

Weed alert

Giant salvinia

(Salvinia molesta)

Giant salvinia

This South American native is currently invading waterbodies in the Southeastern U.S. and has the potential to rapidly invade Florida's ponds, lakes, and rivers. Its introduction into the U.S. is linked to the importation of aquarium plants as an accidental contaminant. It has caused severe economic and environmental problems in Texas and Louisiana and in many countries including New Zealand, Australia, and South Africa.

Giant salvinia grows rapidly and produces a dense floating canopy on the surface of ponds, lakes, and rivers. It aggressively spreads by vegetative fragments. Floating mats of giant salvinia shade out native submersed vegetation and degrade water quality. Mats also impede boating, fishing, swimming, and clog water intakes for irrigation and electrical generation.



Giant salvinia canopy completely dominating a small lake



Close-up of giant salvinia growth pattern

New giant salvinia infestations are occasionally discovered growing in Florida. When found, intensive management efforts are immediately implemented to eradicate these infestations before they become established and spread to other waterways.

The “egg-beater” or basket-like hairs distinguish giant salvinia from common salvinia, which have leaf hairs with branches always free at the tips (see photo below and illustration on the back of this flyer that show the “egg-beater” like hairs found only on giant salvinia.

Boaters and anglers can help prevent the spread of giant salvinia by removing all aquatic plants from propellers, intakes, trailers, and gear before leaving a launch area. Giant salvinia may also be introduced with aquarium or water garden plants.

Environmental damage caused by giant salvinia populations:

- Giant salvinia mats lower dissolved oxygen concentrations, damaging aquatic animal populations
- They impede water flow and clog water intakes used for irrigation
- They create ideal breeding environments for mosquitoes
- Giant salvinia decreases submersed aquatic plant diversity



Close-up of the leaf surface “egg-beater” or basket-like hairs are indicative of giant salvinia

If you have seen this plant in Florida, please immediately call 850-617-9430

Giant salvinia (*Salvinia molesta*)

Giant salvinia is a floating fern that forms very dense mats on the water surface of ponds, lakes, and rivers.



Leaves: Two types of fronds (buoyant and submerged). It lacks true roots but its submerged fronds function as roots.

Fronds are in whorls of three (two floating and one submerged). The floating fronds are positioned opposite of each other and are round to oblong in shape. On their upper surface they have rows of cylindrical papillae. Each papilla has four hairs at its distal end that are joined together at an inverted shape that resembles an “egg-beater” or basket.

The papillae, end hairs and upper surface of the plant are water repellent in comparison to the under surface of the leaf, which attracts water.

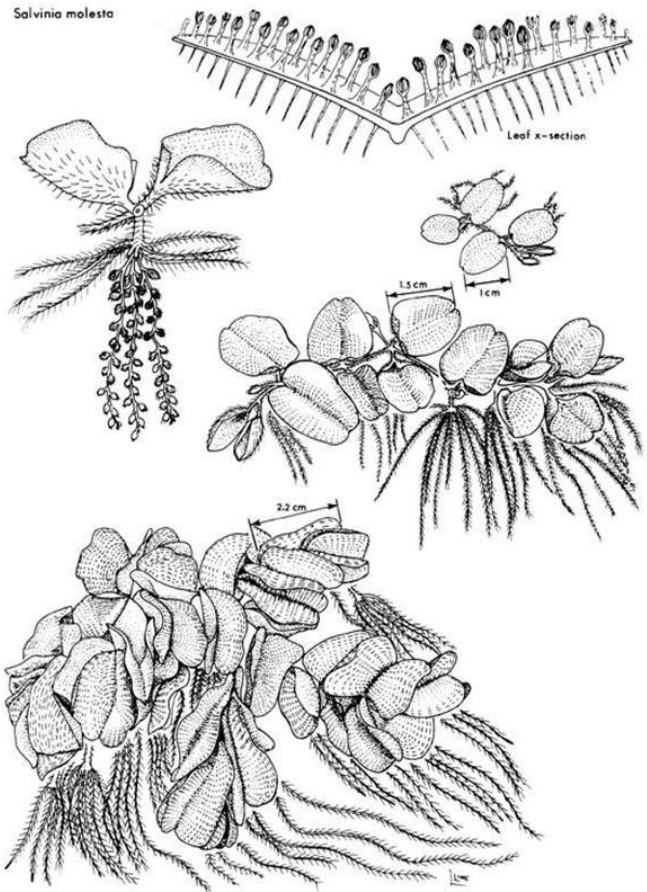
Giant salvinia exhibits great variation in form and structure depending on the conditions of habitat (such as space and nutrient availability), and ranges from a slender floating fern with leaves less than 1.5 cm wide to one with leaves up to 6 cm wide.



Flowers: None. Ferns are a spore-releasing class of vascular plants.



Spores: The mature plant produces egg-shaped spore sacs containing infertile spores.



Above illustration courtesy of: *Center for Aquatic and Invasive Plants, University of Florida*

LOOK FOR FIRST:

“Egg-beater” or basket-like hairs on the upper leaves

Distribution

Found throughout the southeastern United States and less frequently in Florida because of intensive eradication efforts.



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Florida Fish and Wildlife Conservation Commission

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