

Lake of the Woods Stock Status Update, 2023

Walleye

- Walleye catch in the 2023 gill net sample averaged 21.1 per net, above the 2002 to 2022 average of 16.2 (Figure 1). The 3-year average for abundance exceeded the management goal (13.9 per net). Current Walleye abundance this September is highest observed since 2016 (24.4 per net).
- The 2011-, 2013-, 2014 and 2021-year classes were strong, while 2015-, 2016 and 2018-year classes are of average strength (Figure 2). The 2017-, 2019-, and 2020-year classes are below average to weak. Early observations of the 2022- and 2023-year classes are predicted to average to strong (based on trawl and gill net catches).
- Small Walleye 7 to 8 inches long are abundant (2022/2023 year-classes; Figure 3). Walleye from 11 to 13 inches were above average in 2023 (2021 year-class). Walleye 14 to 19 inches were at the historic average.

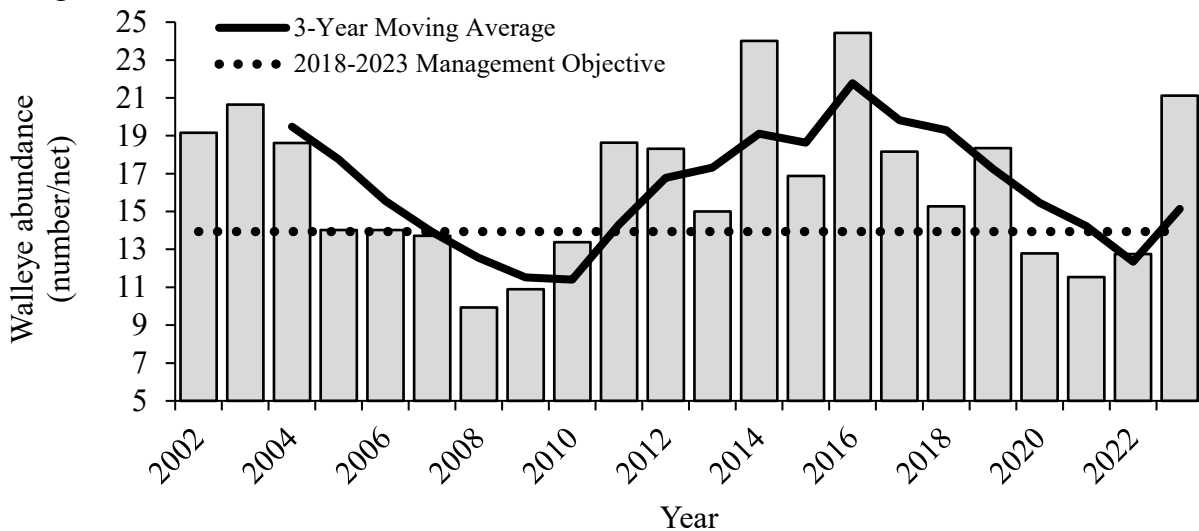


Figure 1. Average of near shore and offshore catch per unit effort of Walleye in September gill nets, 2002 through 2023.

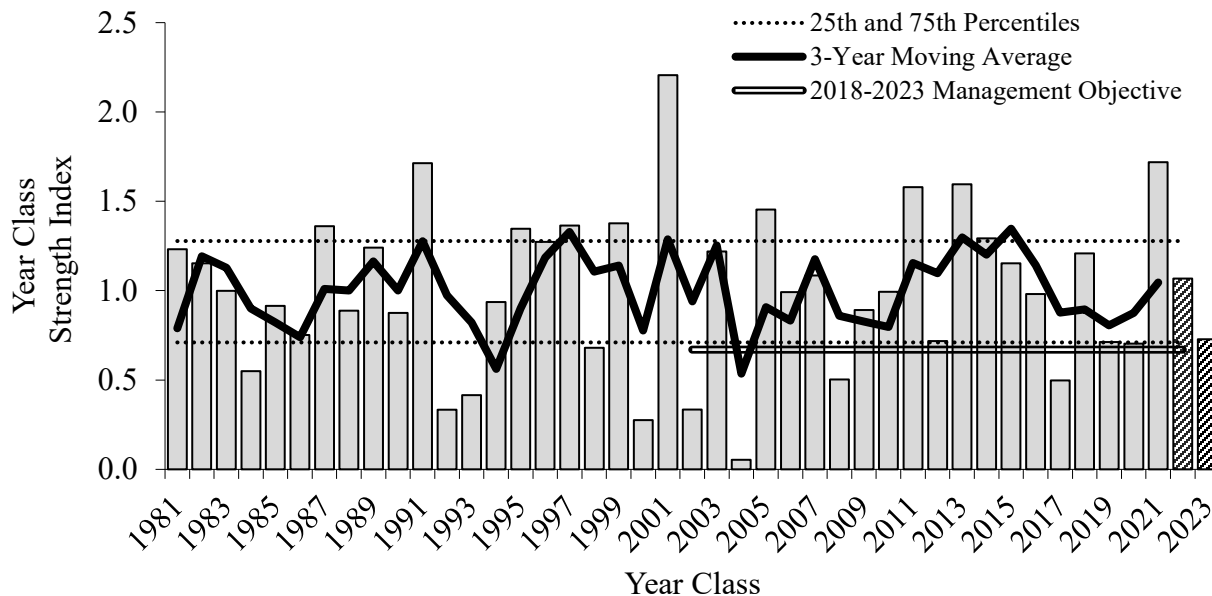


Figure 2. Year class strength of Walleye in Lake of the Woods from 1981-2021. Fished hatched in 2022 and 2023 are not considered fully vulnerable to gill nets; therefore, strength values are predicted.

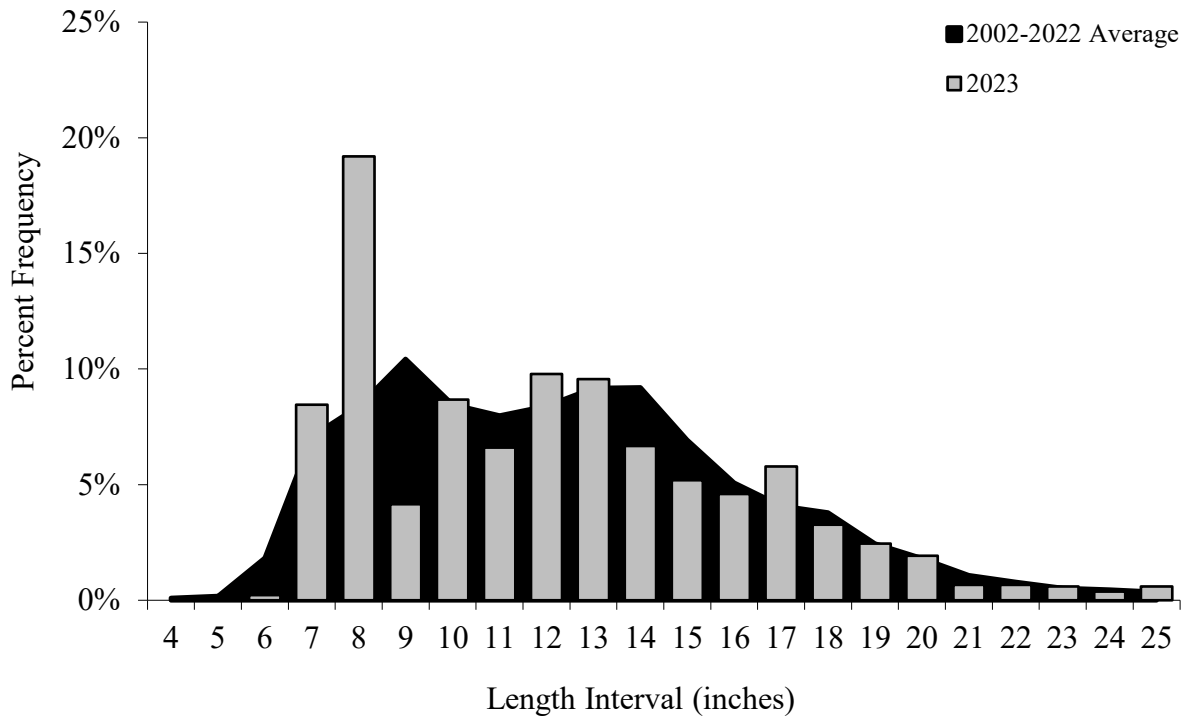


Figure 3. Walleye size distribution from 2023 fall gill net survey (gray bars). Shaded area denotes the average length frequency from 2002-2022.

Sauger

- Strong year classes were produced from 2014 to 2017 and 2019 and drove above average catches in recent years (Figures 4 & 5). Sauger exceeding 13 inches (Figure 6) are above average in abundance. Sauger, 9 to 12 inches, were below average as a result of recent average to weak year-classes produced in 2020/2021. Small Sauger 8 to 9 inches were abundant in 2023 and were comprised of fish hatched in 2022 (a possible indication that this year-class will be stronger than predicted).

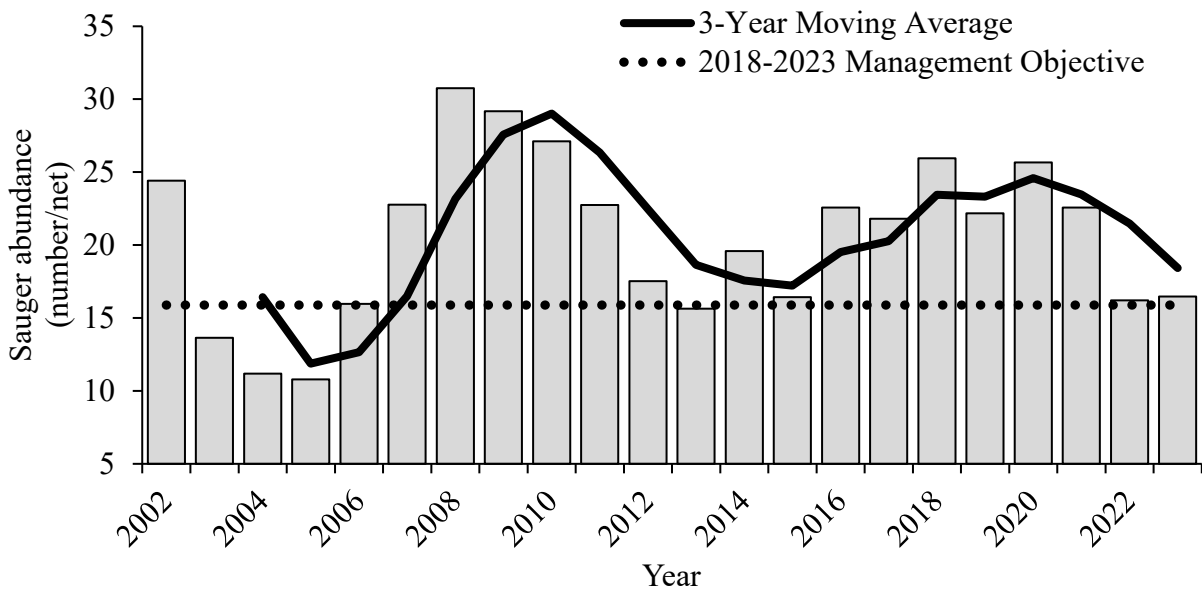


Figure 4. Average of near shore and offshore catch per unit effort of Sauger in September gill nets, 2002 through 2023.

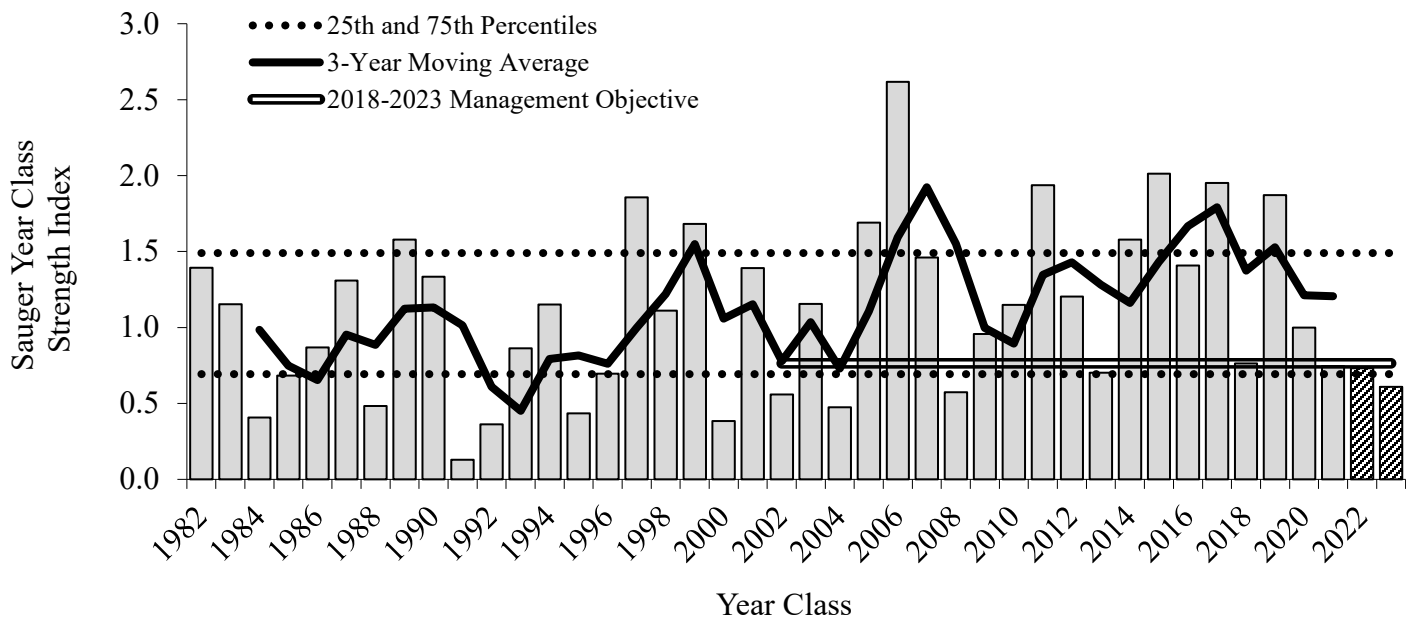


Figure 5. Year class strength of Sauger in Lake of the Woods from 1982-2023. Fished hatched in 2022 and 2023 are not considered fully vulnerable to gill nets; therefore, strength values are predicted.

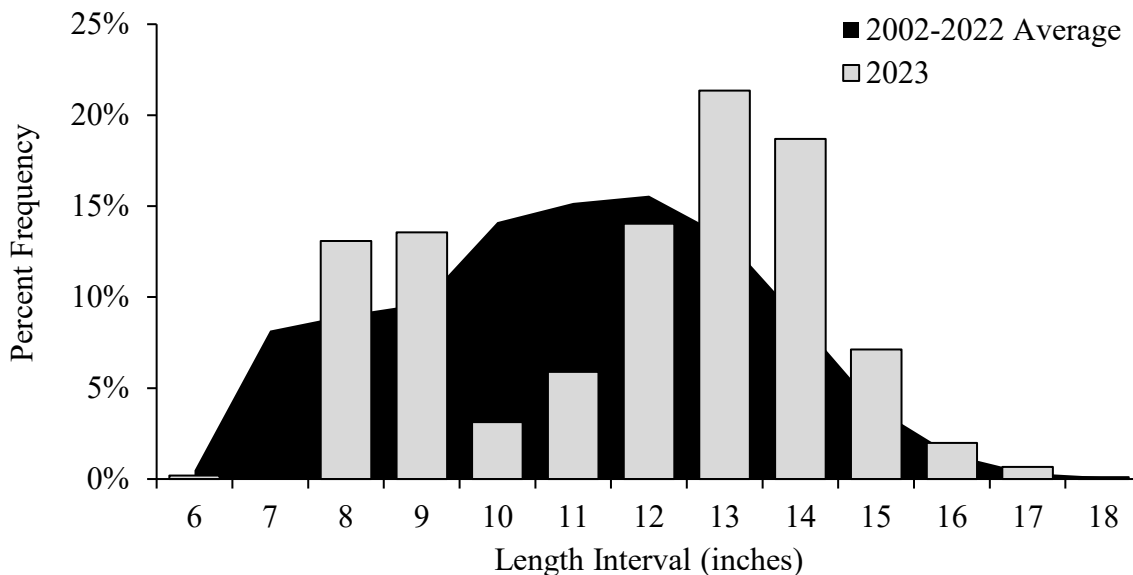


Figure 6. Sauger size distribution from 2023 fall gill net survey (gray bars). Shaded area denotes the average length frequency from 2002-2022.

Creel Survey Highlights

- Winter 2022 - 2023: Winter fishing pressure was estimated at 3.2 million angler-hours, well above the six-year average. However, this past winter was the first total access-based design and as a result fishing pressure and catch rates are no longer comparable to historic estimates.
- Current six-year average winter harvest is just over 200,000 pounds for Walleye and 300,000 pounds for Sauger. Winter harvest in 2022-23 was 95,000 pounds for Walleye, and 120,000 pounds for Sauger (lowest Walleye harvest observed since 2016 and 2006 for Sauger).
- Summer 2023: Summer fishing pressure was at 600,000 angler-hours and is the lowest observed since the mid-2000s. Summer harvest in 2023 was 175,000 pounds for Walleye, and 45,000 pounds for Sauger (both also below the current six-year average).
- This upcoming winter (23-24), we'll be continuing to implement our total access-based survey (both counts and interviews) like other large lakes such as Mille Lacs, Upper Red Lake, and Leech Lake.