

Invasive Plants in Pennsylvania

Hydrilla

FEDERAL Noxious Weed

Hydrilla verticillata



USDA APHIS PPQ

Habitat:

This species tolerates a variety of pollutants and a range of water chemistry. It will grow in lakes, ponds, stream and rivers.

Range:

Hydrilla is more commonly found in southern states on both the east and west coasts, but it is showing up more frequently in the Mid Atlantic and New England states as time goes by.



David Moorhead, Univ. of Georgia

Description:

This is a submerged aquatic plant that can grow in water as deep as 20 to 40 feet. Leaves are whorled in bunches of three to eight, but most often with five. The midribs of the small leaves are reddish in color with the undersides having small, raised teeth. Fruits are cylindrical and contain up to five seeds.

Ecological Threat:

Hydrilla forms dense floating mats that can restrict native vegetation, impact recreation and slow water flow. Annual control efforts in Florida alone cost millions of dollars. It was identified as a federal noxious weed in 1979, meaning it is illegal to sell, plant and transport this species.

Biology and Spread:

The primary means of spread is vegetatively. Living stem sections can break off and root elsewhere. Late in the season herbicide-resistant tubers (*see photo below*) form at the end of the stolons, allowing for rapid recolonization of a treated site. Seed production appears to be minimal in the north.



Tim Murphy, Univ. of Georgia

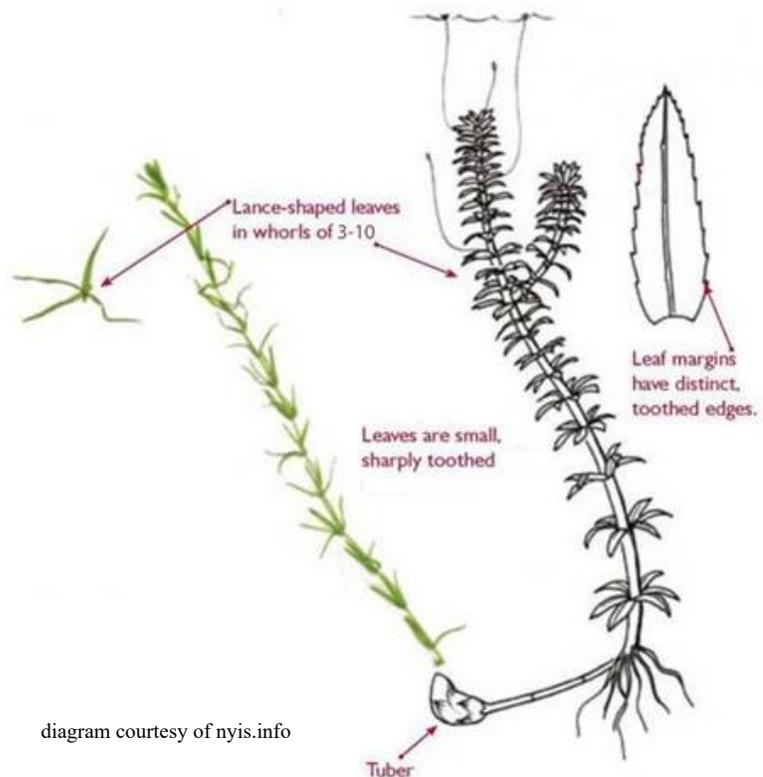


diagram courtesy of nyis.info

How to Control this Species:

Prevention

Monitoring and prevention are the most important steps to keep hydrilla under control, since it can be difficult to treat once it's present.

Check all equipment and boats for plant fragments before leaving the area. Remove all debris, bag and dispose of.

Limiting disturbance to lake bottoms and the native vegetation growing there will help minimize the chances of hydrilla colonizing the area.

Manual or Mechanical

Removal of the plant can temporarily open up waterways but the resulting plant fragments can help spread the vegetation even faster. Repeated monitoring is necessary to deter regrowth. Hydrilla may be able to be controlled with seasonal water drawdowns. This is most effective when the tubers are developing in the fall and before regrowth occurs in the spring. However, tubers may remain dormant even after the pond has been drained.

Chemical

Systemic herbicides can provide for more long-term control. Fluridone is one such herbicide. It is intended for large-scale infestations and has minimal long-term effects on native plants. It can reduce but not altogether eliminate a population of hydrilla.

Look-A-Likes:

Hydrilla can be confused with the exotic Brazilian egeria (*Egeria densa* Planch.) and the native waterweeds: Canadian or common waterweed (*Elodea canadensis* Michx.) and Nuttall's or western waterweed (*E. nuttallii*). The difference lies in the number of leaves and the presence of tubers on hydrilla.



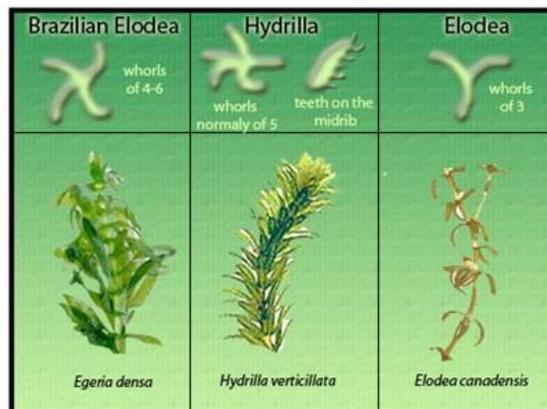
Canadian waterweed

Robert Videki, www.invasive.org

If You Find This Plant:

Hydrilla verticillata is on the Federal Noxious Weed Control List. It is illegal to sell, transport, plant or otherwise propagate this species. If you believe that you have found a new population of this plant, please contact:

**Botany/Weed Specialist Pennsylvania
Dept of Agriculture Phone
717-787-7204**



(untamedscience.com)

Identifying *Hydrilla*

Hydrilla is a plant that looks very similar to three other invasive plants - *Egeria densa* and *Elodea canadensis*. There are however some easy ways to tell the difference. First of all, *Egeria* has the largest leaves of any of them, growing up to 1/2 inch in diameter and 3/4 to 5/4 inches long. Unlike *Elodea*, which is much smaller and has whorls of 3 (rarely 4), *Egeria* has whorls of from 4-6, but never 3. *Hydrilla* usually has whorls of 5. Finally, while *Elodea* and *Egeria* have smooth leaves, *Hydrilla's* feels rough to the touch. This is because there are small teeth on the midrib. With this information, you should be able to distinguish these three major noxious aquatic plants.