

Hydrilla (*hydrilla verticillata*)

Hydrilla is a Federal listed noxious weed with distribution throughout several Eastern seaboard states. A Hydrophyte (a plant found on or near the water), hydrilla forms dense mats of vegetation that shades and crowds out native vegetation. Small, pointed leaves arranged in whorls of 4-8.

Hydrilla has both monoecious (unisexual flowers on the same plant) and dioecious (a plant having female flowers) - The monoecious form being found in Maryland, Delaware and on the Potomac. Occurs infrequently in New England.

Hydrilla is found in freshwater lakes, ponds, canals and impoundments.

Common Name: Hydrilla



Family: Frog Bits (common) *Hydrilla verticillata* (Scientific)

Similar Species:

Brazilian Waterweed (*Egeria densa*)



Canadian waterweed (*Elodea Canadensis*)



Photograph credits: <http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=22>
<http://plants.usda.gov/java/profile?symbol=ELNU2>

Western Waterweed (*Elodea Nuttalli*)



Photograph credit: http://tenn.bio.utk.edu/vascular/database/vascular-photos-enlarge.asp?CategoryID=Monocots&FamilyID=Hydrocharitaceae&GenusID=Elodea&SpeciesID=nuttalii&PhotoNameID=el_nutt&PhotographerNameID=B. Eugene Wofford

Origin:

Origin of Hydrilla is unclear. It is found in Asia, Australia, Europe and South America. It was introduced in Florida in 1950 as an aquarium plant. In 1960, a population outside of cultivation was discovered in Florida and in 1981 on the Potomac.

Hydrilla is spread by recreational activities, boats and wildlife.

Reproduction:

Hydrilla thrives in part due to various methods of reproduction. Stem tubers (turions) can break off and survive apart from the parent plant. These fragments are spread by boating activities, storms and waterfowl. Fragments, seeds and tubers overwinter.

Environmental Impacts:

Hydrilla forms dense mats of vegetation that crowd out native as well as outcompeting other invasive aquatic plants. The dense mats often cause stagnant water conditions which affect oxygen levels and provide breeding grounds for mosquitos. Moreover, hydrilla can store extra phosphorus and can tolerate high salinity conditions and a wide range of pH levels.

The effect on pH levels and dissolved oxygen affect water quality and result in fish kills.

Economic Impacts:

Populations of hydrilla can clog waterways, affecting recreational waterway use. The creation of poor fish habitat affects fishing and other wildlife activities.

Management: The use of aquatic herbicide, “fluridone” combined with hand-pulling by divers, are two methods frequently used. The treatments must be applied frequently as hydrilla tubers are long-lived and do not all sprout at once.

Resources:

USGS NAS – Non-indigenous Aquatic Species -
http://nas.er.usgs.gov/taxgroup/plants/docs/hy_verti.html

IPANE – Invasive Plant Atlas of New England –
<http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=22#additional>

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