WISCONSIN DEPARTMENT OF NATURAL RESOURCES

SNIPE LAKE

2021 – 2022 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.

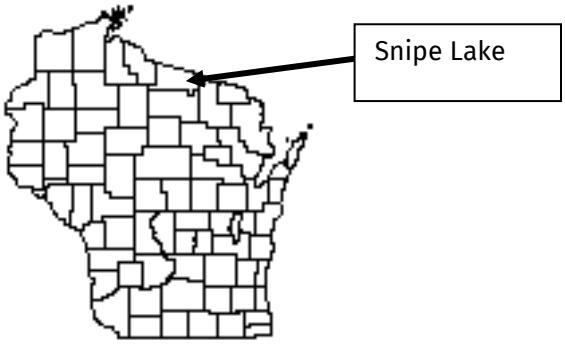
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

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

GENERAL LAKE INFORMATION



LOCATION

Snipe Lake is located in Vilas County near the town of Eagle River.

PHYSICAL CHARACTERISTICS

Snipe Lake is a 239-acre seepage lake with a maximum depth of 15 feet. Littoral substrate consists primarily of sand, gravel, rock and muck. Snipe Lake contains very soft, neutral, clear water of low transparency.

SEASONS SURVEYED

The period referred to in this report as the 2021-22 fishing season ran from May 1, 2021 through March 6, 2022. The open-water creel survey ran from May 1 through Oct. 31, 2021 and the ice fishing creel survey ran from Dec. 1, 2021 through March 6, 2022.

WEATHER

Ice-out on Snipe Lake was around early April 2021. Fishable ice formed on Snipe Lake in mid-December.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Snipe Lake during the 2021-22 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth Bass	5/01-3/06	5	14"
Smallmouth Bass	5/01-6/18	Catch&Release	
	6/19-3/06	5	14"
Musky	5/01-12/31	1	40"
	On open water		
Northern Pike	5/01-3/06	5	None
Walleye	5/01-3/06	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 1-10, along with a comparison of these statistics with the previous creel survey in Table 2. Information about species with fishing seasons extending beyond March 6 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

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

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

3. **SPECIFIC CATCH AND HARVEST RATES**
   The 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 DISTRIBUTION OF HARVESTED FISH**
   All fish of a species that were measured by the clerk during the entire creel survey season.

5. **LARGEST AND AVERAGE LENGTH OF HARVESTED FISH**
   The 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 ninth time the DNR conducted a creel survey on Snipe Lake. The last creel survey took place in 2018-19.

GENERAL ANGLER INFORMATION

Anglers spent 4,020 hours, or 16.8 hours per acre, fishing Snipe Lake during the 2021-22 season (Table 1). That was less than the Vilas County average of 33.8 hours per acre and less than the fishing effort documented during the 2018-19 creel survey (26.3 hours per acre). July was the most heavily fished month (828 hours) and fishing effort was lightest in December (30 hours). The creel clerks were able to conduct 229 interviews throughout the survey.

RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1)
Anglers spent 659 hours targeting Walleye. The greatest fishing effort for Walleye was in January (150 hours). December had the least amount of Walleye fishing effort (0 hours). The total catch of Walleye was 51 fish, with a harvest of six. The highest catch (38 fish) occurred in June and highest harvest (three fish) occurred in June and July. Anglers fished an estimated 13.0 hours to catch and 115.5 hours to harvest a Walleye during the survey. The mean length of harvested Walleye was 16.3 inches and the largest measured was a 17.2-inch fish.

NORTHERN PIKE (Table 2, Figure 2)
Fishing effort directed at Northern Pike was 135 hours during the season. Northern Pike fishing effort was greatest in January (50 hours). The total catch of Northern Pike was seven fish, with a harvest of zero. Anglers fished an estimated 19.7 hours to catch a Northern Pike during the survey. No Northern Pike were measured by the creel clerks.

MUSKELLUNGE (Table 2, Figure 3)
Muskellunge were the most sought-after gamefish by anglers during the survey. Anglers spent 2,185 hours targeting Muskellunge during the season. Muskellunge fishing effort was greatest in July (498 hours). The total catch of Muskellunge was 129 fish and the highest catch (41 fish) occurred in July. Anglers fished an estimated 18.6 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 952 hours during the season. Smallmouth Bass fishing effort was greatest in July (379 hours). The total catch of Smallmouth Bass was 282 fish, with three harvested. The highest catch (89 fish) occurred in July. Anglers fished an estimated 3.9 hours to catch a Smallmouth Bass during the survey.

LARGEMOUTH BASS (Table 2, Figure 5)
Fishing effort directed at Largemouth Bass was 251 hours during the season. Largemouth Bass fishing effort was greatest in August (81 hours). Total catch of Largemouth Bass was 15 fish, with no fish harvested. The highest catch (15 fish) occurred in August.

PANFISH (Table 2, Figures 6-10)
YELLOW PERCH received 659 hours of directed fishing effort. The total catch of Yellow Perch was 916 fish, with 140 harvested. The mean length of Yellow Perch harvested was 7.4 inches.

BLUEGILL were the most sought-after panfish and received 717 hours of directed fishing effort. The total catch of Bluegill was 511 fish, with 70 harvested. The mean length of Bluegill harvested was 7.9 inches.

BLACK CRAPPIE received 171 hours of directed fishing effort, but no fish were caught or harvested.

PUMPKINSEED received 78 hours of directed fishing effort. Anglers caught 24 Pumpkinseed and harvested 14. The mean length of Pumpkinseed harvested was 8.3 inches.

ROCK BASS did not receive any directed fishing effort. However, anglers caught 99 Rock Bass with zero harvested.

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. Without their cooperation, the survey would not have been possible.

We also thank our cooperator, Town of Cloverland, who generously allowed the DNR to keep a boat and snowmobile on their property during this survey.

Completion of this survey was possible because of the efforts of the following fisheries management and treaty fisheries staff: John Kubisiak, Lawrence Eslinger, Joelle Underwood, Jason Halverson, Eric Brown, Bob Consolo, Evan Priebe and Eric Lindberg. Creel clerks on Snipe Lake during the survey period were Steve Timler, Mike Rynski, Ryan Flaherty, Joelle Underwood and Richard Cechal.

This creel report was reviewed by John Kubisiak, Lawrence Eslinger and Eric Wegleitner of the DNR.

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, Snipe Lake, 2021-22 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	37	408	1.7	3.4	5.2	4.8
June	39	622	2.6	4.2	6.7	6.2
July	49	828	3.5	6.6	7.1	6.6
August	36	738	3.1	3.9	6.2	5.2
September	36	559	2.3	4.5	4.1	3.2
October	20	354	1.5	1.4	1.9	1.4
December	1	30	0.1	0.9	0.6	1.1
January	4	287	1.2	0.8	0.9	1.7
February	6	160	0.7	0.6	1.0	1.6
March	1	35	0.1	0.0	0.2	0.2
Summer Total	217	3,509	14.7	24.0	31.3	27.3
Winter Total	12	511	2.1	2.3	2.7	4.6
Grand Total	229	4,020	16.8	26.3	33.8	31.5

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 Snipe 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 Snipe Lake 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 Snipe 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 Snipe Lake to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Snipe Lake, 2021-22 and 2018-19 fishing seasons.

CREEL YEAR: 2021-22

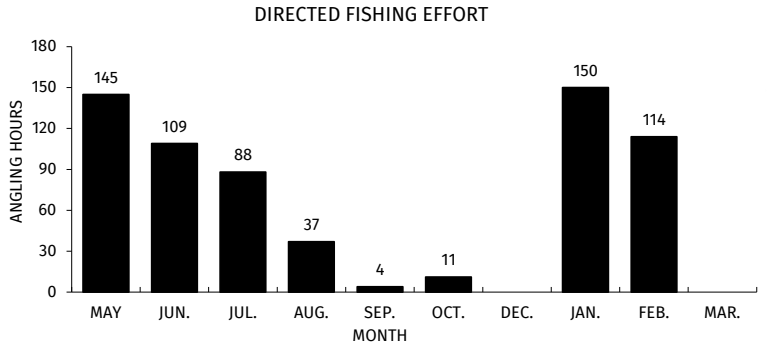
SPECIES	DIRECTED EFFORT (Hours)	PERCENT OF TOTAL	TOTAL CATCH	SPECIFIC CATCH RATE (Hrs/Fish)	TOTAL HARVEST	SPECIFIC HARVEST RATE (Hrs/Fish)	MEAN LENGTH OF HARVESTED FISH
Walleye	659	11.3%	51	13.0	6	115.5	16.3
Northern Pike	135	2.3%	7	19.7	0	*	**
Muskellunge	2,185	37.6%	129	18.6	0	*	**
Smallmouth Bass	952	16.4%	282	3.9	3	372.2	14.9
Largemouth Bass	251	4.3%	15	*	0	*	**
Yellow Perch	659	11.3%	916	0.8	140	4.7	7.4
Bluegill	717	12.3%	511	1.5	70	10.7	7.9
Black Crappie	171	2.9%	0	*	0	*	**
Pumpkinseed	78	1.3%	24	4.0	14	5.4	8.3
Rock Bass	0	0.0%	99	*	0	*	**

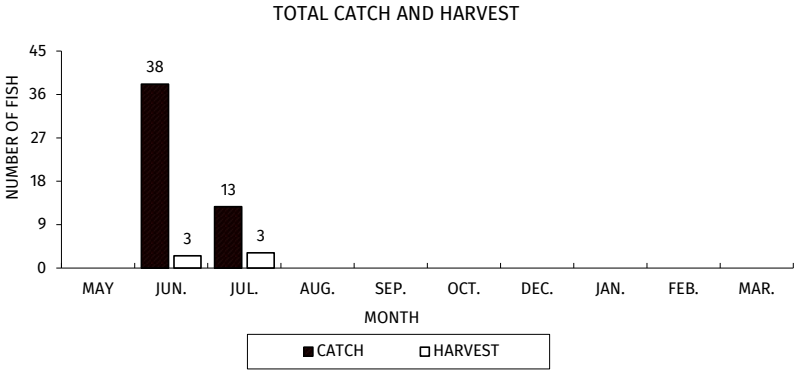
CREEL YEAR: 2018-19

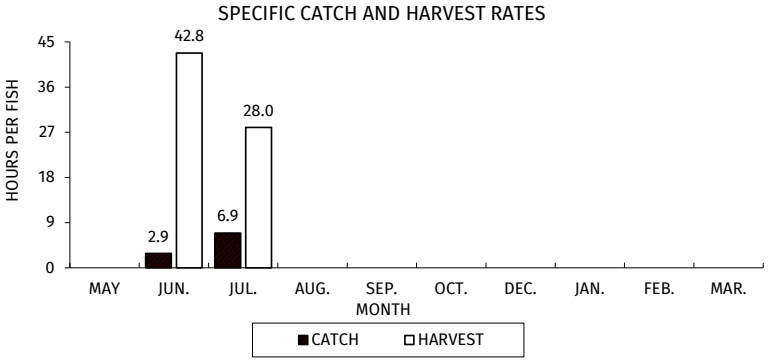
SPECIES	DIRECTED EFFORT (Hours)	PERCENT OF TOTAL	TOTAL CATCH	SPECIFIC CATCH RATE (Hrs/Fish)	TOTAL HARVEST	SPECIFIC HARVEST RATE (Hrs/Fish)	MEAN LENGTH OF HARVESTED FISH
Walleye	2,817	31.0%	2,829	1.0	222	12.7	16.5
Northern Pike	6	0.1%	0	*	0	*	**
Muskellunge	2,578	28.4%	178	17.4	0	*	**
Smallmouth Bass	1,719	18.9%	795	2.8	2	833.3	**
Largemouth Bass	74	0.8%	21	5.4	0	*	**
Yellow Perch	1,321	14.5%	2,446	0.7	444	3.5	8.0
Bluegill	525	5.8%	848	0.8	161	3.3	7.1
Black Crappie	25	0.3%	11	3.0	0	*	**
Pumpkinseed	16	0.2%	42	1.2	6	*	7.2
Rock Bass	7	0.1%	515	0.9	0	*	**

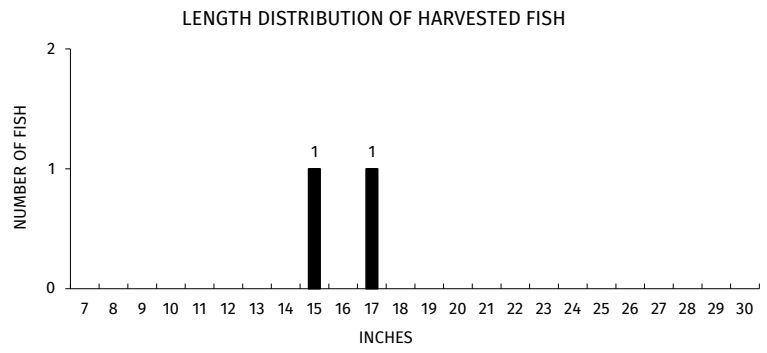
Note: If a species is not shown in a table, no data was collected by the creel clerks for that species.
* Indicates that no fish of this species were caught or harvested (depending on the column) by anglers who specifically targeted this species.
** Indicates that no fish were measured by the creel clerks for this species.

WALLEYE









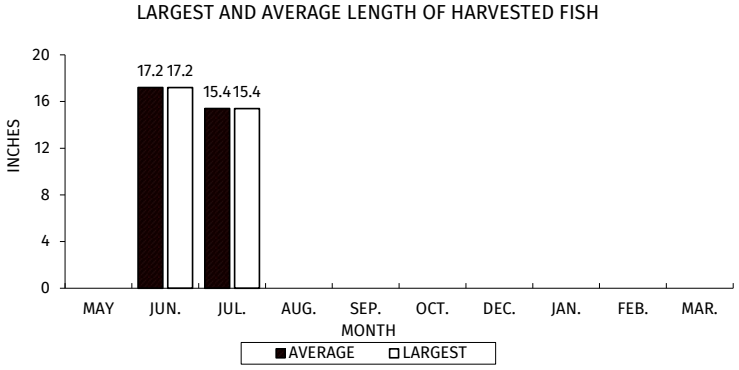


Figure 1. Walleye fishing effort, catch, harvest and length distribution, Snipe Lake, during 2021-22.

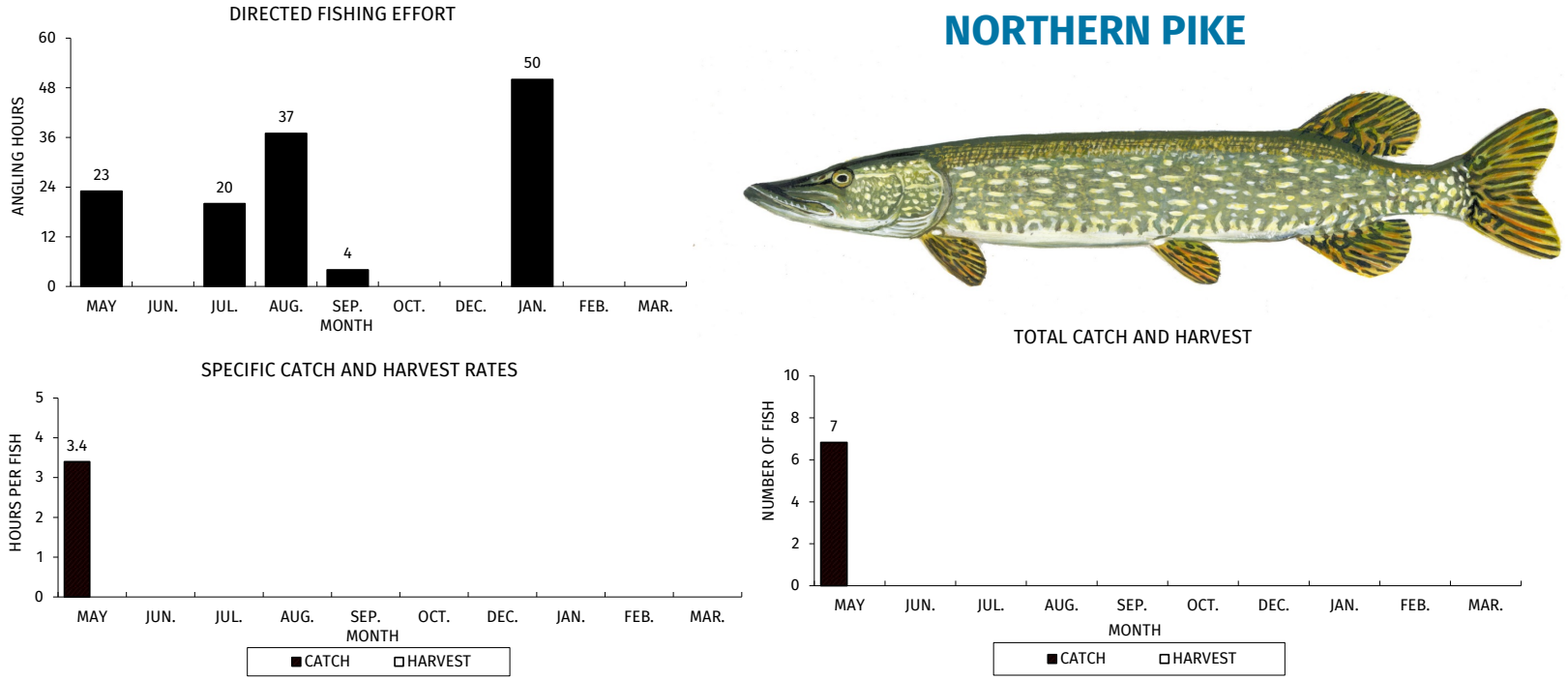


Figure 2. Northern Pike fishing effort, catch and harvest, Snipe Lake, during 2021-22.

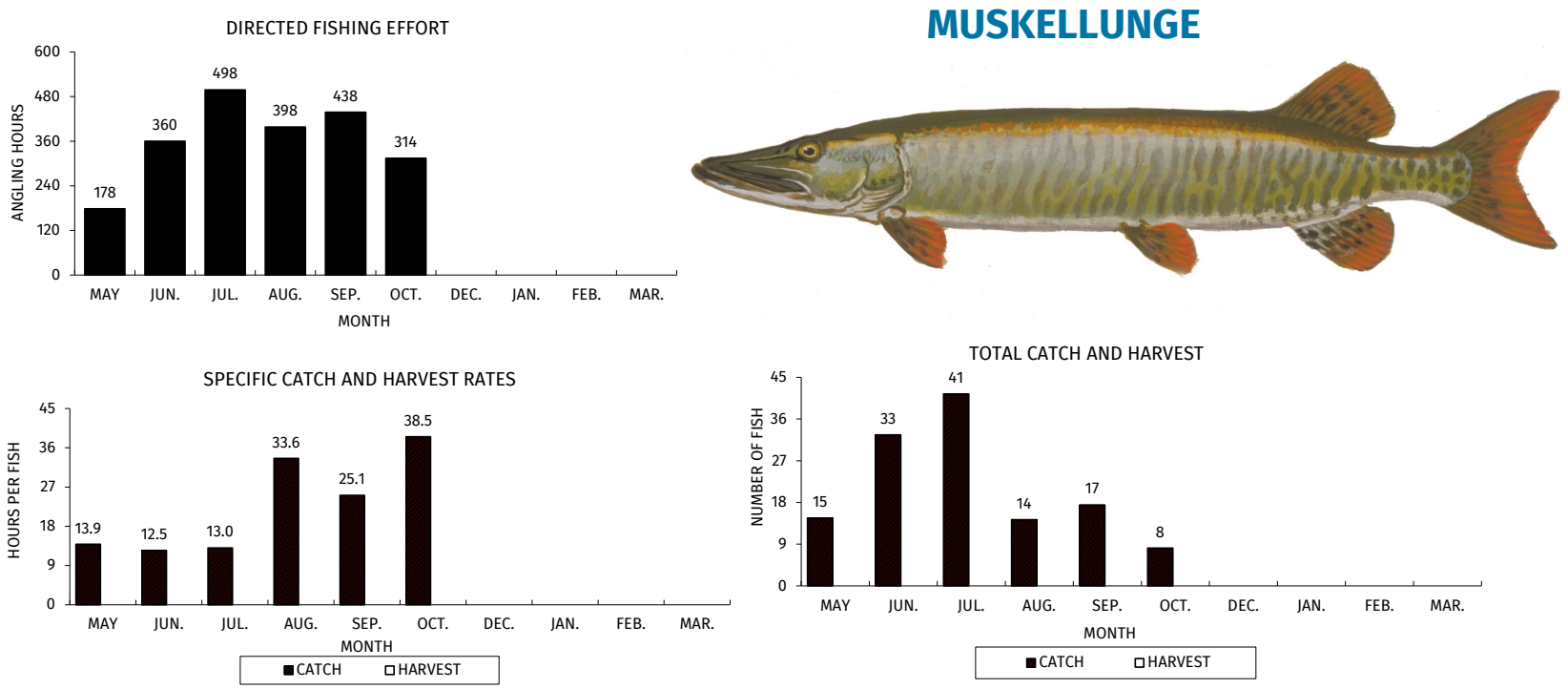
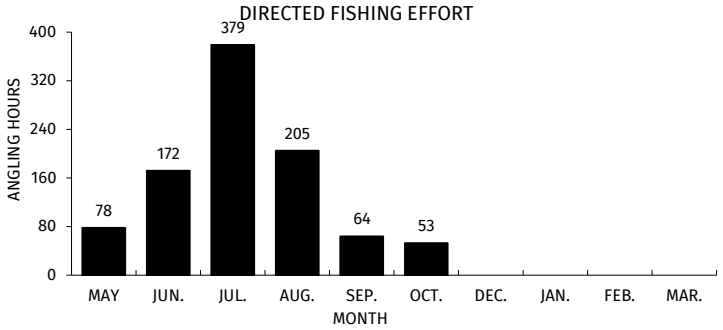
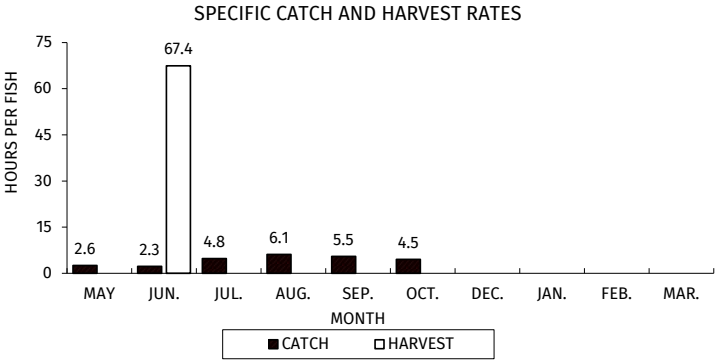
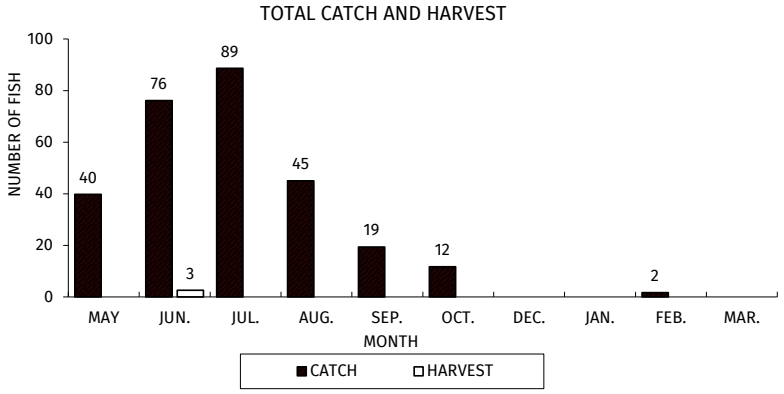


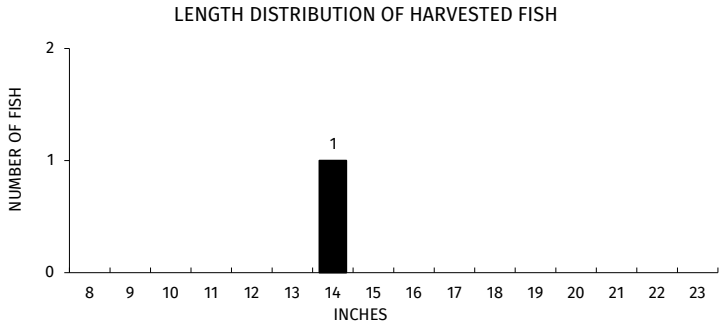
Figure 3. Muskellunge fishing effort, catch and harvest, Snipe Lake, during 2021-22.

SMALLMOUTH BASS









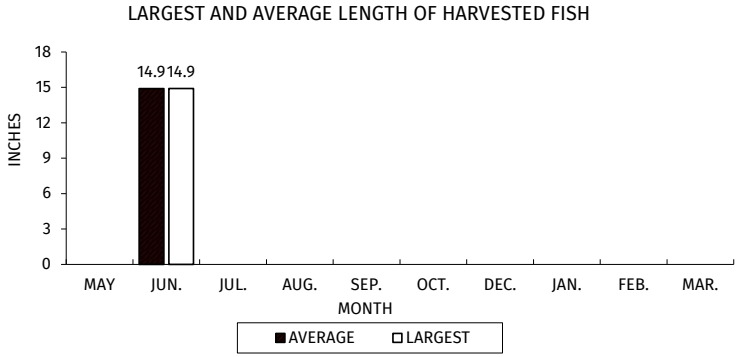


Figure 4. Smallmouth Bass fishing effort, catch, harvest and length distribution, Snipe Lake, during 2021-22.

LARGEMOUTH BASS

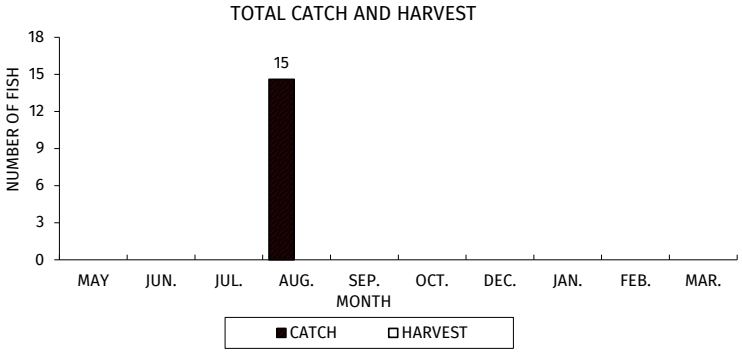
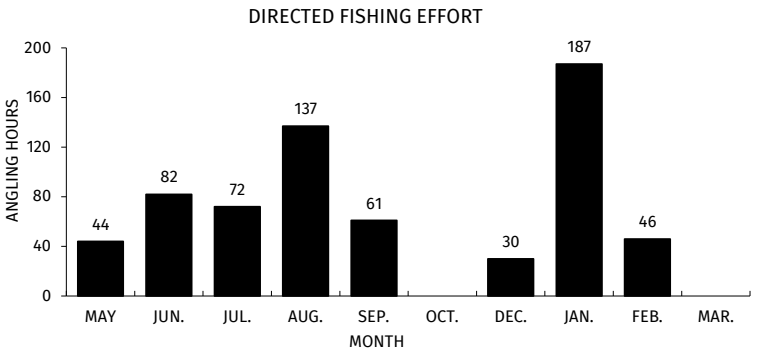
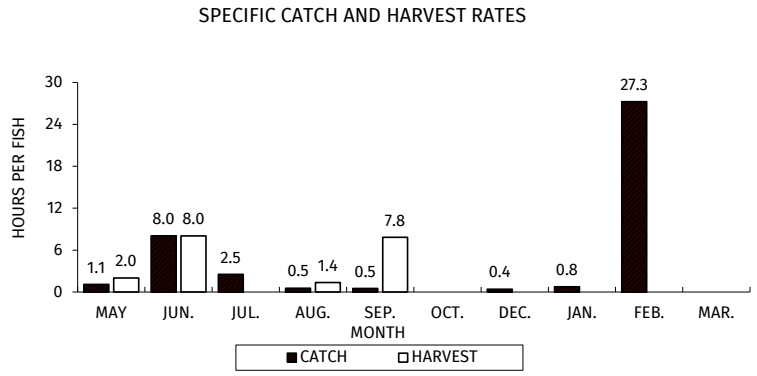
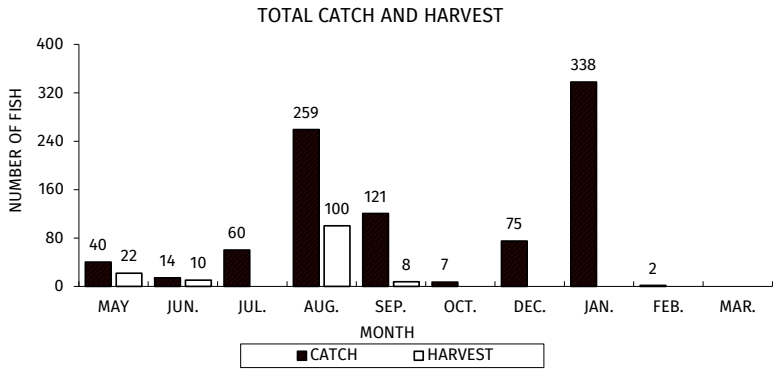


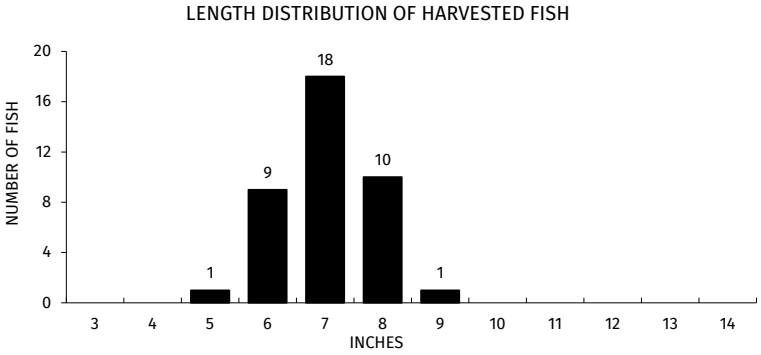
Figure 5. Largemouth Bass fishing effort, catch and harvest, Snipe Lake, during 2021-22.

YELLOW PERCH









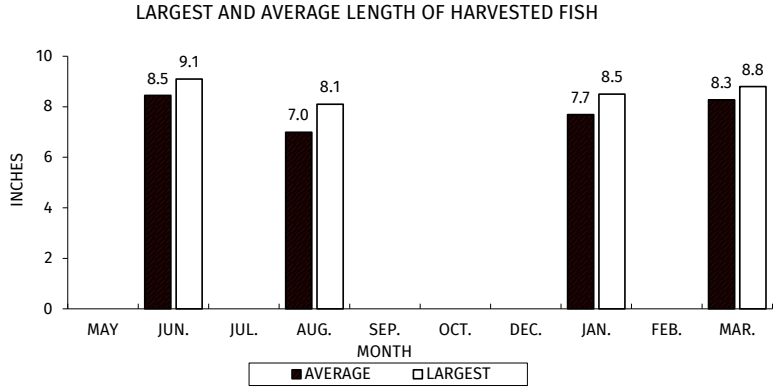
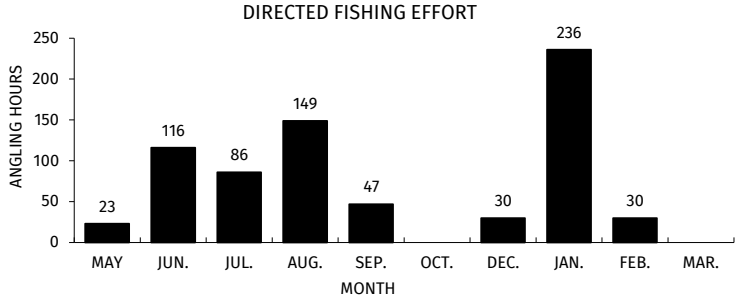
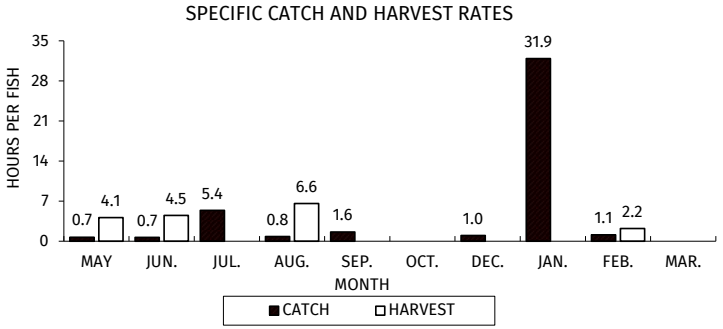
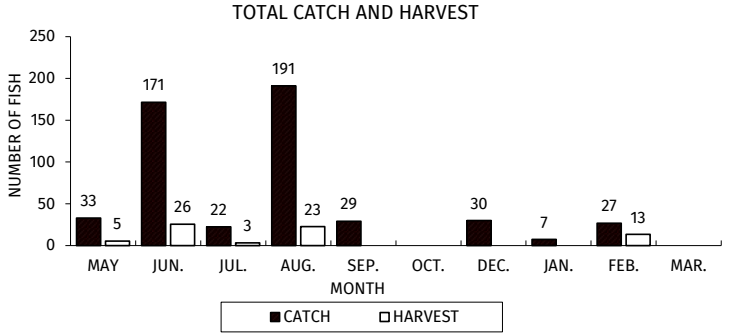


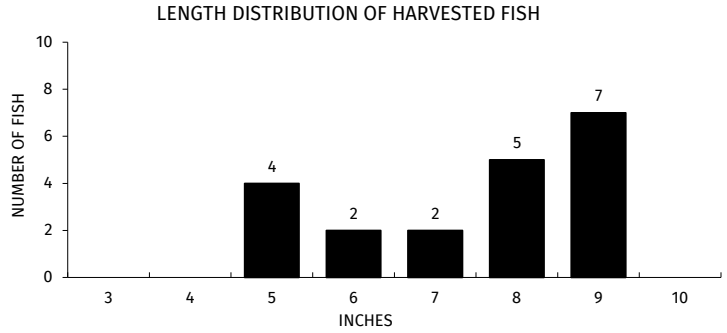
Figure 6. Yellow Perch fishing effort, catch, harvest and length distribution, Snipe Lake, during 2021-22.

BLUEGILL









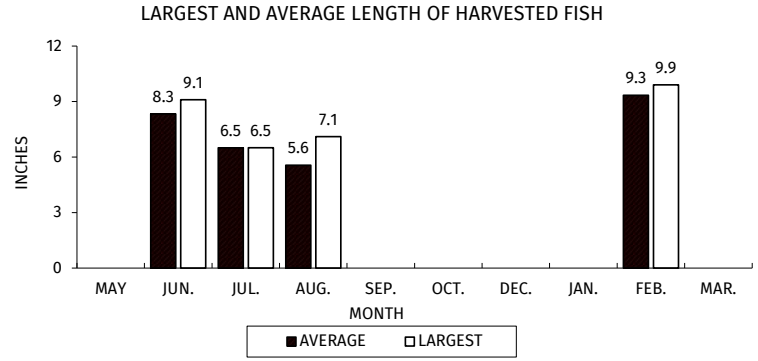
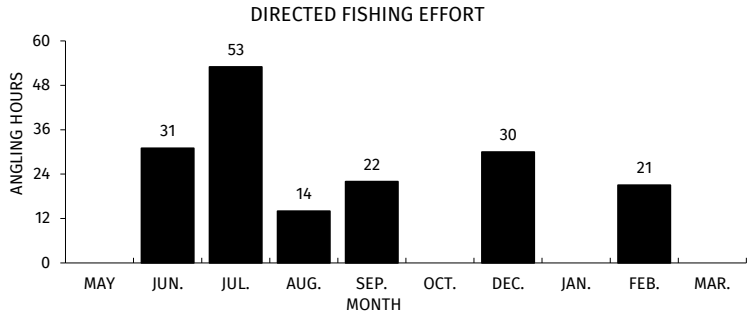


Figure 7. Bluegill fishing effort, catch, harvest and length distribution, Snipe Lake, during 2021-22.



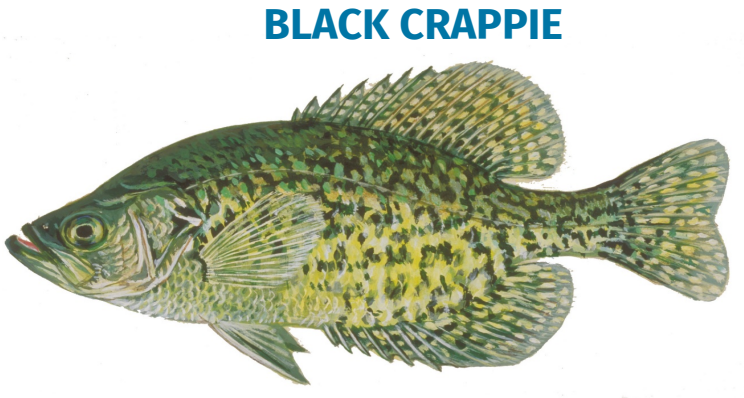


Figure 8. Black Crappie fishing effort, Snipe Lake, during 2021-22.

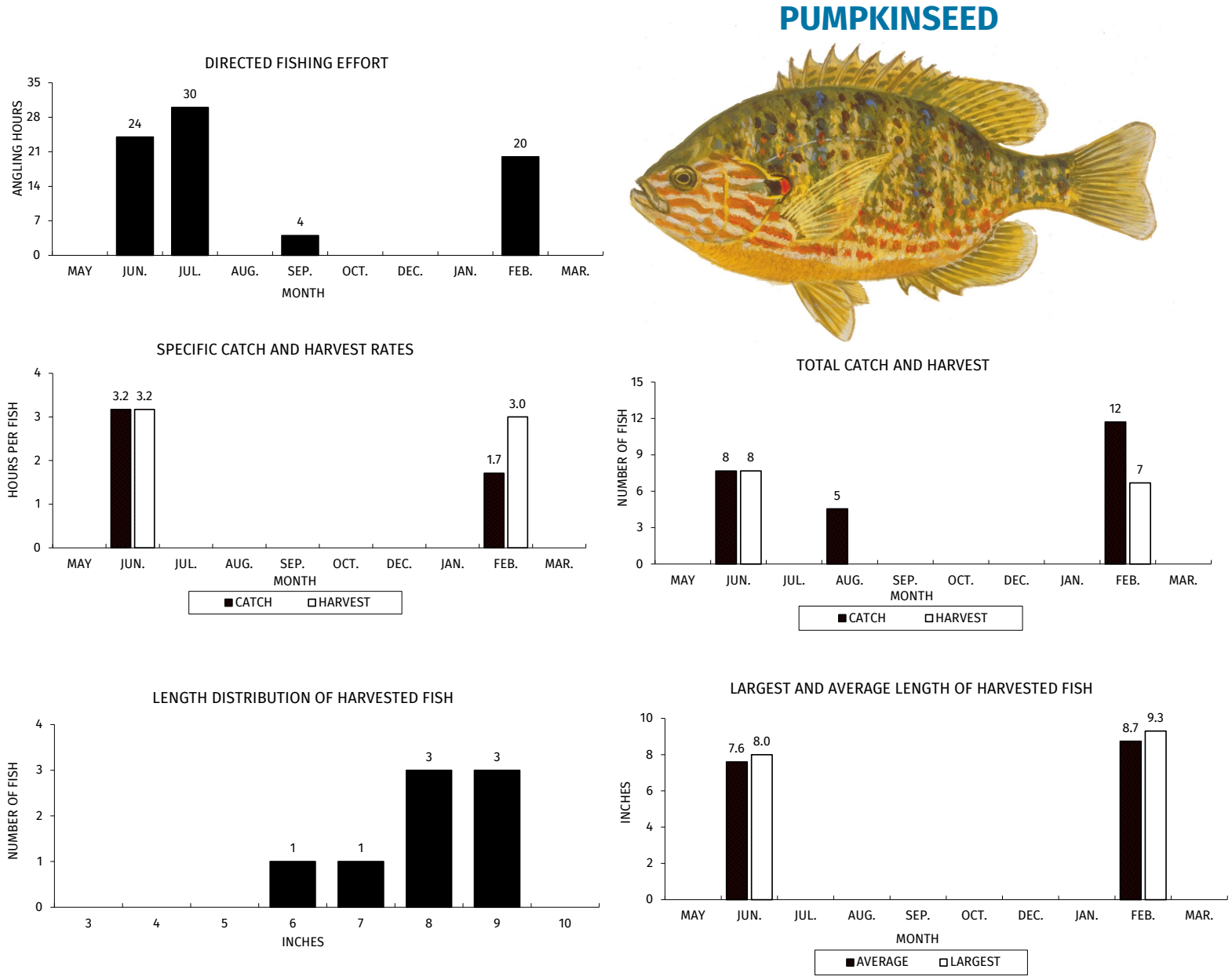
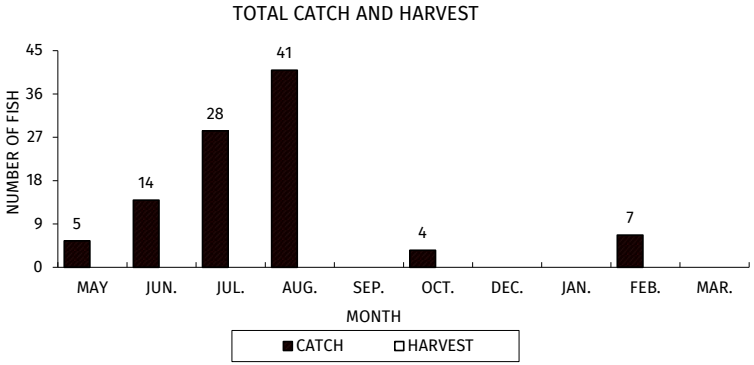


Figure 9. Pumpkinseed fishing effort, catch, harvest and length distribution, Snipe Lake, during 2021-22.



ROCK BASS

Figure 10. Rock Bass catch and harvest, Snipe Lake, during 2021-22.