

Hydrilla

Hydrilla verticillata

Order: Hydrocharitales

Family: Hydrocharitaceae

Description: Sometimes called "water thyme," *Hydrilla* is a submerged plant found in all types of freshwater. It can grow to the surface and form dense mats. *Hydrilla* stems are slender and branched. Its small leaves are strap-like, pointed and grow in whorls of four to eight around the stem. Tiny white flowers are visible on long stalks, and potato-like tubers form along the roots that are found in the mud.

Special Features:

- **Leaves** – *Hydrilla* leaves are small, pointed and arranged in whorls of 4 to 8. They have serrated margins and one or more sharp teeth under the midrib. Development of the leaves may vary with location, age and water quality.
- **Growth Rate** – *Hydrilla* can grow extremely rapidly, up to one inch per day, until it reaches the surface of the water and forms a thick mat that effectively shades any plants below it.
- **Length** – Plants have been known to reach lengths of up to 50 feet and produce a biomass of more than 130 tons per acre.

Range and Habitat: Historical reports indicate *Hydrilla* may have originated on the island of Sri Lanka, while DNA analysis points to India's southern mainland. *Hydrilla* can grow in almost any fresh water including springs, lakes, marshes, rivers and tidal zones.

Reproduction: *Hydrilla* reproduces mainly by regrowth of stem fragments, but also by means of axillary buds and subterranean tubers. Tubers can remain viable for more than 4 years and a single tuber can produce as many as 6,000 new tubers/m².

Notes:

- **How did it get here?** - The dioecious (having male reproductive parts in one individual and female in another) strain was imported to the U.S. in the 1950s for use in aquariums. It entered Florida's inland water system after plants were discarded into canals in Tampa and Miami. The monoecious (having both male and female flowers on the same plant) strain was a separate introduction, first found decades later in the Potomac Basin.
- **Distribution of Populations** - Southern populations are predominantly dioecious female (plants having only female flowers) that overwinter as perennials. Populations north of South Carolina are essentially monoecious.
- **Stats** - The most abundant aquatic plant in Florida public waters, 70% of Florida's freshwater drainage basins contain water bodies infested with *Hydrilla*.
- **Limiting Factors** - Very few factors limit *Hydrilla* because it can grow in shallow and deep water, high and low nutrient concentrations, low or very intense sunlight, and it can withstand cooler temperatures than most Florida plants.
- **Why the Concern** - Intakes for drinking water, power generation and irrigation are easily clogged. Shoreline access and boating traffic can be restricted.
- **Impacts** - *Hydrilla* grows aggressively and competitively forming thick mats that block sunlight penetration to native plants. It has been shown to alter the chemical and physical components of lakes. Stratification of the water column, decreased oxygen levels, and fish kills have all been documented.
- **Money** - Florida officials estimate they will spend \$100 million in a decade to control *Hydrilla* and water hyacinth.