



Capital Region PRISM Macrophyte Survey Report

Date(s): June 17th, 2022

Site Name: Round Lake, Anthony Kill

Site Size: 8.75 Acres

Waterbody Perimeter: 2.4 miles (RL)

Mean Depth: 7 feet (RL)

GPS Location: 42.934285, -73.790125

Physical Address: U.S. 9, Round Lake, NY 12151

Town: Malta

County: Saratoga

Primary Contact: Region 5 Fisheries | 518-897-1333 | fwfish5@dec.ny.gov

Secondary Contact: Village of Round Lake | Gary Putman, Mayor | 518-899-2800 | mayor@roundlakevillage.org

Survey Leader: Hannah Coppola – AIS Program Manager

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Team Members: Ben Caligiuri and Andrew Brunner (IS Technicians)

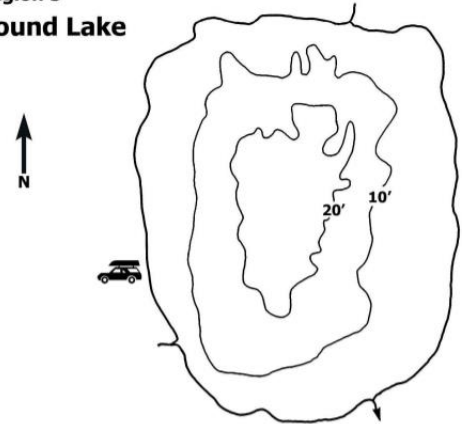
iMapInvasives User ID: 21052, 19154

New York State Department of Environmental Conservation
Division of Fish, Wildlife and Marine Resources
Lake Map Series



Region 5

Round Lake



Not For Use in Navigation



Round Lake	
County: Saratoga	Town: Malta
Size: 321 Acres	Mean Depth: 7ft
Fish Species Present: Largemouth Bass, Smallmouth Bass, Yellow Perch, Brown Bullhead, Northern Pike, Tiger Muskellunge, Bluegill, Common Carp, Black Crappie, Pumpkinseed	
Scale: 0 770 ft	

Section 1: Survey Summary

On June 17th, 2022 the Capital Region PRISM conducted a partial aquatic survey of Round Lake and Anthony Kill in Saratoga County for Tier 1 and 2 aquatic invasive species. Upon completion of the aquatic survey Eurasian watermilfoil, water chestnut, and curly-leaf pondweed were observed. Weather conditions did not allow for a full survey of the waterbody and a follow up macrophyte survey is recommended.

Site Description

Round Lake, Little Round Lake and the Anthony Kill are connected waterbodies located in the Village of Round Lake. The substrate of all waterbodies is comprised of muck and sand with a bottom cover of macrophytes and benthic algae.

Round Lake is a popular recreation and fishing spot for locals. A boat launch is located on the western shoreline allowing motorized and non-motorized watercraft to launch. Eurasian watermilfoil can be observed in a dense patch surrounding the launching area. An additional hand launch in the Anthony Kill is owned by Saratoga PLAN.

Survey Techniques

Anthony Kill and partial Round Lake

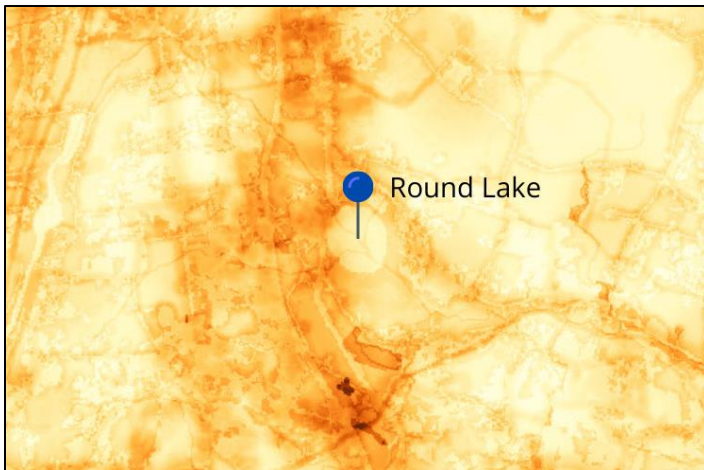
- Top-side (visual)
- Rake toss



NYS Invasive Species Prioritization Model

The area surrounding Round Lake, Little Round Lake and the Anthony Kill has a medium-high comprehensive score on the NYS Invasive Species Prioritization Model. Locations with high comprehensive scores have high ecological significance, a high risk of spread of invasives into the area, and high value according to their protected status. Early detection is important in these locations to ensure timely management of new infestations if detected.

[NYS Invasive Species Prioritization Model](#)



Does this site contain previously treated infestations?

Yes, water chestnut removals have been organized in the past on Round Lake.

Section 2: Survey Result Summary

Aquatic Invasive Species Presence

- Water chestnut
 - New York Non-Native Plant Invasiveness Ranking – 82
 - http://nyis.info/wp-content/uploads/2018/01/61a2d_Trapa-natans-NYS.pdf
- Eurasian watermilfoil
 - New York Non-Native Plant Invasiveness Ranking – 100
 - http://nyis.info/wp-content/uploads/2018/01/5cdc8_Myriophyllum.spicatum.NYS_.pdf
- Curly-leaf pondweed
 - New York Non-Native Plant Invasiveness Ranking – 79.79
 - http://nyis.info/wp-content/uploads/2018/01/7223b_Potamogeton.crispus.NYS_.pdf

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
Water chestnut	<i>Trapa natans</i>	Multiple locations	Floating	Fruit ripening	Dense
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	Multiple locations	Submerged	Vegetative	Dense
Curly-leaf pondweed	<i>Potamogeton crispus</i>	Multiple locations	Submerged	Vegetative	Sparse/Dense

Growth Type: Tree, Shrub, Vine, Ground Cover, Herbaceous, Riparian, Submerged, Floating, Emergent, Wetland, Pest, Animal

Phenology: Flowering, Leaf unfolding, fruit ripening, leaf color change, dormant, swarming, spawning, emergence (insects), migrating, in seed, senesce



Distribution/Abundance: Trace (single plant/clump), Sparse (scattered plants/clumps), Dense plants/clumps, Linearly scattered, Monoculture

Native Species Presence

- Common bladderwort (*Utricularia macrorhiza*)
- Waterweed (*Elodea spp.*)
- Coontail (*Ceratophyllum demersum*)
- Arrow arum (*Peltandra virginica*)
- White waterlily (*Nymphaea odorata*)
- Spatterdock (*Nuphar variegata*)
- Robbin's pondweed (*Potamogeton robbinsii*)

Section 3: Summary of Recommendations

Prevention

- Watercraft Inspection Steward Program – it is recommended that the presence of a watercraft steward at the DEC Round Lake boat launch is maintained throughout the boating season. This program encourages clean, drain, dry practices and reduces the risk of a new AIS being introduced into Round Lake and Little Round Lake.
- Ensure ample AIS signage is present in the parking and launch area.
- Maintenance of the AIS disposal station to encourage boaters to dispose of AIS properly.

Management

Water chestnut

Mechanical

- Hand-pulling
 - Conduct hand-pulls between mid-June-July before fruit has ripened and dropped to reduce chances of adding to the seed bank.
 - Multiple visits per season may be necessary to remove regrowth.
 - Management/post-treatment monitoring of site should continue for up to 10 years to ensure seed bank is depleted.
- Mechanical Harvester
 - Cuts vegetation and transfers biomass onto a conveyor system to be disposed of. Multiple cutting may be necessary for regrowth later in the season.

Chemical

- Herbicide (2, 4-D or Glyphosate)
 - Should be administered before the fruit has ripened and dropped to reduce chances of adding to the seed bank.
 - Potential negative impacts to non-target species. Application of aquatic herbicides requires both a licensed pesticide applicator and a permit from your state environmental regulatory agency.

Eurasian watermilfoil

- Harvest/Suctioning
- Chemical Treatment with Selective Herbicide
 - A number of chemicals impact the growth and survival of *M. spicatum*. Amine salts of Endothall (Hyrothol 191®), and Dipotassium Salts of Endothall (Aquathol K®), Diquat dibromide (Reward®), Komeen® have been found to be effective. Some of these herbicides may also affect other non-target rooted submerged plants, including some rushes. Treatment is most effective in still water in the spring while the plant is actively growing.

The amine formulations of 2,4-D granules (Navigate®, Aquakleen®, Aquacide®) are effective on controlling Eurasian watermilfoil and will not damage most non-target grasses. This herbicide method, however, is not appropriate for large unmanageable areas of milfoil. One lose-dose application (10 µg/ L) of fluridone (brand names Sonar® and



Avast!®) applied in the early stages of growth has the potential to provide season-long control of milfoil. However, this application rate causes collateral damage to native vegetation. Liquid triclopyr (Renovate 3® and Renovate® OTF) can control milfoil without unintended damage to cattails and grasses. Note: Always check state/provincial and local regulations for the most up-to-date information regarding permits for control methods. Follow all label instructions. Mention of chemicals, particularly the mention of brand names in this profile does not represent a recommendation by NY Sea Grant or Cornell University.

- Non-Selective Control Strategies
 - Benthic Mats

Curly-leaf pondweed

Mechanical

- Curly-leaf pondweed can be managed mechanically by raking, hand cutting, or harvesting vegetation. Raking and hand cutting generally remove the plants at the sediment surface, while harvesting generally removes the top five feet of the plants. Diver-operated suction harvesting allows for the removal of both stems and turions, but is slow and costly. Mechanical methods control plants in the specific areas where they are causing a nuisance and there is immediate relief from the nuisance.

Physical

- Habitat manipulations such as water level drawdown, dredging, or bottom barriers can be used to manage curly-leaf pondweed. Fall drawdown can prevent curly-leaf pondweed from growing the following summer by exposing turions to freezing temperatures and desiccation. Dredging can be used to control curly-leaf pondweed by increasing water depth. In deep water rooted plants do not receive enough light to survive. Depending upon how much material is removed, dredging can prevent all rooted macrophytes from growing for many years. Bottom barriers can be used to prevent the growth of rooted aquatic macrophytes in small areas. Control of all rooted species is immediate and lasts as long as the barriers are well maintained. Barriers are expensive to install and maintain.

Chemical

- Only a few of the aquatic herbicides can be used to control curly-leaf pondweed (Tables 1, 2). Good to excellent control of curly-leaf can be obtained using formulations of diquat (e.g., Reward®) and endothall (e.g., Aquathol®). Whole lake treatment with fluridone can also be used to control curly-leaf pondweed. Diquat and endothall (especially the former) are contact herbicides that can be used in small areas. Endothall has been shown to be effective at lower temperatures, and is being used experimentally in largescale applications on entire beds of curly-leaf pondweed. Fluridone is a systemic herbicide that usually has to be applied to whole lakes or bays and requires over 60 days to control curlyleaf pondweed. Potential problems are failure of the herbicides to control curly-leaf, a lag time between treatment and plant knock down, regrowth of curly-leaf the following year, and the removal of beneficial native plants.

(John D. Madsen, Ph.D., GeoResources Institute, Mississippi State University)

Post-Survey Monitoring

Round Lake and Little Round Lake are considered Priority Waterbodies in the Capital Region PRISM. Early detection surveys will be conducted on both waterbodies on a biannual basis to ensure any infestations are detected early when eradication is still possible.

Will an Invasive Species Management Plan be created?

- No



[Photos](#)

