

Keeping it Blue: A healthy lake the best safeguard against invasive species

By Ted Peters Community columnist May 28, 2020



In August 2018, a new aquatic invasive, starry stonewort (*Niteliopsis obtuse*), was identified in a lagoon of Geneva Lake. Within a year, it was found nearby in Geneva Lake. Initially it was hoped that the isolated population in the lagoon could be eradicated by dredging before it got into the lake. Despite efforts to contain it in the lagoon and plans to eradicate it, two populations were found in the lake during the summer of 2019. As a result, the management strategy for this invasive alga shifted to “contain and control.”

Starry stonewort is a macro-algae that was brought to the United States as a “hitchhiker” from Eurasia. Most likely an unwanted passenger in bilge waters of freighters, it was first found in the United States in 1978 in the St. Lawrence River. It is now found in several Great Lake states. It was first discovered in Wisconsin in September 2014, and is now known to be in more than 14 different lakes, including the shore waters of Lake Michigan and Green Bay.

Although it looks like a typical aquatic vascular water plant, being a large alga it has some unique characteristics. It is a bright green and has a musk-like smell. It doesn't have developed systems like roots, flowers, leaves or stems composed of many cells. It is a series of single cells that develop for specific purposes. It has long straight stem-like structures that reach from node to node, where 4 to 6 branchlets extend out in whorls from the node.

Reproduction does not require a male and female (asexual), but rather comes from a white starchy cell (bulbil) found on the rhizomes in the sediment. All plants found in the U.S. are cloned male plants. It is a close relative and look-a-like to a native plant found in many lakes, including Geneva Lake, call musk grass (Chara).

Because of these unique characteristics, management is difficult. It is not known to have been eradicated from any lake that it has become established within the U.S. Dredging, chemical treatment, pulling, vacuuming and water fluctuation, whether tried individually or in combination, have not been successful in reducing the distribution or the amount of starry stonewort.

The Wisconsin Department of Natural Resources has tried different approaches to control starry stonewort and has had mixed results. Perhaps the most promising starry stonewort management is to manage the lake's entire aquatic plant community for biodiversity and community richness, and let the healthy community keep starry stonewort from becoming a nuisance. A healthy aquatic community, strong boater education with the Clean Boats and Clean Waters Program and continual lake plant community monitoring offers the most promising future for our lakes in managing aquatic invasive species.

Future starry stonewort management on Geneva Lake will do just that. It will be based upon an integrated pest management philosophy that looks at the big picture of a healthy lake, a healthy aquatic plant community and keeping invasives out.

Existing populations in Geneva Lake will be hand pulled during the summer of 2020. Lake populations of starry stonewort will be monitored in 2020 and 2021 with a lake-wide aquatic plant survey. During the summer of 2020, the public launch sites will be manned by individuals trained in the Clean Boat Clean Waters program, and will work with boaters to keep their boats clean and prevent them from bringing more invasive species into the lake.

Geneva Lake has many non-native species already established. It has bent, but it hasn't broken.

There are numerous invasive species that could be the next big threat. The battle has been defined; the front lines are the boat launch sites and the defenders are you, the lake users. Clean your boats, take nothing from one lake to another, be it bait, bait water, bilge water, live well water, plants or mud. It's the law. Take 10 minutes and dump it all before you come and go to other lakes.

If you bring it into the Geneva Lake watershed, make sure that you dispose of it in a way that it will not runoff into the lake or a tributary to the lake. Remember only you can prevent the spread of invasive species.

"Keeping It Blue" is written by Geneva Lake Task Force members to inform and educate the public about water quality and other issues impacting Geneva Lake and how the public can help to address them. Comments and questions can be sent to glc@genevalakeconservancy.org.

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