

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

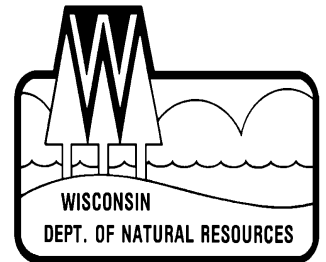
WHITE POTATO LAKE

2019-2020 CREEL SURVEY REPORT
OCONTO COUNTY



Treaty Fisheries Publication

Compiled by:
Eric Brown, DNR Fisheries Technician



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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. 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. The other key component of the fishery that we often need to measure is harvest.

We measure angler harvest by conducting creel surveys. A creel survey is an assessment tool used to sample the fishing activities of anglers on a body of water and make projections, or 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 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. The survey is run during daylight hours and shift times change from month to month as day length changes.

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.

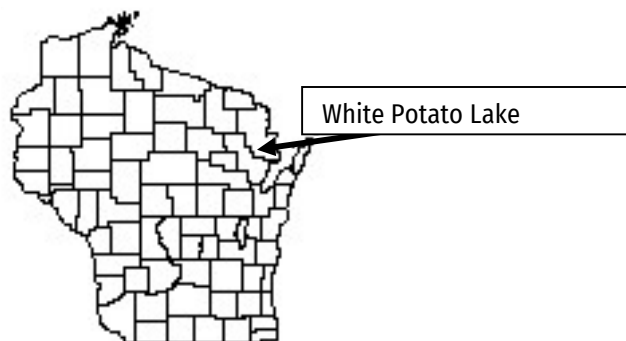
A computer program is used to estimate catch and harvest of each species, catch and harvest rates and fishing effort by month, as well as for the year in total. Keep in mind that these are estimates based on the best information available and not a complete accounting of effort, catch and harvest. Accurate 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 White Potato Lake, discussion of results of the survey and detailed summaries by species of fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



LOCATION

White Potato Lake is located in Oconto County near the town of Beaver.

PHYSICAL CHARACTERISTICS

White Potato Lake is a 1,023-acre seepage lake with a maximum depth of 11 feet. Littoral substrate consists primarily of sand, muck and a small amount of gravel. White Potato Lake contains medium hard, light brown water of moderate transparency.

SEASONS SURVEYED

The period referred to in this report as the 2019-2020 fishing season ran from May 4, 2019 through March 1, 2020. The open-water creel survey ran from May 4 through Sept. 30, 2019 and the ice fishing creel survey ran from Jan. 4, 2020 through March 12, 2020.

WEATHER

Ice-out on White Potato Lake was around April 13, 2019. Fishable ice formed on White Potato Lake in mid-December.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on White Potato Lake during the 2019-2020 fishing season:

SPECIES	SEASON	BAG LIMIT	MIN. SIZE
Largemouth Bass	5/4-3/1	5	14"
Musky	5/23-11/30	1	40"
Northern Pike	5/4-3/1	5	none
Walleye	5/4-3/1	5	15"
Panfish	year round	25	none
Rock Bass	year round	none	none

SPECIES CATCH AND HARVEST INFORMATION

Angling effort, catch and harvest information is summarized for each species in Table 2 and Figures 1-10. Information presented about species whose fishing season extends beyond March 12 should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **ESTIMATED FISHING EFFORT**
Total calculated number of hours during each month that anglers spent fishing for a species.
2. **ESTIMATED CATCH AND HARVEST**
Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

3. ESTIMATED SPECIFIC CATCH AND HARVEST RATES

Calculated 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

Monthly largest and average length of harvested fish of a species. 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. It is important to note that the months of October and December were not surveyed. This is important when comparing these results on White Potato Lake to other creel surveys. This was the first time the DNR conducted a creel survey on White Potato Lake.

GENERAL ANGLER INFORMATION

Anglers spent 12,442 hours, or 12.2 hours per acre, fishing White Potato Lake during the 2019-2020 season (Table 1). That was less than the Oconto County average of 39.1 hours

per acre. June was the most heavily fished month (2,400 hours) and fishing effort was lightest in September (747 hours). The creel clerks were able to conduct 240 interviews during the survey.

RESULTS BY SPECIES

WALLEYE (Table 2, Figure 1)

Anglers spent 2,641 hours targeting walleye. The greatest fishing effort for walleye was in January (1,072 hours). July had the least amount of walleye fishing effort (11 hours).

Total catch of walleye was 220 fish, with a harvest of 85. Highest catch (58 fish) occurred in June and highest harvest (40 fish) occurred in January. Anglers fished an average of 20.3 hours to catch and 34.6 hours to harvest a walleye during the survey. The mean length of harvested walleye was 18.4 inches and the largest measured was a 20.5-inch fish.

NORTHERN PIKE (Table 2, Figure 2)

Fishing effort directed at northern pike was 3,397 hours during the season. Northern pike fishing effort was greatest in February (1,205 hours). Total catch of northern pike was 374 fish, with a harvest of 114. Anglers fished an average of 9.8 hours to catch a northern pike during the survey. The mean length of harvested northern pike was 23.4 inches and the largest measured was a 27.0-inch fish.

MUSKELLUNGE (Table 2, Figure 3)

Anglers spent 462 hours targeting muskellunge during the season. Muskellunge fishing effort was greatest in August (200 hours). There was no documented catch or harvest of muskellunge during this survey.

LARGEMOUTH BASS (Table 2, Figure 4) Fishing effort directed at largemouth bass was 3,459 hours during the season. Largemouth bass fishing effort was greatest in June (935 hours). Total catch of largemouth bass was 3,356 fish, with a harvest of 121. Highest catch (1,452 fish) occurred in June. Anglers fished an average of 2.0 hours to catch a largemouth bass during the survey. The mean length of harvested largemouth bass was 15.0 inches and the largest measured was a 16.0-inch fish.

PANFISH (Table 2, Figures 5-10)

YELLOW PERCH received 7,972 hours of directed fishing effort. Total catch of yellow perch was 3,064 fish, with 837 harvested. The mean length of yellow perch harvested was 8.9 inches and the largest measured was 12.0 inches.

BLUEGILL directed fishing effort was 7,702 hours. Total catch of bluegill was 4,962 fish, with 1,342 harvested. The mean length of bluegill harvested was 7.8 inches and the largest measured was 9.2 inches.

BLACK CRAPPIE received 5,618 hours of directed fishing effort. Anglers caught 476 black crappie and harvested 209. The mean length of black crappie harvested was 9.6 inches and the largest was a 12.5-inch fish.

PUMPKINSEED received 482 hours of directed fishing effort. Anglers caught 113 pumpkinseed and harvested 35. The mean length of pumpkinseed harvested was 7.3 inches and the largest was 8.0 inches.

ROCK BASS received no directed

fishing effort. Anglers caught 96 rock bass but harvested no fish.

OTHER SPECIES

YELLOW BULLHEAD had no directed effort, but 7 fish were caught by anglers with no harvest.

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 cooperators, Jason & Sue Drake and Jim & Ann Perreault who generously allowed the DNR to keep a boat and/or snowmobile on their property during this survey. We would also like to thank the White Potato Lake Sportsmen's Club who donated \$5,000 to this creel survey.

Completion of this survey was possible because of the efforts of the following fisheries management and treaty fisheries staff: Christopher Long, Cory Wienandt and Eric Brown. Creel clerks on White Potato Lake during the survey period were Brooke Rosenlund and Riley Schultz.

This creel report was reviewed by Mike Donofrio, Christopher Long and Lawrence Eslinger of the DNR.

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

<http://dnr.wi.gov/topic/Fishing/north/trtycrlsruvs.html>

Table 1. Sportfishing effort summary, White Potato Lake, 2019-20 season. Compared to Ceded Territory averages.

Month	Number of Angler Party Interviews	Total Angler Hours	Total Angler Hours/Acre	Oconto County Average Hours/Acre	Ceded Territory Average Hours/Acre
May	37	1832	1.8	5.9	5.0
June	46	2400	2.3	11.1	6.4
July	16	1304	1.3	11.6	6.8
August	13	1036	1.0	8.8	5.5
September	12	747	0.7	4.2	3.3
October				1.4	1.5
December				2.9	1.1
January	34	1803	1.8	5.4	1.6
February	68	2176	2.1	5.2	1.6
March	14	1144	1.1	0.2	0.2
*Summer Total	124	7319	7.2	43.0	28.5
*Winter Total	116	5123	5.0	13.7	4.5
Grand Total	240	12442	12.2	39.1	33.0

*"Summer" is May-October; "Winter" is December-March. White Potato Lake was not creel in October or December during this survey.

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 White Potato 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 White Potato Lake to other lakes.

County Average Hours/Acre is the average angler effort in hours per acre for county lakes that have been surveyed since 1990. This value is useful for fishing pressure comparisons with other waters.

Ceded Territory Average Hours/Acre is the average angler effort in hours per acre for inland lakes in the Ceded Territory that have been surveyed since 1990. This value can be used to compare White Potato Lake to other lakes in northern Wisconsin.

Table 2. Creel survey synopses of White Potato Lake 2019-20 fishing season.

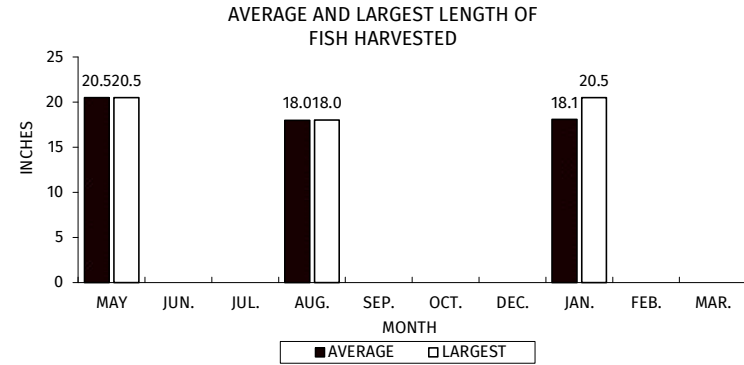
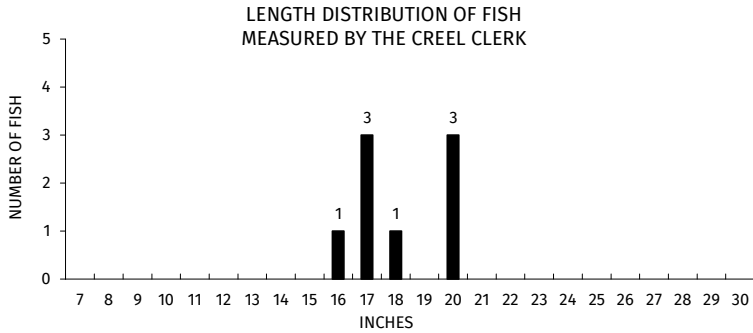
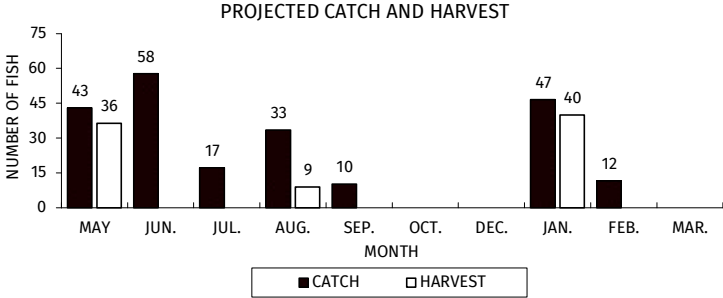
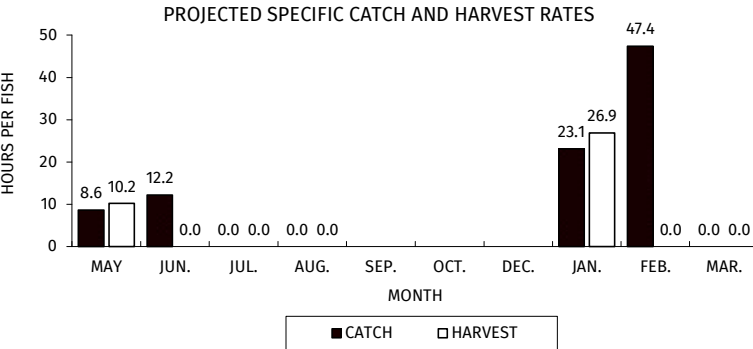
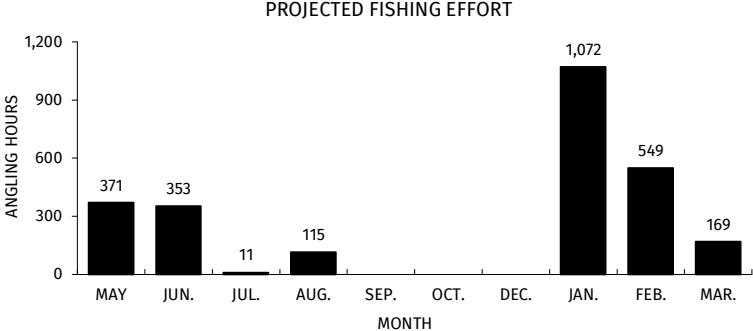
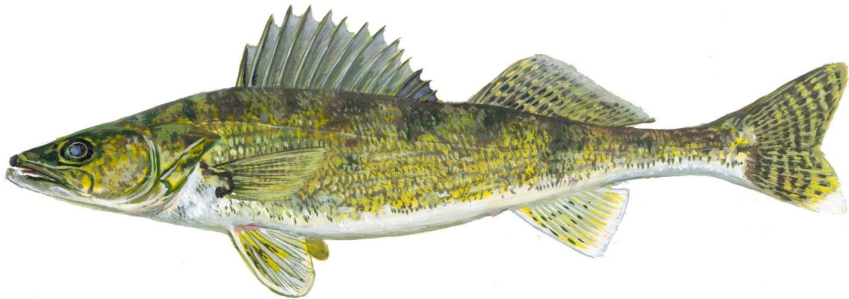
CREEL YEAR: 2019-20

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	2,641	8.3%	220	20.3	85	34.6	18.4
Northern Pike	3,397	10.7%	374	9.8	114	29.8	23.4
Muskellunge	462	1.5%	0	0.0	0	0.0	
Largemouth Bass	3,459	10.9%	3,356	2.0	121	59.4	15.0
Yellow Perch	7,972	25.1%	3,064	2.8	837	9.5	8.9
Bluegill	7,702	24.3%	4,962	1.6	1,342	5.8	7.8
Black Crappie	5,618	17.7%	476	12.1	209	26.8	9.6
Pumpkinseed	482	1.5%	113	4.3	35	13.8	7.3
Rock Bass	0	0.0%	96	0.0	0	0.0	
Yellow Bullhead	0	0.0%	7	0.0	0	0.0	

* A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

** A blank cell in this column indicates that no fish of a given species were harvested by anglers who specifically targeted that species.

WALLEYE



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

NORTHERN PIKE

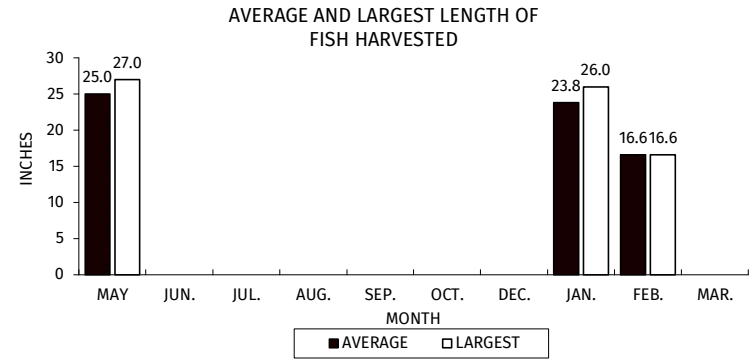
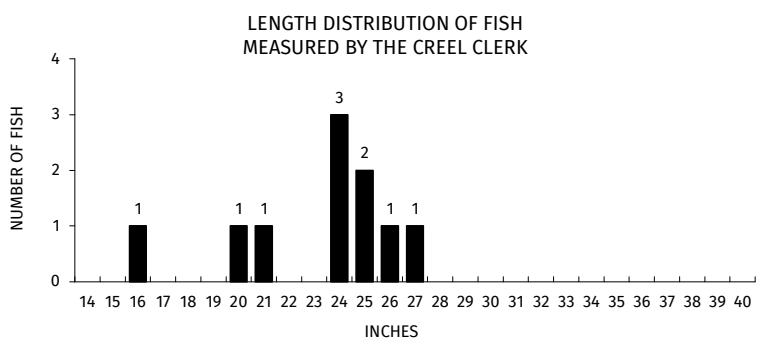
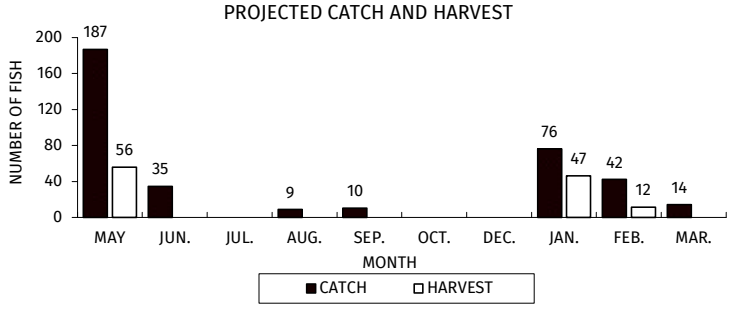
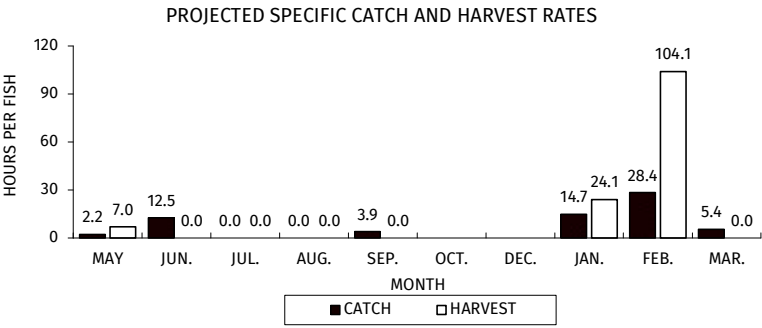
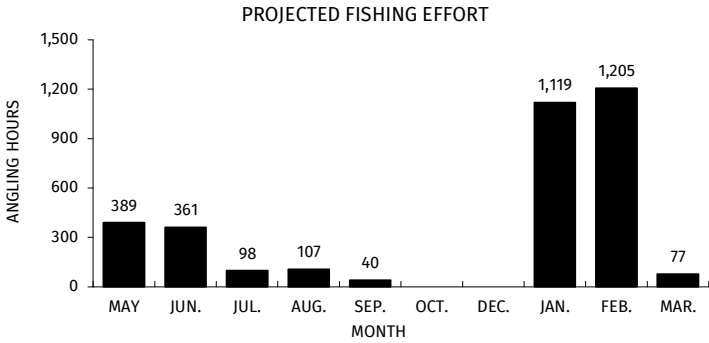
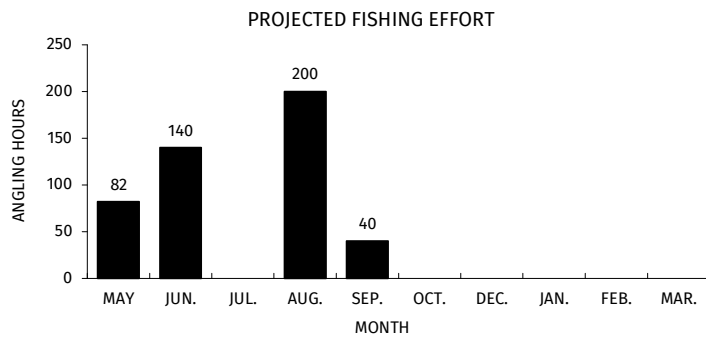


Figure 2. Northern Pike sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.



MUSKELLUNGE



Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

LARGEMOUTH BASS

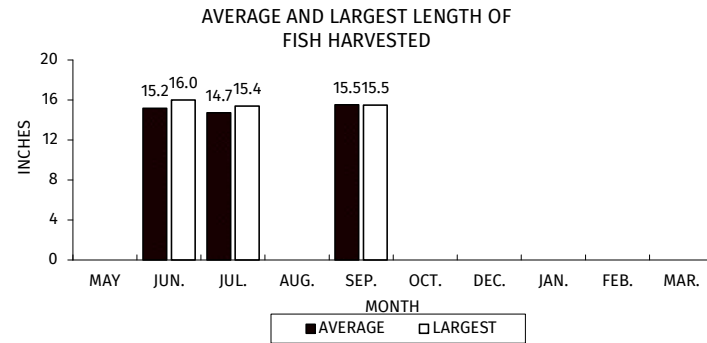
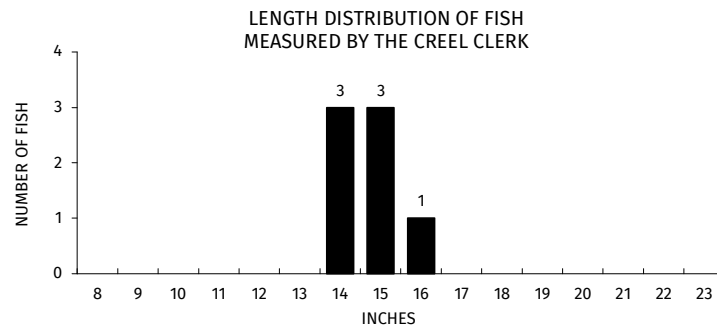
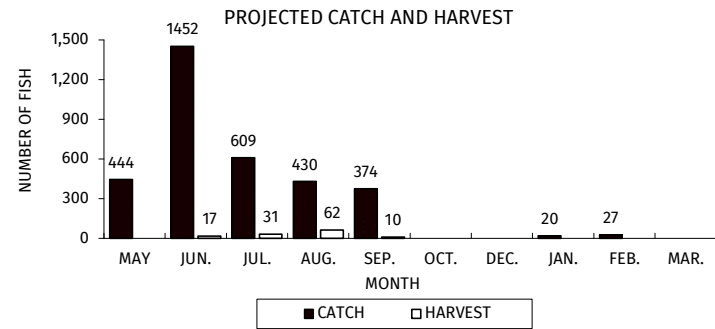
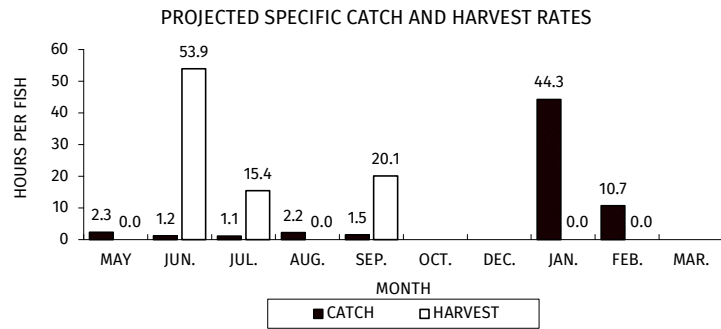
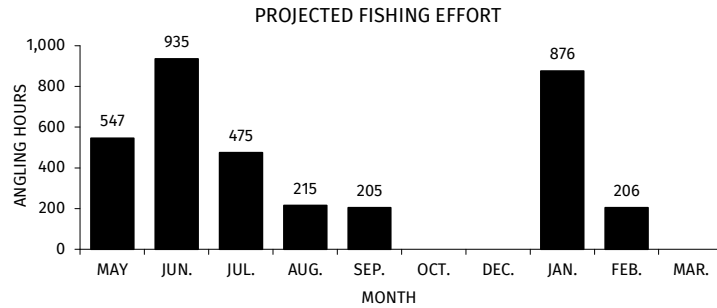
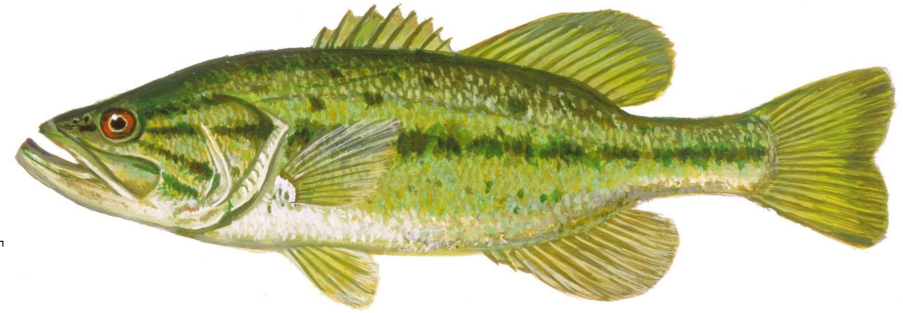
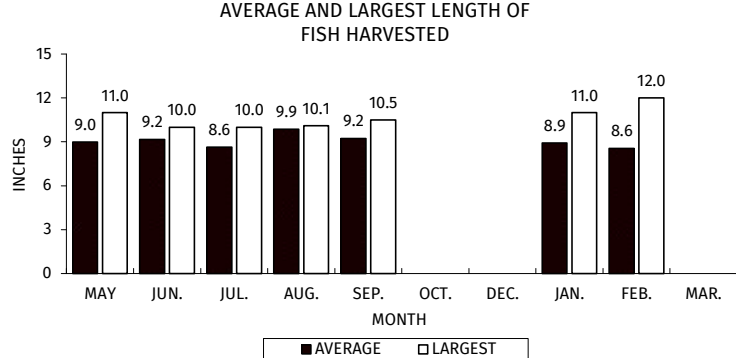
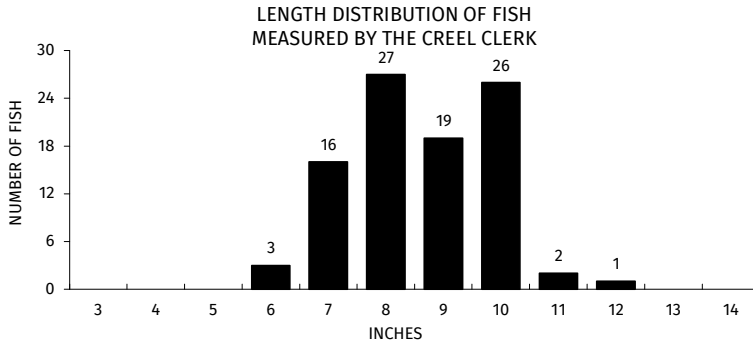
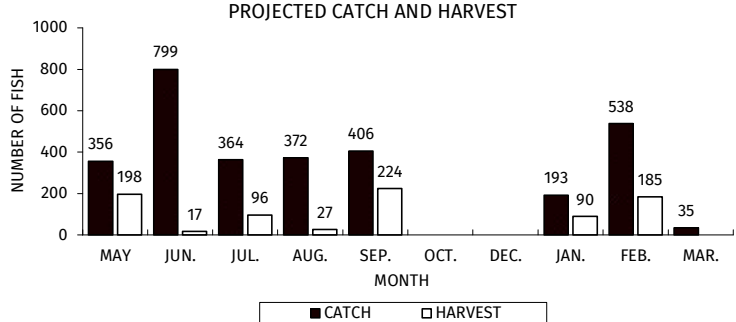
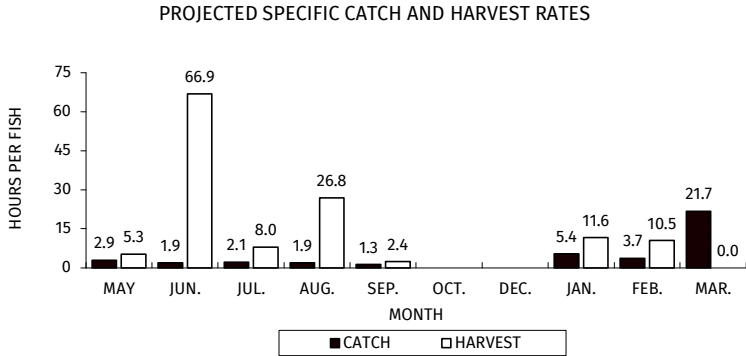
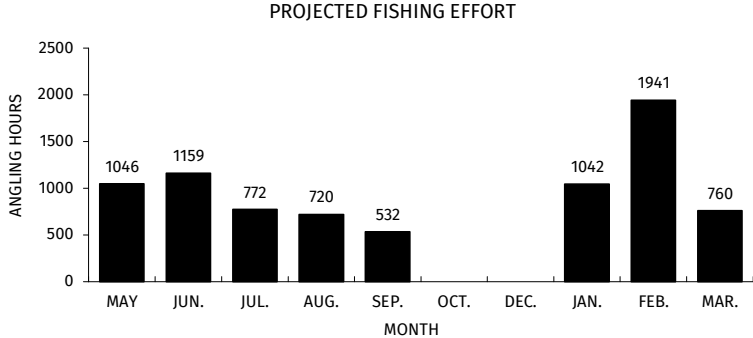


Figure 4. Largemouth Bass sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

YELLOW PERCH



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Figure 5. Yellow Perch sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

BLUEGILL

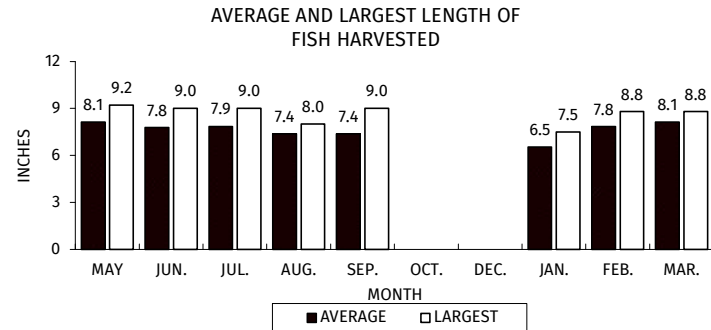
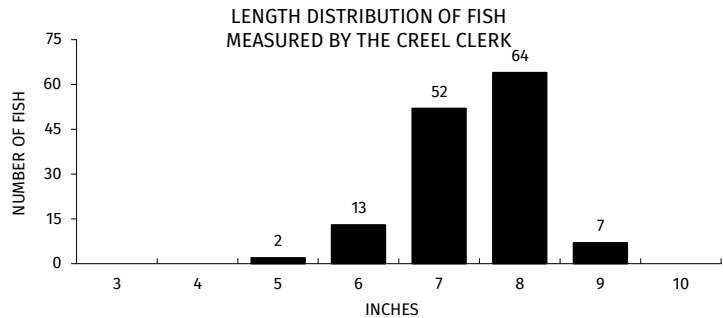
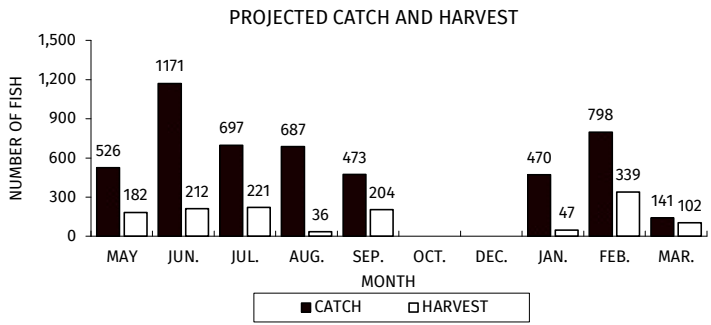
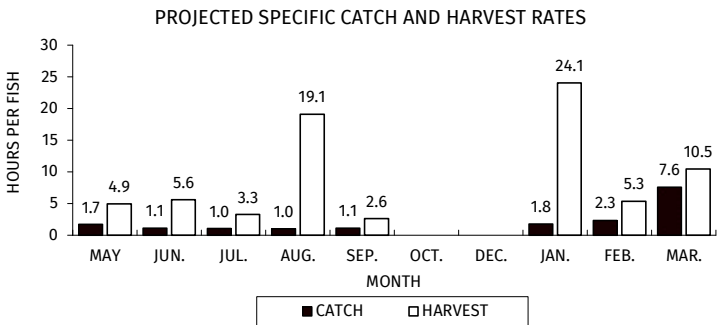
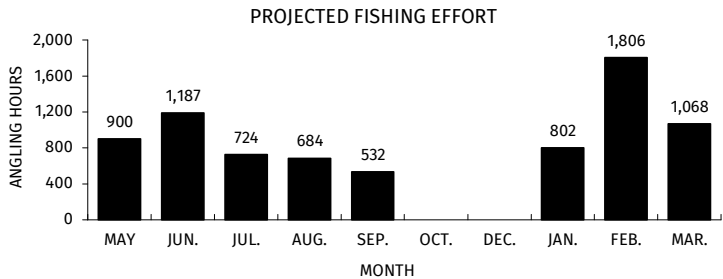


Figure 6. Bluegill sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

BLACK CRAPPIE

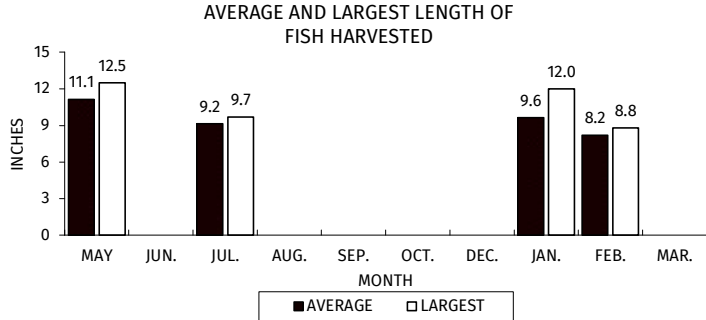
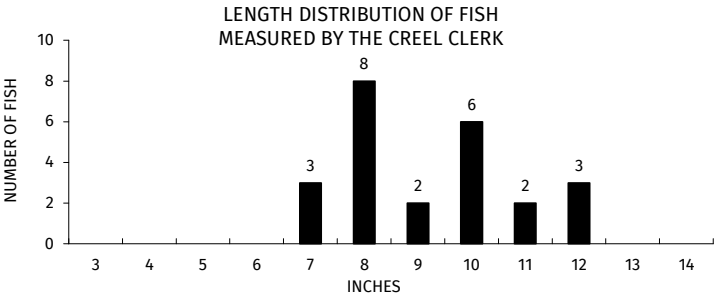
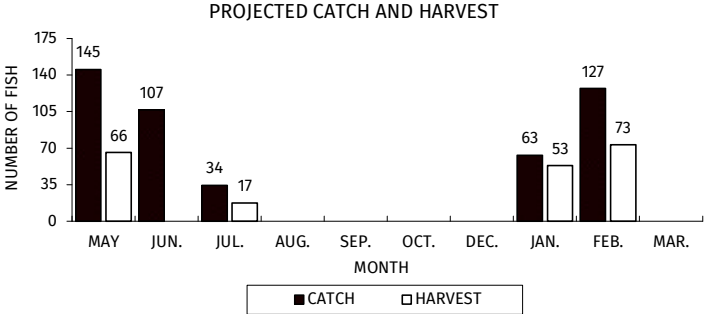
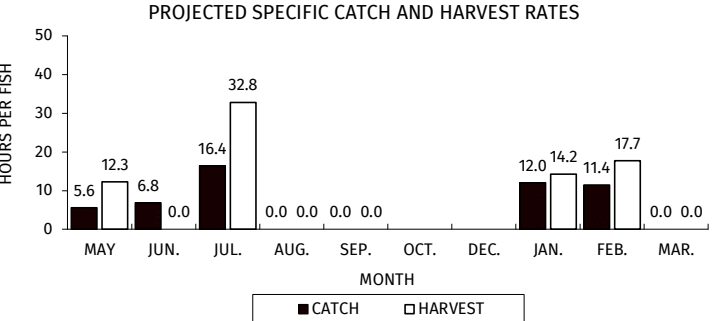
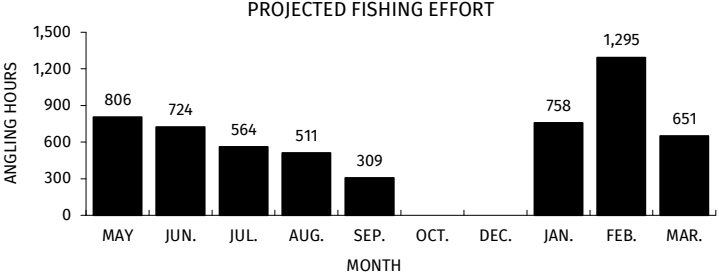
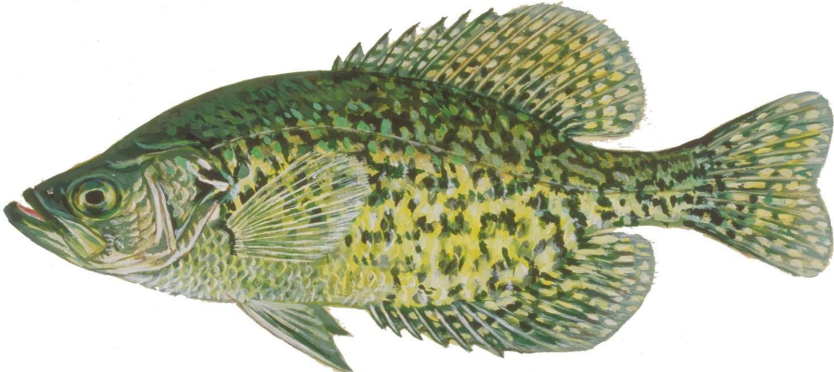


Figure 7. Black Crappie sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

PUMPKINSEED

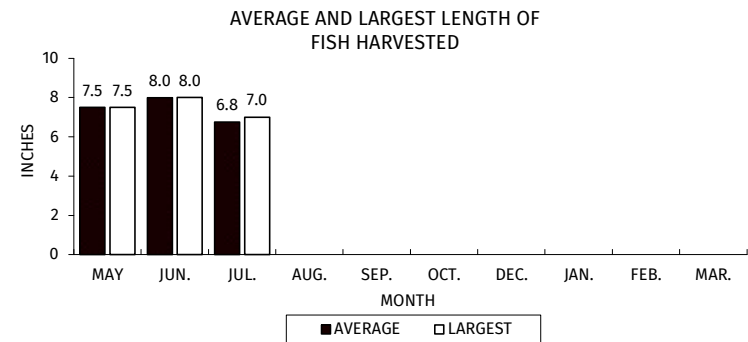
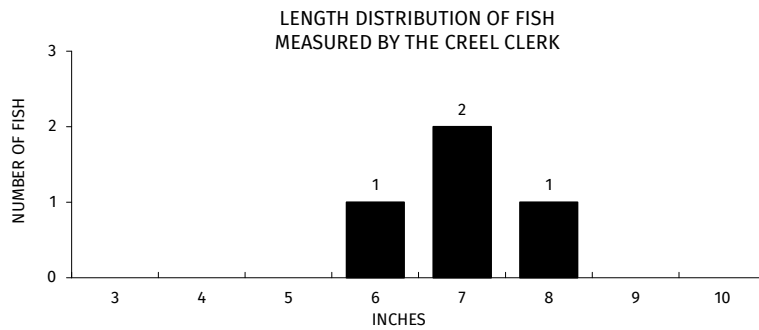
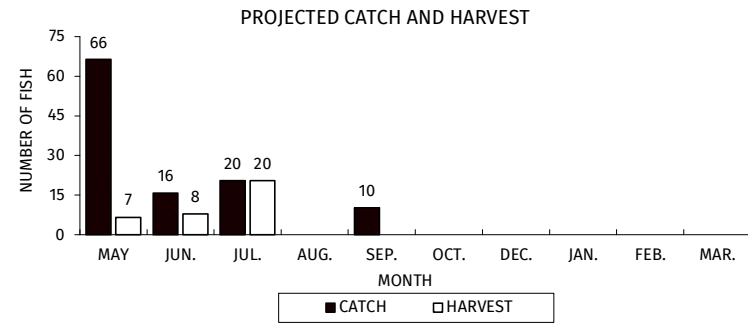
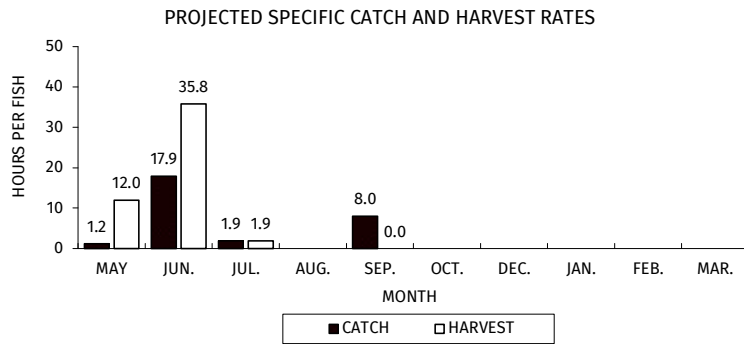
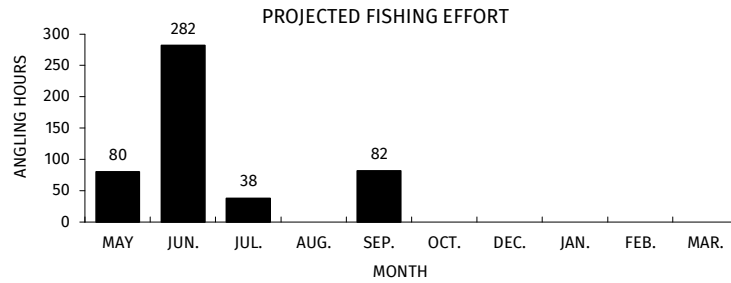
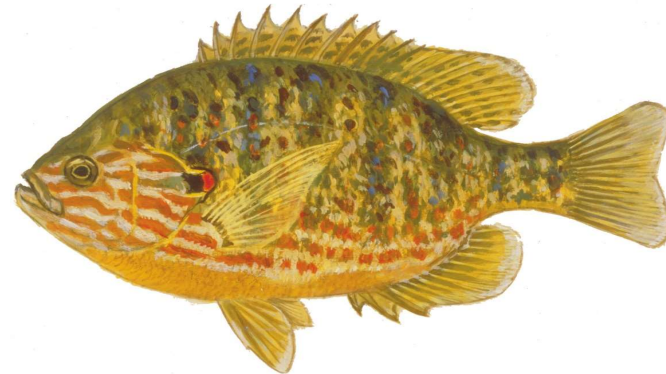


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

ROCK BASS

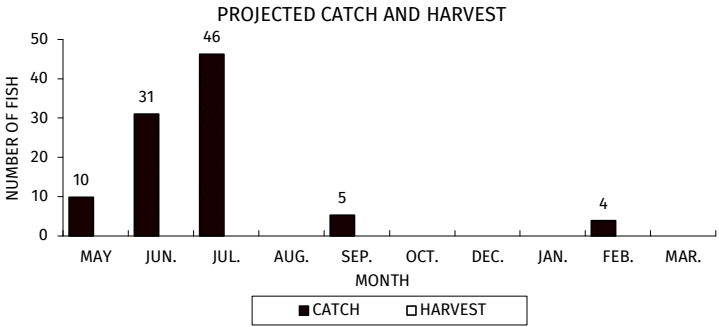


Figure 9. Rock Bass sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.

YELLOW BULLHEAD

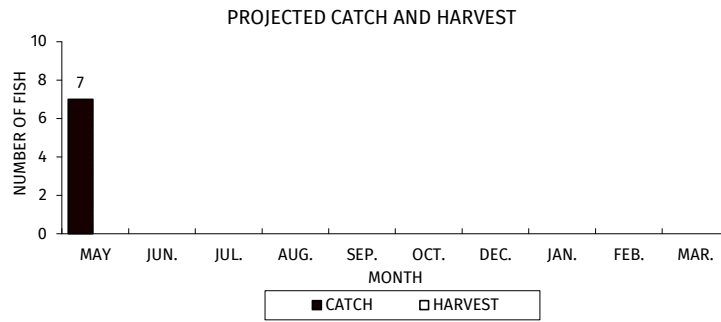


Figure 10. Yellow Bullhead sportfishing effort, catch, harvest, and length distribution, White Potato Lake, during 2019-20.