

HOW CAN YOU HELP STOP HYDRILLA?



For Boats and Other Watercraft:

- ◆ Avoid dense beds of aquatic vegetation.
- ◆ Inspect your watercraft, trailer, and all equipment. Remove and dispose of **all** mud, plant, and other material in a trash can or on dry land **away from the water**.
- ◆ Clean and dry all equipment thoroughly before visiting other bodies of water. This includes airlocks on shells, air bladders on kayaks, bait wells, drop keels, etc.

Around Docks, Launch Sites, and Other Areas:

- ◆ When removing weeds near swimming areas, boat slips, or docks, collect all plant fragments to prevent any pieces from floating away. Watch for any plant that might be hydrilla.
- ◆ Dispose of plants **away from the water**.

Report Suspected Sighting:

If you think you have found a new population of hydrilla, take a close-up photo of the plant against a light-colored background. Go to StopHydrilla.org and look for "Report Hydrilla Suspects" or call Hydrilla Program Manager, James Balyszak at 607-254-1715.

Become a Hydrilla Hunter:

Receive training on identifying hydrilla and other aquatic plants, then join others actively looking for hydrilla. Go to StopHydrilla.org and select "How You Can Help" or contact us.



Photo: Robert Vidéki, Doronicum Kft., Bugwood.org

IS THE WATER SAFE AFTER HERBICIDES ARE APPLIED?

Bolton Point water supply is located 3 miles north of the hydrilla treatment area. After application of endothall or fluridone, Tompkins County Health Dept. (TCHD) monitors the amount of herbicide near and at Bolton Point's water intake to ensure that it stays below the limit set by NYS law. This limit is the Maximum Contaminant Level (MCL); commonly called the drinking water standard. TCHD continues monitoring until herbicide levels are too low to be measures, which is well below the MCL.

Endothall detections at Bolton Point have never exceeded the MCL. Fluridone is applied at very low levels, and has never been detected in any Bolton Point samples.

After endothall application, swimming in the treatment area is prohibited for one day. Swimming outside the treatment area is not affected. Fishing is not restricted. During fluridone treatment, there are no restrictions on drinking, fishing, swimming, or boating.

Due to the photosynthesis-inhibiting action of the herbicides, don't use water from the treatment area for watering plants while the herbicides are being applied.

NYS Department of Environmental Conservation (NYSDEC) requires additional water monitoring ½ mile upstream and downstream of the treatment areas to ensure environmental protection. Monitoring these locations verifies that the herbicide is not spreading beyond the treatment area.

The Hydrilla Task Force is doing everything possible to make sure the water is safe for humans, pets and aquatic life. Additional details about the herbicides, treatment areas, monitoring locations, MCL and monitoring results are posted at StopHydrilla.org.



**The Hydrilla Task Force
of the Cayuga Lake Watershed**

FOR MORE INFORMATION CONTACT

James Balyszak, Hydrilla Program Manager
607-254-1715 or visit StopHydrilla.org
stophydrilla@gmail.com

STOP HYDRILLA!

Hydrilla verticillata

Common Names: hydrilla and water thyme

Found in Ithaca, NY: Cayuga Inlet (August 2011),
Fall Creek & SE corner of Cayuga Lake (August 2013)



**This plant must be stopped
or the shoreline of Cayuga Lake could
be solid hydrilla like this Florida river.**

- ◆ One of the **world's most invasive** aquatic plants
- ◆ Can grow up to a foot per day
- ◆ Forms dense mats that block sunlight and lowers oxygen in the water, causing harm to native plants, fish and waterfowl
- ◆ Obstructs boating, swimming and fishing
- ◆ Hurts the local economy through impacts on tourism and waterfront property values
- ◆ Blocks intakes at water treatment, power generation, and industrial facilities
- ◆ Clogs flood control channels and increases the chances of flooding within the area

WHAT IS HYDRILLA?

Hydrilla is an invasive, aquatic plant native to Australia, Asia and Africa. It takes root in the bottom of ponds, lakes, and streams, and quickly grows stems up to 30 feet long to form thick, dense mats. Hydrilla stores food underground in tiny, potato-like tubers.

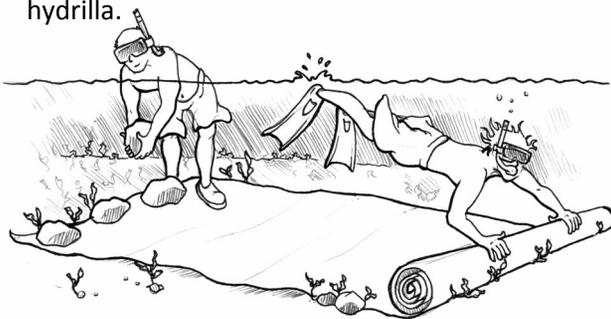


There are different types of hydrilla. The information here is about monoecious hydrilla, the kind found in the Cayuga Lake watershed. Monoecious means that male and female flowers form on the same plant.

WHERE WAS HYDRILLA FOUND?

Hydrilla likely arrived in Cayuga Inlet prior to 2011 as a plant fragment on a boat, trailer or from dumping of an aquarium. Unfortunately, we will never know exactly how, when or from where hydrilla arrived in the Cayuga Lake Watershed.

Rooted hydrilla has also been found locally in Fall Creek and the southeast corner of Cayuga Lake. It has not been found in neighboring lakes, which are also being monitored for hydrilla.



Benthic barrier mats are one tool for fighting hydrilla

WHAT IS BEING DONE TO STOP HYDRILLA?

Herbicides: The Hydrilla Task Force is using two herbicides as part of the eradication program: endothall and fluridone. Both herbicides disrupt photosynthesis, the process plants use to convert sunlight into food energy. Prior to any treatments, the HTF obtains all necessary permits from the NYSDEC for herbicide application. A single dose of endothall is used early in the growing season (usually mid- to late-July) to kill growing hydrilla shoots and stems.

All other successful hydrilla eradication programs in the US have used herbicides.

Fluridone is applied at low doses throughout the rest of the growing season in order to suppress re-growth of hydrilla. Fluridone application continues for approximately 30-60 days. Together, the herbicides deplete the plant reserves stored in the tubers. Because these tubers can lie dormant for many years, annual herbicide treatment will likely be needed until at least 2020 to ensure full eradication.

Barriers: Benthic barrier mats (figure left) kill plants by blocking sunlight needed for food energy. They can be used in small areas, such as between docks or when a new population is found. Mats were first placed in the SE corner of Cayuga Lake after patches of hydrilla were found there in 2013.

Monitoring: Trained volunteers and professionals are looking for new populations of hydrilla in Cayuga Lake and neighboring lakes. Early detection allows for rapid response so that populations can be stopped immediately.

Outreach: Signs, educational programs and the StopHydrilla.org website all alert people of ways to prevent the spread of hydrilla. It's up to all of us to *spread the word and not the plant!*

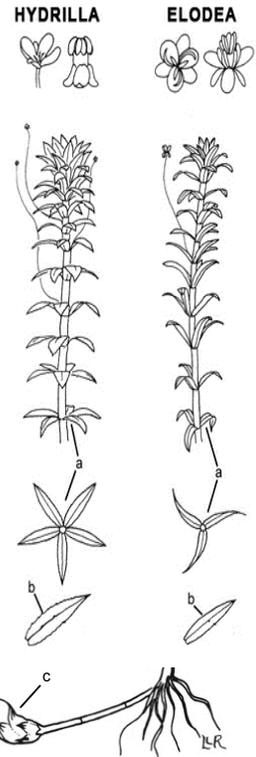
WHAT DOES HYDRILLA LOOK LIKE?

Hydrilla is easy to confuse with the native and beneficial plant, *Elodea canadensis*, which is common in Cayuga Lake. The leaves of both plants are about 5/8 inch long.

(a) Hydrilla leaves generally grow in whorls of 5 along the stem. Elodea generally has 3 leaves in a whorl.

(b) Hydrilla has small teeth along the leaf edges. Elodea appears to have smooth leaf edges when viewed without magnification.

(c) Hydrilla has small, white to yellowish potato-like tubers attached to the roots. These can be buried 5 to 6 inches in the bottom sediment.



HOW DOES HYDRILLA SPREAD?

- ◆ Small stem and leaf fragments of hydrilla can sprout roots and form new populations.
- ◆ Boats, trailers, and equipment can snag pieces of hydrilla and spread it within and between lakes.
- ◆ Wind and water currents can spread floating fragments of hydrilla.
- ◆ Hydrilla can hide among aquarium plants. So never dump aquaria outside!

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