

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** plant matter, mud and other matter in a trash can or on dry land **well above the waterline**.
- ◆ Clean and dry all equipment thoroughly before visiting other lakes or rivers. This includes airlocks on shells, air bladders on kayaks, bait wells, drop keels, etc.

Around Docks, Launch Sites, and Other Areas:

- ◆ When removing weed growth 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 **well above the water line**.

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), and it is commonly called the drinking water standard. TCHD continues monitoring until herbicide level is below the detection limit, which is well below the MCL.

Endothall detections at Bolton Point have never exceeded the MCL. Fluridone is applied at very low levels. It has never been detected in any Bolton Point sample. Details about the herbicides, treatment areas, monitoring locations, MCL and monitoring results are posted at StopHydrilla.org.

After endothall application, swimming in the treatment area is prohibited for one day. Outside the treatment area, swimming is not prohibited. 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 herbicide, don't use water from the treatment area for watering plants while the herbicide is being applied. NYSDEC requires additional water monitoring for environmental protection. NYSDEC sample sites are upstream and downstream of the treatment areas. Monitoring these locations verifies that the herbicide is not spreading beyond the treatment area.

We are doing everything possible to make sure the water is safe for humans, pets and aquatic life.



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

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)



Brian Nelson, SWFWMD
Withlacoochee River

This plant must be stopped

or the shoreline of Cayuga Lake could
be solid hydrilla like this Florida reservoir.

- ◆ 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 harming native plants, fish and waterfowl
- ◆ Obstructs boating, swimming and fishing
- ◆ Harmful to local economy through impacts on tourism and waterfront property values
- ◆ Blocks intakes at water treatment, power generation, and industrial facilities
- ◆ Clogs flood control channels

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.

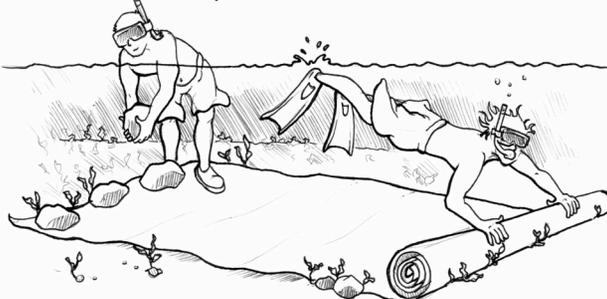


There are different types of hydrilla. The information here is about monoecious hydrilla, the kind found in the Cayuga Lake watershed. Monoecious means that male and female flowers are borne on the same plant.

WHERE WAS HYDRILLA FOUND?

Hydrilla probably arrived in Cayuga Inlet in 2010 or 2011 as a plant fragment on a boat, trailer or from dumping an aquarium. We will never know for sure how, when or from where it arrived.

As of August 2013, rooted hydrilla was also found in Fall Creek and the southeast corner of Cayuga Lake. None has 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?

Herbicide: The Hydrilla Task Force is using two herbicides, endothall and fluridone, as part of the eradication program. Both herbicides disrupt photosynthesis, the process plants use to convert sunlight to food energy. A single dose of endothall is used early in the growing season to kill growing hydrilla shoots and stems. Fluridone is applied later in the season to suppress re growth. It is applied using continuous, low flow liquid injection units and in a pelletized form. Fluridone application continues for approximately 60 days. Together the herbicides deplete the plant reserves stored in the tubers. Annual herbicide treatment will likely be needed until at least 2020 since the tubers can lie dormant for many years.

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

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

Monitoring: Trained volunteers and professionals are looking for new populations of hydrilla in Cayuga Lake and neighboring lakes so they can be stopped immediately, most likely using benthic barrier mats to smother plant growth.

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

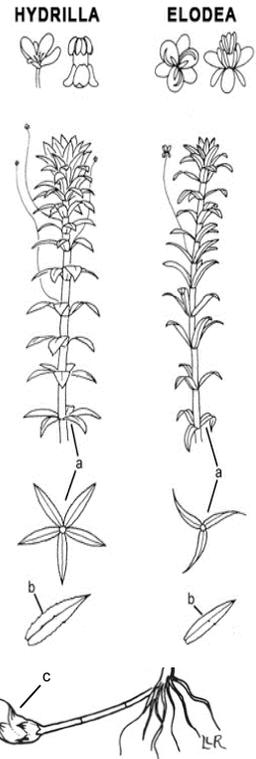
WHAT DOES HYDRILLA LOOK LIKE?

Hydrilla is easy to confuse with the native, beneficial water weed, *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 fragments of hydrilla can sprout roots and form new populations.
- ◆ Boats and boat trailers can snag pieces of the weed and spread it within and between lakes.
- ◆ Wind and water currents can spread floating fragments of hydrilla.
- ◆ Hydrilla can hide among aquarium plants. Therefore, don't dump aquaria outside.