



Capital Region PRISM AIS Survey and Treatment Report Clarke Pond

Date: July 24th and August 14th 2020

Site Name: Clarke Pond

- Private property of Susan Kingsley
- 7382 NYS Route 80

Site Size: 10 acre(s)

Shore Line: Unknown

Max and Mean Depth: Unknown

GPS Location of Site/Parking Lot: 42.8148, -74.8991 (With proper permissions)

County: Otsego

Town: Springfield

Property Owner Contact(s): NYS DEC Tax ID 40.00-1-40.01

Survey Leader: Kristopher Williams and Lauren

Henderson Jeff O'Handley Program Director

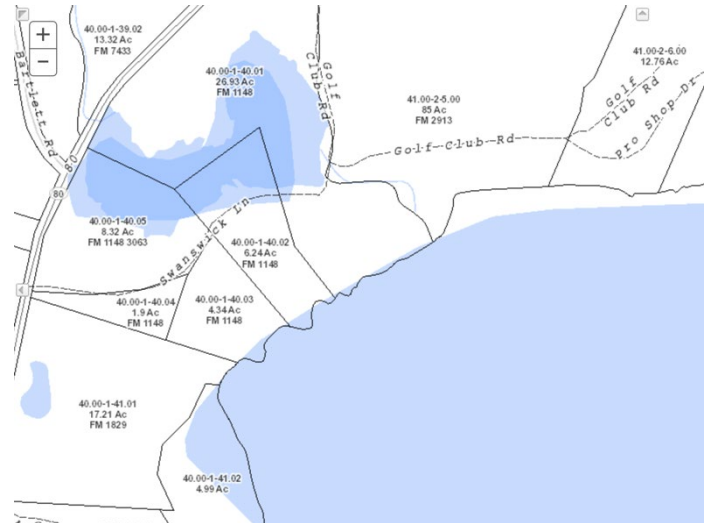
Otsego County Conservation Association

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iMapInvasives User ID: 9274



Site and Work Summary

On July 24th and August 14th 2020, the Capital Region PRISM conducted a survey and treatment of European Frogbit (*Hydrocharis morsus-ranae*) at Clarke Pond in Otsego County off route 80 in the Town of Springfield. The shallow geomorphology of Clarke Pond is an ideal site for the proliferation of European Frog-bit and a source for contaminating water bodies to the south like Otsego Lake via Cripple Creek. Weaver Lake and Young Lake are located north and contain European Frogbit as well. The pond is private and is only accessible by permission but it is extremely important to stop Frogbit from being transported downstream into Otsego Lake.

An IPMDAT report run by the PRISM late in the Fall of 2019 recommended containment of the Frog-Bit. A small team was assembled to clear Clarke Pond of European Frog-Bit to slow the spread. On July 25th and August 14th, a small team from the Capital Region PRISM, some volunteers from the area, and Jeff O' Handley participated in a pull and conducted a more thorough assessment of the plant's presence in the pond.

Aquatic Invasive Species Infestation

European Frogbit (*Hydrocharis morsus-ranae*) is found in scattered dense mats spread interspersed in the cattails (*Typha latifolia*) within section 9 of the pond (shown below). The other sections of the pond were surveyed for European Frogbit but contained a very few aquatic invasive plants. This pond is mostly marsh and has knee-deep thick mud, making it very difficult to navigate via wading. The area has proved impassable by kayak for entry due to the high density of White Water-lily (*Nymphaea odorata* ssp. *odorata*) within the pond. In section 9, the cattails are extremely dense, allowing for the perfect habitat for the Frogbit. The other sections of the pond with lower Frogbit densities are more open and easier to survey. Rakes were found to be very useful for balance and getting out of deep mud spots. It is absolutely imperative to move slowly and patiently while working at this site. The Frogbit is in a manageable amount with a small group but it was determined that surveying and removal needs to happen earlier in the season, due to the development of turions and size of some plants within the pond. Very High Threat Ranking - [Frogbit New York Non-Native Plant Invasive Ranking Form](#)



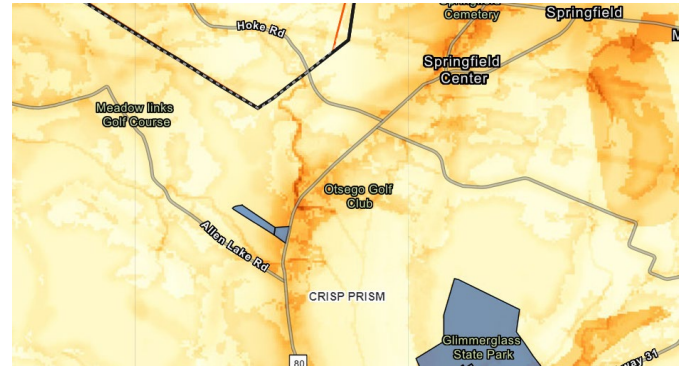
Survey Techniques:

- Visual Inspection of Surface and Subsurface - the water is murky and shallow.

iMapInvasives Prioritization Model:

- <https://www.arcgis.com/home/webmap/viewer.html?webmap=57d30ff9bfff7426c8950d90b0ba43bba&extent=-81.0352,39.2503,-70.2686,45.8067>

The area is ranked moderately high for ecological significance with a high comprehensive score as indicated on the New York State Natural Heritage prioritization model. The attribute scores are indicated by fairly dark colorization on the heat map linked below.



Does this site contain previously treated infestations?

- **Yes, European Frog-bit (*Hydrocharis morsus-ranae*)** in the early summer by Jeff O’ Handley and his intern.

Map:

Develop a map of the survey area that has any iMapInvasives points and searched polygons included to clearly define infestation extent. Multiple maps may be added for multiple species or locations.

Survey Area Presence



Clarke Pond Sections Springfield, NY



European Frog-bit (*Hydrocharis morsus-ranae*)



Presence points showing the spread of Frogbit through Cripple Creek



Section 2: Survey Result Summary

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
European Frog-Bit	<i>Hydrocharis morsus-ranae</i>	Use presence record below	Free Floating	Emergent Growth	Dense Shore Line and open water infestation

Section 3: Summary of Recommendations

This page provides recommendations of any treatment methods, monitoring methods, and restoration efforts based on the survey.

Treatment: Describe briefly any recommendations for future treatment methods, why they are recommended, and any alternatives to consider. Please use abundance and site-specific factors in your treatment recommendation. Optional: Attach or reference BMP guidance document

Basic Fact Sheet <https://seagrant.sunysb.edu/ais/pdfs/Frog-bitFactsheet.pdf>

Control: Recommendation for Continued Manual Hand-pulling Control

Consideration of EFB's distribution in wetlands, lakes, canals and other waterbodies is crucial when developing a management plan. European frog-bit can become increasingly difficult to manage once it is established throughout the major wetland vegetation zones (Halpern 2017). Dense mats in the floating vegetation zone are often the target of management actions; however, turions and free-floating plants can reestablish from the emergent and submerged vegetation zones, respectively. Free-floating plants in the submerged vegetation zone are likely to disperse to new areas through wind, waves, and current and should therefore be considered a management priority (Halpern 2017). A coordinated management strategy that targets EFB in the emergent, floating, and submerged vegetation zones simultaneously may be required to reduce EFB's reestablishment and dispersal potential.

- https://www.michigan.gov/documents/deg/wrd-ais-hcharis-morsus-ranae_499883_7.pdf
- Halpern AD (2017) *Hydrocharis morsus-ranae* L. in the Upper St. Lawrence River in New York:

Post-Survey Monitoring: Briefly explain the monitoring procedure, when it will occur, and who will complete it. Consider the phenology of species when suggesting time-lines. If a separate management or monitoring plan was developed or to be completed, attach or describe here.

Will post-treatment management be handled by another person/entity? **Yes.**

If yes- please provide the contact information:

Jeff O'Handley Program Director
Otsego County Conservation Association
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Will an Invasive Species Management Plan be created? Not at this time

The PRISM will be seeking a partner to apply for funding through our office or the NYS DEC to treat weaver pond the source of the infestation.

