The Department of Natural Resources surveyed Two Sisters Lake, Oneida County, from April 13th through May 22nd, to assess the status of the gamefish populations. Two Sisters Lake is a spring-fed lake with predominantly sand and gravel substrates. It has a surface area of 719 acres, 9.3 miles of shoreline, and a maximum depth of 63 feet. Two Sisters Lake’s walleye population is sustained through a combination of natural reproduction and stocking, while the muskellunge population is supported solely through natural reproduction.

Walleye

During seven days of fyke netting, 323 adult walleye were captured and marked with a fin clip. Two crews then sampled with electrofishing boats and captured 86 adult walleye. During electrofishing 34% (29 of 86) of captured walleye bore the fin clip given during fyke netting. The largest walleye we captured was a 28.7-inch female.

Based on those results, Two Sisters Lake was estimated to contain 978 adult walleye (1.4/acre). An estimated 93% of adult walleye were 15 inches long or larger.

Smallmouth Bass

During sampling conducted through May 22nd, 24 smallmouth bass eight inches or larger were captured. Of those smallmouth captured, 29% were 14 inches long or larger, and the largest was 18.2 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 22nd, 80 largemouth bass eight inches or larger were captured. Of those largemouth captured, 15% were 14 inches long or larger, and the largest was 16.2 inches. We were also unable to capture and mark a sufficient number of largemouth bass from Two Sisters Lake to reliably estimate their population size.
Northern Pike

From sampling between April 13th and May 22nd, 141 adult northern pike were captured. Of those pike captured, 96% were less than 26 inches long, and the largest was a 30.7-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 Two Sisters Lake, 21 adult muskellunge were captured. Of the adults captured, 38% (8 of 21) were 40 inches long or larger, with the largest being two 47.7-inch females. Additionally, 4 juvenile muskellunge (12.1’’ - 18.8’’) 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 Two Sisters Lake. Bluegill (range: 2.7’’ - 7.6’’) and Rock Bass (3.1’’ - 8.8’’) were common in our catches. Also caught were moderate numbers of White Sucker and Black Crappie. Other species captured included Yellow and Black Bullhead, Yellow Perch, Pumpkinseed, Golden and Common Shiners, Mimic Shiner, Bluntnose Minnow, Mottled Sculpin, and Johnny Darter.

A creel survey will be conducted on Two Sisters Lake throughout the 2017-18 fishing season. Creel clerks Lauren Radtke and Doug Day 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 Two Sisters Lake, Oneida County, 2017-18.

<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 6 - March 4</td>
<td>3</td>
<td>18 inches</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>May 6 - March 4</td>
<td>5 in total with SMB</td>
<td>14 inches</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>May 6 - June 16 (C&amp;R)</td>
<td>5 in total with LMB; harvest season only</td>
<td>14 inches</td>
</tr>
<tr>
<td></td>
<td>June 17 - March 4 (Harvest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muskellunge</td>
<td>May 27 - Nov. 30</td>
<td>1</td>
<td>40 inches</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>May 6 - March 4</td>
<td>5</td>
<td>None</td>
</tr>
</tbody>
</table>

A brief summary of selected fishing regulations for Two Sisters 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 answers to questions about fisheries management activities and plans for Two Sisters Lake, Oneida County, contact:

Steve Gilbert, Woodruff Area Fisheries Supervisor
Wisconsin Department of Natural Resources
8770 Highway J
Woodruff, WI 54568
(715) 356-5211 Ext. 229
Email: stephen.gilbert@wisconsin.gov

Lawrence Eslinger, Treaty Fisheries Biologist
Wisconsin Department of Natural Resources
8770 Highway J
Woodruff, WI 54568
(715) 356-5211 Ext. 209
Email: lawrence.eslinger@wisconsin.gov

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