort.

Total catch of walleyes was 79 fish with a harvest of 14 fish. Highest catch (31 fish) and harvest (9 fish) occurred in June. Anglers fished 11.4 hours to catch and 65.4 hours to harvest a walleye during 2013-14.

The mean length of harvested walleyes was 16.8 inches and the largest walleye measured was an 18.2 inch fish.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 283 hours during the 2013-14 season. Northern pike fishing effort was greatest in September (95 hours).

Total catch of northern pike was 80 fish with a harvest of 3 fish.

There was one northern pike harvested that was 33.5 inches.

Muskellunge (Table 2, Figure 3)

Muskellunge received the most fishing effort during the 2013-14 season. Anglers spent 961 hours targeting muskellunge during the 2013-14 season. Muskellunge fishing effort was greatest in June (304 hours).

Total catch of muskellunge was 80 fish. Highest catch (23 fish) occurred in September. Anglers fished 13.9 hours to catch a muskellunge during 2013-14.

Smallmouth Bass (Table 2, Figure 4)

Fishing effort targeted at smallmouth bass was 159 hours during the 2013-14 season. Smallmouth bass fishing effort was greatest in July (99 hours).

There was no catch and harvest of

smallmouth bass during 2013-14 and smallmouth are not known for this lake.

Largemouth Bass (Table 2, Figure 5)

Fishing effort directed at largemouth bass was 894 hours during the 2013-14 season. Largemouth bass fishing effort was greatest in July (397 hours).

Total catch of largemouth bass was 1762 fish with a harvest of 19 fish. Highest catch (672 fish) occurred in July. Anglers fished 0.8 hours to catch a largemouth bass during 2013-14.

Panfish (Table 2, Figures 6-10)

Bluegills were the most sought after panfish species during the survey. Fishing effort directed at bluegills was 1,072 hours.

Total catch of bluegills was 2,333 fish with 613 harvested. The mean length of bluegills harvested was 7.4 inches.

Yellow perch were the second most sought after panfish species during the survey. Fishing effort directed at yellow perch was 648 hours.

Total catch of yellow perch was 230 fish with 106 harvested. The mean length of yellow perch harvested was 9.4 inches.

Black crappies were the third most sought after panfish species during the survey. Fishing effort directed at black crappies was 393 hours.

Anglers caught 44 black crappies and harvested 29 fish. The mean length of black crappies harvested was 11.0 inches.

Pumpkinseeds and rock bass were also caught during the 2013-14 season.

ACKNOWLEDGMENTS

Completion of this survey was possible because of the efforts of the following Fisheries Management and Treaty Fisheries Unit Staff: Jonathan Pyatskowitz, Jeff Blonski, Joelle Underwood, Marty Kiepeke, and Jason Halverson. Dave Stahmer and Doug Day were the creel clerks on Spider 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 cooperators, the staff at Fort Wilderness, 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, Woodruff, Wisconsin.

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/topic/Fishing/north/trtycrclsrvys.html>

Table 1. Sportfishing effort summary, Spider Lake, 2013-14 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Oneida County Average Hours/Acre	Ceded Territory Average Hours/Acre
May	256	2.1	5.3	5.1
June	803	6.5	7.1	6.4
July	870	7.1	8.1	6.9
August	543	4.4	6.2	5.4
September	272	2.2	3.7	3.3
October	167	1.4	1.7	1.5
December	70	0.6	1.3	1.1
January	38	0.3	1.7	1.6
February	0	0.0	1.7	1.5
March	0	0.0	0.3	0.5
*Summer Total	2910	23.7	32.2	28.6
*Winter Total	108	0.9	5.1	4.7
Grand Total	3018	24.5	37.2	33.3

*"Summer" is May-October; "Winter" is December-March

Total Angler Hours is the estimated total number of hours that anglers spent fishing on Spider 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 Spider 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.

Ceded Territory Average Hours/Acre is the average angler effort in hours per acre for inland lakes in the ceded territory that have been surveyed since 1990. This value can be used to compare Spider Lake to other lakes statewide.

Table 2. Creel survey synopses, Spider Lake, 2013-14.

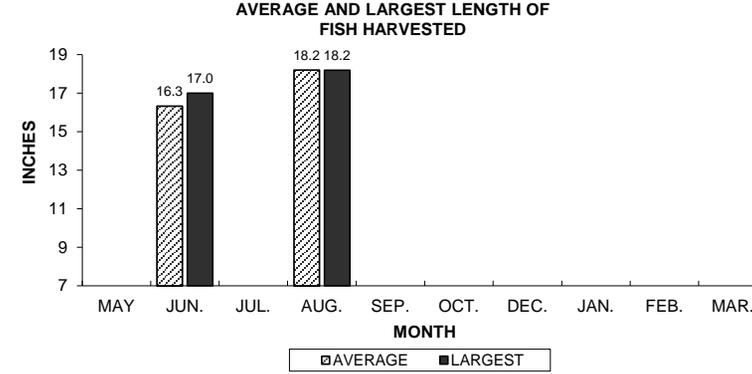
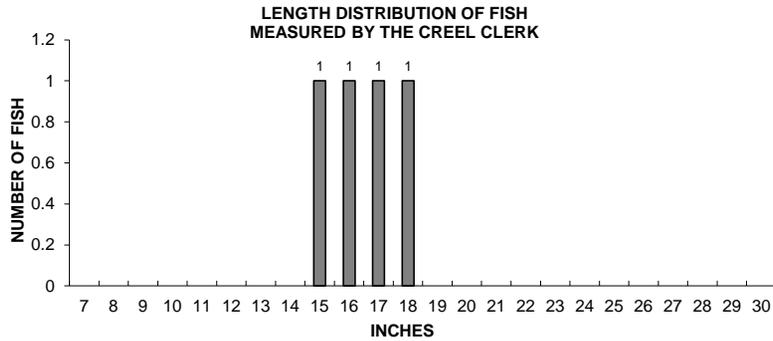
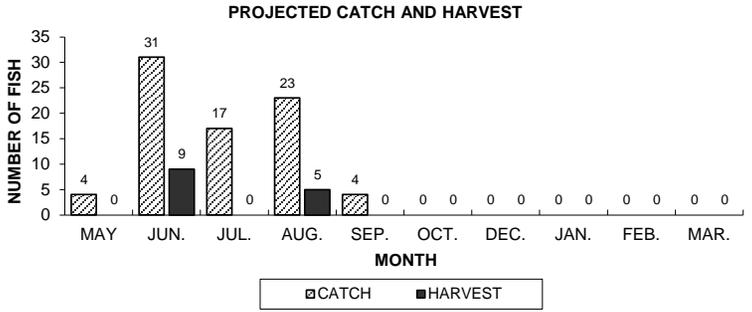
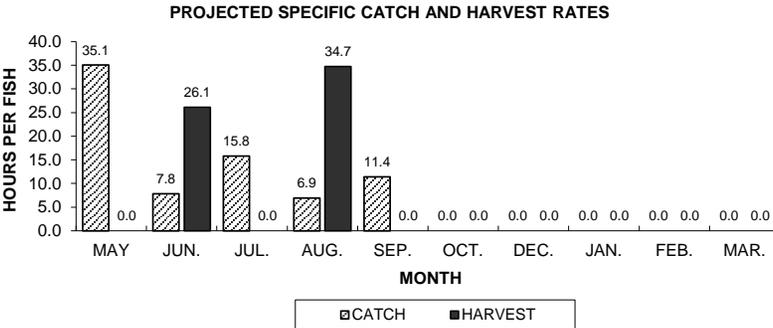
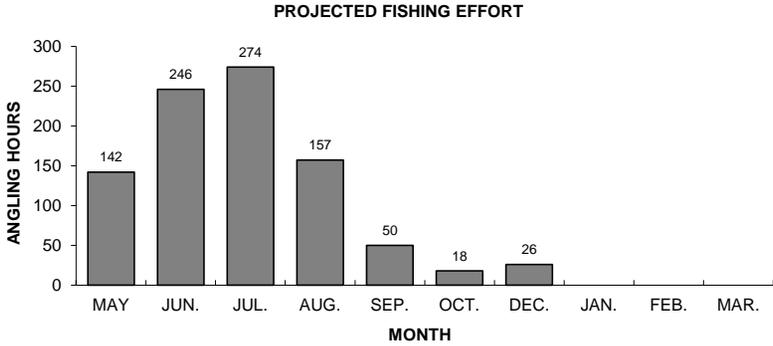
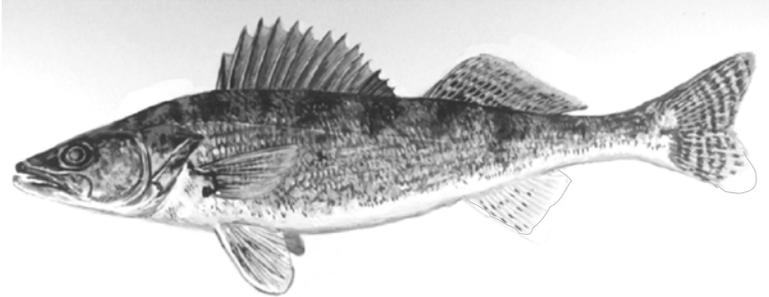
CREEL YEAR: 2013-14

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	913	16.88%	79	11.4	14	65.4	16.8
Northern Pike	283	5.23%	80	10.5	3	85.5	33.5
Muskellunge	961	17.76%	80	13.9	0		
Smallmouth Bass	159	2.94%	0		0		
Largemouth Bass	894	16.52%	1762	0.8	19	76.9	15.0
Yellow Perch	648	11.98%	230	3.1	106	6.1	9.4
Bluegill	1072	19.82%	2333	0.5	613	1.8	7.4
Rock Bass	87	1.61%	124	3.9	10	8.3	8.9
Black Crappie	393	7.26%	44	11.1	29	13.4	11.0

* 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



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

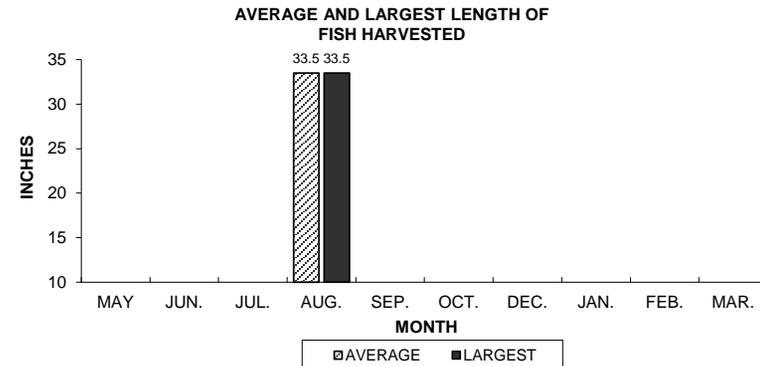
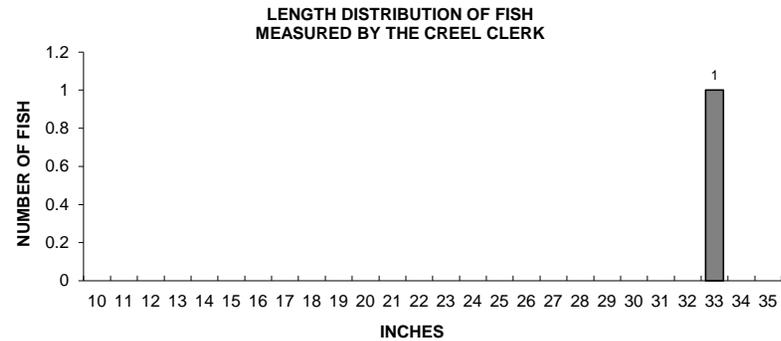
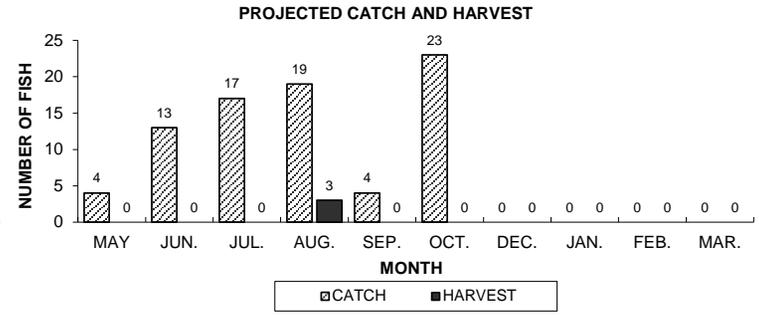
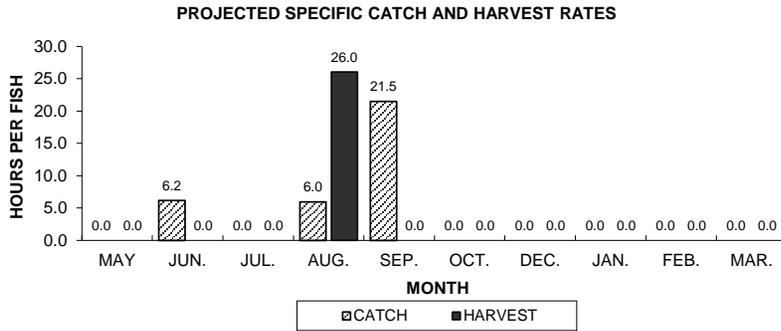
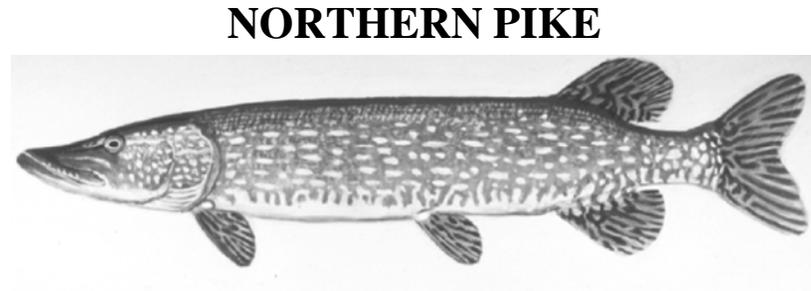
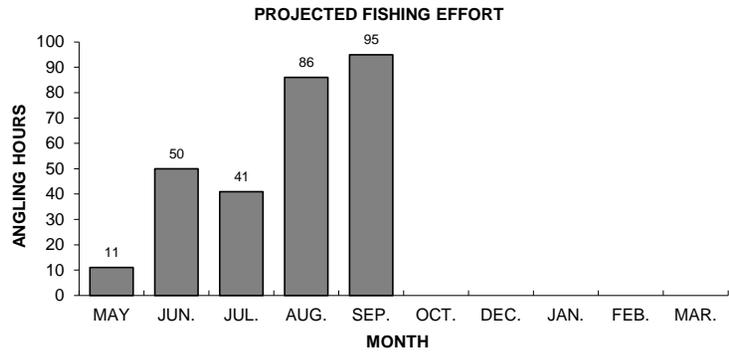


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

MUSKELLUNGE

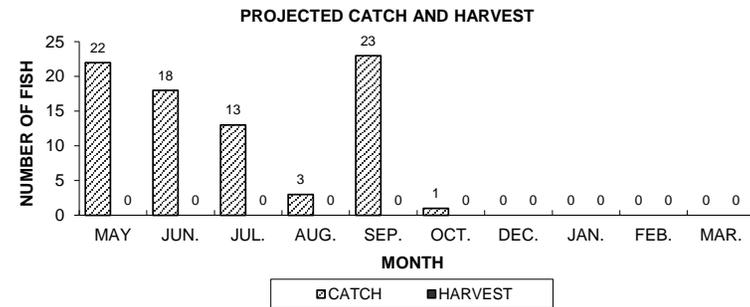
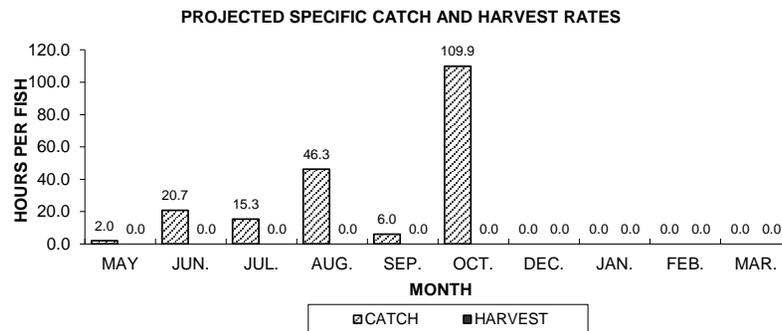
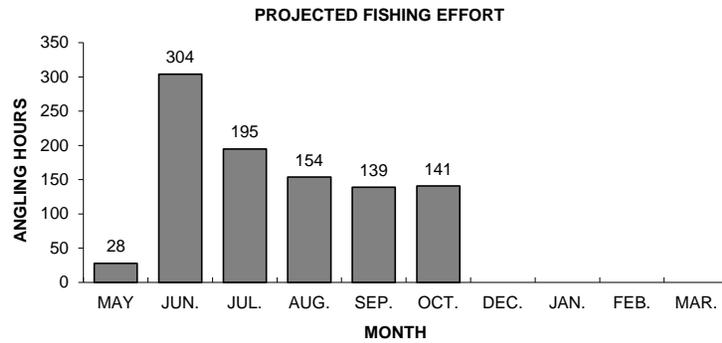
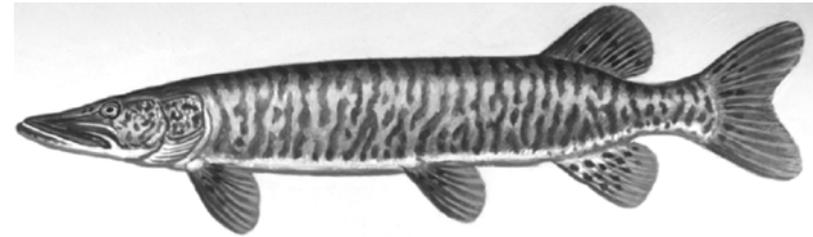


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

SMALLMOUTH BASS

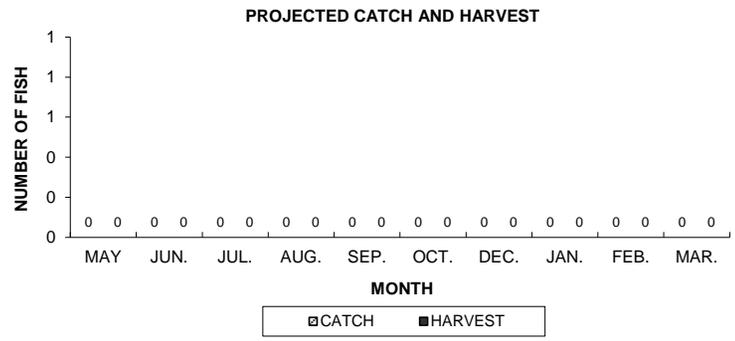
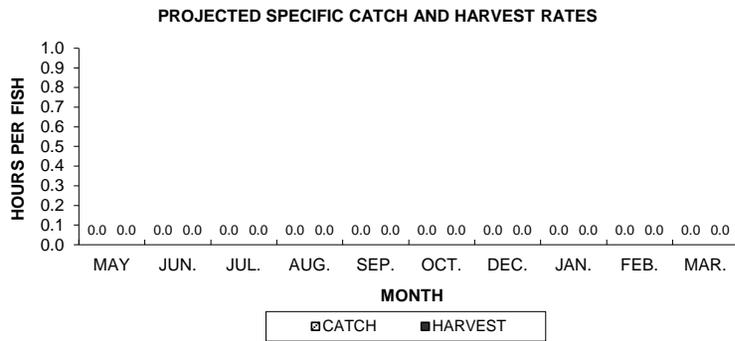
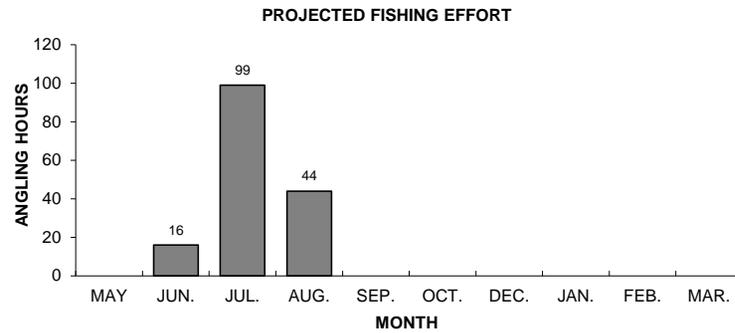
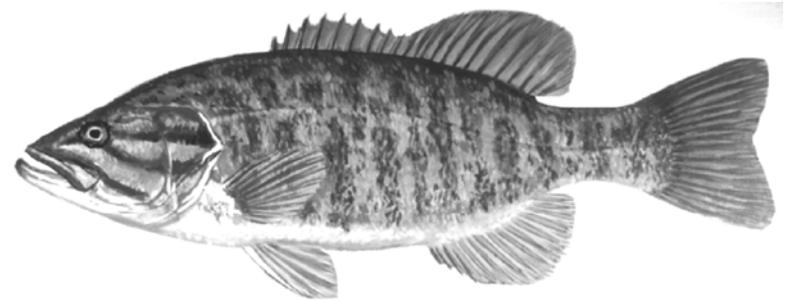


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

LARGEMOUTH BASS

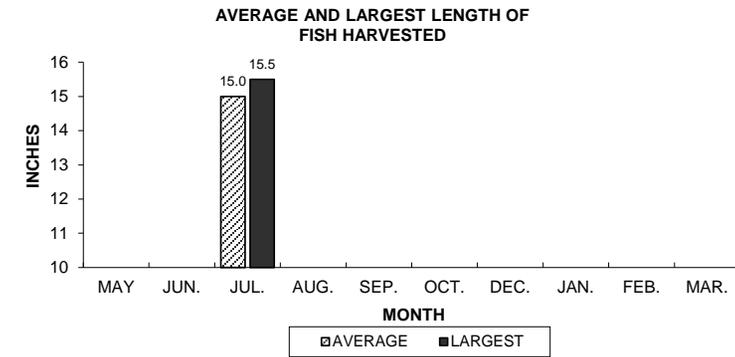
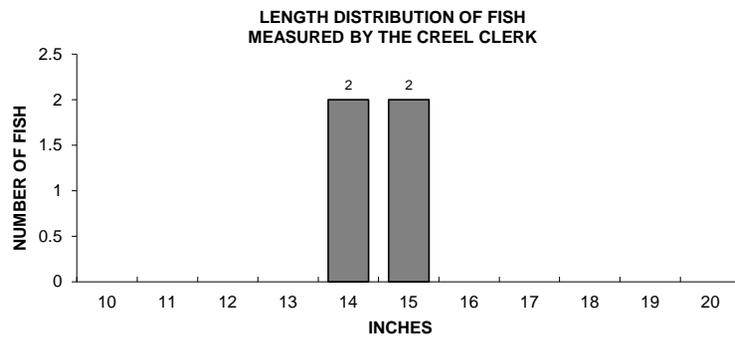
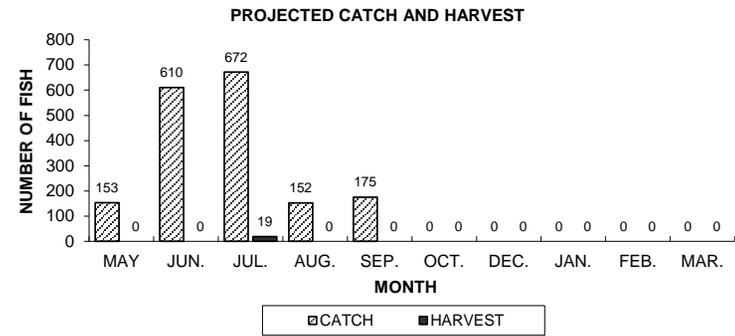
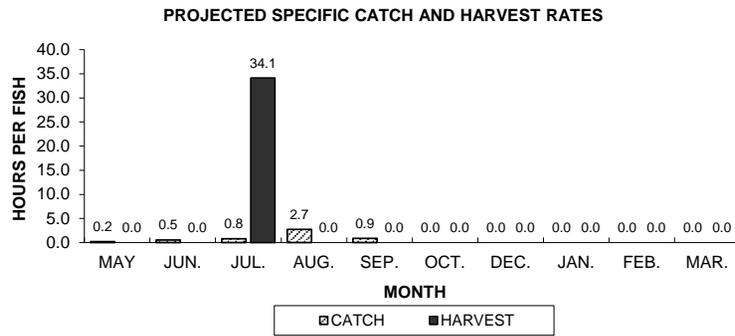
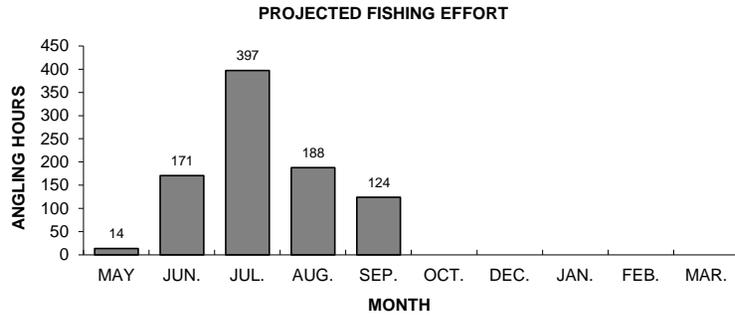
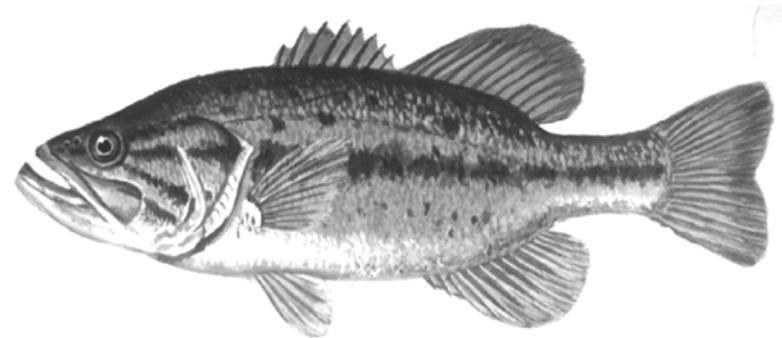


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

YELLOW PERCH

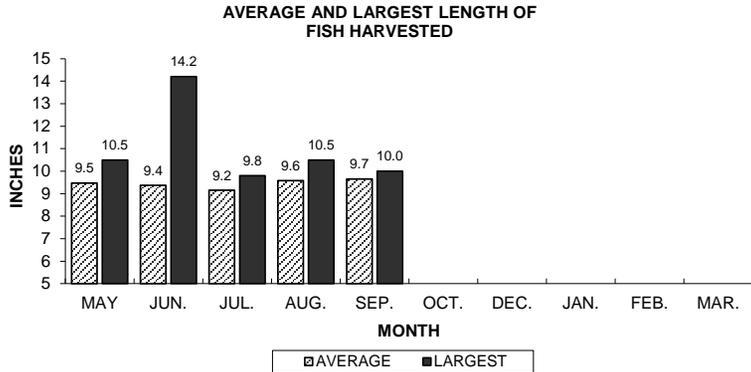
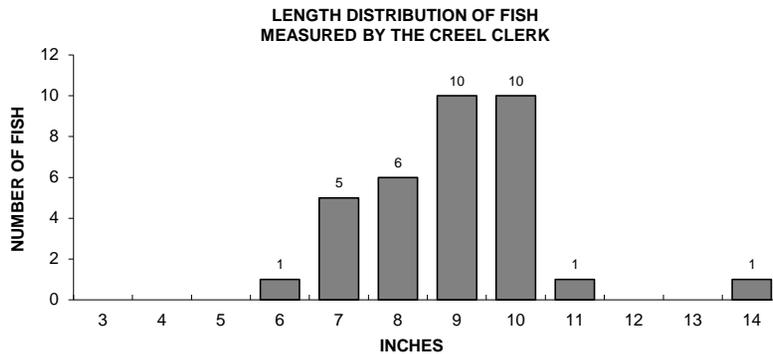
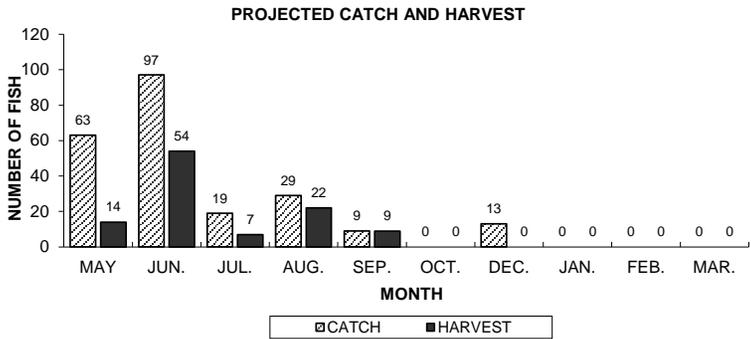
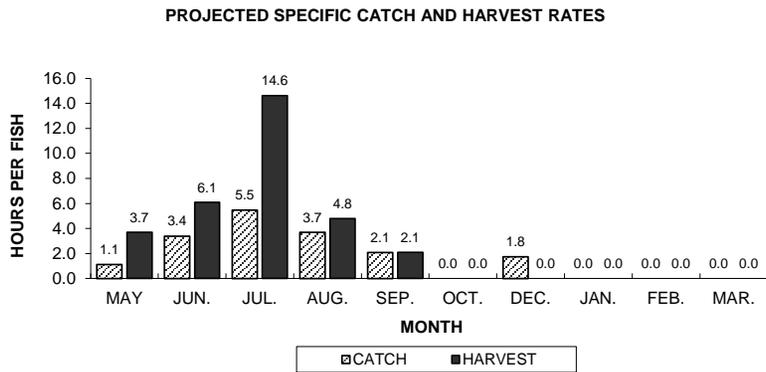
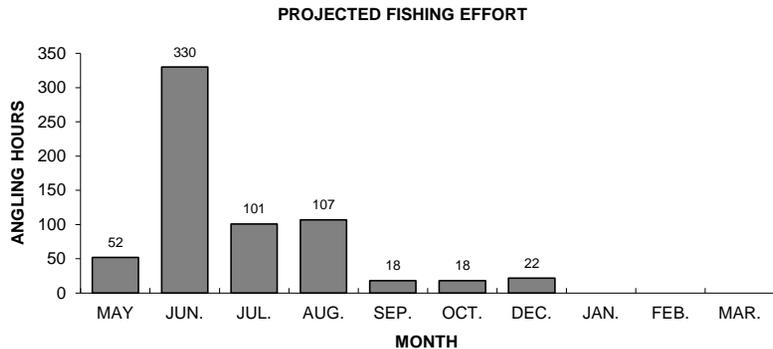


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

BLUEGILL

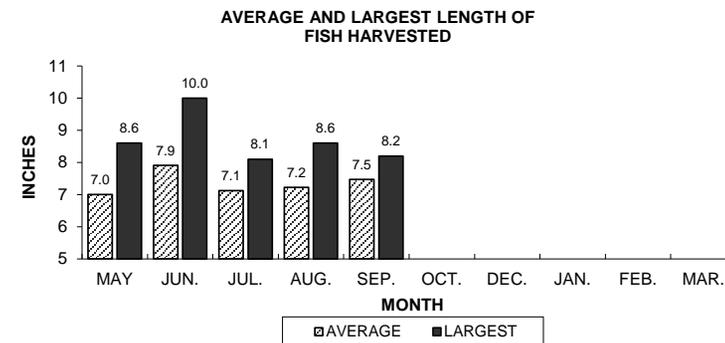
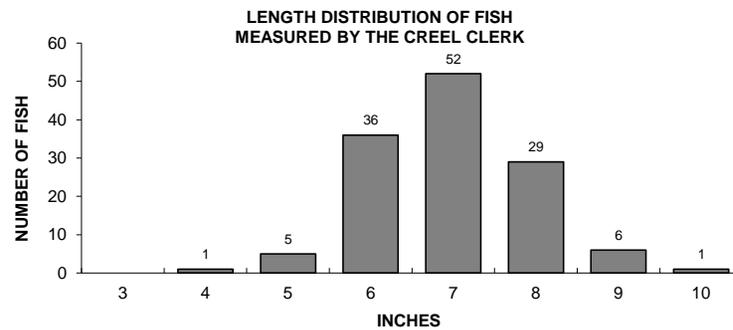
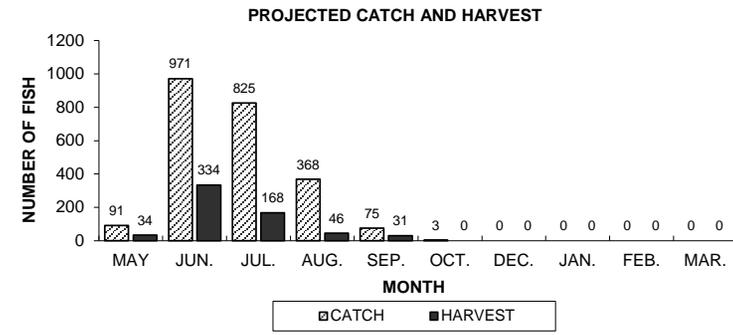
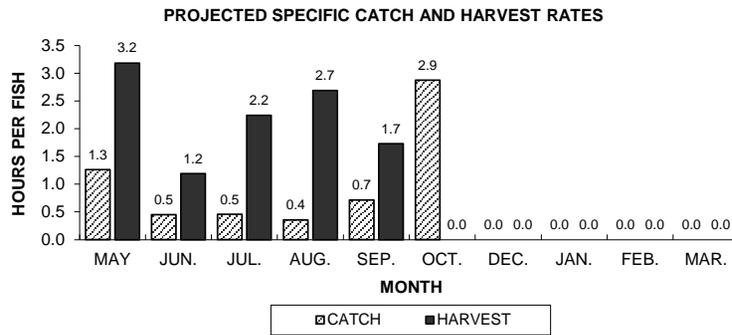
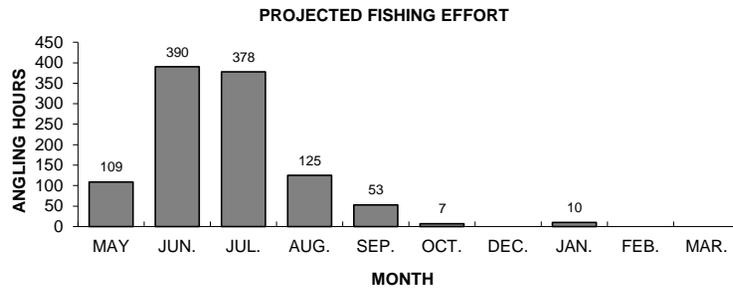
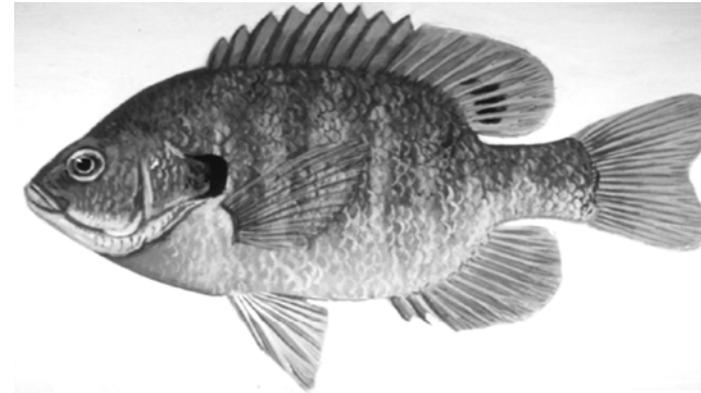


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

ROCK BASS

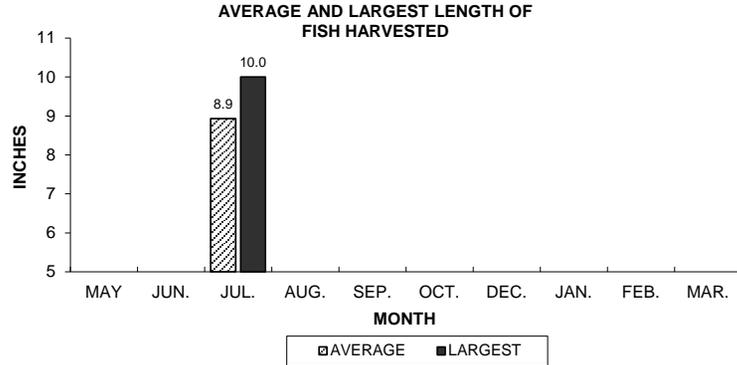
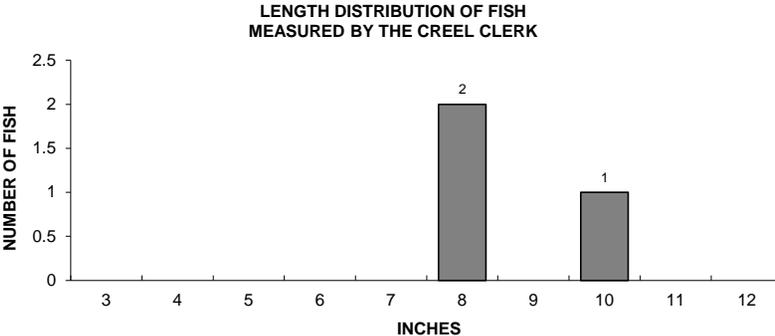
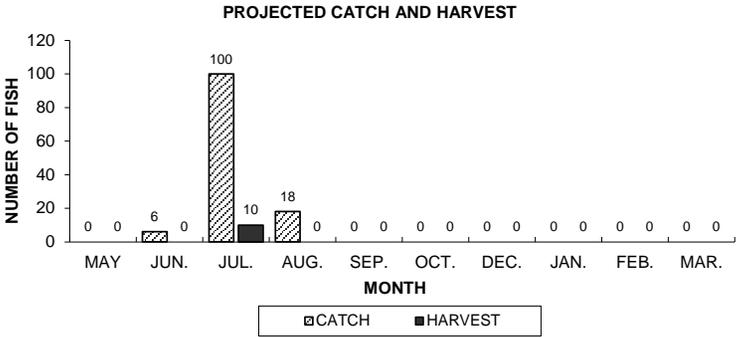
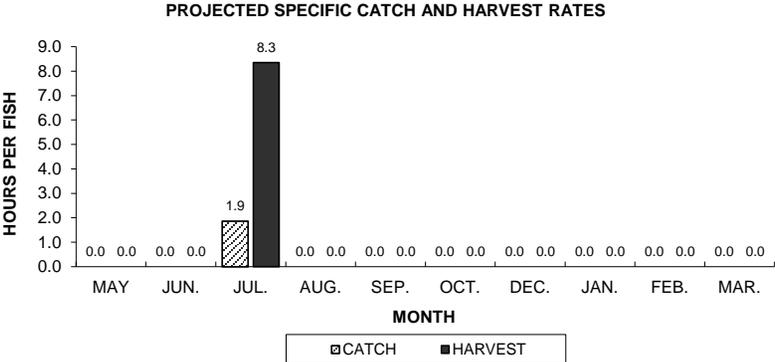
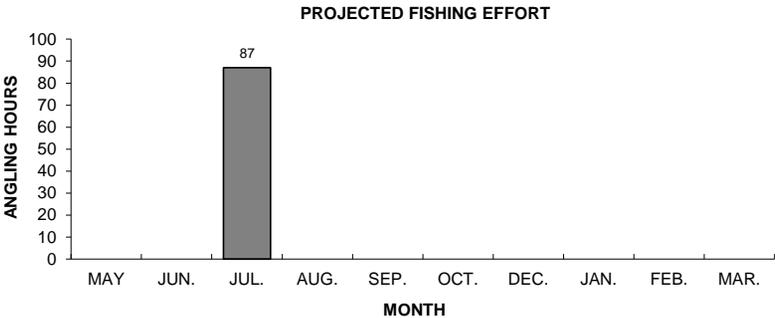
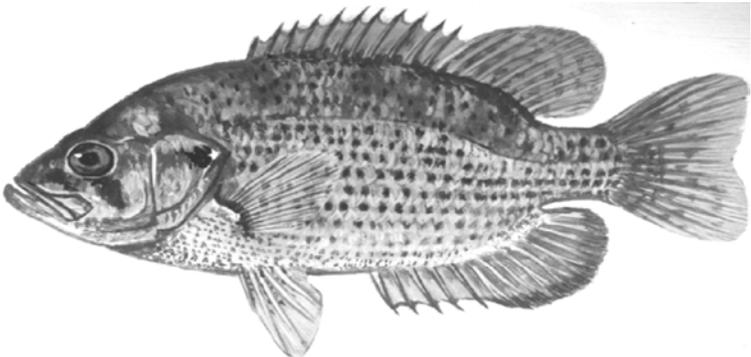


Figure 8. Rock bass sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.

BLACK CRAPPIE

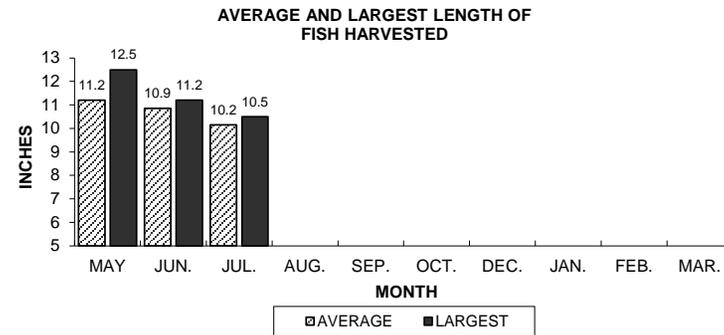
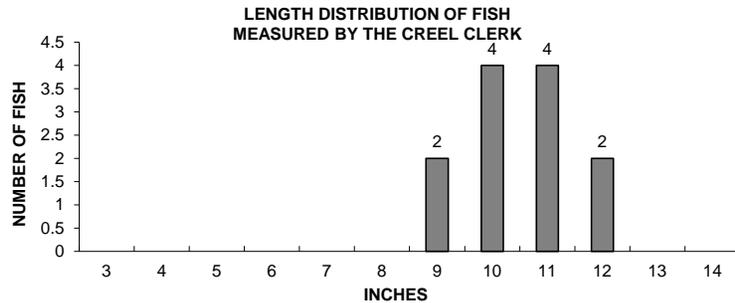
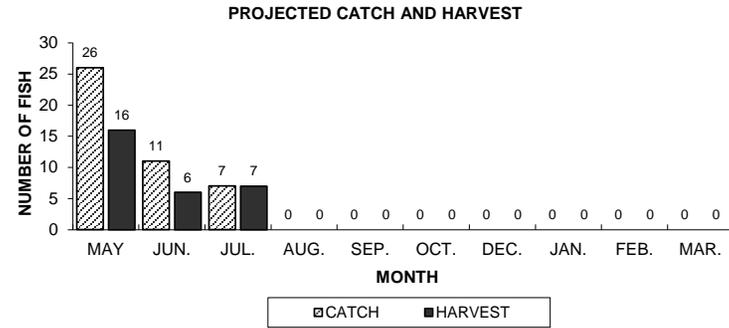
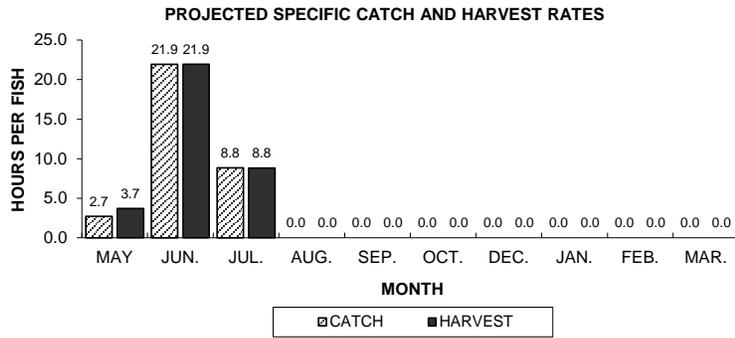
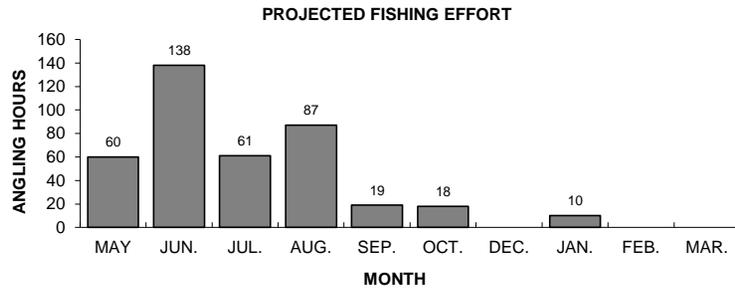
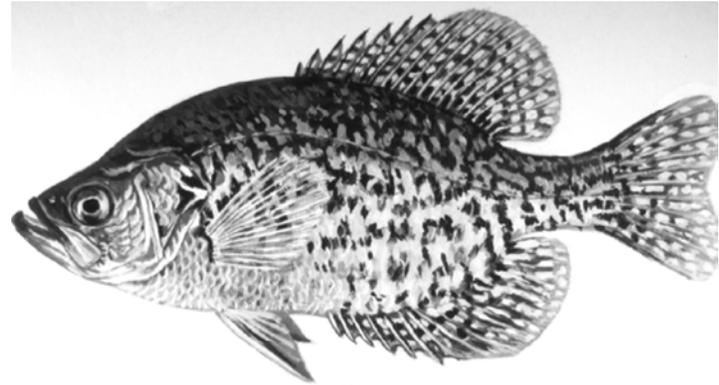


Figure 9. Black crappie sportfishing effort, catch, harvest, and length distribution, Spider Lake, during 2013-14.