

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

PAPOOSE LAKE

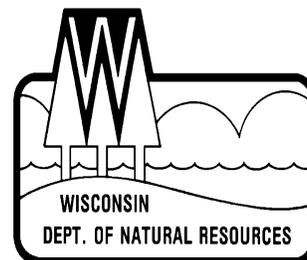
VILAS COUNTY

2012-13



Treaty Fisheries Publication

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& Jeff Blonski
Treaty Fisheries Technician**



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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 Pappoose Lake; discussion of results of the survey; and detailed summaries, by species of

fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



Location

Papoose Lake is located in Vilas County in the Town of Presque Isle.

Physical Characteristics

Papoose Lake is a 428 acre drainage lake with a maximum depth of 65 feet. Littoral substrate consists primarily of sand, with lesser amounts of muck, and gravel. Papoose 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 2012-13 fishing season ran from May 5, 2012 through March 3, 2013. The open water creel survey ran from May 5 through October 31, 2012 and the ice fishing creel survey ran from December 1, 2012 through March 3, 2013.

Weather

Ice-out on Papoose Lake was around March 23, 2012. Fishable-ice formed on Papoose Lake in mid-December.

Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Papoose Lake during the 2012-13 fishing season:

Species	Season	Catch	Release
Largemouth Bass & Smallmouth Bass	5/5-6/15	1	18"
Musky	5/26-11/30	1	40"
Northern Pike	5/5-3/3	5	none
Walleye	5/5-3/3	3*	15"
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 Papoose 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 3 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

- PROJECTED FISHING EFFORT**
 Total calculated number of hours during each month that anglers spent fishing for a species.
- 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.
- PROJECTED CATCH AND HARVEST**
 Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.
- 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 Papoose Lake. The last creel survey took place in 1997-98.

General Angler Information

Anglers spent 5,692 hours or 13.3 hours per acre fishing Papoose Lake during the 2012-13 fishing season (Table 1). That was less than the Vilas County average of 34.6 hours per acre. July was the most heavily fished month (3.8 hours per acre). Fishing effort was lightest in February (0.1 hours per acre) for those months when the entire month was creeled.

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Anglers spent 1,377 hours targeting walleyes. The greatest fishing effort for walleyes was in June (315 hours). February had the least amount of walleye fishing effort (11 hours) for entire month creeled.

Total catch of walleyes was 782 fish with a harvest of 73 fish. Highest catch (169 fish) occurred in August and October and the highest harvest (33 fish) occurred in October. Anglers fished 1.8 hours to catch and 19.6 hours to harvest a walleye during 2012-13.

The mean length of harvested walleyes was

17.7 inches and the largest walleye measured was a 29.1 inch fish.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 153 hours during the 2012-13 fishing season. Northern pike fishing effort was greatest in July (146 hours).

Total catch of northern pike was 56 fish with a harvest of 11 fish.

Only one northern pike was harvested during the survey. It was captured in July and measured 24.1 inches.

Muskellunge (Table 2, Figure 3)

Muskellunge received the most fishing effort during the 2012-13 fishing season. Anglers spent 2,195 hours targeting muskellunge. Muskellunge fishing effort was greatest in July (747 hours).

Total catch of muskellunge was 134 fish. Highest catch (48 fish) occurred in July. Anglers fished 18.7 hours to catch a muskellunge during 2012-13.

Smallmouth Bass (Table 2, Figure 4)

Fishing effort targeted at smallmouth bass was 1,707 hours during the 2012-13 fishing season. Smallmouth bass fishing effort was greatest in May (545 hours).

Total catch of smallmouth bass was 1,070 fish with 10 harvested. Highest catch (488 fish) occurred in May. Anglers fished 1.7 hours to catch a smallmouth bass during 2012-13.

Largemouth Bass (Table 2, Figure 5)

Fishing effort directed at largemouth bass was 38 hours during the 2012-13 fishing season. All the largemouth bass fishing effort occurred in July (38 hours).

No largemouth bass were caught by anglers during this survey.

Panfish (Table 2, Figures 6-10)

Bluegills were the most sought after panfish species during the survey. Fishing effort directed at bluegills was 136 hours.

Total catch of bluegills was 238 fish with none harvested.

Yellow perch were the second most sought after panfish species during the survey. Fishing effort directed at yellow perch was 118 hours.

Total catch of yellow perch was 31 fish with none harvested.

Black crappies were the third most sought after panfish species during the survey. Fishing effort directed at black crappies was 8 hours.

There were no black crappies caught or harvested during the survey.

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 Jonathan Pyatskowitz, Jeff Blonski, Joelle Underwood, Marty Kiepke, Jason Halverson, and Tim Tobias. Chuck Janov and Jeff Gize were the creel clerks on Papoose 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, Wayne and Janet Kampas, who generously allowed the department to keep a boat and snowmobile on their property during this survey.

This creel report was reviewed by, 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 or online at:

<http://dnr.wi.gov/fish/ceded/reports.html>

Table 1. Sportfishing effort summary, Papoose Lake, 2012-13 season.

Month	Total Angler Hours	Total Angler Hours/Acre	Vilas County Average Hours/Acre	Statewide Average Hours/Acre
May	718	1.7	5.2	5.8
June	1228	2.9	6.8	6.1
July	1630	3.8	7.5	6.4
August	660	1.5	6.4	5.4
September	613	1.4	4.2	3.8
October	623	1.5	2.0	1.6
December	71	0.2	0.5	1.7
January	84	0.2	0.8	1.5
February	42	0.1	1.0	1.3
March	23	0.1	0.2	**
*Summer Total	5472	12.8	32.1	29.1
*Winter Total	220	0.5	2.5	4.5
Grand Total	5692	13.3	34.6	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 Papoose 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 Papoose 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 Papoose Lake to other lakes statewide.

Table 2. Comparison of creel survey synopses, Papoose Lake, 2012-13 and 1997-98 fishing seasons.

CREEL YEAR: 2012-13

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	1377	24.02%	782	1.8	73	19.6	17.7
Northern Pike	153	2.67%	56	7.2	11		24.1
Muskellunge	2195	38.29%	134	18.7	0		
Smallmouth Bass	1707	29.78%	1070	1.7	10	169.5	18.8
Largemouth Bass	38	0.66%	0		0		
Yellow Perch	118	2.06%	31	3.8	0		
Bluegill	136	2.37%	238	0.6	0		
Pumpkinseed	0	0.00%					
Rock Bass	0	0.00%	64		0		
Black Crappie	8	0.14%	0		0		

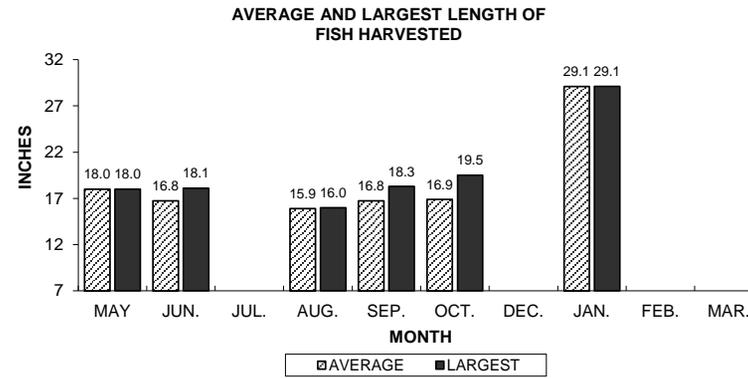
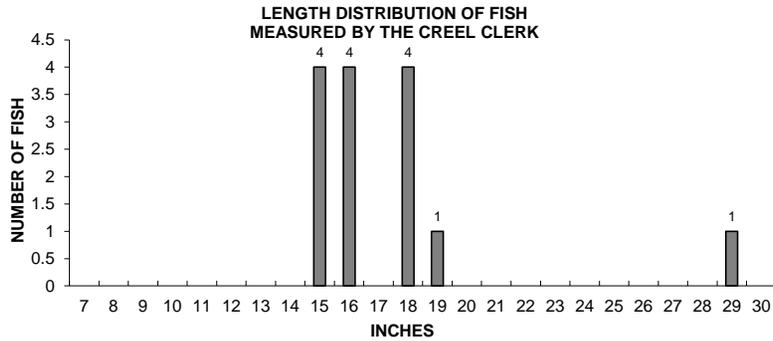
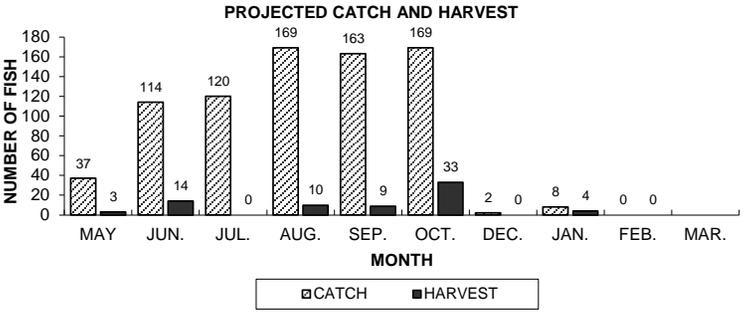
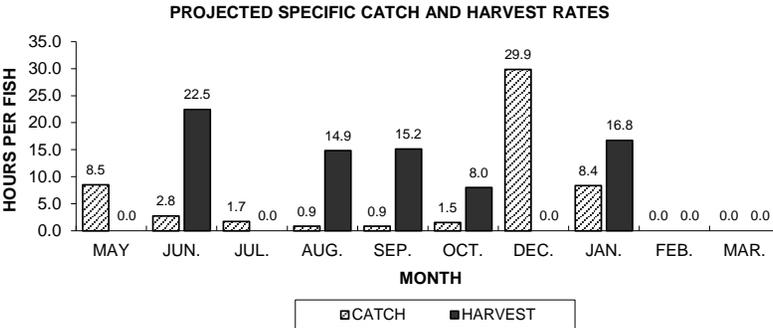
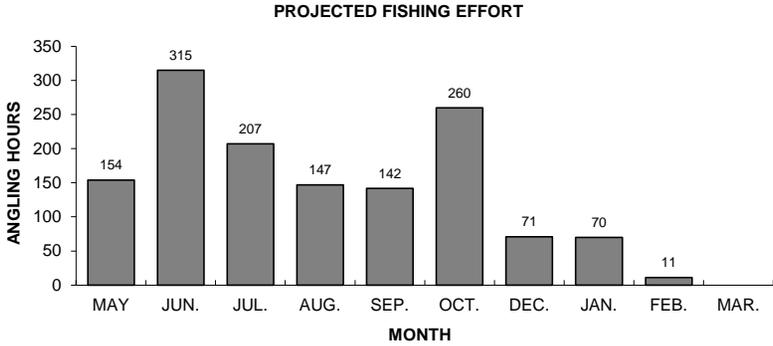
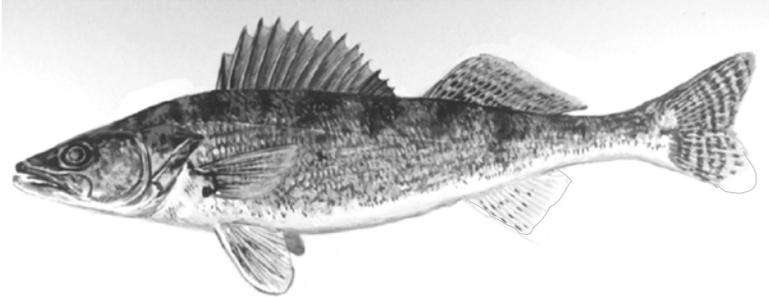
9 * A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

** 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: 1997-98

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	3029	27.77%	1114	2.7	79	40.2	17.5
Northern Pike	651	5.97%	85	10.0	9	87.0	23.7
Muskellunge	3851	35.31%	152	30.8	0	0.0	
Smallmouth Bass	615	5.64%	64	33.6	0	0.0	
Largemouth Bass	95	0.87%	5	17.3	0	0.0	
Yellow Perch	1132	10.38%	662	1.8	44	25.8	7.8
Bluegill	472	4.33%	40	12.8	12	40.7	
Pumpkinseed	23	0.21%	13	1.8	0	0.0	
Rock Bass	566	5.19%	505	1.3	57	10.5	5.0
Black Crappie	472	4.33%	12	13.0	0	0.0	

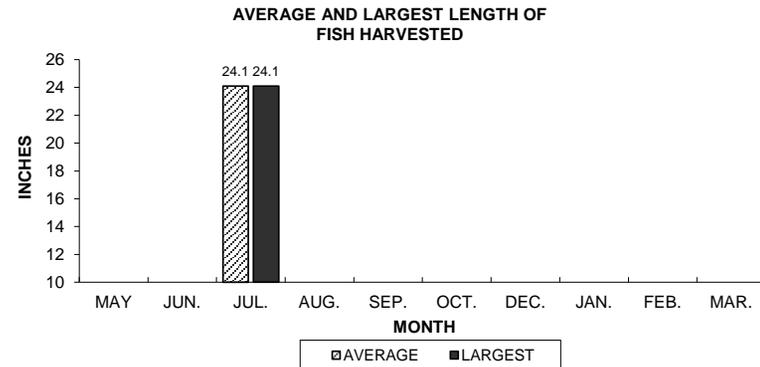
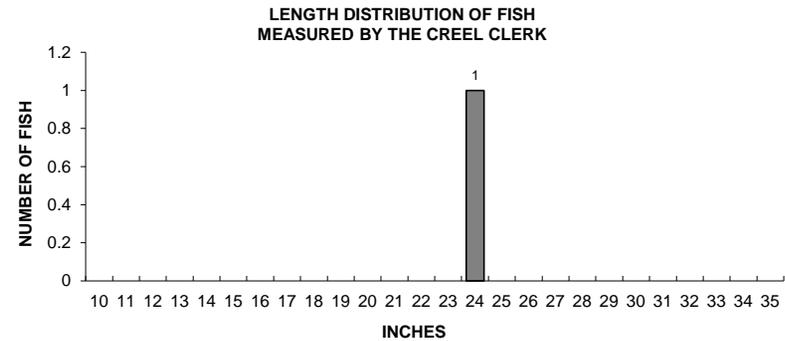
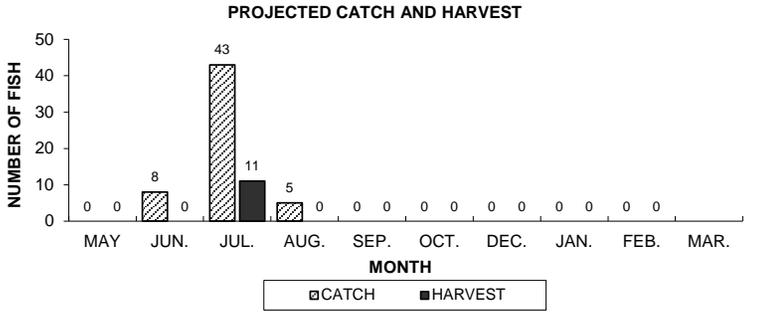
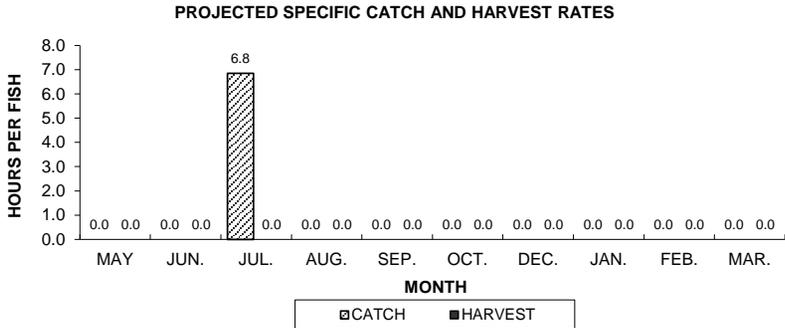
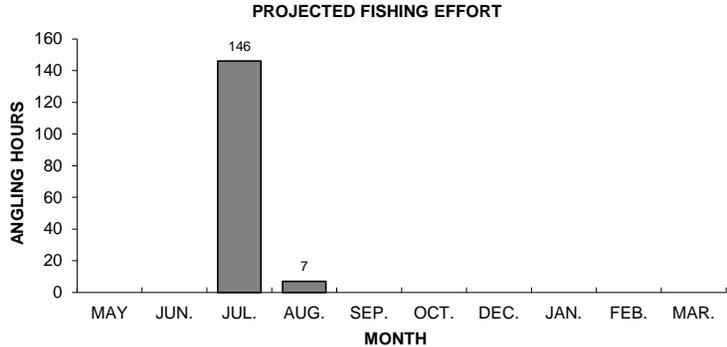
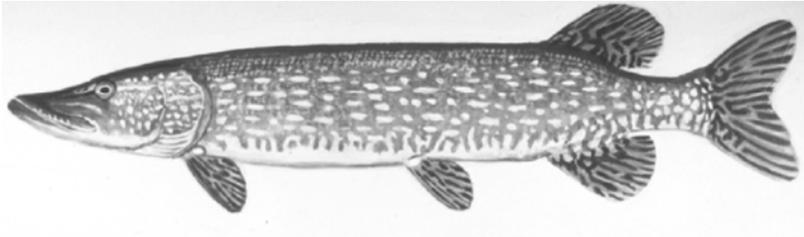
WALLEYE



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

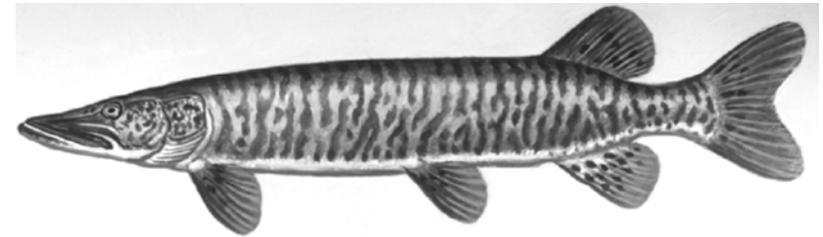
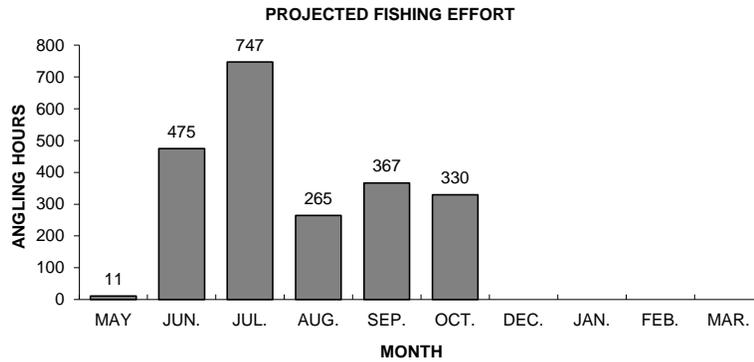
NORTHERN PIKE



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Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

MUSKELLUNGE



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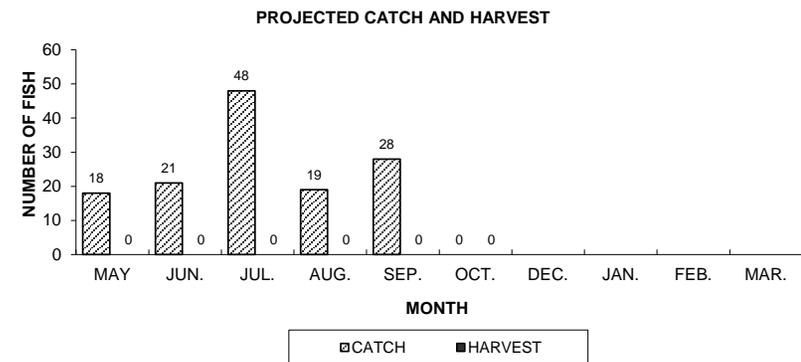
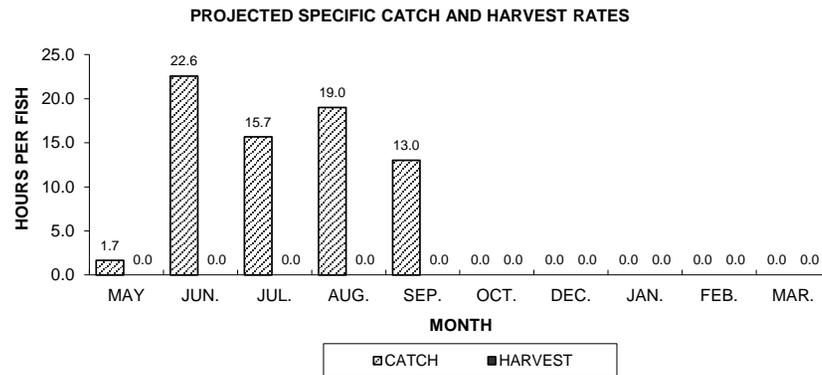


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

SMALLMOUTH BASS

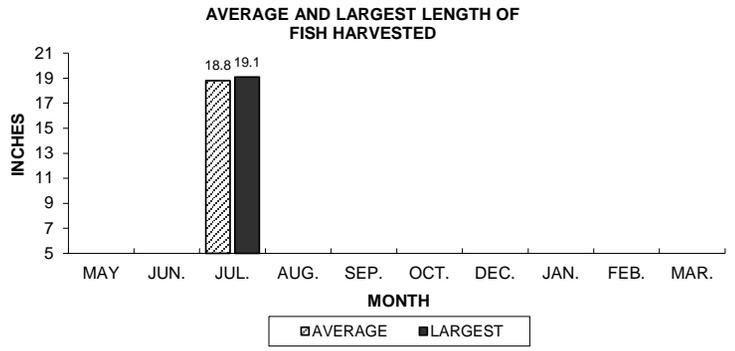
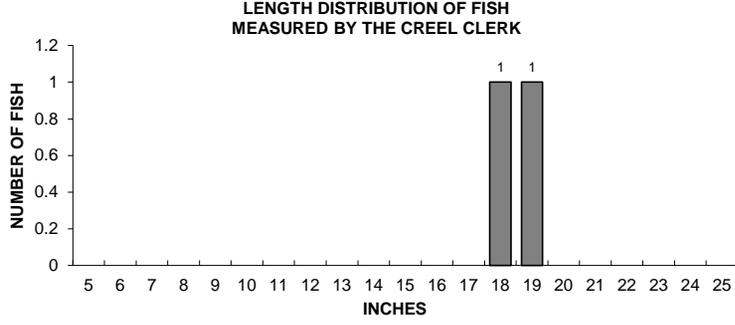
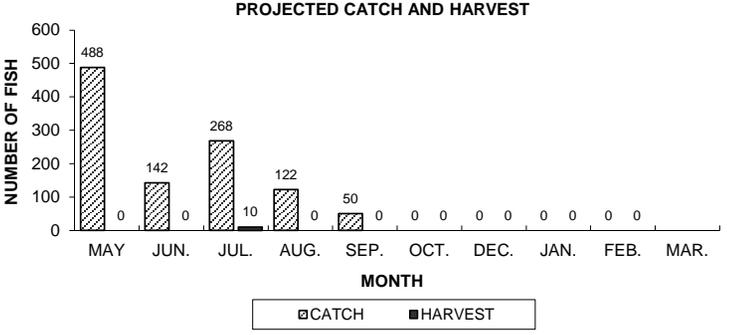
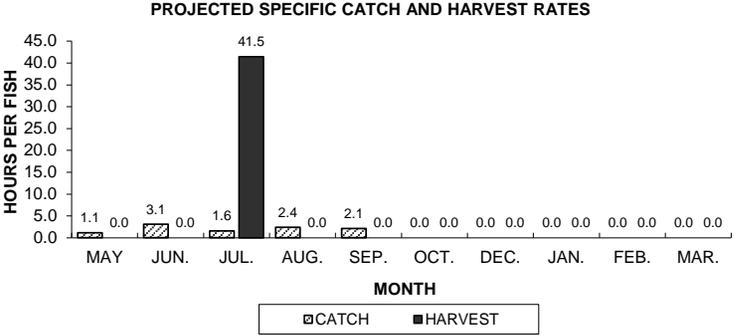
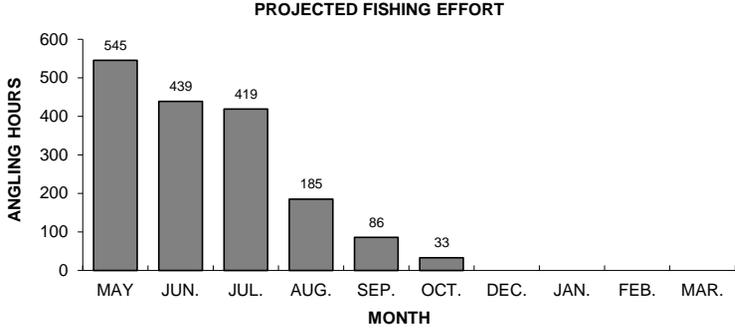
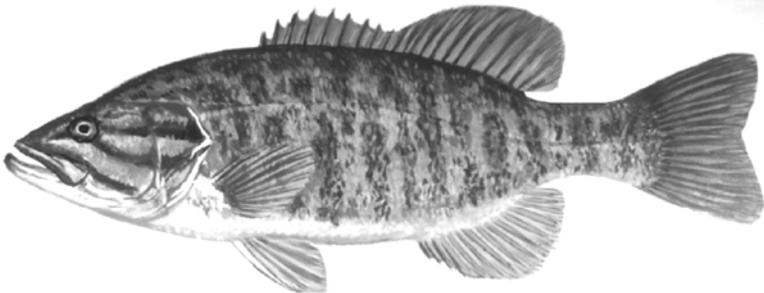
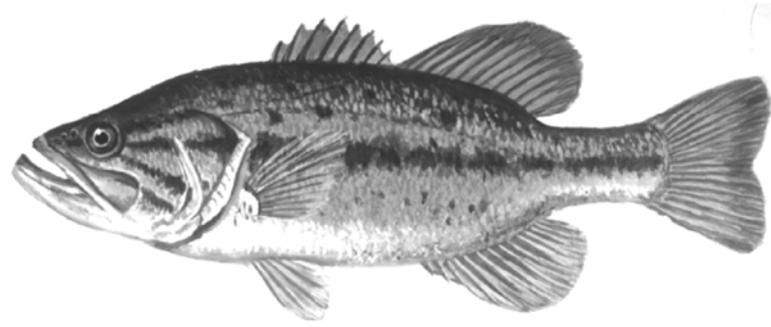


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

LARGEMOUTH BASS



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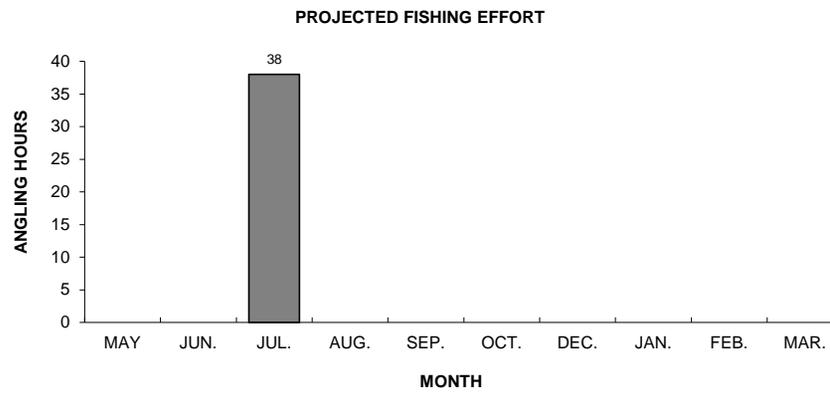


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

YELLOW PERCH

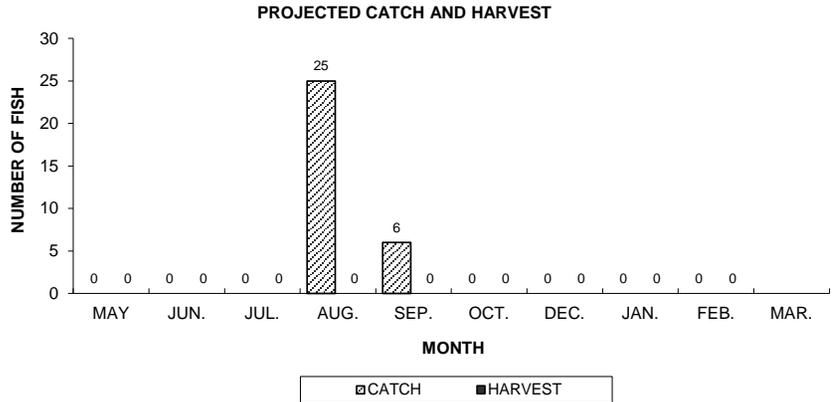
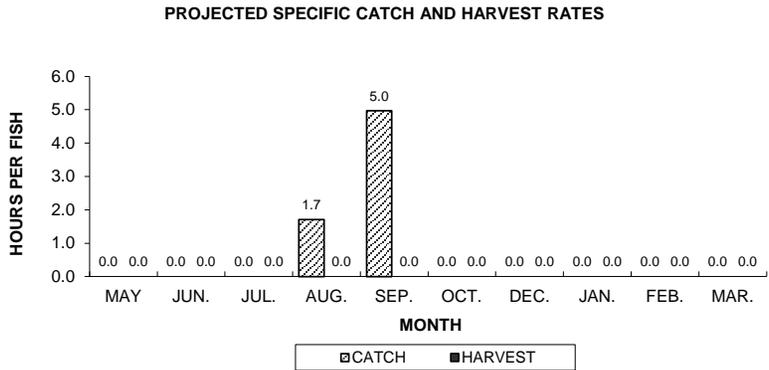
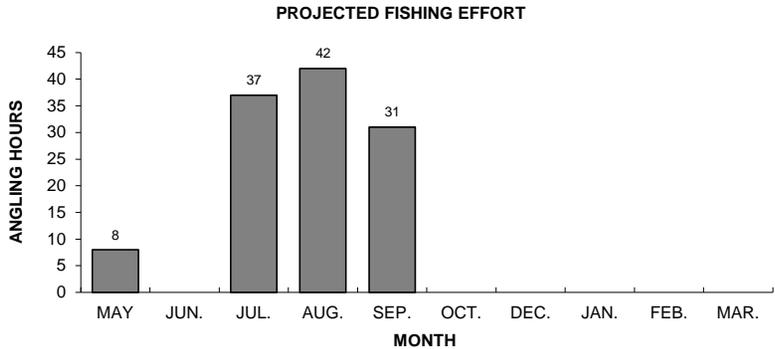


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

BLUEGILL

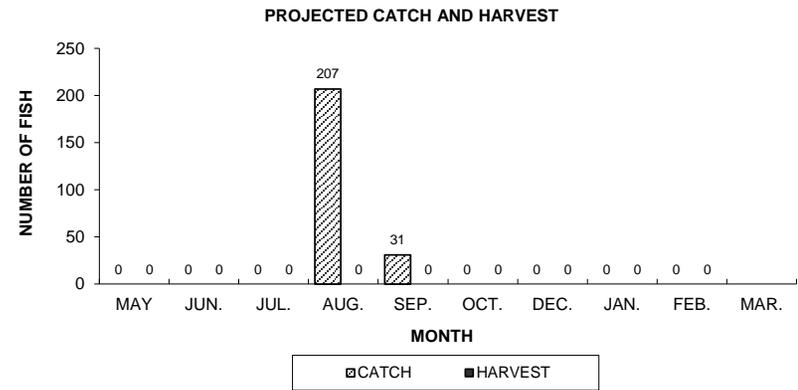
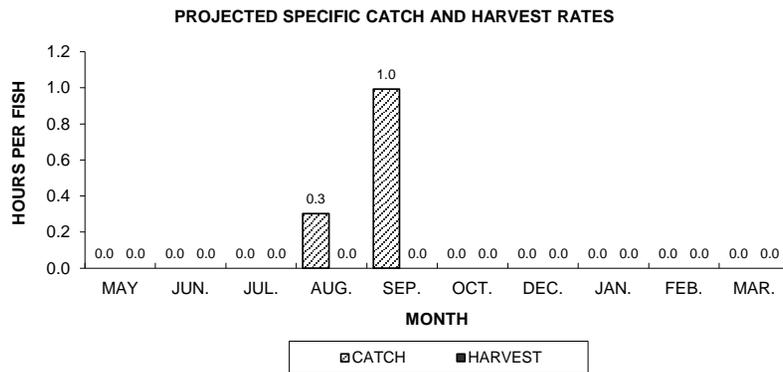
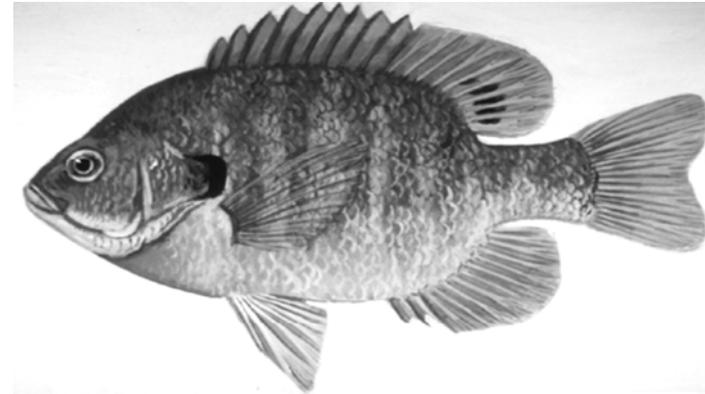
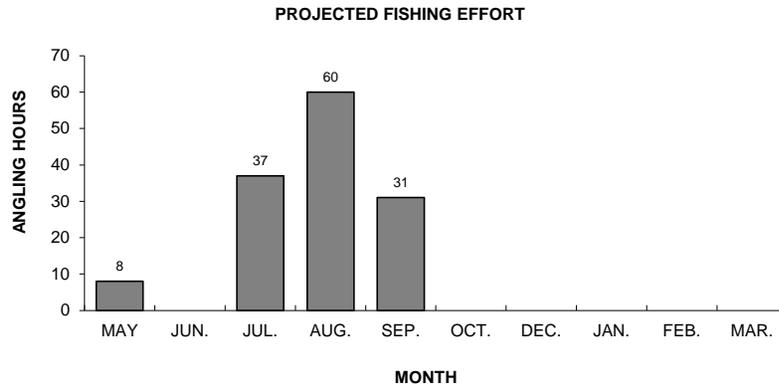
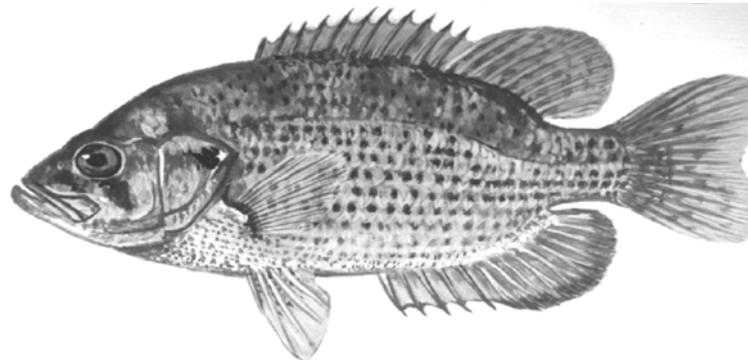


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

ROCK BASS



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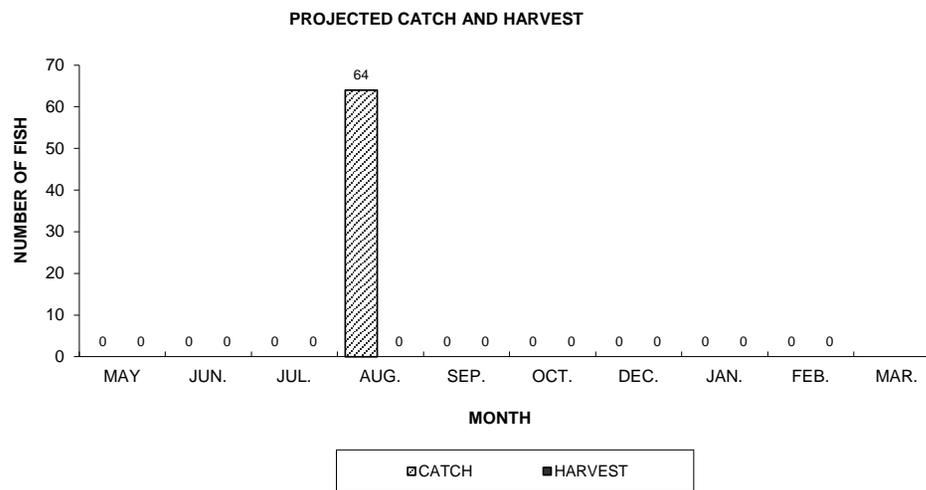


Figure 8. Rock bass sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.

BLACK CRAPPIE



PROJECTED FISHING EFFORT

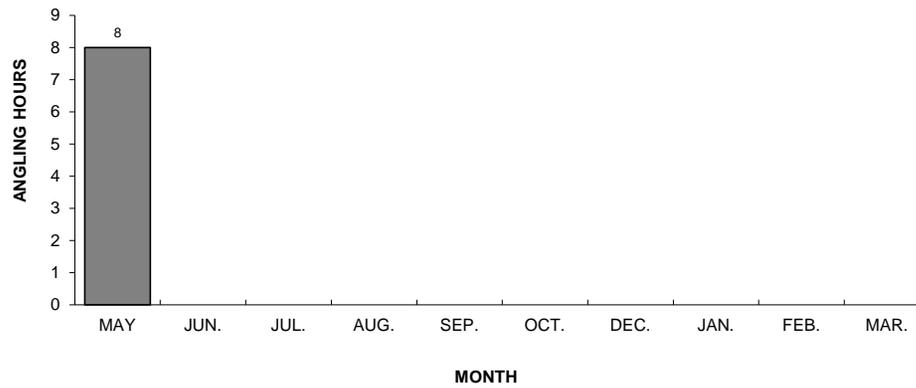


Figure 9. Black crappie sportfishing effort, catch, harvest, and length distribution, Papoose Lake, during 2012-13.