

# Water Hyacinth

*Eichhornia crassipes*

**Order:** Liliidae

**Family:** Pontederiaceae

**Description:** Known as one of the “world’s worst aquatic weeds,” the attractive water hyacinth is very deceiving. Large purple flowers once made this plant a popular ornamental species for fish ponds, but it is now illegal in some states. Florida officials estimate they will spend \$100 million in a decade to control water hyacinth and another invasive, *Hydrilla*.

## Special Features:

- **Leaves** – This plant only has basal leaves (formed at the base of the stem) that reach up to 6 inches in length. Each leaf is generally rounded, and many of the petioles (the stalks or stems of the leaves) have inflated bases that keep the plant extremely buoyant.
- **Flowers** – Each flower has 6, bluish-purple petals joined at the base to form a short tube. One petal has a yellow spot. Blooms first appear in late spring, and they continue into late summer, with each plant producing a single spike comprised of 8-15 flowers.
- **Fruit** - The fruit is a three-celled capsule containing many minute, ribbed seeds.
- **Roots** - Water hyacinth obtains its nutrients directly from the water, and it is used in wastewater treatment facilities to extract pollutants. Its large root masses make it an efficient water filter.

**Range and Habitat:** This South American native was introduced into Florida in the 1880s, and it covered more than 125,000 acres of public lakes and navigable rivers by the early 1960s. Water hyacinth has become the worst floating, aquatic weed in many tropical and sub-tropical parts of the Americas, Asia, Australia, and Africa. In Africa, it infests every major river and nearly every major freshwater lake. In the United States, it

flourishes in hundreds of bodies of water in Hawaii, California and throughout the south from Texas to the Carolinas.

**Reproduction:** Water hyacinth reproduces sexually by seeds and vegetatively by budding. The seeds can germinate in a few days or remain dormant for 15-20 years. They usually sink and remain dormant during periods of stress (drought). Upon reflooding, the seeds germinate and renew the growth cycle.

**Notes:**

- **Growth Rates** - The growth rate of water hyacinth is among the highest of any plant. In Florida, water hyacinth populations can double in as little as 12 days by sending off short runner stems, which develop new plants.
- **Effects** - Water hyacinth blocks waterways and limits boat traffic, recreation, flood control and wildlife use. By shading and crowding out native aquatic plants, this exotic species reduces biological diversity in aquatic ecosystems.
- **Fish** - Large water hyacinth populations can adversely affect fish populations. As vegetation continually falls to the bottom, it decays and consumes oxygen. Certain species of fish cannot tolerate low levels of oxygen. One acre of water hyacinth can deposit approximately 500 tons of decaying plant material on the bottom of a water body each year. The nutrients in these decaying plants are released back into the water to support growth of more water hyacinth.
- **Methods of Control** – 1) herbicides, 2) direct harvesting and 3) biological control, including the use of two weevil species (*Neochetina* spp.) and a moth (*Sameodes albiguttalis*).