

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Sawyer Lake
2023 Creel Survey Report
Langlade County



Treaty Fisheries Publication



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Introduction

Fish populations can fluctuate due to a variety of factors including natural forces like climate, reproductive success, predation and competition. Human activities such as fish harvest, stocking, habitat change and invasive species introduction can also have significant impacts. The Wisconsin Department of Natural Resources (DNR) fisheries crews regularly conduct fishery surveys on lakes and reservoirs to gather the information needed to monitor changes, identify concerns, evaluate past management actions and to prescribe fishery management strategies. Netting and electrofishing surveys are used to gather data on the status of fish populations and communities, measuring such parameters as species composition, population size, reproductive success, size and age distribution and growth rates. Harvest is another key component of fisheries that we need to measure.

On many lakes in the Ceded Territory of northern Wisconsin, harvest of fish is divided between sport anglers and the six Ojibwe bands who harvest fish under rights reserved by federal treaties. The tribes harvest fish primarily using spearing, a highly efficient method, during a relatively short time in the spring. Every fish in the spear harvest is counted and reported, creating a complete census of the harvest.

We also measure the sport angler harvest to assess its impact on the fishery. It would be highly impractical and very costly to conduct a complete census of every angler who fishes on a lake, so we conduct creel surveys instead.

A creel survey is an assessment tool used to sample the fishing activities of anglers on a body of water to make estimates of harvest and other fishery parameters. Creel survey clerks work on randomly-selected days and shifts, forty hours per week. The survey is conducted during daylight hours throughout the open season for gamefish from the first Saturday in May through the first Sunday in

March. Creel surveys are not conducted in November when fishing effort is low and ice conditions are often unsafe.

Creel survey clerks travel their lakes using a boat or snowmobile to count the number of anglers at predetermined times and to interview anglers who have completed their fishing trip. Data are collected on what species they fished for, catch, harvest, lengths of fish harvested, marks (fin clips 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 estimate catch and harvest of each species, catch and harvest rates and fishing effort by month, as well as for the year in total. Keep in mind that these are estimates based on the best information available and not a complete accounting of effort, catch and harvest. Accurate estimates require that we sample a sufficient and representative portion of the angling activity on a lake. The accuracy of creel survey results depends on good cooperation and truthful responses by anglers when a creel clerk interviews them.

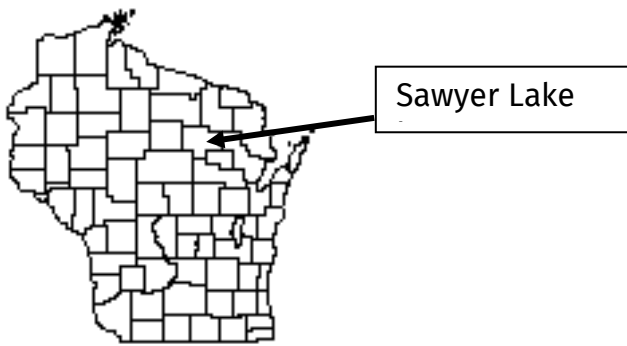
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

This report provides estimates of:

1. Overall fishing effort (pressure)
2. Fishing effort directed at each species
3. Numbers of fish caught and harvested
4. Catch and harvest rates

Also included are a physical description of Sawyer Lake, discussion of results of the survey and detailed summaries by species of fishing effort, catch and harvest.

General Lake Information



LOCATION

Sawyer Lake is located in Langlade County near the community of Hollister.

PHYSICAL CHARACTERISTICS

Sawyer Lake is a 149-acre seepage lake with a maximum depth of 31 feet. Littoral substrate consists primarily of gravel and sand with lesser amounts of muck and rock. Sawyer Lake contains medium hard, slightly alkaline, clear water of high transparency.

SEASONS SURVEYED

The period referred to in this report as the 2023 fishing season ran from May 6, 2023 through October 31, 2023. There was no winter ice creel survey on Sawyer Lake.

WEATHER

Ice-out on Sawyer Lake was around April 22, 2023.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Sawyer Lake during the 2023 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth bass	5/ 6 - 3/ 3	5*	None
Smallmouth bass	5/ 6 - 6/ 16	Catch & Release	
	6/ 17 - 3/ 3	5*	None
*Bass species have a combined bag limit of 5. No bass 12"- 16" may be kept			
Northern pike	5/ 6 - 3/ 3	5	None
Walleye	5/ 6 - 3/ 3	3	18"
Panfish	Open all year	25	None
Rock bass	Open all year	None	None

Species Catch And Harvest Information

Summaries of angling effort, catch and harvest information for each species are in Table 2 and Figures 1-9. Each species page has up to five graphs depicting the following:

- DIRECTED FISHING EFFORT**
Estimated number of hours during each month that anglers spent fishing for a species.
- TOTAL CATCH AND HARVEST**
Estimated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.
- SPECIFIC CATCH AND HARVEST RATES**
Estimated 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.
- LENGTH OF HARVESTED FISH**
All fish of a species that were measured by the clerk during the entire creel survey season.
- LARGEST AND AVERAGE LENGTH OF HARVESTED FISH**
Largest and average (mean) length of a species of fish harvested. Only fish measured by the creel survey clerk are reported.

Creel Survey Results And Discussion

SURVEY LOGISTICS

We encountered no unusual problems conducting the survey or calculating the projections contained in the report. During the 2023 fishing season, we only conducted the creel survey during the summer months May through October. This was the first time the DNR conducted a creel survey on Sawyer Lake.

GENERAL ANGLER INFORMATION

Anglers spent 7,516 hours, or 50.4 hours per acre, fishing Sawyer Lake during the 2023 season (Table 1). That was more than the Langlade County summer average of 25.5 hours per acre. July was the most heavily fished month (2,391 hours), and fishing effort was lightest in October (296 hours). Creel clerks were able to conduct 386 interviews throughout the survey.

RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1)

Fishing effort directed at walleye was 383 hours during the season. Fishing effort for walleye was highest in August (152 hours). Total catch of walleye was 19 fish, and total harvest was 10 fish. Highest catch (11 fish) occurred in July, and highest harvest (7 fish) also occurred in July. Anglers fished an estimated 28 hours to catch, and 36.8 hours to harvest a walleye during the survey. Mean length of harvested walleye was 23.9 inches and the largest measured was a 26.0-inch fish.

NORTHERN PIKE (Table 2, Figure 2)

Fishing effort directed at northern pike was 1,326 hours during the season. Northern pike fishing effort was greatest in July (418 hours). Total catch of northern pike was 377 fish, and total harvest was 48 fish. Anglers fished an estimated 4.5 hours to catch a northern pike during the survey. Mean length of harvested northern pike was 24.5 inches and the largest measured was a 32.0-inch fish.

SMALLMOUTH BASS (Table 2, Figure 3)

Fishing effort targeted at smallmouth bass was 166 hours during the season. Smallmouth bass fishing effort was greatest in September (60 hours). Total catch of smallmouth bass was 75 fish, with 5 fish harvested. Highest catch (48 fish) occurred in June. Anglers fished an estimated 7.8 hours to catch a smallmouth bass during the survey. No harvested smallmouth bass were measured during the survey.

LARGEMOUTH BASS (Table 2, Figure 4)

Largemouth bass received the most fishing

effort of any gamefish species during the season. Fishing effort directed at largemouth bass was 4,055 hours during the season. Largemouth bass fishing effort was greatest in July (1,655 hours). Total catch of largemouth bass was 2,247 fish, and total harvest was 67 fish. The highest catch (775 fish) occurred in July, and the highest harvest (45 fish) also occurred in July. Anglers fished an estimated 1.9 hours to catch a largemouth bass during the survey. Mean length of harvested largemouth bass was 14.5 inches and the largest measured was a 19.9-inch fish.

YELLOW PERCH (Table 2, Figure 5)

Yellow perch received 334 hours of directed fishing effort. Total catch of yellow perch was 437 fish, and total harvest was 78 fish. Mean length of yellow perch harvested was 7.6 inches.

BLUEGILL (Table 2, Figure 6)

Bluegill were the most sought after panfish species during the survey. Fishing effort directed at bluegill was 3,601 hours. Total catch of bluegill was 10,325 fish, and total harvest was 2,667 fish. Mean length of harvested bluegill was 7.4 inches and the largest measured was a 9.6-inch fish.

BLACK CRAPPIE (Table 2, Figure 7)

Black crappie received 1,773 hours of directed fishing effort. Anglers caught 2,736 black crappie and harvested 886 fish. Mean length of black crappie harvested was 9.5 inches and the largest measured was a 13.3-inch fish.

PUMPKINSEED (Table 2, Figure 8)

Pumpkinseed received 1,135 hours of directed fishing effort. Anglers caught 474 pumpkinseed and harvested 197 fish. Mean length of pumpkinseed harvested was 7.5 inches and the largest measured was a 10.0-inch fish.

ROCK BASS (Table 2, Figure 9)

Rock bass received 33 hours of directed fishing effort. Anglers caught 1,351 rock bass and harvested 90 fish. Mean length of rock bass harvested was 8.1 inches.

Acknowledgements

The DNR would like to thank all the anglers who took the time to offer information about their fishing trip to the creel clerk. The survey would not have been possible without their cooperation.

We also thank our cooperator, Brad Ellis, who generously allowed the DNR to keep a boat on their property during this survey.

Completion of this survey was possible because of the efforts of the following DNR fisheries management staff: John Kubisiak, Lawrence Eslinger, Jason Halverson, Mark Love, Eric Brown and Bob Consolo. The creel clerk on Sawyer Lake during the survey period was Rob Vellella.

Additional copies of this report, and those covering other local lakes, can be obtained from the DNR Woodruff Service Center or online at:

<http://dnr.wisconsin.gov/topic/Fishing/north/trtycrsrvys.html>

Table 1. Sportfishing effort summary, Sawyer Lake, 2023 summer season; compared to Langlade County averages and Ceded Territory averages.

MONTH	NUMBER OF ANGLER PARTY INTERVIEWS	TOTAL ANGLER HOURS	TOTAL ANGLER HOURS/ACRE	LANGLADE COUNTY AVERAGE HOURS/ACRE	CEDED TERRITORY AVERAGE HOURS/ACRE
May	73	1,018	6.8	7.1	4.8
June	87	1,879	12.6	5.7	6.2
July	97	2,391	16.0	7.3	6.6
August	60	1,196	8.0	3.3	5.2
September	45	736	4.9	1.7	3.2
October	24	296	2.0	0.6	1.4
December	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
Summer Total	386	7,516	50.4	25.5	26.7
Winter Total	-	-	-	-	-
Grand Total	-	-	-	-	-

Note: Summer is May-October; Winter is December-March

Winter months are crossed out (-) since there was no winter survey (See page 2)

Number of Angler Party Interviews is the number of groups of anglers interviewed by the creel clerk. A party is considered the members of a group who fish together in the same boat, ice shanty or from shore. The clerk fills out one interview form for each group of anglers. The number of individual anglers actually contacted by the clerk is usually much greater than the number of groups listed in this table since most groups consist of more than one angler.

Total Angler Hours is the estimated total number of hours that anglers spent fishing on Sawyer 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 in order to compare effort on Sawyer 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 is useful for fishing pressure comparisons with other waters.

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 Sawyer Lake to other lakes in northern Wisconsin.

Table 2. Summer creel survey synopsis, Sawyer Lake, 2023 fishing season.

Creel Year: Summer 2023

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	383	3.0%	19	28.0	10	36.8	23.9
Northern pike	1,326	10.4%	377	4.5	48	32.6	24.5
Smallmouth bass	166	1.3%	75	7.8	5	34.3	**
Largemouth bass	4,055	31.7%	2,247	1.9	67	66.2	14.5
Yellow perch	334	2.6%	437	1.3	78	5.5	7.6
Bluegill	3,601	28.1%	10,325	0.4	2,667	1.4	7.4
Black crappie	1,773	13.8%	2,736	0.7	886	2.1	9.5
Pumpkinseed	1,135	8.9%	474	2.4	197	5.8	7.5
Rock bass	33	0.3%	1,351	2.7	90	6.8	8.1

Note: If a species is not shown in a table, no data was collected by the creel clerks for that species.

* Indicates that no fish of this species were caught or harvested (depending on the column) by anglers who specifically targeted this species.

** Indicates that no fish were measured by the creel clerks for this species.

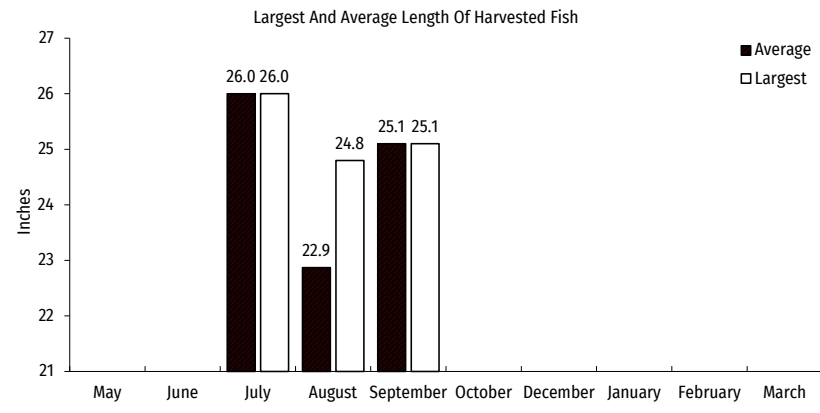
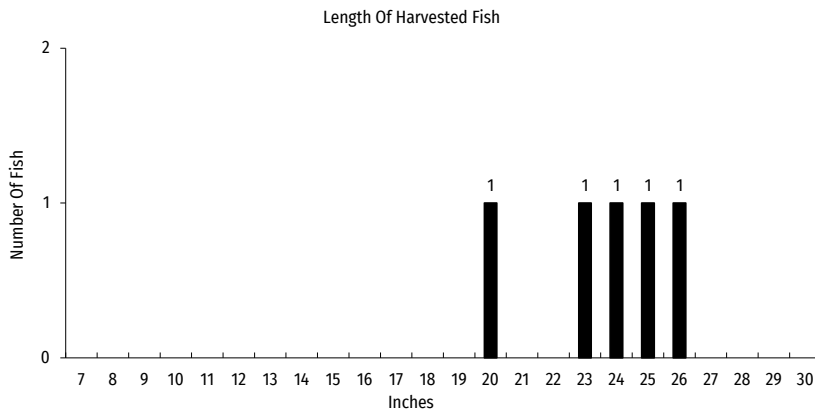
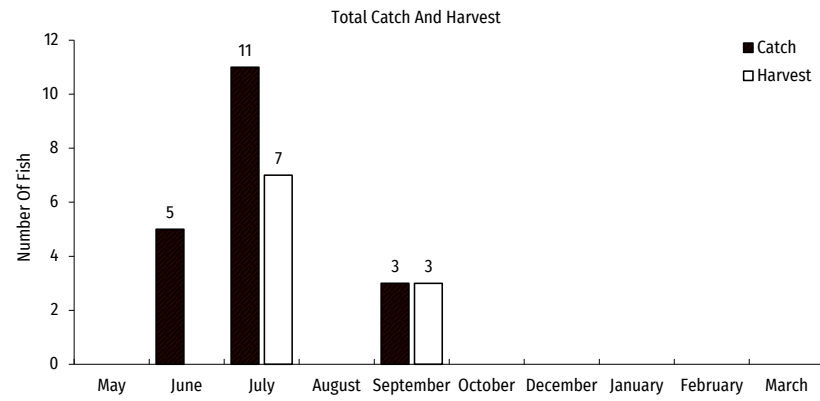
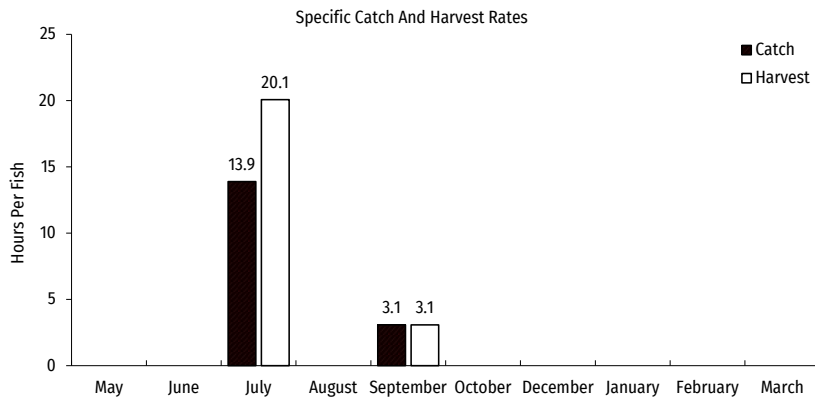
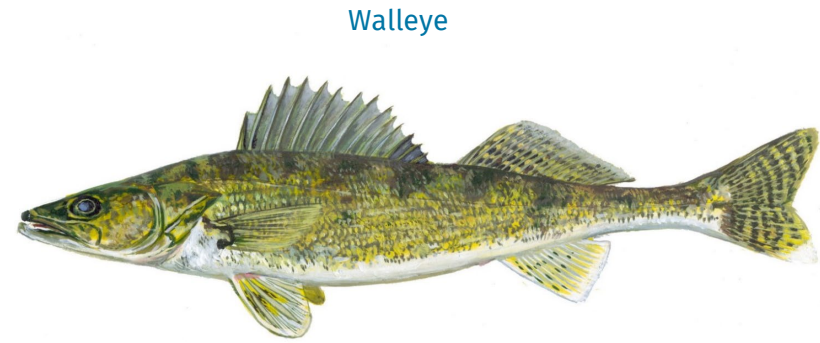
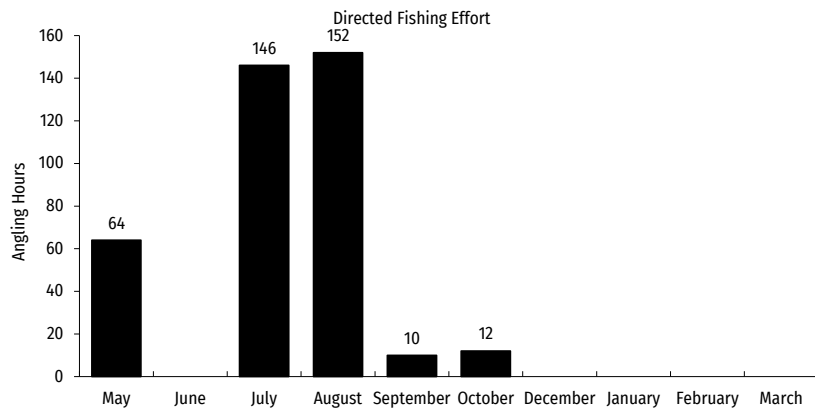


Figure 1. Walleye fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

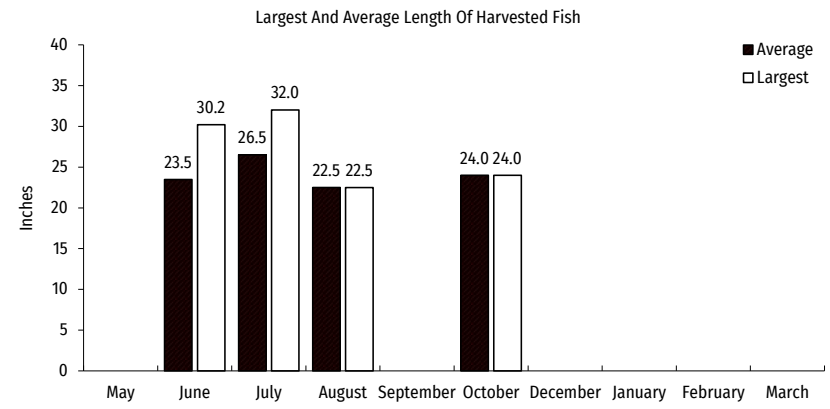
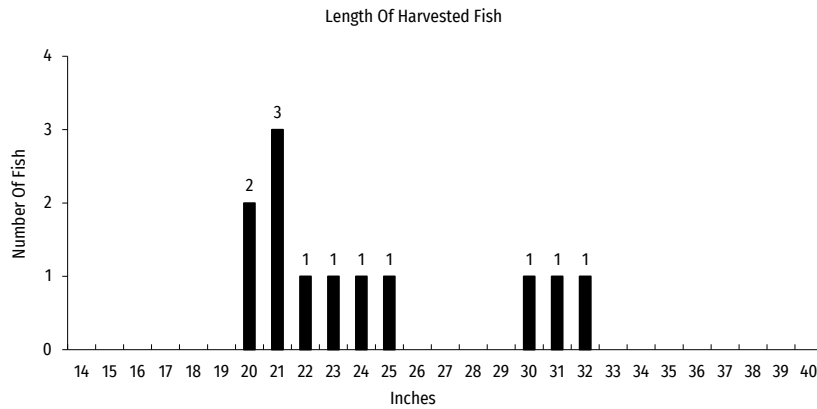
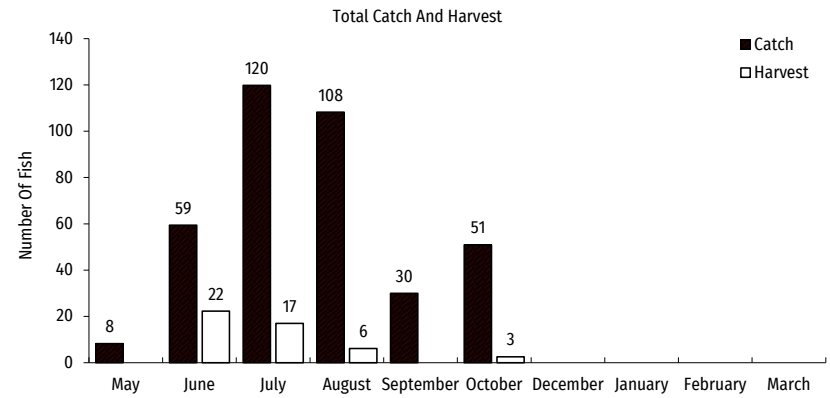
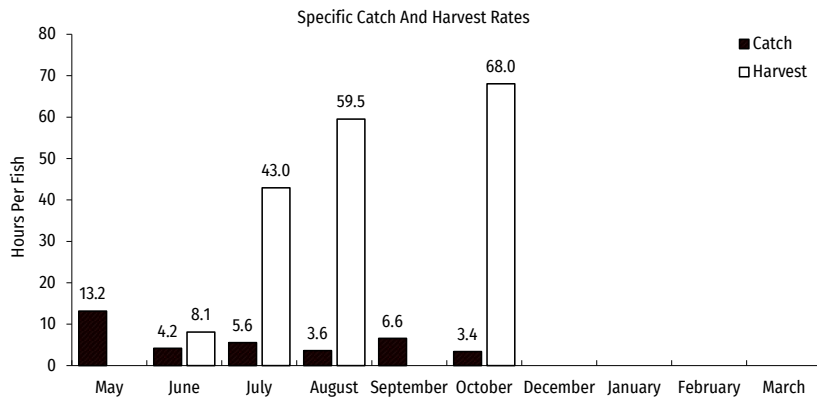
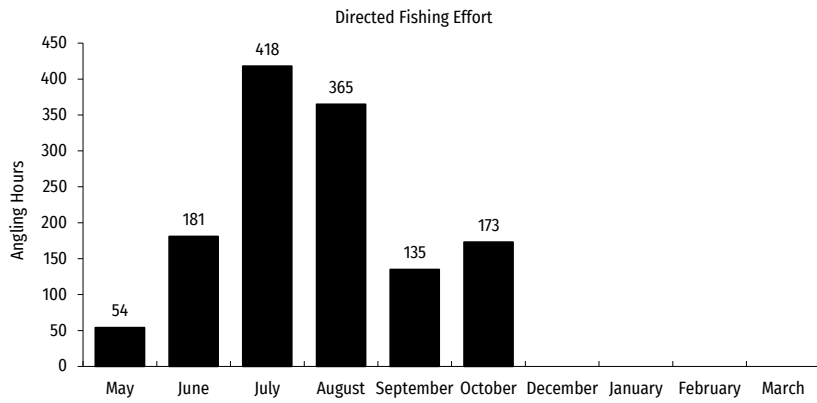


Figure 2. Northern pike fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

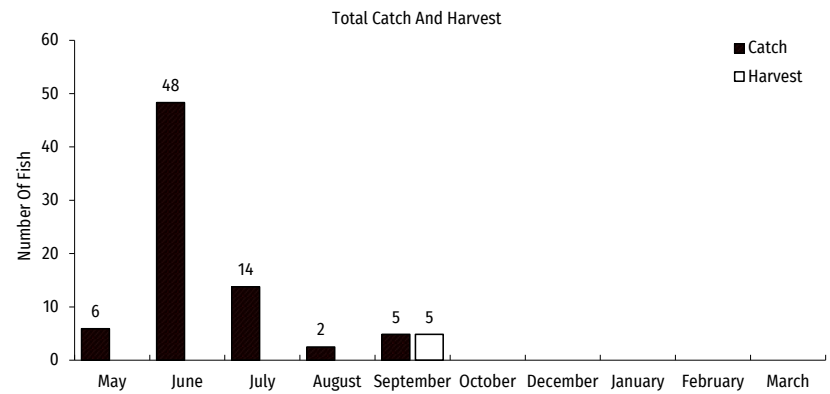
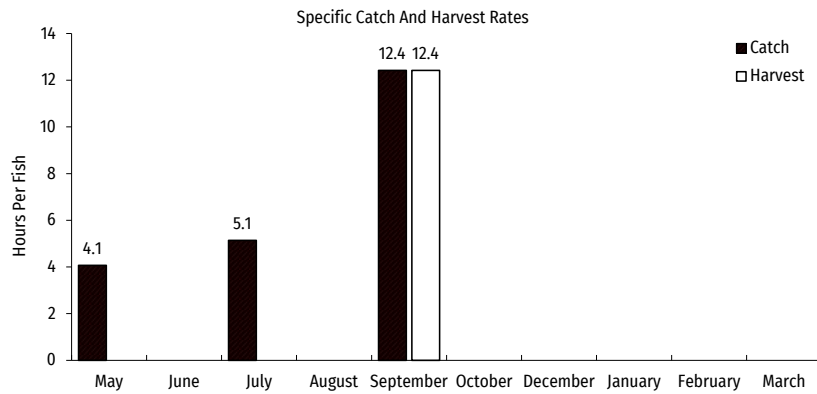
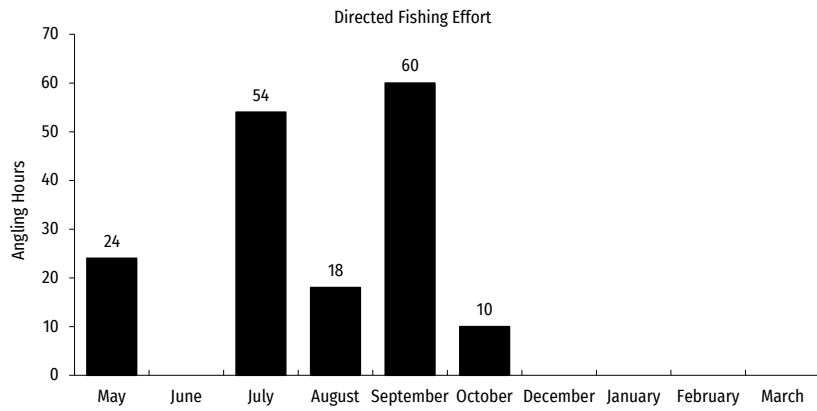


Figure 3. Smallmouth bass fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

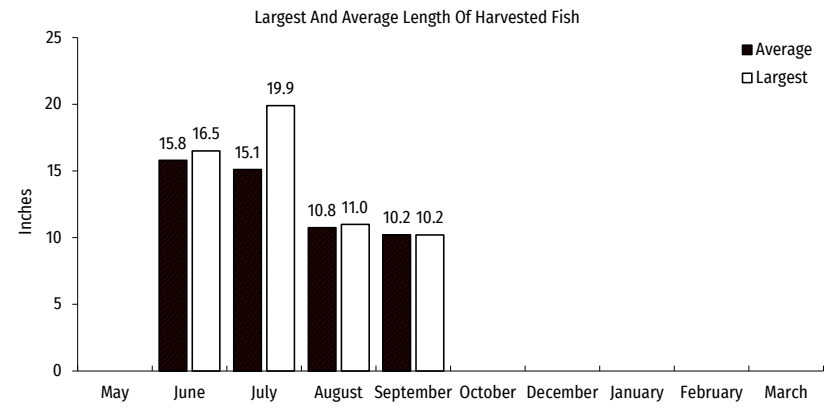
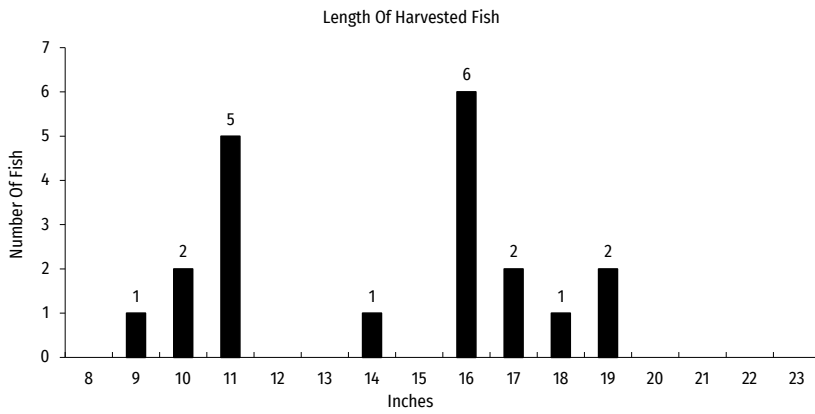
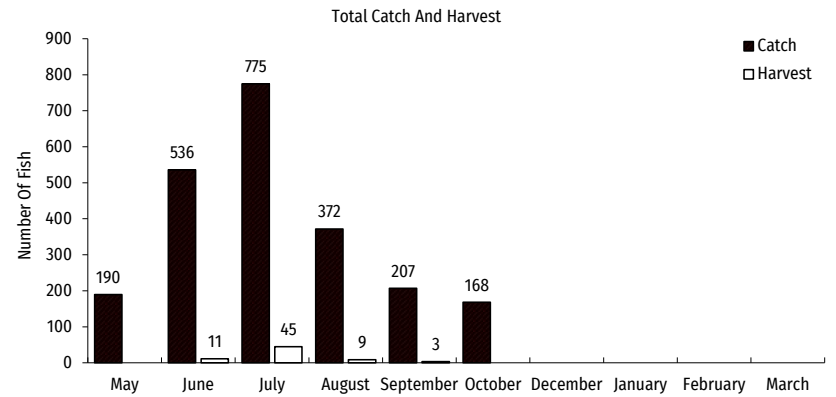
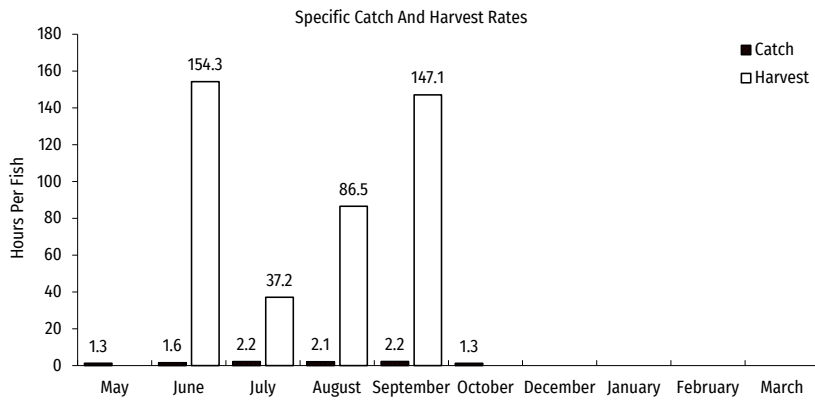
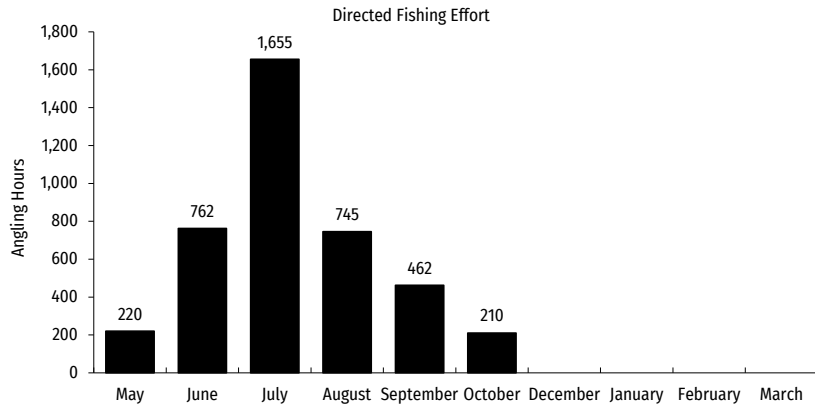


Figure 4. Largemouth bass fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

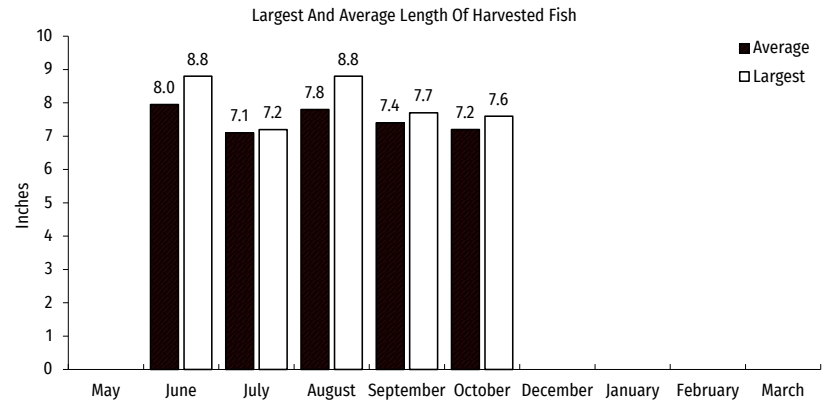
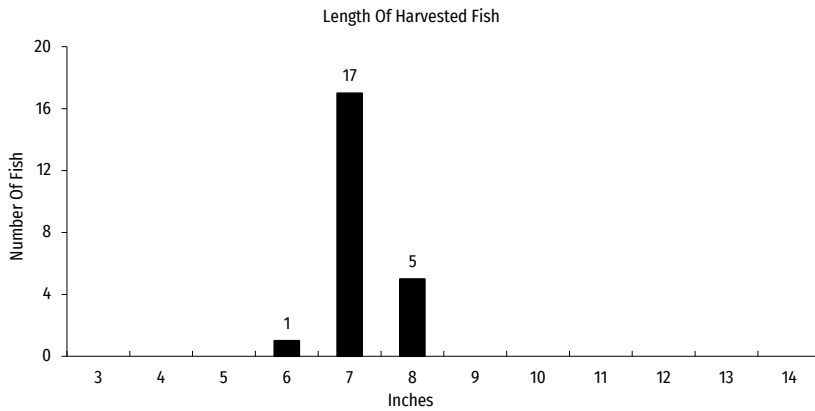
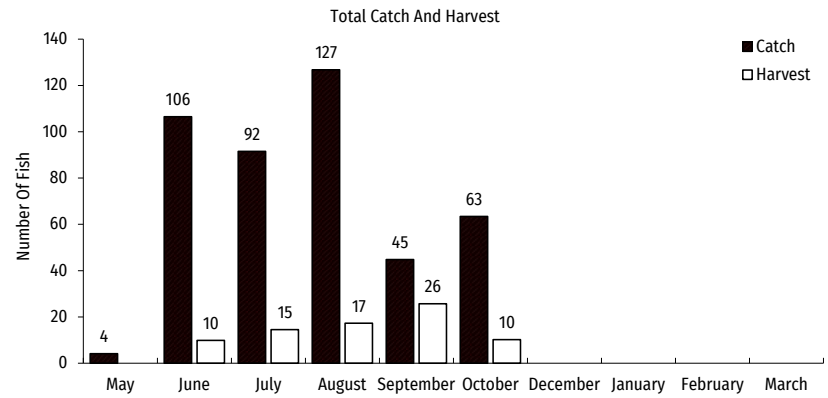
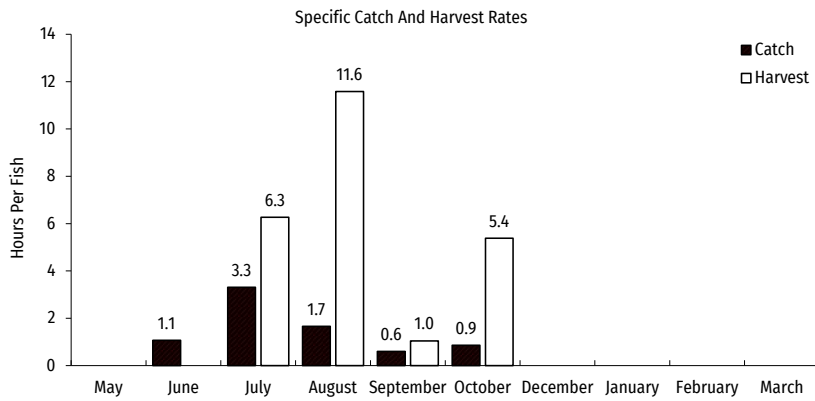
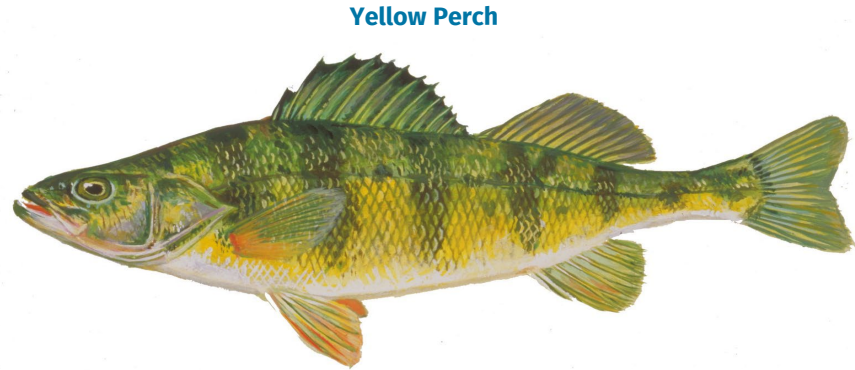
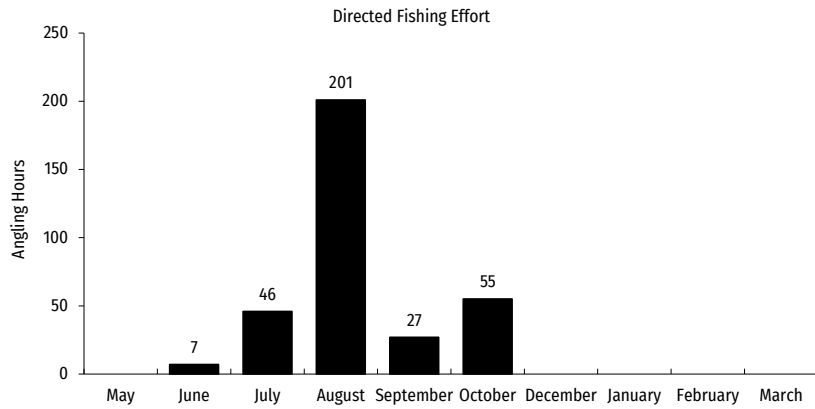


Figure 5. Yellow perch fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

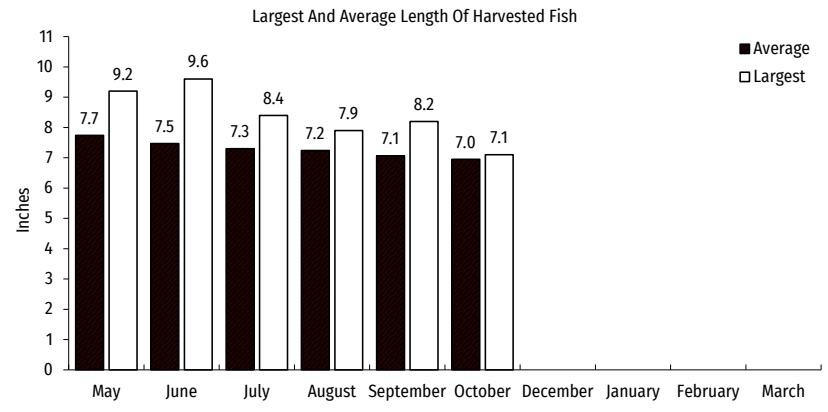
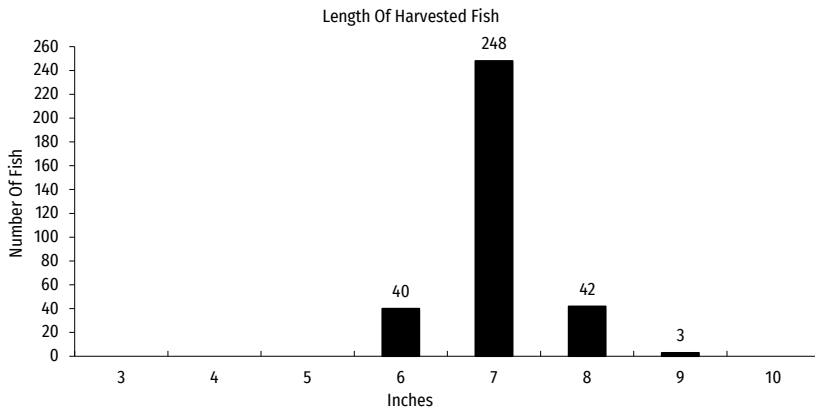
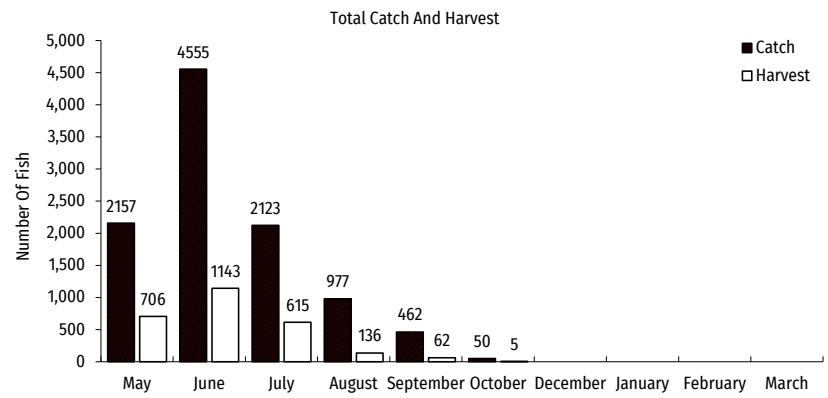
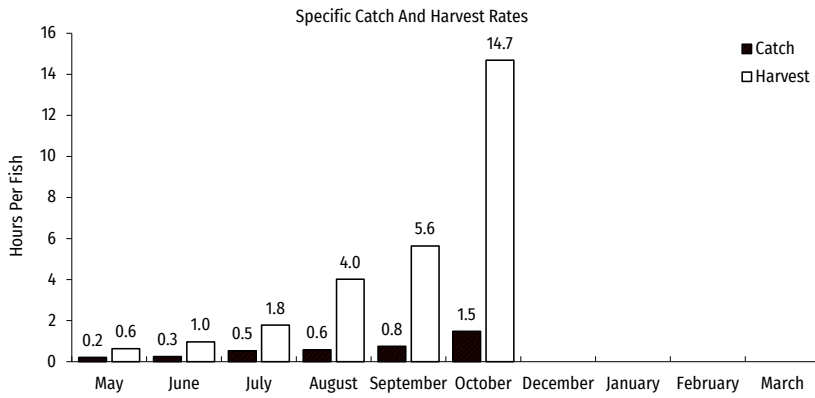
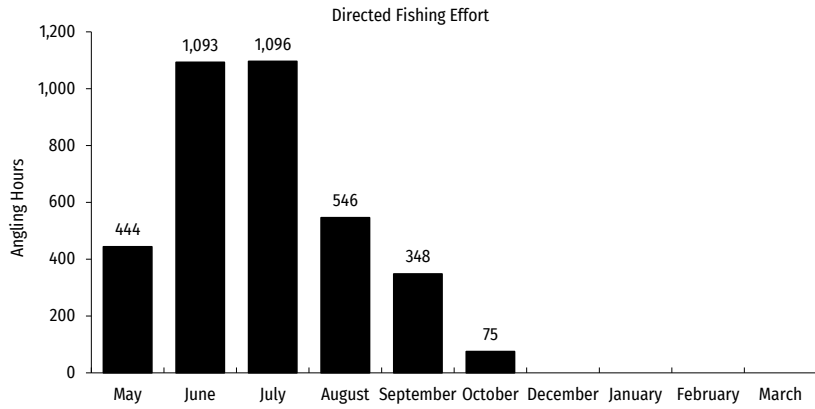
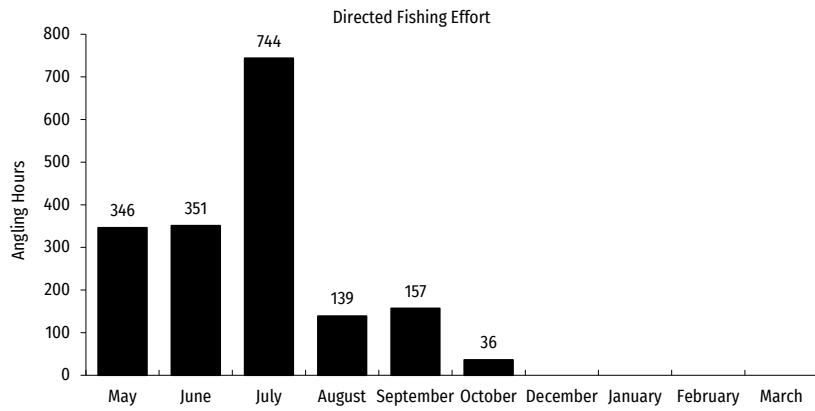


Figure 6. Bluegill fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.



Black Crappie

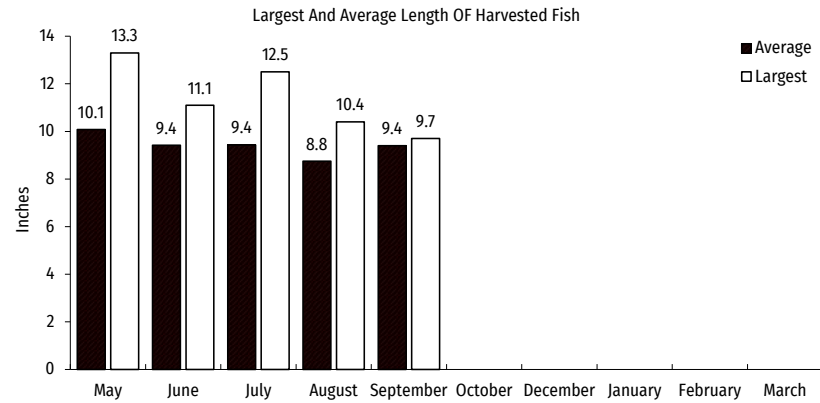
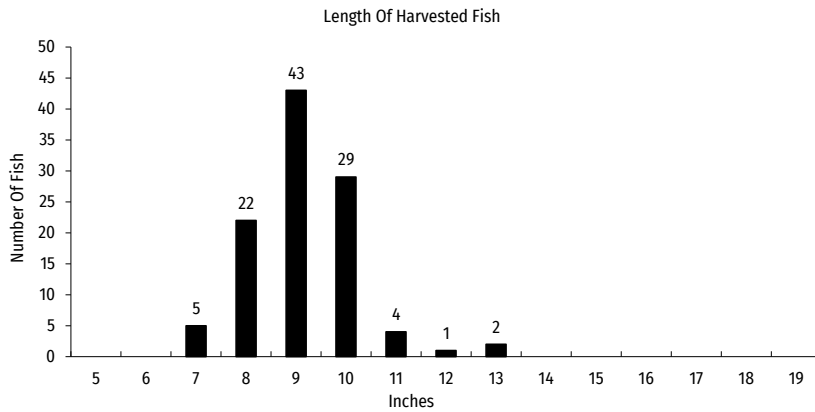
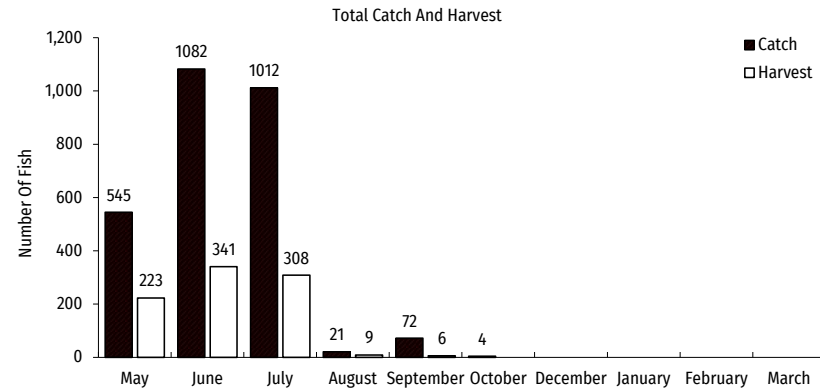
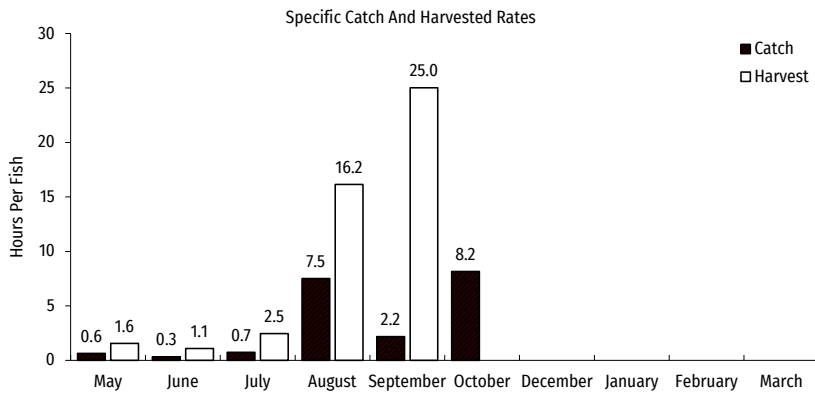
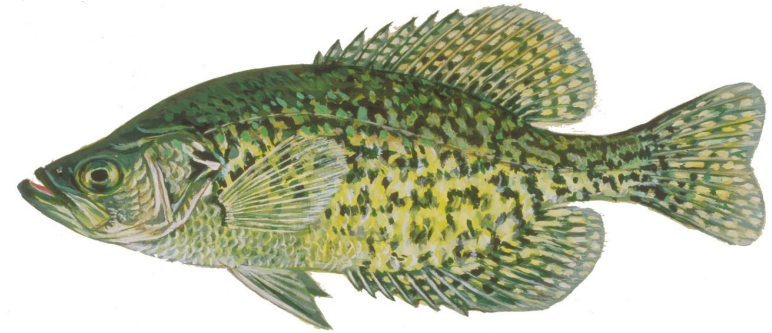


Figure 7. Black crappie fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

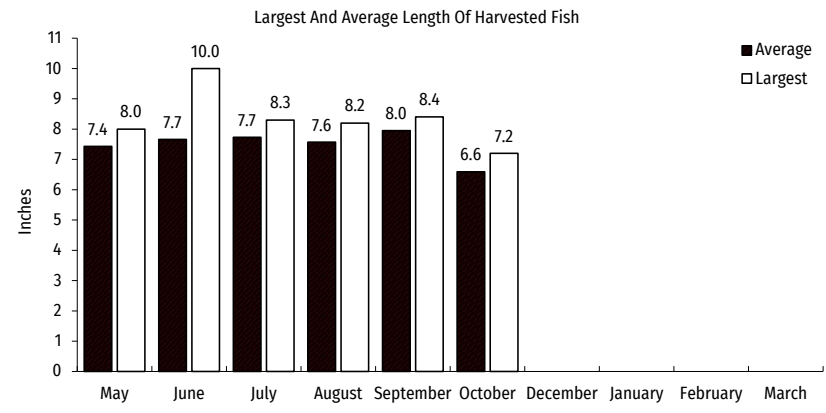
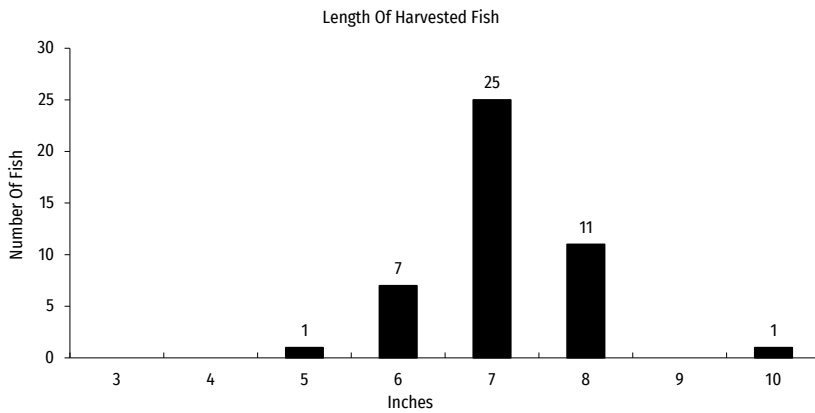
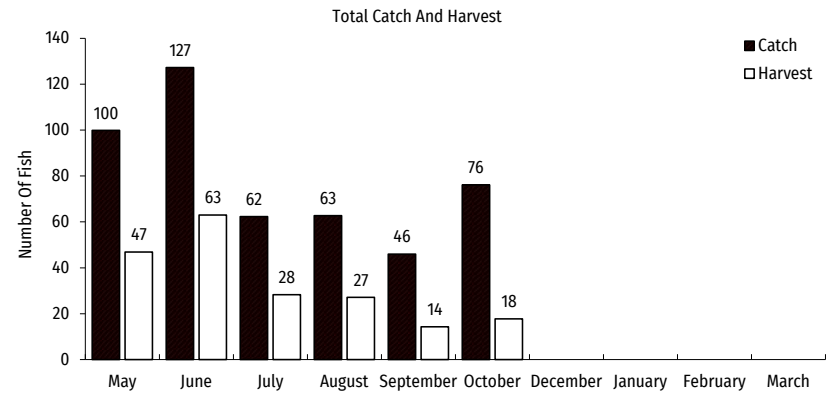
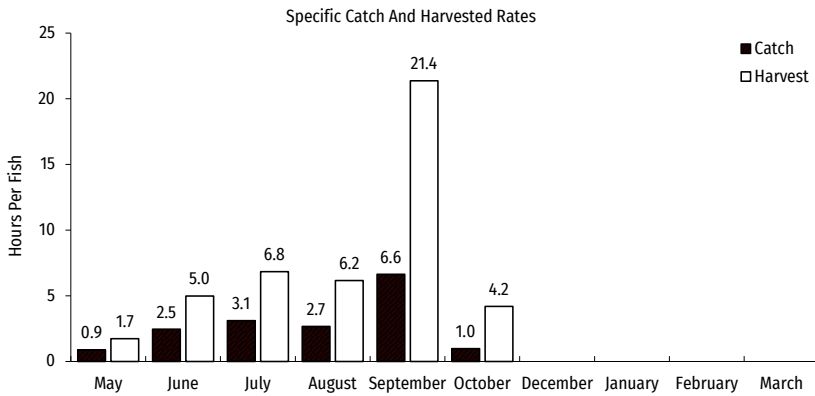
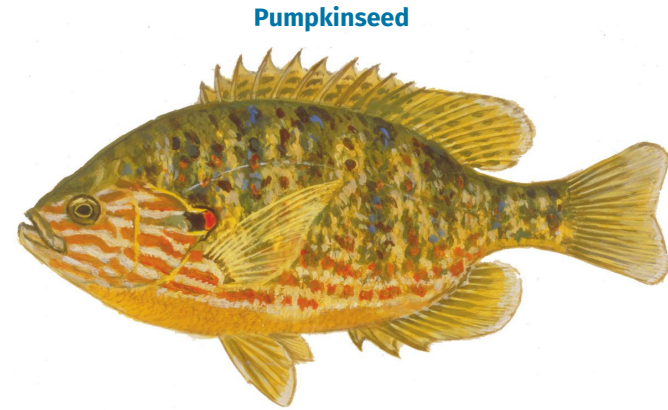
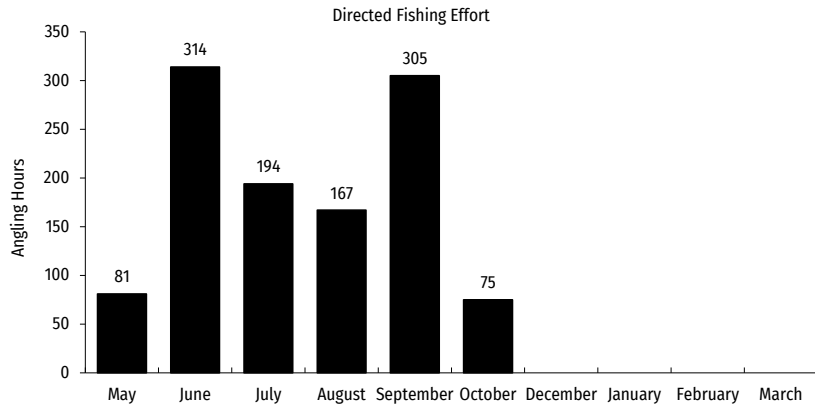


Figure 8. Pumpkinseed fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.

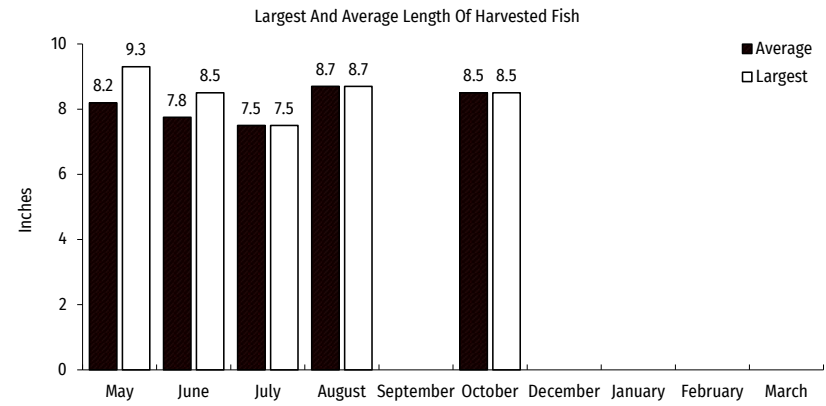
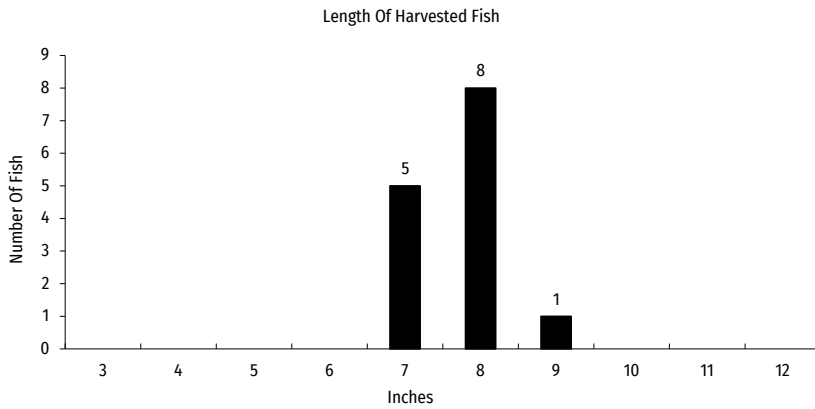
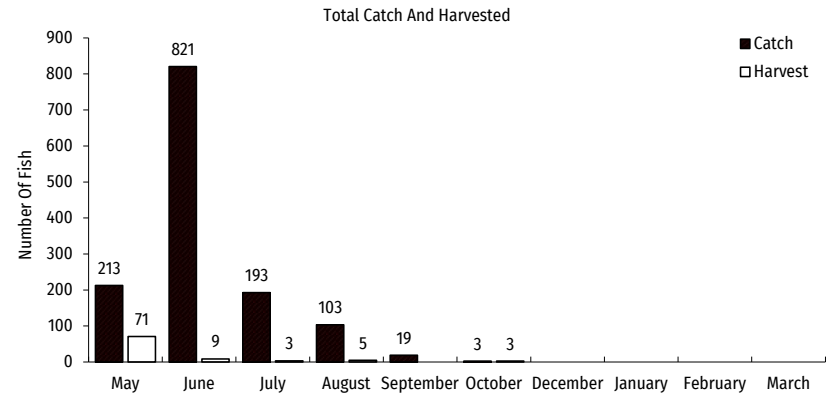
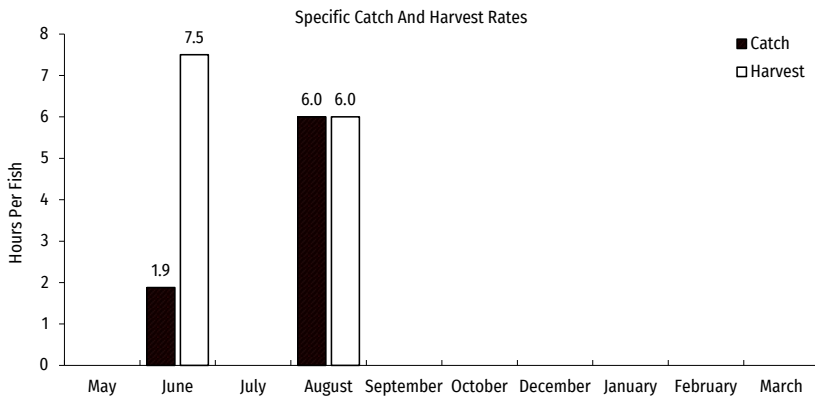
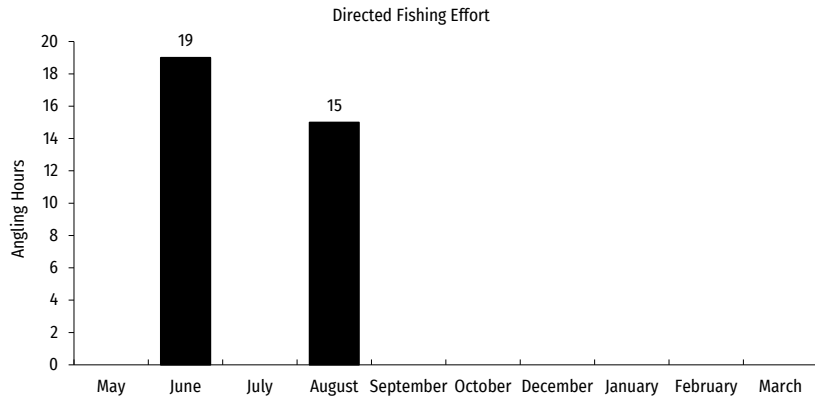


Figure 9. Rock bass fishing effort, catch, harvest and length distribution, Sawyer Lake, during 2023.