

Invasive Alien Plant Species of Virginia

Hydrilla (*Hydrilla verticillata*)

Description

Hydrilla is a submersed herbaceous freshwater aquatic plant. Its rhizomes and stolons root in the substrate of ponds, lakes, canals, and slow moving rivers. The stems can grow up to 30 feet in length. As the stems near the surface, they become many branched and spread horizontally. The dentate leaves form in whorls of three to eight at nodes on the stem. The leaves are sessile and about 3/4 of an inch long and 1/5 of an inch wide. Internodes may be up to 12 inches long on the main stem, less on the secondary branches. Tiny six-petaled flowers arise from the leaf axils. The female flowers grow up to the surface on long peduncles, while male flowers separate from the plant as they reach maturity and float to the surface. There may be modified leaf buds, called turions, in the leaf axils. The turions break from the stem and can develop into a new plant. Tubers, which form at the ends of rhizomes, can also develop into new plants. Hydrilla closely resembles broad-leaved waterweed and Brazilian water-weed. Consult a natural resource specialist for positive identification.

Habitat

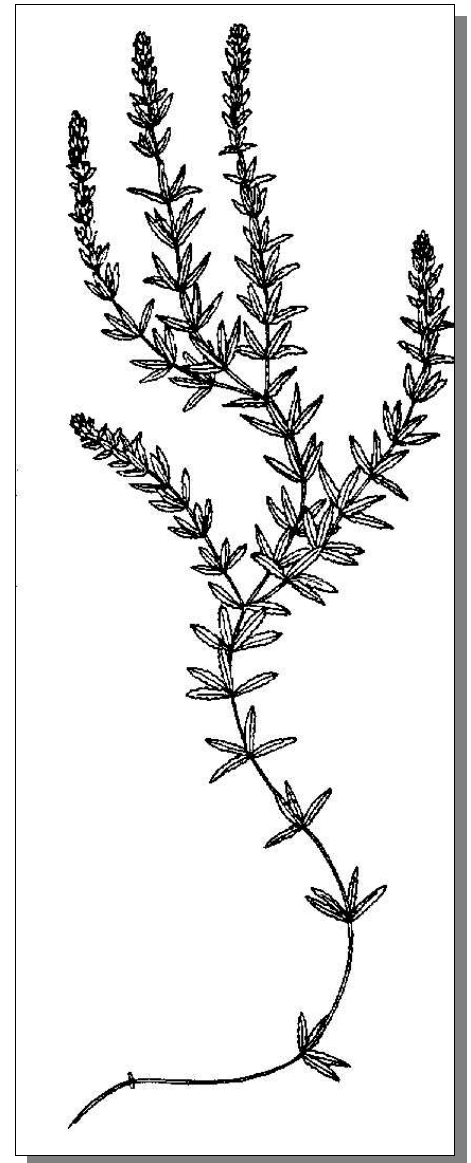
Hydrilla occurs in still or slow-moving fresh water. It can tolerate a wide range of conditions, including those that other plants find unfavorable such as low light intensity, a high level of suspended sediments, high conductivity, drawdown periods, and warm temperatures.

Distribution

Native to Africa, hydrilla first became established in the United States in Florida in the late 1950s, probably brought in by the aquarium trade. It is now established in most Southern states, Texas, Arizona, and California. Hydrilla has also become a pest in many other parts of the world, including Europe, Asia, and Australia. In Virginia, hydrilla is on the increase and is found in freshwater systems from the Potomac River to Lake Gaston. It has been a serious pest in the Potomac River.

Threats

Hydrilla is an aggressive aquatic plant that can physically crowd out and out-compete native water plants. Its ability to grow rapidly combines with its several reproductive processes, which



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include sexual reproduction by seeds, and asexual reproduction by tubers, turions, and fragments

For more information, contact the Department of Conservation and Recreation or the Virginia Native Plant Society.



Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

217 Governor Street, Richmond, Virginia 23219
(804) 786-7951
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400 Blandly Lane, Unit 2
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of plant parts. The plant forms dense clumps of vegetation that can clog boat propellers and impede navigation, shade light from beneficial plants, provide habitat for noxious insects such as mosquitoes, clog water intakes, and remove oxygen from the water as dead plant matter decays.

Control

Accurate identification of hydrilla by a resource specialist should precede control efforts. If a new site is discovered, it should be reported to appropriate officials. Because of the great economic impact of this noxious weed, control efforts have been heavily researched and widely applied. These efforts include

chemical control through herbicides, biological control using introduced natural predators, and mechanical harvesting and destruction efforts. Studies have identified effective chemicals, but there are concerns about their impact on the environment. Biological control organisms studied include insects, grass carp, snail species, manatees, and fungi species. Grass carp, an exotic fish species, can be effective, but may become a pest themselves. Mechanical harvesting will reduce infestations in the short term and are used to keep waterways and marinas open. However, if the fragments are not contained, they can also float away and establish new colonies elsewhere.

For more information on native plant conservation, contact

the Virginia Native Plant Society at the address below. For information on Virginia's natural areas and natural heritage resources, contact the Virginia Department of Conservation and Recreation's Division of Natural Heritage (see address below).

Written with assistance from Ruth Douglas and Laura Peters at Virginia Polytechnic and State University.

Illustration from *Field Guide to Coastal Wetland Plants of the Southeastern United States*, by Ralph Tiner, University of Massachusetts Press.

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