WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Creel Survey Report
Pelican Lake, 2024-2025

Oneida County

Treaty Fisheries Publication

Created by
DNR Treaty Fisheries Biologists:
Jason Halverson & Mark Love
&
DNR Treaty Fisheries Technician:
Eric Brown

Contents

Cover Art: Steve Hilt, Portland, OR
Fish Graphics: Virgil Beck, Stevens Point, WI

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.

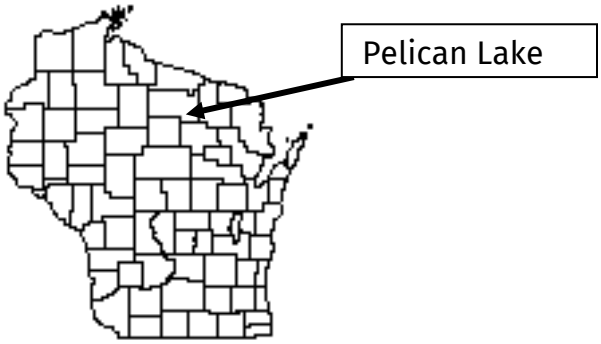
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

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

General Lake Information



LOCATION

Pelican Lake is located in Oneida County near the Town of Pelican Lake.

PHYSICAL CHARACTERISTICS

Pelican Lake is a 3,585-acre drainage lake with a maximum depth of 39 feet. Littoral substrate consists primarily of sand and muck, with lesser amounts of gravel and rubble. Pelican Lake contains soft, slightly alkaline, clear water of moderate transparency.

SEASONS SURVEYED

The period referred to in this report as the 2024-25 fishing season ran from May 4, 2024, through March 2, 2025. The summer creel survey ran from May 4 through Oct. 31, 2024, and the winter creel survey ran from Dec. 1, 2024, through March 2, 2025.

WEATHER

Ice-out on Pelican Lake was around late March 2024. Fishable ice formed on Pelican Lake in early December 2024.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Pelican Lake during the 2024-25 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth bass	5/ 04 - 3/ 02	1*	18"
Smallmouth bass	6/ 15 - 3/ 02	1*	18"
*Bass species have a combined bag limit of 1. Catch & release of bass is open all year.			
Muskellunge	5/ 25 - 12/ 31	1	50"
On open water			
Northern pike	5/ 04 - 3/ 02	5	None
Walleye	5/ 04 - 3/ 02	3	15"
20"- 24" protected slot, 1>24"			
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 1-11, along with a comparison of these statistics with the previous creel survey in Table 2. Information about species with fishing seasons extending beyond March 2, 2025, should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **DIRECTED FISHING EFFORT**
   Estimated number of hours during each month that anglers spent fishing for a species.

2. **TOTAL CATCH AND HARVEST**
   Estimated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

3. **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.

4. **LENGTH 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**
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. This was the third time the DNR conducted a creel survey on Pelican Lake. The last creel survey took place during 2011-12.

GENERAL ANGLER INFORMATION

Anglers spent 79,325 hours, or 22.1 hours per acre, fishing Pelican Lake during the 2024-25 season (Table 1). That was less than the Oneida County average (32.3 hours per acre) and the fishing effort documented during the 2011-12 creel survey (46.2 hours per acre). July was the most heavily-fished month (15,507 hours). Creel clerks were able to conduct 817 interviews throughout the survey.

RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1)
Walleye received the most fishing effort of any gamefish species during the season. Anglers spent 34,813 hours targeting walleye. Fishing effort for walleye was highest in July (5,695 hours). Total catch of walleye was 11,664 fish, and total harvest was 2,815 fish. Highest catch (2,615 fish) and highest harvest (640 fish) both occurred in May. Anglers fished an estimated 3.3 hours to catch, and 12.6 hours to harvest a walleye during the survey. Mean length of harvested walleye was 16.6 inches, and the largest measured was a 23.7-inch fish.

NORTHERN PIKE (Table 2, Figure 2)
Fishing effort directed at northern pike was 14,703 hours during the season. Northern pike fishing effort was greatest in January (5,404 hours). Total catch of northern pike was 3,685 fish, and total harvest was 1,381 fish. Anglers fished an estimated 6.7 hours to catch a northern pike during the survey. Mean length of harvested northern pike was 25.3 inches, and the largest measured was a 34.8-inch fish.

MUSKELLUNGE (Table 2, Figure 3)
Anglers spent 12,149 hours targeting muskellunge during the season. Muskellunge fishing effort was greatest in July (3,907 hours). Total catch of muskellunge was 450 fish, and the highest catch (157 fish) occurred in August. Anglers fished an estimated 35.4 hours to catch a muskellunge, and there was no documented angler harvest during the survey.

SMALLMOUTH BASS (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 10,274 hours during the season. Smallmouth bass fishing effort was greatest in August (2,637 hours). Total catch of smallmouth bass was 10,227 fish, with 140 fish harvested. Highest catch (2,485 fish) occurred in August. Anglers fished an estimated 1.3 hours to catch a smallmouth bass during the survey. Mean length of harvested smallmouth bass was 17.7 inches, and the largest measured was a 19.9-inch fish.

LARGEMOUTH BASS (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 5,008 hours during the season. Largemouth bass fishing effort was greatest in August (1,731 hours). Total catch of largemouth bass was 1,827 fish, with 22 fish harvested. The highest catch (479 fish) occurred in July. Anglers fished an estimated 3.7 hours to catch a largemouth bass during the survey. Mean length of harvested largemouth bass was 16.9 inches, and the largest measured was a 17.9-inch fish.

YELLOW PERCH (Table 2, Figure 6)
Yellow perch were the most sought after panfish species during the survey. Fishing

effort directed at yellow perch was 30,568 hours. Total catch of yellow perch was 41,353 fish, and total harvest was 12,849 fish. Mean length of yellow perch harvested was 8.4 inches, and the largest measured was an 11.4-inch fish.

BLUEGILL (Table 2, Figure 7)
Bluegill received 18,964 hours of directed fishing effort. Total catch of bluegill was 31,800 fish, and total harvest was 10,891 fish. Mean length of bluegill harvested was 7.4 inches, and the largest measured was a 9.1-inch fish.

BLACK CRAPPIE (Table 2, Figure 8)
Black crappie received 12,584 hours of directed fishing effort. Anglers caught 5,895 black crappie and harvested 2,480 fish. Mean length of black crappie harvested was 10.3 inches, and the largest measured was a 14.5-inch fish.

PUMPKINSEED (Table 2, Figure 9)
Pumpkinseed received 9,454 hours of directed fishing effort. Anglers caught 1,777 pumpkinseed and harvested 514 fish. Mean length of pumpkinseed harvested was 7.1 inches, and the largest measured was an 8.0-inch fish.

ROCK BASS (Table 2, Figure 10)
Rock bass received 458 hours of directed fishing effort. Anglers caught 4,559 rock bass and harvested 286 fish. Mean length of rock bass harvested was 7.5 inches, and the largest measured was an 8.2-inch fish.

WHITE BASS (Table 2, Figure 11)
White bass received no directed fishing effort. However, anglers caught 54 white bass and harvested 21 fish. Mean length of white bass harvested was 13.2 inches, and the largest measured was a 13.3-inch fish.

BURBOT
Burbot received no directed fishing effort. However, anglers caught 9 burbot with no documented harvest.

Acknowledgements

The DNR thanks 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 cooperators, Gary and Sherri Gerrit of Gerrit's Lakeview Inn, and the Town of Enterprise, who generously allowed the DNR to keep a boat and snowmobile on their properties 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. Creel clerks on Pelican Lake during the survey period were Brechlyn Flannery, Jacob Cafferty, Tyler Olson and Joel Mommaerts.

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/trtycrlsrvys.html

Table 1. Sportfishing effort summary, Pelican Lake, 2024-25 season; compared to 2011-12 creel results, Oneida County averages, and Ceded Territory averages.

MONTH	NUMBER OF ANGLER PARTY INTERVIEWS	TOTAL ANGLER HOURS	TOTAL ANGLER HOURS/ACRE	2011-12 TOTAL ANGLER HOURS/ACRE	ONEIDA COUNTY AVERAGE HOURS/ACRE	CEDED TERRITORY AVERAGE HOURS/ACRE
May	130	9,131	2.5	5.0	4.6	4.7
June	73	9,664	2.7	3.9	6.1	6.0
July	107	15,507	4.3	9.7	6.9	6.4
August	128	12,283	3.4	6.9	5.4	5.0
September	91	9,009	2.5	3.4	3.3	3.1
October	66	1,743	0.5	2.4	1.6	1.4
December	32	5,338	1.5	3.8	1.1	1.0
January	76	8,968	2.5	4.4	1.5	1.7
February	99	6,969	1.9	6.6	1.5	1.6
March	15	713	0.2	0.2	0.2	0.2
Summer Total	595	57,337	16.0	31.3	27.8	26.5
Winter Total	222	21,988	6.1	15.0	4.7	4.6
Grand Total	817	79,325	22.1	46.2	32.3	30.7

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

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 Pelican 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 Pelican Lake to other lakes.

2011-12 Total Angler Hours/Acre is the total angler hours divided by the area of the lake in acres. This is from the previous creel survey that took place on Pelican Lake.

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 Pelican Lake to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Pelican Lake, 2024-25 and 2011-12 fishing seasons.

CREEL YEAR: 2024-25

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	34,813	23.4%	11,664	3.3	2,815	12.6	16.6
Northern pike	14,703	9.9%	3,685	6.7	1,381	12.5	25.3
Muskellunge	12,149	8.2%	450	35.4	0	*	**
Smallmouth bass	10,274	6.9%	10,227	1.3	140	159.2	17.7
Largemouth bass	5,008	3.4%	1,827	3.7	22	*	16.9
Yellow perch	30,568	20.5%	41,353	0.8	12,849	2.4	8.4
Bluegill	18,964	12.7%	31,800	0.7	10,891	1.9	7.4
Black crappie	12,584	8.4%	5,895	2.8	2,480	5.6	10.3
Pumpkinseed	9,454	6.3%	1,777	11.4	514	37.9	7.1
Rock bass	458	0.3%	4,559	1.8	286	3.6	7.5
Burbot	0	0.0%	9	*	0	*	**
White Bass	0	0.0%	54	*	21	*	13.2

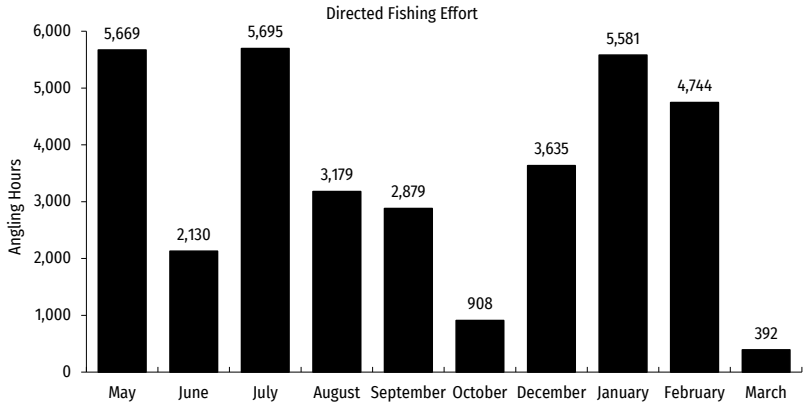
CREEL YEAR: 2011-12

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	52,019	18.4%	13,479	4.3	3,915	13.9	17.8
Northern pike	36,946	13.1%	14,976	4.0	6,032	7.2	22.5
Muskellunge	17,447	6.2%	217	116.3	0	*	**
Smallmouth bass	14,541	5.2%	9,066	2.5	149	122.0	18.8
Largemouth bass	13,329	4.7%	8,633	1.7	30	*	18.2
Yellow perch	68,286	24.2%	131,000	0.5	40,141	1.7	8.9
Bluegill	48,537	17.2%	104,476	0.5	30,093	1.7	7.0
Black crappie	18,847	6.7%	9,730	2.2	5,682	3.8	10.1
Pumpkinseed	11,595	4.1%	9,220	2.3	1,830	8.0	6.6
Rock bass	236	0.1%	4,269	0.6	403	1.2	8.0
White Bass	449	0.2%	699	1.3	468	1.4	12.5

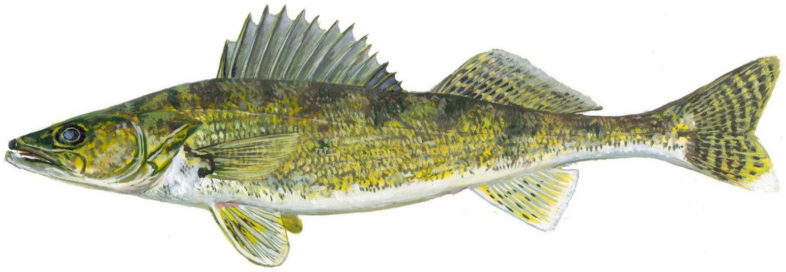
Note: If a species is not shown in a table, no data was collected by the creel clerks for that species.

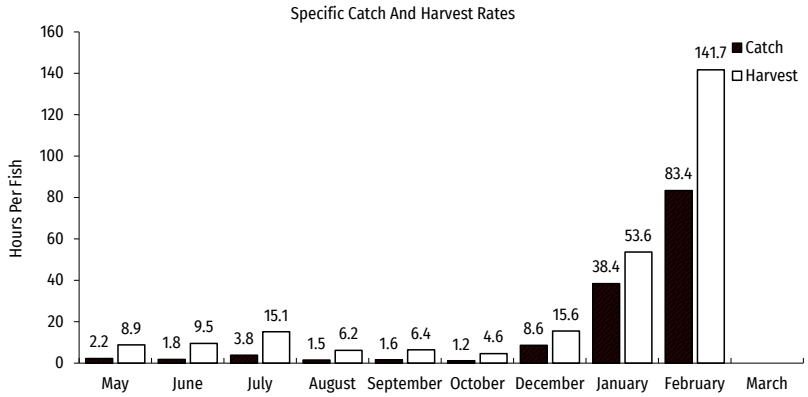
* Indicates that no fish of this species were caught or harvested (depending on the column) by anglers who specifically targeted this species.

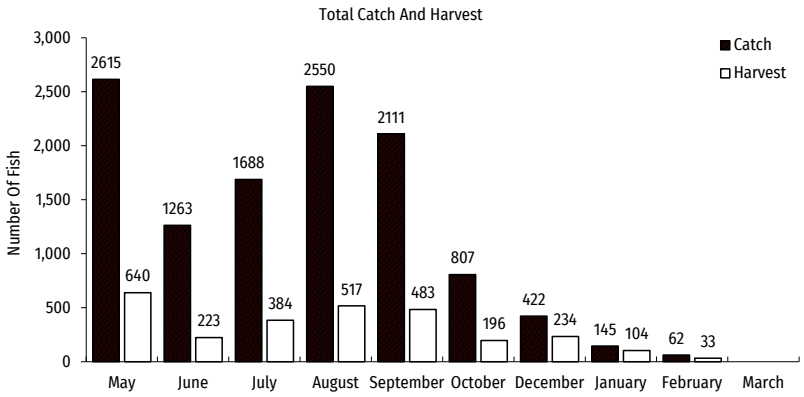
** Indicates that no fish were measured by the creel clerks for this species.

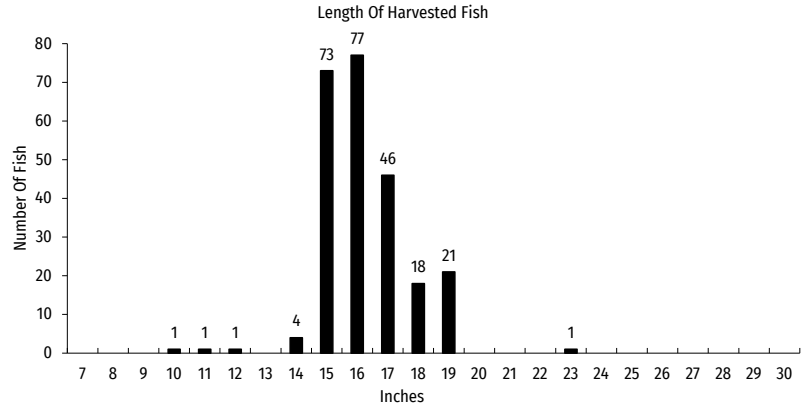


Walleye









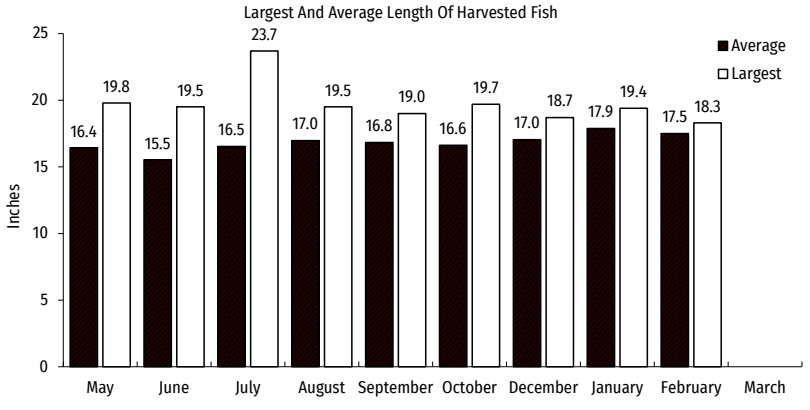
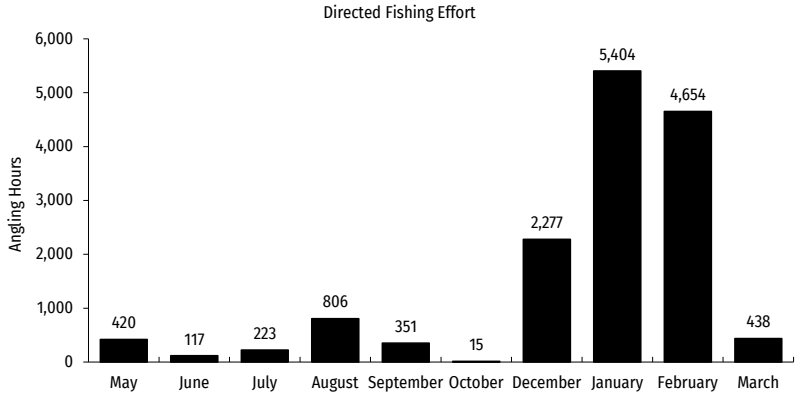
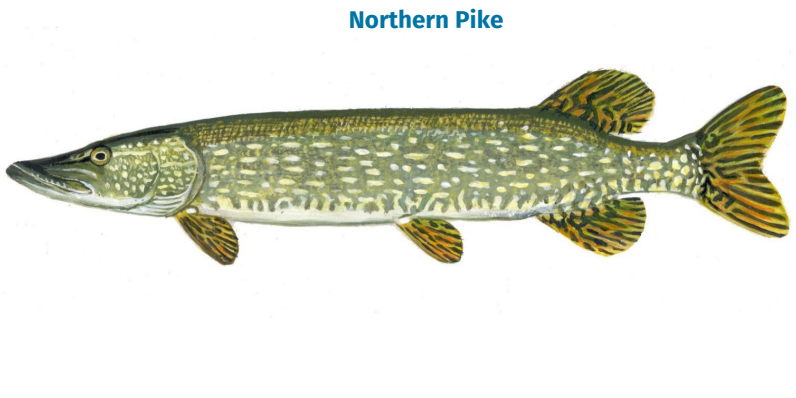
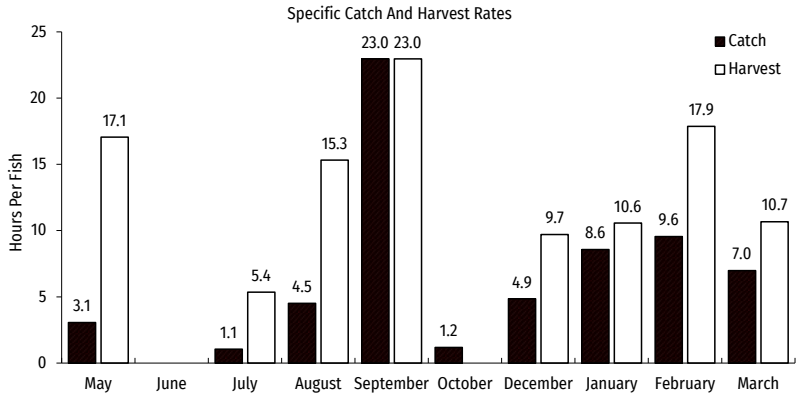
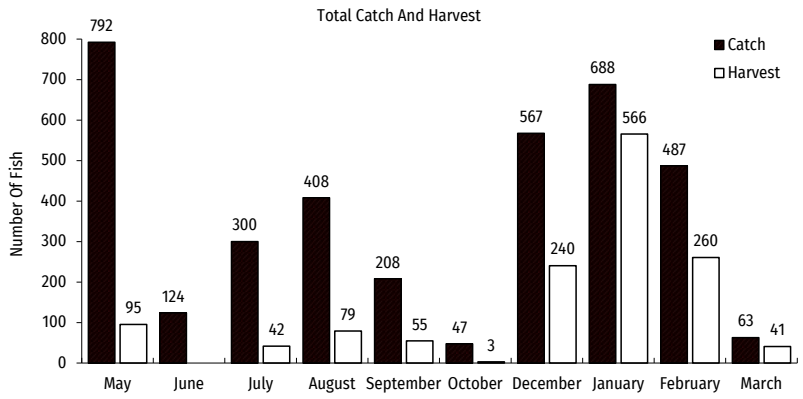


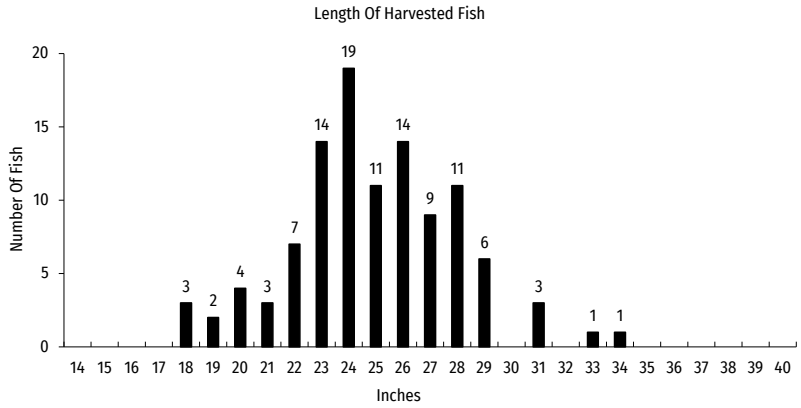
Figure 1. Walleye fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.











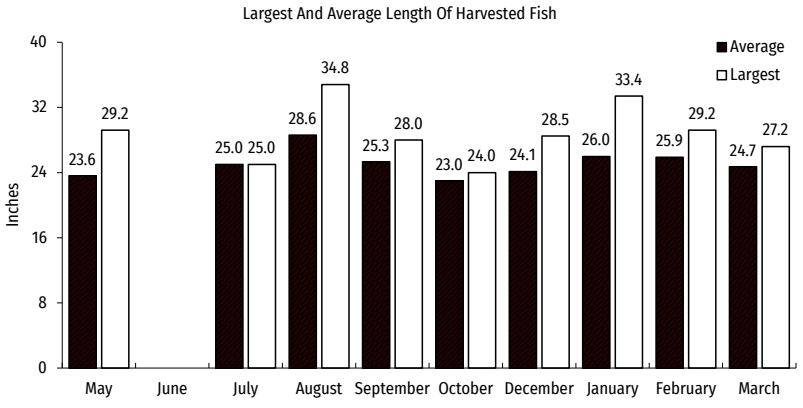
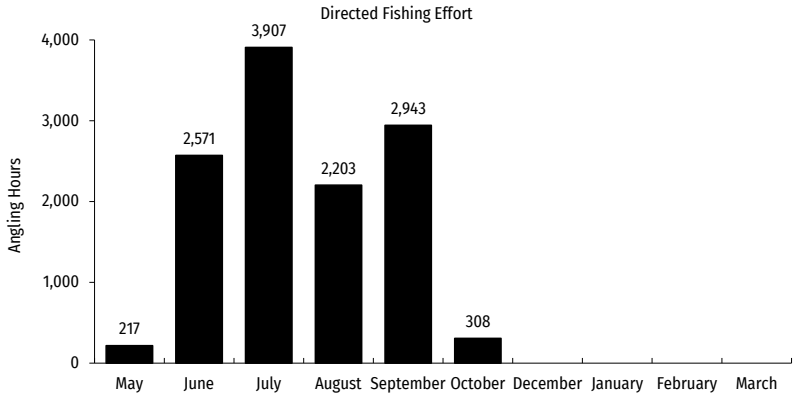
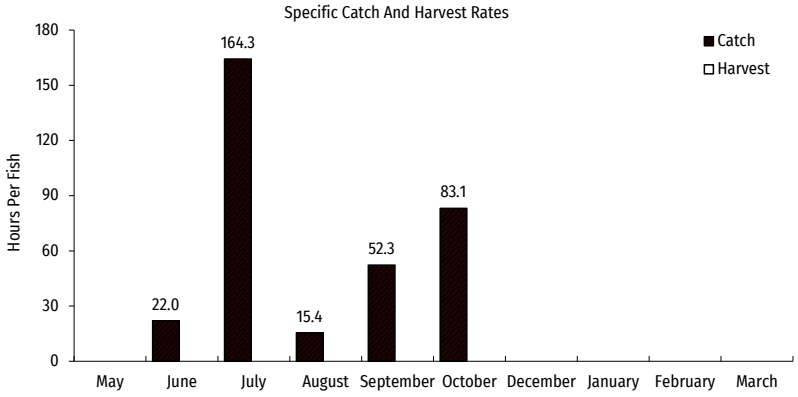


Figure 2. Northern pike fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.

Muskellunge





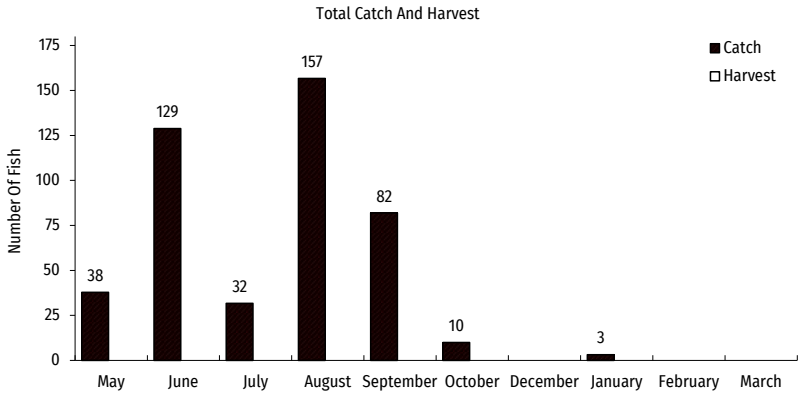
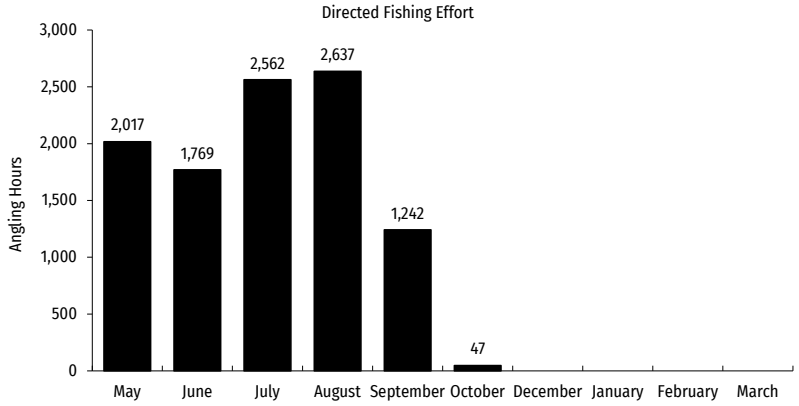
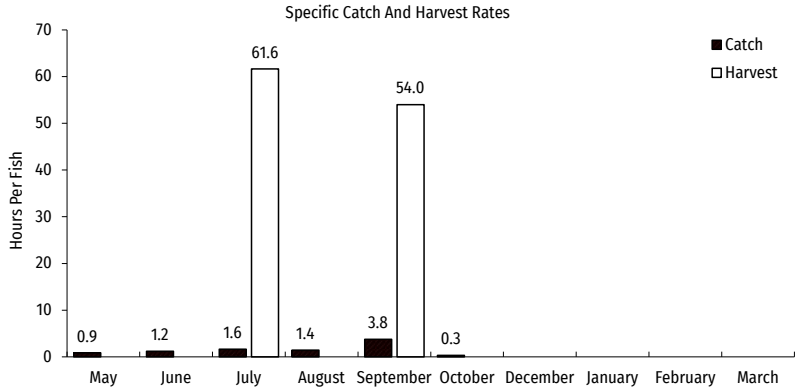
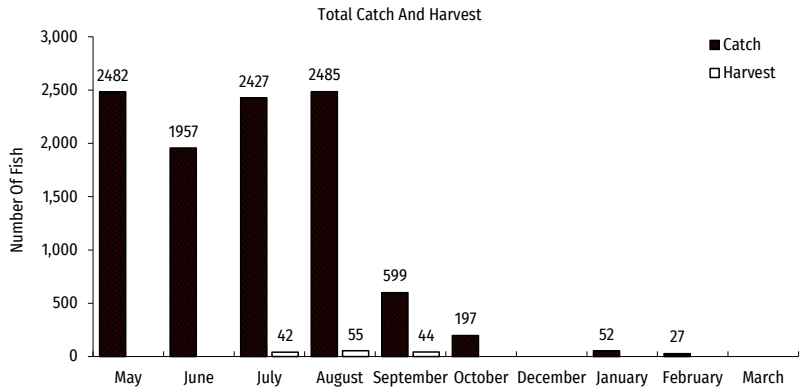


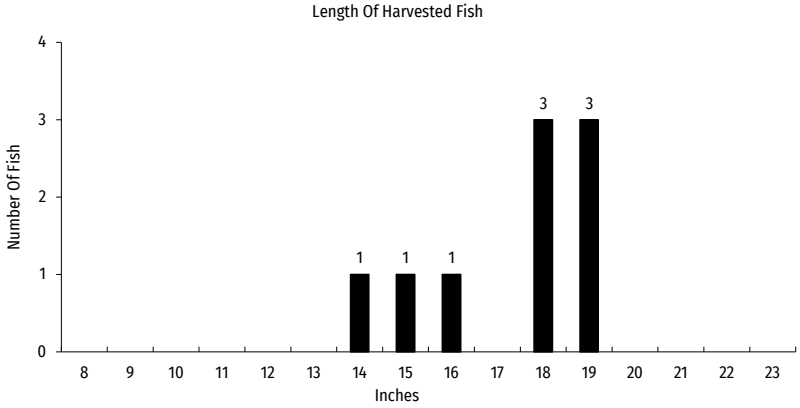
Figure 3. Muskellunge fishing effort, catch and harvest, Pelican Lake, during 2024-25.



Smallmouth Bass







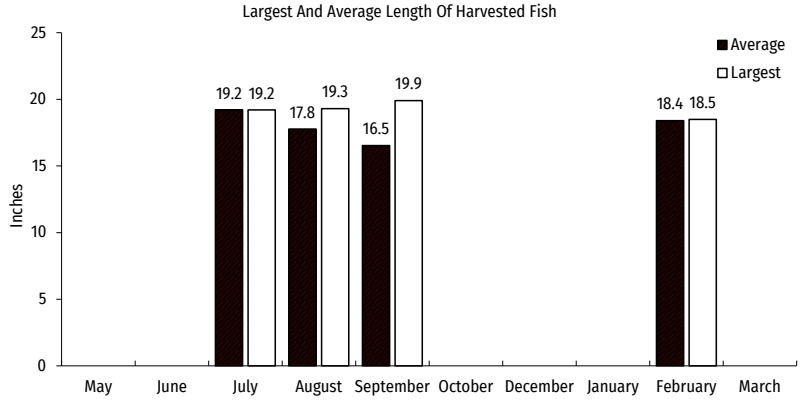
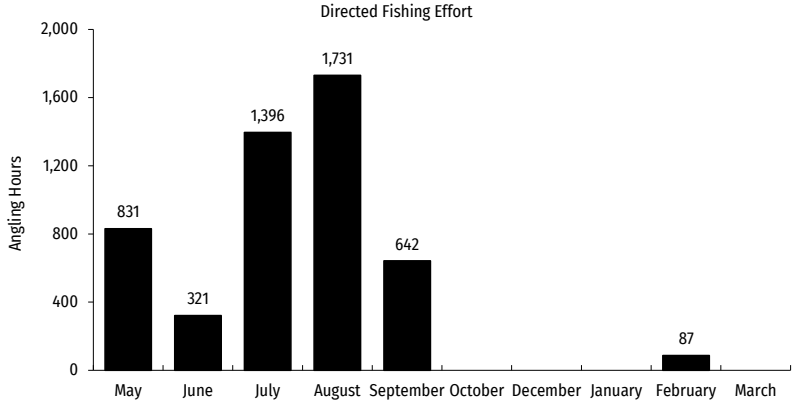
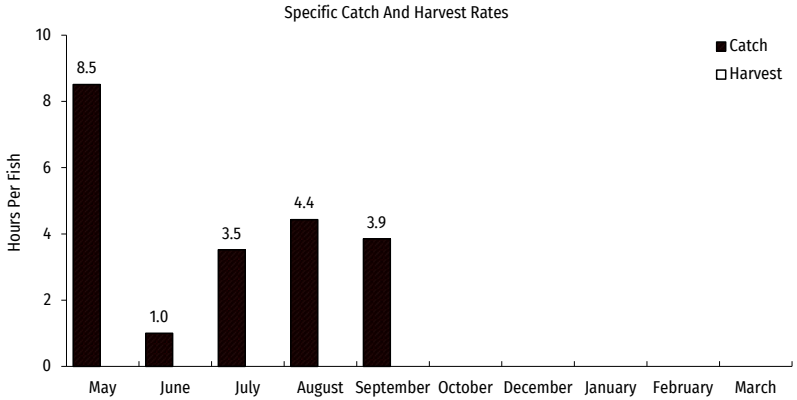
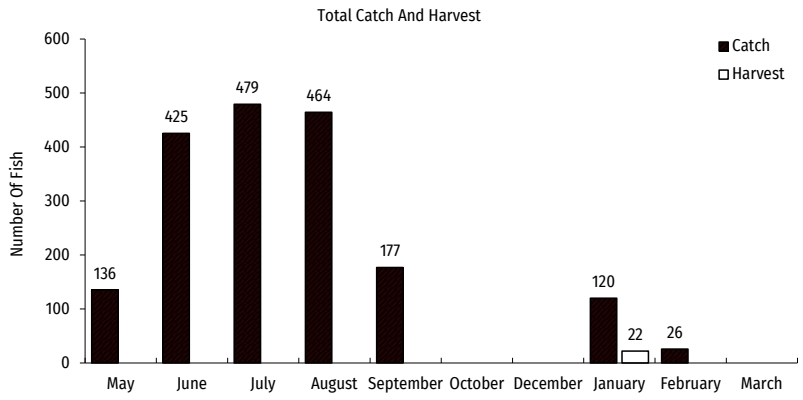


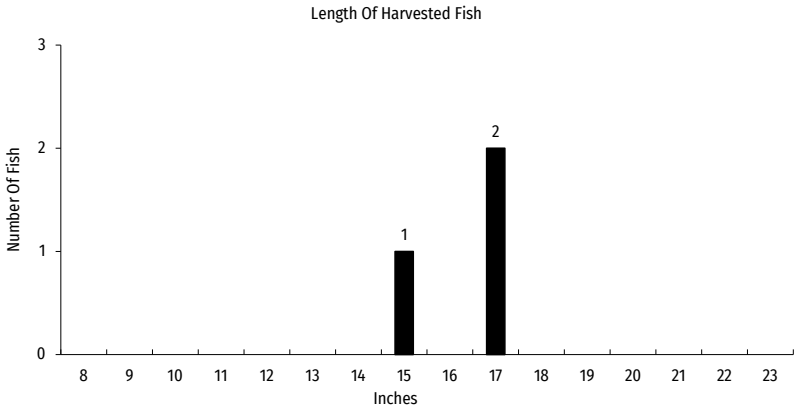
Figure 4. Smallmouth bass fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.



Largemouth Bass







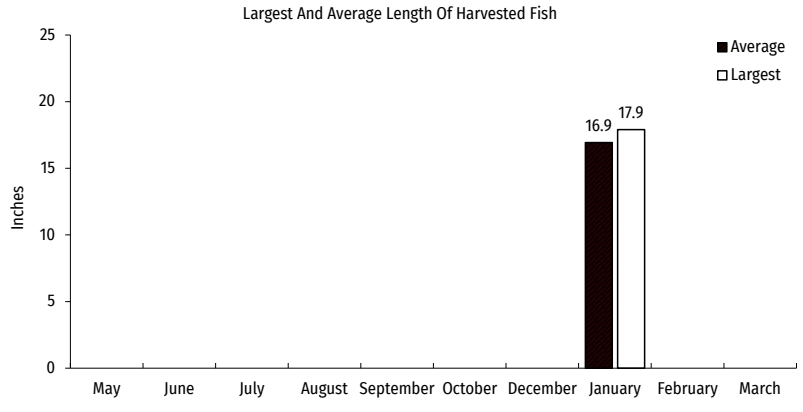
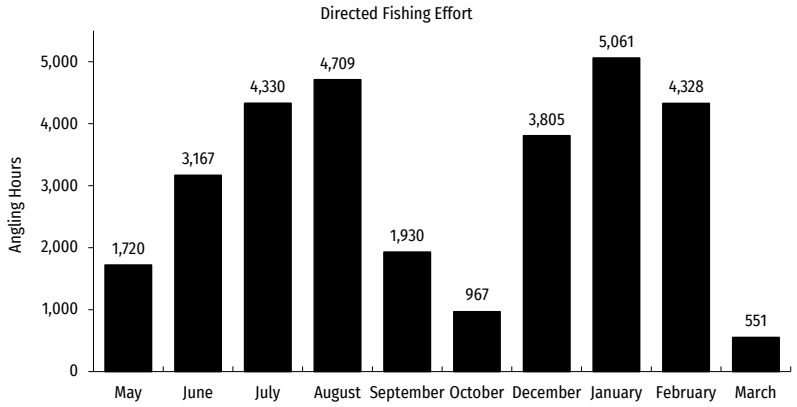
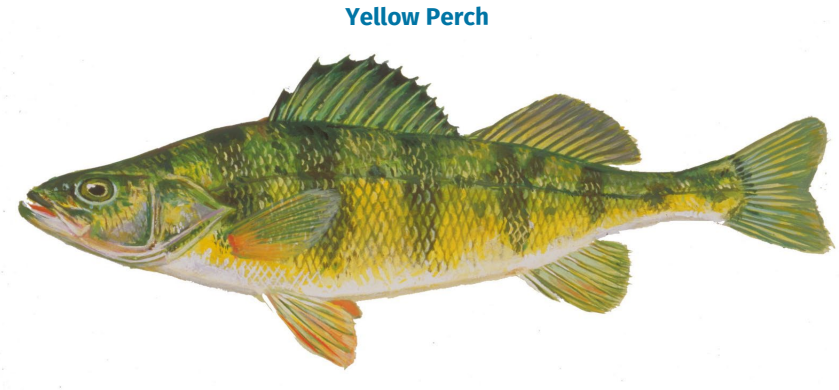
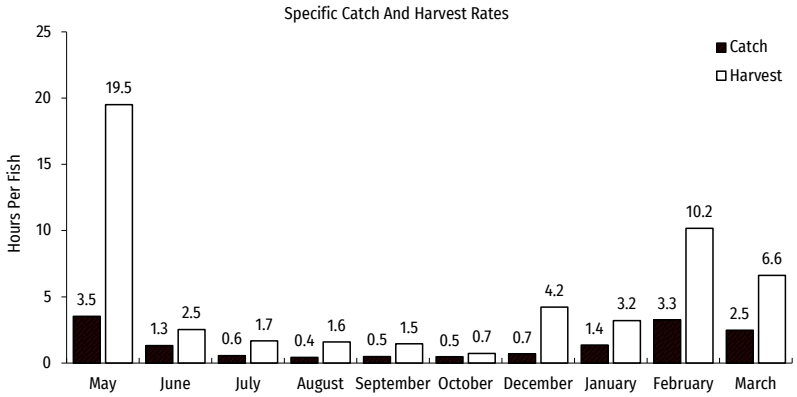
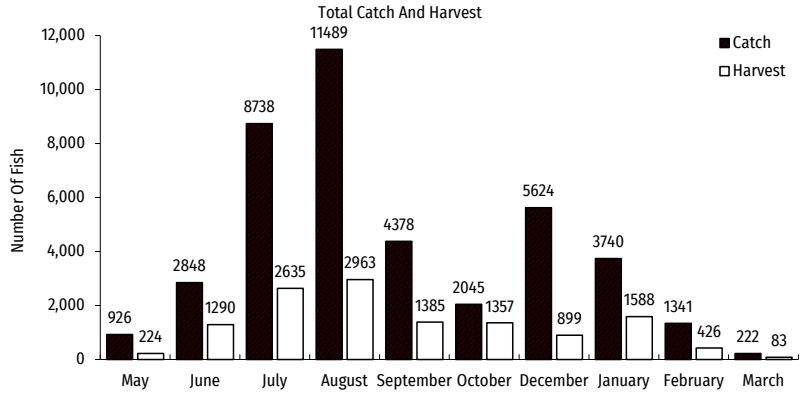


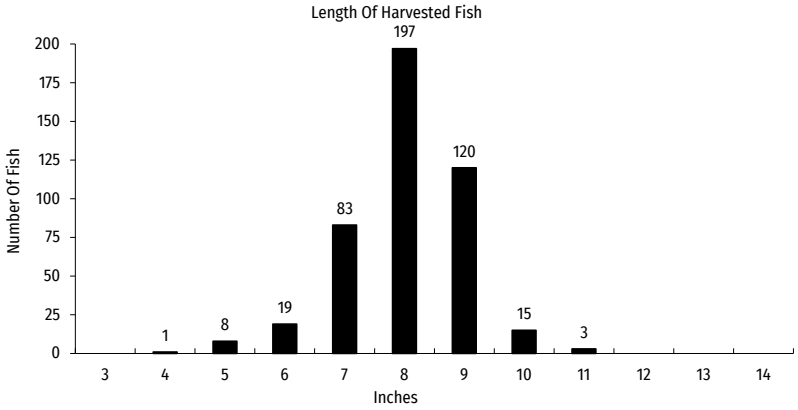
Figure 5. Largemouth bass fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.











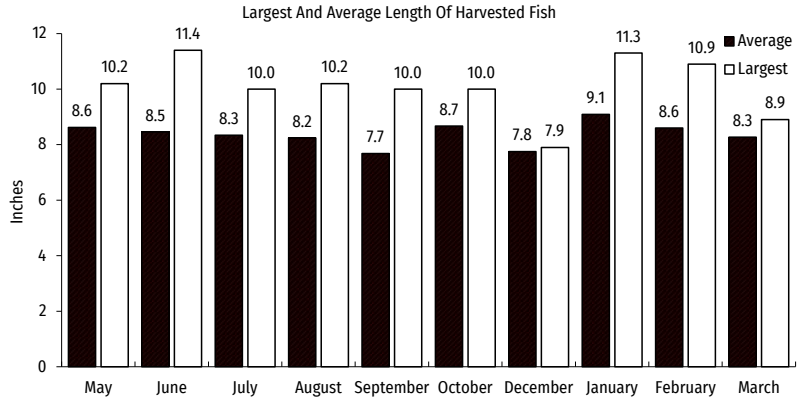
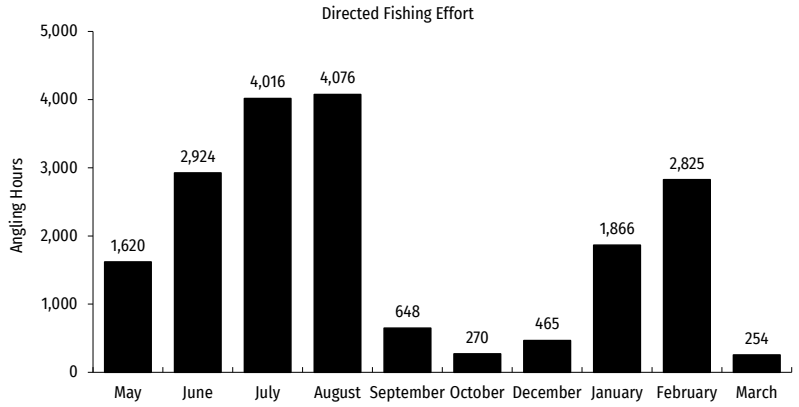
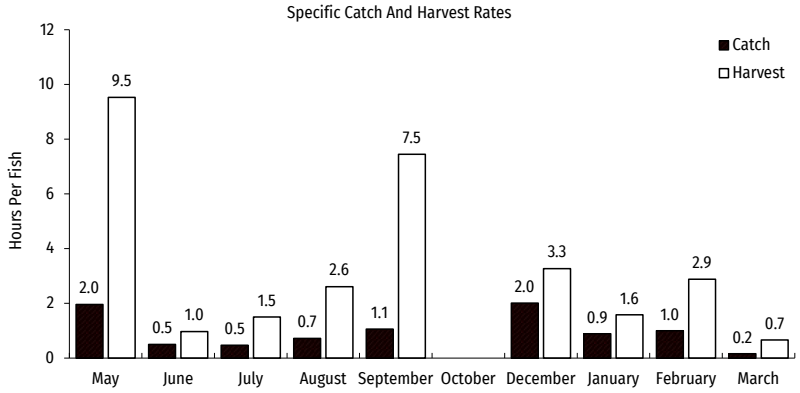
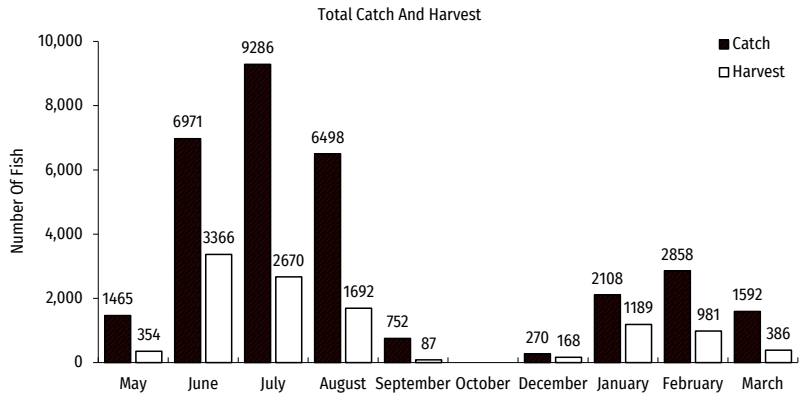


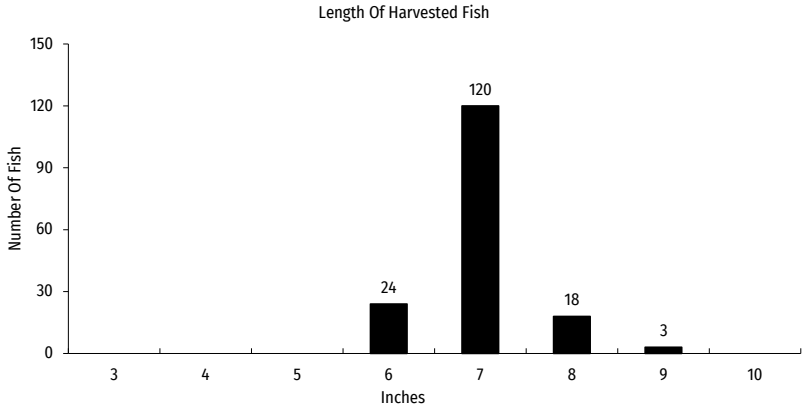
Figure 6. Yellow perch fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.



Bluegill







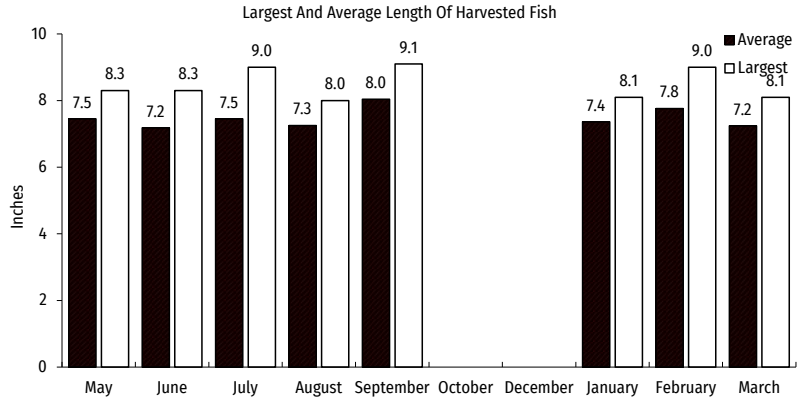
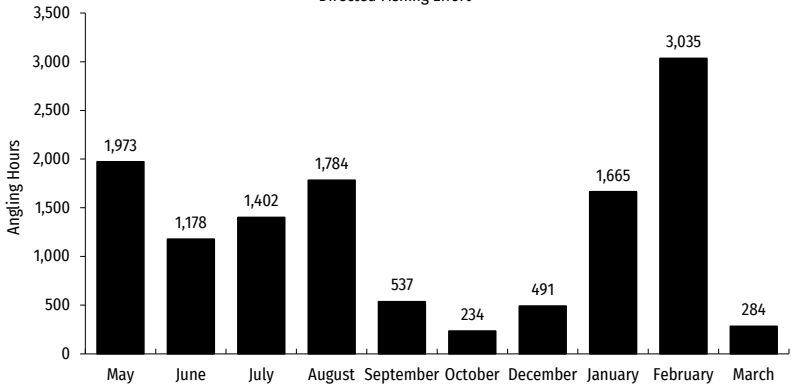
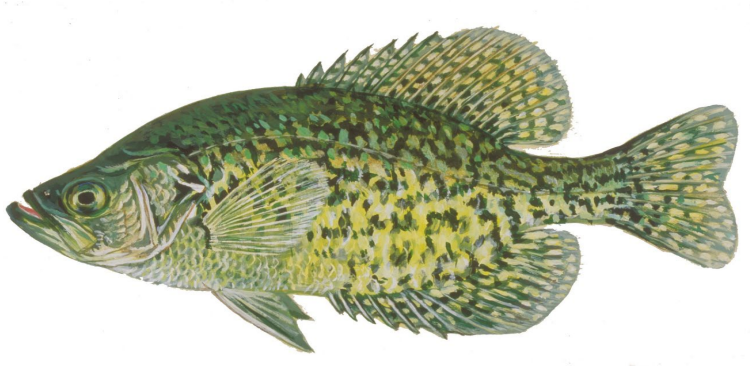
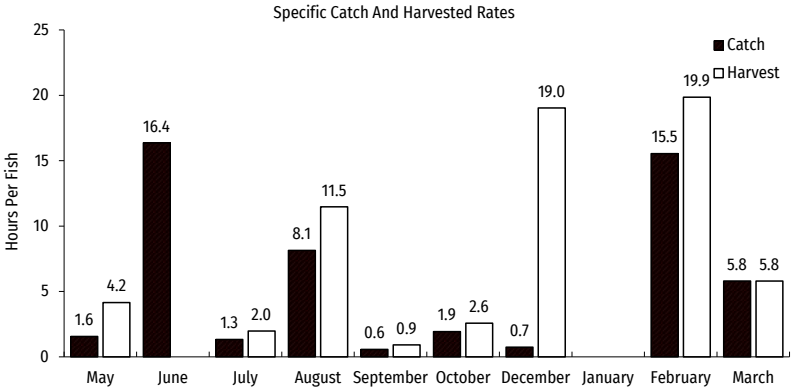


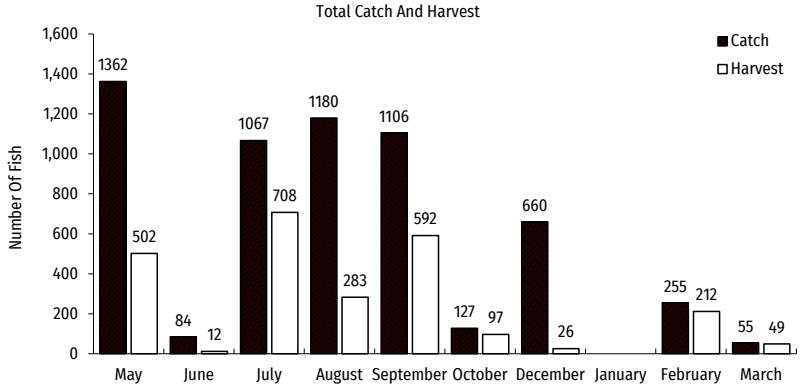
Figure 7. Bluegill fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.

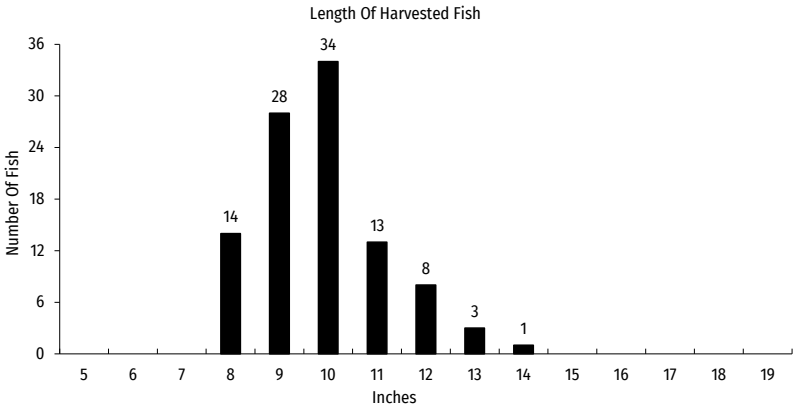


Black Crappie









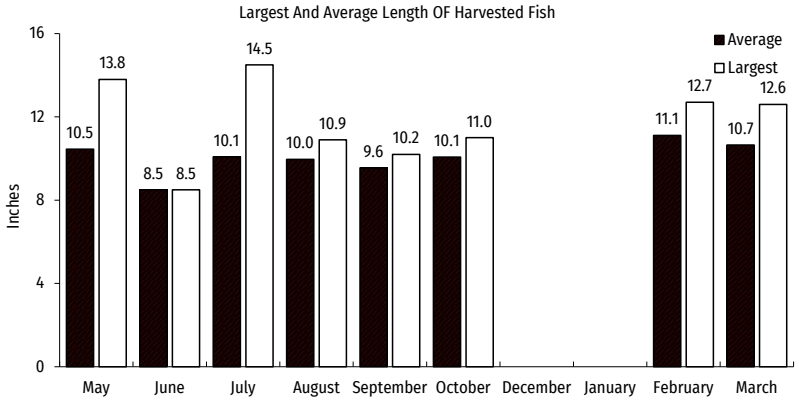
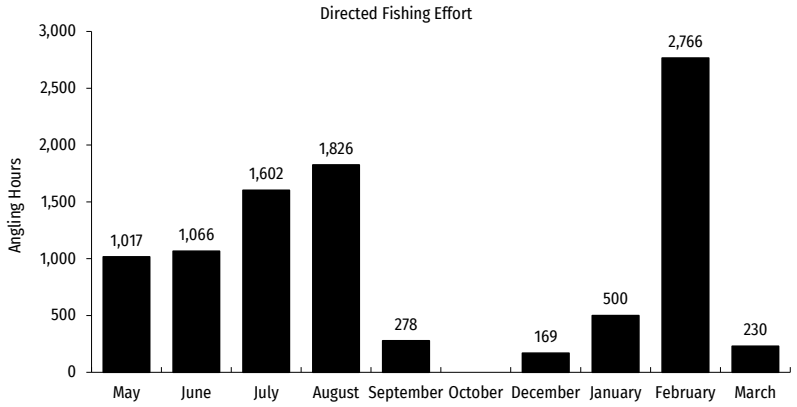
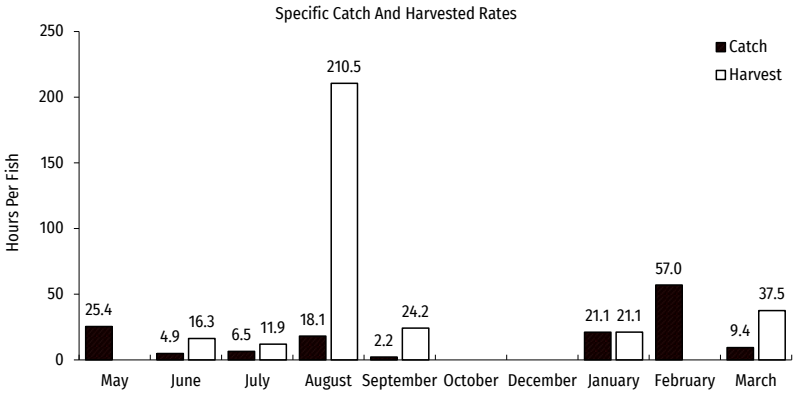
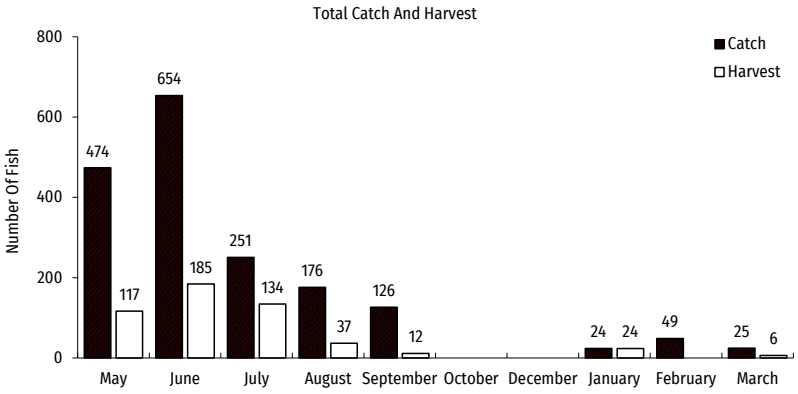


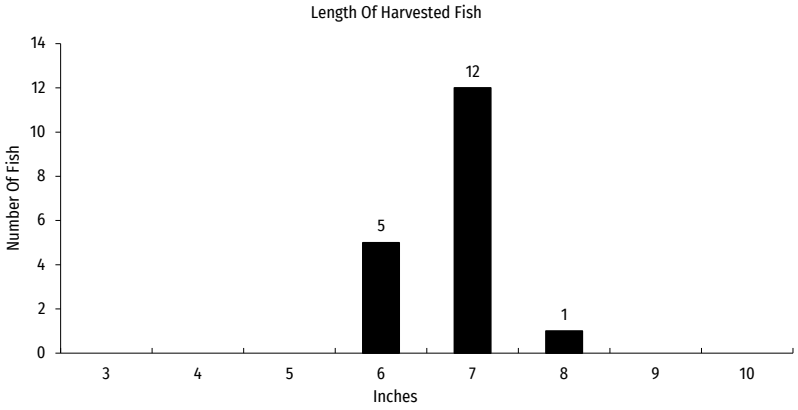
Figure 8. Black crappie fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.



Pumpkinseed







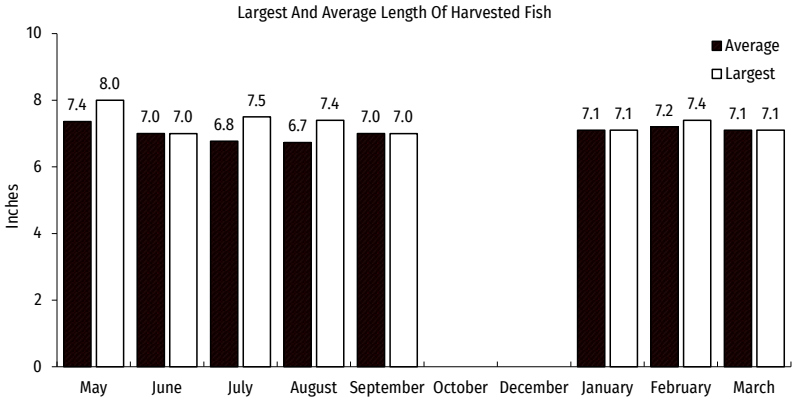
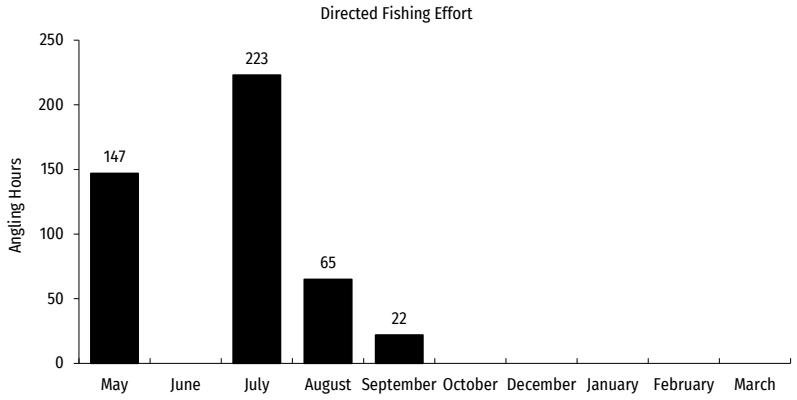
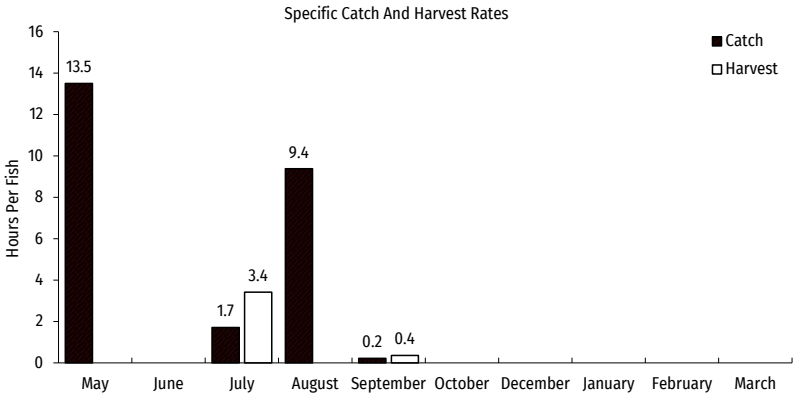
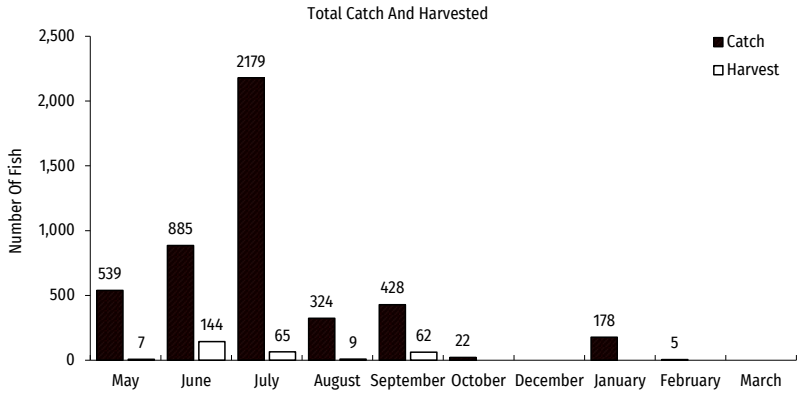


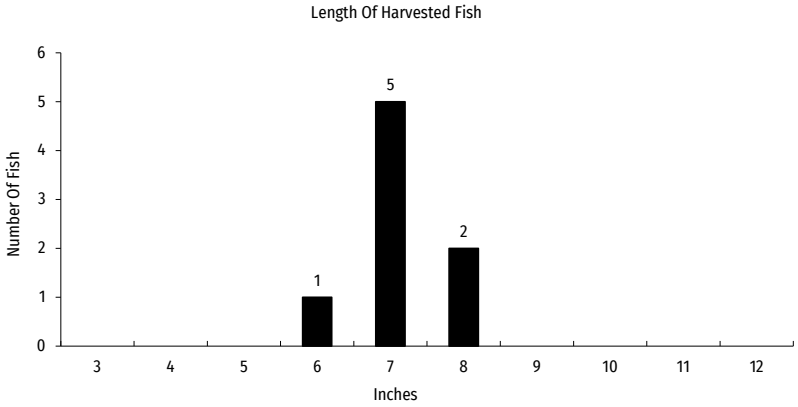
Figure 9. Pumpkinseed fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.

Rock Bass









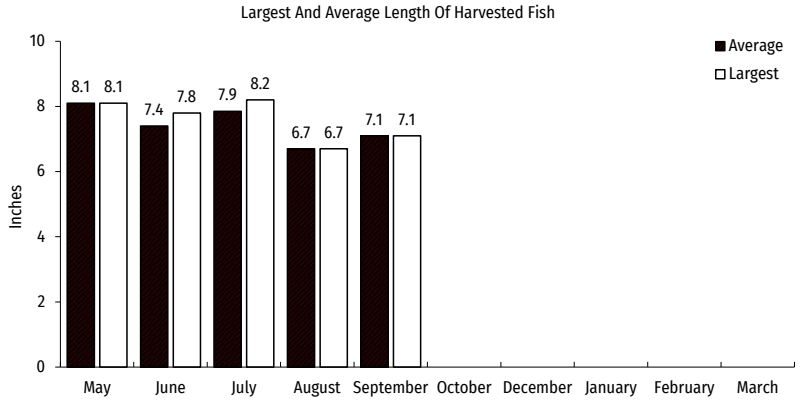
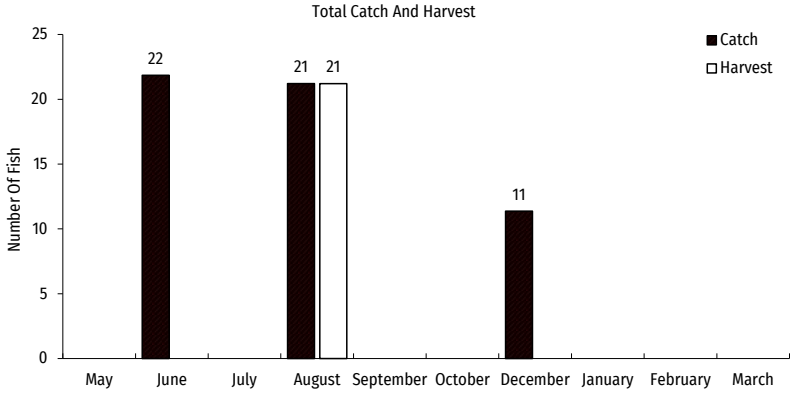
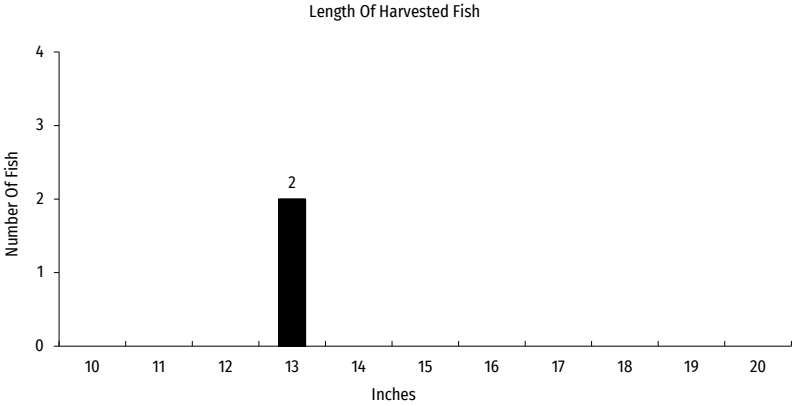


Figure 10. Rock bass fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.

White Bass





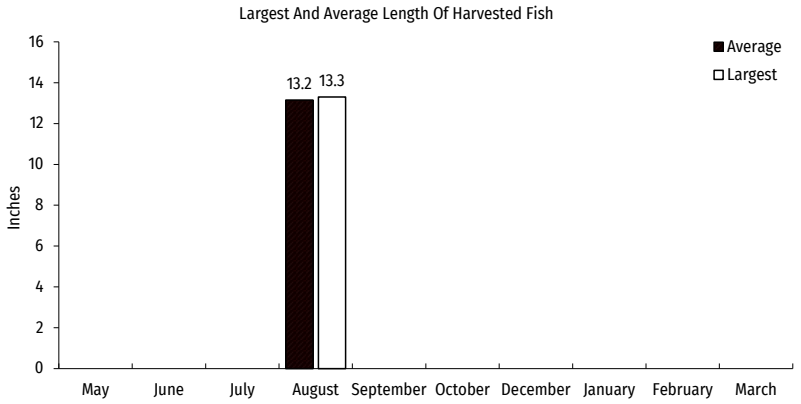


Figure 11. White Bass fishing effort, catch, harvest and length distribution, Pelican Lake, during 2024-25.