The Department of Natural Resources surveyed Plum Lake, Vilas County, from May 9th through May 18th, to assess the status of the adult Walleye and Muskellunge populations. The lake was also surveyed between June 4th and June 11th to further assess the bass populations. Plum Lake is a drainage lake with sand, rock, and muck substrates. It has a surface area of 1,033 acres, 14.5 miles of shoreline, and a maximum depth of 57 feet. Plum Lake's Walleye population is sustained through natural reproduction, while the Muskellunge population is maintained through stocking.

During sampling conducted through June 11th, we captured 186 Smallmouth Bass eight inches or larger; 84% were 14 inches or longer, and the largest was 20.4 inches. The Smallmouth Bass population in Plum Lake (eight inches or larger) was estimated to be 992 fish (1.0/acre).

During four days of targeted Walleye fyke netting, 907 adult Walleye were captured and marked with a fin clip. Three crews then sampled with electrofishing boats and captured 180 adult Walleye. During electrofishing 32% (57 of 180) 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, Plum Lake was estimated to contain 2,952 adult Walleye (2.9/acre). An estimated 87% of adult Walleye were 15 inches or longer.

During sampling conducted through June 11th, we captured 66 Largemouth Bass eight inches or larger; 74% were 14 inches or longer, and the largest was 19.6 inches. The Largemouth Bass population in Plum Lake (eight inches or larger) was estimated to be 196 fish (0.2/acre).
Northern Pike

From sampling between May 9th and May 12th, 146 adult Northern Pike were captured in Plum Lake. Just one Pike captured was greater than 26 inches long, a 32.2-inch female.

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

Muskellunge

During our fyke netting and electrofishing sampling of Plum Lake, 31 adult Muskellunge were captured. Of the adult Muskellunge, 45% (14 of 31) were 40 inches or longer, and the largest was a 49.8-inch female. Additionally, seven juvenile Muskellunge (18.5" - 28.3") 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, seventeen species of fish were captured during our fyke netting and electrofishing sampling of Plum Lake. Yellow Perch (2.3" - 7.6") were common in our fyke net catches. We also caught moderate numbers of Bluegill (2.3" - 8.3"), Black Crappie (5.4" - 9.7"), and Rock Bass (3.8" - 9.6"). Other species captured included Brook Trout (7.9" - 11.8"), Pumpkinseed, Yellow and Black Bullheads, Grass Pickerel, Burbot, Logperch, White Sucker, Greater Redhorse, Creek and Horneyhead Chubs, Common and Mimic Shiners.

A creel survey will be conducted on Plum Lake throughout the 2018-19 fishing season. A creel clerk 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 Plum Lake, Vilas County, 2018-19.

<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, 14-18&quot; no harvest slot, 1 fish over 18&quot; allowed</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>May 5 - March 3</td>
<td>1 in total with SMB</td>
<td>18 inches</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>May 5 - June 15 (C&amp;R) June 16 - March 3 (Harvest)</td>
<td>1 in total with LMB; harvest season only</td>
<td>18 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 Plum 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 June of 2019 at: http://dnr.wi.gov/topic/fishing/north/trtycrlsrvys.html. For questions, contact:

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

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