

Lake Maxinkuckee 2020 General Fish Survey

Lake Information: 1,854 acres; 86 feet max depth Located: Culver, IN; Marshall County GPS Coordinates: N 41.19666; W -86.41645 Access: State owned ramp on Southwest shore, limited roadside parking Amenities: Seasonal restroom Ownership: N/A Best Fishing: Bluegill, Rock Bass, Smallmouth Bass, Walleye Special Restrictions: None Outboard Motor Restrictions: None Fees: None Depth Map: <u>Where to Fish Interactive Map</u> DNR Contact Information: Fish Management District 1 Tom Bacula, Fisheries Biologist

Table 1. Fish community species composition (by total

number and percent of catch) and size range.

(574) 896-3673; D1Fish@dnr.IN.gov

Highlights

- A total of 25 species and one hybrid were collected, higher than the 22 and 24 species collected in 2007 and 2012 surveys (Table 1). New species were likely historically present, but not encountered in previous surveys. Notable absent from this survey were White Bass and Channel Catfish often collected in low abundance.
- Bluegill were the most abundant species in this survey whereas in 2012 only 69 were collected (Figures 1 and 2). Historically Rock Bass were the most abundant.
- Half of the Rock Bass collected were 5 to 7 inches long and an impressive 10% were larger than 10 inches.
- Thirty percent of Smallmouth Bass collected were legal length (14 inches) or longer, attaining this length on average between 4 and 5 years (Figure 3).
- Over twenty percent of Yellow Perch were 10.0 inches or longer. On average perch 4 to 7 years old were 9.6, 10.4, 12.3, and 13.0 inches long, respectively.

Sport Fish

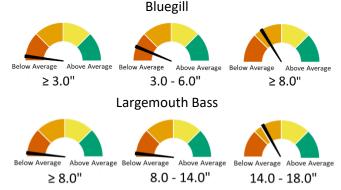


Figure 1. Bluegill and Largemouth Bass catch rates at Lake Maxinkuckee compared to regional averages among all glacial lakes in northern Indiana. Represented are 0.5 h electrofishing, two trap and gill nets.



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Length Range (in) # % Species Min Max Bluegill 258 25.5 1.7 9.8 19.4 Rock Bass 196 2.0 11.7 14.2 Smallmouth Bass 144 3.3 18.4 **Yellow Perch** 98 9.7 2.3 13.3 Walleve 84 8.3 8.7 19.7 54 5.3 Longnose Gar 17.5 53.5 33 3.3 Largemouth Bass 5.7 16.7 32 **Brook Silverside** 3.2 3.0 3.8 21 2.1 2.8 4.6 Logperch Yellow Bullhead 14 1.4 9.0 14.3 Black Crappie 13 1.3 7.4 12.0 Common Carp 10 1.0 9.6 27.3 Pumpkinseed 10 1.0 2.8 5.8 9 0.9 Warmouth 1.7 9.0 7 0.7 Spotted Gar 21.3 26.3 Bowfin 6 0.6 21.7 26.4 5 0.5 15.0 Brown Bullhead 11.1 Spotfin Shiner 4 0.4 2.5 3.4 2 2.5 Banded Killifish 0.2 3.0 Bluntnose Minnow 2 0.2 2.4 2.8 2 Gizzard Shad 0.2 17.5 19.7

2

2

2

1

1

1,012

Hybrid Sunfish

Spotted Sucker

White Sucker

Golden Shiner

Spottail Shiner

Total

0.2

0.2

0.2

0.1

0.1

7.4

14.9

10.7

4.4

3.3

7.6

15.5

11.0

4.4

3.3

Indiana Fishing Regulation Guide: www.Fishing.IN.gov



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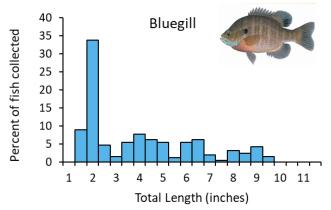


Figure 2. Bluegill length frequency for Lake Maxinkuckee.¹

 One trap net collected 45% of all Bluegill and most fish were less than 2.5 inches. Overall, Bluegill growth was above average compared to other glacial lakes.

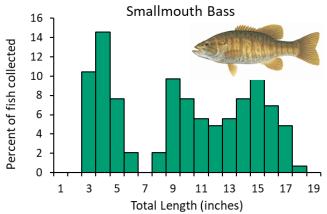


Figure 3 . Smallmouth Bass length frequency for Lake Maxinkuckee.1

• Smallmouth Bass mean length at capture for ages 1 to 5 was 4.5, 9.8, 11.1, 13.9, and 15.1 inches, respectively.

Fish Survey Dates: 6/15/20 to 6/23/20 Fish Survey Techniques: 2.25 hours pulsed DC night electrofishing with 2 dippers; 9 overnight trap net lifts; 18 overnight gill net lifts

Water Quality Survey Dates: 6/15/20, 8/4/20, 8/28/20 Water Quality Survey Techniques: Water clarity and oxygen profiles

Vegetation Survey Dates: 8/4/20

Report Author: Tom Bacula, Fisheries Biologist Report Approved By: Dan Carnahan, Fisheries Supervisor Date Approved: February 2, 20200

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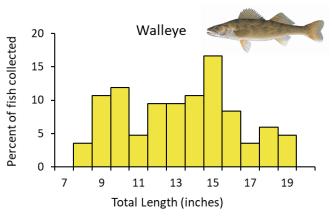


Figure 4. Walleye length frequency for Lake Maxinkuckee.¹

• Walleye abundance has increased since previous surveys, and fish averaged 10.0, 12.8, 15.6, and 18.1 inches at ages 1 to 4, respectively (Figure 4).

Stocking

Table 2. Fish stocking in Lake Maxinkcukee 2015-2020.

			Length (in)	Average
Year	Species	Number	Min Max.	length (in.)
2020	Walleye*	18,540	6.0 - 8.0	7.0
2019	Walleye	190,263	1.0 - 2.1	1.5
2018	Walleye*	17,798	5.4 - 10.4	7.1
2017	Walleye	172,435	1.0 - 1.9	1.4
2016	Walleye*	18,540	5.8 - 10.1	7.6
2015	Walleye	199,031	1.0 - 1.7	1.3

*Gollon Bait and Fish Farm

Habitat

- Oxygen was available (greater than 3.0 ppm) for fish down to 50 feet in June declining to 22 in early August and 26 feet in late August.
- A total of 14 species of aquatic vegetation were collected, Chara sp. was the most frequently collected species followed by slender naiad, variable pondweed and sago pondweed.
- A concern was first time documentation of starry stonewort, an invasive species at 18% of survey sites. Starry stonewort is an algae that creates dense mats inhibiting native plant growth and can impair recreation.

¹ Artwork by Rick Hill, Kentucky Department of Fish and Wildlife Resources.

> **Indiana Fishing Regulation Guide:** www.Fishing.IN.gov

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