



Land & Water Conservation Department

Townline Lake

Oneida County, Wisconsin

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Land & Water Conservation Department

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Townline Lake AIS Boat Launch and Shoreline Surveillance Monitoring Report

WBIC: 1023100
Previous AIS Findings: Chinese Mystery Snails
New AIS Findings: None
Field Date: May 31, 2020
Field Crew: Aubrey Nycz, Lead AIS Project Assistant and Rachel Cook, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By: Aubrey Nycz

On June 6, 2020, Aubrey Nycz, AIS Lead Project Assistant, and Rachel Cook, AIS Project Assistant, visited the Townline Lake boat landing located on Townline Lake Park Road, in Oneida County, to perform an AIS landing check (Figure 1). The main duties performed at AIS landing checks are to inspect shoreline vegetation, shallow aquatic vegetation, deeper aquatic vegetation (via rake), look for invasive animals, and replace old signs if needed. A GPS unit can be used to mark where the AIS check is performed, and to also mark invasive organisms if found. For today's landing check, I used the GPS on my phone to gather coordinates.

Townline Lake is a 61 acre seepage lake with one public boat landing. The shoreline at the Townline Lake boat landing is mainly sand, and it holds a variety of native plants. Some of the plants that we observed were Pickerel Weed, Watershield, and Bullhead Pond Lilies.

Townline Lake contains Chinese Mystery Snails, however, we did not observe any while surveilling the shoreline near the boat landing. No new invasive species were detected either.

Figure 1. Map of Oneida County, WI with Townline Lake circled in red.

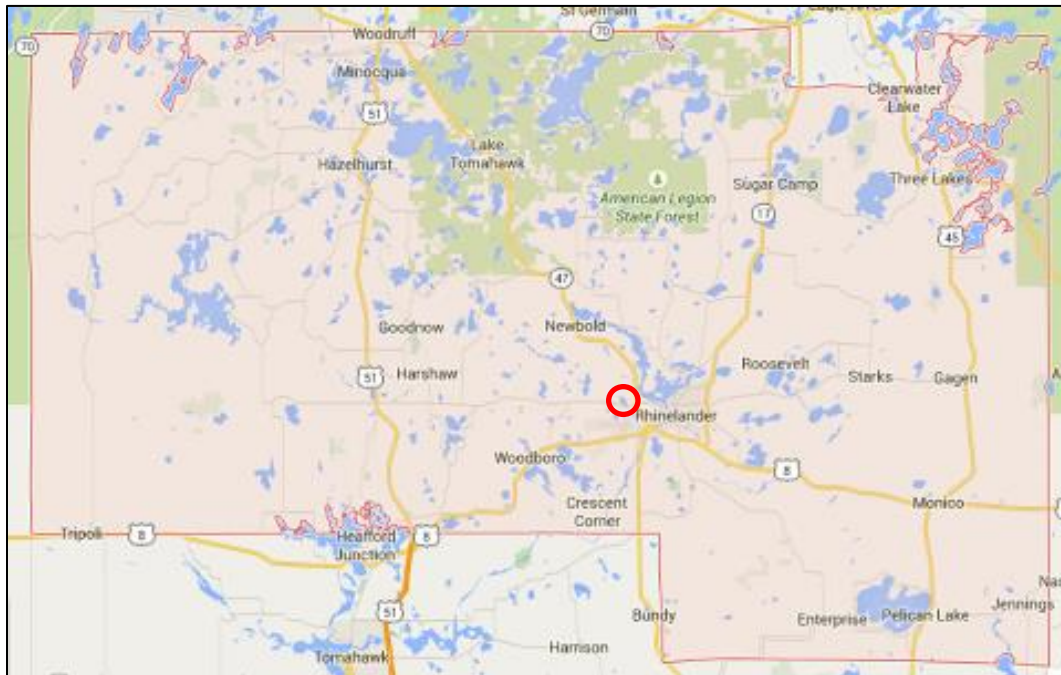
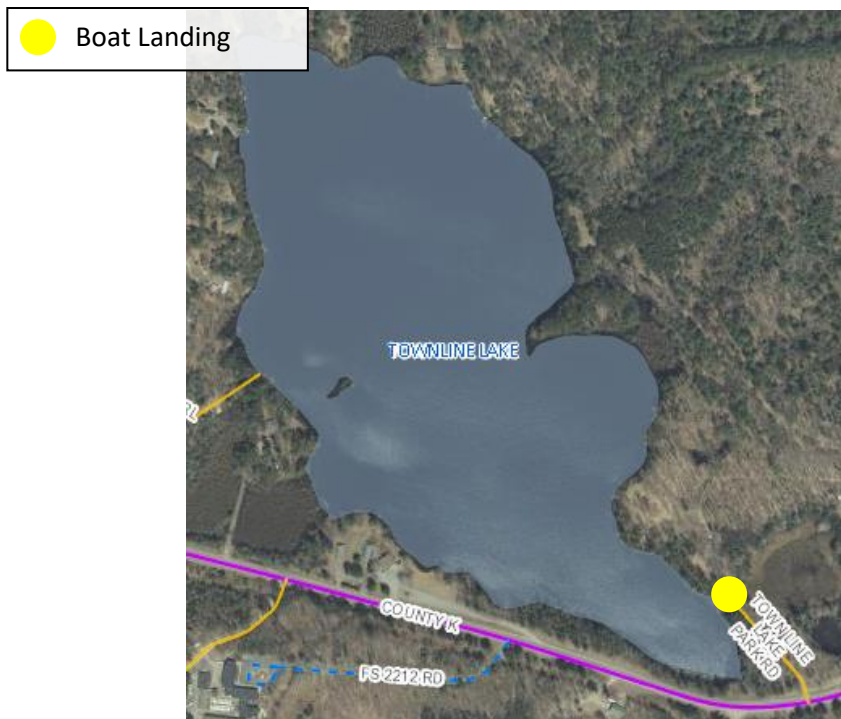


Figure 2. AIS Boat Launch and Shoreline Surveillance Monitoring Location.



Resources: <https://dnr.wi.gov/lakes/LakePages/LakeDetail.aspx?wbic=1023100&page=facts>

Townline Lake AIS Monitoring and Water Clarity Report

WBIC: 1023100
Previous AIS Findings: Chinese Mystery Snail
New AIS Findings: None
Field Date: June 22, 2017
Field Crew: Aubrey Nycz, AIS Project Leader, and Derek Thorn, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report by: Thomas Boisvert, Derek Thorn

Derek and Aubrey monitored Townline Lake on June 22, 2017. According to the WDNR, Townline Lake is a 61 acre mesotrophic lake located in Oneida County, with one public boat landing. Besides the public boat landing, the shoreline is adjacent to the Chequamegon-Nicolet National Forest which is also readily available to public use. Mesotrophic lakes such as Townline can be identified as lakes with intermediate levels of nutrients, intermediate levels of productivity, and moderate levels of algae and plant growth throughout the lake. The WDNR also states that Townline Lake has a maximum depth of 25 feet and a bottom structure composed of 35% sand, 5% gravel, 15% rock, and 35% muck.

The conditions while monitoring Townline Lake were not ideal. The air temperature was 72 degrees Fahrenheit, it was rainy, and there was a slight breeze creating some chop on the water surface. At times, the wind and rain made the monitoring challenging, as it was hard to maneuver the canoe and see beyond the water surface.

Our AIS monitoring consists of doing a complete shoreline scan around the lake via canoe, taking secchi disk readings, dissolved oxygen data, and conducting intense AIS checks at high risk areas. When monitoring, aquascopes and weed rakes are also used to help get a better understanding of what is on the surface floor. While conducting AIS monitoring notes are also taken on what native plants and animals are most common in the lake. The 7 most common plants observed on Townline Lake can be seen in table 2.

In order to gather water clarity and water quality data, Aubrey and Derek found the deep hole on Townline Lake. The secchi disk reading was taken first to determine the water clarity level on Townline Lake, and the reading was 10 feet out of a 25 foot maximum depth. They then used the dissolved oxygen meter to record the water temperature, the amount of oxygen (in milligrams per liter), and the water's dissolved oxygen percentage level. Tables and graphs displaying this data can be found below in table 1 and figures 3-5.

After completing the AIS monitoring on Townline Lake, Aubrey and Derek were pleased that no new invasives were found. Chinese Mystery Snails were found on Townline Lake, however, this invasive has already been noted in the past. Overall, Townline Lake seemed very healthy, and there should be no concerns for the lakes health at this time.

Findings:

Aquatic Invasive Species:

No New Invasive species were found.

Figure 1. Map of Townline Lake with the public boat landing represented by a yellow star, and the deep hole represented by a white triangle. The deep hole is where the depth, temperature, and two dissolved oxygen readings were taken.

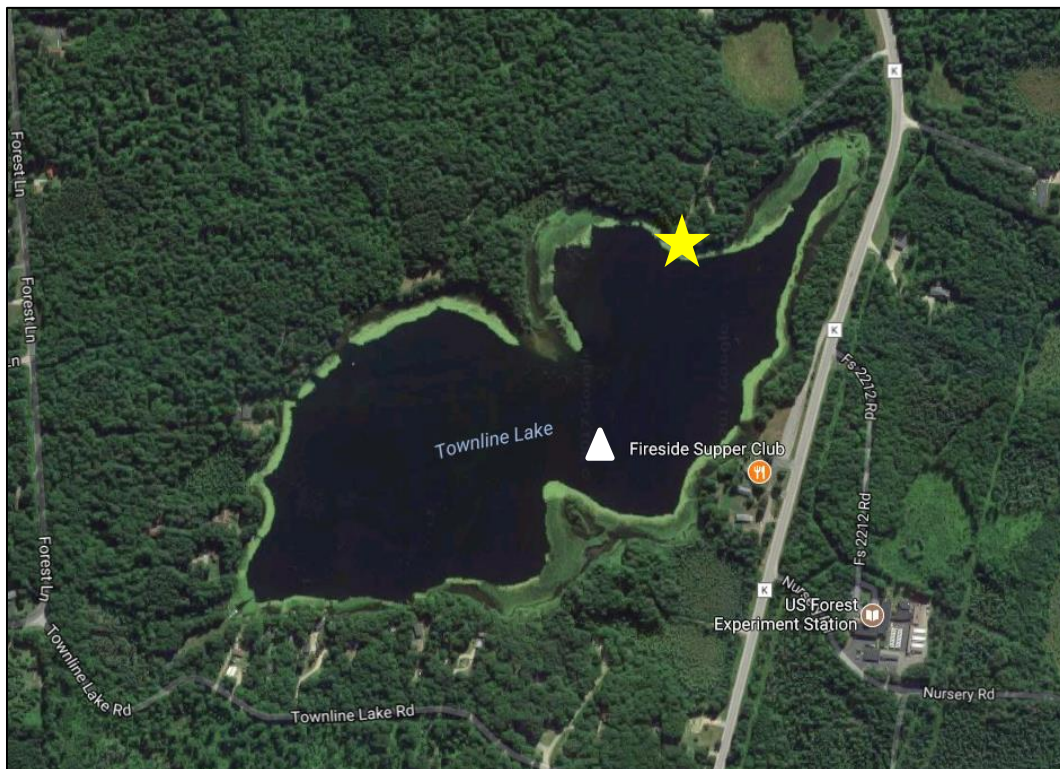


Figure 2. Map of Oneida County, WI with Townline Lake’s approximate location circled in red.



Table 1: Data of the deep hole where the depth, temperature, and two dissolved oxygen readings were taken.

Depth (ft.)	DO (Mg/L)	Temperature (°F)	%DO
2	8.16	77.1°	99.6
4	8.12	71.8°	99.2
6	8.08	71.7°	98.7
8	8.00	71.7°	97.6
10	7.10	70.3°	85.3
12	10.83	65.7°	123.7
14	11.23	60.9°	121.4
16	3.61	57.9°	37.6
18	0.33	55.9°	3.4

Figure 3: Graph displaying depth (ft.) compared to Dissolved Oxygen (Mg/L) in Townline Lake, Oneida County, WI.

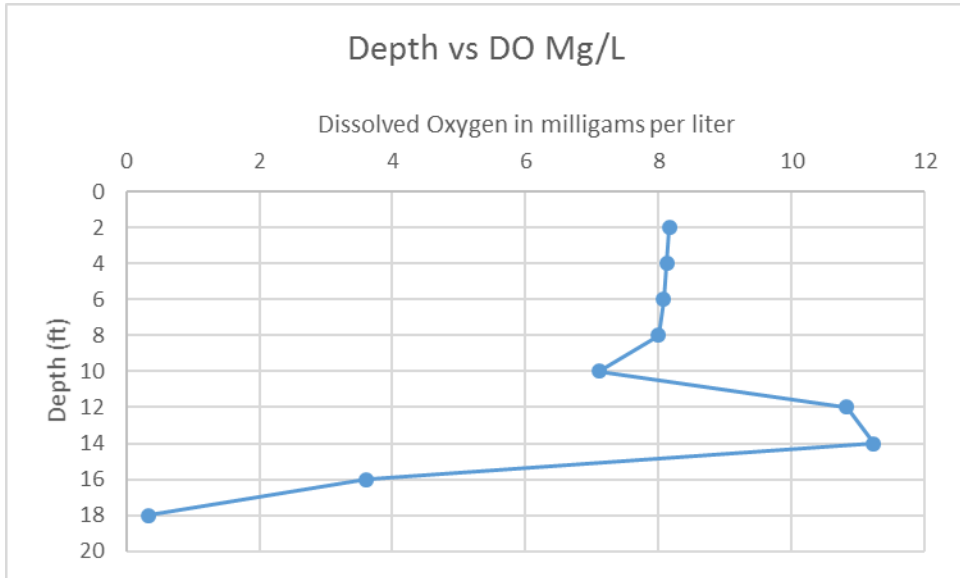


Figure 4: Graph displaying depth (ft.) compared to the temperature (°F) in Townline Lake, Oneida County, WI.

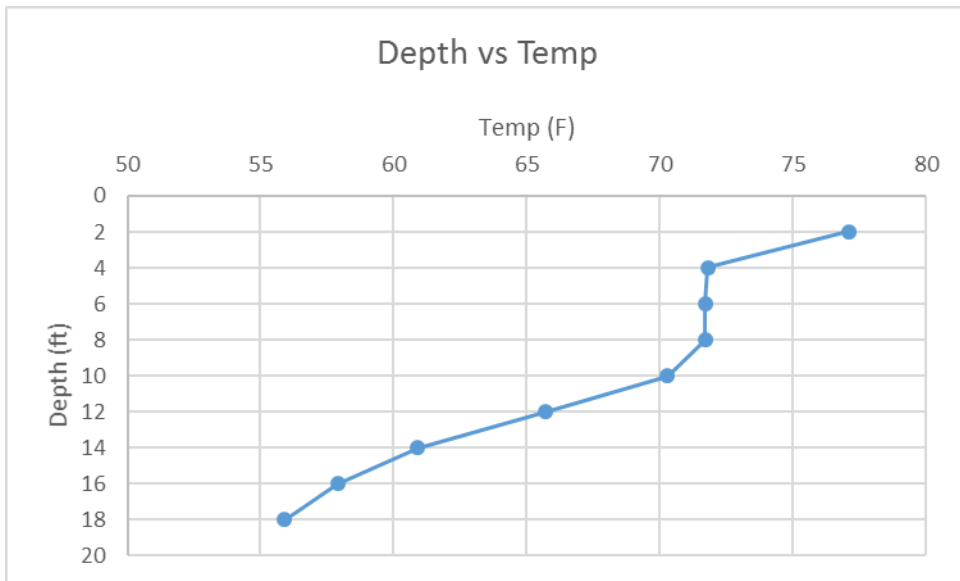


Figure 5: Graph displaying depth (ft.) compared to the percent of Dissolved Oxygen in Townline Lake, Oneida County, WI.

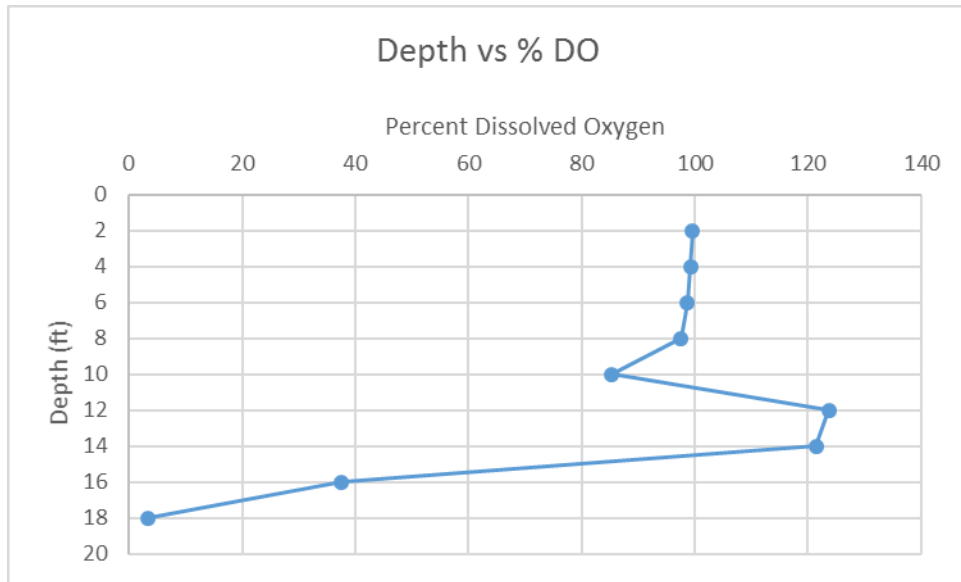









Table 2: Common plants found in Townline Lake

Scientific name	Common name	Photo
<i>Utricularia purpurea</i>	Large Purple Bladderwort	 <p>Photo Credit: frenchhill.org</p>
<i>Typha</i>	Broadleaf Cattail	 <p>Photo Credit: www.nwplants.com</p>
<i>Brasenia schreberi</i>	Watershield	 <p>Photo Credit: Shannon Sharp</p>

<p><i>Pontederia</i></p>	<p>Pickereel Weed</p>	 <p>Photo Credit: ediblewildfood.com</p>
<p><i>Nuphar lutea</i></p>	<p>Bullhead Pond lily</p>	 <p>Photo Credit: Jomegat's Weblog</p>
<p><i>Iris versicolor</i></p>	<p>Blue Flag Iris</p>	 <p>Photo Credit: Prairie Moon Nursery</p>
<p><i>Nymphaea odorata</i></p>	<p>White Water lily</p>	 <p>Photo Credit: Joseph A. Marcus</p>

Resources: WDNR