The Starry Stonewort Collaborative

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Project Background and Scope

Starry Stonewort (SSW, *Nitellopsis obtusa*) is an aquatic invasive macroalgae from Eurasia that closely resembles a vascular plant. It invades lakes, ponds, and slow-moving water bodies where it attaches to the sediment using rhizoids and grows to 2m (Kipp et al., 2017).

The first occurrence of SSW was documented in 1978 in the St. Lawrence River between New York (NY) and Ontario, Canada. Ballast water is the prime suspect for entry and subsequent spread throughout the Great Lakes basin (GLB).

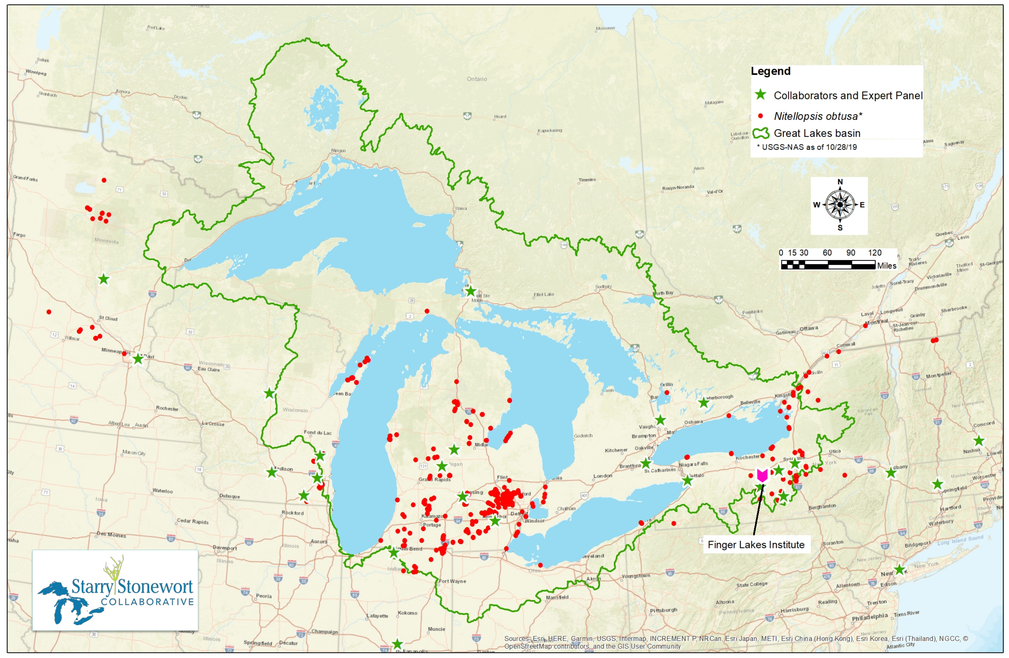
Left unchecked the SSW will cause harm to natural environmental systems and inhibit use of waterways, which can potentially result in economic impacts.

With funding from the US Environmental Protection Agency Great Lakes Restoration Initiative, The Starry Stonewort Collaborative project for the Great Lakes Basin enhances the capacity of experts, resource managers and local stakeholders to address starry stonewort infestations by:

- providing general knowledge of SSW ***Ecology*** and provision of access to this information
- expanding ***Outreach*** efforts at all levels but focusing on local communities and organizations.
- reviewing and disseminating of the best ***Control*** techniques, information and best management practices (BMP's)

Rake toss sample, Keuka Lake Outlet, Penn Yan, NY

A bed of Starry Stonewort, Keuka Lake Outlet, Penn Yan, NY



Collaborator locations and identified *Nitellopsis Obtusa* sites across the Great Lakes Basin

A Collaborative Approach - Ecology, Outreach and Control

A key component of the project is a collaborative framework of 20+ scientists, stakeholders and resource managers who help with outreach efforts, resource exchange and participate in webinars and conference calls.

Additionally an eight person Expert Panel helps guide the project by assisting with peer review of papers, review of potential control techniques, outreach assistance and providing informational webinars.

Collaborator and panelist work is applied to the three focus areas:

- **Ecology** – sharing of ongoing field work and laboratory research and analysis for better understanding of *Nitellopsis obtusa* characteristics and life cycles
- **Outreach** – providing insights into the best outreach and education strategies for community involvement in SSW identification and reporting
- **Control** – assisting in developing and sharing best management practices and techniques from all areas of the GLB

A dedicated SSW web site (**www.starrystonewort.org**) with a library of existing and new information is for use by researchers, scientists and citizens. Locations and descriptions of identified SSW infestations will be maintained in online databases such as the United States Geological Survey Nonindigenous Aquatic Species program (NAS) and iMapInvasives data management system.

Expected Outcomes

- creation and dissemination of BMPs for infestations of SSW throughout the GLB
- development and distribution of factsheets describing SSW and its control
- creation and implementation of prevention strategies
- rapid assessment and response plans
- development and maintenance of a dedicated SSW website and online library
- extensive community level volunteer engagement and training across the GLB

Nitellopsis obtusa showing reproductive structures (Bulbils)

Long-term Benefits

- **Ecology**
  - greater knowledge of SSW growth and expansion and its effects on water quality
- **Outreach**
  - improved access to white papers, fact sheets, and other resources to increase community knowledge (including students) about the harm, impact and management of SSW
- **Control**
  - better collaboration among experts, resource managers, and stakeholders enhancing understanding and application of BMP's and control techniques to decrease infestations

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Want to get involved? Contact David Carr, Project Manager at dcarr@hws.edu; 315-781-4389 (office) or 315-406-1453 (cell); **www.starrystonewort.org**