

Papkee Lake

Page 1: AIS Monitoring and Water
 Clarity Report of June 21st, 2016



Land & Water Conservation Department

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Papkee Lake AIS Monitoring and Water Clarity Report

Field Date: June 21st, 2016
WBIC: 1546100
Previous AIS Findings: None
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 June 21, 2017, Aubrey and I went to Papkee Lake to implement AIS monitoring along with water clarity and quality assessments. Papkee Lake is a small 20 acre mesotrophic lake located in Oneida County, and has one public boat launch. The lake is said to have a maximum depth of 19ft, however, when searching for the deep hole we found a depth of 22 feet, and suspect the lake may be deeper. The substrate on Papkee Lake is reported to be 1% sand, 0% gravel, 0% rock, and 99% muck. Along with reporting the depth and substrate, the Wisconsin Department of Natural Resources also reports the lake only has largemouth bass present, however, we observed bluegill, crappie, perch, and a local on the lake also informed us northern pike are abundant as well.

The weather while conducting research on Papkee Lake was fair. The outside temperature was 74 degrees Fahrenheit, the sky was partly cloudy, and there was a slight chop on the water surface. There was no adverse weather to impede our measurements in any way.

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 we had observed in the process.

To observe the water clarity and quality of Papkee Lake Aubrey and I went to the deepest hole we could find with our sonar unit. We then 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, and thankfully both of these measurements were relatively average in nature, and there should be no concern for the health of Papkee Lake. The Secchi disk reading was 6 feet, and the dissolved oxygen readings can be found in table 2. Graphs displaying water quality can also be viewed below (graphs 1-3).

Aubrey and I did not find any invasive species on Papkee Lake. We were unsure what to expect as this was the first time Papkee Lake has ever been monitored, so, thankfully there are no invasive species present at this time. The lake seems to be healthy, and many native plants were present and thriving. The 5 most common native plants we observed were Cattail, Blue Flag Iris, Bullhead Pond Lily, and Large Purple Bladderwort. These plants can be seen below in table 1.

Findings: Taken 3:30 – 4:30 p.m. June 21, 2017

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



Secchi: The Secchi reading on this lake was 6 feet out of a 22 foot maximum depth. The water color was a bluish color, and appeared clear when glancing across the lake.

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

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



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

-  Public boat landing
-  Deep hole & location of Secchi disk reading

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

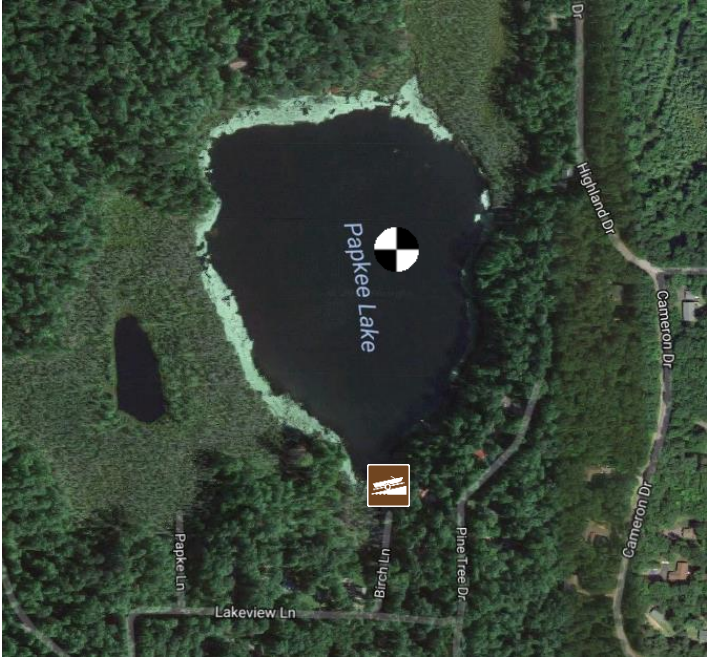




Table 1. Plants found in Papkee Lake when monitoring.

Scientific Plant Name	Common Plant Name	Image
<i>Typha latifolia</i>	Common Cattail	
<i>Iris versicolor</i>	Blue Flag Iris	




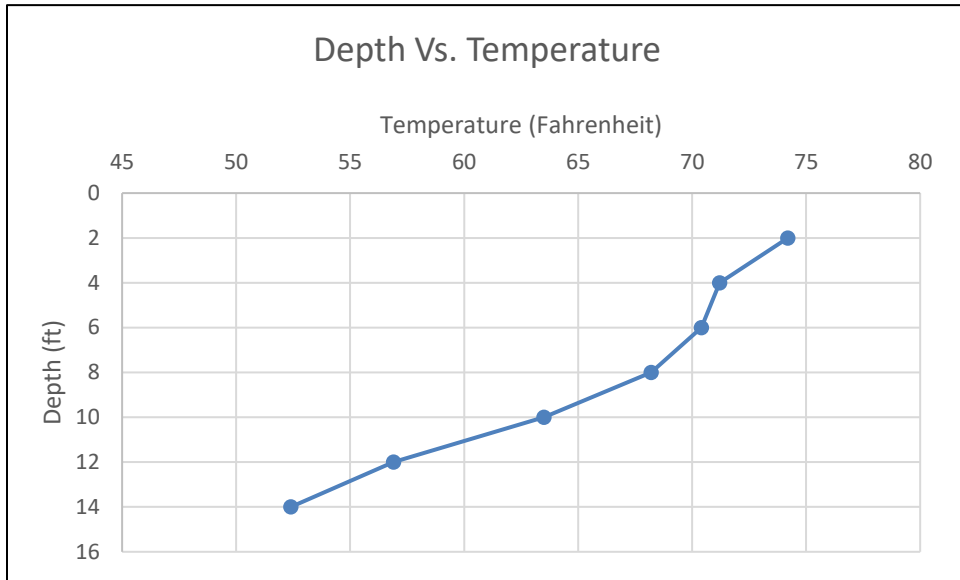
<i>Nuphar variegata</i>	Bullhead Pond Lily (Spatterdock)	
<i>Nuphar advena</i>	Dwarf Yellow Pond Lily	
<i>Utricularia purpurea</i>	Large Purple Bladderwort	

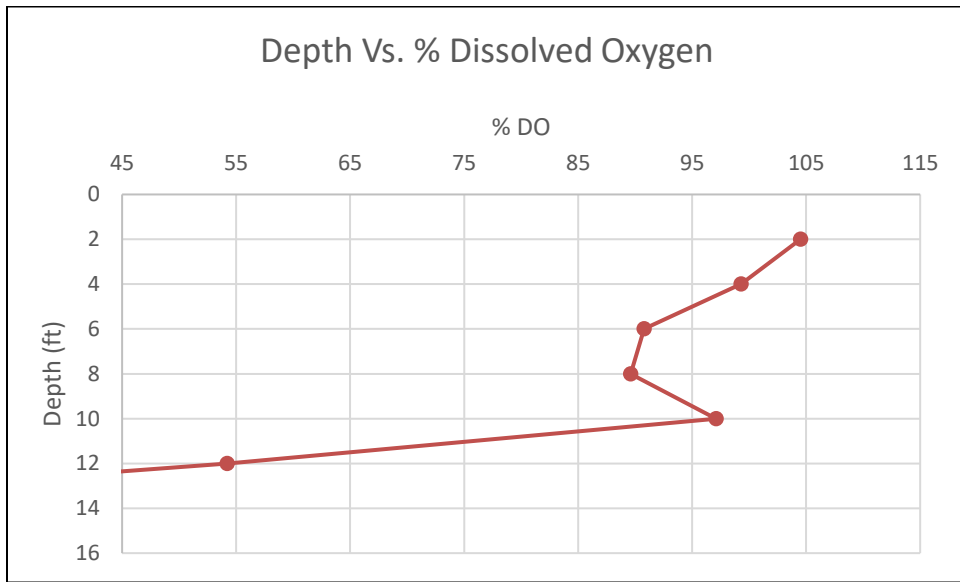
Table 2. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)	Percent Dissolved Oxygen
2	8.36	74.2°	104.5%
4	8.21	71.2°	99.3%
6	7.57	70.4°	90.8%
8	7.65	68.2°	89.6%
10	8.75	63.5°	97.1%
12	5.28	56.9°	54.2%
14	0.14	52.4°	1.4%

Graph 1



Graph 2



Graph 3

