WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Creel Survey Report
Tomahawk Lake Chain, 2024-2025

Oneida County

Treaty Fisheries Publication

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Contents

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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.

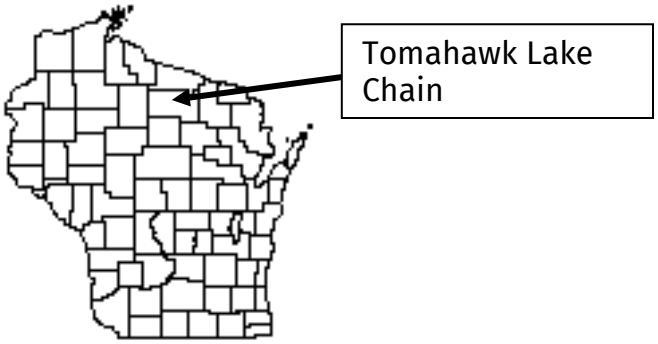
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

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

General Lake Information



LOCATION

For the purposes of this report, Tomahawk Lake Chain refers to Tomahawk Lake and Little Tomawhawk Lake. Tomahawk Lake Chain is located in Oneida County near the Town of Lake Tomahawk.

PHYSICAL CHARACTERISTICS

Tomahawk Lake Chain is a 3552-acre drainage chain of lakes with a maximum depth of 84 feet. Littoral substrate consists primarily of sand, rubble, gravel and lesser amounts of muck and boulders. Tomahawk Lake Chain contains soft, neutral, clear water of high 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. *Walleye were catch and release only until harvest opened on May 07, 2024.

WEATHER

Ice-out on Tomahawk Lake Chain was in early April 2024. Fishable ice formed on Tomahawk Lake Chain in mid-December 2024.

FISHING REGULATIONS

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

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth bass	5/ 04 - 3/ 02	5*	None
Smallmouth bass	6/ 15 - 3/ 02	5*	None
*Bass species have a combined bag limit of 5. Catch & release is open all year.			
Muskellunge	5/ 25 - 12/ 31	1	50"
On open water			
Northern pike	5/ 04 - 3/ 02	5	None
Walleye	5/ 07 - 3/ 02	1	18"
22"- 28" protected slot			
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 1-10, 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 fifth time the DNR conducted a creel survey on Tomahawk Lake Chain. The last creel survey took place during 2009-10.

GENERAL ANGLER INFORMATION

Anglers spent 73,549 hours, or 20.7 hours per acre, fishing Tomahawk Lake Chain during the 2024-25 season (Table 1). That was less than the Oneida County average of 32.3 hours per acre, and the fishing effort documented during the 2009-10 creel survey (27.6 hours per acre). July was the most heavily fished month (16,885 hours). Creel clerks were able to conduct 742 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 43,697 hours targeting walleye. Fishing effort for walleye was highest in July (9,612 hours). Total catch of walleye was 24,266 fish, and total harvest was 1,978 fish. Highest catch (8,689 fish) and highest harvest (719 fish) both occurred in June. Anglers fished an estimated 1.9 hours to catch, and 22.5 hours to harvest a walleye during the survey. Mean length of harvested walleye was 19.3 inches, and the largest measured was a 22.3-inch fish.

NORTHERN PIKE (Table 2, Figure 2)
Fishing effort directed at northern pike was 3,631 hours during the season. Northern pike fishing effort was greatest in February (1,554 hours). Total catch of northern pike was 1,154 fish, and total harvest was 286 fish. Anglers fished an estimated 15.3 hours to catch a northern pike during the survey. Mean length of harvested northern pike was 26.7 inches, and the largest measured was a 39.8-inch fish.

MUSKELLUNGE (Table 2, Figure 3)
Anglers spent 8,448 hours targeting muskellunge during the season. Muskellunge fishing effort was greatest in August (2,138 hours). Total catch of muskellunge was 372 fish, and the highest catch (88 fish) occurred in August. Anglers fished an estimated 45.6 hours to catch a muskellunge, and there was no documented harvest during the survey.

SMALLMOUTH BASS (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 16,563 hours during the season. Smallmouth bass fishing effort was greatest in July (5,480 hours). Total catch of smallmouth bass was 17,630 fish, with 734 fish harvested. Highest catch (5,904 fish) occurred in July. Anglers fished an estimated 1.5 hours to catch a smallmouth bass during the survey. Mean length of harvested smallmouth bass was 13.3 inches, and the largest measured was a 16.5-inch fish.

LARGEMOUTH BASS (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 11,796 hours during the season. Largemouth bass fishing effort was greatest in July (3,376 hours). Total catch of largemouth bass was 12,890 fish, and total harvest was 972 fish. The highest catch (3,446 fish) occurred in September. Anglers fished an estimated 1.5 hours to catch a largemouth bass during the survey. Mean length of harvested largemouth bass was 12.8 inches, and the largest measured was an 18.0-inch fish.

YELLOW PERCH (Table 2, Figure 6)
Yellow perch received 4,689 hours of directed fishing effort. Total catch of yellow perch was 6,104 fish, and total harvest was 741 fish. Mean length of yellow perch harvested was 8.7 inches, and the largest measured was an 11.1-inch fish.

BLUEGILL (Table 2, Figure 7)
Bluegill received 9,730 hours of directed fishing effort. Total catch of bluegill was 30,011 fish, and total harvest was 5,715 fish. Mean length of bluegill harvested was 7.4 inches, and the largest measured was an 8.7-inch fish.

BLACK CRAPPIE (Table 2, Figure 8)
Black crappie were the most sought after panfish species during the survey. Fishing effort directed at black crappie was 13,253 hours of directed fishing effort. Anglers caught 12,320 black crappie and harvested 5,186 fish. Mean length of black crappie harvested was 10.7 inches, and the largest measured was a 13.1-inch fish.

PUMPKINSEED (Table 2, Figure 9)
Pumpkinseed received 1,414 hours of directed fishing effort. Anglers caught 2,111 pumpkinseed and harvested 745 fish. Mean length of pumpkinseed harvested was 7.6 inches, and the largest measured was a 9.6-inch fish.

ROCK BASS (Table 2, Figure 10)
Rock bass received 176 hours of directed fishing effort. Anglers caught 7,956 rock bass and harvested 336 fish. Mean length of rock bass harvested was 8.4 inches, and the largest measured was a 9.9-inch fish.

BOWFIN
There was no directed fishing for bowfin. However, 17 bowfin were caught by anglers with no documented harvest

CISCO
There was no directed fishing effort for cisco. However, 3 cisco were caught by anglers with no documented harvest

GRASS PICKEREL
There was no directed fishing effort for grass pickerel. However, 6 grass pickerel were caught by anglers 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, John and Bunny Hibregtse and Bill and Nannete Schwantes, 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. Creel clerks on Tomahawk Lake Chain during the survey period were Matt Lorenzoni, John Davis and Peyton Gitzlaff.

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, Tomahawk Lake Chain, 2024-25 season; compared to 2009-10 creel results, Oneida County averages, and Ceded Territory averages.

MONTH	NUMBER OF ANGLER PARTY INTERVIEWS	TOTAL ANGLER HOURS	TOTAL ANGLER HOURS/ACRE	2009-10 TOTAL ANGLER HOURS/ACRE	ONEIDA COUNTY AVERAGE HOURS/ACRE	CEDED TERRITORY AVERAGE HOURS/ACRE
May	122	9,453	2.7	2.6	4.6	4.7
June	105	11,774	3.3	4.8	6.1	6.0
July	116	16,885	4.8	5.9	6.9	6.4
August	112	9,026	2.5	4.8	5.4	5.0
September	70	6,660	1.9	5.2	3.3	3.1
October	65	3,315	0.9	0.4	1.6	1.4
December	40	4,111	1.2	0.1	1.1	1.0
January	58	4,914	1.4	1.5	1.5	1.7
February	48	6,239	1.8	2.0	1.5	1.6
March	6	1,173	0.3	0.3	0.2	0.2
Summer Total	590	57,113	16.1	23.6	27.8	26.5
Winter Total	152	16,436	4.6	4.0	4.7	4.6
Grand Total	742	73,549	20.7	27.6	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 Tomahawk Lake Chain 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 Tomahawk Lake Chain to other lakes.

2009-10 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 Tomahawk Lake Chain.

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 Tomahawk Lake Chain to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Tomahawk Lake Chain, 2024-25 and 2009-10 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	43,697	38.5%	24,266	1.9	1,978	22.5	19.3
Northern pike	3,631	3.2%	1,154	15.3	286	31.0	26.7
Muskellunge	8,448	7.4%	372	45.6	0	*	**
Smallmouth bass	16,563	14.6%	17,630	1.5	734	40.2	13.3
Largemouth bass	11,796	10.4%	12,890	1.5	972	33.5	12.8
Yellow perch	4,689	4.1%	6,104	1.9	741	11.7	8.7
Bluegill	9,730	8.6%	30,011	0.5	5,715	2.1	7.4
Black crappie	13,253	11.7%	12,320	1.1	5,186	2.6	10.7
Pumpkinseed	1,414	1.2%	2,111	1.0	745	2.8	7.6
Rock bass	176	0.2%	7,956	0.6	336	*	8.4
Bowfin	0	0.0%	17	*	0	*	**
Cisco	0	0.0%	3	*	0	*	**
Grass Pickerel	0	0.0%	6	*	0	*	**

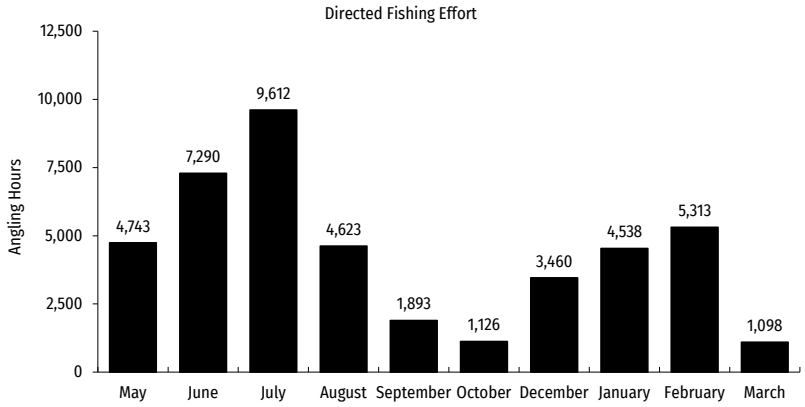
CREEL YEAR: 2009-10

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	24,878	12.2%	419	94.3	254	129.9	21.8
Northern pike	4,957	2.4%	819	18.9	176	37.5	25.5
Muskellunge	10,384	5.1%	182	119.0	0	*	**
Smallmouth bass	37,682	18.5%	51,334	1.0	1,084	40.0	14.3
Largemouth bass	31,385	15.4%	22,815	1.9	533	122.0	14.0
Yellow perch	24,667	12.1%	20,503	1.6	5,539	5.0	8.1
Bluegill	31,159	15.3%	61,608	0.6	13,886	2.3	7.1
Black crappie	27,906	13.7%	11,721	2.5	7,849	3.6	10.5
Pumpkinseed	5,137	2.5%	6,283	1.2	1,830	3.3	7.1
Rock bass	5,818	2.9%	40,946	0.6	5,642	1.2	7.9

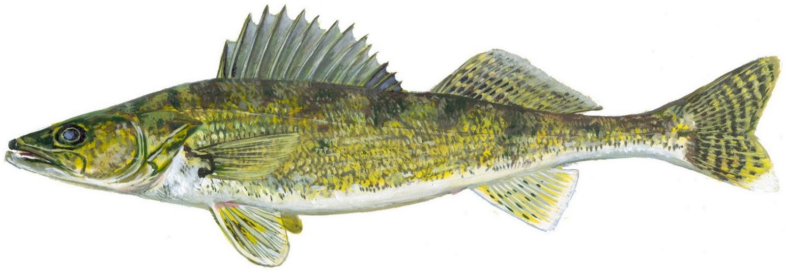
Note: If a species is not shown in a table, no data was collected by the creel clerks for that species.

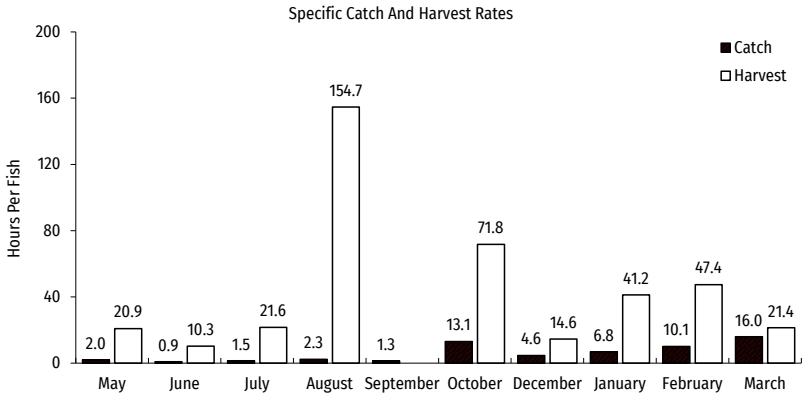
* Indicates that no fish of this species were caught or harvested (depending on the column) by anglers who specifically targeted this species.

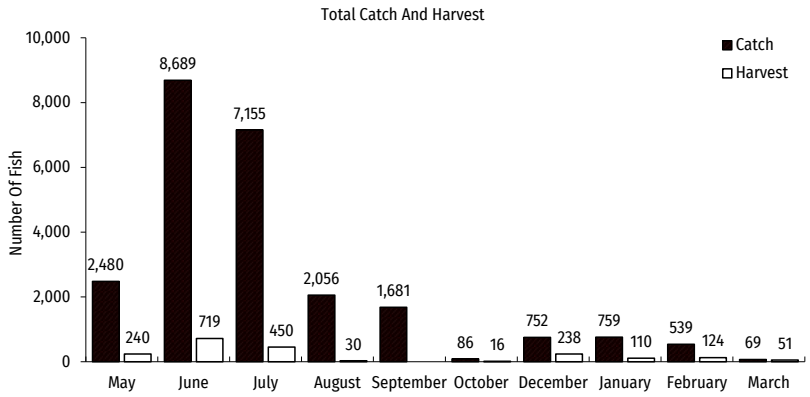
** Indicates that no fish were measured by the creel clerks for this species.

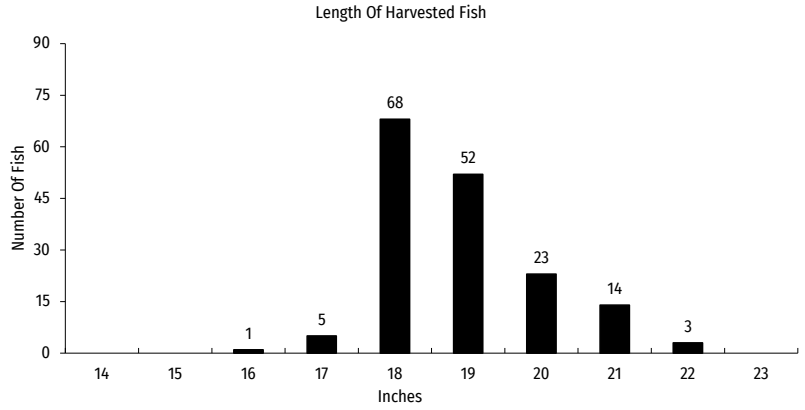


Walleye









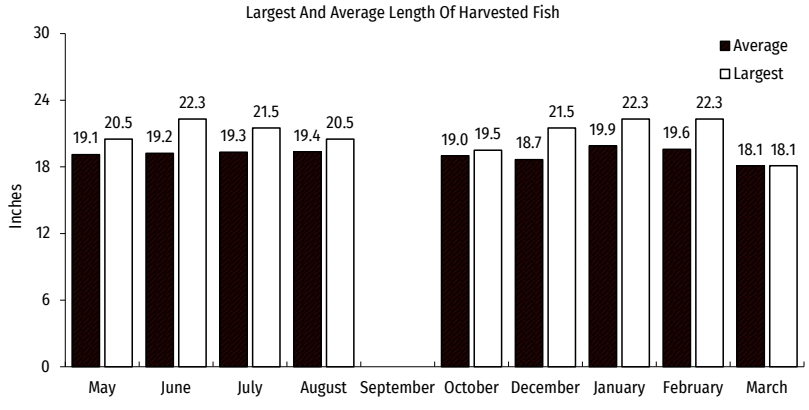
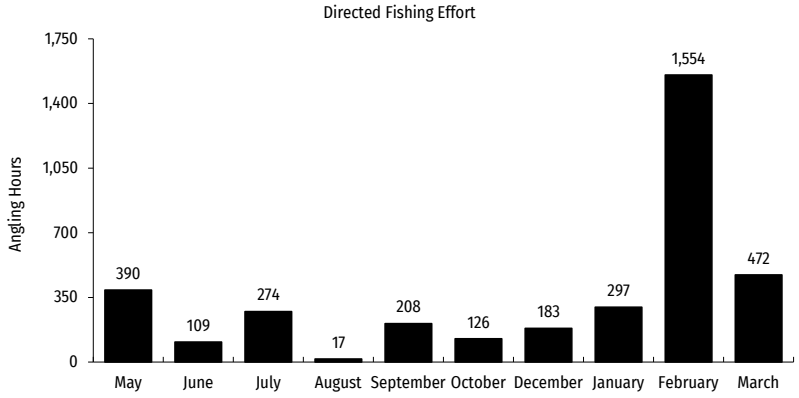
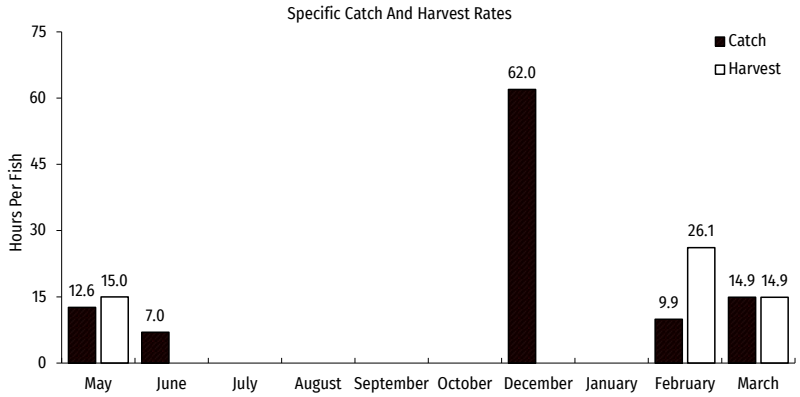
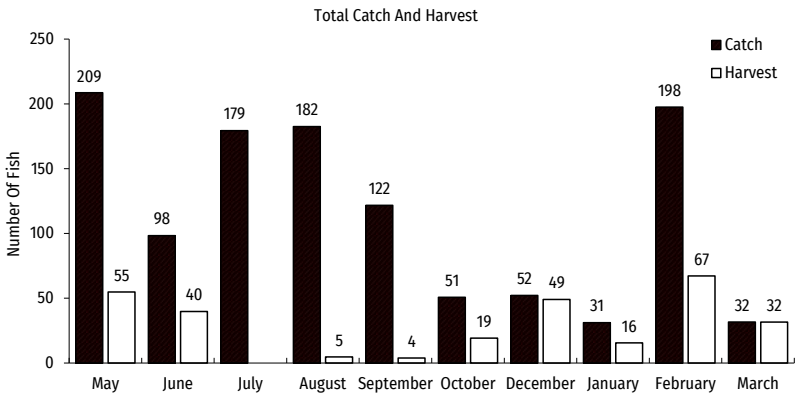
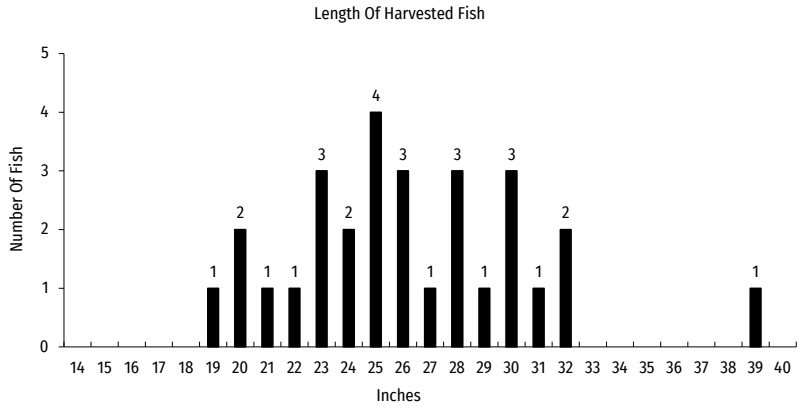


Figure 1. Walleye fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.









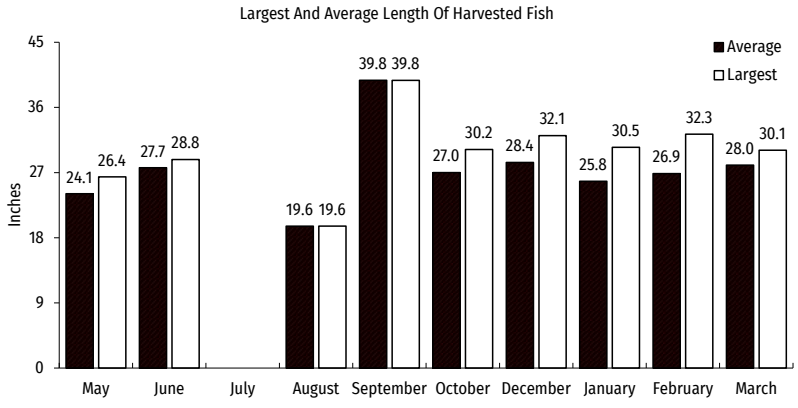
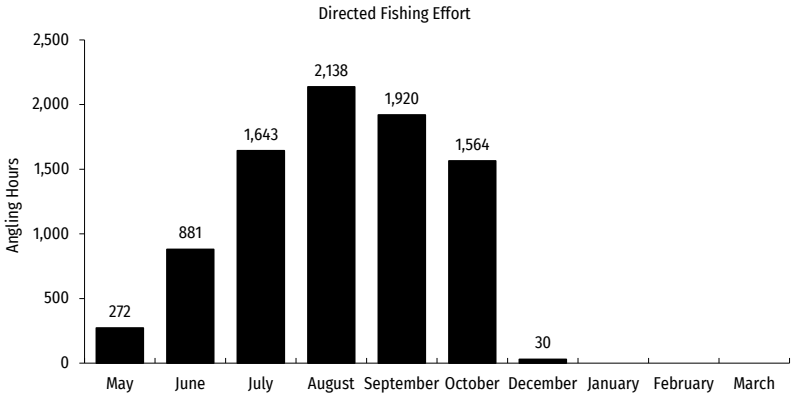
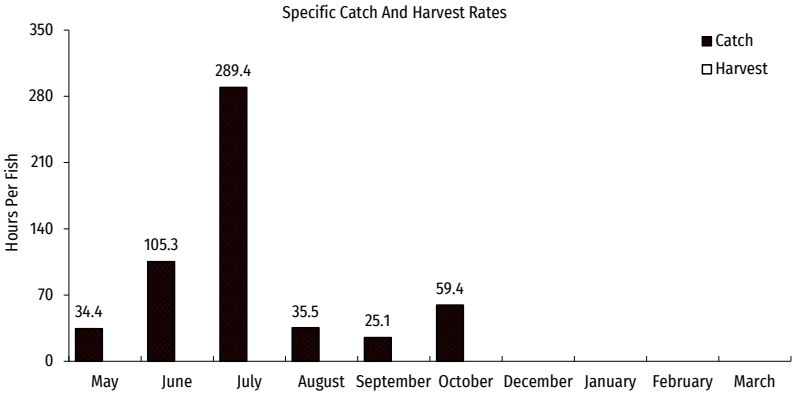


Figure 2. Northern pike fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.

Muskellunge





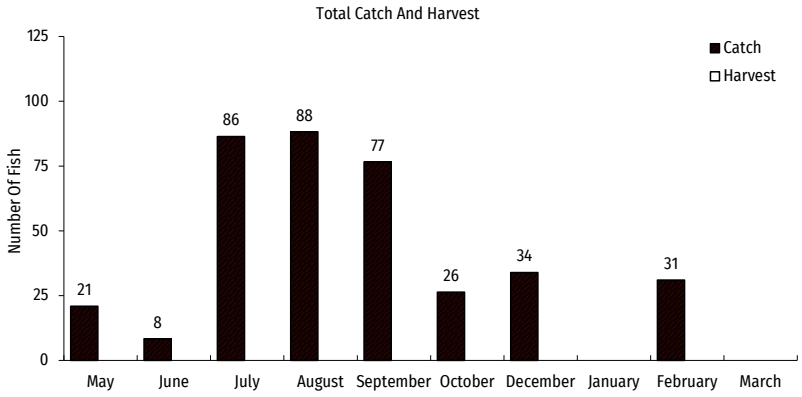
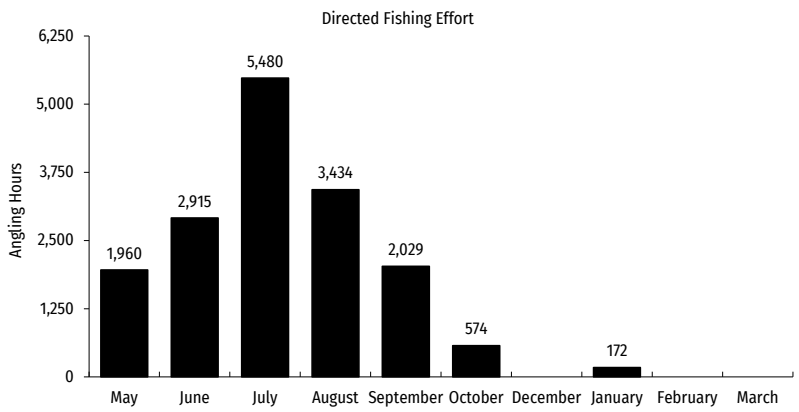
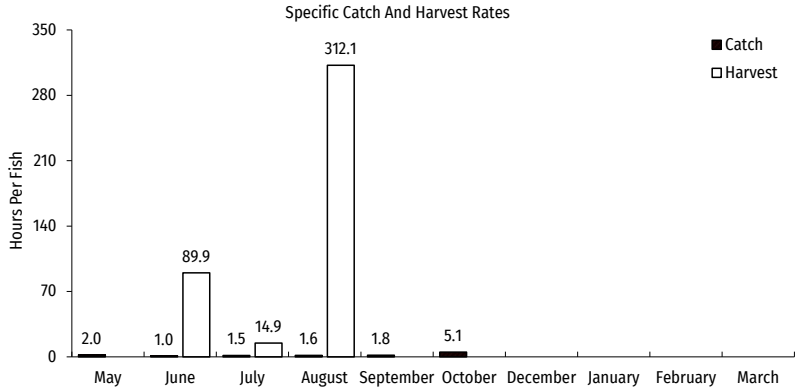
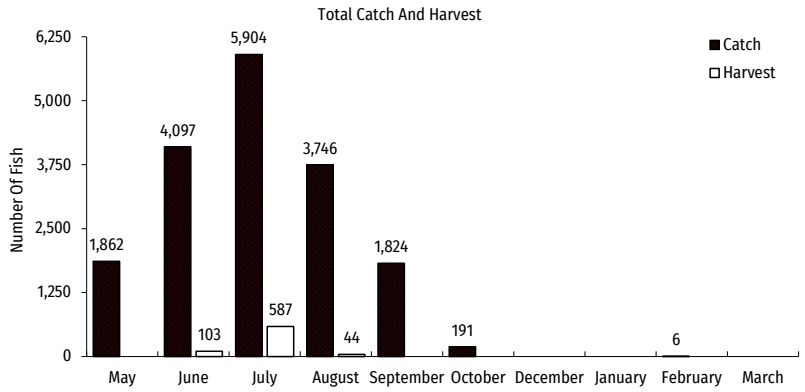


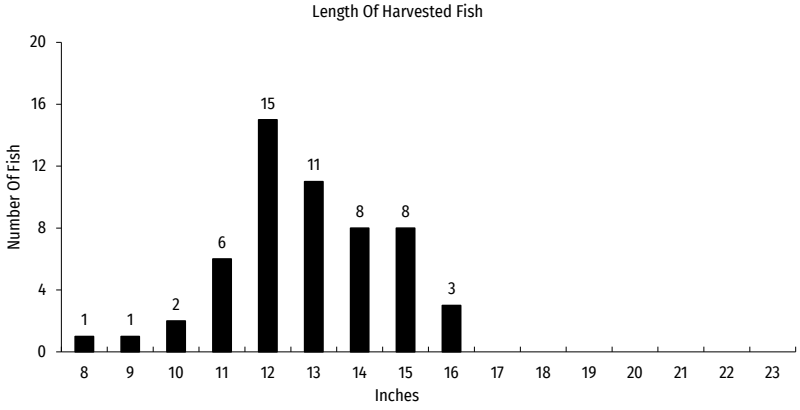
Figure 3. Muskellunge fishing effort, catch and harvest, Tomahawk Lake Chain, during 2024-25.



Smallmouth Bass







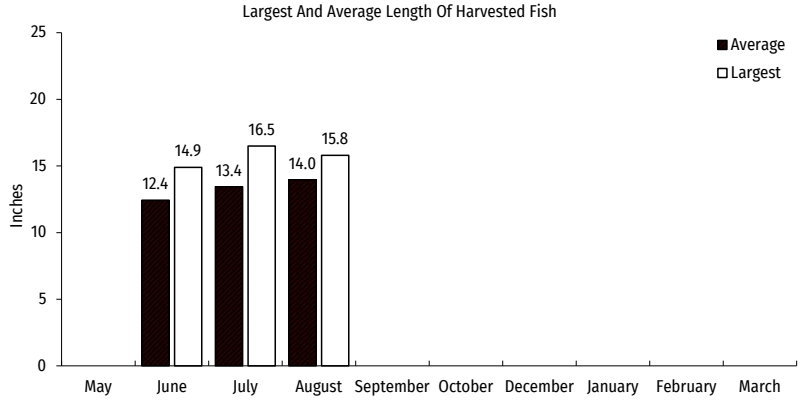
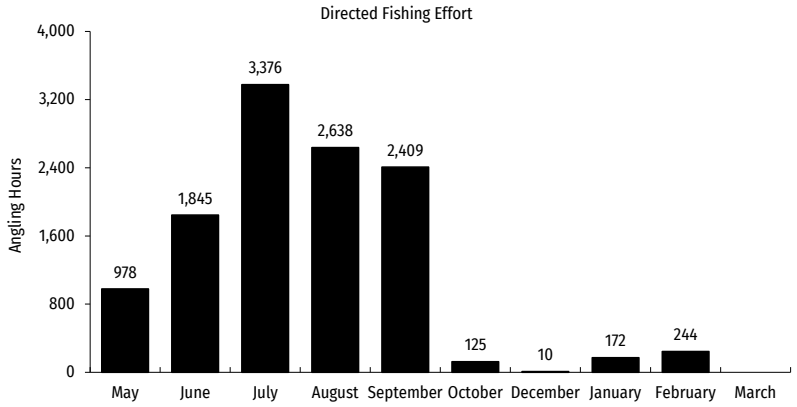
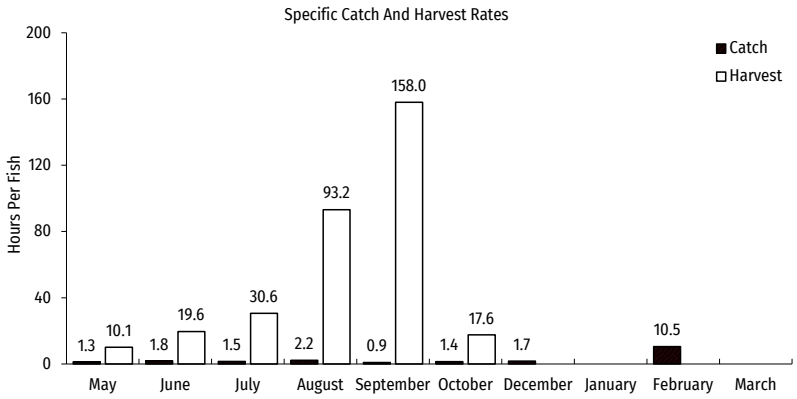
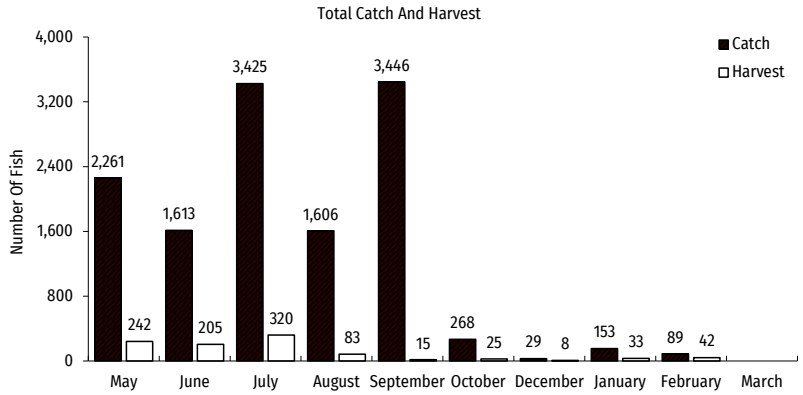


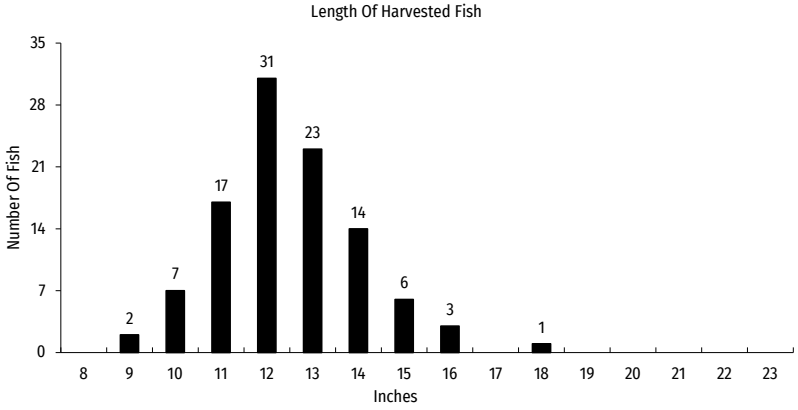
Figure 4. Smallmouth bass fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.



Largemouth Bass







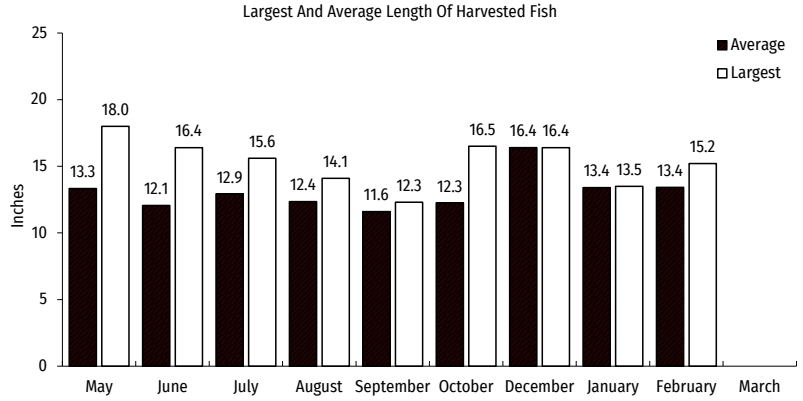
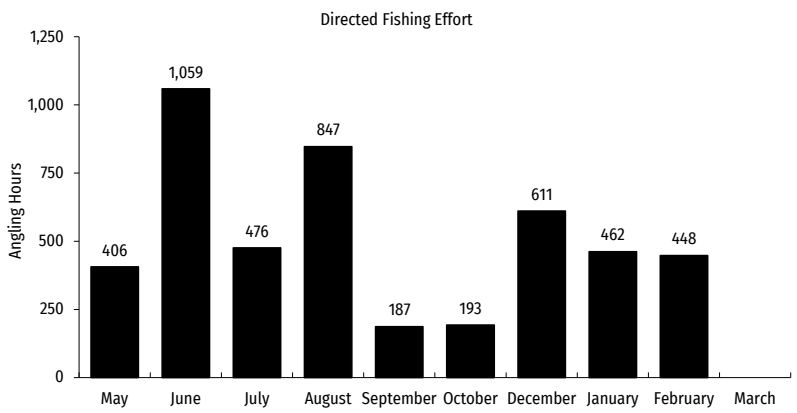
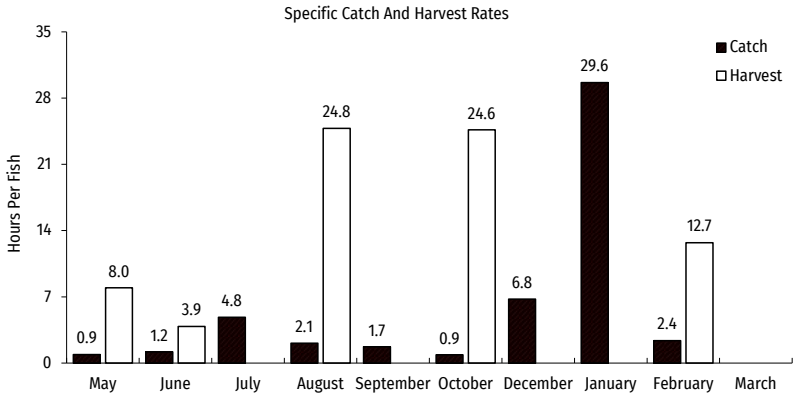
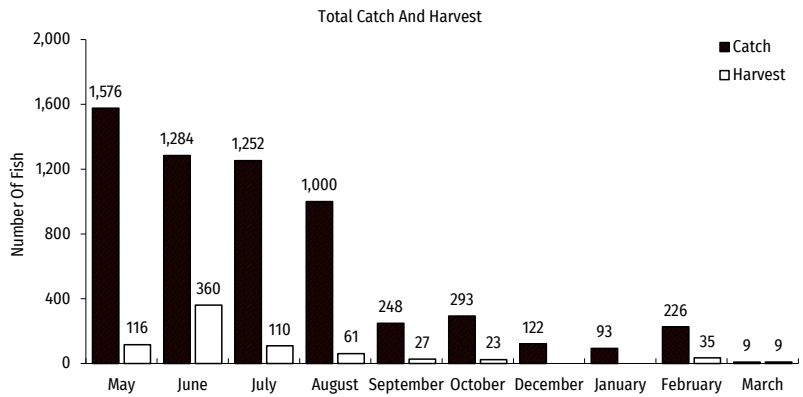


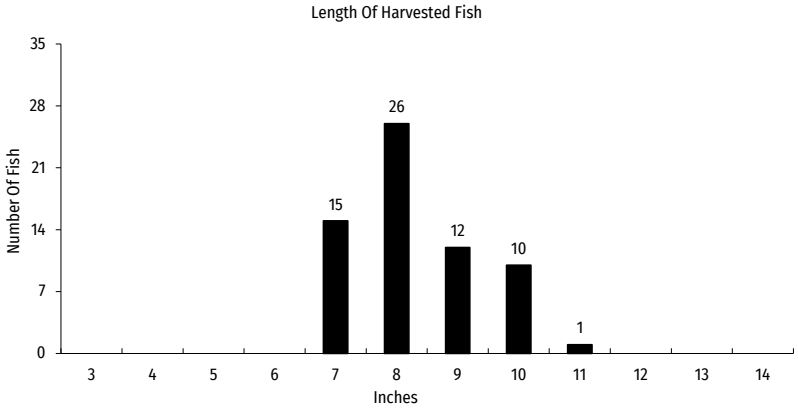
Figure 5. Largemouth bass fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.



Yellow Perch







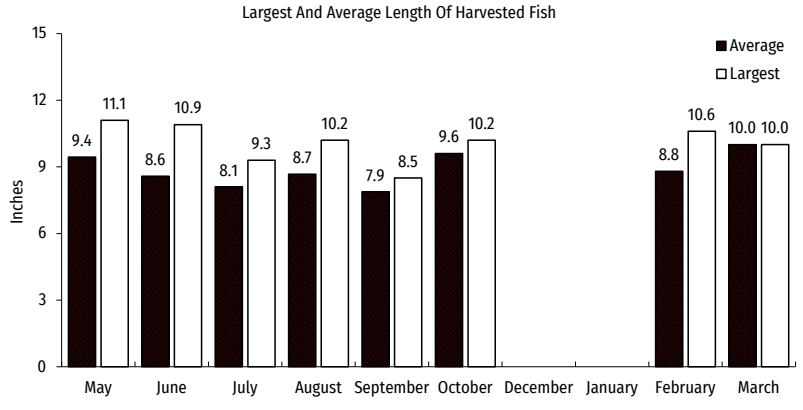


Figure 6. Yellow perch fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.

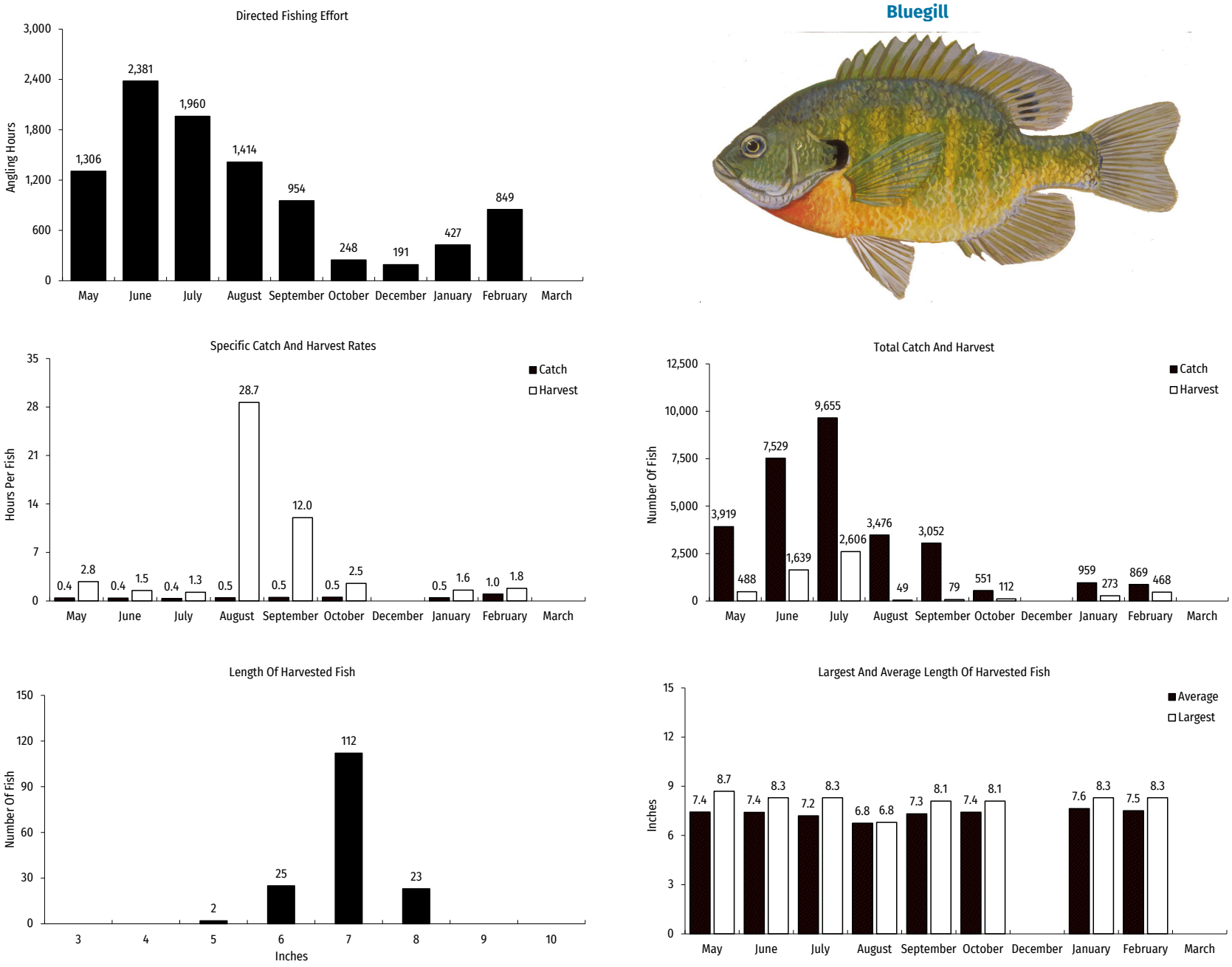
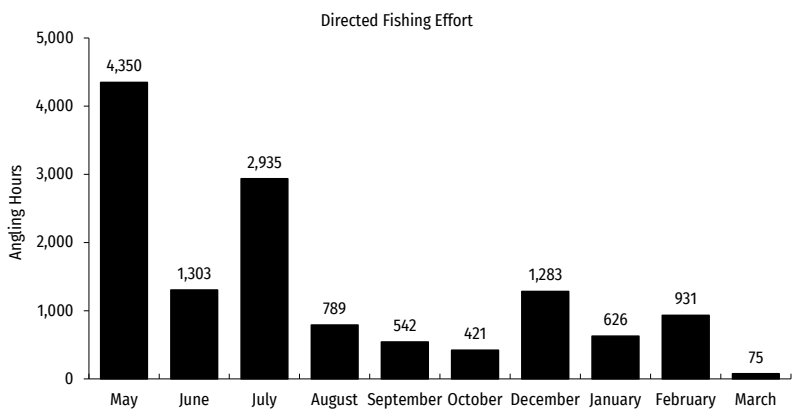
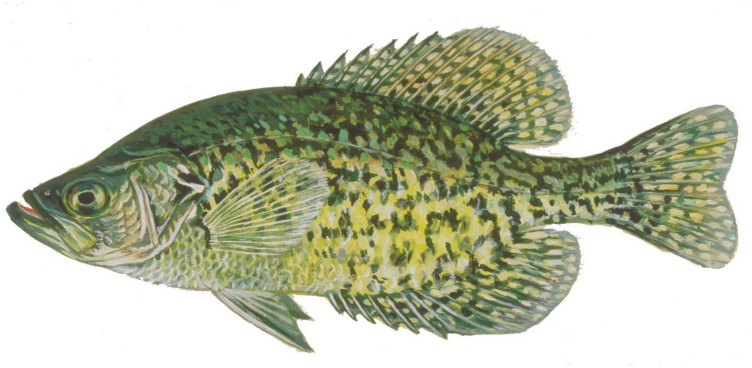
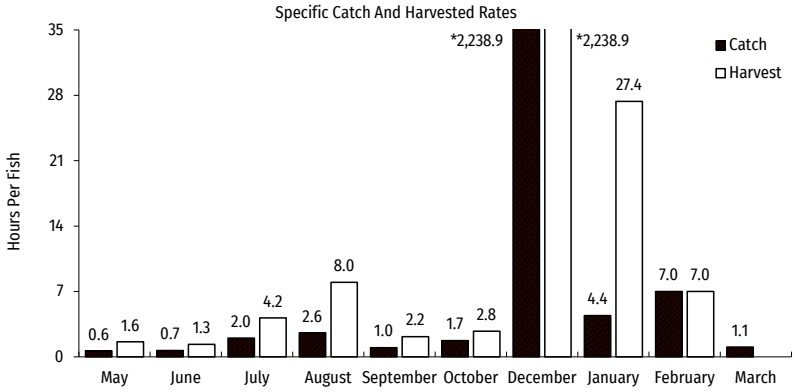


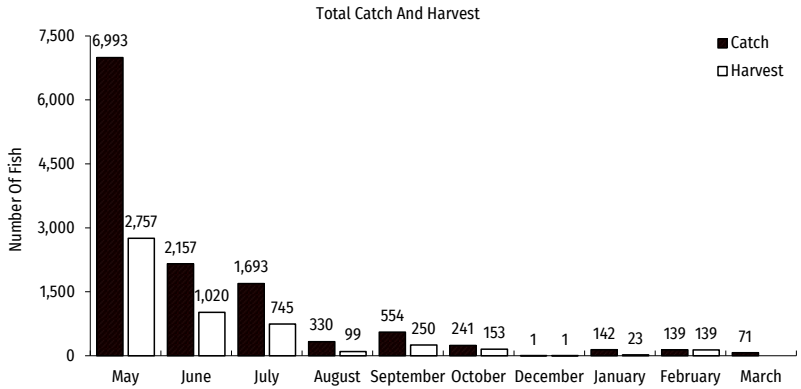
Figure 7. Bluegill fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.

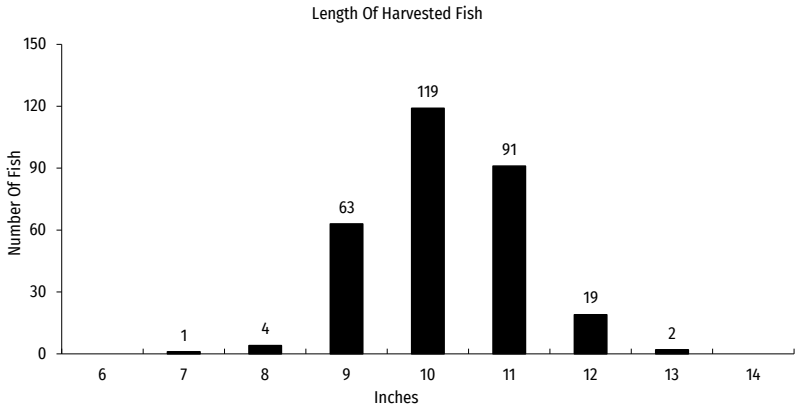


Black Crappie









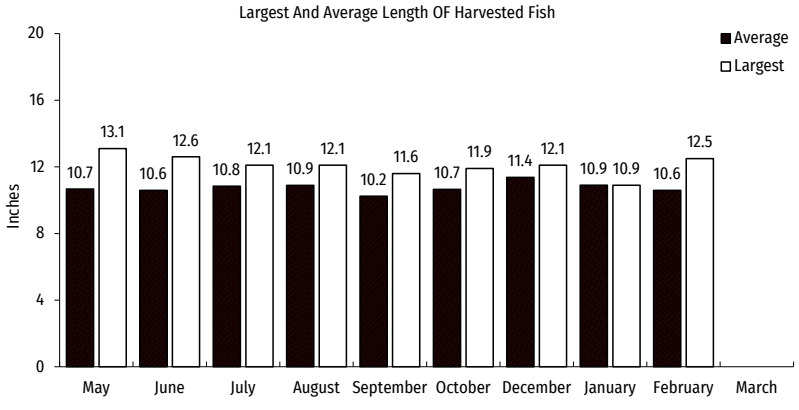
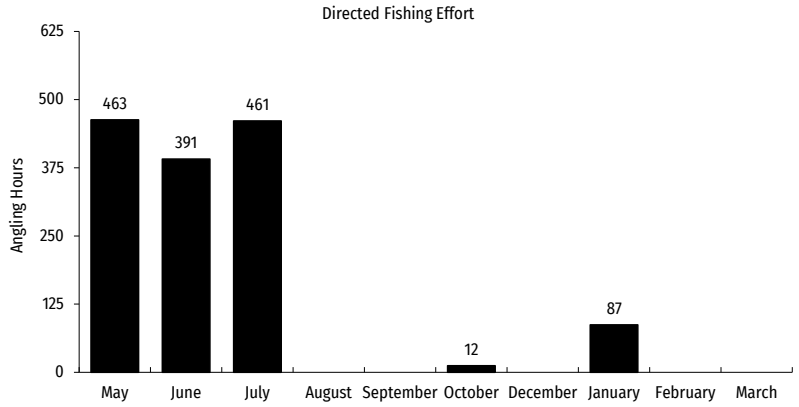
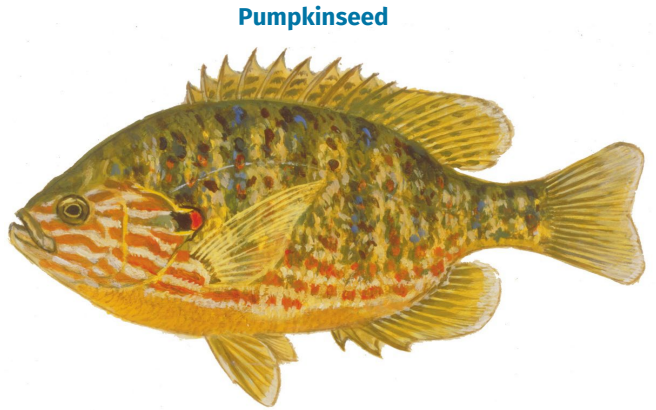
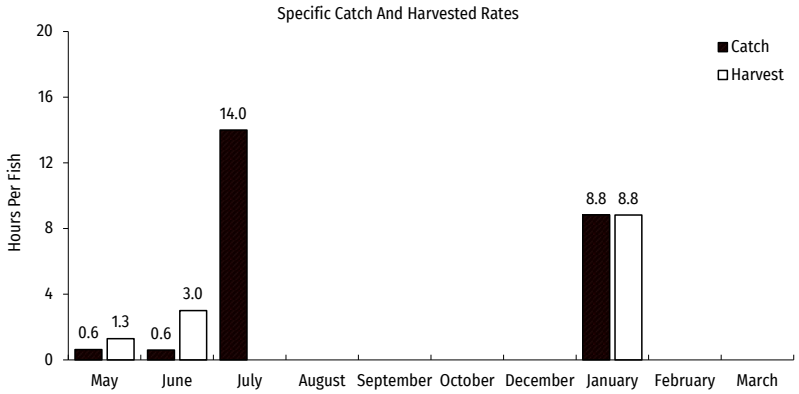
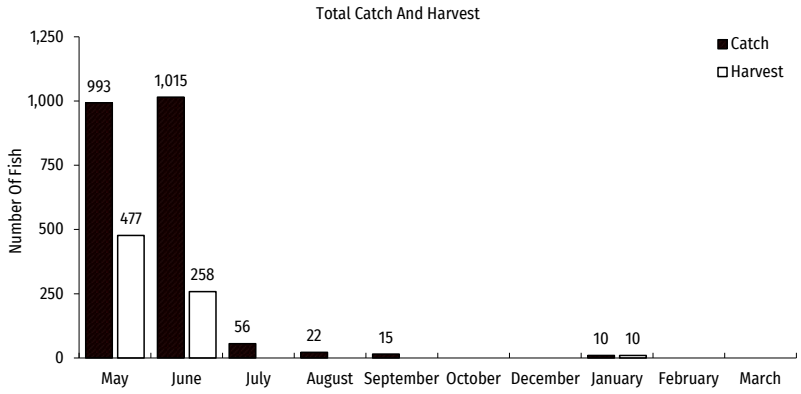


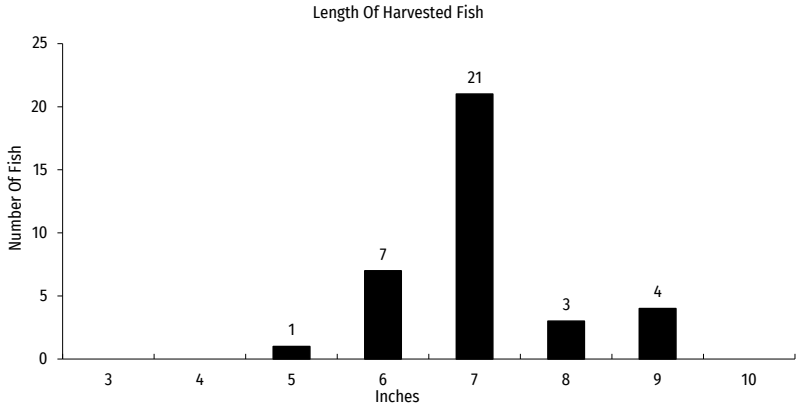
Figure 8. Black crappie fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.











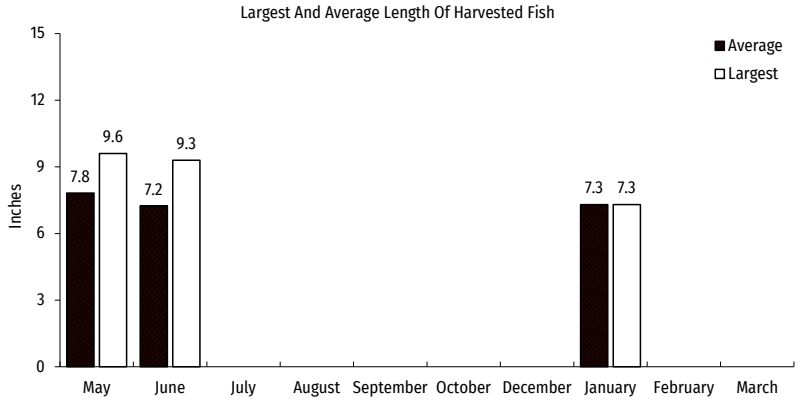
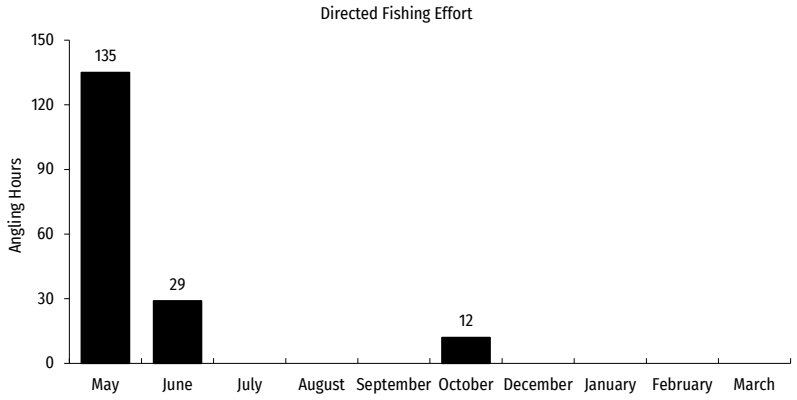
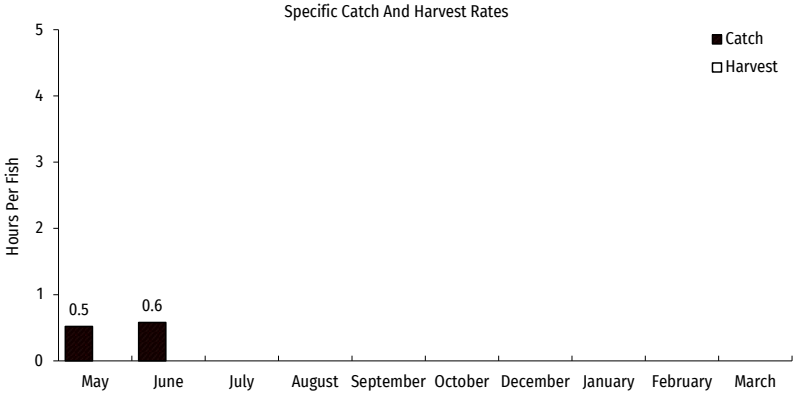
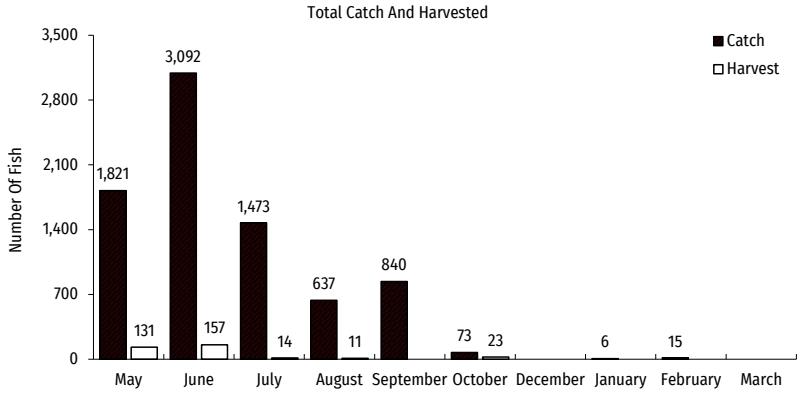


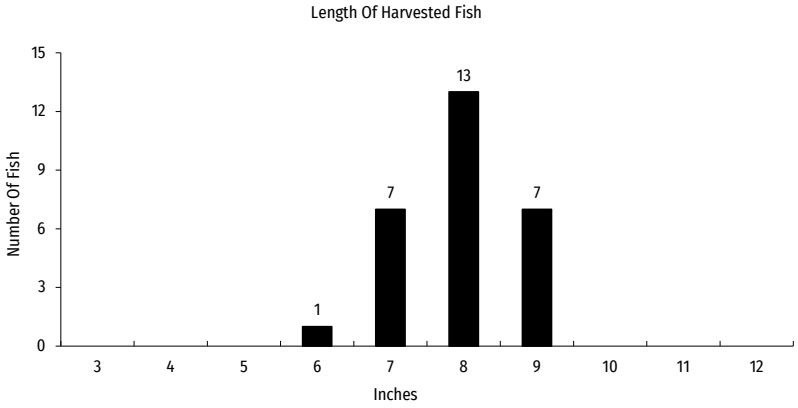
Figure 9. Pumpkinseed fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.

Rock Bass









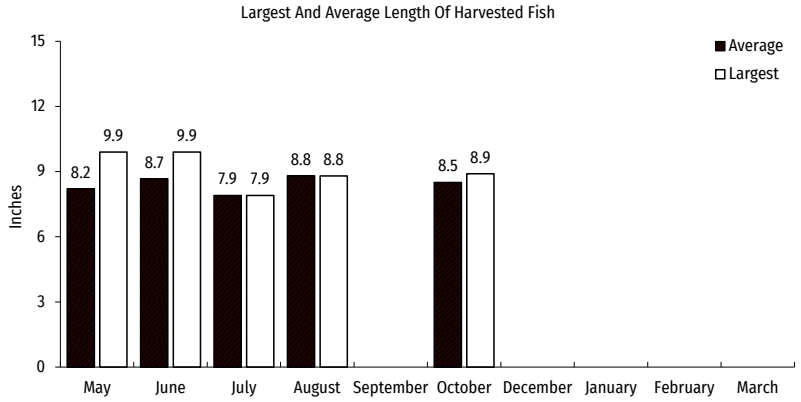


Figure 10. Rock bass fishing effort, catch, harvest and length distribution, Tomahawk Lake Chain, during 2024-25.