

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2017 Shea Lake Survey Summary, Kewaunee County

Report Completed July 29, 2022

The Wisconsin Department of Natural Resources (DNR) conducted a spring electrofishing 2 (SE2) survey on Shea Lake in Kewaunee County on May 23, 2017. Shea Lake is a seepage lake located in southwestern Kewaunee County. The lake is 32 acres, with 1.0 miles of shoreline and a maximum depth of 24 feet (17% of the lake is under 3 feet; 7% over 20 feet). The predominant bottom composition is muck, with floating and submerged vegetation common. Predominant fish populations have historically consisted of Northern Pike, Largemouth Bass and panfish.

The goal of this survey was to assess the fish populations in the lake. The primary objectives of SE2 surveys are specifically to count and measure adult bass and panfish sampled with boomshocker electrofishing conducted at night along the shoreline. A total of 0.99 miles of shoreline were surveyed, and all fish encountered were netted. A total of 334 fish were captured representing nine different species.

Largemouth Bass

Largemouth Bass were the most abundant gamefish species sampled from West Alaska Lake. A total of 17 Largemouth Bass were captured (17.2/mi), ranging in length from 7.6 to 16.0 inches and averaging 11.4 inches (Figure 1). Only one of the bass sampled was greater than the 14-inch minimum size limit. Overall, the 2017 catch rate (17.2/mi) declined from the 2009 survey (47.8/mi), but the average length of bass sampled was similar between the surveys. Growth rates of Largemouth Bass also appear to have increased from the 2009 survey and appear to be at or above state averages (Table 1). Shea Lake was stocked with juvenile Largemouth Bass in 2014, 2015 and 2016.

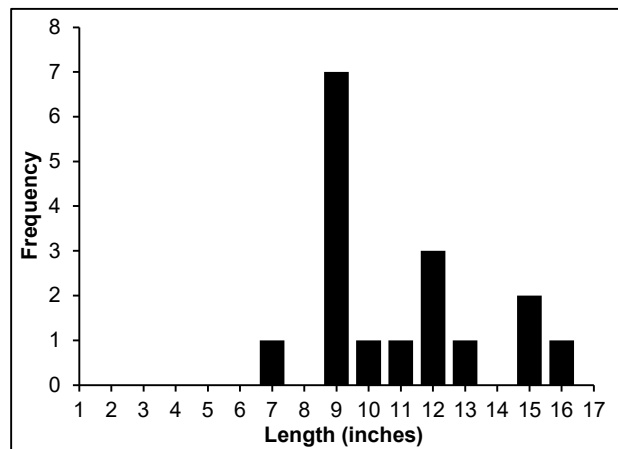


Figure 1. Length frequency of Largemouth Bass sampled from Shea Lake in 2017.

Table 1. Average length (inch) at age determined from age estimation of dorsal spines from Largemouth Bass captured on Shea Lake from surveys conducted in 2009 and 2017 compared to the statewide average length at age for Largemouth Bass.

Year	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5	AGE 6
State Avg.	3.8	6.5	9.0	11.4	13.3	15.1
2009	--	--	8.7	10.7	13.7	14.6
2017	--	7.6	9.5	13.0	12.9	16.0

Ages in 2009 estimated from scales

Bluegill

Bluegill were the most abundant panfish species sampled from Shea Lake. A total of 303 Bluegills were captured (306.1/mi). Sampled Bluegills ranged in length from 1.7 to 7.4 inches and averaged 4.8 inches (Figure 2). Of the Bluegills sampled, 11% were greater than 6.0 inches, and 2% were greater than 7.0 inches. Overall, the 2017 catch rate (306.1/mi) increased from the 2009 survey (158.9/mi), and the size structure and growth rates of Bluegill have remained fairly consistent over the last two surveys (2009 and 2017) and appear to be at or near state averages for the sampled fish (Table 2).

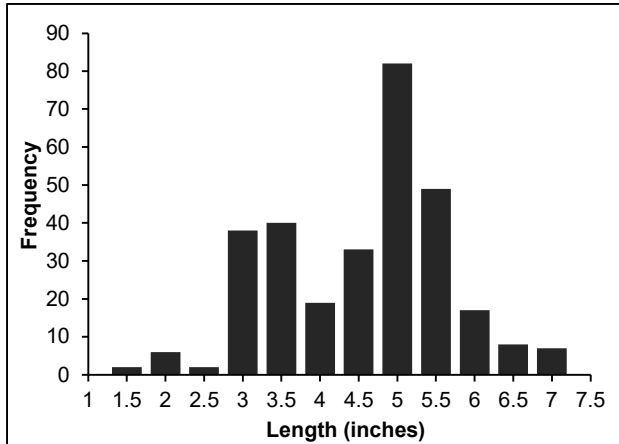


Figure 2. Length frequency of Bluegills sampled from Shea Lake in 2017.

Table 2. Average length (inch) at age determined from age estimation of otoliths from Bluegills captured on Shea Lake from surveys conducted in 2009 and 2017 compared to the statewide average length at age for Bluegills.

Year	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5	AGE 6
State Avg.	2.5	3.8	4.8	5.8	6.6	7.2
2009	3.1	4.4	5.6	6.3	7.1	--
2017	2.2	3.4	5.2	6.3	6.6	7.0

Ages in 2009 estimated from scales

Northern Pike

A total of four Northern Pike were sampled during the survey (4.0/mi). Sampled Northern Pike measured 10.5, 12.4, 16.5 and 17.2 inches. Shea Lake was stocked with juvenile Northern Pike in 2014, 2015 and 2016.

Black Crappie

A total of three Black Crappies were sampled during the survey (3.0/mi). Sampled Black Crappies measured 6.7, 6.8 and 6.9 inches.

Other Species

One Yellow Perch (2.6 inches), three Pumpkinseed (3.9, 4.9 and 5.2 inches), three Yellow Bullheads (5.7, 10.0 and 11.8 inches), one Golden Shiner, and one Central Mudminnow were also sampled during the survey.

For more information please contact:

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