

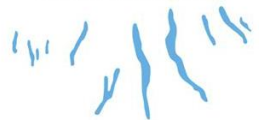
Starry Stonewort Collaborative *(Nitellopsis obtusa)*



Volunteer pulls rake full
of SSW from Cayuga
Lake, fall 2017,
Photo: Lisa B. Cleckner

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FINGER LAKES
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The Silent Invader

- Macroalgae from Eurasia
- Mistaken for a vascular plant
- Invades lakes, ponds, and slow-moving water bodies
- Grows to 30m, most often 1-4m
- Spreads through stem fragments or bulbils
- IMPACTS: impedes recreation, inhibit fish spawning, reduces native aquatic vegetation



SSW factsheet available on NYSDEC website

STOP THE INVASION
PROTECT NEW YORK FROM INVASIVE SPECIES

NEW YORK
STATE OF OPPORTUNITY

Department of Environmental Conservation

STARRY STONEWORT

Nitellopsis obtusa

Starry stonewort is an algae with a plantlike structure that is native to Eurasia. It was likely introduced to the Great Lakes from ballast water and has spread to inland lakes in New York. It was first discovered in the United States in the St. Lawrence Seaway in 1978. Stonewort is associated with several social and economic impacts throughout the Great Lakes.

Where is starry stonewort located?

Starry stonewort has been reported in fourteen counties in New York State: Cayuga, Chautauqua, Cortland, Franklin, Jefferson, Lewis, Monroe, Onondaga, Ontario, Oswego, Otsego, St. Lawrence, Tompkins, Wayne, and Yates. Unfortunately, starry stonewort is difficult to distinguish from closely related muskgrasses and stoneworts, so there may be places where it has not yet been detected.



How do I identify starry stonewort?

Starry stonewort has four to six long branches growing around each stem, and it can reach over 7 ft. (2 m) tall in water more than 30 ft. (10 m) deep. It forms dense, pillow-like mats (with plants of different heights) along the bottoms of still, alkaline ponds and lakes. It is tolerant of both salt and fresh water and tends to grow on sand and gravel in both shady and sunny areas.

How does it spread?

Starry stonewort is named for its star-shaped reproductive structures, or bulbils, which can be transported in mud. Starry stonewort can also spread by fragments and is often found near docks and marinas, indicating that watercraft likely transport this algae from site to site.

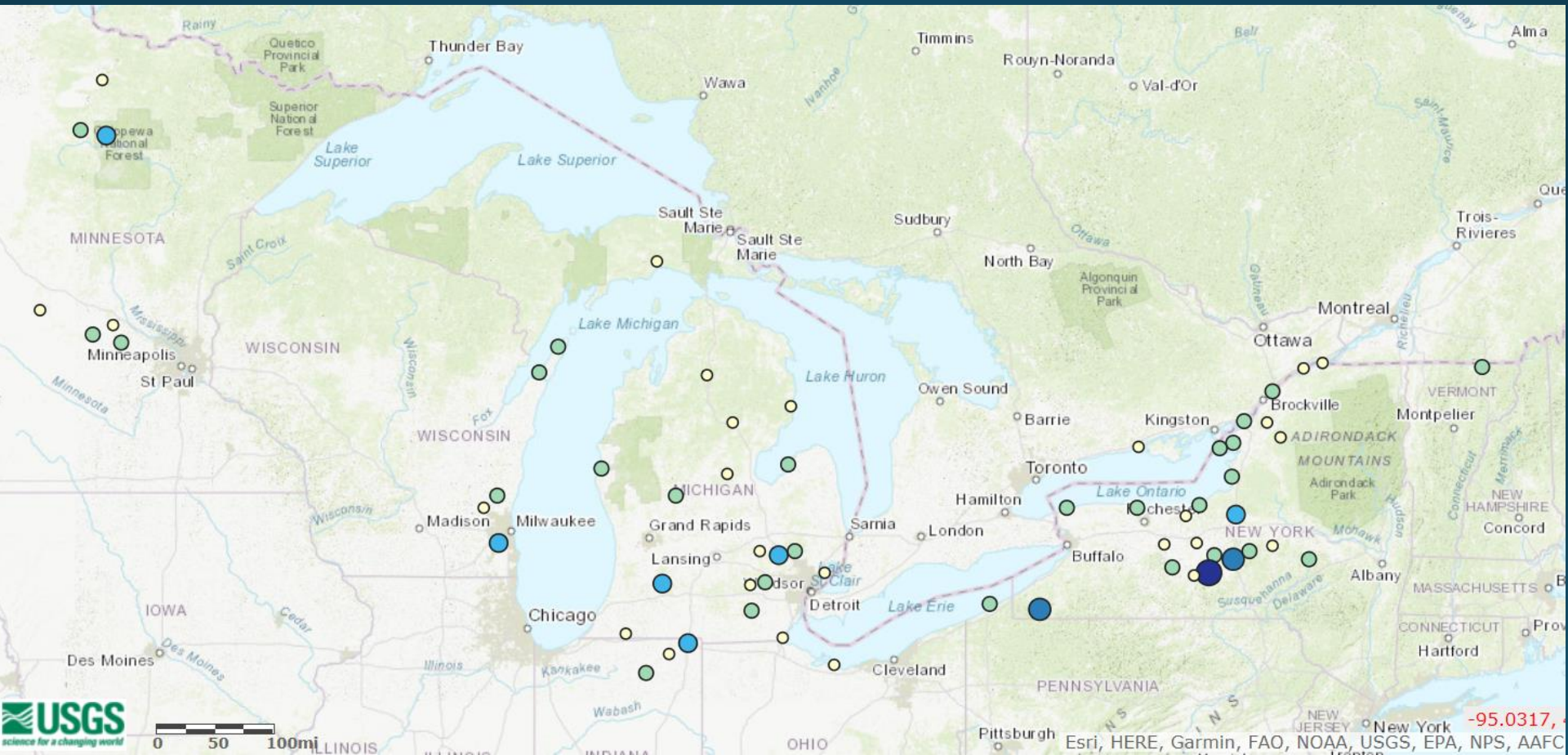
What are its impacts?

Researchers studying the impacts of starry stonewort indicate that it can potentially impact native species in several ways. It may outcompete native plants and phytoplankton (small aquatic plants) that provide food and shelter for native invertebrates and fish. The dense mats may also hinder the spawning of native fish species.



Photo: Scott Brown, Michigan Lake and Stream Association

SSW Reports in GLB



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, AAFCO

Why Now?

- SSW present in NY since 1970s
- Many lakes have significant populations and report 'pillows' that grow out of the water (NY-Tully, Moraine, Canandaigua, Keuka Outlet)
- Difficult to mechanically control when population is high
- Limited successful chemical use
- Many uncertainties regarding growth and distribution across GLB

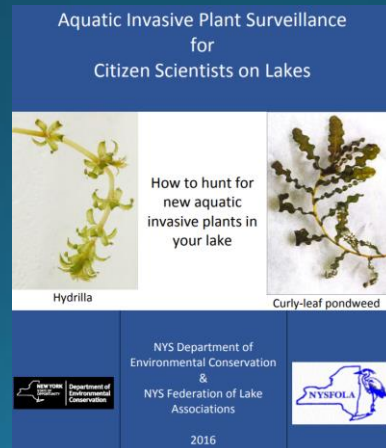


Photo credit: Kim McGarry, Canandaigua Lake Watershed Council

Prevention, Monitoring, and EDRR

- Currently many programs in NY to monitor for key AIS
 - Citizen science programs
 - Watercraft steward programs
 - Hydrilla hunters training
 - AIS training and mapping
 - AIS Strike teams
 - And more!
- Effective response plan?

Many gaps in knowledge for effective SSW response

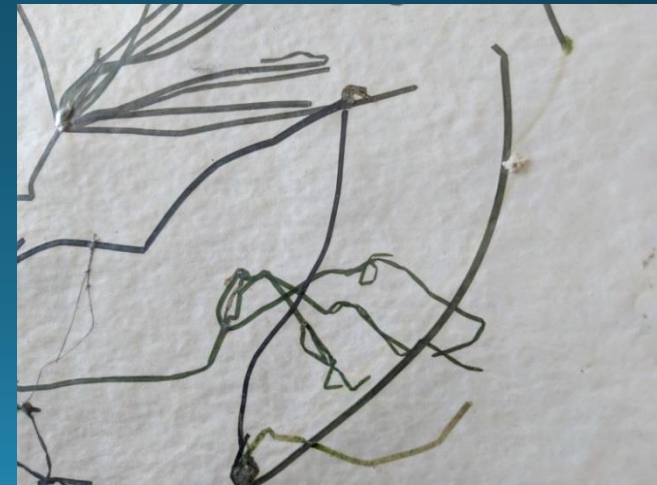


Control Options

- Mechanical Harvesting
 - Keuka Outlet, Sodus Bay (LO), Kettle Lakes
- Chemical Control
 - No conclusive longer-term control method in NY
- Watch and Wait
 - Canandaigua Lake, Cayuga Lake
 - All other lakes with populations!



Chemical options available but lack of research and data on long-term efficacy



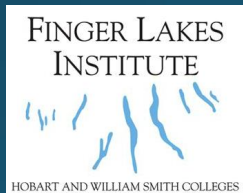
SSW Collaborative

Working together to find ways to prevent and control this silent invader

2016 EPA GLRI Foundations for Invasive Species Collaborations

Timeline: fall 2017-fall 2019

PI: Dr. Lisa Cleckner, Director, Finger Lakes Institute at Hobart and William Smith Colleges



SSW Collaborative GOALS

Collate existing information

- prevention strategies and control methods

Increase collaboration among

- experts,
- professionals,
- stakeholders, and the
- community-at-large

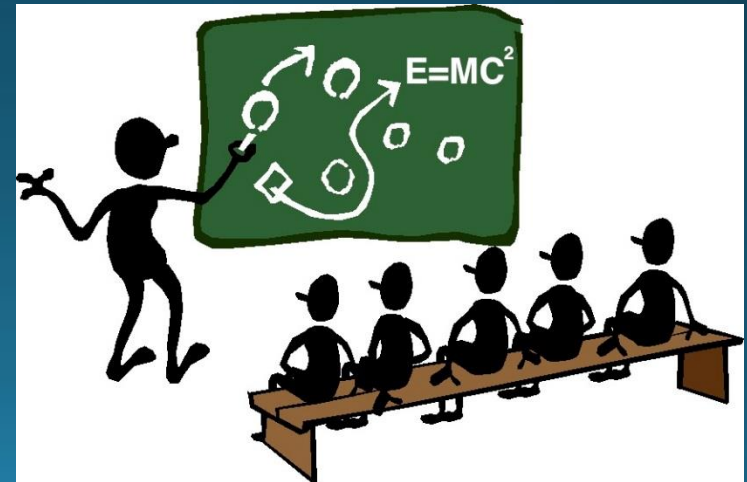
Increasing the capacity of professionals and citizens

- provide outreach to user-groups that are at-risk for spreading this highly invasive species



The Game Plan

- Hire program staff
 - 0.75 FTE Project Coordinator, part-time administrative support, 2 interns
- Convene expert panel – gap analysis
- Webinars will consist of most up-to-date research and management and open to the public
- Community, stakeholders, and others are engaged in outreach events to increase awareness of SSW control and management in the GLB
- Populate SSW website
 - current research, resources, and reporting



The Players



- Expert consultant group
 - Attend meetings, participate on conference calls, and present their research/management as appropriate
 - Develop or refine BMPs, factsheets, and other resources to be disseminated across the basin
 - Natural resource managers from GLB, NYISRI, researchers, etc.
- Lake associations and community members
 - Engaged to increase survey, identification, and reporting of SSW and disseminated resources
- Students and teachers
 - Engaged in experiential learning with goals to increase knowledge, and reporting of AIS

Key Benefits

- Develop/ refine useful control and management techniques,
- Ensure consistent messaging for prevention and control strategies,
- Support on-the-ground surveys and reporting, and
- Provide tools to prevent the further spread and impact

Filling in the gaps between research, control methodology, and effective outreach with the public



Next Steps

- Engage experts, collaborators, and resource managers
- Set schedule of webinars, meetings, conferences, and other venues to meet
- Meetings: Finger Lakes Research Conference- posters and presentations, USACE SSW Working Group, Binational Great Lakes AIS Forum, others!
- Create an outreach plan to increase interaction with public/ private sector utilizing partners such as
 - PRISMs, NYISRI, New York State Federation of Lake Associations, and
 - Partners within the GLB
- Realistic start in the new year

