



Florida Department of Environmental Protection

WEED ALERT

Water-lettuce

(Pistia stratiotes)



Water-lettuce

Why water-lettuce must be managed:

Water-lettuce populations often form large expanses of dense, impenetrable floating mats limiting boat traffic, recreation, flood control, and wildlife use. These dense canopies at the water surface shade out native submersed plant species and can uproot native emergent plants that are important to wildlife.

Water-lettuce - This floating plant native to South America is considered to be one of the worst weeds in the subtropical and tropical regions of the world. In Florida, it was first recorded in 1765; its introduction is linked to early shipping commerce between Florida and South America. Today, water-lettuce is commonly found in the central and southern portions of the state, but new infestations of water-lettuce have been found in North Florida's spring-fed rivers and lakes. Because of intensive statewide management efforts, water-lettuce populations are maintained at low population densities.

Under optimal environmental conditions, water-lettuce can double its

population size in less than three weeks. Seed production makes this plant resilient to adverse environmental conditions such as freezing temperatures and drought.



Dense water-lettuce mat in the Florida Everglades.

Environmental damage caused by water-lettuce populations:

- ▶ Water-lettuce mats can lower dissolved oxygen concentrations reducing aquatic life.
- ▶ Dense populations may lower water levels because water-lettuce increases evaporation rates over open water areas.
- ▶ Water-lettuce mats can restrict water flow increasing flooding along rivers and canals.
- ▶ Dense water-lettuce populations produce ideal breeding environments for mosquitoes.
- ▶ Water-lettuce populations crowd out native plants and animals (lowers biodiversity).

Because of its aggressive growth rate, water-lettuce is illegal to possess in Florida without a special permit.

Water-lettuce

Pistia stratiotes

Synonymy: None.

This species (the only one in its genus) commonly forms dense floating mats, with many rosettes of fuzzy-soft, pale-green leaves. New leaf clusters form readily from stolons (runner stems) offset from the larger rosettes.



Leaves: in rosettes occurring singly or connected to others by short stolons. Leaves often spongy near base, densely soft pubescent with obvious parallel veins; blades slightly broader than long, widest at apex, to 15 cm (6 in) long.



Roots: long, feathery; bearing long root caps (brown coverings over root tips).



Flowers: inconspicuous, clustered on small fleshy stalk nearly hidden in leaf axils, with single female flower below and whorl of male flowers above.



Fruit: arising from female flower as a many-seeded green berry.



LOOK FOR FIRST:

Floating pale-green rosettes

Long, feathery roots below

Green runner stems

Distribution: Pantropical of uncertain origin, thought to be introduced to Florida by Spanish commerce or other early settlers.

