

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

PRESQUE ISLE CHAIN

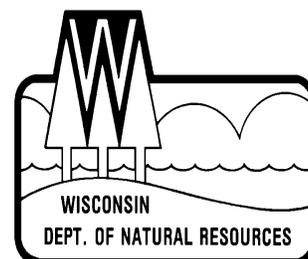
VILAS COUNTY

2012-13



Treaty Fisheries Publication

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CONTENTS

INTRODUCTION.....	1
GENERAL LAKE INFORMATION.....	2
Location	2
Physical Characteristics	2
Seasons Surveyed.....	2
Weather	2
Sportfishing Regulations.....	2
SPECIES CATCH AND HARVEST INFORMATION.....	2
CREEL SURVEY RESULTS AND DISCUSSION.....	3
Survey Logistics.....	3
General Angler Information.....	3
SPECIES INFORMATION	3
ACKNOWLEDGMENTS	4

SUMMARY TABLES

Table 1. Sportfishing effort summary.....	5
Table 2. Creel survey synopsis.....	6
Table 3. Creel survey synopsis Averill Lake	7
Table 4. Creel survey synopsis Presque Isle Lake	8
Table 5. Creel survey synopsis Van Vliet Lake	9

SPECIES CATCH AND HARVEST INFORMATION

Gamefish

Figure 1. Walleye	10
Figure 2. Northern Pike.....	11
Figure 3. Muskellunge	12
Figure 4. Smallmouth Bass	13
Figure 5. Largemouth Bass	14

Panfish

Figure 6. Yellow Perch	15
Figure 7. Bluegill	16
Figure 8. Pumpkinseed.....	17
Figure 9. Rock Bass	18
Figure 10. Black Crappie	19

Cover Art: Steve Hilt, Minocqua, WI

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 good 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). But 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 also measure the sport harvest to assess its impact on the fishery. But because it would be highly impractical and very costly to conduct a complete census of every angler who fishes on a lake, 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 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, except during the month of 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 numbers of anglers on a lake at predetermined times, and to interview anglers who have completed their fishing trip to collect data on what species they fished for, catch, harvest, lengths of fish harvested, marks (finclips 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 projections of total catch and harvest of each species, catch and harvest rates, and total fishing effort, by month and for the year in total. Keep in mind that these are only projections based on the best information available, and not a complete accounting of effort, catch, and harvest. Accurate projections 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.

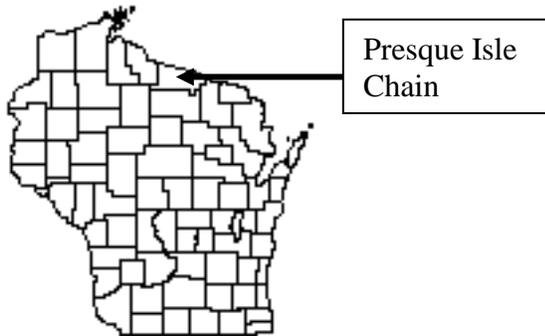
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a moment of your time and it gives the Department valuable information needed for management of the fishery.

This report provides projections 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 Presque Isle Chain; discussion of results of the survey; and detailed summaries, by species of fishing effort, catch and harvest.

GENERAL LAKE INFORMATION



Location

Presque Isle Chain is located in Vilas County in the Town of Presque Isle.

Physical Characteristics

Presque Isle Chain is a 1,571 acre chain with a total of three lakes (Averill, Presque Isle, and Van Vliet). Littoral substrate consists primarily of sand, with lesser amounts of muck, and gravel. Presque Isle Chain is a soft water drainage lake with slightly acidic, clear water of moderate transparency.

Seasons Surveyed

The period referred to in this report as the 2012-13 fishing season ran from May 5, 2012 through March 3, 2013. The open water creel survey ran from May 5 through October 31, 2012 and the ice fishing creel survey ran from December 1, 2012 through March 3, 2013.

Weather

Ice-out on Presque Isle Chain was around March 25, 2012. Fishable-ice formed on Presque Isle Chain in mid-December.

Sportfishing Regulations

The following seasons, daily bag limits, and length limits were in place on Presque Isle Chain during the 2012-13 fishing season:

Species	Season	Bag Limit	Min. Size
Largemouth Bass & Smallmouth Bass	5/5-6/15	Catch&Release	
Musky	5/26-11/30	1	40"
Northern Pike	5/5-3/3	5	none
Walleye	5/5-3/3	2*	none, 1>14"
Panfish	year round	25	none
Rock Bass	year round	none	none

* The statewide bag limit was 5 walleye, but due to tribal declarations it was reduced on Presque Isle Chain.

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 _ should be considered minimum estimates. Each species page has up to five graphs depicting the following:

1. **PROJECTED FISHING EFFORT**
Total calculated number of hours during each month that anglers spent fishing for a species.
2. **PROJECTED 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. PROJECTED 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 projections contained in the report. This was the second time the department conducted a creel survey on Presque Isle Chain. The last creel survey of the Presque Isle Chain took place in 1992-93.

General Angler Information

Anglers spent 23,021 hours or 14.7 hours per acre fishing Presque Isle Chain during the 2012-13 fishing season (Table 1). That was less than the Vilas County average of 34.6 hours per acre. July was the most heavily fished month (2.8 hours per acre). Fishing effort was lightest in December (0.4 hours per acre) for those months when the

entire month was creeled.

RESULTS BY SPECIES

Walleye (Table 2, Figure 1)

Fishing effort directed at walleye was 4,304 hours during the 2012-13 fishing season. The greatest fishing effort for walleyes was in July (1,164 hours). January had the least amount of walleye fishing effort (45 hours) for a full month creeled.

Total catch of walleyes was 1,435 fish with a harvest of 318 fish. Highest catch (481 fish) occurred in May and harvest (77 fish) occurred in October. Anglers fished 3.1 hours to catch and 14.2 hours to harvest a walleye during 2012-13.

The mean length of harvested walleyes was 15.1 inches and the largest walleye measured was a 22.1 inch fish caught on Presque Isle Lake.

Northern Pike (Table 2, Figure 2)

Fishing effort directed at northern pike was 4,299 hours during the 2012-13 fishing season. Northern pike fishing effort was greatest in July (1,132 hours).

Total catch of northern pike was 3,646 fish with a harvest of 669 fish.

The mean length of harvested northern pike was 19.8 inches and the largest northern pike measured was a 28 inch fish caught on Van Vliet Lake.

Muskellunge (Table 2, Figure 3)

Muskellunge received the most fishing effort during the 2012-13 fishing season. Anglers spent 8,006 hours targeting muskellunge. Muskellunge fishing effort was greatest in September (1,959 hours).

Total catch of muskellunge was 208 fish. Highest catch (59 fish) occurred in June. Anglers fished 44.5 hours to catch a muskellunge during 2012-13

Smallmouth Bass (Table 2, Figure 4)
Fishing effort targeted at smallmouth bass was 1,935 hours during the 2012-13 fishing season. Smallmouth bass fishing effort was greatest in May (690 hours).

Total catch of smallmouth bass was 1,300 fish with 13 harvested. Highest catch (373 fish) occurred in May. Anglers fished 2.4 hours to catch a smallmouth bass during 2012-13.

Largemouth Bass (Table 2, Figure 5)
Fishing effort directed at largemouth bass was 1,498 hours during the 2012-13 fishing season. Largemouth bass fishing effort was greatest in July (750 hours).

Total catch of largemouth bass was 833 fish with a harvest of 4 fish. Highest catch (306 fish) occurred in June. Anglers fished 2.8 hours to catch a largemouth bass during 2012-13.

Panfish (Table 2, Figures 6-10)

Black crappies were the most sought after panfish species during the survey. Fishing effort directed at black crappies was 5,263 hours.

Anglers caught 6,096 black crappies and harvested 1,699 fish. The mean length of black crappies harvested was 9.4 inches.

Bluegills were the second most sought after panfish species during the survey. Fishing effort directed at bluegills was 5,008 hours.

Total catch of bluegills was 16,318 fish with 2,891 harvested. The mean length of bluegills harvested was 7.2 inches.

Yellow perch were the third most sought after panfish species during the survey. Fishing effort directed at yellow perch was 4,763 hours.

Total catch of yellow perch was 9,479 fish with 2,423 harvested. The mean length of yellow perch harvested was 8.7 inches.

Pumpkinseeds and rock bass were also caught during the 2012-13 season.

ACKNOWLEDGMENTS

Completion of this survey was possible because of the efforts of the technical staff of the fisheries management and Treaty Fisheries Unit. Treaty staff responsible for ensuring completion of this survey included Jonathan Pyatskowitz, Jeff Blonski, Joelle Underwood, Marty Kiepke, Jason Halverson, and Tim Tobias. Marty Kiepke was the creel clerk on Presque Isle Chain during the survey period.

We also 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 the cooperators, Tim, Kim, and Cameil Bowler of Alpine Resort 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 Dennis Scholl 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/fish/ceded/reports.html>

Table 1. Sportfishing effort summary, the Presque Isle Chain, 2012-13 season

Month	Total Angler Hours	Total Angler Hours/Acre	Vilas County Average Hours/Acre	Statewide Average Hours/Acre
May	2902	1.8	5.2	5.8
June	3952	2.5	6.8	6.1
July	4394	2.8	7.5	6.4
August	3778	2.4	6.4	5.4
September	3395	2.2	4.2	3.8
October	1581	1.0	2.0	1.6
December	660	0.4	0.5	1.7
January	1394	0.9	0.8	1.5
February	851	0.5	1.0	1.3
March	115	0.1	0.2	**
*Summer Total	20001	12.7	32.1	29.1
*Winter Total	3020	1.9	2.5	4.5
Grand Total	23021	14.7	34.6	33.6

*"Summer" is May-October; "Winter" is December-March

**Too few lakes have been surveyed in March to give a meaningful statewide average.

Total Angler Hours is the estimated total number of hours that anglers spent fishing on the Presque Isle Chain during each month surveyed.

Total Angler Hours/Acre is the total angler hours divided by the area of the lake in acres. This is useful if you wish to compare effort on the Presque Isle Chain 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 can be useful in comparisons as well.

Statewide Average Hours/Acre is the average angler effort in hours per acre for inland lakes in the state surveyed between 1990 and 1995. This value can be used to compare the Presque Isle Chain to other lakes statewide.

Table 2. Comparison of creel survey synopses, Presque Isle Chain, 2012-13 and 1992-93 fishing seasons.

CREEL YEAR: 2012-13

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	4304	11.89%	1435	3.1	318	14.2	15.1
Northern Pike	4299	11.88%	3646	1.6	669	7.1	19.8
Muskellunge	8006	22.12%	208	44.5	0		
Smallmouth Bass	1935	5.35%	1300	2.4	13	147.1	18.6
Largemouth Bass	1498	4.14%	833	2.8	4		15.1
Yellow Perch	4763	13.16%	9479	0.6	2423	2.1	8.7
Bluegill	5008	13.83%	16318	0.3	2891	1.8	7.2
Pumpkinseed	967	2.67%	2200	1.4	250	5.6	7.1
Rock Bass	158	0.44%	979	2.7	40	5.7	7.3
Black Crappie	5263	14.54%	6096	0.9	1699	3.2	9.4

* 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: 1992-93

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	14884	40.08%	4488	3.3	2819	5.3	14.9
Northern Pike	3552	9.56%	3107	1.1	338	10.5	19.6
Muskellunge	4371	11.77%	61	71.1	5	860.3	36.2
Smallmouth Bass	137	0.37%	25	5.5	0		
Largemouth Bass	505	1.36%	68	7.4	6	80.2	13.3
Yellow Perch	4785	12.88%	14662	0.3	3214	1.5	7.6
Bluegill	4345	11.70%	4054	1.1	335	13.0	6.6
Pumpkinseed	1364	3.67%	2870	0.5	289	4.7	5.8
Rock Bass	377	1.02%	1168	0.3	170	2.2	7.1
Black Crappie	2818	7.59%	1168	2.4	826	3.4	8.7

Table 3. Comparison of creel survey synopses, Averill Lake, 2012-13 and 1992-93 fishing seasons.

CREEL YEAR: 2012-13

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	0	0.00%	0		0		
Northern Pike	9	5.59%	18	0.5	0		
Muskellunge	0	0.00%	0		0		
Smallmouth Bass	0	0.00%	0		0		
Largemouth Bass	77	47.83%	57		0		
Yellow Perch	0	0.00%	0		0		
Bluegill	75	46.58%	222	0.3	9	8.2	7.3
Pumpkinseed	0	0.00%	64		0		
Rock Bass	0	0.00%	0		0		
Black Crappie	0	0.00%	0		0		

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** 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: 1992-93

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	26	1.86%	0	0.0			
Northern Pike	150	10.72%	14	11.1	0	0.0	
Muskellunge	0	0.00%					
Smallmouth Bass	0	0.00%					
Largemouth Bass	42	3.00%	0	0.0	0	0.0	
Yellow Perch	312	22.30%	1446	0.3	40	7.7	7.0
Bluegill	494	35.31%	1844	0.3	211	2.9	6.7
Pumpkinseed	306	21.87%	1097	0.3	21	14.3	6.1
Rock Bass	0	0.00%	8		0		
Black Crappie	69	4.93%	64	1.1	27	2.5	9.0

Table 4. Comparison of creel survey synopses, Presque Isle Lake, 2012-13 and 1992-93 fishing seasons.

CREEL YEAR: 2012-13

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	3308	30.14%	1324	2.5	287	12.0	14.9
Northern Pike	207	1.89%	27	181.8	4		24.8
Muskellunge	3348	30.50%	72	59.9	0		
Smallmouth Bass	1605	14.62%	1126	2.2	13	122.0	18.6
Largemouth Bass	79	0.72%	0		0		
Yellow Perch	1341	12.22%	2126	0.7	672	2.0	8.7
Bluegill	735	6.70%	1860	0.5	184	4.0	7.0
Pumpkinseed	73	0.67%	116		0		
Rock Bass	0	0.00%	231		6		8.2
Black Crappie	281	2.56%	174	1.9	9	31.1	9.6

∞ * 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: 1992-93

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	9863	59.19%	3495	2.8	2286	4.3	14.1
Northern Pike	520	3.12%	56	51.6	0	0.0	
Muskellunge	2401	14.41%	30	80.7	5	476.2	
Smallmouth Bass	39	0.23%	6	0.0	0	0.0	
Largemouth Bass	97	0.58%	19	0.0	0	0.0	
Yellow Perch	1637	9.83%	2124	0.8	862	2.0	7.9
Bluegill	1364	8.19%	872	2.1	2	12.1	6.5
Pumpkinseed	359	2.16%	582	0.7	133	2.8	5.5
Rock Bass	230	1.38%	868	1.1	153	7.3	7.5
Black Crappie	151	0.91%	11	0.0	0	0.0	

Table 5. Comparison of creel survey synopses, Van VlietLake, 2012-13 and 1992-93 fishing seasons.

CREEL YEAR: 2012-13

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	996	3.97%	111	10.1	31	35.2	16.3
Northern Pike	4083	16.29%	3601	1.5	665	6.7	19.8
Muskellunge	4658	18.59%	136	37.6	0		
Smallmouth Bass	330	1.32%	174	3.4	0		
Largemouth Bass	1342	5.35%	776	2.8	4		15.1
Yellow Perch	3422	13.65%	7353	0.6	1751	2.1	8.7
Bluegill	4198	16.75%	14236	0.3	2698	1.6	7.2
Pumpkinseed	894	3.57%	2020	1.3	250	5.2	7.1
Rock Bass	158	0.63%	748	2.7	34	5.7	7.2
Black Crappie	4982	19.88%	5922	0.9	1690	3.0	9.4

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** 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: 1992-93

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	4996	26.19%	993	5.1	534	9.4	15.8
Northern Pike	2882	15.11%	3036	1.9	338	14.6	19.6
Muskellunge	1969	10.32%	32		0		36.2
Smallmouth Bass	98	0.52%	19		0		
Largemouth Bass	366	1.92%	49	17.7	6		13.3
Yellow Perch	2836	14.86%	11091	0.4	2312	1.6	8.0
Bluegill	2487	13.04%	1337	2.2	121	22.1	6.5
Pumpkinseed	699	3.66%	1191	0.8	136	9.6	5.8
Rock Bass	147	0.77%	292	4.7	17	0.0	6.7
Black Crappie	2598	13.62%	1093	2.6	799	3.6	8.4

WALLEYE

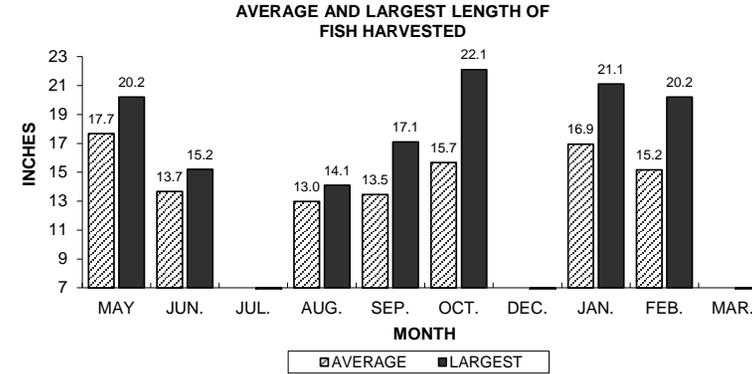
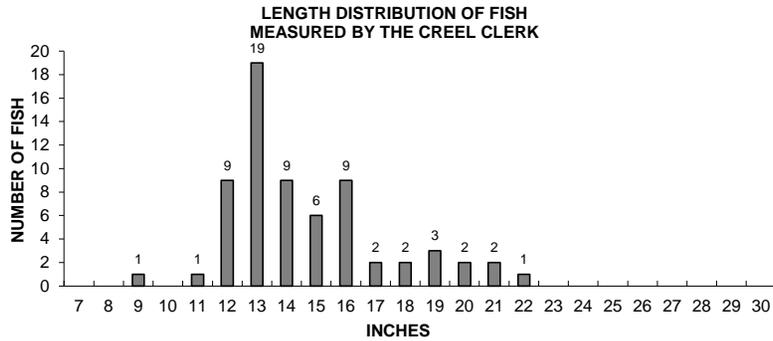
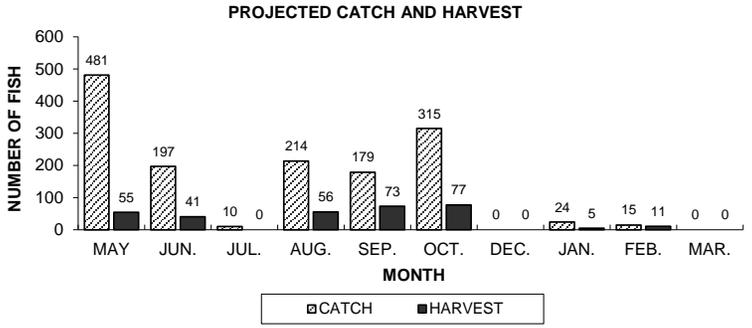
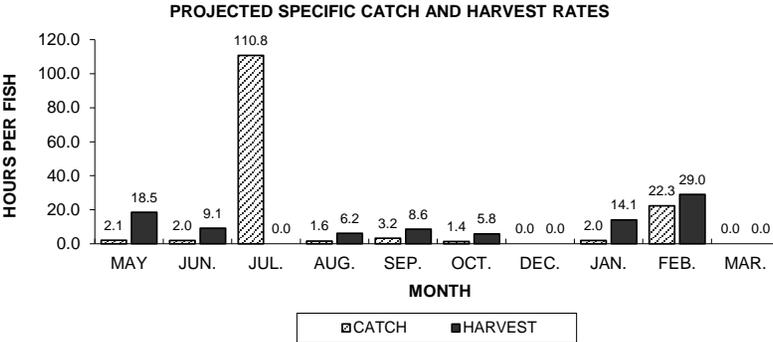
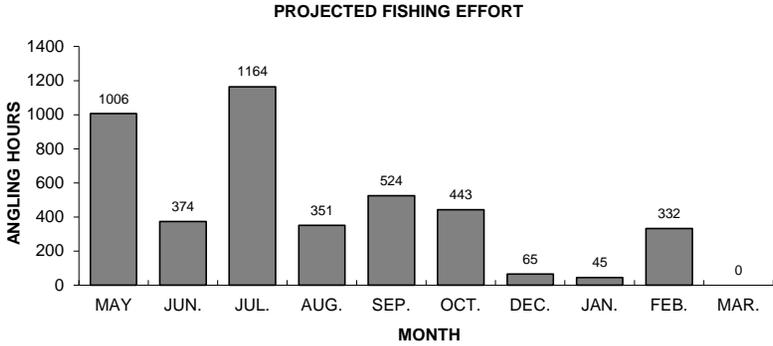
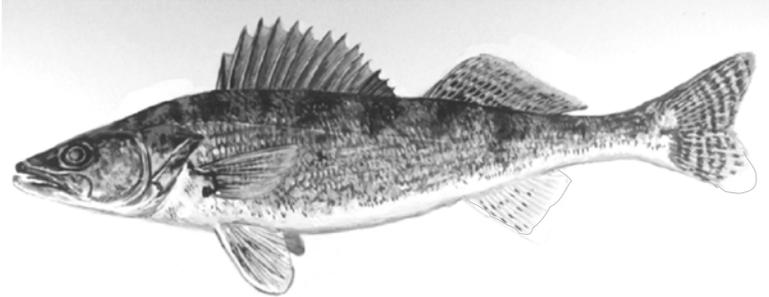


Figure 1. Walleye sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

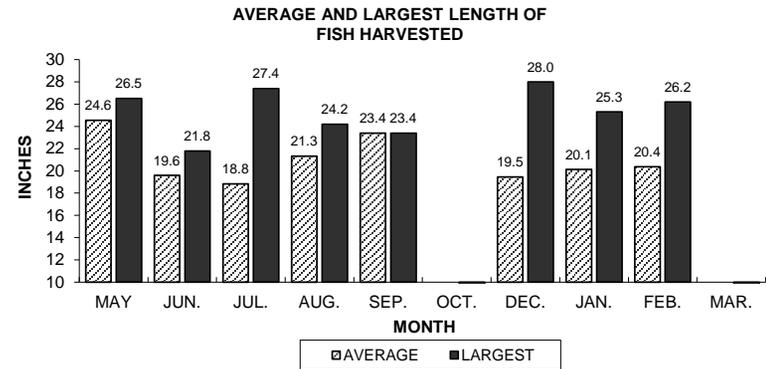
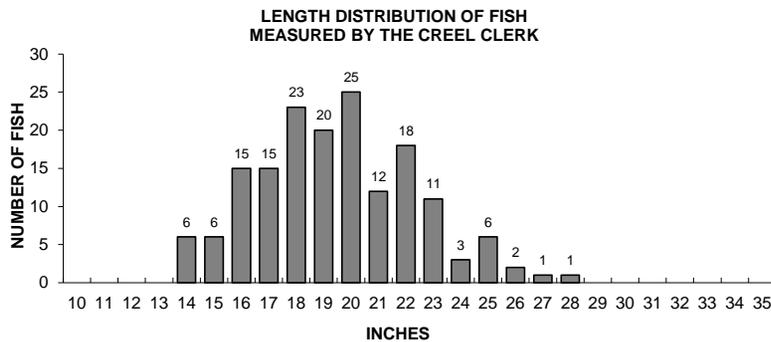
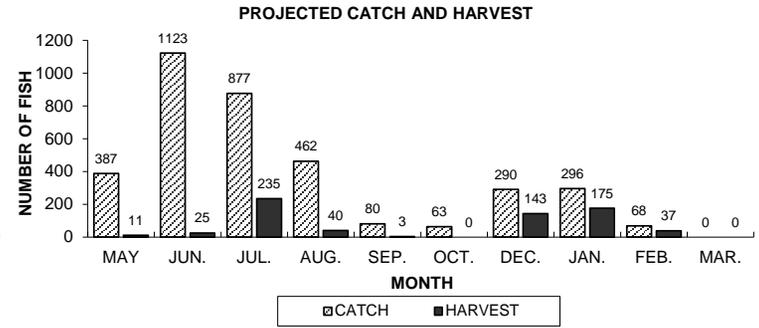
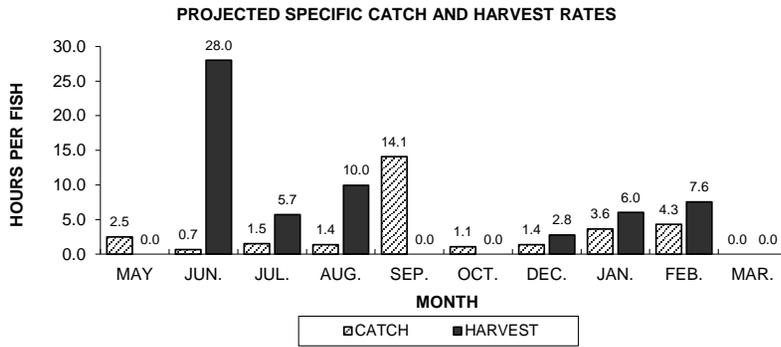
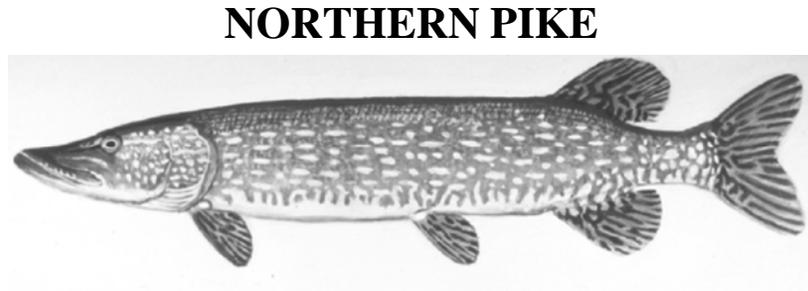
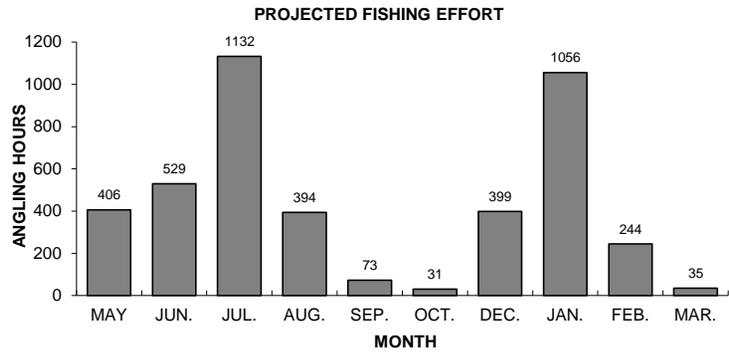


Figure 2. Northern pike sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

MUSKELLUNGE

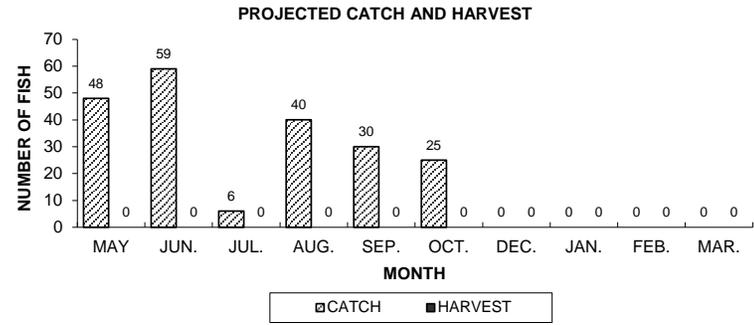
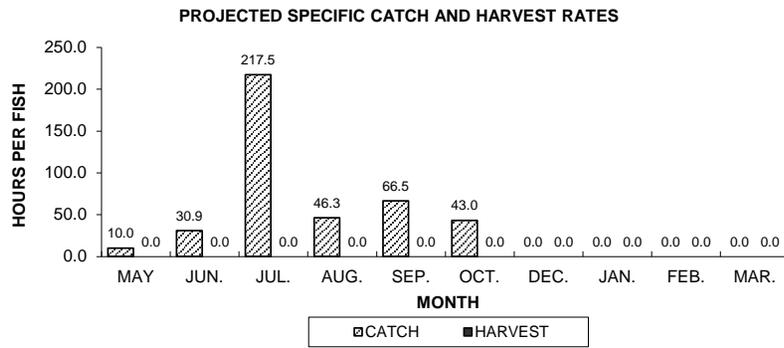
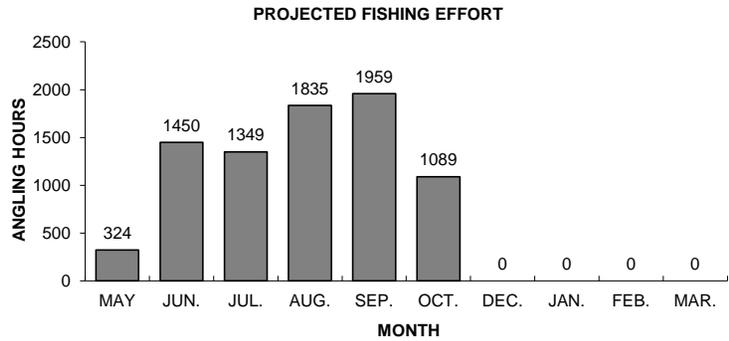
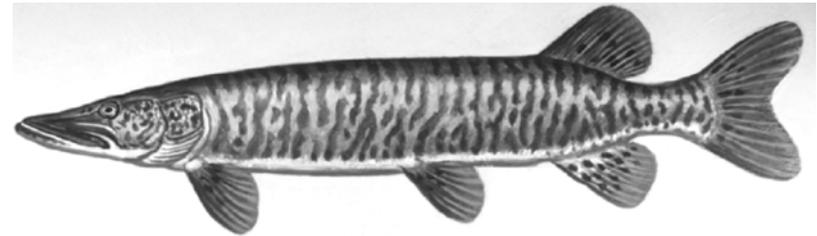


Figure 3. Muskellunge sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

SMALLMOUTH BASS

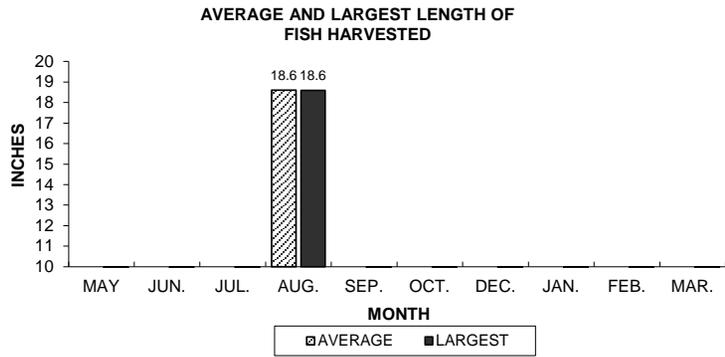
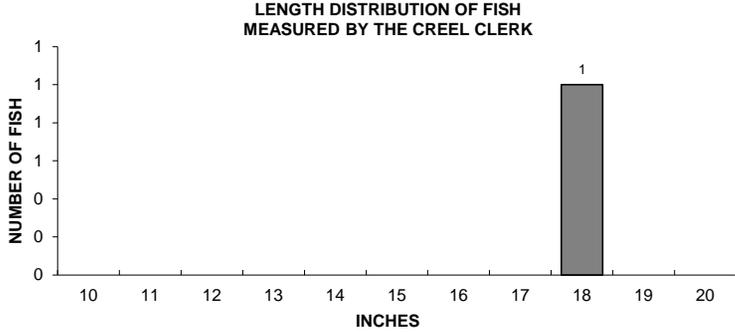
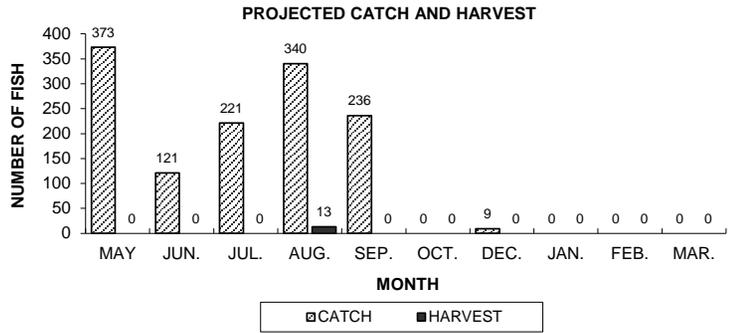
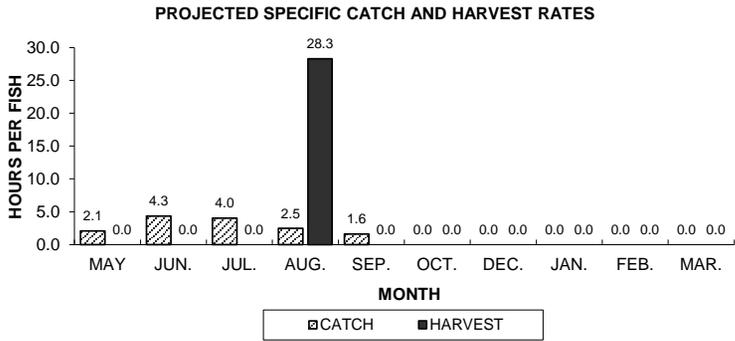
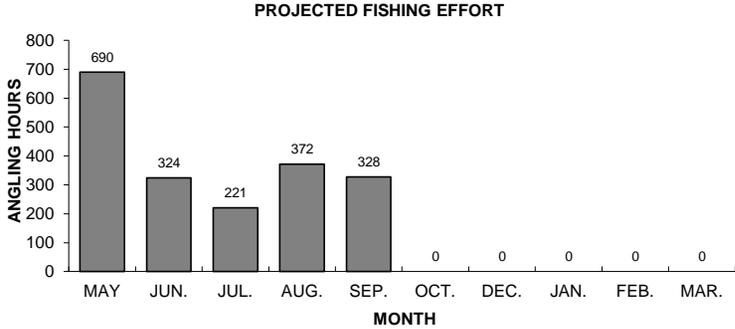
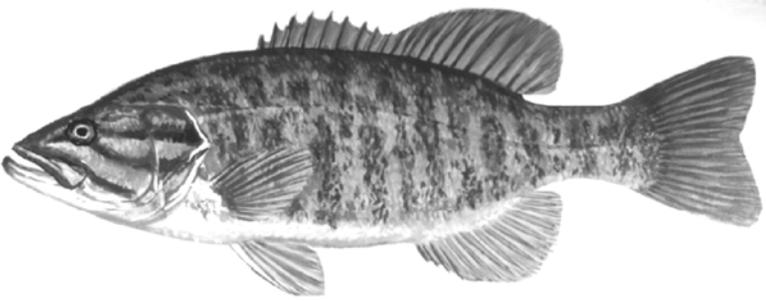


Figure 4. Smallmouth bass sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

LARGEMOUTH BASS

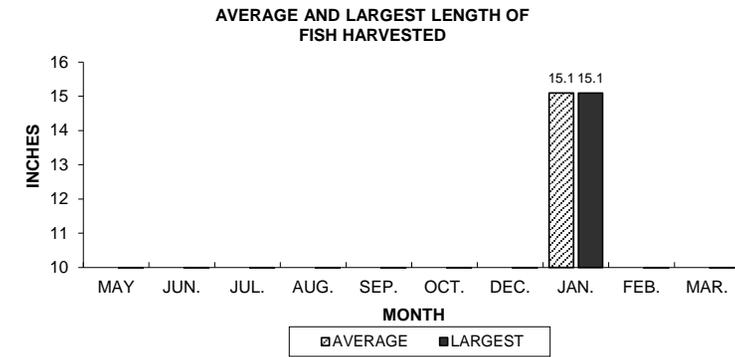
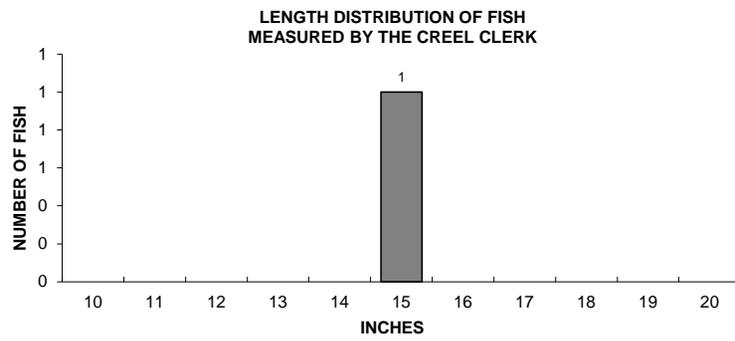
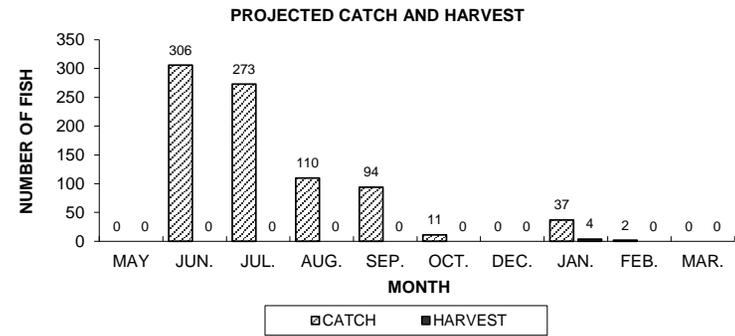
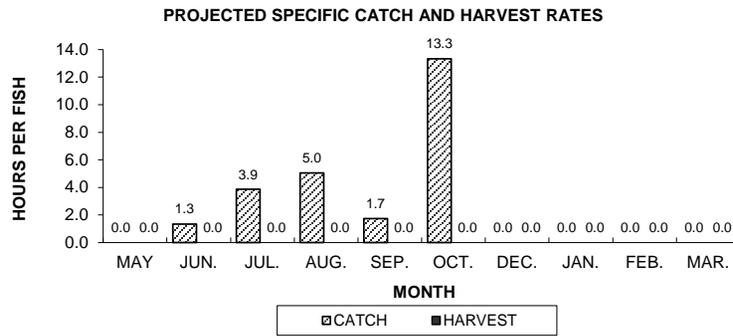
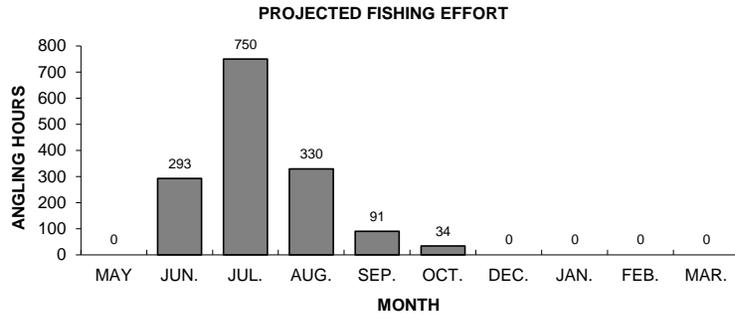
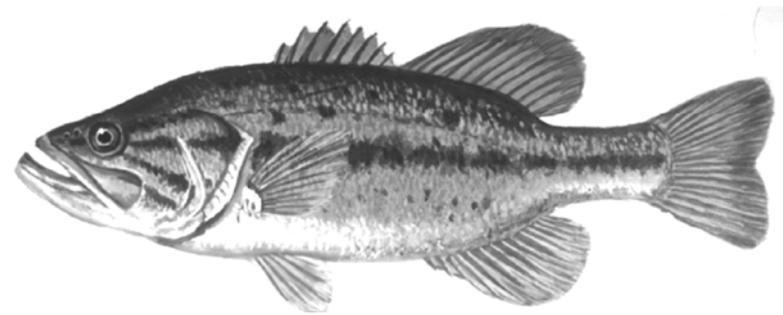


Figure 5. Largemouth bass sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

YELLOW PERCH

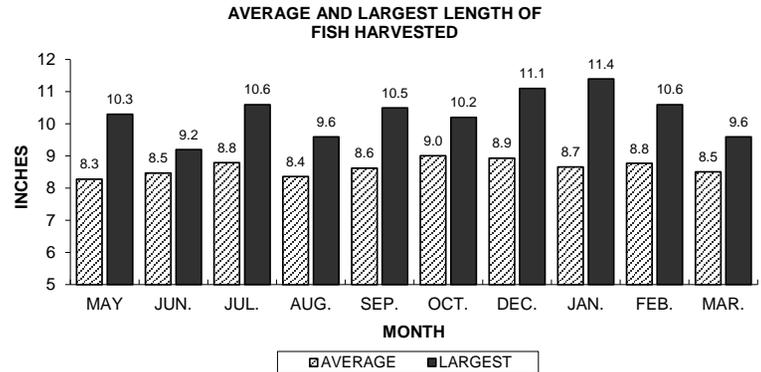
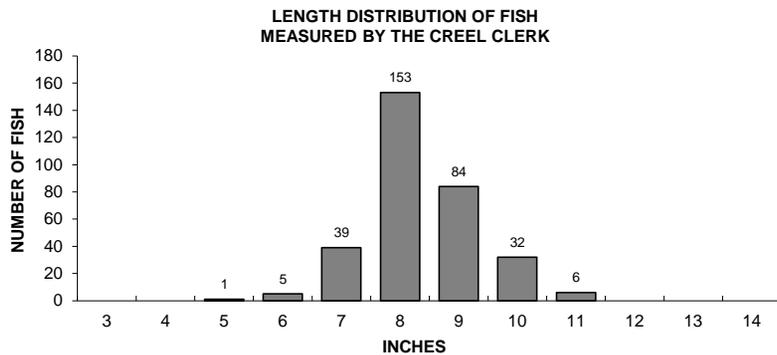
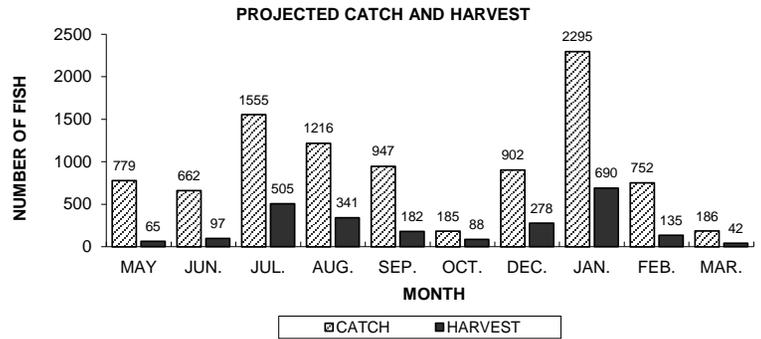
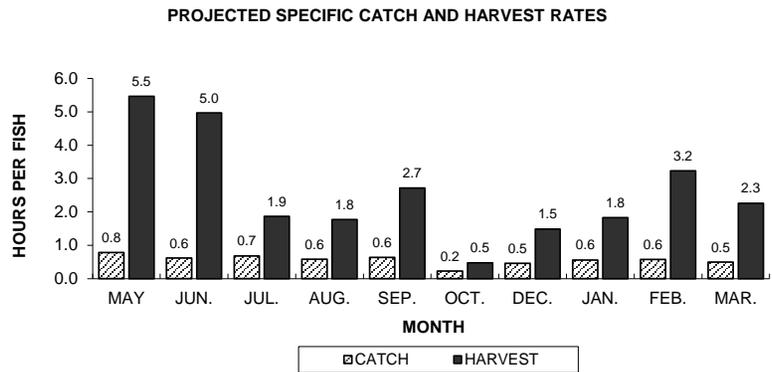
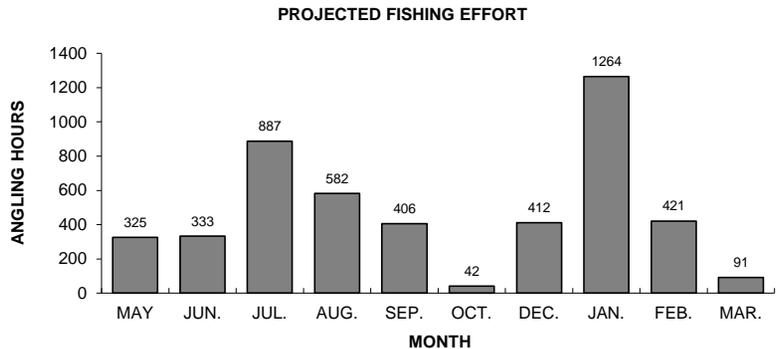
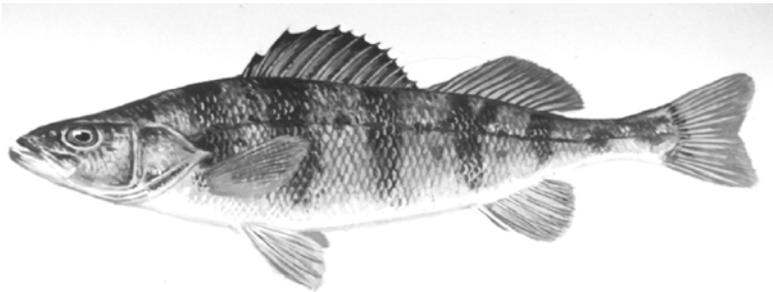


Figure 6. Yellow perch sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

BLUEGILL

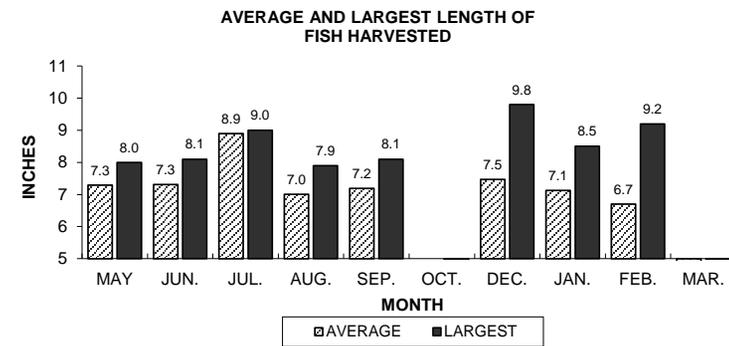
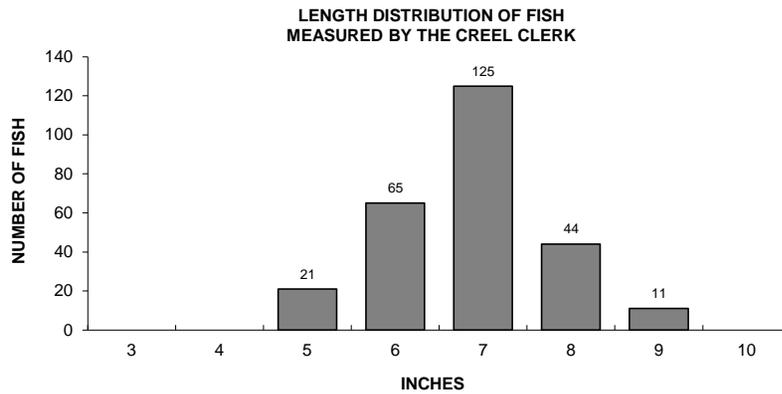
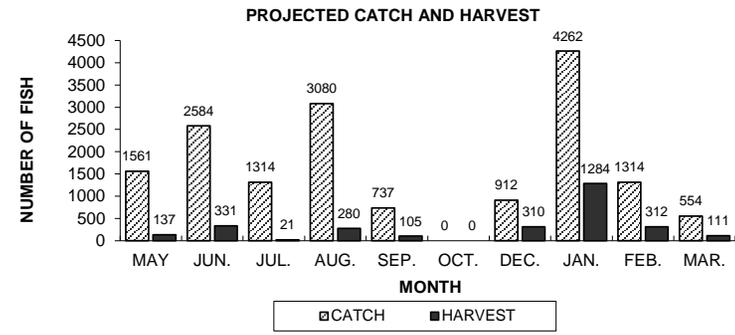
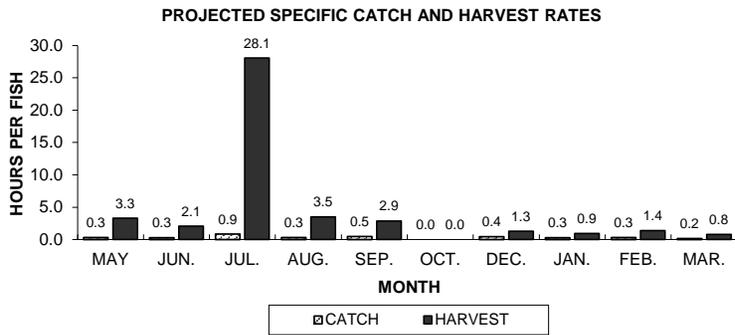
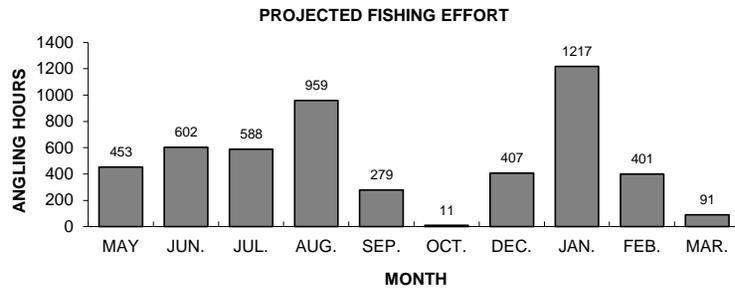
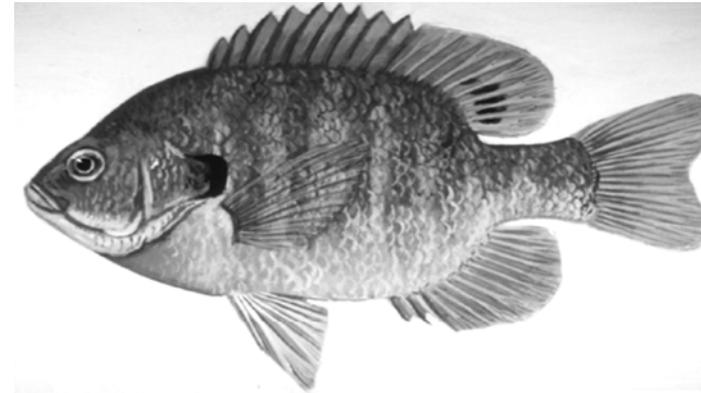


Figure 7. Bluegill sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

PUMPKINSEED

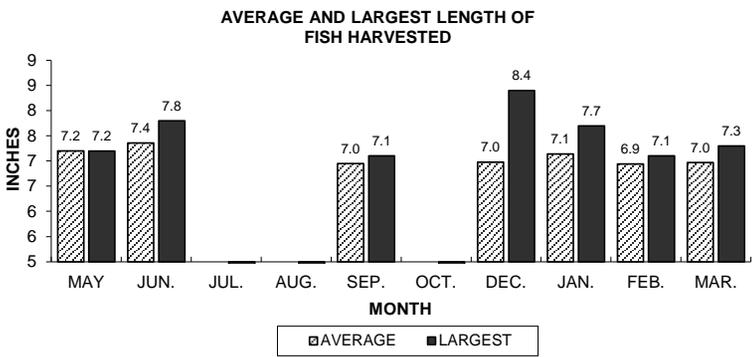
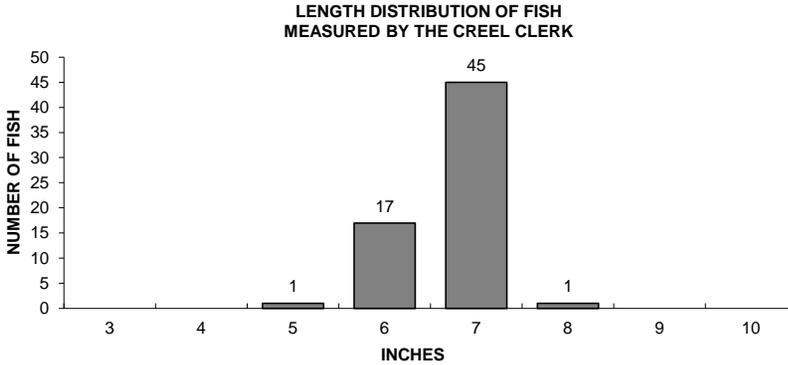
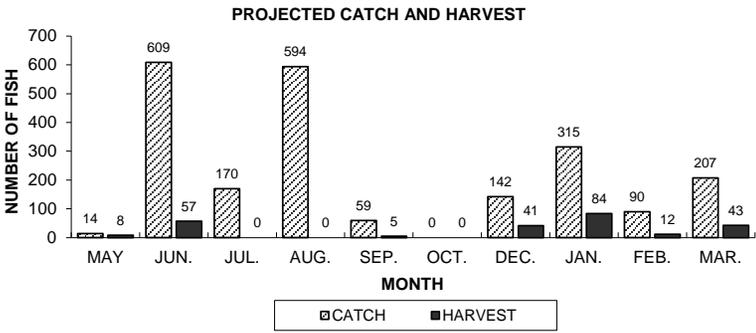
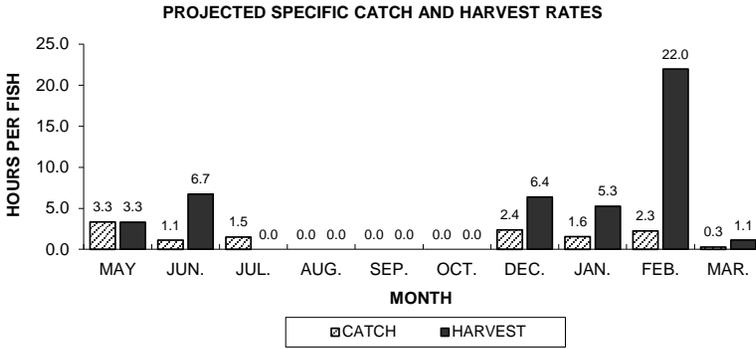
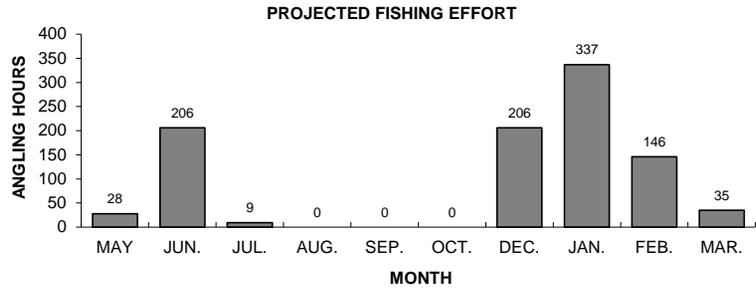
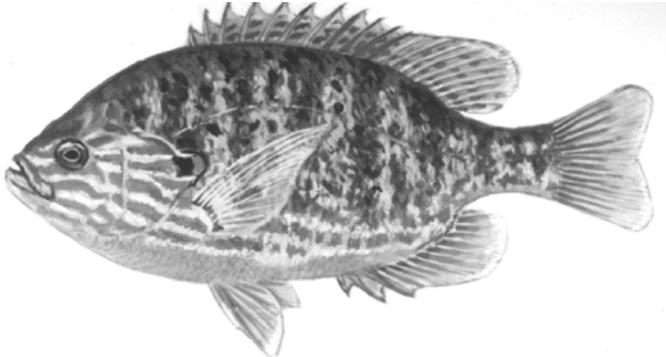


Figure 8. Pumpkinseed sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

ROCK BASS

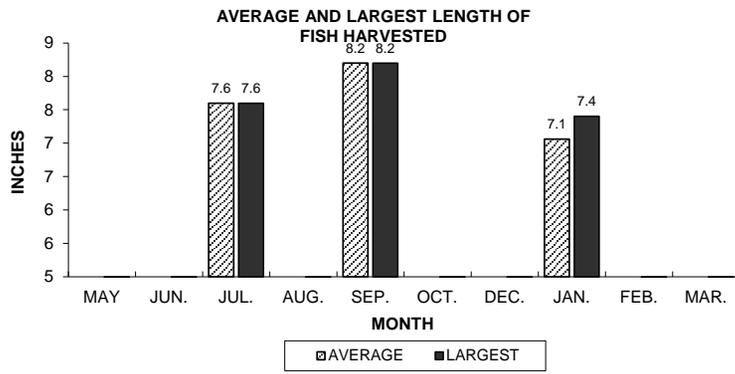
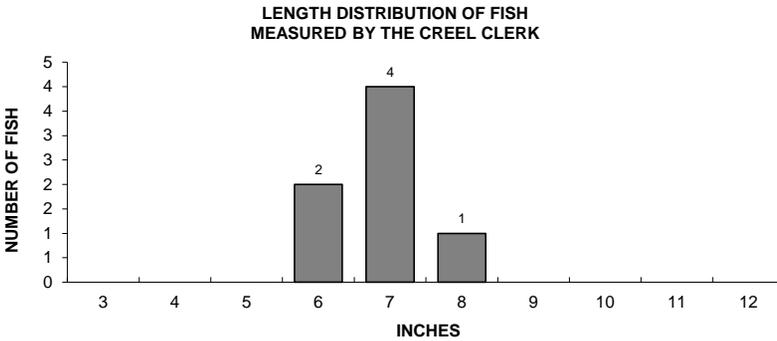
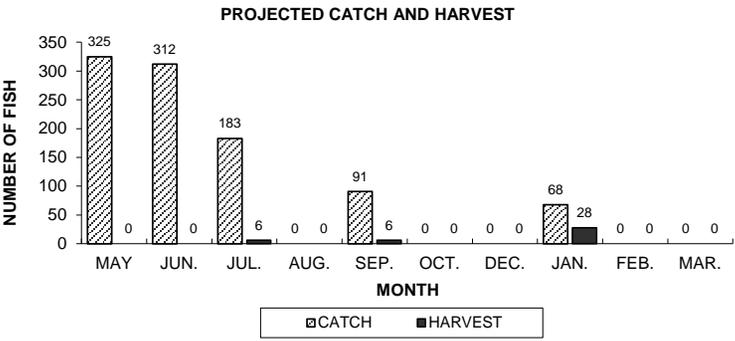
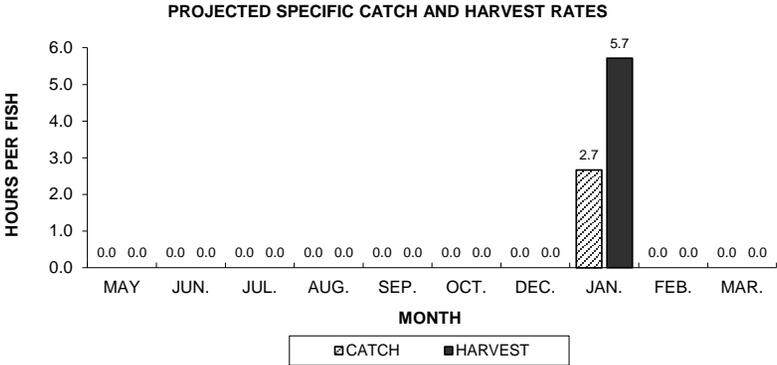
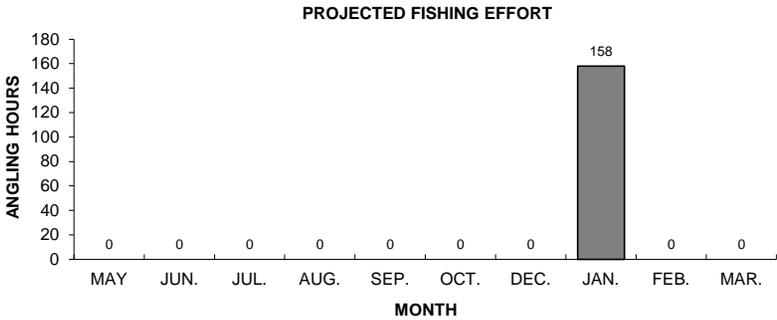
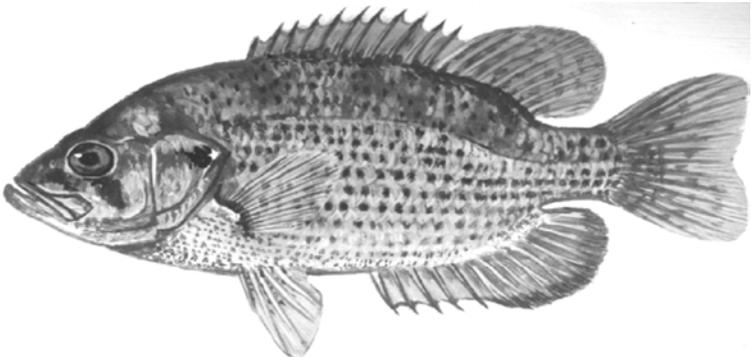


Figure 9. Rock bass sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.

BLACK CRAPPIE

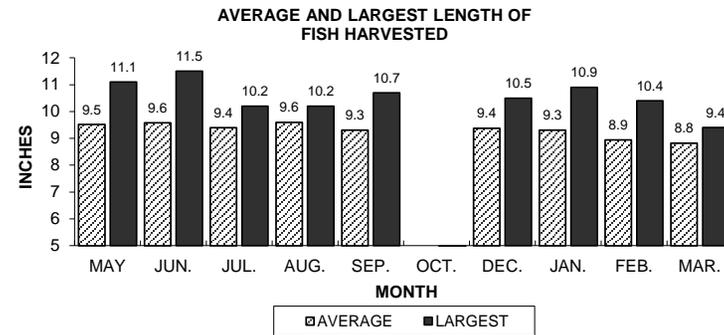
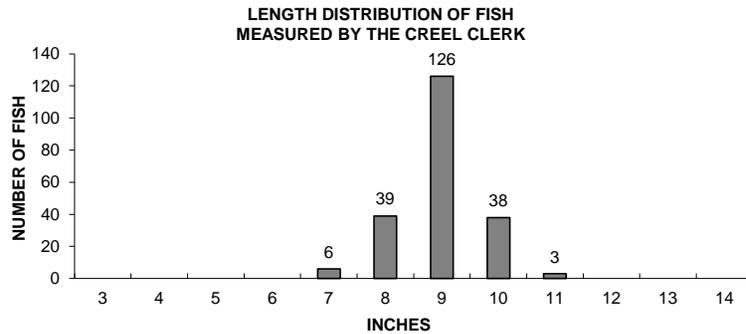
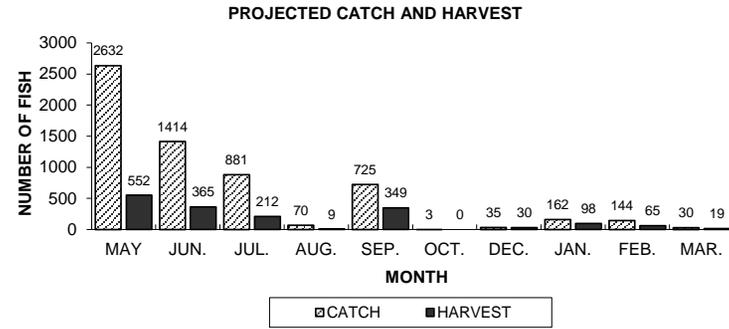
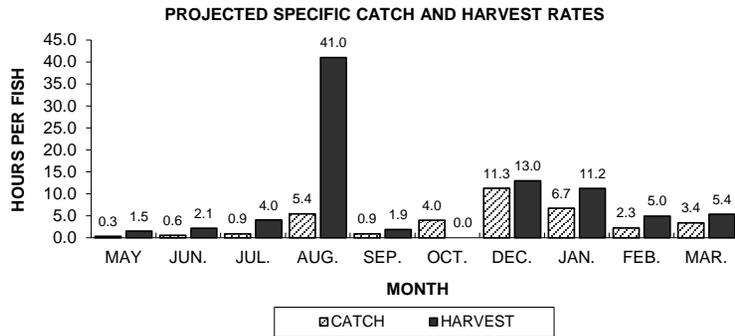
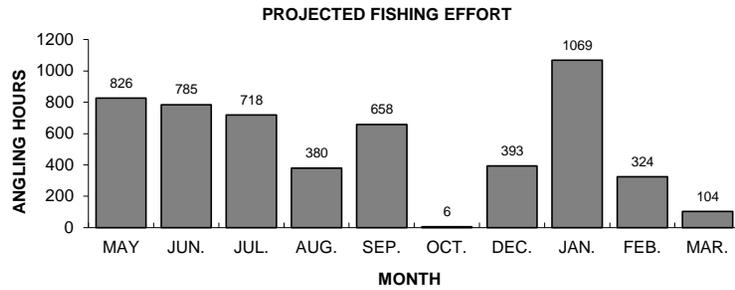
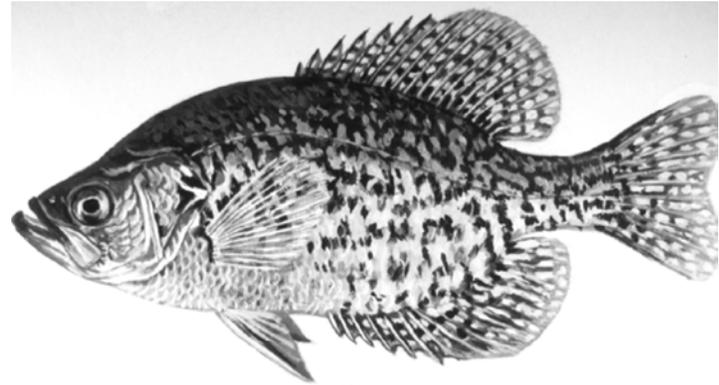


Figure 10. Black crappie sportfishing effort, catch, harvest, and length distribution, Presque Isle Chain, during 2012-13.