



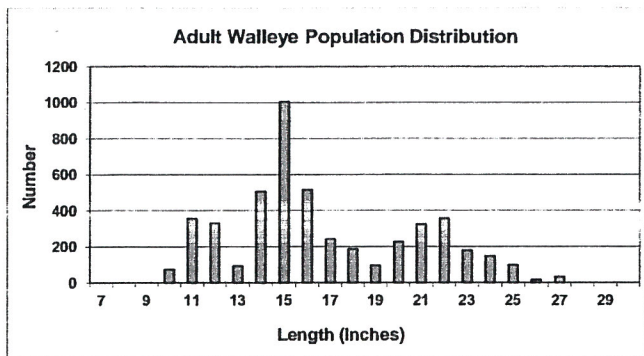
**WISCONSIN DNR
FISHERIES INFORMATION SHEET**

LAKE: BIG ARBOR VITAE

COUNTY: VILAS

YEAR: 2017

The Department of Natural Resources surveyed Big Arbor Vitae Lake, Vilas County, from April 11th through May 23rd, to assess the status of the gamefish populations. Big Arbor Vitae Lake is a drainage lake with predominantly sand and gravel substrates. It has a surface area of 1,090 acres, 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.



* Note: Adult walleye are defined as all sexable walleye (regardless of length) and those of unknown sex ≥ 15 inches in length.

Walleye



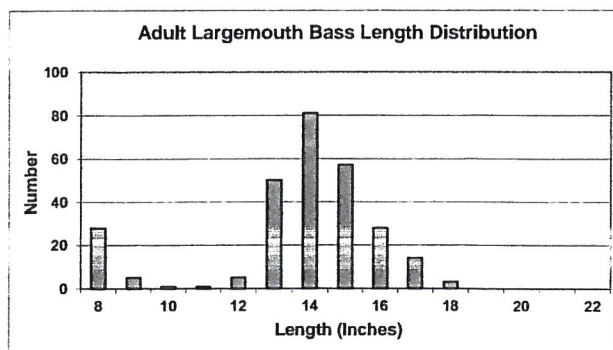
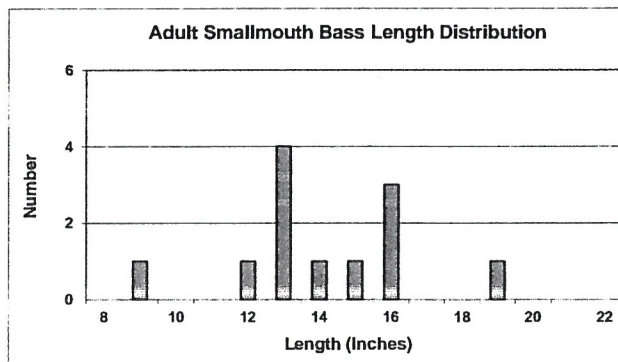
During seven days of fyke netting, 1,191 adult walleye were captured and marked with a fin clip. Two crews then sampled with electrofishing boats and captured 588 adult walleye. During electrofishing 32% (186 of 588) of captured walleye bore the fin clip given during fyke netting. The largest walleye we captured was a 27.7-inch female.

Based on those results, Big Arbor Vitae Lake was estimated to contain 4,475 adult walleye (4.4/acre). An estimated 72% of adult walleye were 15 inches long or larger.

Smallmouth Bass



During sampling conducted through May 23rd, 12 smallmouth bass eight inches or larger were captured. Of those smallmouth captured, 50% were 14 inches long or larger, and the largest was 19.8 inches. Due to the low number of smallmouth bass captured during the survey, we were unable to reliably estimate their population size.



Largemouth Bass



During sampling conducted through May 23rd, 273 largemouth bass eight inches or larger were captured (94 less than eight inches were also captured). Of those largemouth captured eight inches or larger, 67% were also 14 inches long or larger, and the largest was 18.7 inches. We were also unable to capture and mark a sufficient number of largemouth bass from Big Arbor Vitae Lake to reliably estimate their population size.

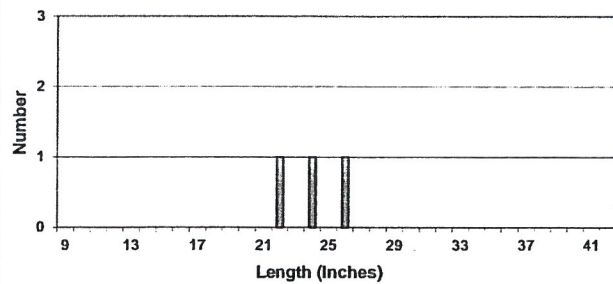
Northern Pike



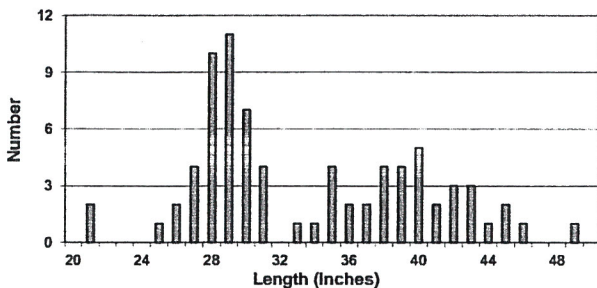
Only three adult northern pike were captured during our surveys of Big Arbor Vitae Lake. The largest northern pike captured was a 26.2-inch male.

* Note: Adult northern pike are defined as all sexable northern pike and those of unknown sex ≥ 12 inches in length.

Adult Northern Pike Length Distribution



Adult Muskellunge Length Distribution



Muskellunge



During our fyke netting and electrofishing sampling of Big Arbor Vitae Lake, 75 adult muskellunge were captured. Of the adults captured, 24% (18 of 75) were 40 inches long or larger, with the largest being a 49.5-inch female. Additionally, 25 juvenile muskellunge (12.0" - 21.8") were also captured.

* Note: Adult muskellunge are defined as all sexable muskellunge and those of unknown sex ≥ 30 inches in length.

Other Species

In addition to the gamefish mentioned above, 14 species of fish were captured during fyke netting and electrofishing sampling of Big Arbor Vitae Lake. Bluegill, Black Crappie, and Yellow Perch were common in our catches. Also caught were moderate numbers of Pumpkinseed and Rock Bass. Other species captured included White Sucker, Yellow and Black Bullheads, Bowfin, Burbot, Golden and Common Shiners, Creek Chub, and Brook Stickleback.

A creel survey will be conducted on Big Arbor Vitae Lake throughout the 2017-18 fishing season. Creel clerks John Davis and Dale Peterson will count and interview anglers and examine their catch. The information gathered will be used to estimate angler fishing effort, catch and harvest.

Table 1. General Fishing Regulations for Big Arbor Vitae Lake, Vilas County, 2017-18.

FISH SPECIES	OPEN SEASON	DAILY LIMIT	MINIMUM LENGTH
Walleye	May 6 - March 4	3	No minimum length, only 1 fish over 14" allowed
Largemouth Bass	May 6 - March 4	5 in total with SMB	14 inches
Smallmouth Bass	May 6 - June 16 (C&R) June 17 - March 4 (Harvest)	5 in total with LMB; harvest season only	14 inches
Muskellunge	May 27 - Nov. 30	1	40 inches
Northern Pike	May 6 - March 4	5	None

A brief summary of selected fishing regulations for Big Arbor Vitae Lake is included above (Table 1). While the regulatory information provided was current at the time the surveys were conducted, it is not comprehensive and should not be used as a substitute for the current fishing regulation pamphlet. You may obtain a copy of current fishing regulations when you purchase your fishing license, or download a copy from our web site at:

<http://dnr.wi.gov/topic/fishing/regulations/>

This report is interim only; Watch for finalized summaries at: <http://dnr.wi.gov/topic/fishing/north/trtysprngsrvys.html>. Creel survey results should be available by August 2018 at: <http://dnr.wi.gov/topic/fishing/north/trtyclrsrvys.html>. For questions, contact:

Lawrence Eslinger, Treaty Fisheries Biologist
Wisconsin Department of Natural Resources
8770 Highway J
Woodruff, WI 54568
(715) 356-5211 Ext. 209

For answers to questions about fisheries management activities and plans for Big Arbor Vitae Lake, Vilas County, contact:

Hadley Boehm, Fisheries Biologist
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WALLEYE SPEAR HARVEST on Big Arbor Vitae Lake

Year	Quota	Harvest	% Male	% Female	% Unknown	Male Avg. Length	Female Avg. Length	Unknown Avg. Length	All Fish Avg. Length
2016	905	905	84.9	8.6	6.5	15.4	20.9	17.9	16.1
2017	470	470	90.2	8.1	1.7	15.9	22.1	17.3	16.4
2018	650	650	82.4	9.7	7.9	14.7	22.4	18.3	15.8

MUSKY SPEAR HARVEST (Spring) on Big Arbor Vitae Lake

Year	Quota	Harvest	% Male	% Female	% Unknown	Male Avg. Length	Female Avg. Length	Unknown Avg. Length	All Fish Avg. Length
2016	10	9	44.4	22.2	33.3	36.5	38.4	36.5	36.9
2017	13	12	16.7	8.3	75.0	34	45	39.6	39.1
2018	22	18	44.4	22.2	33.3	38.4	42.2	32.6	37.3