



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Fisheries Information Sheet

LAKE: Big Arbor Vitae

COUNTY: Vilas

YEAR: 2023

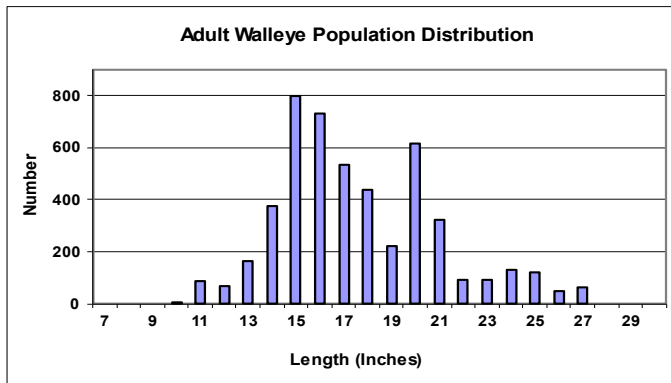
Introduction

The Department of Natural Resources surveyed Big Arbor Vitae Lake in Vilas County from May 6-11 and May 31 to assess the status of the game fish populations. Big Arbor Vitae Lake is a drainage lake with clear water of low to moderate transparency depending upon algal production. It has a surface area of 1,090 acres, predominantly sand and gravel substrates, 7.8 miles of shoreline and a maximum depth of 41 feet. Big Arbor Vitae Lake's walleye population is sustained through natural reproduction, while the muskellunge population is supplemented by stocking.



WALLEYE

During three days of walleye-targeted fyke netting, 1,176 adult walleyes (sexually mature or ≥ 15 inches) were captured and marked with a fin clip. Crews then sampled with electrofishing boats and caught 410 adult walleyes. During electrofishing, 30% (121 of 410) of walleyes bore the fin clip applied during fyke netting. Based on those results, Big Arbor Vitae Lake was estimated to contain 4,893 adult walleyes (4.5/acre).

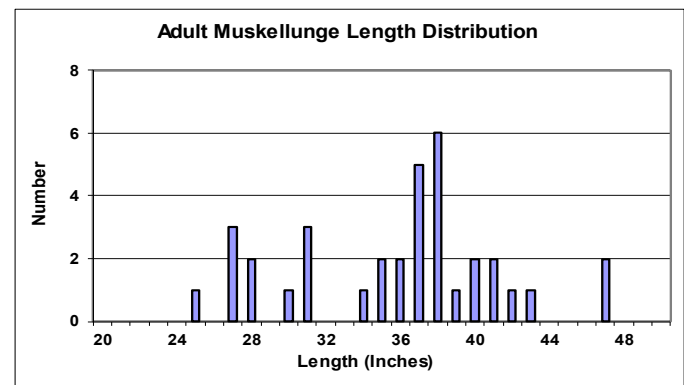


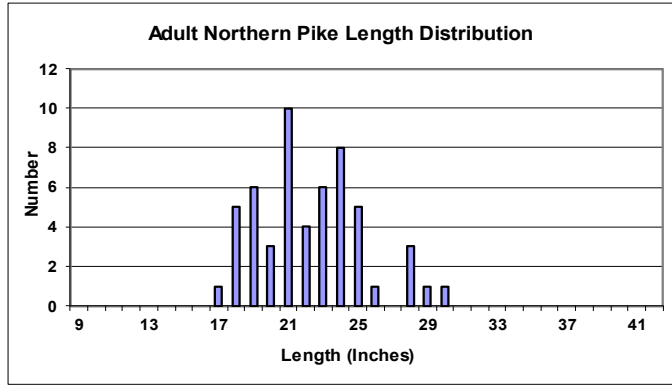
An estimated 86% of adult walleyes were 15 inches or longer. The largest walleye caught was a 27.7-inch female.



MUSKELLUNGE

During fyke netting and electrofishing sampling, 34 adult muskellunge (sexually mature or ≥ 30 inches) were caught. Of the adult muskellunge, 24% (8 of 34) were 40 inches or longer, the largest at 47.8-inches. Additionally, 13 juvenile muskellunge (12.0 - 27.4 inches) were also caught.





NORTHERN PIKE

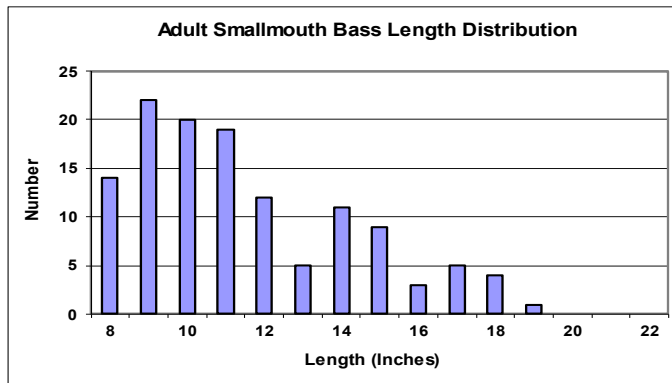
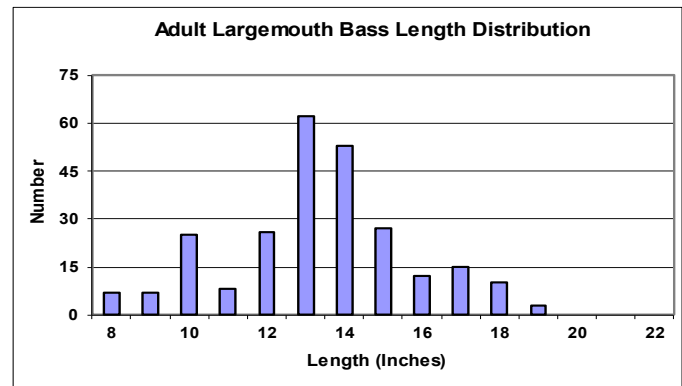


Sampling Big Arbor Vitae Lake between May 4 and May 11 resulted in the catch of 54 adult northern pike, sexually mature or ≥ 12 inches. Six (11%) of those pike were greater than 26 inches long, the largest measuring 30.7 inches.

LARGEMOUTH BASS



Survey sampling resulted in 265 largemouth bass caught. Of the 265 caught, 255 were considered adults (sexually mature or ≥ 8 inches) and 47% were 14 inches or longer, the largest measuring 19.7 inches. During the May 31 electrofishing survey, adult largemouth bass were caught at a high rate of 24.9 per mile of shoreline (25.9/mi for all largemouth bass).



SMALLMOUTH BASS



Survey sampling conducted through May 31 resulted in 130 smallmouth bass being caught. Of the 130 caught, 125 were considered adults (sexually mature or ≥ 8 inches) and 26% were 14 inches or longer, the largest measuring 19.2 inches. During the May 31 electrofishing survey, adult smallmouth bass were caught at a high rate of 18.5 per mile of shoreline (19.2/mi for all smallmouth bass).

OTHER SPECIES

In addition to the game fish mentioned above, fyke netting and electrofishing sampling efforts in Big Arbor Vitae Lake resulted in the catch of 11 species of fish; black crappie, bluegill, pumpkinseed and yellow perch were common in survey catches. Other species caught included bowfin, burbot, golden shiner, log perch, rock bass, white sucker and yellow bullhead.

Table 1. Special fishing regulations for Big Arbor Vitae Lake, in Oneida County, Wisconsin. Regulations for species not listed below follow the "General Inland Waters" rules found within the state fishing regulations pamphlet.

SPECIES	SEASON DATES	DAILY BAG LIMIT	SIZE LIMIT
walleye	May 6 - March 3	3	No min, 1 over 14 inches

Acknowledgements & Questions

This report was compiled by DNR fisheries technician Mark Love. For answers to questions about findings within this report, contact the treaty fisheries biologist. For questions regarding fisheries management activities on Big Arbor Vitae Lake, contact the Vilas County biologist.

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