WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Devils Lake Creel Survey Report

Sauk County, Wisconsin 2023-2024





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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 survevs 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.

We 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. This survey was conducted during daylight hours throughout much of the open season for gamefish in Devils Lake. Creel surveys were not conducted at Devils Lake in November and December 2023 when fishing effort was low due to poor weather and unsafe ice conditions. Surveys were not conducted in March or April 2024 due to ice-out occurring in February and the gamefish season being closed for most of March and all of April.

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.

Data collected during the creel surveys were 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.

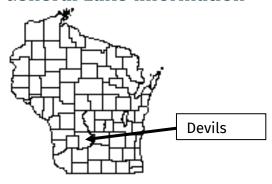
You may have encountered a DNR creel survey clerk on a recent fishing trip. We appreciate your cooperation during an interview. The survey only takes a few minutes of your time and it gives the DNR valuable information needed for management of the fishery.

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

General Lake Information



LOCATION

Devils Lake is in Sauk County approximately three miles south of the City of Baraboo.

PHYSICAL CHARACTERISTICS

Devils Lake has a surface area of 374 acres, a maximum depth of 47 feet and an average depth of 30 feet. Devils Lake is a seepage lake and also has one small inlet stream but has no flowing outlet. Littoral substrate consists primarily of sand, gravel and muck. The water of Devils Lake is relatively clear, and water is pumped out of the lake after thermal stratification each summer by a bottom siphon system as a means of reducing phosphorous levels in the lake. Devils Lake is in the Complex Two-Story lake class and is stocked each year with around 16,000 yearling brown trout that are legal harvest size when stocked (approximately 9 inches). Devils Lake is also typically stocked with around 375 surplus adult broodstock brown trout each year. One final item to note is that Devils Lake was stocked with 8,500 yearling rainbow trout on a one-time basis in 2020. Trout overwinter successfully in Devils Lake and often exceed 13 inches by their second summer in the lake.

SEASONS SURVEYED

The Devils Lake creel survey began with an open-water period that ran from July 1, 2023 through Oct. 31, 2023. The ice fishing portion of the creel ran from Jan. 1 through Feb. 28, 2024. A second open-water creel period ran from May 4-June 30, 2024. The creel survey was paused for all of November and

December 2023 when conditions were unfavorable for fishing and effort was very low. The creel survey was also paused for all of March and April 2024 due to poor ice conditions at the end of the gamefish season, followed by closure of the gamefish season for most of March and all of April.

WEATHER

The winter of 2023-24 was very mild. Safe ice did not form on Devils Lake until mid-January 2024 and ice out occurred at the end of February. As a result, the ice fishing season was only about five weeks long instead of the more typical 8-12 weeks. Creel counts in early January confirmed the absence of fishing effort prior to ice-up. Observations of DNR netting crews in March and April also confirmed a lack of fishing effort occurring at Devils Lake during a time when the creel survey was not active.

FISHING REGULATIONS

The following seasons, daily bag limits and length limits were in place on Devils Lake during the 2023-24 fishing season (note the special regulations for bass and northern pike):

SPECIES	SEASON	BAG LIMIT	MIN. SIZE		
Largemouth and	5/6/23-3/3/24	5*	None		
smallmouth bass					
*Bass species have a combined bag limit of 5. Bass					
from 14-18 inches must be released.					
Northern pike	5/6/23-3/3/24	1	32"		
Walleye, sauger and	5/6/23-3/3/24	5	15"		
hybrids					
Panfish	Open all year	25	None		
Trout	5/6/23-3/3/24	3	8"		

Species Catch and Harvest Information

Summaries of total angling effort, as well as directed effort, catch and harvest information for each of the most targeted species are in Tables 1-2 and Figures 1-9. Each species summary page has up to five graphs depicting the following:

1. DIRECTED FISHING EFFORT

Estimated number of hours during each month that anglers spent fishing for a species.

2. TOTAL CATCH AND HARVEST

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

3. SPECIFIC CATCH AND HARVEST RATES

Estimated number of hours it takes an angler to catch or harvest a fish of the indicated species. Only information from anglers who were specifically targeting that species is reported.

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

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

Creel clerks utilized a boat powered by an electric trolling motor as a means of conducting angler counts and to locate and contact anglers for interviews between counts

from July through early October 2023. Creel clerks switched to using a truck as the primary means of transportation from mid-October 2023 through the end of June 2024. Devils Lake proved small enough to accurately count anglers from a vantage point using binoculars. Devils Lake has a no gas motors regulation for boats, and the electric trolling motor used by creel clerks proved underpowered and ineffective at moving the boat fast enough to traverse the lake in a timely fashion. The electric motor also was not powerful to move the boat across the water during high winds. Clerks were much better able to locate and approach anglers for interviews using a wheeled vehicle, especially shore anglers who were most often fishing along or near a roadway or parking area. Estimates of fishing effort, catch and harvest from the ice fishing period of the creel were likely lower than they would be in most years due to the mild winter and abbreviated ice fishing period.

In addition to the standard questions and information collected during the interview process (DNR Form 3600-175, Creel Party Interview Form, R 3/21), anglers were asked to answer five additional (supplemental) questions, listed here:

- Have you fished (or do you plan to fish) other lakes or streams in Wisconsin, besides Devils Lake, this year (YES/NO/MAYBE)?
- Did you purchase a Wisconsin Inland Trout Stamp this year (YES/NO)? (It's not required for Devils Lake unless you fish for trout)
- 3. Have you fished (or do you plan to fish) for trout in other Wisconsin lakes or streams, besides Devils Lake, this year (YES/NO/MAYBE)?
- Devils Lake has a special regulation for largemouth and smallmouth bass.
 There is no minimum length limit, and fish 14-18 inches must be released.
 - a. If you caught a bass smaller than 14 inches while fishing in

- Devils Lake, would you keep it **(YES/NO)**?
- b. If YES, what is the smallest size of bass (length in inches) that you would keep?

These questions were geared toward understanding more about how anglers utilize Devils Lake and the fishing opportunities that it offers, specifically with regards to bass and trout.

GENERAL ANGLER INFORMATION

Anglers spent 26,528 hours, or 71.0 hours per acre, fishing Devils Lake during the 8-month creel period in 2023-24 (Table 1). The total included 21,606 hours of open water fishing (57.8 hours per acre) and 4,922 hours of ice fishing (13.2 hours per acre). June was the most heavily fished month (6,803 hours or 18.2 hours per acre). Creel clerks conducted 841 angler interviews throughout the Devils Lake creel survey. Anglers provided a total of 898 unique responses to the supplemental questions that were part of the interview in addition to the standard questions on the creel party interview form (parties often included more than one angler). Overall, 84.6% of anglers (760/898) who answered the supplemental questions reported that they intended to fish in other waters besides Devils Lake during the year. This indicated that most anglers utilize Devils Lake as part of a broader Wisconsin fishing experience, and not simply as a one-time opportunity associated with their visit to Devils Lake State Park.

RESULTS BY SPECIES

TROUT (Table 2, Figure 1)

Brown trout received the most directed fishing effort of any gamefish species during the Devils Lake creel survey. Anglers spent 14,429 hours targeting brown trout with 70.8% of directed brown trout fishing effort occurring during open water fishing. Fishing effort for brown trout was highest in January (3,170 hours) despite anglers only having safe ice for half of the month. The total catch of

brown trout in Devils Lake was 9,950 fish, second highest of any species. Total harvest was 6,949 fish, which was the highest of any species. When considered in terms of utilization of the annual stocking quota, these estimates indicated that during the creel survey anglers caught at least 62.2% and harvested at least 43.4% of the 16,000 brown trout stocked in Devils Lake in a year.

The highest monthly brown trout catch (3,272 fish) and the highest harvest (1,788 fish) occurred in July. Anglers fished an estimated 1.6 hours to catch, and 2.1 hours to harvest a brown trout during the survey. Lengths of 980 harvested brown trout measured by the creel clerks ranged from 8.3 to 19.8 inches. The mean length of harvested brown trout was 12.8 inches.

The 2020 stocking of rainbow trout was the only stocking of that species in Devils Lake since 1988, and anglers still reported targeting rainbow trout on a limited basis during the creel survey. Rainbow trout received 215 hours of directed fishing effort, and anglers reported targeting rainbow trout in July, January, and February. Total catch and harvest of rainbow trout were 14 fish, all caught in August. The single rainbow trout measured by a creel clerk was 19.8 inches long. At the time it was caught in August 2024, the fish had been in the lake for over four years.

Overall, 65.6% of anglers (589/898) who answered the supplemental questions reported purchasing an Inland Trout Stamp. Of those who purchased a trout stamp, 60.8% (n = 358) reported that they only intended to fish for trout in Devils Lake, and nowhere else in Wisconsin. This indicated that although Devils Lake anglers in general planned to fish other waters in Wisconsin, Devils Lake trout anglers were using the lake for a more exclusive fishing experience.

BLUEGILL (Table 2, Figure 2) Bluegill received 9,300 hours of directed fishing effort during the Devils Lake creel survey, and 94.2% of bluegill fishing effort occurred during open water fishing. Bluegill fishing effort was highest in July (3,031 hours). Total catch of bluegill was 16,100 fish, the highest total catch of any species. Total harvest was 5,410 fish, second highest after brown trout. The highest catch occurred in July (4,654 fish), while the highest harvest occurred in May (1,838 fish). Anglers fished an estimated 0.6 hours to catch, and 1.7 hours to harvest a bluegill during the creel survey, representing the best catch and harvest rates of any species. Lengths of 528 harvested bluegills measured by the creel clerks ranged from 4.3-10.7 inches with a mean length of 8.0 inches. An amazing 57% of harvested bluegills were ≥8 inches in length.

LARGEMOUTH BASS (Table 2, Figures 3 and 4) Fishing effort directed at largemouth bass was 6,772 hours during the Devils Lake creel survey, with over 98% of effort occurring during open water fishing. Largemouth bass fishing effort was greatest in June (2,248 hours). Total catch of largemouth bass was 2,865 fish and the highest catch (870 fish) occurred in July. Total harvest was only 261 fish despite the lake having no minimum length limit for bass. The highest harvest (66 fish) occurred in June. Anglers fished an estimated 3.0 hours to catch and 43.6 hours to harvest a largemouth bass in Devils Lake during the survey. Lengths of 52 harvested largemouth bass measured by the creel clerks ranged from 10.0-17.6 inches and included a single fish harvested within the 14-18 inch protected slot. The fish was harvested by an angler with a significant language barrier who did not understand the protected slot regulation. The mean length of harvested largemouth bass was 11.9 inches.

Overall, 23.2% of anglers (208/898) who answered the supplemental questions reported that they would keep a bass smaller than 14 inches, or larger than 18 inches. Of those who reported they would keep a bass, 97.2% (202/208) would keep a bass smaller

than 14 inches. Answers on the size of the smallest bass they would keep ranged from 7 to 13 inches, with 12 inches (42.8%; n = 89) and 10 inches (30.8%; n = 64) being the most common responses. Three anglers (1.4%) said they would only keep a bass larger than 18 inches, and three anglers didn't specify a size of bass they would keep.

SMALLMOUTH BASS (Table 2 and Figure 5) Fishing effort directed at smallmouth bass was 4,498 hours during the Devils Lake creel survey, with over 99% of effort occurring during open water fishing. Smallmouth bass fishing effort was greatest in June (1,660 hours). Total catch of smallmouth bass was 544 fish and was highest in July (247 fish). Total harvest was only 17 fish, with small amounts of harvest in August, October and February. Anglers fished an estimated 9.7 hours to catch and 441.5 hours to harvest a smallmouth bass during the creel survey. Lengths of four harvested smallmouth bass measured by the creel clerks ranged from 9.9-12.4 inches with a mean length of 11.1 inches.

YELLOW PERCH (Tables 2, Figure 6) Fishing effort directed at yellow perch was 2,780 hours with 79.9% of effort occurring during open water fishing. Total catch of yellow perch was 945 fish, and total harvest was 509 fish. Directed fishing effort for yellow perch was highest in July (1.004 hours). The highest catch (321 fish) also occurred in July, while the highest harvest (181 fish) occurred in May. Anglers fished an estimated 3.4 hours to catch, and 5.9 hours to harvest a yellow perch during the creel survey. Lengths of 72 harvested yellow perch measured by the creel clerks ranged from 7.6-15.0 inches. The mean length of harvested yellow perch was 10.4 inches.

ROCK BASS (Table 2, Figure 7)

Rock bass received 1,551 hours of directed fishing effort during the Devils Lake creel survey, and all rock bass fishing effort occurred during open water fishing. Rock bass fishing effort was highest in July (595 hours).

Total catch of rock bass was 3,064 fish, third highest of any species after bluegill and brown trout, and the catch was highest in June (928 fish). Total harvest was 447 fish, with the most harvest occurring in July (170 fish). Anglers fished an estimated 0.7 hours to catch, and 4.9 hours to harvest a rock bass during the creel survey. Lengths of 47 harvested rock bass measured by the creel clerks ranged from 6.5-9.3 inches with a mean length of 8.0 inches.

BLACK CRAPPIE (Tables 2, Figure 8)

Black crappie received 1,174 hours of directed fishing effort during the Devils Lake creel survey, with 70.3% of the effort occurring during open water fishing. Black crappie fishing effort was highest in June (254 hours). The total catch of black crappie was 101 fish, and the catch was highest in July (38 fish). Total harvest was 63 fish, with the most harvest occurring in May (30 fish). Anglers fished an estimated 20.1 hours to catch, and 56.3 hours to harvest a black crappie during the creel survey. Lengths of nine harvested black crappies measured by the creel clerks ranged from 9.1-11.7 inches with a mean length of 10.3 inches.

NORTHERN PIKE (Table 2, Figure 9)

Northern pike received 1,115 hours of directed fishing effort during the Devils Lake creel survey. A greater percentage of northern pike fishing effort occurred during open water fishing (55.7%) compared to ice fishing (44.3%); this represented the most even split of directed effort between open water and ice fishing of any species. Northern pike fishing effort was highest in January (294 hours). Anglers caught 180 northern pike and no harvest was reported during the creel survey. More of the catch occurred during open water fishing (147 fish) compared to ice fishing (33 fish). Anglers fished an estimated 9.7 hours to catch a northern pike during the creel survey.

ADDITIONAL SPECIES

Green sunfish, pumpkinseed, walleye and burbot all received less than 1,000 hours of

directed fishing effort during the creel survey (Table 2). Anglers directed 796 hours of fishing effort at green sunfish, catching 1,231 fish and harvesting 240 fish. Lengths of 19 harvested green sunfish measured by the creel clerks ranged from 4.7-7.5 inches and the mean length was 6.3 inches. Anglers directed 320 hours of fishing effort at pumpkinseed sunfish, catching 237 fish and harvesting 129 fish. Lengths of 13 harvested pumpkinseeds measured by the creel clerks ranged from 6.5-8.5 inches and the mean length was 7.7 inches.

Walleyes were stocked in Devils Lake at various points in the lake's history but have not been stocked there since 2013 due to poor survival of stocked fish that resulted in low adult abundance. Nevertheless, anglers directed 165 hours of fishing effort at walleyes, and the catch was zero. Finally, Devils Lake is unique, particularly among lakes in southern Wisconsin, in that it has a self-sustaining burbot population. Anglers directed 13 hours of angling effort at burbot during the creel survey (all during February), catching five fish and harvesting four fish. The single harvested burbot measured by a creel clerk was 18.9 inches long.

Acknowledgements

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

Completion of this survey and report was possible because of the efforts of the following DNR fisheries management staff: primary creel clerks Clayton Roberts and Paul Stolen as well as Fisheries Technicians Casey Weber, Dan Walchak, Mitch Trow, Jared Myers and Josh Jonet. Gene Hatzenbeler, Lawrence Eslinger and Eric Brown from the Treaty unit also provided valuable assistance with survey planning, data analysis and report writing.

Table 1. Sportfishing effort summary for Devils Lake, Sauk County, Wisconsin during the July 2023-June 2024 creel survey.

MONTH	PERIOD	NUMBER OF ANGLER PARTY INTERVIEWS	TOTAL ANGLER HOURS	TOTAL ANGLER HOURS/ACRE	
July	Open Water	97	6,803	18.2	
August	Open Water	68	4,202	11.2	
September	Open Water	57	2,048	5.5	
October	Open Water	78	979	2.6	
January	Ice Fishing	115	3,564	9.5	
February	Ice Fishing	101	1,358	3.6	
May	Open Water	145	3,461	9.3	
June	Open Water	180	4,113	11.0	
Open Water Total		625	21,606	57.8	
Ice Fishing Total		216	4,922	13.2	
Grand Total		841	26,528	71.0	

Table 2. Synopsis of effort, catch and harvest data for commonly targeted gamefish and rough fish during the July 2023-June 2024 creel survey of Devils Lake, Sauk County, Wisconsin.

SPECIES	DIRECTED EFFORT (HOURS)	PERCENT OF TOTAL	TOTAL CATCH	SPECIFIC CATCH RATE (HRS/FISH) ¹	TOTAL HARVEST	SPECIFIC HARVEST RATE (HRS/FISH)	MEAN LENGTH OF HARVESTED FISH ²
Brown Trout	14,429	33.5%	9,950	1.6	6,949	2.1	12.8
Bluegill	9,300	21.6%	16,100	0.6	5,410	1.7	8.0
Largemouth bass	6,772	15.7%	2,865	3.0	261	43.6	11.9
Smallmouth bass	4,498	10.4%	544	9.7	17	441.5	11.1
Yellow perch	2,780	6.4%	945	3.4	509	5.9	10.4
Rock bass	1,551	3.6%	3,064	0.7	447	4.9	8.0
Black crappie	1,174	2.7%	101	20.1	63	56.3	10.3
Northern pike	1,115	2.6%	180	9.7	0	0.0	**
Green sunfish	796	1.8%	1,231	1.4	240	4.7	6.3
Pumpkinseed	320	0.7%	237	2.4	129	4.7	7.7
Rainbow trout	215	0.5%	14	0.0	14	0.0	19.8
Walleye	165	0.4%	0	*	0	*	**
Burbot	13	0.0%	5	*	4	*	18.9

^{*}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 these species.

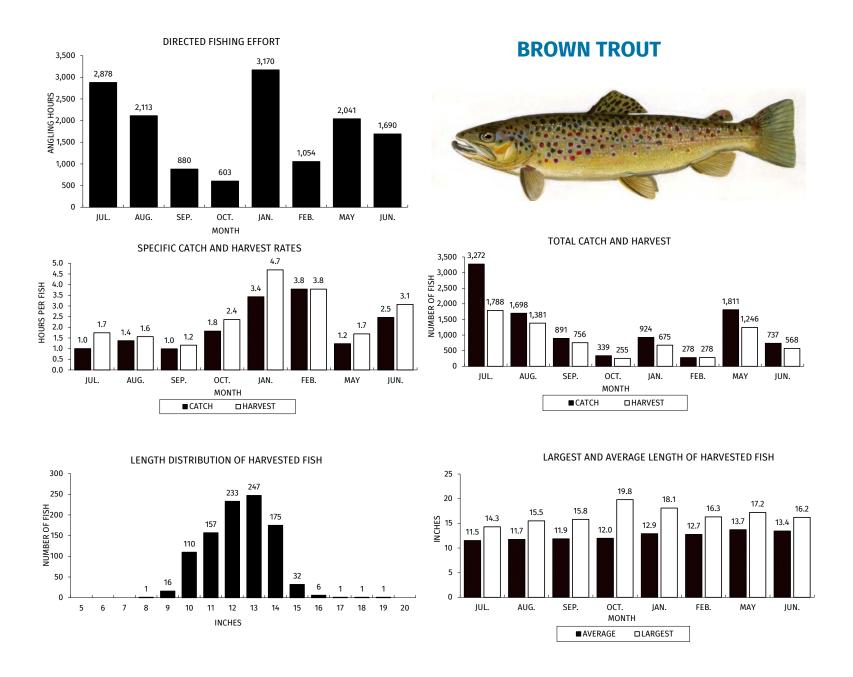


Figure 1. Brown trout fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

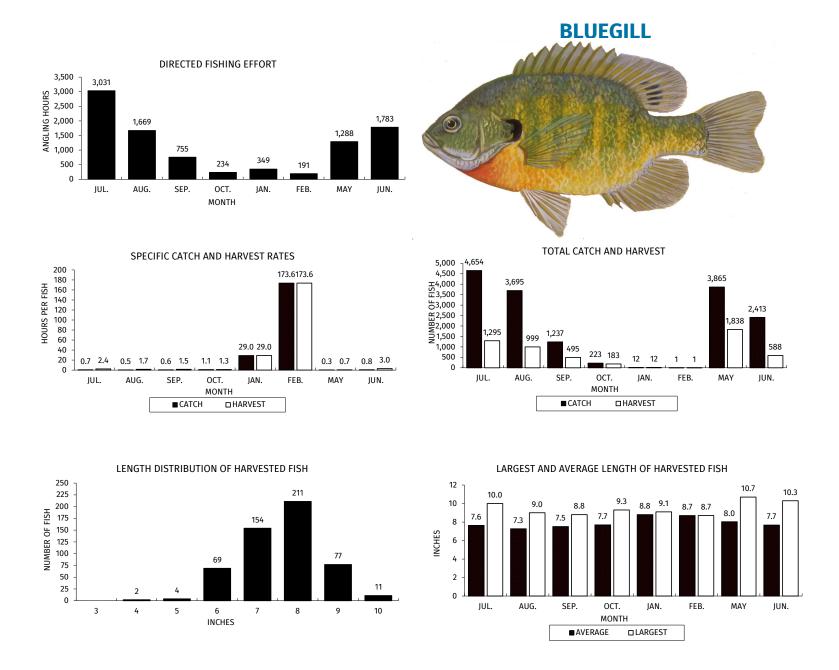


Figure 2. Bluegill fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

LARGEMOUTH BASS DIRECTED FISHING EFFORT 2,500 2.248 2,000 1,500 1,000 500 1,502 1,255 770 500 JUL. AUG. SEP. OCT. JAN. FEB. MAY JUN. MONTH TOTAL CATCH AND HARVEST SPECIFIC CATCH AND HARVEST RATES 900 180 152.7 749 160 HOURS PER FISH 140 120 100 80 60 84.2 368 364 68.1 58.4 200 40 22.5 22.6 66 100 20 3.9 5.3 3.6 JUL. AUG. JUN. JUL. AUG. SEP. OCT. JAN. FEB. MAY JUN. SEP. OCT. MAY MONTH MONTH ■ CATCH □HARVEST ■ CATCH □HARVEST LARGEST AND AVERAGE LENGTH OF HARVESTED FISH LENGTH DISTRIBUTION OF HARVESTED FISH 20 17.6 17.6 18 16 **NUMBER OF FISH** INCHES 12 10 AUG. FEB. JUL. SEP. OCT. JAN. JUN. 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 MONTH

AVERAGE

□LARGEST

Figure 3. Largemouth Bass fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

INCHES

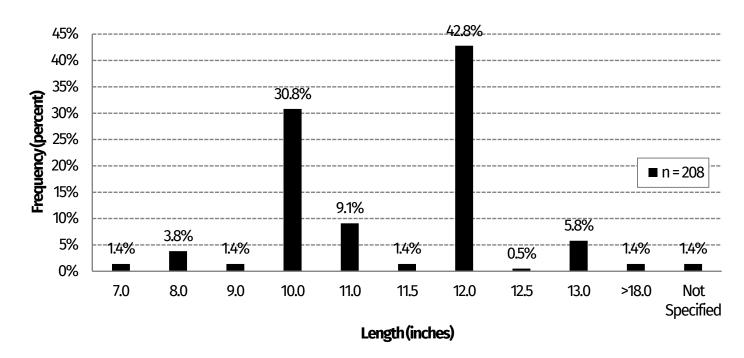
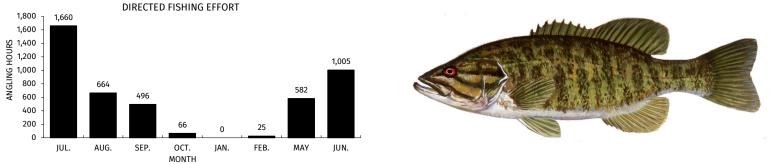
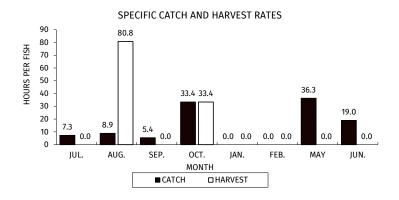
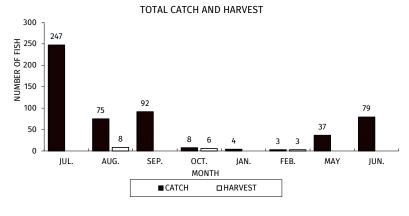


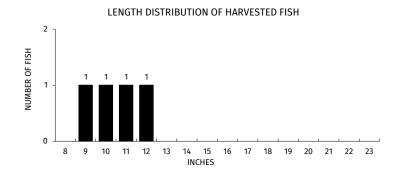
Figure 4. Minimum bass harvest length preference of anglers who said that they would harvest a bass (largemouth or smallmouth) smaller than 14 inches or larger than 18 inches while fishing in Devils Lake, Wisconsin in 2023-24.

SMALLMOUTH BASS









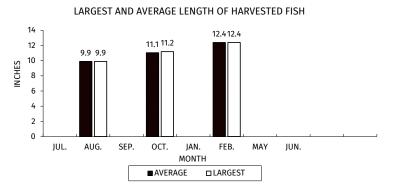


Figure 5. Smallmouth Bass fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

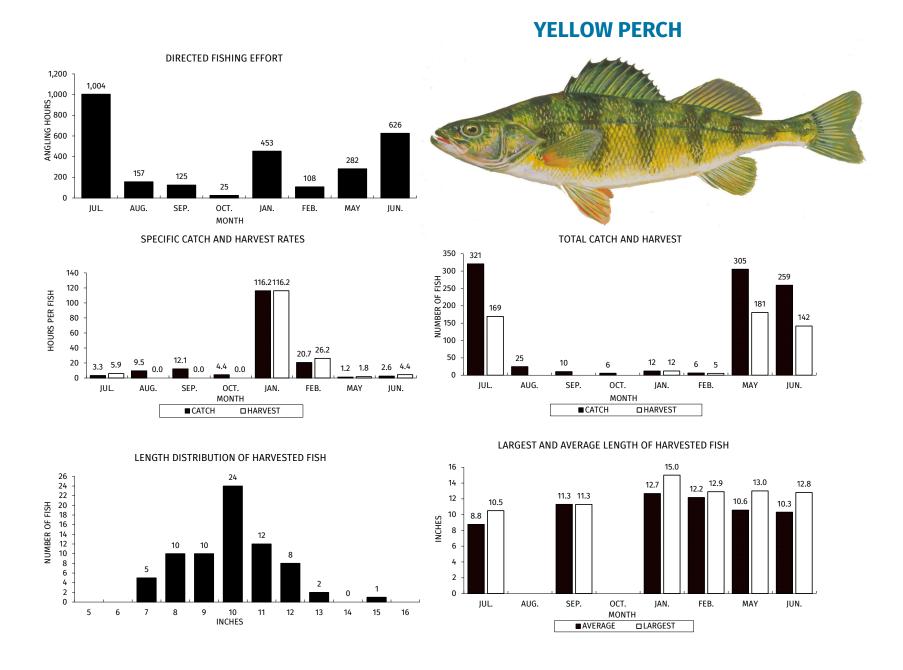


Figure 6. Yellow Perch fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

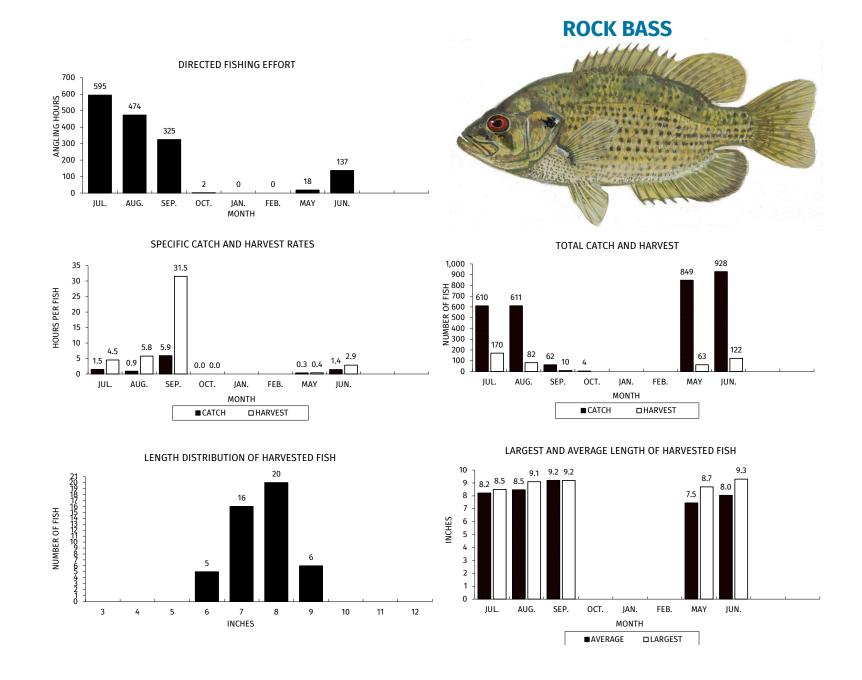


Figure 7. Rock Bass fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

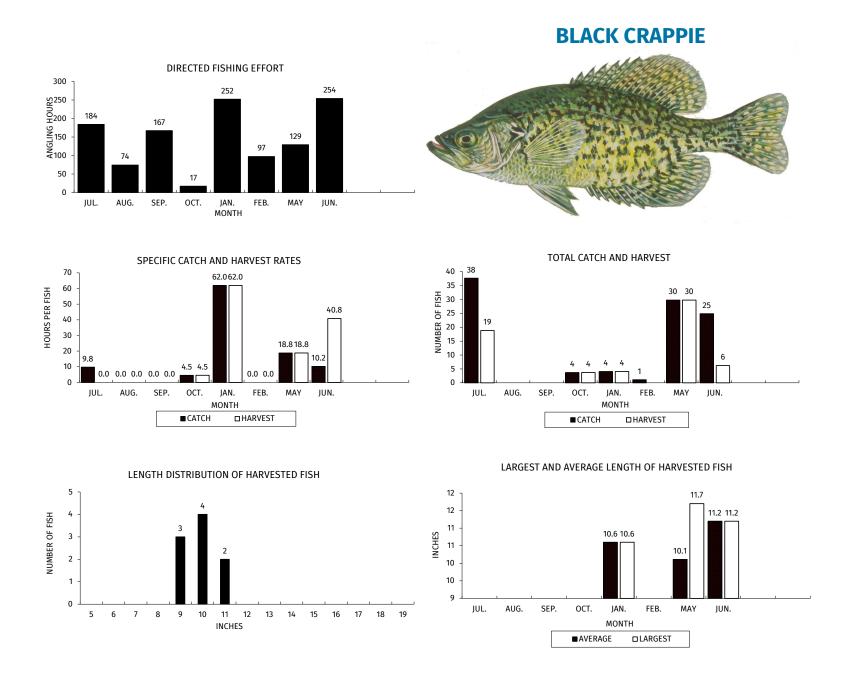


Figure 8. Black Crappie fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.

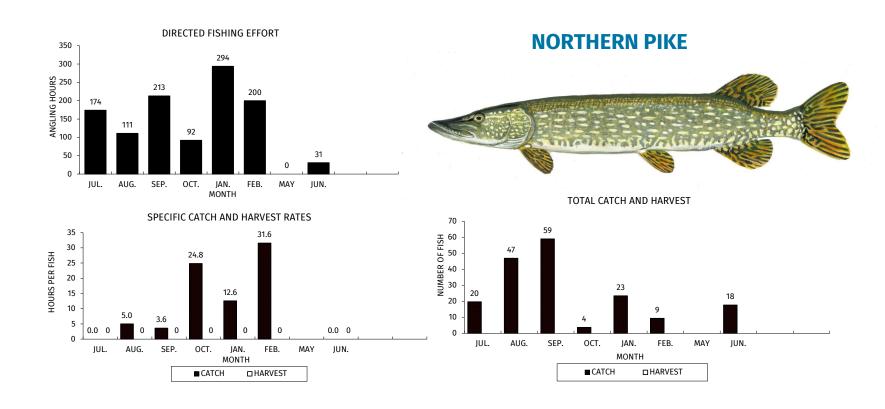


Figure 9. Northern Pike fishing effort, catch, harvest and length distribution, Devils Lake, during 2023-24.