ONEIDA COUNTY LAND AND WATER CONSERVATION DEPARTMENT

Pickerel Lake

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Pickerel Lake AIS Monitoring and Water Clarity Report

Field Date:	July 26th, 2018
WBIC:	1583000
Previous AIS Findings:	Chinese Mystery Snail
New AIS Findings:	None
Field Crew:	Aubrey Nycz, AIS Project Leader, and Thomas Boisvert, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By:	Thomas Boisvert

On July 26th, 2018, Aubrey and I went to Pickerel Lake to implement AIS monitoring along with water clarity and quality assessments. Pickerel Lake is a 61 acre lake located in Oneida County, and has one unimproved public boat launch near a culvert. Pickerel Lake has a maximum depth of 5 feet, and the substrate is reported to be 45% sand, 0% gravel, 0% rock, and 55% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources reports that the lake has largemouth bass, walleye, and panfish present. We did not observe any fish species while out on Pickerel Lake and this may have been due to a stained water with limited visibility.

The weather while conducting research on Pickerel Lake was not ideal. The outside temperature was 70 degrees Fahrenheit, there was a steady rain, moderate wind, and the water clarity was poor. The poor weather conditions may have affected our measurements slightly, however, we still feel confident in our results.

When conducting our AIS lake survey, Aubrey and I did a complete shoreline scan while meandering in and out between different depths. We looked on the shoreline itself and also in the water, noting the plants and animals that we observed in the process.

To observe the water clarity and quality of Pickerel Lake, Aubrey and I went to what we thought was the deep hole towards the center of the lake. Pickerel Lake does not have a bathymetric map, so we attempted to find the deep hole with our sonar unit. After locating the deep hole, we used a Secchi disk to measure clarity and a dissolved oxygen meter to measure water health. Oxygen is needed for a

healthy fish population, and also for plants to respire at night as well. The measurements from the dissolved oxygen meter can tell us if the organisms in the lake would be under stress. Thankfully, both of these measurements were relatively average in nature, and there should be no concern for the health of Pickerel Lake. The Secchi disk reading was 1 foot, and the dissolved oxygen readings can be found in table 2.

Aubrey and I did not observe any new invasive species on Pickerel Lake. We were glad to see that no new invasive species were present at this time, and the lake seems to be healthy with many native plants present and thriving. The most common plants observed on Pickerel Lake can be seen below in table 1.

Findings: Taken 2:00 p.m. – 3:00 p.m. on July 26th, 2018

Aquatic Invasive Species: We did not find any new invasive species along the perimeter of Pickerel Lake.

Secchi: The Secchi reading on this lake was 1 foot out of a 5 foot maximum depth. The water color was a brownish color, and was murky when glancing across the lake.

Dissolved Oxygen: These measurements can be seen in Table 2.

Figure 1. Map of Oneida County, WI with Pickerel Lake circled in red (approximate location)

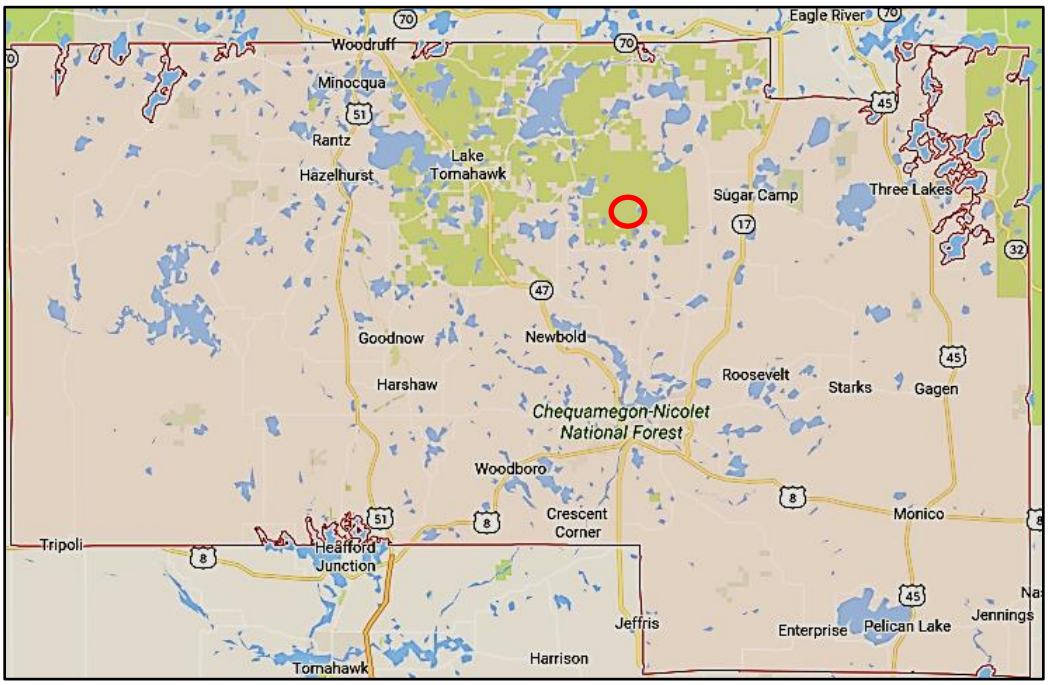


Figure 2. Map of Pickerel Lake with the location of the Secchi disk reading labeled.

Deep hole & location of Secchi disk reading

Secchi Disk Readings:
Pickerel Lake - Deep Hole
Coordinates - Not Available

Public Access

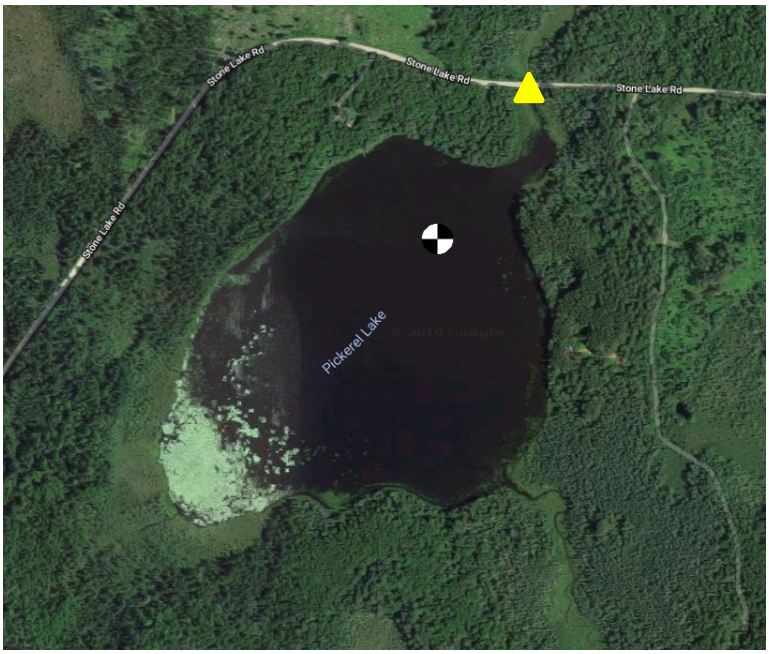
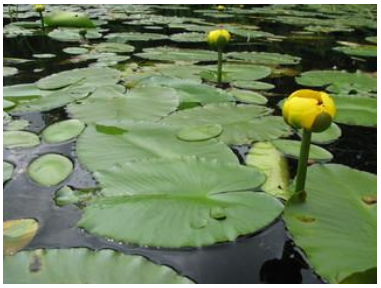


Table 1. Plants found in Pickerel Lake when monitoring.

Common Name Scientific Plant Name	Description	Image
Bullhead Pond Lily (Spatterdock) *Nuphar variegata*	An aquatic plant with heart-shaped leaves that can grow to be 15 inches long. This plant also has a yellow, cup-shaped flower. This plant is native.	 *Photo Credit: Jomegat's Weblog*
Water Shield *Brasenia schreberi*	An aquatic plant with stems up to 2 meters long. This plant has small floating leaves and reddish purple flowers that have 6-8 petals. This plant is native.	 *Photo Credit: Shannon Sharp*

Common Bladderwort *Utricularia macrorhiza*	An aquatic plant with leaves containing small sacks that trap small invertebrates. This plant usually has unrooted stems that easily tangle with other plants. In the water, this plant tends to look cloudy or slimy. This plant is native.	 *Photo Credit: frenchhill.org*
Pickerel Weed *Pontederia cordata*	An aquatic plant with thin, bright green leaves. Emergent leaves tend to be arrow shaped with 6 parted, blue flowers. This plant is native.	 *Photo Credit: ediblewildfood.com*

Table 2. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)	Percent Dissolved Oxygen
1	6.11	71.1	73.7
2	6.07	71.3	73.4
3	6.03	71.3	73.0
4	5.86	71.4	70.9
5	5.74	71.4	69.5