

# Hemlock Lake

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Clarity Report of August 13,  
2014



Land & Water Conservation Department

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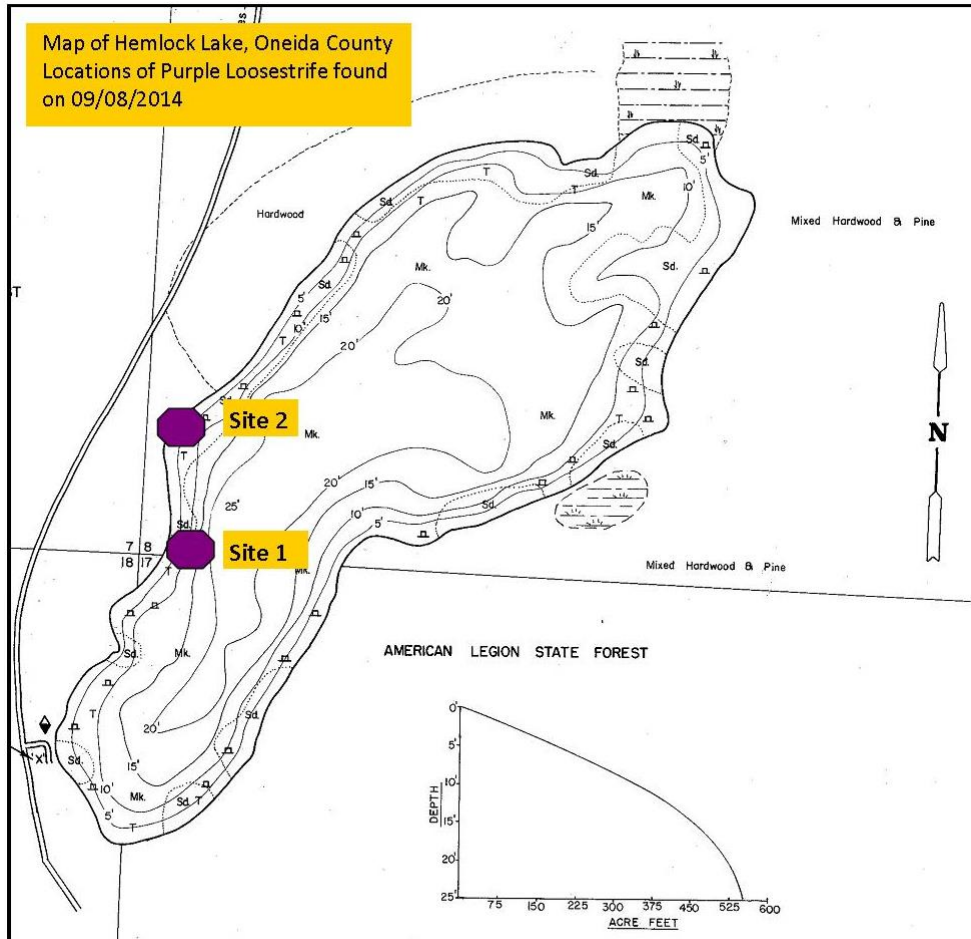
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## **Hemlock Lake Purple Loosestrife and Large Purple Bladderwort Monitoring**

WBIC: 989200  
Previous AIS Findings: Possible Purple Loosestrife  
New AIS Findings: Purple Loosestrife  
Field Date: September 8, 2014  
Field Crew: Stephanie Boismenu, AIS Project Assistant, Oneida County Land and Water Conservation Department  
Report by: Stephanie Boismenu

On Monday September 8, 2014, I revisited Hemlock Lake, located in the Town of Woodruff, Oneida County, by canoe and made the following observations. Of note, my initial site visit was on Wednesday August 13, 2014 (refer to the Hemlock Lake Monitoring Summary by Alyssa Nycz).

1. **Purple Loosestrife:** I found Purple Loosestrife growing in two new locations along the west shoreline. Beetle activity was not present on any of the plants. Therefore, I remove all of the plants, including the roots, and disposed of them. Unfortunately, I did not have a GPS with, but I did make notation of their general locations, which I have indicated on the map below.
  - a. Site 1 had one plant. I removed the entire plant and its root mass
  - b. Site 2 had two large plants. I removed both plants plant and root mass
  
2. **Large Purple Bladderwort:** At the time of the initial visit on August 13, 2014, Alyssa and I reported that the Large Purple Bladderwort was floating in dense mats, approximately 4-5 feet in diameter, and spaced an average of 50 feet apart along the entire shoreline. However, during today's visits, I was surprised to find the bladderwort has grown significantly and now covers' the entire shoreline - in just 3 ½ weeks.



Source: Wisconsin Department of Natural Resources 608-266-2621. Hemlock Lake – Oneida County, Wisconsin DNR Lake Map

Date – Sep 1981 - Historical Lake Map - Not for Navigation.



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## **Hemlock Lake AIS Monitoring and Water Clarity Report**

WBIC: 989200  
Previous AIS Findings: None  
New AIS Findings: Possible Purple Loosestrife  
Field Date: August 13, 2014  
Field Crew: Stephanie Boismenu and Alyssa Nycz, AIS Project Assistants,  
Oneida County Land and Water Conservation Department  
Report by: Alyssa Nycz

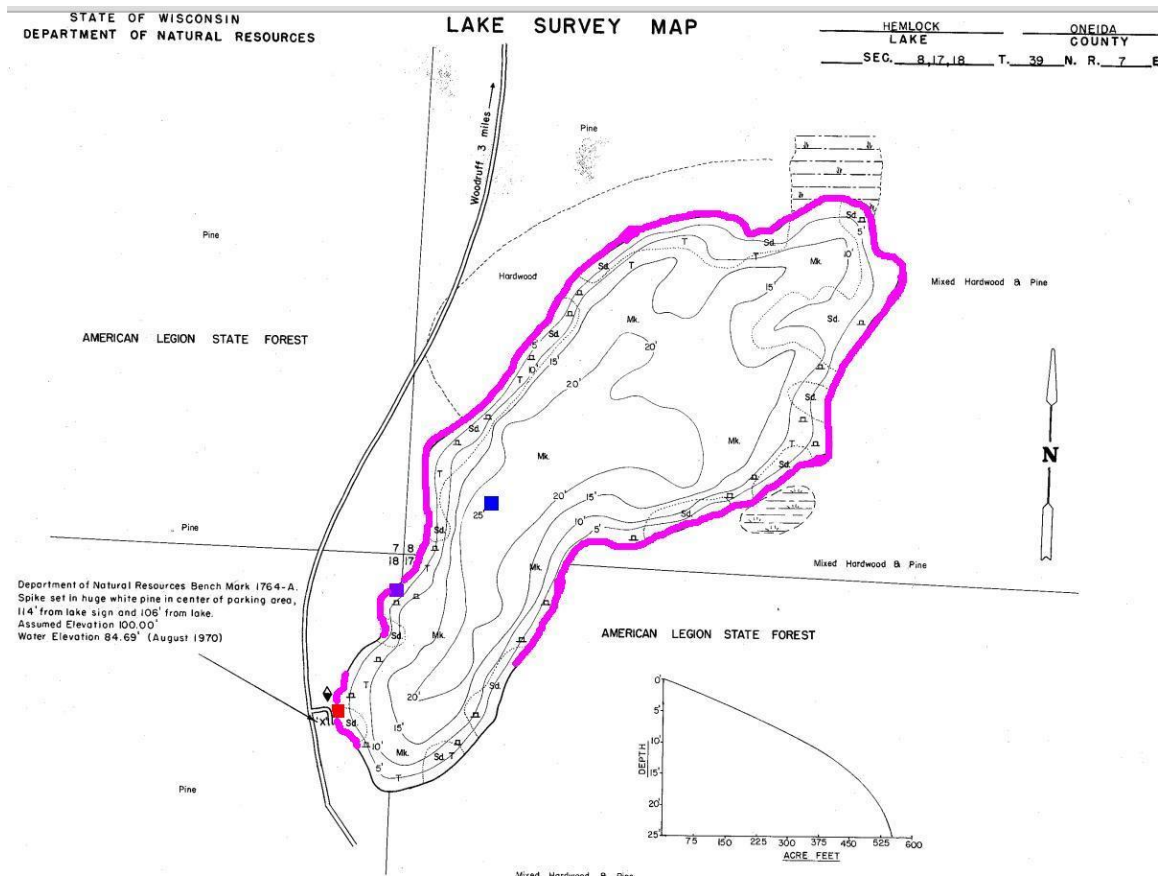
Stephanie and I monitored Hemlock Lake on Wednesday, August 13<sup>th</sup>. The lake does not have a public boat landing, but it does have a carry-in only access, which we used to put our canoe in the water. Right away, we discovered large clumps of large purple bladderwort floating along the shoreline. We estimate that there is at least one cluster of large purple bladderwort every 50 feet along the shoreline of the entire lake. These clusters are approximately 4 to 5 feet in diameter.

When we first entered the lake, we were told by three people kayaking that there is purple loosestrife along the northwest shoreline. We do not have prior documentation of purple loosestrife findings on Hemlock Lake, so Stephanie and I went to see what they were referring to. We found a total of three plants along this stretch of shoreline that share features with purple loosestrife. However, the flowers are too light of a purple color, and both the stem and leaves are fuzzy. Additionally, three sides of the square stem are red, and the fourth is green. We mapped coordinates of these plants and took pictures of their features, but we are almost certain they are not purple loosestrife. We plan to take samples of the plant to the Department of Natural Resources to be identified, since we are unsure of what exactly this plant is.

After making note of the unidentified plant, we canoed to the lake's deep hole, which our depth finder read as 21 feet deep. After anchoring, we recorded a Secchi disk reading of 14 feet. Just as we began to take our dissolved oxygen measurements (Table 1), the depth finder read a depth fluctuating between 26 and 27 feet. Since we were still anchored at this point, and the depth finder was attached to the middle of the canoe, it is likely that the back end of the canoe shifted. Therefore, there was over a six foot difference in depth beneath the middle of

the canoe and the front of the canoe! Regardless, these deeper depth readings allowed us to conclude that we were indeed at the lake's deepest site.

Once we recorded all necessary water clarity and water chemistry measurements, we canoed around the majority of Hemlock Lake to check for the presence/absence of AIS (Figure 1). We did not find any aquatic invasive species; however, we did take pictures and video clips of some of the large purple bladderwort clusters. The lake is completely uninhabited by private residences, so there were no docks or piers to check under for the possible presence of any invasive snail or mussel species.



**Figure 1.** A map of Hemlock Lake: the red square marks the carry-in only access, the purple square marks where we saw two of the three plants that share characteristics with purple loosestrife, and the blue square marks the deep hole site. We visually monitored the majority of the lake's shoreline, as represented by the pink lines.

**Table 1.** Our dissolved oxygen and temperature readings were recorded at a depth fluctuating between 26 and 27 feet. As indicated by the table, the dissolved oxygen levels began to drop sharply after a depth of 13 feet.

<b>Depth</b>	<b>Dissolved Oxygen Level</b>	<b>Temperature Reading</b>
1'	8.08 mg/L	73.7°F
4'	8.03 mg/L	73.7°F
7'	7.97 mg/L	73.7°F
10'	7.91 mg/L	73.5°F
13'	7.58 mg/L	73.2°F
16'	3.56 mg/L	70.8°F
19'	0.37 mg/L	66.8°F