

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Lac Vieux Desert 2023-2024 Creel Survey Report Vilas 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.

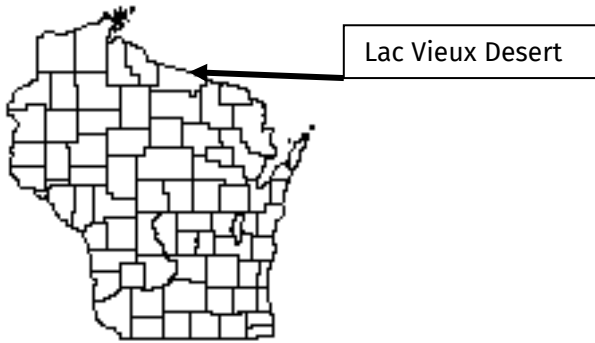
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

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 Lac Vieux Desert, discussion of results of the survey and detailed summaries by species of fishing effort, catch and harvest.

General Lake Information



LOCATION

Lac Vieux Desert straddles the Michigan-Wisconsin state line. It is located in Vilas County, WI, and Gogebic County, MI.

PHYSICAL CHARACTERISTICS

Lac Vieux Desert is a 4,300-acre drainage lake with a maximum depth of 38 feet. Littoral substrate consists primarily of sand, with lesser amounts of muck, gravel and rubble. Lac Vieux Desert contains clear water with low to moderate transparency that is largely dependent upon the level of algal production present in the water.

SEASONS SURVEYED

The period referred to in this report as the 2023-24 fishing season ran from May 6, 2023 through March 3, 2024. The summer creel survey ran from May 6 through Oct. 31, 2023, and the winter creel survey ran from Dec. 1, 2023 through March 3, 2024.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Lac Vieux Desert during the 2023-24 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth Bass	6/ 17 - 12/ 31	5*	14"
	01/ 01 - 06/ 17	Catch&Release	
Smallmouth Bass	6/ 17 - 12/ 31	5*	14"
	01/ 01 - 06/ 17	Catch&Release	
*Bass species have a combined bag limit of 5.			
Muskellunge	6/ 01 - 12/ 31	1	50"
	On open water		
Northern Pike	5/ 06 - 3/ 01	5	None
Walleye	5/ 06 - 3/ 01	3	18"
Panfish	Open all year	25	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 01, 2024 should be considered minimum estimates. 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 DISTRIBUTION 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

The winter creel survey began in mid-December 2023 with the assistance of Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff helping to conduct the survey.

This was the fifth time the DNR conducted a creel survey on Lac Vieux Desert. The last creel survey took place during 2018-2019.

GENERAL ANGLER INFORMATION

Anglers spent 77,675 hours, or 18.1 hours per acre, fishing Lac Vieux Desert during the 2023-24 season (Table 1). That was less than the Vilas County average of 33.5 hours per acre, and less than the fishing effort documented during the 2018-119 creel survey (25.3 hours per acre). June was the most heavily fished month (19,166 hours). Creel clerks were able to conduct 1,205 interviews throughout the survey.

RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1)

Anglers spent 21,811 hours targeting walleye. Fishing effort for walleye was highest in May (6,461 hours). Total catch of walleye was 5,605 fish, and total harvest was 661 fish. Highest catch (1,474 fish) occurred in July, and highest harvest (211 fish) occurred in June. Anglers fished an estimated 4.7 hours to catch, and 45.3 hours to harvest a walleye during the survey. Mean length of harvested walleye was 20.6 inches and the largest measured was a 27.5-inch fish.

NORTHERN PIKE (Table 2, Figure 2)

Northern pike received the most fishing effort of any gamefish species during the season. Fishing effort directed at northern pike was 27,456 hours during the season. Northern pike fishing effort was greatest in July (4,073 hours). Total catch of northern pike was 49,498 fish, and total harvest was 3,273 fish. Anglers fished an estimated 1.5 hours to catch a northern pike during the survey. Mean length of harvested northern pike was 20.4 inches and the largest measured was a 32.5-inch fish.

MUSKELLUNGE (Table 2, Figure 3)

Anglers spent 18,945 hours targeting muskellunge during the season. Muskellunge fishing effort was greatest in June (5,253 hours). Total catch of muskellunge was 342 fish, and the highest catch (110 fish) occurred in June. Anglers fished an estimated 79.1

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 3,643 hours during the season. Smallmouth bass fishing effort was greatest in August (1,416 hours). Total catch of smallmouth bass was 588 fish, with 27 fish harvested. Highest catch (139 fish) occurred in July. Anglers fished an estimated 25.8 hours to catch a smallmouth bass during the survey. Mean length of harvested smallmouth bass was 15.5 inches and the largest measured was a 15.5-inch fish.

LARGEMOUTH BASS (Table 2, Figure 5)

Fishing effort directed at largemouth bass was 14,062 hours during the season. Largemouth bass fishing effort was greatest in July (5,266 hours). Total catch of largemouth bass was 9,879 fish, and total harvest was 321 fish. The highest catch (3,133 fish) occurred in June. Anglers fished an estimated 2.3 hours to catch a largemouth bass during the survey. Mean length of harvested largemouth bass was 15.2 inches and the largest measured was a 20.6-inch fish.

YELLOW PERCH (Table 2, Figure 6)

Yellow perch were the most sought after panfish species during the survey. Yellow perch received 129,420 hours of directed fishing effort. Anglers caught 178,324 fish and harvested 64,493 fish. Mean length of yellow perch harvested was 8.9 inches.

BLUEGILL (Table 2, Figure 7)

Bluegill received 117,123 hours of directed fishing effort. Anglers caught 326,965 bluegill and harvested 120,229 fish. Mean length of bluegill harvested was 7.3 inches.

BLACK CRAPPIE (Table 2, Figure 8)

Black crappie received 120,604 hours of directed fishing effort. Anglers caught 64,738 black crappie and harvested 37,338 fish. Mean length of black crappie harvested was 9.9 inches.

PUMPKINSEED (Table 2, Figure 9)

Pumpkinseed received 105,353 hours of directed fishing effort. Anglers caught 62,440 pumpkinseed and harvested 21,193 fish. Mean length of pumpkinseed harvested was 7.0 inches.

ROCK BASS (Table 2, Figure 10)

Rock bass received 9,411 hours of directed fishing effort. Anglers caught 14,795 rock bass and harvested 2,026 fish. Mean length of rock bass harvested was 8.2 inches.

Cisco (Table 2)

Cisco received no directed fishing effort. Anglers caught 22 cisco, no harvest was observed.

Acknowledgments

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

We also thank our cooperator, Phil Mendham of Sunrise Lodge, who generously allowed the DNR to keep a boat and/or snowmobile on their property during this survey.

Completion of this survey was possible because of the efforts of the following DNR fisheries management staff and GLIFWC creel clerks: John Kubisiak, Lawrence Eslinger, Jason Halverson, Mark Love, Eric Brown and Bob Consolo. DNR creel clerks on Lac Vieux Desert during the survey period were Andrew Zovnic and Richard Dollhopf. GLIFWC creel clerks on Lac Vieux Desert were Mike Fish and Jake Parisien.

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/trtycrlsruvys.html>

Table 1. Sportfishing effort summary, Lac Vieux Desert, 2023-24 season; compared to 2018-19 creel results, Vilas County averages, and Ceded Territory averages.

MONTH	NUMBER OF ANGLER PARTY INTERVIEWS	TOTAL ANGLER HOURS	TOTAL ANGLER HOURS/ACRE	2018-19 TOTAL ANGLER HOURS/ACRE	VILAS COUNTY AVERAGE HOURS/ACRE	CEDED TERRITORY AVERAGE HOURS/ACRE
May	131	9,763	2.3	3.8	5.1	4.7
June	159	19,166	4.5	5.7	6.7	6.0
July	160	8,680	2.0	4.3	7.0	6.4
August	183	6,024	1.4	3.6	6.1	5.1
September	169	6,311	1.5	2.5	4.1	3.1
October	126	2,101	0.5	1.1	1.9	1.4
December	49	8,070	1.9	1.6	0.6	1.0
January	68	6,820	1.6	1.4	1.0	1.7
February	136	8,826	2.1	1.3	1.0	1.6
March	24	1,915	0.4	0.0	0.2	0.2
Summer Total	928	52,045	12.1	20.9	30.9	26.7
Winter Total	277	25,631	6.0	4.3	2.8	4.5
Grand Total	1,205	77,675	18.1	25.3	33.5	30.9

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 Lac Vieux Desert 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 Lac Vieux Desert to other lakes.

2018-19 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 Lac Vieux Desert.

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 Lac Vieux Desert to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Lac Vieux Desert, 2023-24 and 2018-19 fishing seasons.

CREEL YEAR: 2023-24

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	21,811	3.8%	5,605	4.7	661	45.3	20.6
Northern Pike	27,456	4.8%	41,498	1.5	3,273	13.7	20.4
Muskellunge	18,945	3.3%	342	79.1	0	0.0	
Smallmouth Bass	3,643	0.6%	588	25.8	27	135.1	15.5
Largemouth Bass	14,062	2.5%	9,879	2.3	321	86.7	15.2
Yellow Perch	129,420	22.8%	178,324	0.8	64,493	2.0	8.9
Bluegill	117,123	20.6%	326,965	0.4	120,229	1.0	7.3
Black Crappie	120,604	21.2%	64,738	2.0	37,338	3.3	9.9
Pumpkinseed	105,353	18.6%	62,440	1.8	21,193	5.0	7.0
Rock Bass	9,411	1.7%	14,795	1.7	2,026	5.3	8.2

CREEL YEAR: 2018-19

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	9,270	14.9%	3,965	5.0	155	222.9	21.9
Northern Pike	22,385	35.9%	34,567	1.4	6,877	4.9	23.3
Muskellunge	20,921	33.6%	584	50.1	0	*	0.0
Smallmouth Bass	2,865	4.6%	1,220	8.1	0	*	0.0
Largemouth Bass	2,865	4.6%	9,578	0.6	153	81.8	16.3
Yellow Perch	6,858	11.0%	186,658	0.2	39,339	1.2	8.6
Bluegill+ (winter)	6,052	^	169,547	0.3	41,624	1.0	6.8
Black Crappie+ (winter)	5,792	^	70,924	3.7	28,362	5.4	9.3
Pumpkinseed+ (winter)	2,123	^	33,328	1.3	9,520	2.2	6.8
Rock Bass+ (winter)	0	^	6,377	*	778	*	9.5

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.

Note: The 2018-19 creel report combines open water results collected from MI DNR's creel survey with ice fishing results from WI DNR's creel survey.

The methods differ somewhat between these surveys, but the reported estimates are valid. Directed panfish effort was not collected during open water, so some panfish statistics could not be calculated and are omitted.

+ Estimates are for the winter portion of the creel survey; "Total Catch" and "Total Harvest" values are from the entire creel (open water and winter combined).

^ Percent of total effort not calculated since directed effort was estimated during the winter creel portion only. "Directed Effort" and "Percent of Total" values of Smallmouth and Largemouth Bass are cumulative between the two species since "Directed Effort" was not separated during the open water creel.

WALLEYE

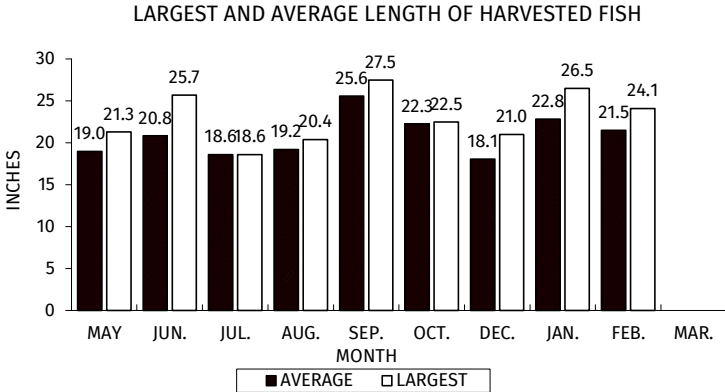
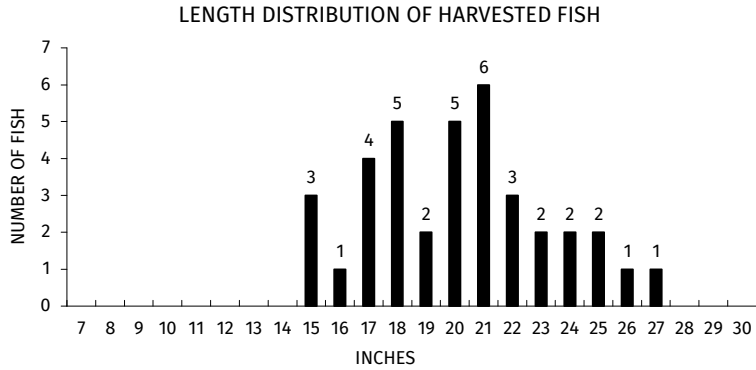
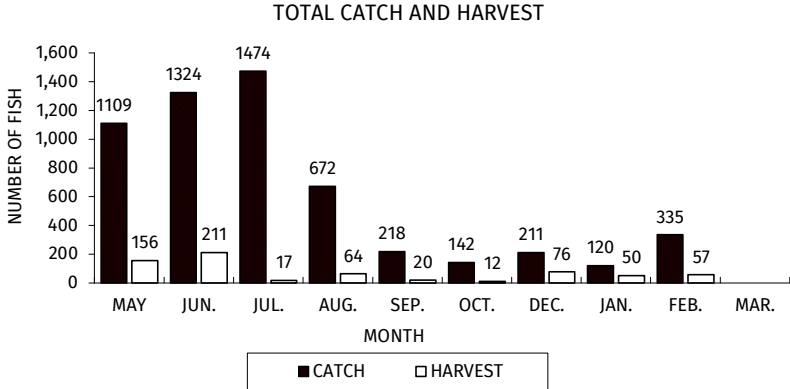
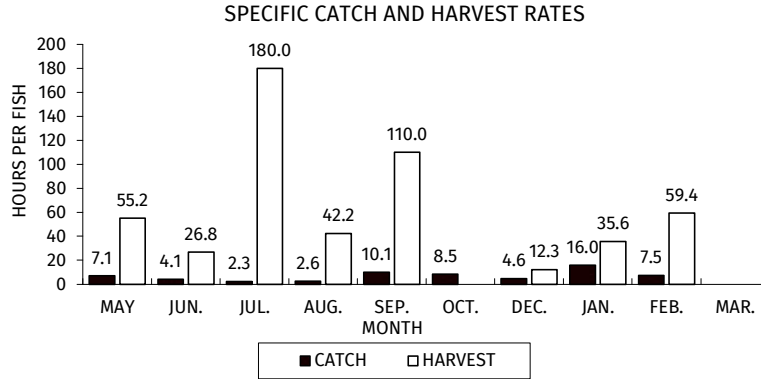
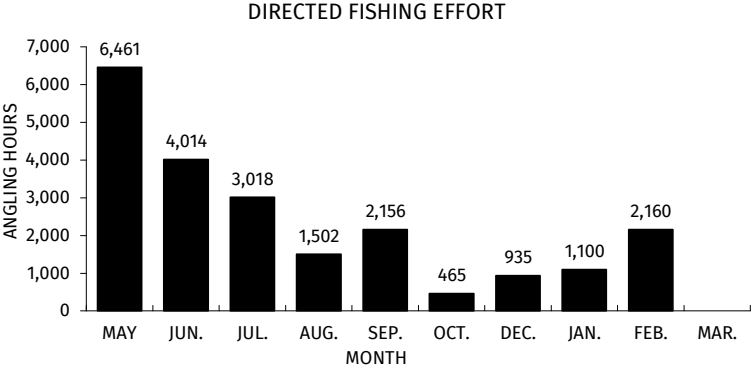
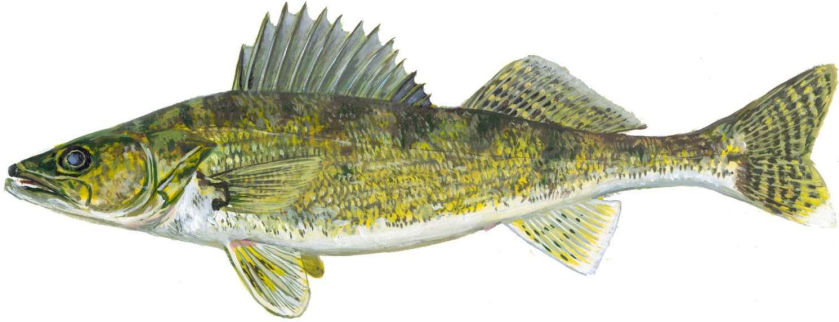


Figure 1. Walleye fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

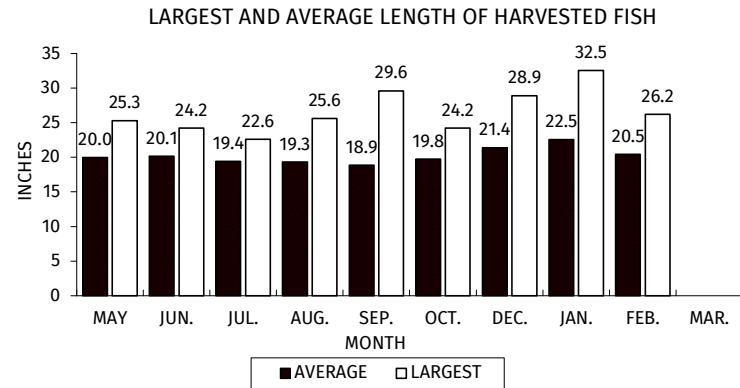
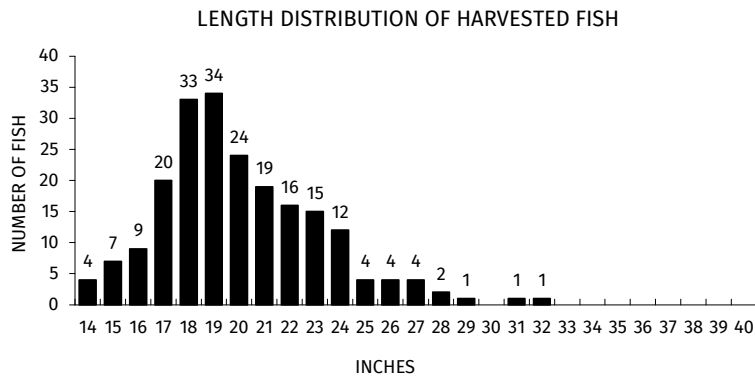
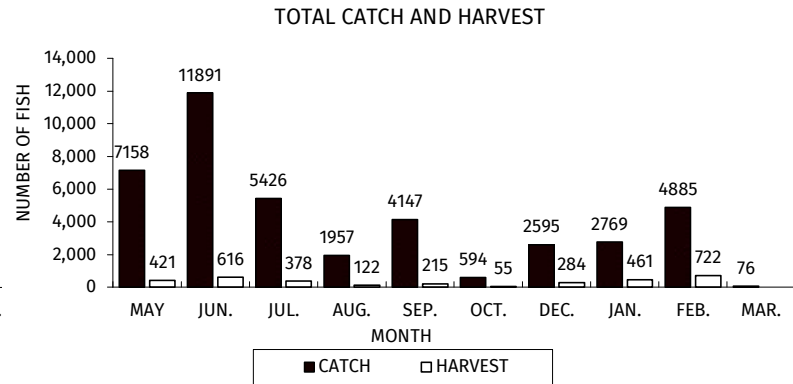
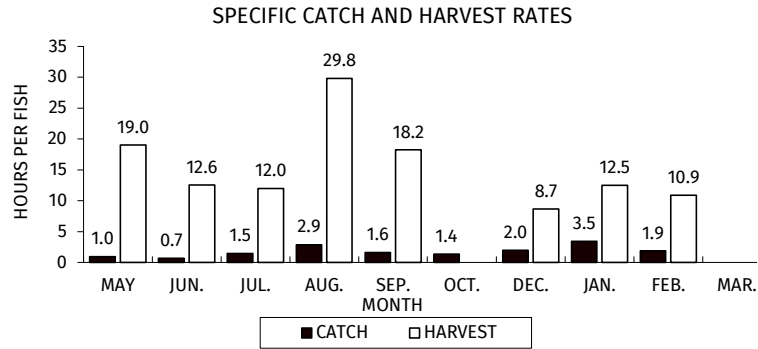
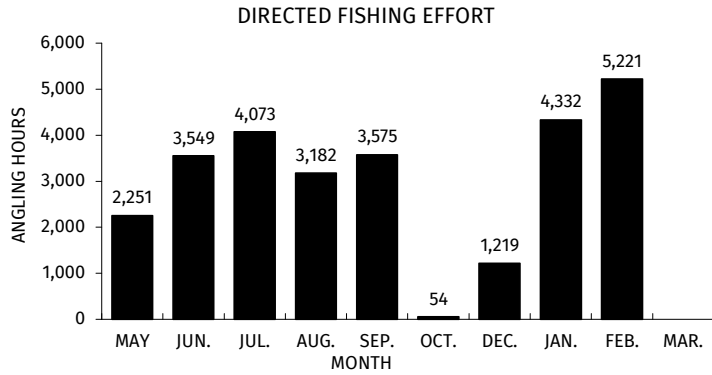
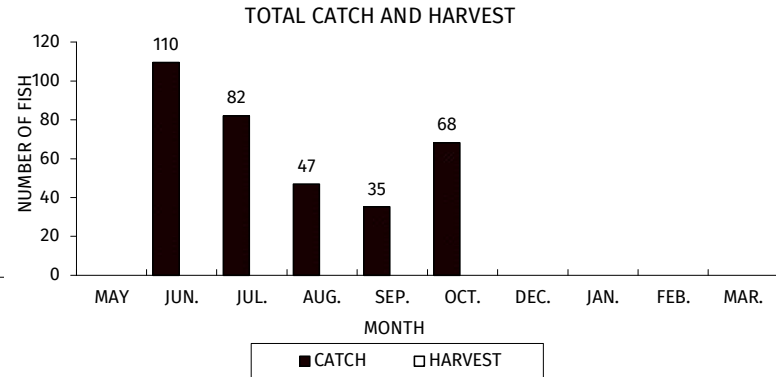
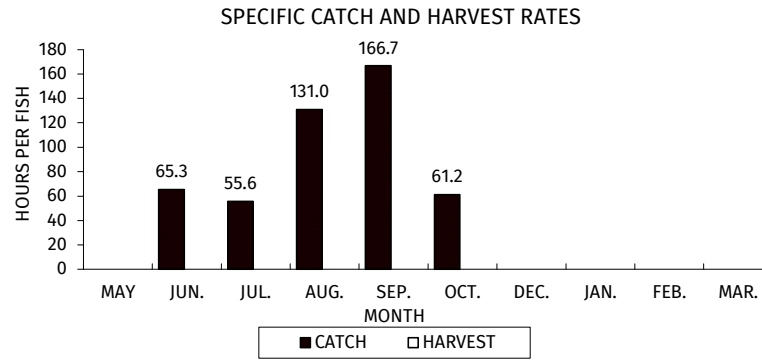
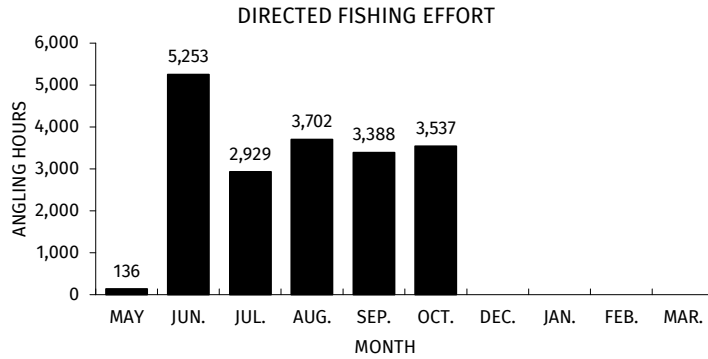


Figure 2. Northern pike fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

MUSKELLUNGE



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Figure 3. Muskellunge fishing effort and catch, Lac Vieux Desert, during 2023-24.

SMALLMOUTH BASS

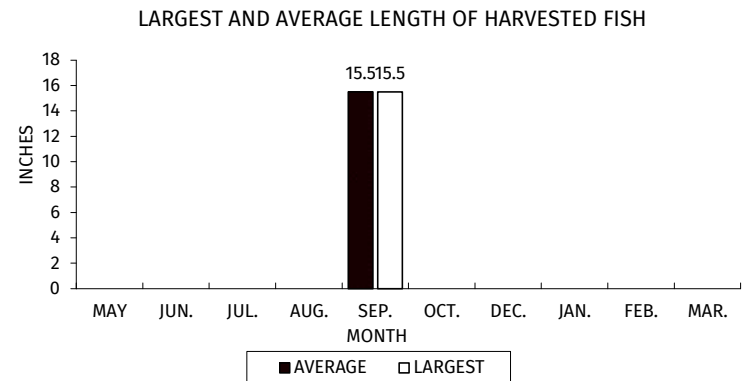
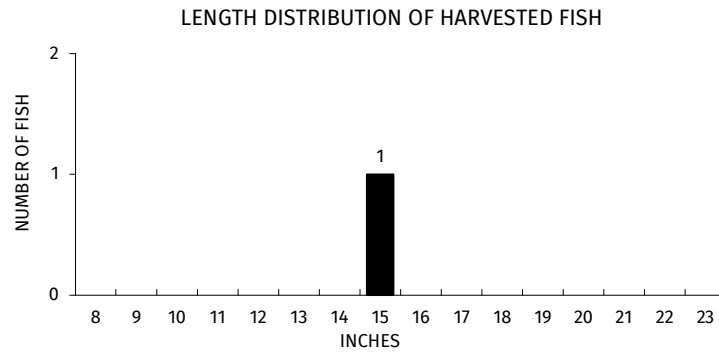
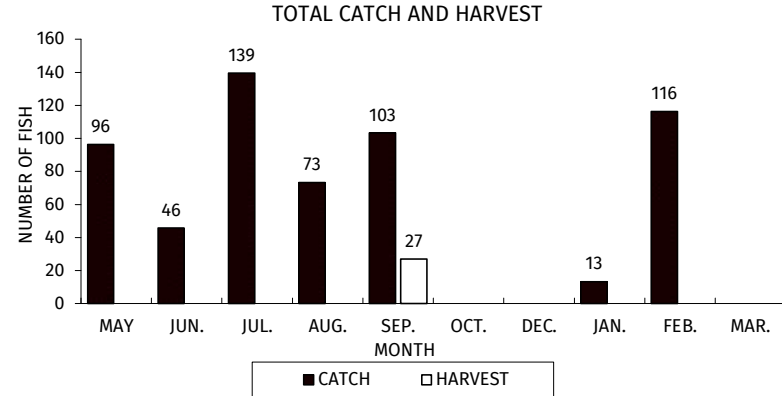
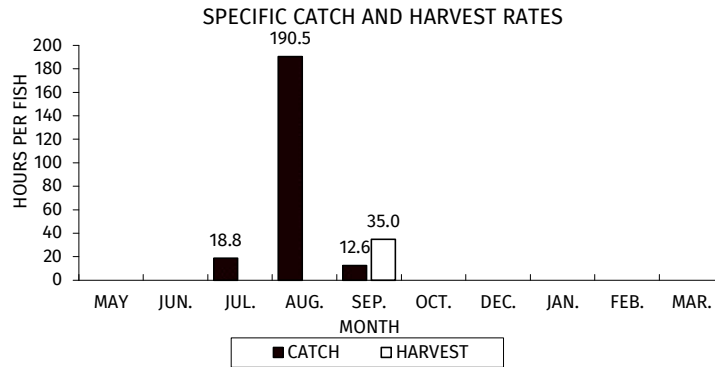
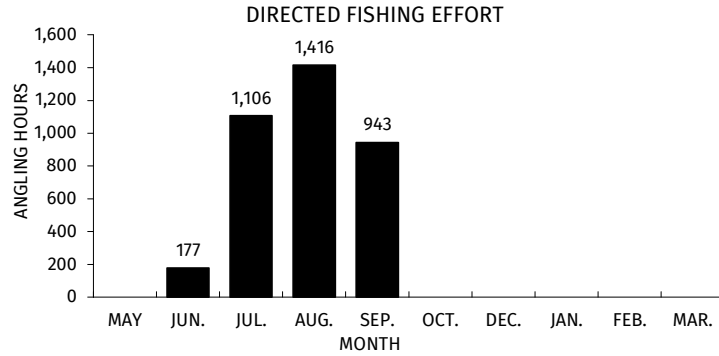


Figure 4. Smallmouth bass fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

LARGEMOUTH BASS

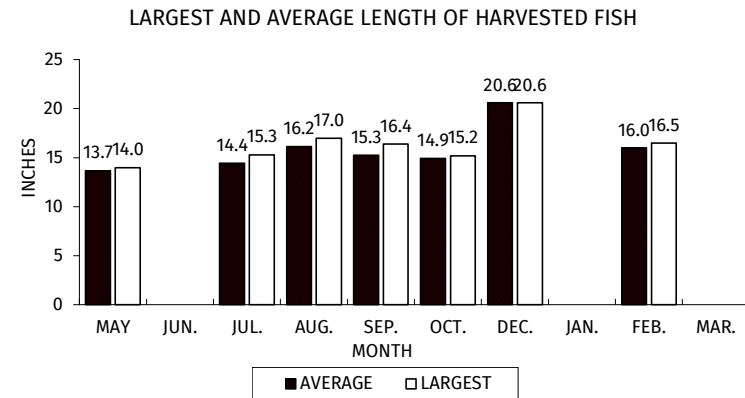
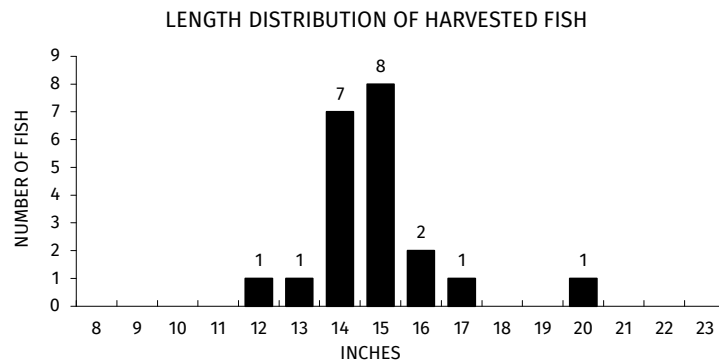
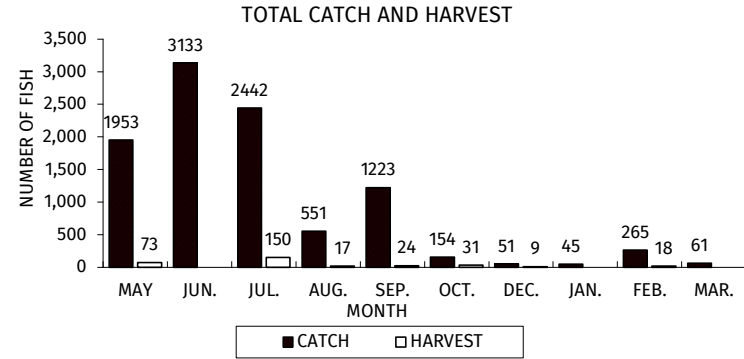
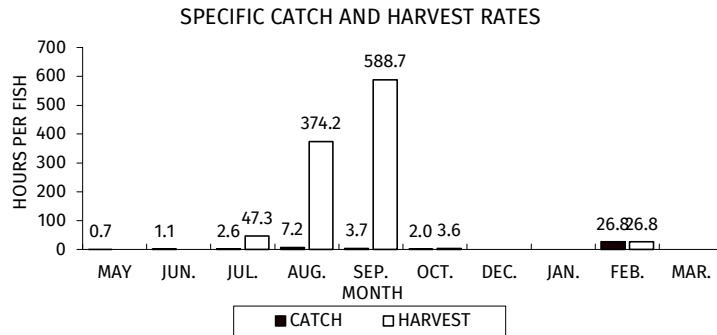
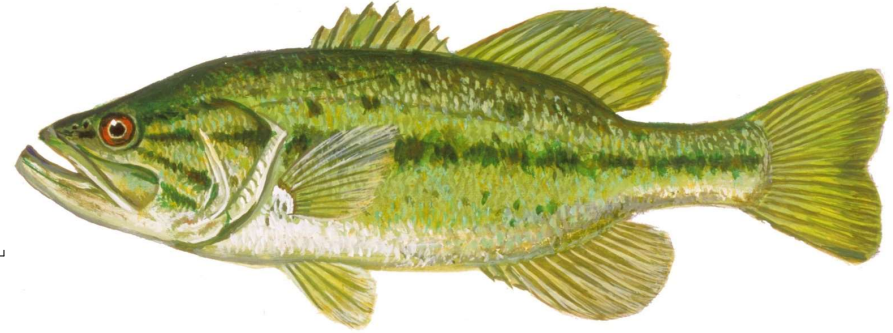


Figure 5. Largemouth bass fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

YELLOW PERCH

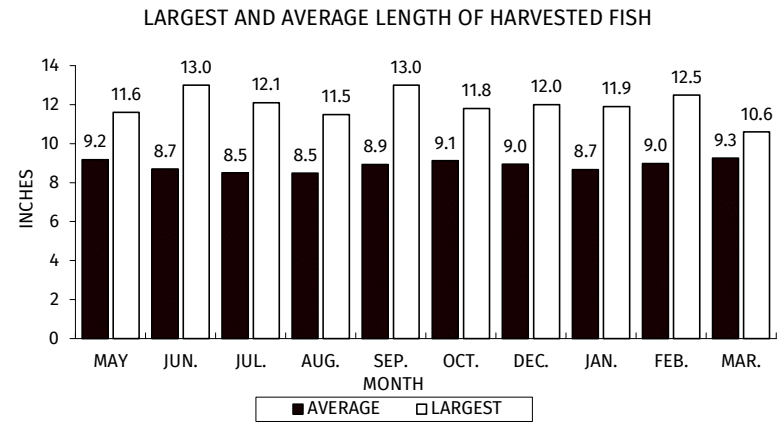
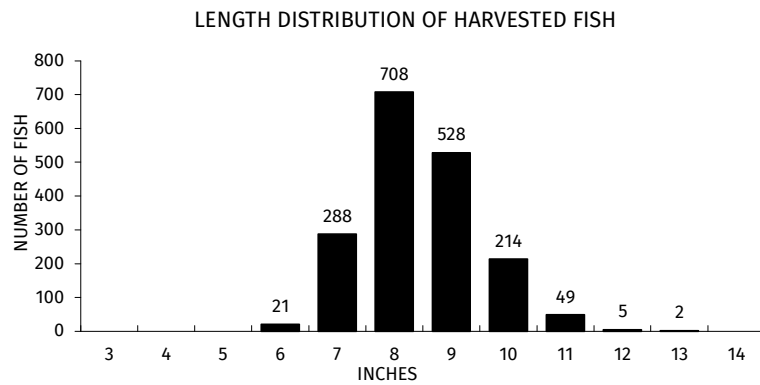
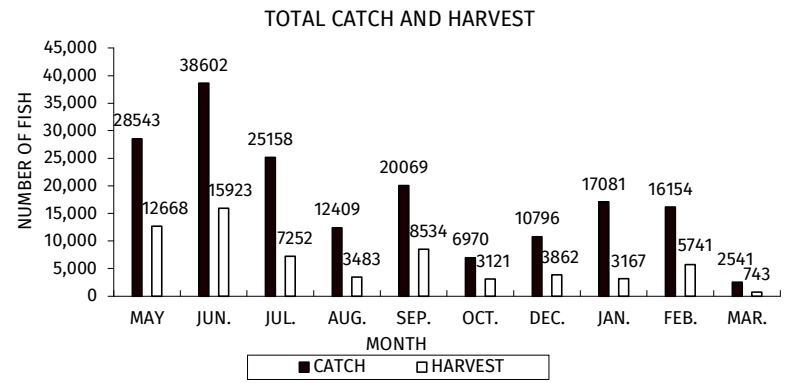
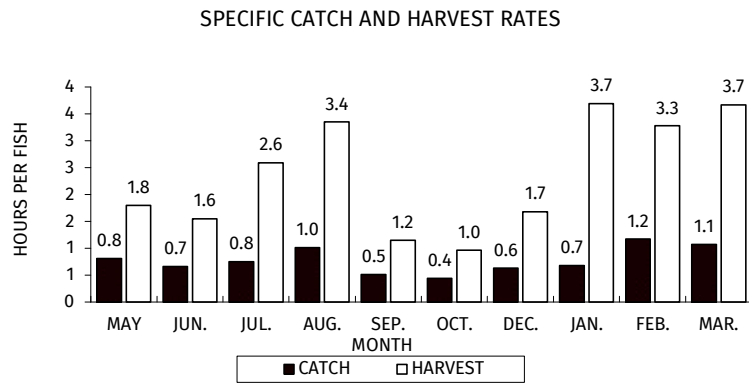
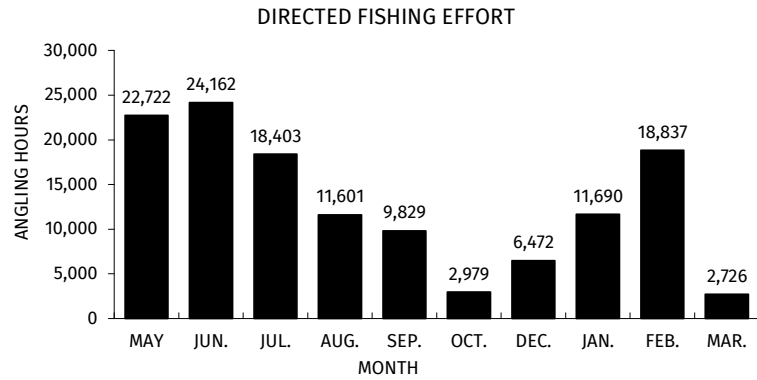
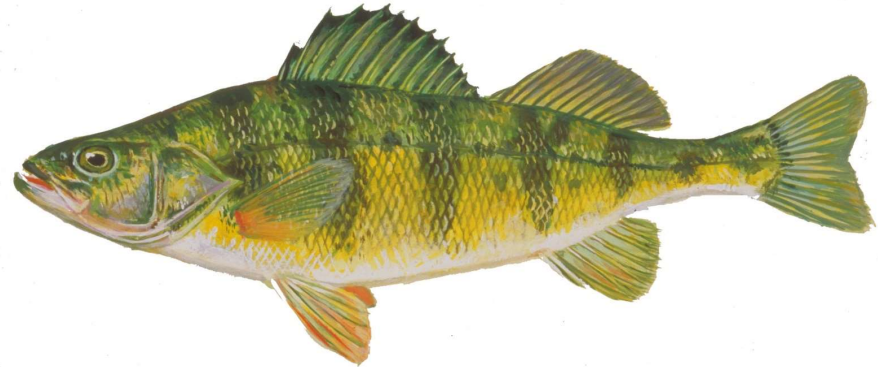


Figure 6. Yellow perch fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

BLUEGILL

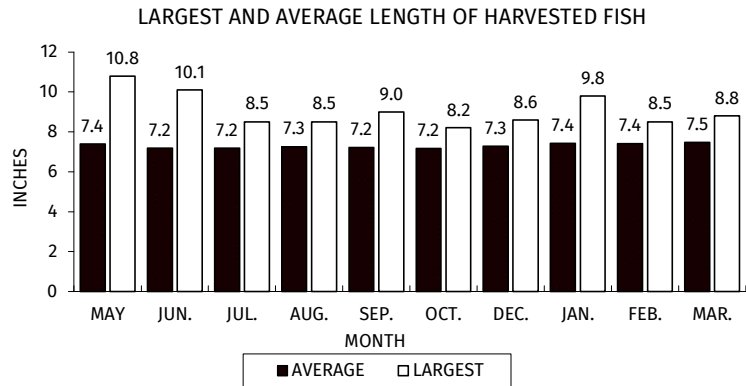
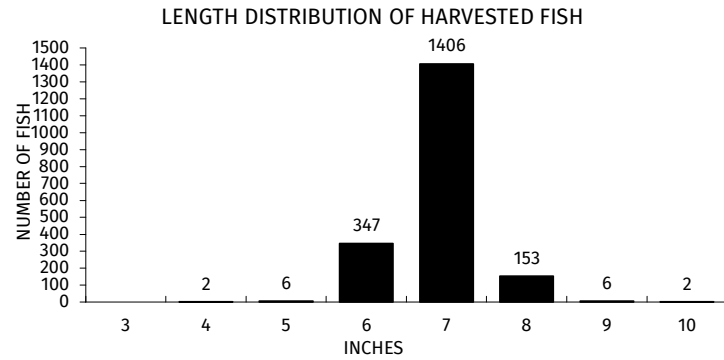
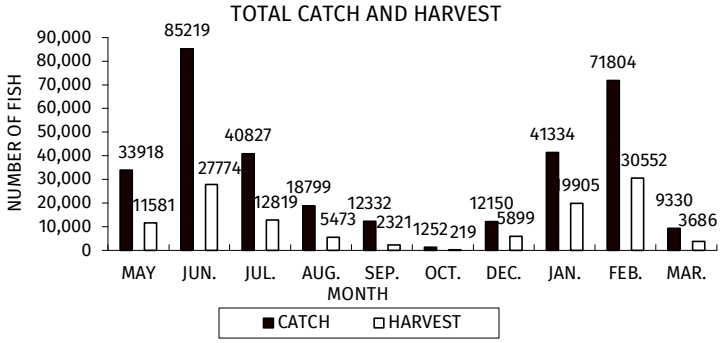
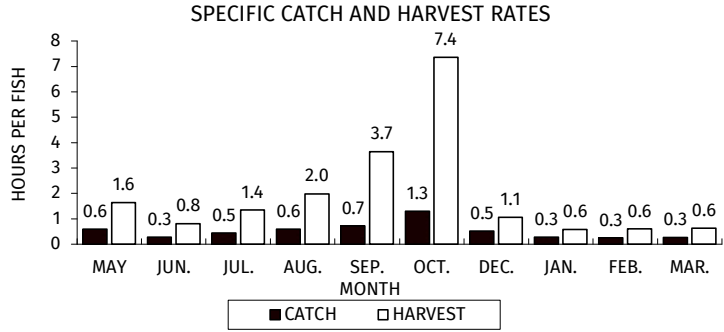
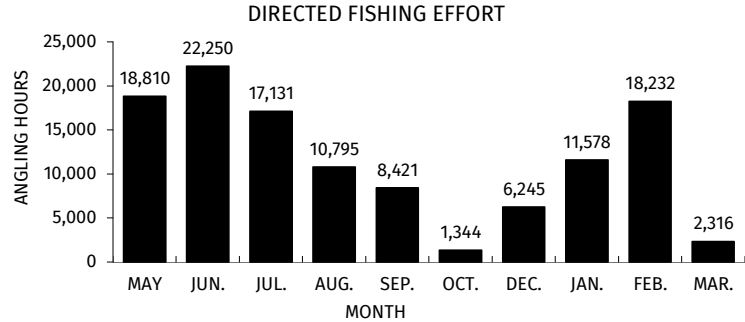
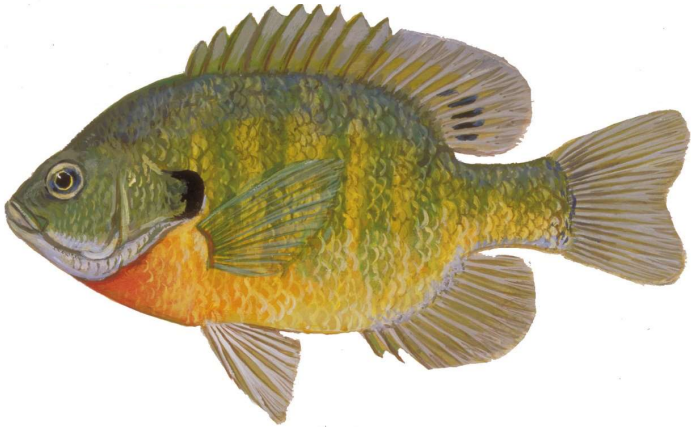


Figure 7. Bluegill fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

BLACK CRAPPIE

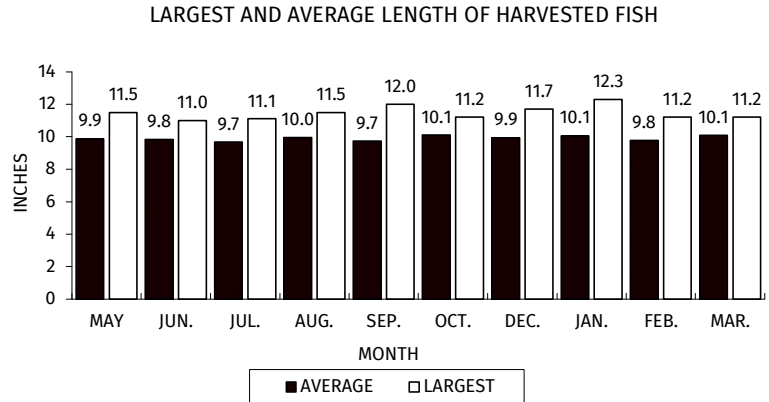
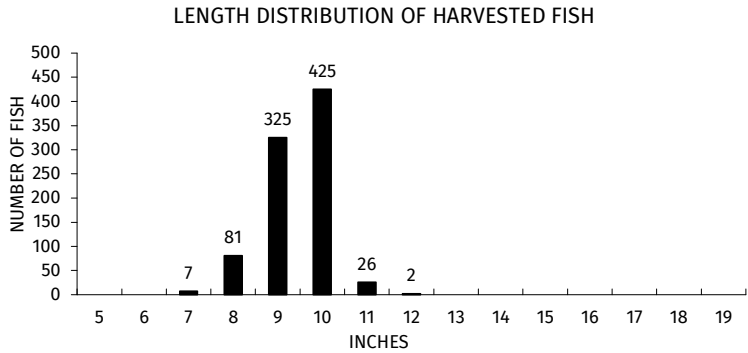
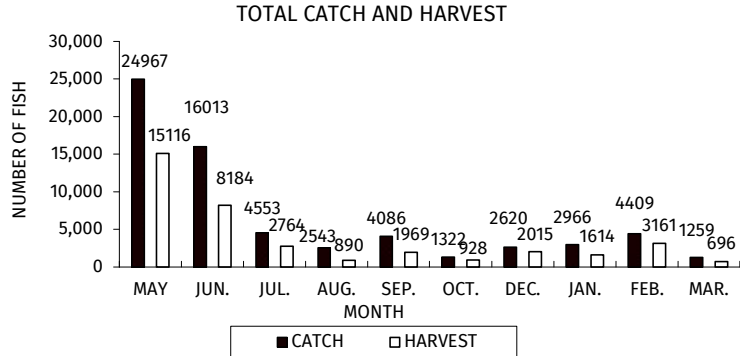
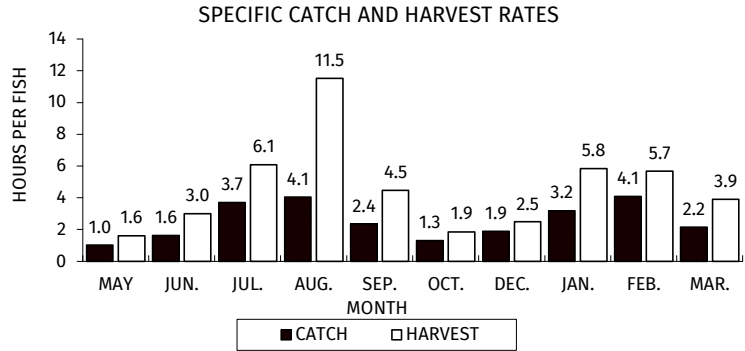
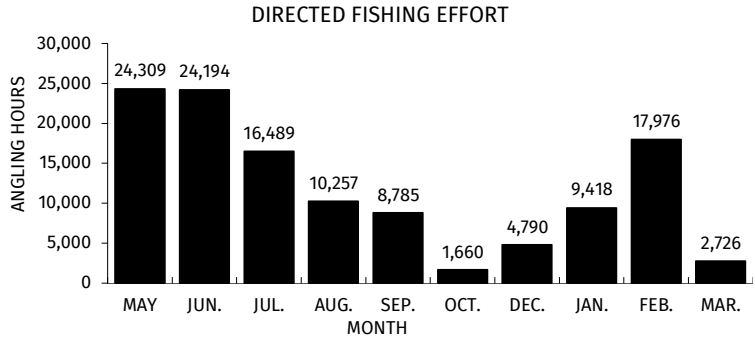
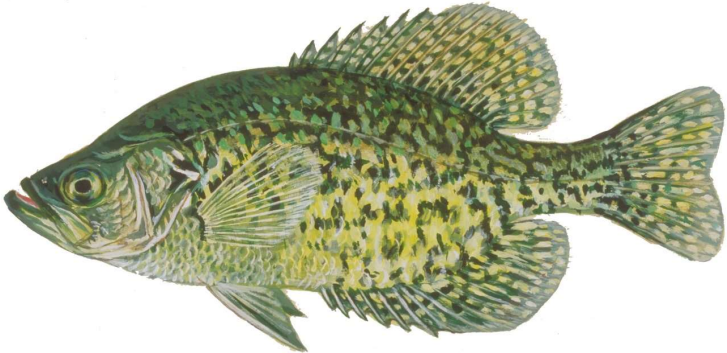


Figure 8. Black crappie fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

PUMPKINSEED

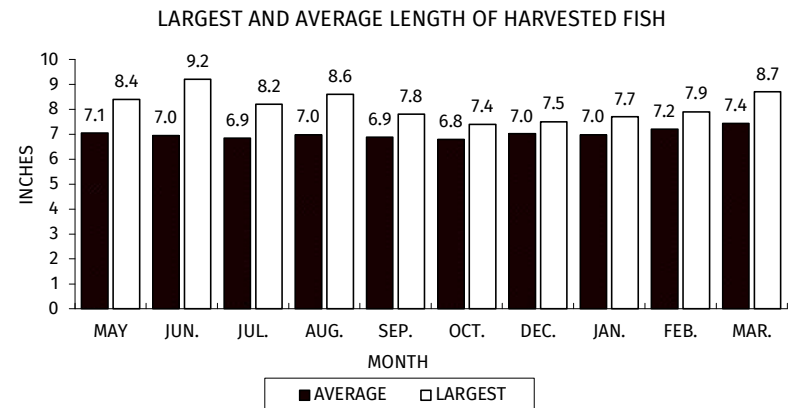
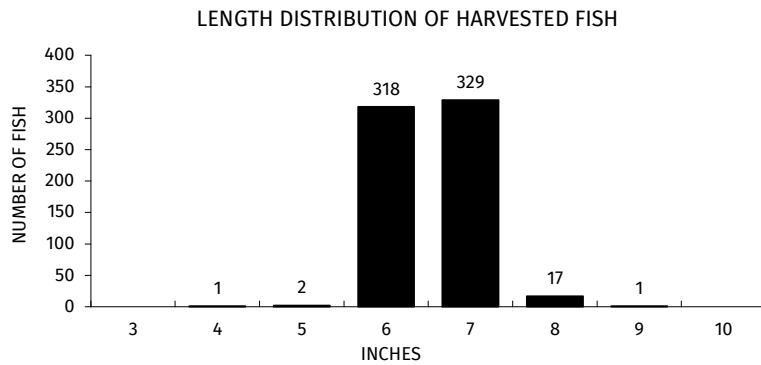
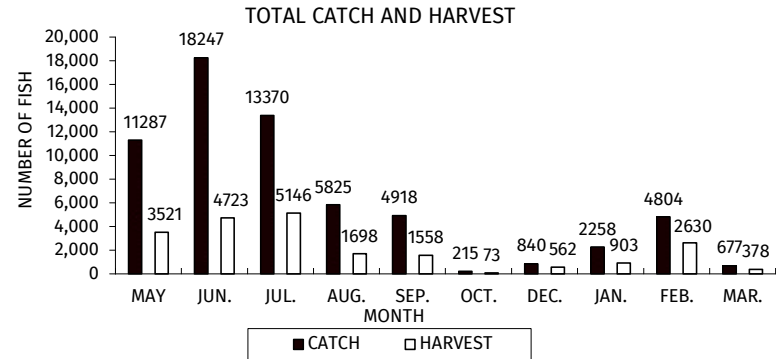
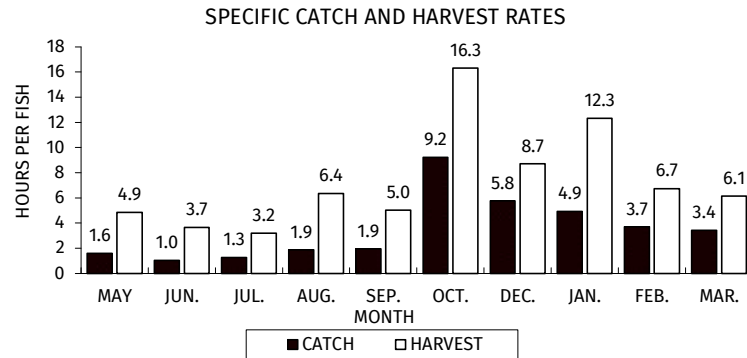
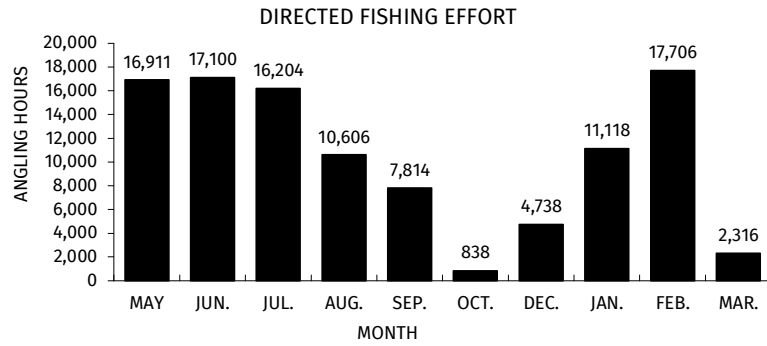
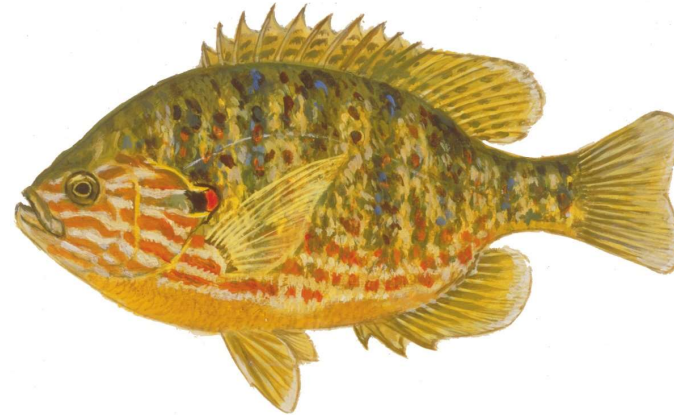


Figure 9. Pumpkinseed fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.

ROCK BASS

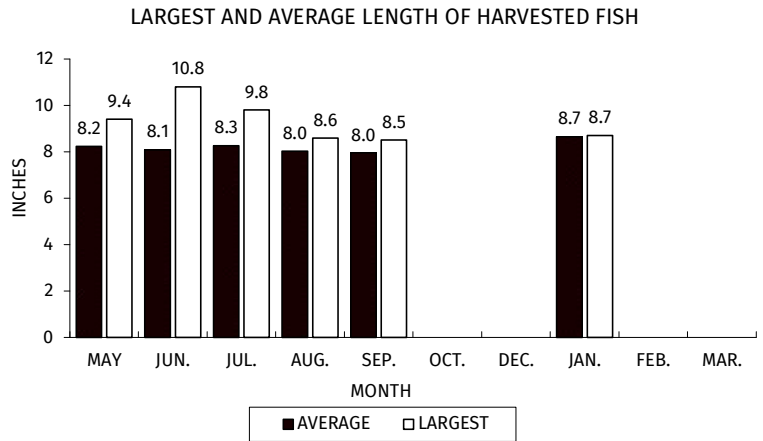
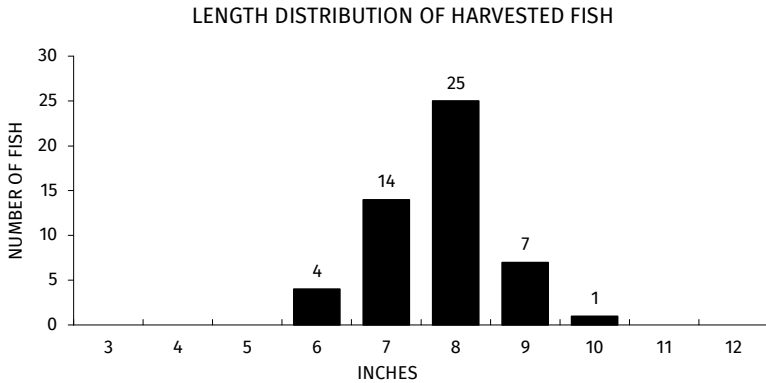
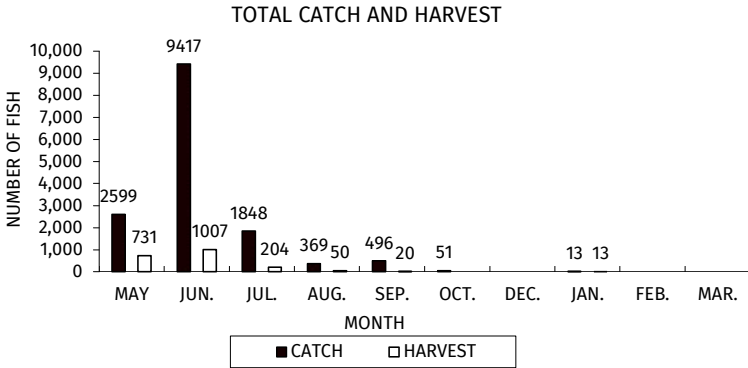
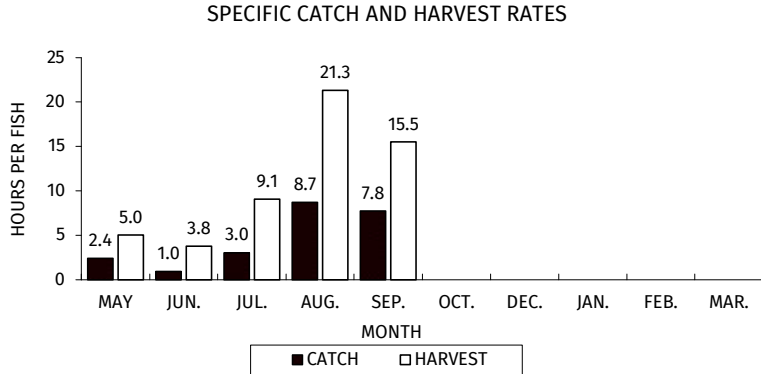
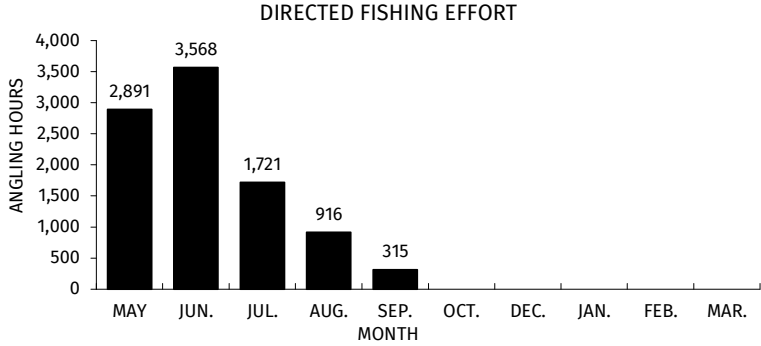


Figure 10. Rock Bass fishing effort, catch, harvest and length distribution, Lac Vieux Desert, during 2023-24.