

## Hydrilla, *Hydrilla verticillata* (L.f.)<sup>1</sup>

David W. Hall, Vernon V. Vandiver, Cody J. Gray<sup>2</sup>

### Classification

Common Name: Hydrilla

Scientific Name: *Hydrilla verticillata* (L.f.)

Family: Presl Hydrocharitaceae, Frog's-bit  
Family

### Seedling

A hypocotyle up to 6 mm long is developed from the seed (Figure 1). A node on the hypocotyle near the seed produces a short stem 1-4 mm long. The seed coat sloughs off. At the first node on the stem 3 leaves and a few roots are produced. One to several branches usually occur at this same first node.

### Mature Plant

Hydrilla is a submerged aquatic perennial plant with ascending stems which become horizontal and heavily branched near the water surface (Figure 2). Specialized vegetative buds are called turions. They are formed somewhat infrequently in the axils of the leaves on the upper part of the stem. Horizontal stems grow into substrate to form subterranean turions which are incorrectly called "tubers." The narrow



**Figure 1.** Seedling, Hydrilla, *Hydrilla verticillata* (L.f.)

leaves are 1-2 cm long, sessile and whorled in groups of 4-8 but sometimes may be opposite on the lower stems. The blades have a row of teeth along the margin and on the underside of the leaf along the midvein. The teeth are deciduous and leave elevated projections. The small flowers are of one sex and these are usually found on separate plants. The female flowers are composed of six, translucent, colorless segments and a colorless to purplish floral tube. These are borne from a green spathe. The male flowers are borne on a short stalk and are free floating at maturity.

1. This document is an excerpt from Weeds in Florida, SP 37, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: May 1991. Revised: February 2006. Please visit the EDIS Website at <http://edis.ifas.ufl.edu>.
2. David W. Hall, former extension botanist, Herbarium, Florida Museum of Natural History; Vernon V. Vandiver, associate professor emeritus, Agronomy Department; Cody J. Gray, assistant professor, Ft. Lauderdale Research and Education Center; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Larry Arrington, Dean



**Figure 2.** Mature plant, Hydrilla, *Hydrilla verticillata* (L.f.)

## History

*Hydrilla* is derived from the Latin *hydro* plus *illa* meaning something that lives in the water.

*Verticillata* is the Latin word for whorled and refers to the leaf arrangement of this plant.

## Habitat

This weed is found throughout Florida in freshwaters mainly in the southern and central regions. It is also found in all of the gulf states including Georgia, and from Maryland to California. It was introduced from the Old World.

## Biology

Hydrilla grows very rapidly from rootstocks, subterranean turions, vegetative buds (turions), and vegetative nodes. Only one node (whorl of leaves) is necessary for growth. In clear water the plant can grow in depths of more than 40 feet. When growing from the bottom the leaves may be up to, or more than, 6 inches apart. The leaves on the lower part of the stem may be opposite. As the stem reaches the surface the leaves become whorled and occur much more closely together on the stem. As the stem reaches the surface extensive branching occurs, often forming dense mats. Hydrilla can spread rapidly and will replace native vegetation. Pollination occurs above the surface of the water. The pollen is dispersed aerially and must land dry on the stigma.