The Department of Natural Resources surveyed Little Arbor Vitae Lake, Vilas County, from April 11th through May 31st, to assess the status of the gamefish populations. Little Arbor Vitae Lake is a drainage lake with sand, gravel, and rock substrates. It has a surface area of 534 acres, 7.1 miles of shoreline, and a maximum depth of 32 feet. Little Arbor Vitae Lake's walleye and musky populations are sustained through a combination of natural reproduction and stocking.

Survey crews were unable to capture and mark a sufficient number of largemouth bass from Little Arbor Vitae Lake to estimate the population abundance. During fyke net and electrofishing sampling conducted through the end of May, 106 largemouth bass eight inches or larger were captured. Of those largemouth captured, 94% were 14 inches long or larger. The largest largemouth captured was 18.9 inches long.

During four days of fyke netting, 924 adult walleye were captured and marked with a fin clip. Two crews then sampled with electrofishing boats and captured 225 adult walleye. During electrofishing 43% (96 of 225) of captured walleye bore the fin clip given during fyke netting. The largest walleye captured was a 27.7-inch female.

Based on those results, Little Arbor Vitae Lake was estimated to contain 2,059 adult walleye (3.9/acre). An estimated 61% of adult walleye were 15 inches long or larger.

Survey crews were unable to capture and mark a sufficient number of smallmouth bass from Little Arbor Lake to estimate the population abundance. During fyke net and electrofishing sampling conducted through the end of May, 158 smallmouth bass eight inches or larger were captured. Of those smallmouth captured, 22% were 14 inches long or larger. The largest smallmouth captured was 18.4 inches long.

WISCONSIN DNR
FISHERIES INFORMATION SHEET

LAKE: LITTLE ARBOR VITAE
COUNTY: VILAS
YEAR: 2017

Walleye

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Smallmouth Bass

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Largemouth Bass

Survey crews were unable to capture and mark a sufficient number of largemouth bass from Little Arbor Vitae Lake to estimate the population abundance. During fyke net and electrofishing sampling conducted through the end of May, 106 largemouth bass eight inches or larger were captured. Of those largemouth captured, 94% were 14 inches long or larger. The largest largemouth captured was 18.9 inches long.

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Amended and Reviewed: March 2018, H. Boehm
File: VilasLittleArborVitae2017Comp.xlsx
Northern Pike

During sampling conducted between April 11-28, 40 adult northern pike were captured by fyke net. Of the adult northern pike captured, 33% (17 of 40) were greater than 26 inches long. The largest northern pike captured was a 34.5-inch female.

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

Muskellunge

During fyke net and electrofishing sampling of Little Arbor Vitae Lake, 40 adult muskellunge were captured. Of the muskellunge captured, 13% (13 of 40) were 40 inches long or larger, with the largest being a 46.8-inch female. Additionally, 11 juvenile muskellunge (11.2 - 28.9 inches) were also captured.

In spring of 2018, fyke nets will be used to conduct the recapture run to calculate a population abundance estimate for muskellunge in Little Arbor Vitae Lake.

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

Other Species

In addition to the game fish mentioned above, 12 additional species of fish were captured during fyke netting and electrofishing sampling of Little Arbor Vitae Lake. Bluegill, yellow perch, and black crappie were common in fyke net catches. Also caught were moderate numbers of pumpkinseed, white sucker, and bowfin. Other species sampled included golden shiner, rock bass, mottled sculpin, creek chub, bluntnose minnow, and Johnny darter.

A creel survey will be conducted on Little Arbor Vitae Lake throughout the 2017-18 fishing season. The information gathered will be used to estimate fishing effort in addition to angler catch and harvest.

Table 1. General Fishing Regulations for Little Arbor Vitae Lake, Vilas County, 2018

<table>
<thead>
<tr>
<th>FISH SPECIES</th>
<th>OPEN SEASON</th>
<th>DAILY LIMIT</th>
<th>MINIMUM LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walleye</td>
<td>May 5 - March 3</td>
<td>3</td>
<td>no minimum length limit, but only 1 fish over 14” may be kept</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>May 5 - March 3</td>
<td>5 in total with SMB</td>
<td>14 inches</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>May 5 - June 15 (C&amp;R) June 16 - March 3 (Harvest)</td>
<td>5 in total with LMB; harvest season only</td>
<td>14 inches</td>
</tr>
<tr>
<td>Muskellunge</td>
<td>May 26 - Nov. 30</td>
<td>1</td>
<td>40 inches</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>May 5 - March 3</td>
<td>5</td>
<td>none</td>
</tr>
</tbody>
</table>

A brief summary of selected fishing regulations for Little 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/

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

Hadley Boehm, Fisheries Biologist
Wisconsin Department of Natural Resources
8770 Highway J
Woodruff, WI 54568
(715) 356-5211 Ext. 246
Email: hadley.boehm@Wisconsin.gov

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

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

Creel survey results should be available by June 2018 at: http://dnr.wi.gov/topic/fishing/north/trtysprngsrvys.html.

For fisheries summary surveys for more lakes in the Ceded Territory visit: http://dnr.wi.gov/topic/fishing/north/trtysprngsrvys.html.

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