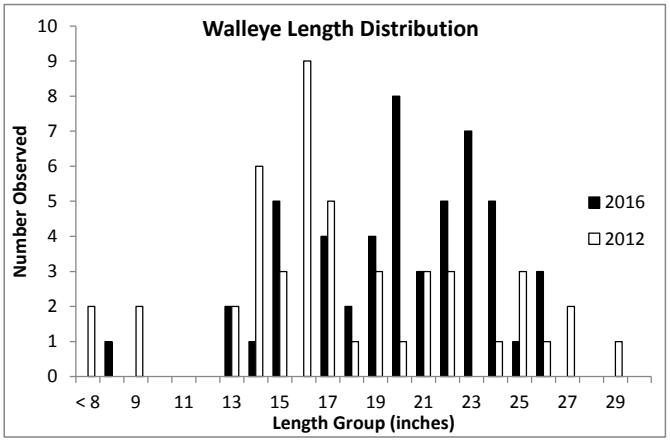
WISCONSIN DNR
FISHERIES INFORMATION SHEET

LAKE: Keyes **COUNTY:** Florence **YEAR:** 2016

The Wisconsin Department of Natural Resources conducted a comprehensive survey of Keyes Lake, Florence County, to analyze the health of its fishery. Keyes Lake is located approximetly 3 miles west of Florence, with a boat landing located at the county park on HWY 101. Keyes Lake covers 202 acres and achieves a maximum depth of 77 feet.



* Note: Adult walleye are defined as all sexually mature fish and all fish of unknown sex ≥ 15 inches long.

Walleye

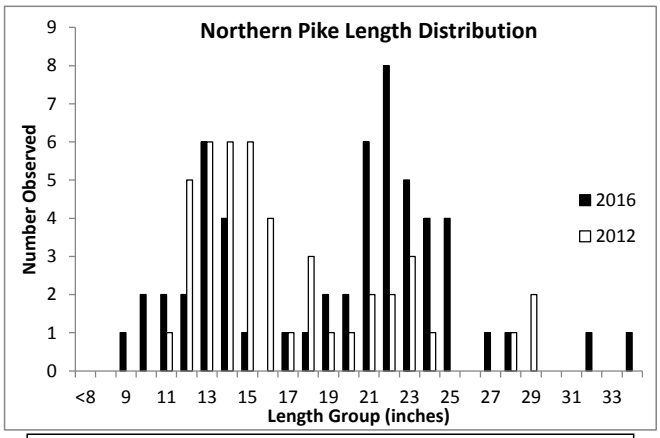
A mark-recapture survey was conducted to estimate the abundance of adult walleye in Keyes Lake. Over a four day period in April a total of 51 different walleye were captured during fyke net and electrofishing surveys. Based on our survey data we estimate the adult walleye population in Keyes Lake to be approximately 61 fish (0.30/acre), which is considered a very low abundance. The walleye population has decreased an estimated 33% since 2012, when the adult population was estimated at 0.45 fish/acre.

Every walleye captured was measured to assess the size structure of the population. Size structure of walleye in Keyes Lake is very high with approximately 94% of the fish sampled being ≥ 15 inches and 64% ≥ 20 inches. The largest walleye captured during 2016 was 26.5 inches in length.

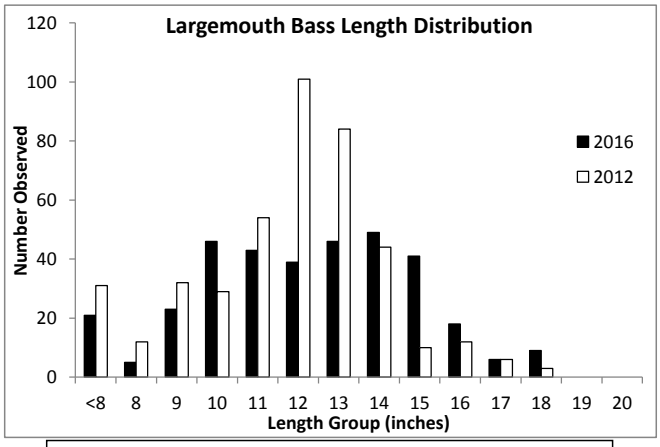
Northern Pike

Northern Pike were captured and marked with an identifiable fin clip during our spring fyke net survey. A second sample of northern pike were captured during netting and electrofishing surveys conducted between 5/16 and 6/14 to estimate the population of adult (≥ 12 inches) northern pike. The data collected from these surveys estimate the adult population to be approximately 126 fish (0.63/acre), a low density of northern pike.

Every Northern Pike captured during the 2016 survey was measured to assess size structure. During 2016, approximately 74% of the northern pike captured were ≥ 21 inches and 30% were ≥ 24 inches. This is a substantial increase in size structure since 2012, when only 27% were ≥ 21 inches and 13% were ≥ 24 inches in length.



* Note: Adult northern pike are defined as all sexually mature fish and all fish of unknown sex ≥ 12 inches long.



* Note: Adult bass are defined as all bass ≥ 8 inches long.

Largemouth Bass

Largemouth bass were captured during the spring fyke net survey, 6 electofishing surveys conducted between 4/21 and 6/2, and a late spring fyke net survey from 6/14-15/2016 to estimate the abundance of largemouth bass ≥ 8.0 inches in Keyes Lake. After analyzing the data the current largemouth bass population is estimated at approximately 594 fish (2.94/acre), a moderate abundance. Our data suggests a decrease in abundance of approximately 41% since 2012, when the largemouth population was estimated at 4.95 fish/acre.

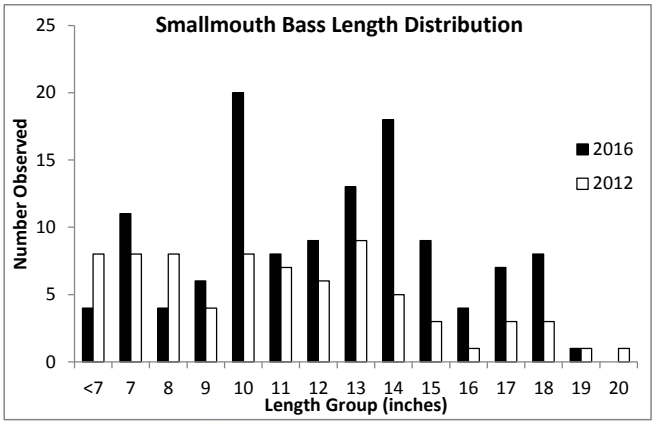
Every largemouth bass captured during 2016 was measured to assess the size structure of the largemouth bass population. Approximately 38% of the largemouth bass in this years sample were ≥ 14.0 inches and 10% were ≥ 16.0 inches. This is a major improvement from 2012 when only 19% were ≥ 14 inches and 5% were ≥ 16 inches in length. While size structure has improved dramatically, the size structure of the Keyes Lake population is still below the area average.

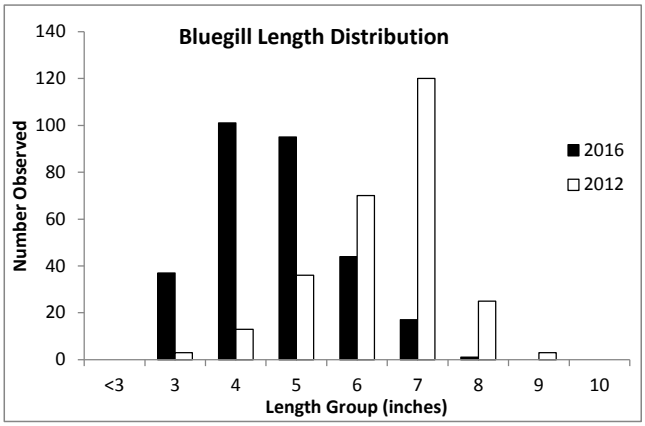
******Note:*** *When calculating percentages for size structure analysis, fish below "stock size" are removed to more accurrately portray the adult size structure***

Smallmouth Bass

The smallmouth bass population was assessed during the same surveys conducted for largemouth bass. The data from these surveys estimate the smallmouth bass population ≥ 8.0 inches to be approximately 209 fish (1.03/acre), a low density population.

A total of 122 different smallmouth bass were captured and measured to assess size strucutre during our survey. Approximately 40% of the 2016 sample was ≥ 14.0 inches while 14% was ≥ 17.0 inches. Like largemouth bass, the size structure of smallmouth bass has also increased since 2012, when only 25% of the fish were ≥ 14 inches and 12% were ≥ 17 inches in length. The current size structure in Keyes Lake is near average for this management area.





Bluegill

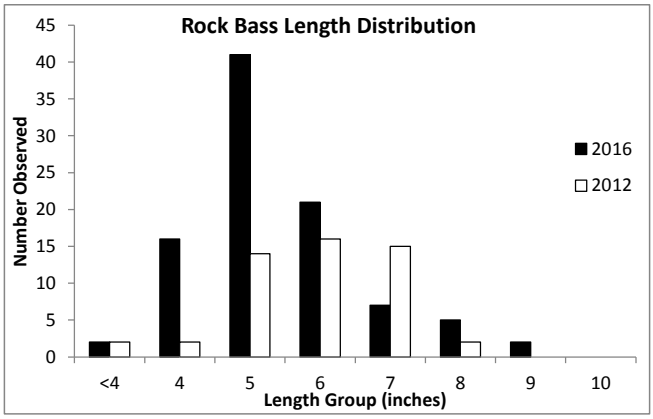
As completed during 2012, summer spawning pan fish were assessed using fyke nets in June. The data from this survey suggests that relative abundance of bluegill has increased over the past 4 years from 24.5 fish/net-night in 2012, to 36.9 fish/net-night in 2016.

While abundance has increased, the size structure of the bluegill population has decreased since 2012. Approximately 21% of this years catch was ≥ 6 inches while only 0.3% were ≥ 8 inches, compared to 81% and 10% in 2012. The current bluegill size structure in Keyes Lake is considered poor.

Rock Bass

The rock bass population was assessed during the June fyke net survey. Relative abundance of rock bass was measured at 11.75 fish/net-night, which is above the area average.

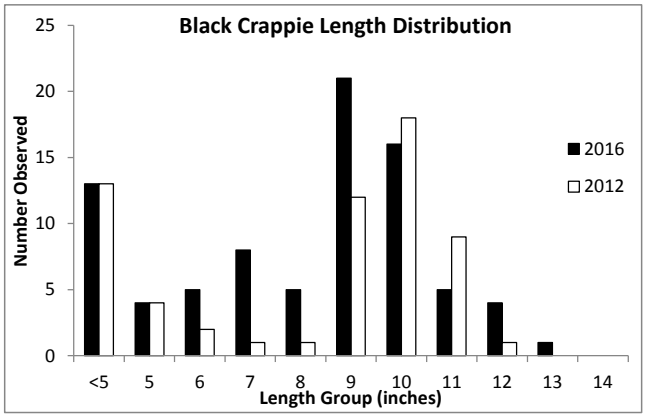
Rock bass size structure in Keyes Lake is poor with only 14% of the fish sampled being ≥ 7 inches in length.



Black Cappie

Black crappie abundance was measured at 0.7 fish/net-night during our spring survey and 3.0 fish/net-night during June. These values are similar to 2012 and indicate that black crappie are of low abundance.

As completed in 2012, a sample of black crappie were collected during spring electrofishing surveys to assess the size structure of the population. While size structure of black crappie has decreased, from 83% being ≥ 9 inches in 2012 to 68% in 2016, Keyes Lake continues to have a desirable size structure of black crappie.



Other Species

Other species captured at low abundance during the 2016 survey include; white sucker, yellow perch, black bullhead, and yellow bullhead.

This report is interim only; data and findings should not be considered final.
For answers to questions about fisheries management activites and plans for Keyes Lake contact:

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