

Aquatic Invasive Species Update

Washington & Waukesha Counties



September 2019

Email: cassie.taplin@co.washington.wi.us
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Starry Stonewort Update

This newsletter is being sent to notify lake groups and the general public that in 2019, there have been 3 lakes in Waukesha County now confirmed to have starry stonewort: Pewaukee, Lower Nemahbin, and Okauchee. On Pewaukee Lake, the starry stonewort was found at the public access in Naga-Waukee County Park by a volunteer participating in the AIS Snapshot Day on August 17th. On Lower Nemahbin, the starry stonewort was found by the public access by a citizen lake monitor (the same gentleman who found it in Pewaukee on Snapshot Day). In Okauchee, the starry stonewort was found by a private consultant. All specimens have been verified and confirmed to be starry stonewort.

Monitoring and Survey Efforts:

Lower Nemahbin Lake - in response to the confirmation of starry stonewort, on 9/9/19 the DNR conducted both a point intercept survey and an early detection survey. Starry was only found at the public access.

Upper Nemahbin Lake - Upper Nemahbin had a point intercept survey conducted earlier in the summer by a private consultant. No starry stonewort was found during this survey. Since both Lower and Upper Nemahbin share a public access, the DNR conducted an early detection survey on Upper Nemahbin during the week of 9/16/19. No additional starry stonewort was detected.

Pewaukee Lake - in response to the confirmation of starry stonewort, the DNR is conducting an early detection survey on 9/18/19.

Okauchee Lake - a point intercept survey was conducted by a private consultant earlier in the summer. Starry stonewort was found in the southwest portion of the lake in a navigational channel that flows under the W Lake Drive bridge. The DNR is planning to conduct an early detection survey in late September.

Point Intercept Survey vs an Early Detection Survey:

There are 2 different types of surveys crews use to survey a waterbody for vegetation and aquatic invasive species: point intercept surveys and early detection surveys. For a point intercept survey, a grid of points is generated for a lake (Figure 1). At each point, a rake pole or sampling rake is tossed into the water and all vegetation and algae is identified. When surveyors pull up the sampling rake, they gauge the overall rake fullness on a scale of 0-3 (0 being no vegetation was pulled up, 3 being the rake was full of vegetation). Point intercept surveys are a much more intensive survey that can take days to complete. These are very thorough surveys that are commonly used before and after any management of plants or algae to determine the treatment's success (i.e dredging, chemical application, DASH, etc). These surveys are generally conducted between early July through mid-August. To see survey data from Waukesha County, visit the County AIS GIS app: [Waukesha County AIS App](#)

In contrast to a point intercept survey, there is an early detection survey (Figure 2). Early detection surveys involve surveying all public accesses to a water body via snorkeling. In addition to the public accesses, 5 additional points are selected to survey (preferably by inlets and outlets) via snorkeling and sampling rake tosses. The crew will slowly meander in between points to visually look in the water to see any obvious signs of AIS. With an early detection survey there is also the option to conduct plankton tows at the deepest point in the lake to monitor for spiny water fleas (an invasive zooplankton). Early detection surveys are quicker (usually completed in a day), and less intensive than a point intercept survey. However, early detection surveys are a great tool to detect any obvious infestations.

Figure 1 - Sample Point Intercept Survey Map

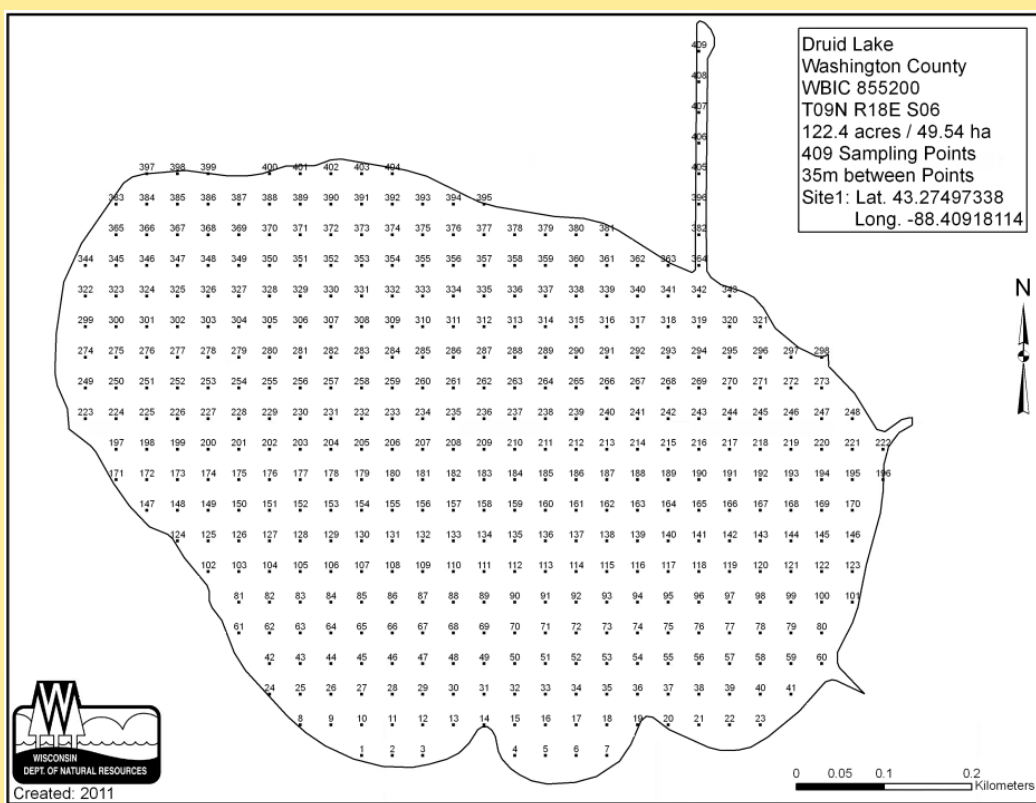
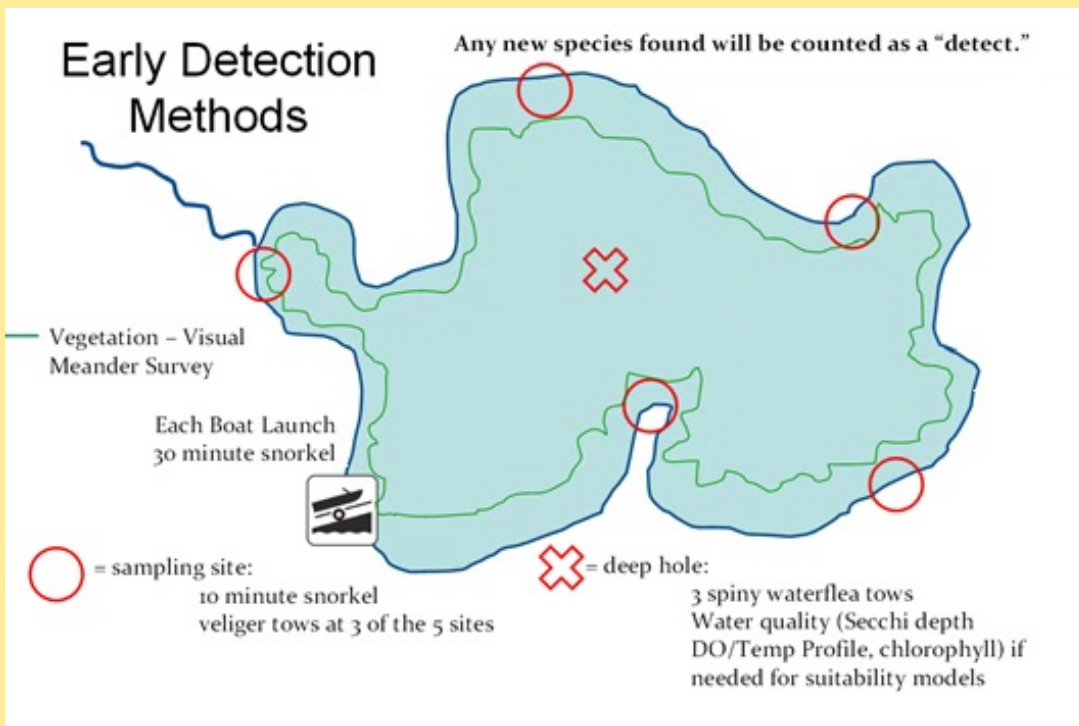


Figure 2 - Survey methods for an early detection survey



Starry Stonewort Species Information:

Starry stonewort is an invasive macroalgae from Eurasia that was likely introduced to North America by ballast water. It is called starry stonewort due to its unique, star shaped bulbils (self-reproductive structures). To learn more about the species, visit here: [Starry Stonewort](#)

To see starry stonewort's current distribution, visit here: [Starry Stonewort Distribution](#)

An effective treatment to eradicate starry stonewort has not yet been established. Various treatments have been attempted in both Washington and

Waukesha County

Lake	Year	Treatment
Little Muskego	2016	Chemical application using copper based chemical. Starry stonewort not eradicated.
	2017	7 foot water draw down in an attempt to freeze bulbils buried in sediment. Starry not eradicated.
Big Muskego	2015 and 2016	Chemical application using combinations of copper, hydrothol, and flumioxazin. Starry not eradicated.

Washington County

Lake	Year	Treatment
Little Cedar	2019	Hand pulling by scuba divers and DASH. First DASH attempt did not eradicate the starry. A second treatment will occur in late September 2019.
Green	2018 and 2019	Chemical application within vertical limno-barriers in front of public access on South shore. Starry not eradicated.
Silver	2015	DASH. Starry not eradicated.
	2018 and 2019	Hydraulic dredging to remove bulbils buried in sediment. Starry not eradicated.



Starry stonewort bulbil

Informational Meeting for the Public:

There will be an informational meeting on October 12th from 1 pm to 3 pm at the **Delafield Town Hall**: W302N1254 Maple Avenue, Delafield, WI 53018. If the main parking lot fills up, there will be secondary parking by the skateboard park. The meeting is primarily for the residents of the Nemahbin Lakes, Pewaukee Lake, and Okauchee Lake, but all are welcome to attend. There will be a presentation going over the ecology and identification of starry stonewort, as well as current control efforts, results, and what the next steps are

in regards to the management of this species.

The Town of Delafield has requested that in place of payment for the venue that all attendees bring an item to donate to the local food pantry. The following items have been requested: Canned soups, canned vegetables, canned meat, canned fruit.

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The Aquatic Invasive Species Program is a cooperative effort between Washington & Waukesha Counties, supported by grant funds from Wisconsin Department of Natural Resources and a number of generous local lake groups working to control the spread of AIS. Thank you for your support!

For more information:

Email: cassie.taplin@co.washington.wi.us

Washington County
262-335-4800

www.co.washington.wi.us/lcd

Waukesha County
262-896-8300

www.waukeshacounty.gov/ais