Aquatic Invasive Species Quick Guide

Starry Stonewort (*Nitellopsis obtusa* L.)

Golden Sands Resource Conservation & Development Council, Inc.

Description: Starry stonewort is a non-native species of large algae in the Characeae family. It has whorls of 4-6 long branchlets, with blunt tips. It is more robust than most members of its family, and can grow to over two meters tall. Anchored by colorless rhizoids, it contains up to several dozen 4-5mm, star-shaped bulbils. Starry stonewort typically grows in alkaline lakes with marl sediments, up to 9 meters deep. Orange reproductive structures are located in the axils of the upper branchlets. Starry stonewort is typically an annual, but can behave as a perennial during mild winters. Interestingly, starry stonewort is listed as an endangered species in the United Kingdom.

Starry stonewort has whorls of long branchlets, each with a blunt tip.

North American Distribution: Michigan, northern Indiana, and the northeast United States. Recently found in one lake in southeast Wisconsin.

Star-shaped bulbils give the starry stonewort its name.

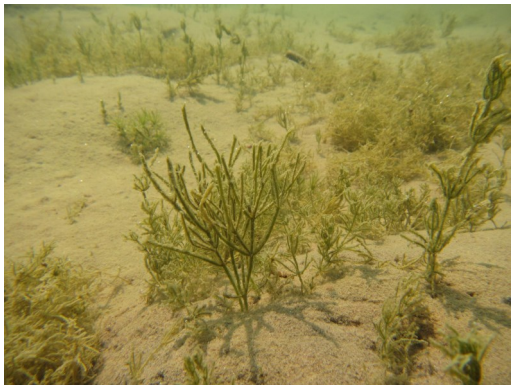
Dispersal Vectors: Starry stonewort is native to Europe and western Asia. It was probably introduced to the Great Lakes via ballast water carried in trans-oceanic ships. Fragments of starry stonewort can easily be spread between lakes by boats, trailers, and anchors holding sediments. Local dispersal occurs by bulbils being transported by water currents or animals within the lake.

Ecological Impacts: By forming extremely dense mats of vegetation, starry stonewort can greatly reduce the diversity of aquatic plants in a lake. It can also impede movement of fish and other animals, and can decrease successful spawning activity. Mats growing to the surface can reduce water flow and prevent recreational activities.

Control Options: Manual removal of starry stonewort is difficult and probably impractical on a large scale. Abundant bulbils on the rhizoids can dislodge if disturbed, and will sprout new individuals. Manual removal efforts must emphasize careful removal of these bulbils.

Copper-based herbicides have been effective at suppressing starry stonewort. Endothall is sometimes added to copper herbicides to increase its effectiveness. Herbicide applications may be less effective on tall stands of starry stonewort, as the chemical is quickly absorbed into the upper parts of the algae, leaving the lower parts unharmed. Most states require chemical use permits for any herbicide treatments in standing water or wetland situations.

An effective biological control agent is not known at this time.



Starry stonewort (front, center), much more robust than the surrounding native muskgrasses (*Chara* spp.).

Additional Information:

Pullman, G. Douglas and Gary Crawford. 2010. A decade of starry stonewort in Michigan. Lakeline. 36-42.

Photo credit: Paul Skawinski

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