WEED ALERT

Hydrilla
*(Hydrilla verticillata)*

The possession of hydrlilla is prohibited by federal and state laws. Possession of this plant is a second degree misdemeanor, and punishable by a $500 fine and/or 60 days in jail.

Hydrlilla was brought into the United States by aquarium plant horticulturists in the early 1950's from Sri Lanka. Hydrlilla provided the aquarium industry with a plant that could grow under low light conditions typically found in aquaria. Because of this ability to grow in low light conditions, its rapid growth, and capacity for survival, hydrlilla has become a serious aquatic weed in Florida.

Hydrlilla is present in freshwaters of Asia, Europe, Africa, Australia and the United States. In 1991, over 40% of Florida's public lakes and rivers were infested with hydrlilla, covering approximately 66,000 acres, making it the most abundant freshwater plant in Florida public waters.

**WHY HYDRILLA MUST BE MANAGED:**

Hydrlilla has the ability to quickly fill waterways, limiting recreational and commercial boating, wildlife use, and flood control. It is difficult to control because of its rapid rate of growth and resistance to management techniques. This growth rate allows hydrlilla to outcompete native submerged aquatic plant communities, thereby reducing plant diversity. Dense infestations of hydrlilla can reduce dissolved oxygen levels increasing the potential for fish kills. Hydrlilla is spread primarily by 1) plant fragments carried on boats, motors, trailers or live wells; and 2) reproduction by turions, which are small prickly green structures that grow along the stem. In non-flowing freshwater systems, the plant can be controlled, but the cost is high and the duration of control short; from several months to two years. Hydrlilla produces millions of underground buds called

**Distinctive characteristics:**

- a submersed aquatic plant with numerous whorls of up to 10 leaves per whorl
- green stems can grow up to 35 feet in length
- stems reach water surface and grow laterally, forming dense mats
- thin stalks grow to the water's surface, bearing single minute white flowers
- small spines under the leaves and serrated "teeth" along leaf edges make the plant coarse to the touch
- presence of tubers and turions (reproductive buds)
tubers which can lie dormant for several years. When conditions are suitable, these tubers sprout and reinfest waterbodies. Hydrilla accelerates the aging process of waterbodies by causing increased organic sedimentation.

**METHODS OF CONTROL**

Presently, herbicides are the most commonly used means of controlling hydrida. Although herbicides are effective and cost efficient, control alternatives are continually being researched. In small areas or in flowing waters, hydrilla has been managed by mechanical harvesting. This method of control is usually not preferred because of high operating costs, the dispersion of stem fragments, and the removal of non-target plants and animals trapped in the harvested vegetation.

Currently, three insect species are being established in Florida lakes and rivers as a potential control for hydrilla. Two flies (*Hydrellia pakistanae* and *Hydrellia sp.* ) have recently been released. A weevil (*Bagous affinis*) that eats hydrilla tubers when sediments are exposed has also been released. A fish, the Asian grass carp (*Ctenopharyngodon idella*) effectively controls this plant, but also consumes desirable plants that are important for fish and wildlife habitat. This fish can only be used under permit by the Florida Game and Fresh Water Fish Commission. Research currently is underway to discover additional effective biological control agents.

Due to the high cost associated with eradicating this plant, the statutory charge is centered on maintenance control, the ongoing management of noxious aquatic plants at the lowest feasible level.

Under this directive, hydrilla is maintained at acceptable levels of abundance while minimizing long-term environmental damage and costs.

In Florida, approximately 5 million dollars of state and federal funds is spent each year controlling hydrilla on public waters. A similar amount of local and private funds is also expended. Nearly twice this amount is needed to maintain hydrilla at a maintenance control level. Additionally, if maintenance control is not continued, levels of hydrilla abundance soon will become intolerable and increased herbicide use would be required. Current methods of maintenance control are the most environmentally compatible and cost effective known. The fish and wildlife that depend upon a diversity of aquatic plants will be reduced and many of Florida’s natural resources will suffer or be lost.

Please contact the nearest office of the Bureau of Aquatic Plant Management for additional information.

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