

Hawk Lake

Page 1: AIS Monitoring and Water
Clarity Report of August 5,
2020



Land & Water Conservation Department

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Hawk Lake AIS Monitoring and Water Clarity Report

Field Dates: August 5th, 2020
WBIC: 988800
Previous AIS Findings: None
New AIS Findings: None
Field Crew: Aubrey Nycz, AIS Project Leader, and Rachel Cook, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By: Rachel Cook

On August 5th, 2020, Aubrey and I went to Hawk Lake for AIS monitoring and to assess water clarity and quality. Hawk Lake is a very small 10-acre mesotrophic seepage lake in Oneida County. It has one public carry-in boat landing located on the north-eastern side of the lake, off Kildeer Road (seen in Figure 2). The shoreline of Hawk Lake is completely occupied by state-owned land which has walking trails. The lake has a maximum depth of 28ft, and the substrate is reported to be 99% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources also reports that the lake has trout, largemouth bass, and panfish present.

The weather while conducting research on Hawk Lake was ideal. The outside temperature was 72 degrees Fahrenheit, the sky was mostly sunny and there was a slight breeze. It was easy to maneuver the canoe in and out of the wetland areas and visualize the very diverse plants there and under the surface of the water. We began monitoring at the boat landing and paddled around the lake in a clockwise direction. Aubrey and I did a complete shoreline scan while meandering in and out with the canoe between different depths. We looked on the shoreline itself and also in the water, noting the plants and animals we had observed in the process.

To observe the water clarity and quality of Hawk Lake, Aubrey and I went to the deep hole towards the middle of the lake. After locating the deep hole with our sonar unit, we used a Secchi disk to measure water clarity and a dissolved oxygen meter to measure water health. Oxygen is needed for a healthy fish population, and for plants to respire at night. The measurements from

the dissolved oxygen meter can tell us if the organisms in the lake are under stress. Both of these measurements were normal for this lake, and there should be no concern for the water health on Hawk Lake. The Secchi disk reading was 7 feet, which is surprisingly clear for a dark red colored lake like this one, and the dissolved oxygen readings can be found in table 2.

We did not find any invasive species on Hawk Lake. There were many native plants and animals present and thriving, including plants like Pitcher Plant, Sundews, Watershield, and Common Bladderwort, as well as animals like frogs, ospreys, and loons. The plants commonly seen on Hawk Lake are listed below in Table 1.

Findings: Taken 1:30 p.m. – 2:30 p.m. on August 5th, 2020

Aquatic Invasive Species:

No invasive species were found on Hawk Lake

Secchi: The Secchi reading on this lake was 7 feet out of a 30 foot maximum depth. The water looked a little dark and had a red color, but was fairly clear.

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

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

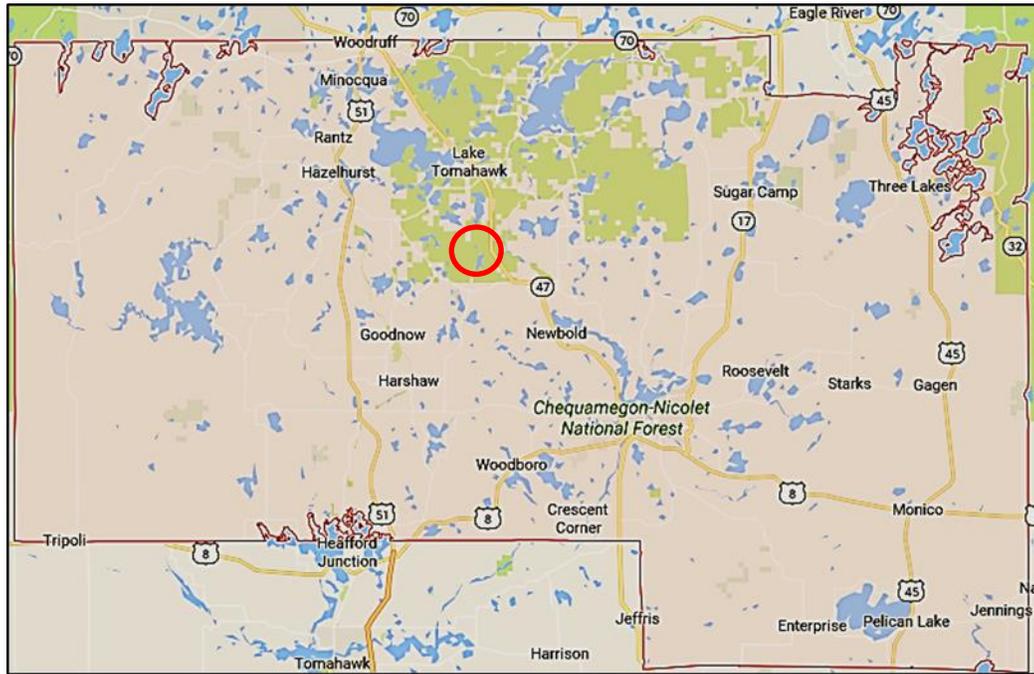


Figure 2. Map of Hawk Lake with boat landing and location of Secchi disk reading labeled.



Deep hole and location of Secchi disk reading



Carry-in boat landing

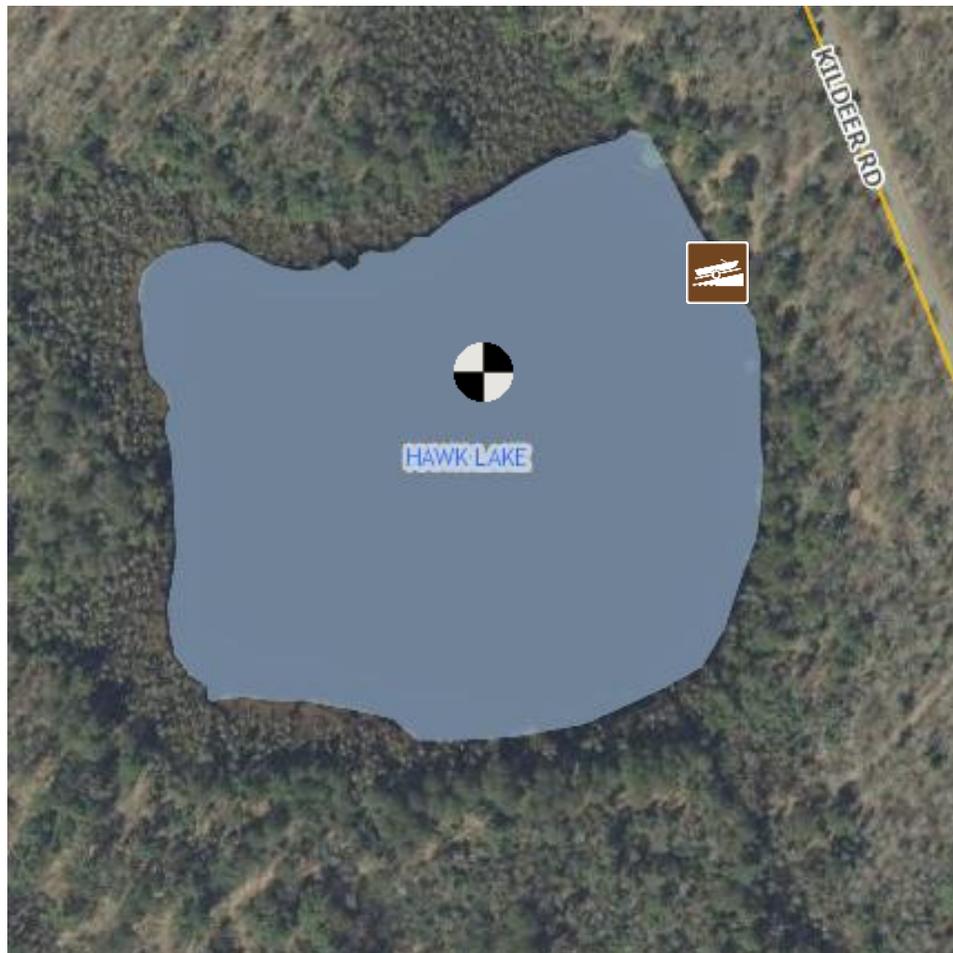


Table 1. Plants found in Hawk Lake while monitoring.

| <p>Common Name Scientific Plant Name</p> | <p>Description</p> | <p>Image</p> |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>Sundew <i>Drosera spp</i></p> | <p>A wetland plant that has flattened green leaves with bright red glands. These glands have a sticky goo to entrap insects that are attracted to the plants fragrance and bright colors. This is native.</p> |  <p><i>Photo Credit: James Henderson</i></p> |
| <p>Common Bladderwort <i>Utricularia macrorhiza</i></p> | <p>A submerged aquatic plant. Leaves contain small sacks that trap small invertebrates. This plant usually has unrooted stems that easily tangle with other plants, and tends to look cloudy underwater. This is native.</p> |  <p><i>Photo Credit: frenchhill.org</i></p> |
| <p>Watershield <i>Brasenia schreberi</i></p> | <p>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.</p> |  <p><i>Photo Credit: Shannon Sharp</i></p> |
| <p>Pitcher Plant <i>Sarracenia purpurea</i></p> | <p>A wetland plant that has a very characteristic “pitcher” or cup-shaped leaf. Insects climb down into these leaves and become entrapped by fluid and sticky hairs. Once the insect dies it is slowly ingested by the plant. This is native.</p> |  <p><i>Photo Credit: Stephanie Boismenu</i></p> |

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

| Depth (Feet) | Dissolved Oxygen Levels (mg/L) | Temperature (F) | Percent Dissolved Oxygen |
|---------------------|---------------------------------------|------------------------|---------------------------------|
| 2 | 6.98 | 73.2 | 81.9 |
| 4 | 6.91 | 71.5 | 81.1 |
| 6 | 6.68 | 70.6 | 73.9 |
| 8 | 2.13 | 68.7 | 24.5 |
| 10 | 0.27 | 59.8 | 2.8 |
| 12 | 0.1 | 54.7 | 0.9 |
| 14 | 0.06 | 51.1 | 0.5 |
| 16 | 0.04 | 48.0 | 0.4 |
| 18 | 0.04 | 46.5 | 0.3 |
| 20 | 0.04 | 45.1 | 0.3 |
| 22 | 0.04 | 44.5 | 0.3 |
| 24 | 0.03 | 43.7 | 0.3 |