



# SLELO PRISM's Invasive Species Volunteer Surveillance Network Guide for Aquatic Plants



2018

ST. LAWRENCE EASTERN LAKE ONTARIO PARTNERSHIP FOR  
REGIONAL INVASIVE SPECIES MANAGEMENT

To learn more visit [www.sleloinvasives.org](http://www.sleloinvasives.org)

Invasive aquatic plants can threaten our recreation resources, native fish and wildlife, and water resources. Educated and concerned volunteers **LIKE YOU** can help by watching out for these aquatic invasive plant species, protecting native aquatic plant species, and being responsible stewards of our natural resources.

Learn more at [www.sleloinvasive.org](http://www.sleloinvasive.org)

## Safety First

1. Always travel in pairs, use the buddy system & inform someone of your travel plans
2. Always have a first aid kit nearby.
3. Wear your life jacket when on the water
4. Bring a means of communications with you, ie. cell phone or two-way radios.
5. Place emergency contact numbers into your phones address book.
6. Drink plenty of water on hot days and bring snacks & pace yourself.

## Steps You Can Take to Stop the Spread Of Invasive Species

# CLEAN + DRAIN + DRY YOUR GEAR



### Choose Native Plants



### Use Boot Brush Stations



### Collect a Specimen/ Take a photo

- Get a close-up photo
- Put a specimen in a container and label it with date/ location/contact info
- Email photo(s) to [rwilliams@tnc.org](mailto:rwilliams@tnc.org) or call 315-387-3600 x 7725 for drop off location(s) near you.



**INVASIVE Hydrilla (*Hydrilla verticillate*)**

Visible leaf serrations



Tubers



Leaves whorled in bunches of 4-8 (most often 5) around stem



Photo credits: invasive.org: <https://www.invasive.org/browse/subthumb.cfm?sub=3028>

**INVASIVE Brazilian waterweed (*Egeria densa*)**



3-6 leaves less than 1in. whorled around stem

Finely serrated leaves

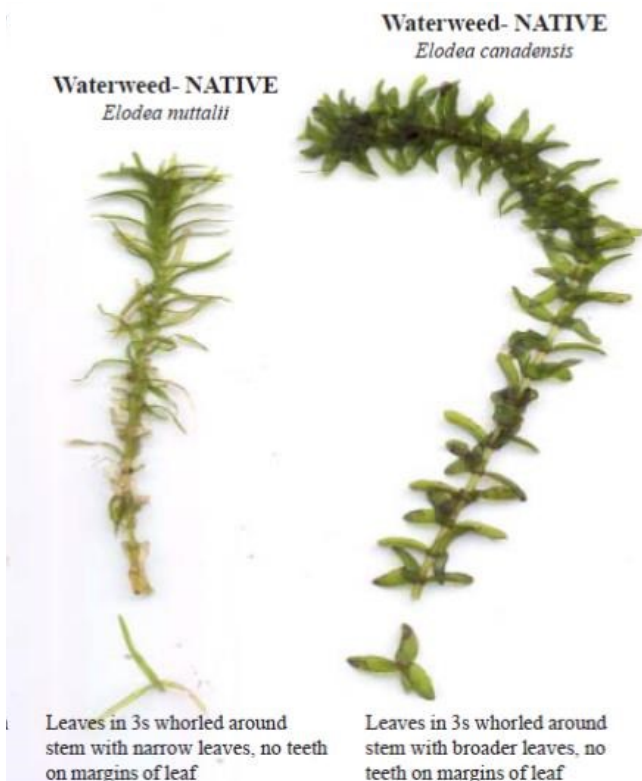
Smooth midrib on leaf underside

No tubers



Photo credit: invasive.org: <https://www.invasive.org/browse/subinfo.cfm?sub=3019>

**NATIVE Look-a-Likes of Invasive Hydrilla & Brazilian Waterweed**



Native Elodea (*Elodea spp.*)

Leaves are in whorls of 3 around stem and **do not** have serrations.

Photo credit: Lake George Association: <https://www.lakegeorgeassociation.org/educate/science/lake-george-invasive-species/hydrilla/>

## Invasive Fanwort (*Cabomba caroliniana*)

Submerged fan-shaped leaves with tips that split like a “y” + a distinctive petiole that branches off the main stem = fanwort



Photo Credit: Leslie J. Mehrhoff, University of CT, [bugwood.org](http://bugwood.org)

## Native Look-a-Likes of Invasive Fanwort

### Native Buttercup (*Ranunculus*):

Submerged leaves are **alternately arranged** and attached by a **distinct petiole**.



### Native Water Marigold (*Megaladonta*):

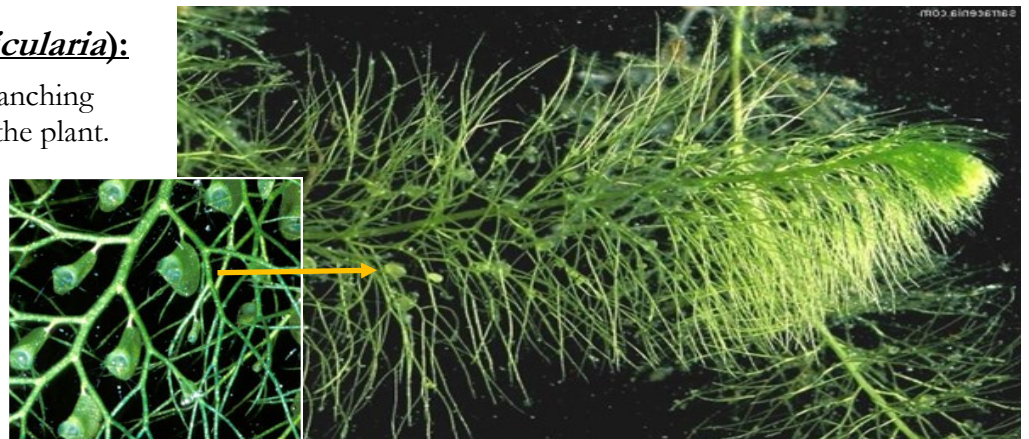
Submersed leaves **lack a petiole**, branched, arranged opposite around the stem .



### Native Bladderwort (*Utricularia*):

Leaves are finely divided in a branching pattern along the main stem of the plant. Small round **bladders** grow along the branches of the leaves (used to capture & digest small aquatic organisms)

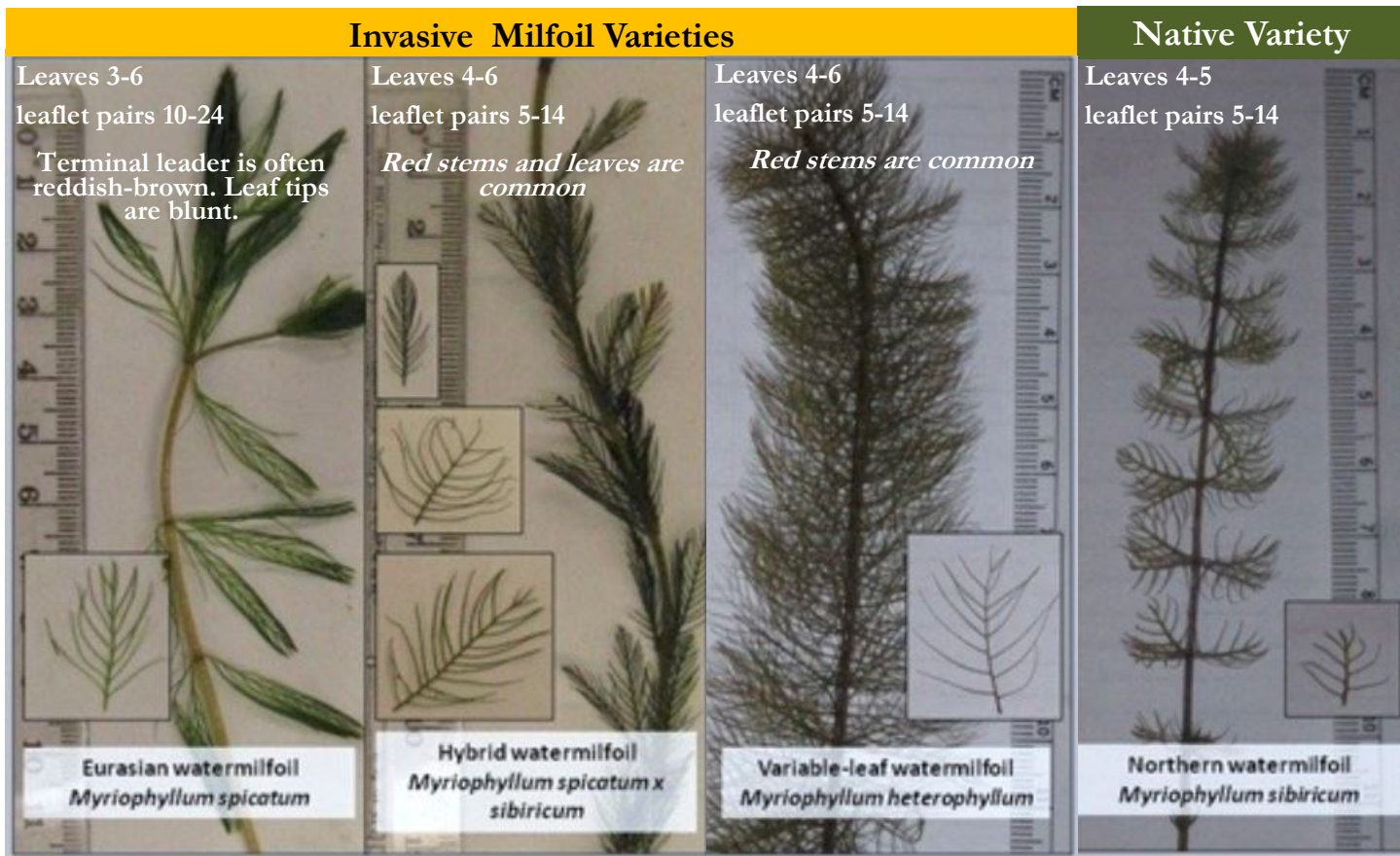
**Leaves don't look like a fan.**



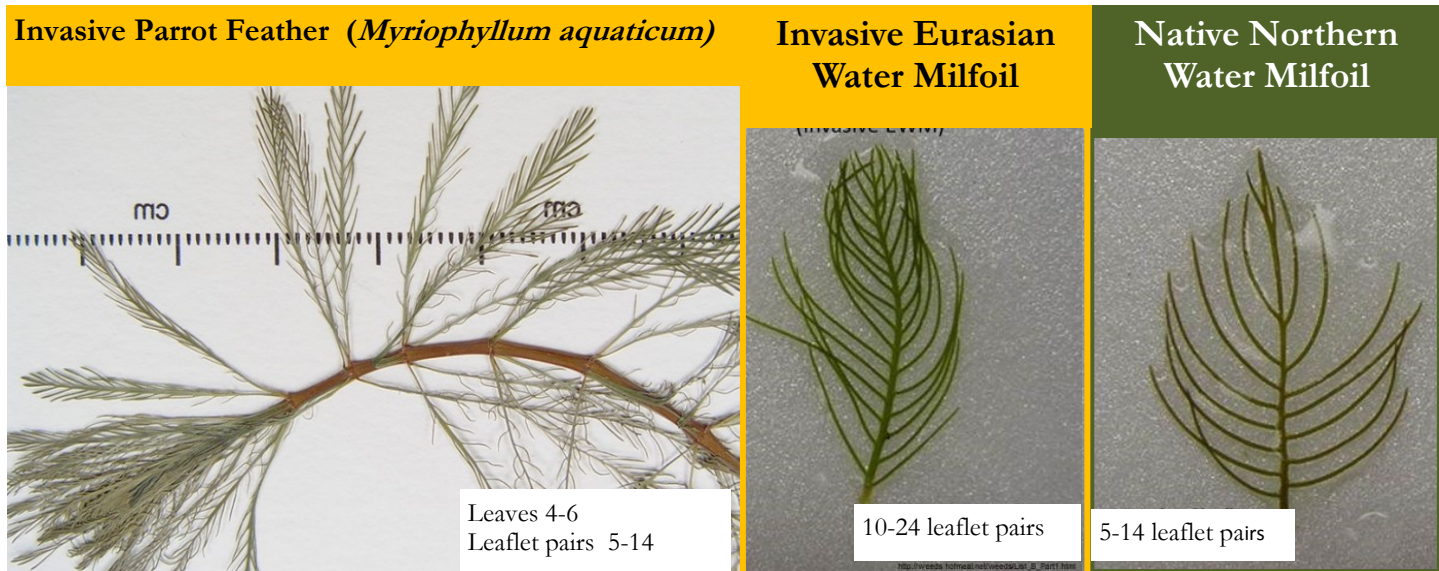
# Invasive Water Milfoils Versus Native Water Milfoils

It is difficult to distinguish between native & invasive milfoil species as there are many different varieties of both. Below are some distinguishing features to look for.

*(there are many more milfoil species than what is shown below, however, these are most common in our region).*



Top photos, <http://shadowlakeassociation.org/identifying-eurasian-watermilfoil/>; bottom photos, <https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=237>



# Invasive Starry Stonewort (*Nitellopis obtusa*) (a type of microalgae)

A stem with 4-6 smooth branchlets that each have one or more short bracts stemming off it giving an uneven forked appearance. If branchlets go limp when squeezed, it's *N. Obtusa*.



Stem photos: <https://www.dec.ny.gov/animals/109530.html> . Bulbil photo: <https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=1688>

## NATIVE Look-a-Likes for Invasive Starry Stonewort

### Native *Chara* spp.

Has a skunky smell and feels rough



<https://microscopesandmonsters.wordpress.com/tag/chara/>

### Native *Nitella* spp.

Has no odor and feels smooth



<https://lakestewardsofmaine.org/mciap/FieldGuide.pdf>

## **INVASIVE Brittle (European) Naiad (*Najas minor*)**

Leaves have 7-15 spines (visible without magnification). Leaves may appear to be opposite, in whorls, or in clumps.



## **NATIVE Look-a-Likes for Invasive Brittle Naiad**

### **Native Thread-like naiad (*Najas gracillima*)**

Slender, flimsy thread-like leaves that have 13-17 spines (*visible with hand lens*)



### **Native Slender naiad (*Najas flexilis*)**

Fine, stiff, slender leaves with 20-100 minute spines. When mature, leaves tend to arch backwards. (*Strong magnification needed*)



## Invasive Water Soldier (*Stratiotes aloides*)

Floating sword shaped serrated leaves that form a rosette

(looks similar to an aloe plant or the top of a pineapple)



Left & Center Photo Credit: [Jakob Katzenberger](#), [Dietmar Zacharias](#), [pollinationecology.org](http://pollinationecology.org)

Right Photo Credit: [Jiri Novak](http://www.biolib.cz/), <http://www.biolib.cz/>. Bottom photos: [bugwood.org](http://bugwood.org)

## Invasive Water Hyacinth (*Eichhornia crassipes*)

Rounded floating leaves with thick, waxy, spongy petioles. Showy blue-purple flowers that grow on spikes. Each flower has six petals with the uppermost having a yellow patch.





## Invasive European Water Chestnut (*Trapa natans*)

Triangular, tooted leaves that form a floating rosette connected to a submerged stem by inflated petioles. Sharp pointed nutlets develop mid summer and are attached to the rosette.



Left Photo Credit: Leslie J. Mehrhoff, University of CT, bugwood.org , Right Photo Credit: [http://www.starnewsdaily.com/media/starnewsdaily/images/1ce77976fc5\\_6064cdfa5c83b284ba296.jpg](http://www.starnewsdaily.com/media/starnewsdaily/images/1ce77976fc5_6064cdfa5c83b284ba296.jpg)

## Invasive European frog-bit (*Hydrocharis morsus-ranae*)

Small (20-60mm), thick, waxy, heart shaped floating leaves with smooth edges and spongy, purplish-red undersides . Long, unbranched stems dangle from undersides of each floating leaf. Flowers are white with three petals and yellow centers that grow on spikes above water.

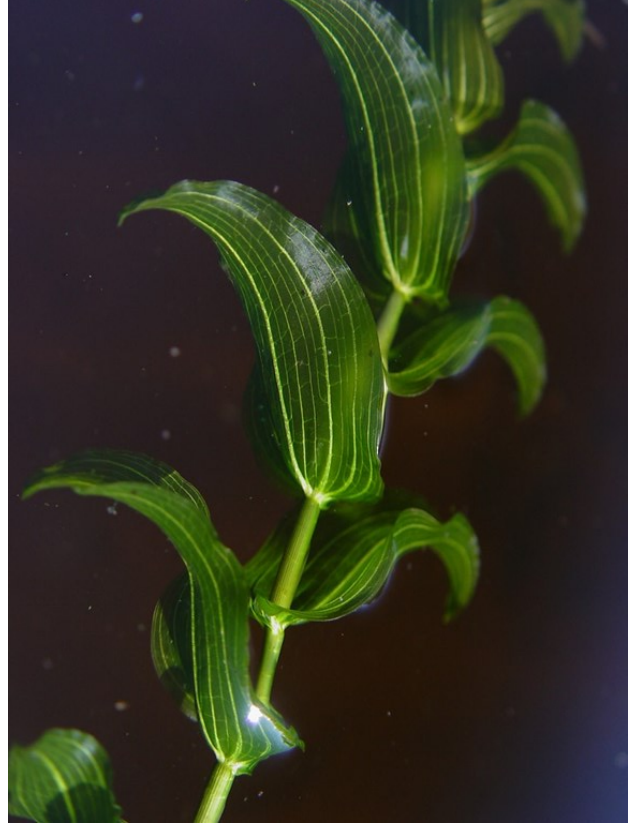


# INVASIVE Curly-Leaf Pondweed Versus Native Look-a-Likes

Invasive Curly-Leaf Pondweed  
(*Potamogeton crispus*)



Native Clasping-Leaf Pondweed  
(*Potamogeton perfoliatus*)



Native Broadleaf Pondweed  
(*Potamogeton amplifolius*)



Native White-Stemmed Pondweed  
(*Potamogeton praelongus*)



# Common Native Aquatic Plants

Common Duckweed  
(*Lemna minor*)



Coontail  
(*Ceratophyllum demersum*)



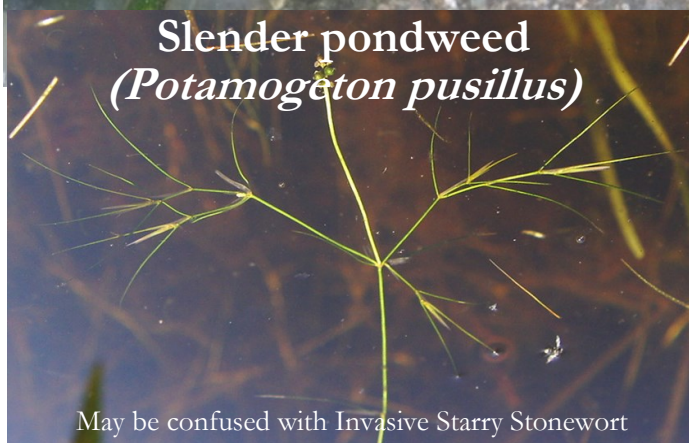
Eel grass  
(*Zostera marina*)



Pickerel weed  
(*Pontederia cordata*)



Slender pondweed  
(*Potamogeton pusillus*)



May be confused with Invasive Starry Stonewort

Aquatic moss



# Common Native Aquatic Plants

Floating pondweed  
(*Potamogeton natans*)



Long-leaved pondweed  
(*Potamogeton nodosus*)



Yellow pond lily  
(*Nuphar variegata*)



Arrow arum  
(*Peltandra virginica*)



Waterlily  
(*Nymphaea odorata*)



Water-  
shield  
(*Brasenia schreberi*)

