

**WISCONSIN DEPARTMENT OF NATURAL RESOURCES
CREEL SURVEY REPORT**

LITTLE SAINT GERMAIN LAKE

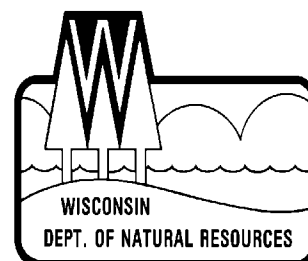
VILAS COUNTY

2015-16



Treaty Fisheries Publication

**Compiled by Jason Halverson &
Jeff Blonski
Treaty Fisheries Technicians**



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Cover Art: Steve Hilt, Portland, OR

Fish Graphics: Virgil Beck, Stevens Point, WI

INTRODUCTION

Fish populations can fluctuate due to natural forces (weather, predation, competition), management actions (stocking, regulations, habitat improvement), inappropriate development (habitat degradation), and harvest impacts. Wisconsin Department of Natural Resources fisheries crews regularly conduct fishery surveys on area 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 (species composition, population size, reproductive success, size/age distribution, and growth rates). The other key component of the fishery that we often need to measure is the harvest.

On many lakes in the Ceded Territory of northern Wisconsin, harvest of fish is divided between sport anglers and the six Chippewa tribes who harvest fish under rights granted by federal treaties. The tribes harvest fish mostly using a highly efficient method, spearing, during a relatively short time period in the spring. Every fish in the spear harvest is counted – a complete “census” of the harvest.

We measure the sport harvest to assess its impact on the fishery. However, it would be highly impractical and very costly to conduct a complete census of every angler who fishes on a lake. Therefore, we conduct 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 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 is 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 make estimates of total catch and harvest of each species, catch and harvest rates, and total fishing effort by month, as well as for the year in total. Keep in mind that these are only 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, therefore, depends on good cooperation and truthful responses by anglers when a creel clerk interviews them.

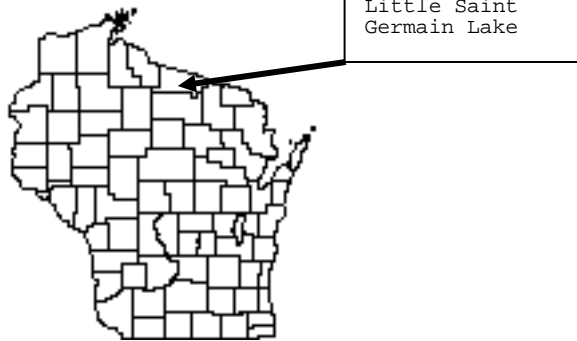
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides estimates of:

1. Overall fishing effort (pressure)
2. Fishing effort directed at each species
3. Catch and harvest rates
4. Numbers of fish caught and harvested

Also included are a physical description of Little Saint Germain Lake; discussion of results of the survey; and detailed summaries, by species, of fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



Location

Little Saint Germain Lake is located in Vilas County in the Town of Saint Germain.

Physical Characteristics

Little Saint Germain Lake is a 980 acre drainage lake with a maximum depth of 53 feet. Littoral substrate consists primarily of sand, with lesser amounts of muck and gravel. Little Saint Germain Lake contains soft, slightly alkaline, clear water of moderate transparency.

Seasons Surveyed

The period referred to in this report as the 2015-16 fishing season ran from May 2, 2015 through March 6, 2016. The open water creel survey ran from May 2 through October 31, 2015, and the ice fishing creel survey ran from December 1, 2015 through March 6, 2016.

Weather

Ice-out on Little Saint Germain Lake was around April 14, 2016. Fishable-ice formed on Little Saint Germain Lake in late December.

Fishing Regulations

The following seasons, daily bag limits, and length limits were in place on Little Saint Germain Lake during the 2015-16 fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass	5/2-3/6	5	14"
Smallmouth Bass	5/2-6/19	Catch&Release	
	6/20-3/6	5	14"
Musky	5/23-11/30	1	45"
Northern Pike	5/2-3/6	5	none
Walleye	5/2-3/6	3	15"
		20"-24" Protected Slot, 1>24"	
Panfish	year round	25	No More Than 10 of Any Species
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. Table 2 also includes a comparison of these statistics with the previous creel survey. Information presented about species whose fishing season extends beyond March 6 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 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.

3. ESTIMATED CATCH AND HARVEST

Calculated number of fish of the indicated species caught or harvested by all anglers, regardless of targeted species.

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 those fish measured by the creel survey clerk are reported.

CREEL SURVEY RESULTS AND DISCUSSION

Survey Logistics

The creel survey went well. We encountered no unusual problems conducting the survey or calculating the estimates contained in the report. This was the third time the department conducted a creel survey on Little Saint Germain Lake. The last creel survey took place in 1997-98.

General Angler Information

Anglers spent 99,326 hours, or 101.4 hours per acre, fishing Little Saint Germain Lake during the 2015-16 season (Table 1). That was more than the Vilas County average of 35.5 hours per acre. June was the most heavily fished month (23,417 hours). Fishing effort was lightest in December (615 hours) for those months when the entire month was creeled. Anglers spent slightly more time (106.4 hours per acre) fishing

during the 1997-98 creel survey. The creel clerks were able to conduct 608 interviews throughout the survey.

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Anglers spent 17,811 hours targeting walleyes during the 2015-16 season. The greatest fishing effort for walleyes was in June (3,154 hours). October had the least amount of walleye fishing effort (138 hours).

Total catch of walleyes was 2,187 fish with a harvest of 310 fish. Highest catch (1,253 fish) and harvest (205 fish) occurred in June. Anglers fished 12.9 hours to catch, and 85.5 hours to harvest, a walleye during the survey. The mean length of harvested walleyes was 18.8 inches, and the largest walleye measured was a 26.3-inch fish.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 18,168 hours during the 2015-16 season. Northern pike fishing effort was greatest in July (3,808 hours). Total catch of northern pike was 6,513 fish with a harvest of 728 fish. The mean length of harvested northern pike was 23.1 inches, and the largest northern pike measured was a 30.5-inch fish.

Muskellunge (Table 2, Figure 3)

Anglers spent 12,826 hours targeting muskellunge during the 2015-16 season. Muskellunge fishing effort was greatest in June (4,282 hours). Total catch of muskellunge was 295 fish, and the highest catch (125 fish) occurred in June. Anglers fished 69.0 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 26,035 hours during the 2015-16 season. Smallmouth bass fishing effort was greatest in July (6,949 hours). Total catch of smallmouth bass was 1,266 fish, and there was no documented harvest during the survey. Highest catch (404 fish) occurred in May. Anglers fished 39.5 hours to catch a smallmouth bass during the survey.

Largemouth Bass (Table 2, Figure 5)

Largemouth bass received the most fishing effort for any gamefish species during 2015-16 season. Fishing effort directed at largemouth bass was 29,699 hours. Largemouth bass fishing effort was greatest in July (8,547 hours). Total catch of largemouth bass was 21,082 fish, with a harvest of 561 fish. Highest catch (5,964 fish) occurred in June. Anglers fished 1.9 hours to catch a largemouth bass during the survey.

Panfish (Table 2, Figures 6-10)

Yellow perch received 18,985 hours of directed fishing effort. Total catch of yellow perch was 10,196 fish, with a harvest of 2,773. The mean length of yellow perch harvested was 8.5 inches.

Bluegills received 33,196 hours of directed fishing effort. Total catch of bluegills was 109,658 fish, with 25,351 being harvested. The mean length of bluegills harvested was 7.0 inches.

Black crappies were the most sought after panfish species during the survey. Fishing effort directed at black crappies was 46,641 hours. Anglers caught 71,062 black crappies, with a harvest of 24,933 fish. The mean length of black crappies harvested was 9.0 inches.

Pumpkinseeds received 7,190 hours of directed fishing effort. Total catch of pumpkinseed was 10,777 fish, with 3,842 being harvested. The mean length of pumpkinseed harvested was 7.0 inches.

Rock bass were also caught and harvested during the 2015-16 season in low numbers.

ACKNOWLEDGMENTS

Completion of this survey was possible because of the efforts of the following fisheries management and treaty fisheries staff: Lawrence Eslinger, Jeff Blonski, Joelle Underwood, Jason Halverson, Tim Tobias, Steve Gilbert, Steve Timler, Dave Farrow, and Eric Brown. Andrew Disch and Dave Farrow were the creel clerks on Little Saint Germain Lake during the survey period.

We 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.

The department thanks our cooperators, Ken and Tom Jackson of Jackson Lakeside Cottages, who generously allowed the department to keep a boat and snowmobile on their property during this survey.

This creel report was reviewed by Steve Gilbert and Lawrence Eslinger of the Wisconsin Department of Natural Resources, Woodruff, Wisconsin.

Additional copies of this report, and those covering other local lakes, can be obtained from the Woodruff DNR or online at: <http://dnr.wi.gov/topic/Fishing/north/trtycrs/rvys.html>

Table 1. Sportfishing effort summary, Little Saint Germain Lake, 2015-16 season.

Month	Number of Angler Party Interviews	Total Angler Hours	Total Angler Hours/Acre	1997-98 Total Angler Hours/Acre	Vilas County Average Hours/Acre	Ceded Territory Average Hours/Acre
May	106	14144	14.4	11.2	5.4	5.0
June	92	23417	23.9	31.6	7.1	6.4
July	74	23241	23.7	23.0	7.5	6.8
August	66	16229	16.6	20.2	6.6	5.5
September	51	11323	11.6	8.5	4.3	3.3
October	59	3236	3.3	5.4	2.0	1.5
December	10	615	0.6	3.3	0.6	1.1
January	84	3195	3.3	1.2	0.8	1.7
February	54	3656	3.7	1.8	1.0	1.6
March	12	270	0.3	0.1	0.2	0.2
*Summer Total	448	91589	93.5	100.0	32.9	28.5
*Winter Total	160	7737	7.9	6.4	2.6	4.6
Grand Total	608	99326	101.4	106.4	35.5	33.1

*"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 Little Saint Germain 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 Little Saint Germain Lake to other lakes.

1997-98 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 Little Saint Germain 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 Little Saint Germain Lake to other lakes in northern Wisconsin.

Table 2. Comparison of creel survey synopses, Little Saint Germain Lake, 2015-16 and 1997-98 fishing seasons.

CREEL YEAR: 2015-16

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	17811	8.5%	2187	12.9	310	85.5	18.8
Northern Pike	18168	8.6%	6513	4.1	728	25.9	23.1
Muskellunge	12825	6.1%	295	69.0	0		
Smallmouth Bass	26035	12.4%	1266	39.5	0		
Largemouth Bass	29699	14.1%	21082	1.9	561	119.0	15.5
Yellow Perch	18985	9.0%	10196	4.3	2773	15.1	8.5
Bluegill	33196	15.8%	109658	0.4	25351	1.4	7.0
Black Crappie	46641	22.2%	71062	0.7	24933	1.9	9.0
Pumpkinseed	7190	3.4%	10777	0.8	3842	2.2	7.0
Rock Bass	0	0.0%	1253		52		7.0

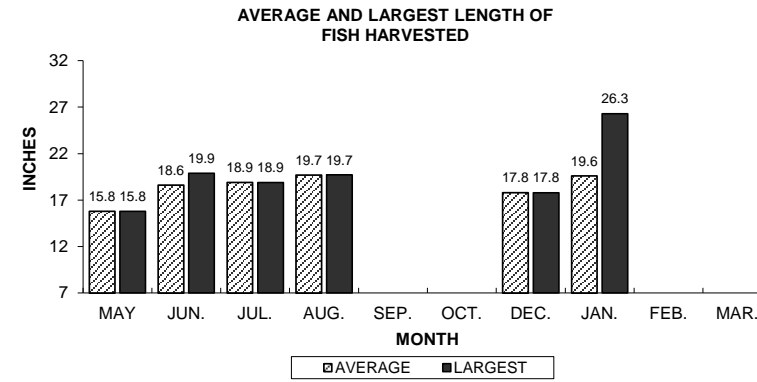
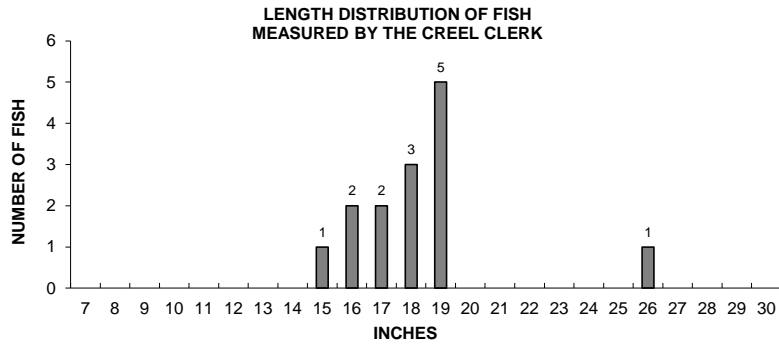
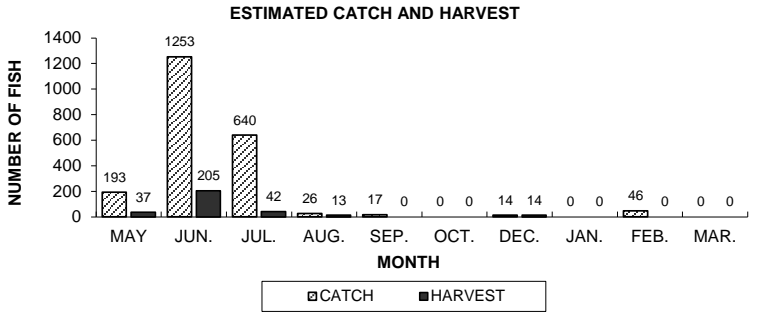
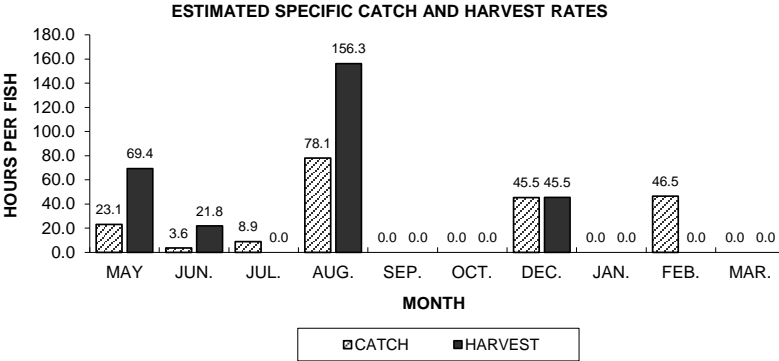
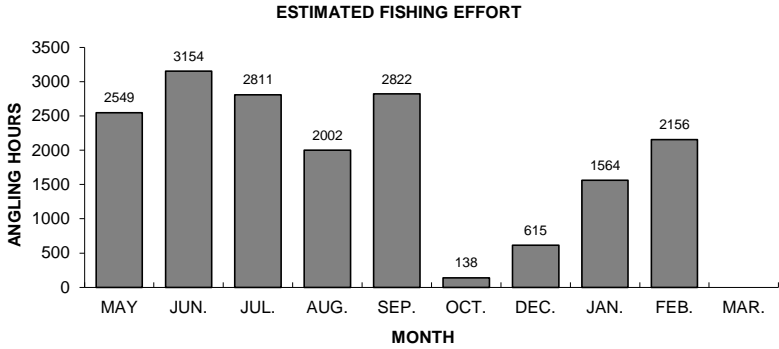
* A blank cell in this column indicates that no fish of a given species were caught by anglers who specifically targeted that species.

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

CREEL YEAR: 1997-98

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	15406	8.1%	1973	11.4	213	92.6	17.7
Northern Pike	29696	15.7%	21152	2.7	2220	16.6	20.8
Muskellunge	23405	12.4%	658	69.0	39	588.2	36.3
Smallmouth Bass	10375	5.5%	1225	14.2	23	909.1	11.7
Largemouth Bass	9939	5.2%	2035	17.1	60	204.1	14.3
Yellow Perch	25264	13.3%	27279	1.2	7760	3.8	7.7
Bluegill	26915	14.2%	42525	0.7	12125	2.4	6.9
Black Crappie	36545	19.3%	45010	0.8	19245	1.9	8.9
Pumpkinseed	11309	6.0%	17477	0.7	6694	1.8	6.7
Rock Bass	600	0.3%	1152	1.3	94	31.3	6.7

WALLEYE



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Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

NORTHERN PIKE

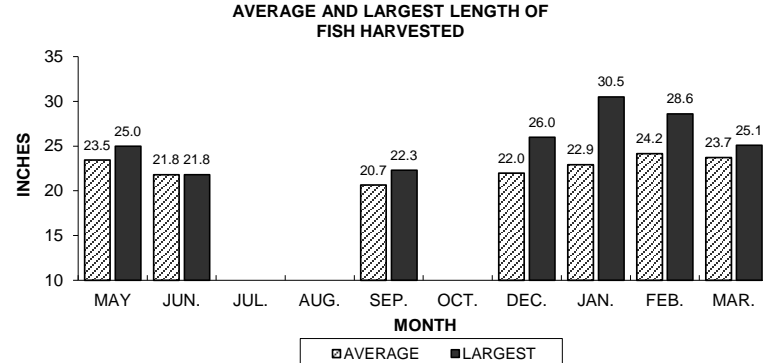
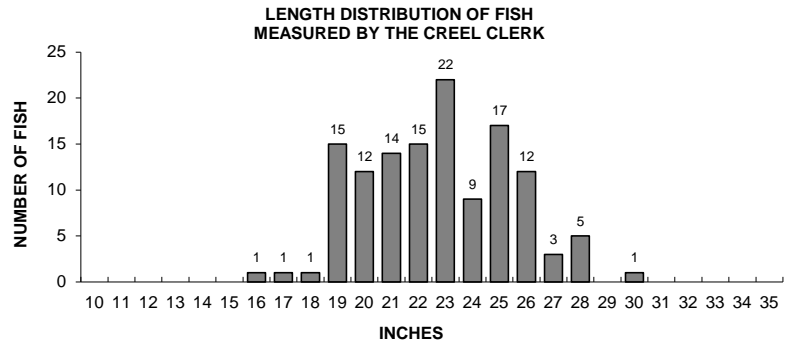
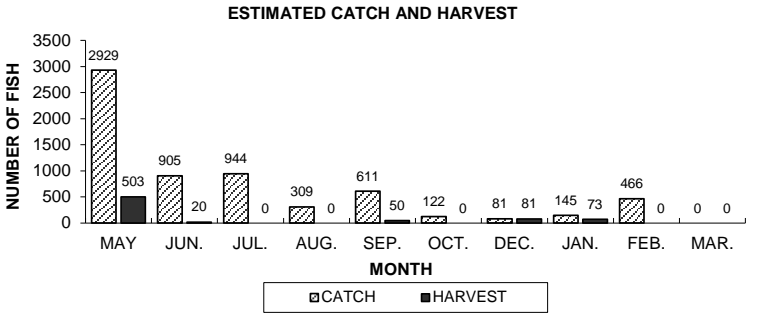
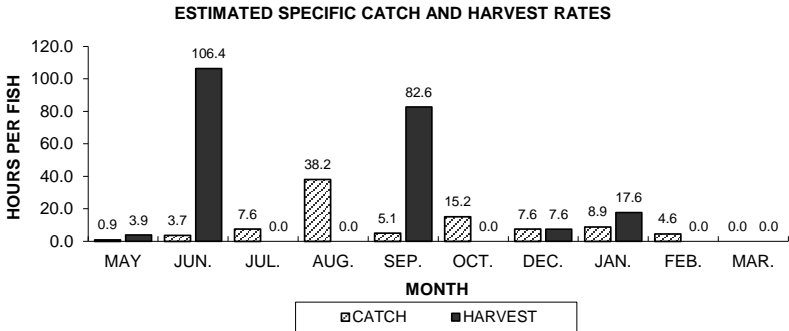
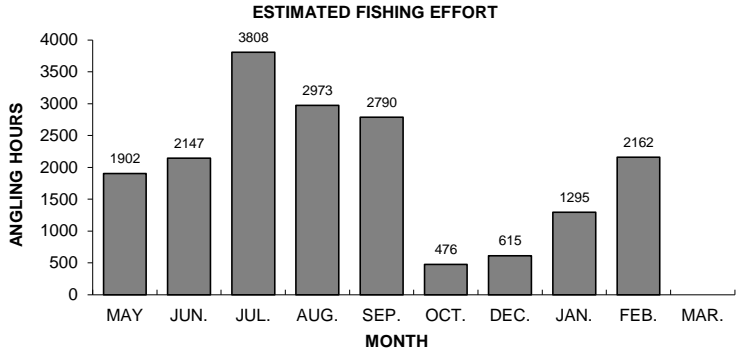
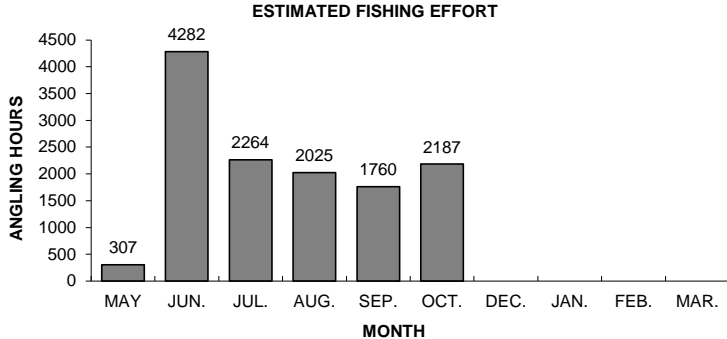


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

MUSKELLUNGE



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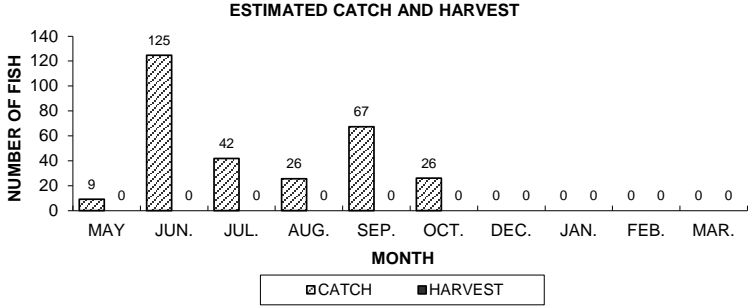
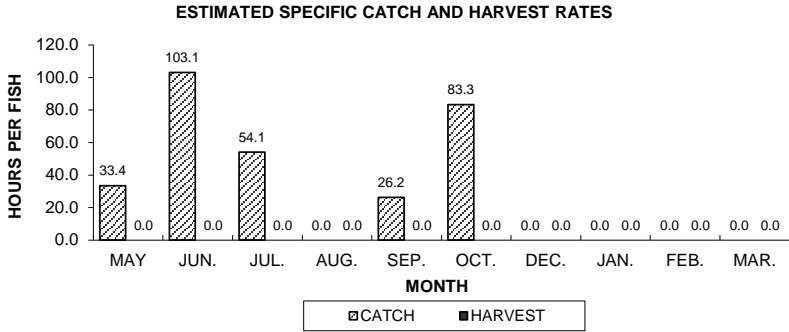


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

SMALLMOUTH BASS

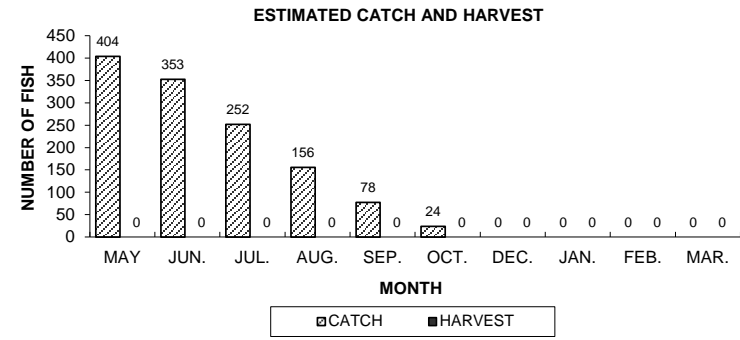
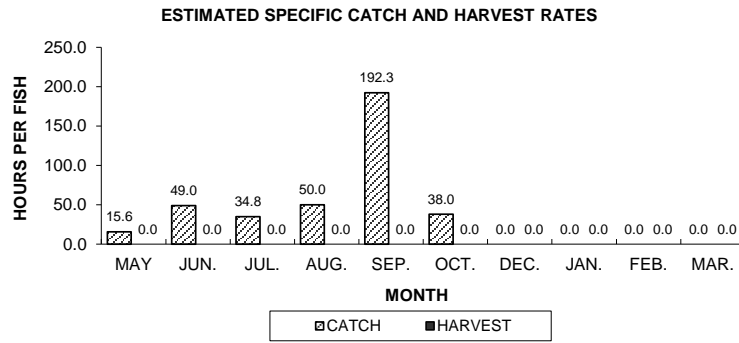
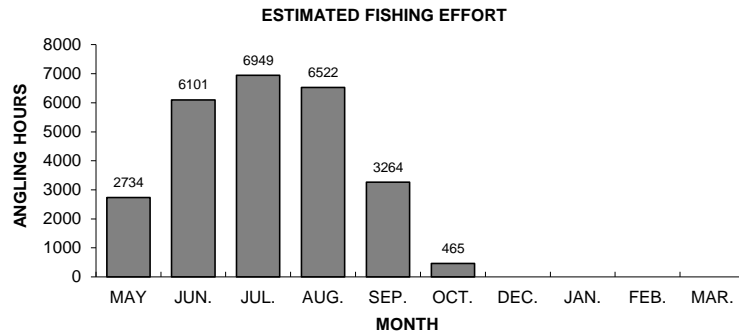
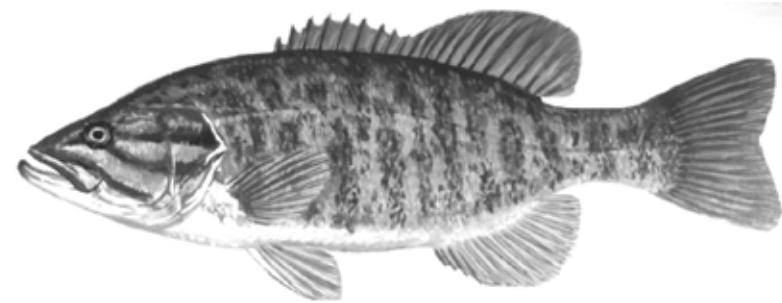
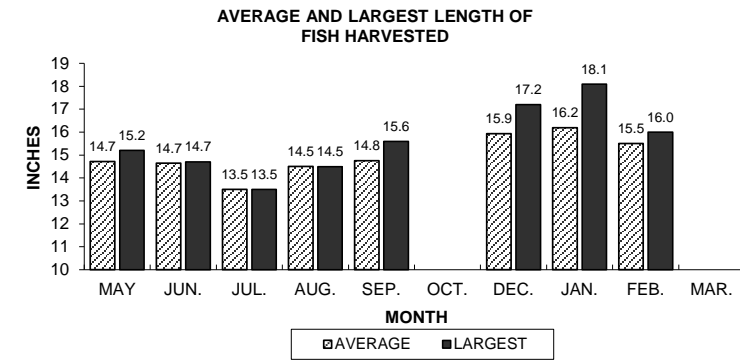
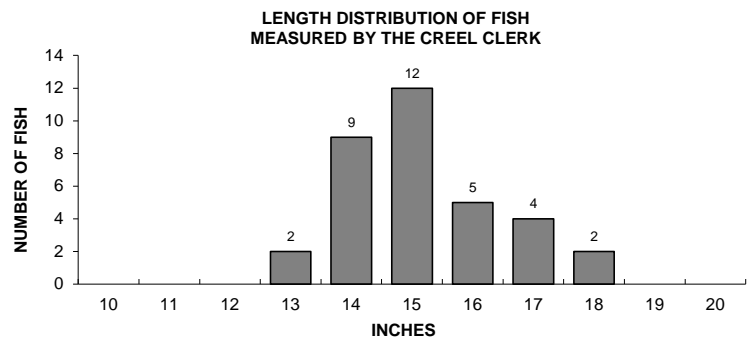
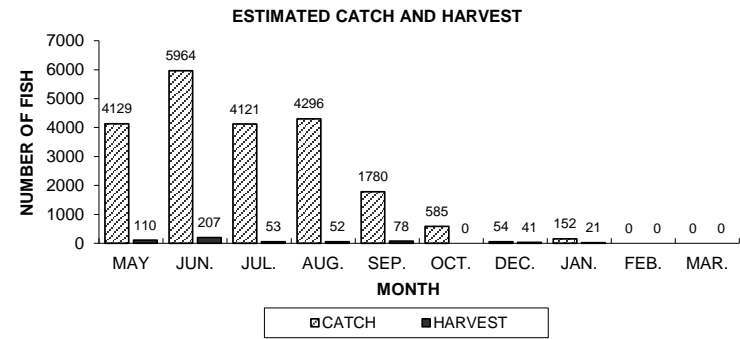
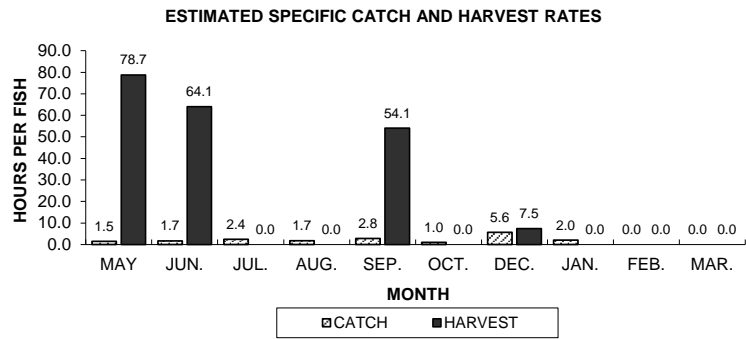
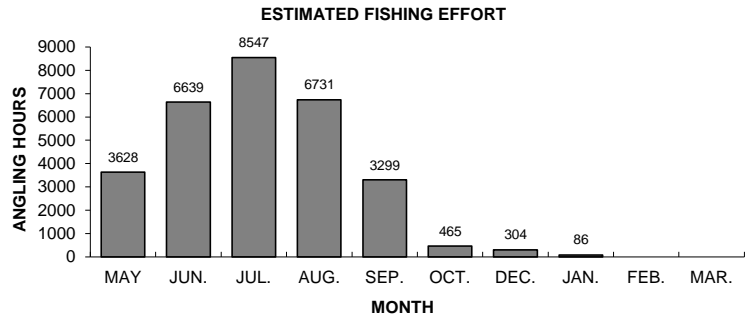
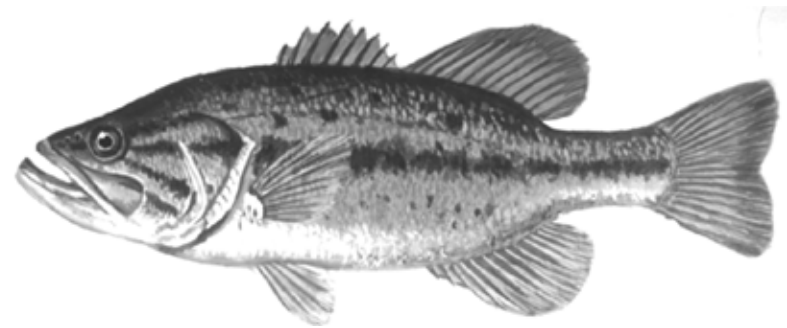


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

LARGEMOUTH BASS



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Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

YELLOW PERCH

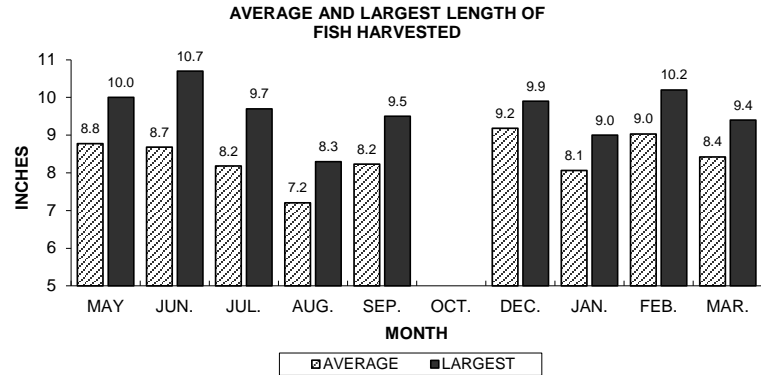
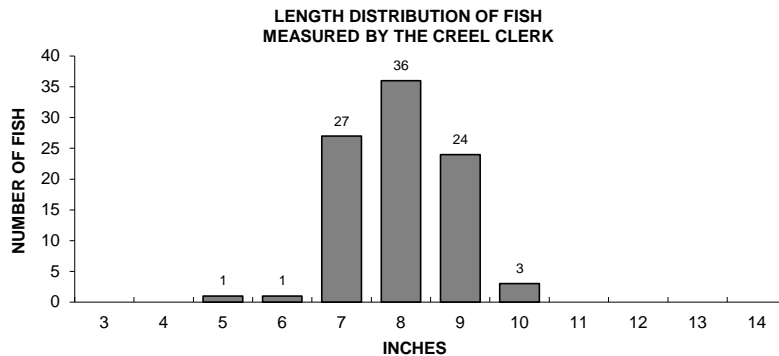
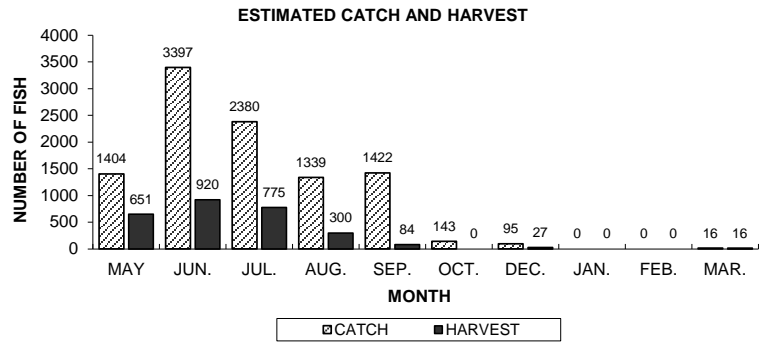
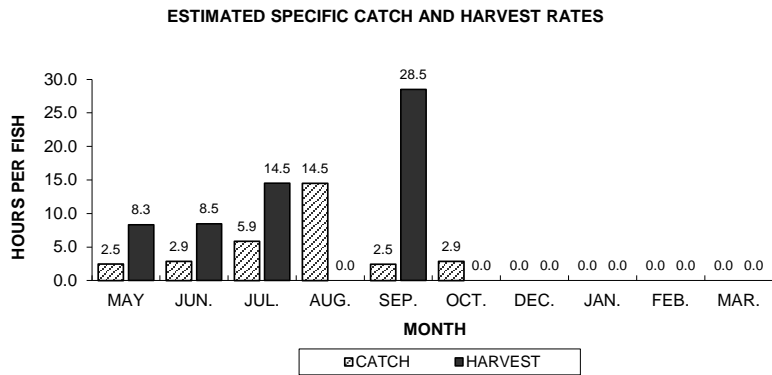
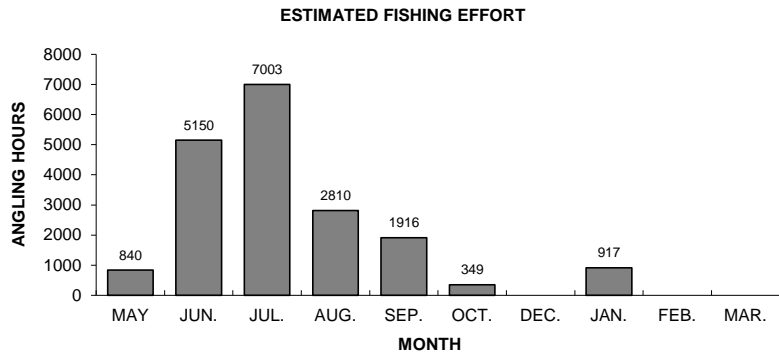


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

BLUEGILL

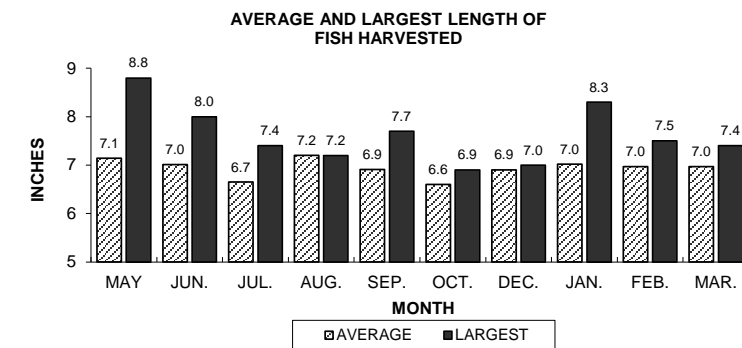
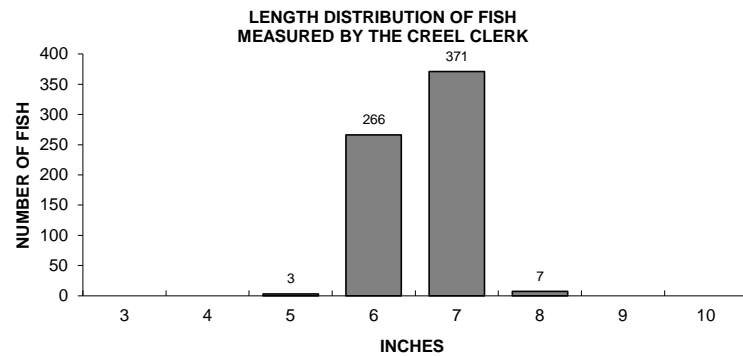
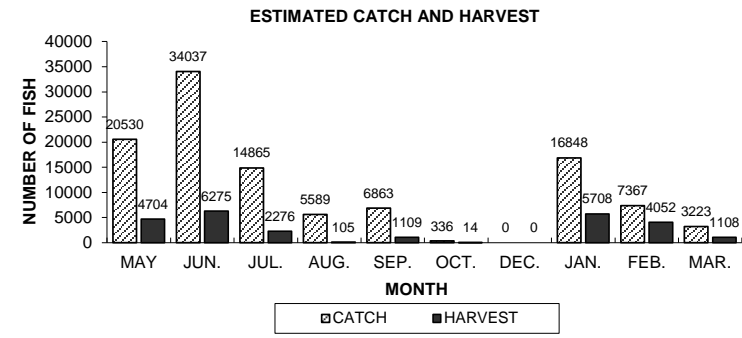
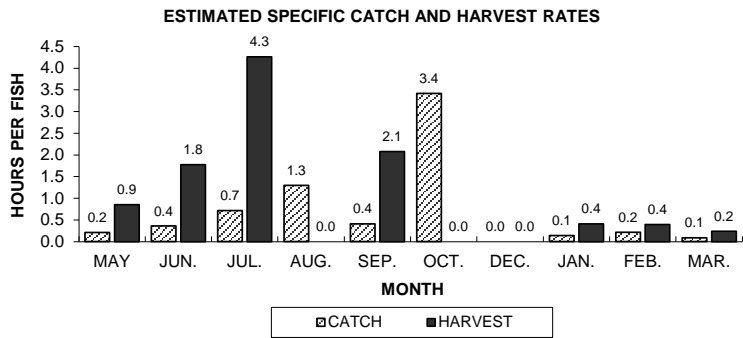
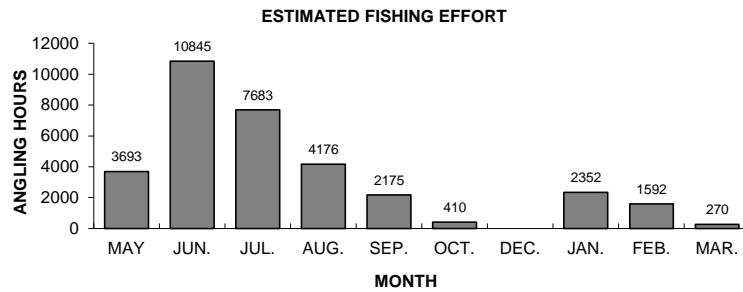
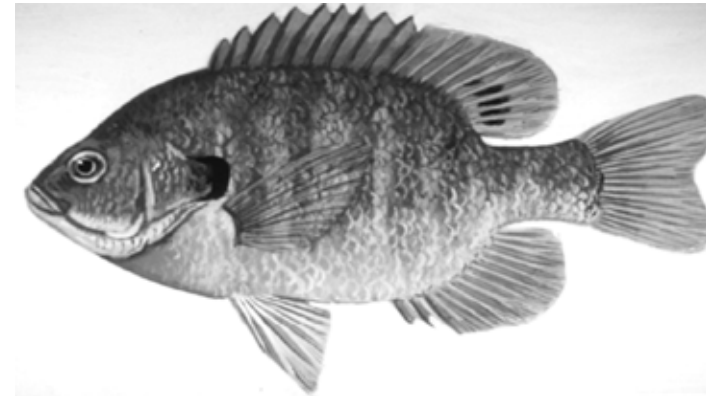


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16 season.

BLACK CRAPPIE

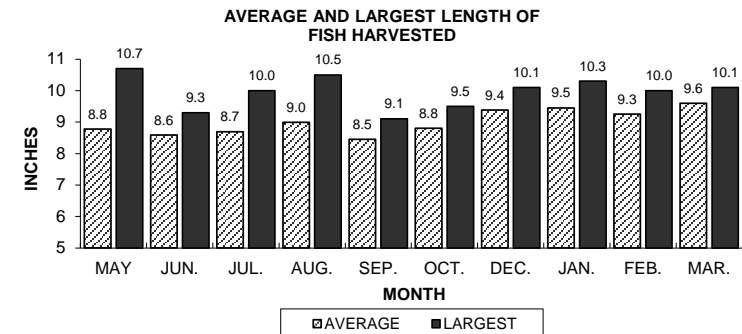
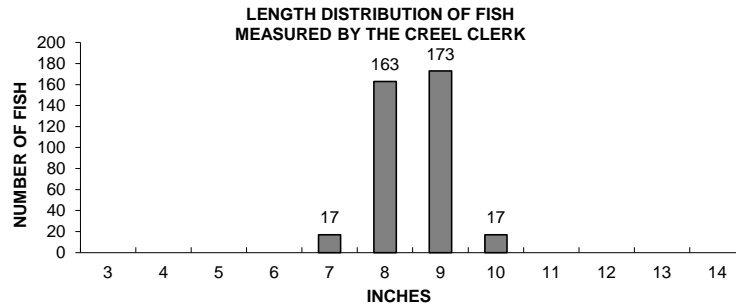
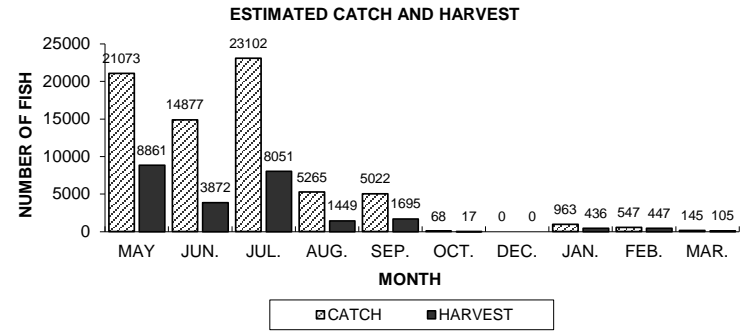
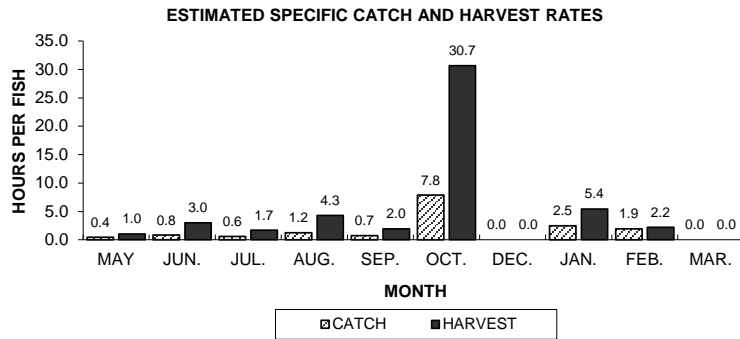
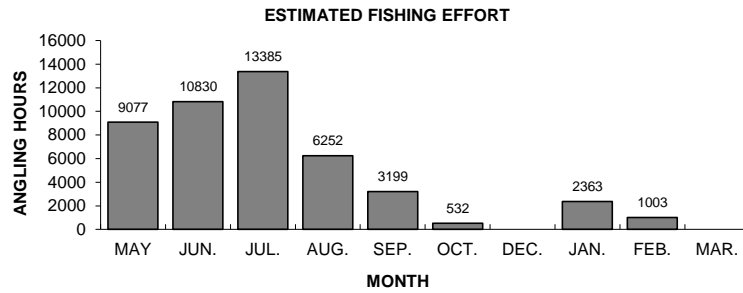
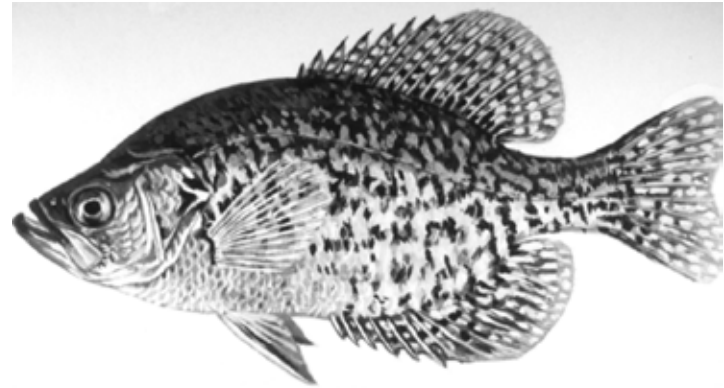


Figure 8. Black crappie sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

PUMPKINSEED

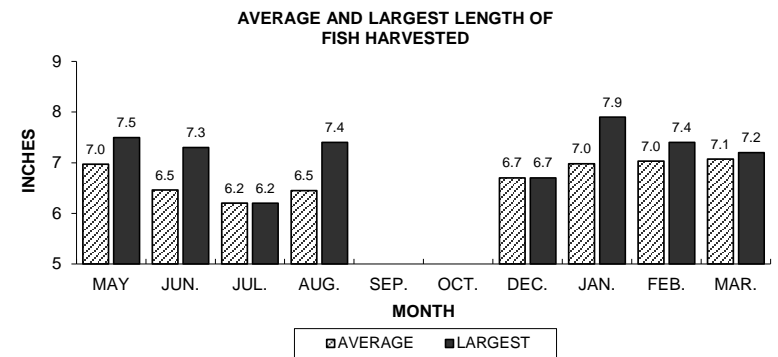
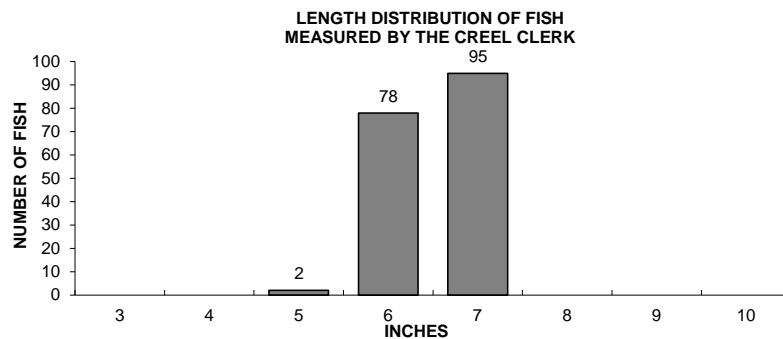
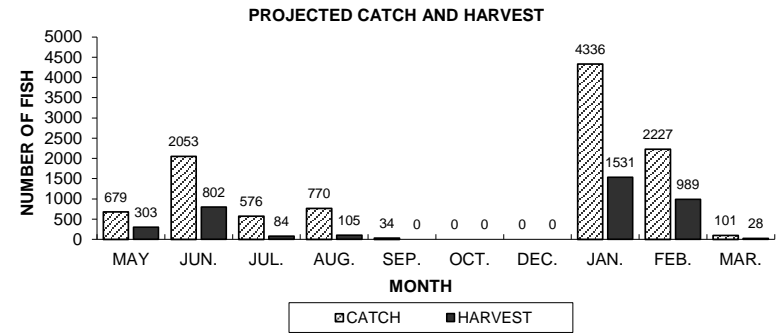
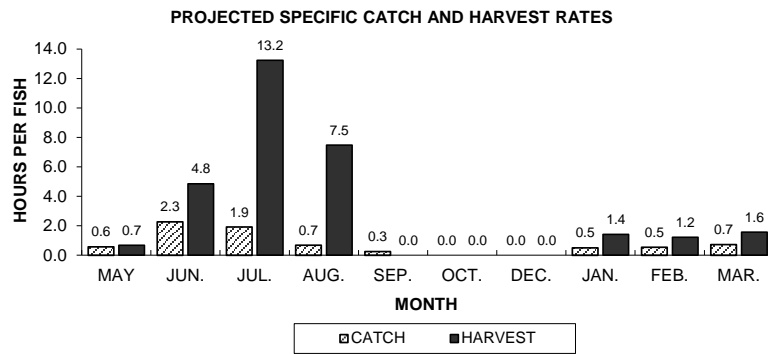
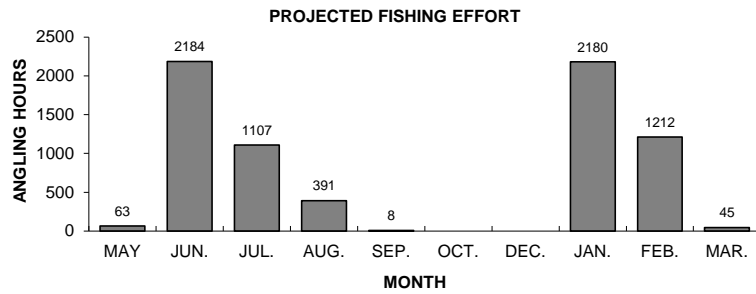
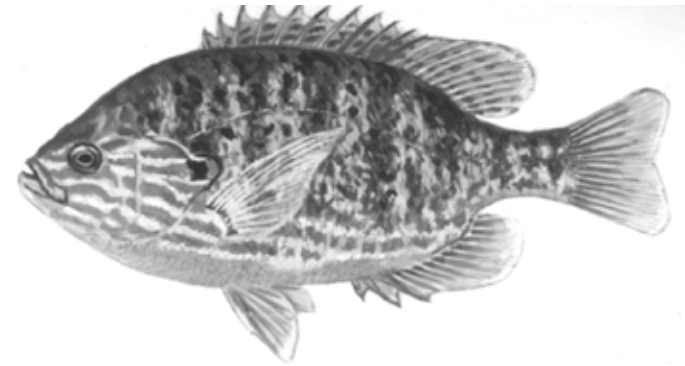


Figure 9. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.

ROCK BASS

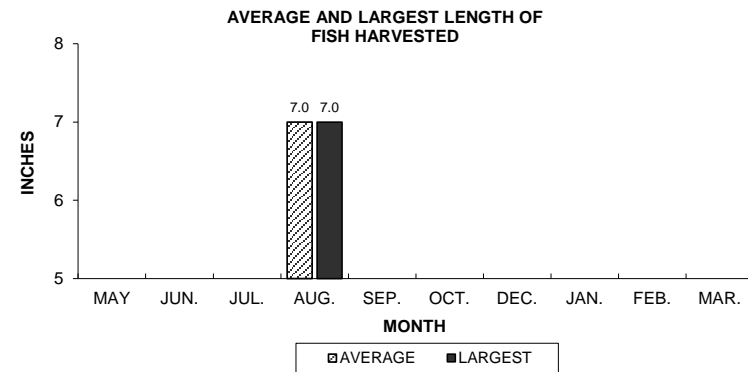
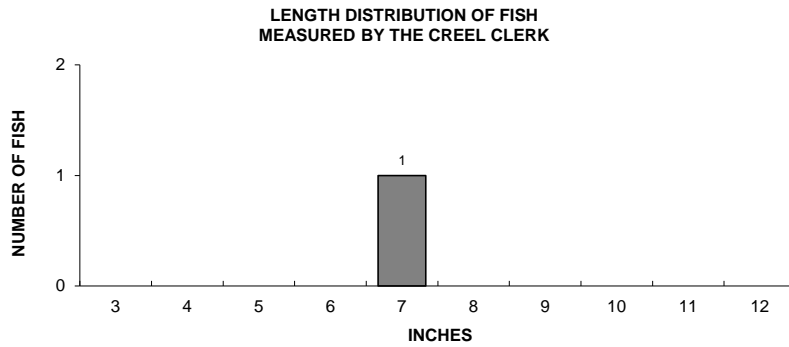
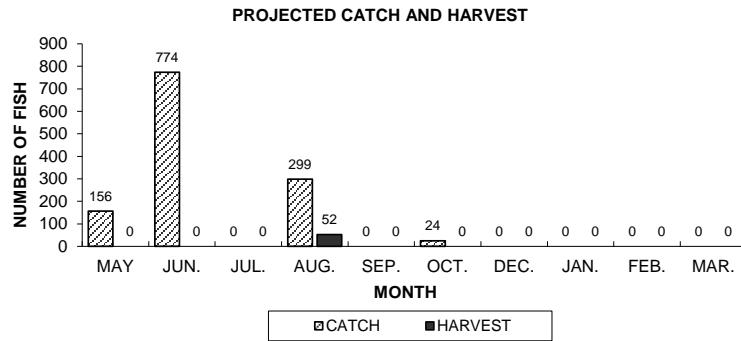
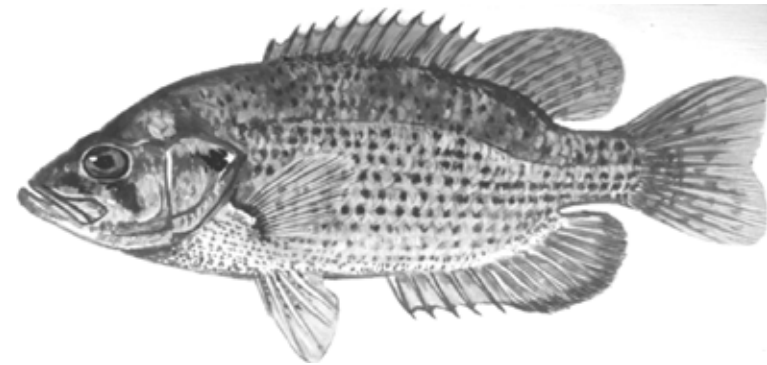


Figure 10. Rock bass sportfishing effort, catch, harvest, and length distribution, Little Saint Germain Lake, during 2015-16.