Bass Lake

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Michele Sadauskas, County Conservationist
Stephanie Boismenue, AIS Coordinator
Jonna Stephens Jewell, Program Assistant

Oneida County Courthouse
P O Box 400, Rhinelander, Wisconsin 54501
Phone (715) 369-7835 Fax (715) 369-6268

Land & Water Conservation Department

Bass Lake AIS Monitoring and Water Clarity Report

WBIC:	970000
Previous AIS Findings:	None
New AIS Findings:	None
Field Date:	July 8th, 2020
Field Crew:	Aubrey Nycz, Lead AIS Project Assistant, and Rachel Cook, AIS Project Assistant, Oneida County Land and Water Conservation Department
Report By:	Rachel Cook

Aubrey and I monitored Bass Lake on July 8th, 2020. Bass Lake is located in the town of Newbold, WI in Oneida County (Figure 1). It is a seepage lake of 67 acres with a maximum depth of 32 feet. The substrate on the lake is 70% sand, 22% gravel, 7% rock, and 1% muck. Panfish and Northern Pike are known to inhabit this lake. Bass Lake's trophic state is listed as oligotrophic. Oligotrophic lakes are characterized by low nutrient contents, preventing the growth of algae and making the quality of the water very clear. Bass Lake has a few homes on the southern shoreline, but most of the perimeter is made up of the Northern Highland American Legion State Forest. It is located at the end of Bass Lake Rd. off of HWY D. Its fairly remote location and the surrounding state land makes this lake a quiet and relatively undisturbed area.

Bass Lake has a public boat landing at the southwestern edge of the lake (Figure 2), which is where Aubrey and I put our canoe in. We paddled around the entire perimeter of the lake. The weather was not ideal for monitoring in that it was windy and overcast. From our canoe, we visually monitored the entire shoreline, the shallow areas, around any docks or swimming platforms, and as best as we could in the deeper waters. The clear water allowed us to see quite a bit of surface area around the lake. Since Bass Lake is not very large and there were no islands or channels to monitor, it only took us about an hour to get around the perimeter. During that time, we searched for any invasive species, since none have been previously documented. We did not find any new invasive species, but saw many thriving native species (Table 2).

After completing our visual monitoring of the shoreline and shallow areas, the depth finder was used to find a deep point on the lake since there is no contour map available through the Department of Natural Resources. Aubrey and I paddled towards the middle of the lake until we found the maximum depth. At this point, we took the GPS location and took measurements on water clarity using the Secchi disk, and measured dissolved oxygen and temperature gradient using the dissolved oxygen meter (Table 1).

Findings:

Aquatic Invasive Species:

Fortunately, we did not find any invasive species on Bass Lake.

Secchi:

The Secchi reading on this lake was 14 feet out of a 32 foot max depth. The water color was a clear dark blue color, and it was breezy which could have made the Secchi disk harder to see.

Dissolved Oxygen:

These measurements can be seen in Table 2.

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

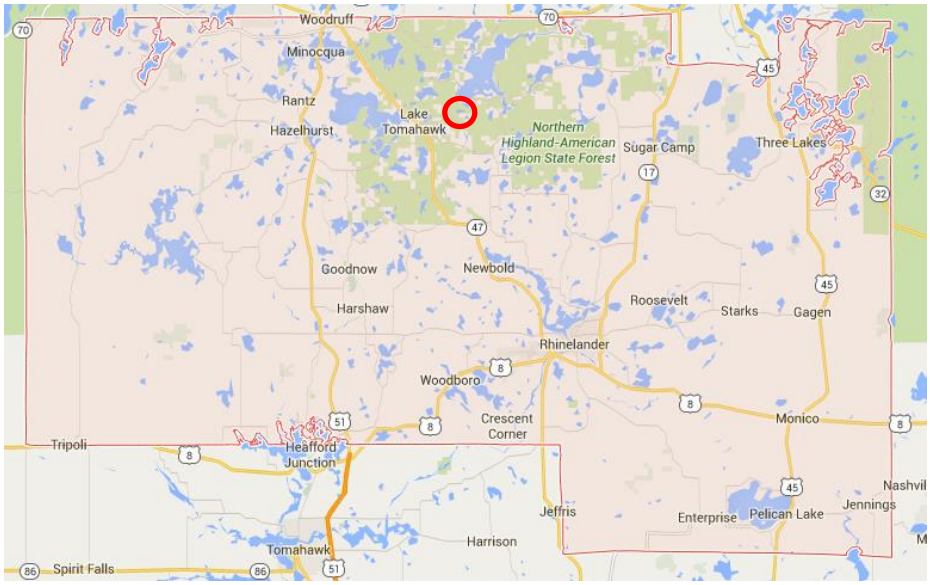

Figure 2. Map of Buffalo Lake with boat landing and location of Secchi disk reading labeled.

Deep hole & Secchi Disk Reading

Boat Landing

Table 1. Dissolved oxygen levels and temperatures at the deep hole.

Depth (Feet)	Dissolved Oxygen Levels (mg/L)	Temperature (F)	Percent Dissolved Oxygen
2	7.61	82.0	103.1
4	7.60	82.2	103.1
6	7.62	81.9	103.2
8	7.63	81.8	103.2
10	7.70	81.0	103.3
12	8.62	76.7	110.8
14	9.45	71.4	114.8
16	9.78	66.8	113.0
18	9.89	61.1	106.9
20	9.95	58.5	104.3
22	10.86	55.8	110.1
24	9.69	54.4	96.6
26	6.09	52.3	59.0
28	4.24	52.9	41.4
30	0.15	51.6	1.50

Table 2. Plants found in Bass Lake when monitoring.

Common Name Scientific Plant Name	Description	Image
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: asapaquatics.com*
Large Purple Bladderwort *(Utricularia purpurea)*	Long stems up to several feet, often forming large patches. Leaves fine, arranged in whorls of 5-7, with scattered tiny bladders on the tips of the leaves. Flowers are purple, 5-parted, 2-lipped, the lower lip having three lobes and a yellow spot. This plant is native.	 *Photo Credit: Shirley Denton*
Lake Quillwort *(Isoetes lacustris)*	An aquatic plant that forms a wide rosette. Leaves are stiff, dark green taper from the pale green-brown base. This plant is native.	 *Photo Credit: Shannon Sharp*