



Florida Department of Environmental Protection

WEED ALERT

Hydrilla (*Hydrilla verticillata*)



Hydrilla at Wakulla Springs, Florida, photo by Vic Ramey

Hydrilla - This submersed plant native to Africa and Southeast Asia is a major aquatic weed throughout most of the world's warmer climates. Hydrilla was introduced into Florida in the early 1950s and by the early 1990s occupied more than 140,000 acres of public lakes and rivers. Intensive interagency management has reduced the above ground portions of hydrilla to under 50,000 acres. However, once established, hydrilla produces reproductive tubers numbering in the millions per acre in the soils of Florida waterways. These tubers still impact nearly 140,000 acres and represent hydrilla's regrowth potential if not continually managed immediately after sprouting. Researchers have not discovered methods to prevent or minimize tuber formation.

Hydrilla can grow an inch or more per day and can be found in water only a few inches deep to the deepest parts of Florida's lakes and rivers. In Florida, hydrilla produces dense canopies covering entire surfaces of waterbodies within one or two years after it becomes established. Hydrilla disperses quickly throughout a waterway by stem fragments, buds, runners, and tubers.

Why hydrilla must be managed:

Hydrilla blocks waterways and limits boat traffic, recreation, flood control, and wildlife use. Almost 80% of hydrilla's biomass is in the upper 2 feet of the water column producing a dense canopy near the water surface. This exotic pest plant shades out native submersed plant species, reduces oxygen levels, and degrades water quality.

Environmental damage caused by hydrilla:

- ▶ Hydrilla canopies lower dissolved oxygen concentrations reducing aquatic life.
- ▶ Hydrilla decay doubles the amount of sediments that accumulate in a waterbody.
- ▶ Dense hydrilla infestations can restrict water flow resulting in flooding along rivers and canals.
- ▶ Hydrilla canopies produce ideal breeding environments for mosquitoes.
- ▶ Dense hydrilla canopies shade out native submersed vegetation lowering biodiversity.
- ▶ Hydrilla infestations restrict recreational activities such as boating, swimming, and fishing.



Dense hydrilla mat in a south Florida waterway

Because of its aggressive growth rate, never transplant hydrilla from waterway to waterway, and please clean all boats and trailers, live wells, and diving gear of plant material before entering or leaving a waterbody. Possession of hydrilla is illegal in Florida without a special permit.

Synonymy: None.

Hydrilla *Hydrilla verticillata*

Hydrilla is a submersed, much branched, perennial herb, usually rooted but frequently with fragments seen drifting in the water. Stems can be more than 35 feet long. Hydrilla once was used as an aquarium plant, and has become a weed of economic importance. *Hydrilla verticillata* is the only species in this genus.

 **Leaves:** submersed; in whorls of 3 to 8, 2-4 mm (0.1-0.2 in) wide and 6-20 mm (0.2-0.8 in) long, bearing coarse (visible) teeth along the margins and usually 1-4 small conical bumps along the underside of the midrib, which is often red.

 **Stems:** slender with much branching and up to 10.6 m (35 ft.) long; eventually form dense tangled masses at the water surface.

 **Flowers:** female flowers solitary, on long stalks, with 3 sepals and 3 petals, each about 4 mm (0.3 in) long, whitish or translucent, floating at the water's surface.

Other Characteristics:

two types of special vegetative propagules: turions – fattened leaf buds at stem nodes, green, about 1.25 cm (1/2 in) wide; tubers – small (to 1cm long), off-white, swollen ends of underground stems.

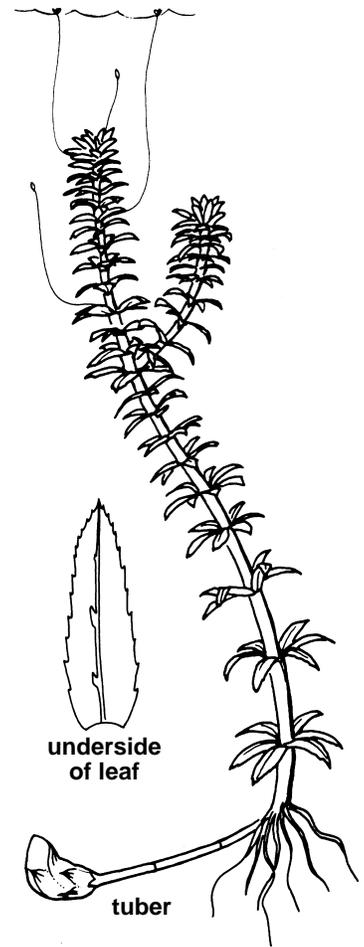


Photo and Illustration courtesy of: Center for Aquatic and Invasive Plants, University of Florida

LOOK FOR FIRST:

Submersed leaves in whorls of 4 to 8

Saw teeth on leaf margins

Leaf underside usually with one or more bumps on midrib

Tubers

Distribution: origin in Old World, widely distributed in warmer regions of Africa and Asia, found locally in Northern Europe, introduced into South and Central America, U.S., and Australia.

