



# Invasive Plant Alert<sup>1</sup>

## Giant Salvinia

*Salvinia molesta* Mitchell

Also known as water fern or kariba-weed, giant salvinia was originally introduced as an ornamental aquatic plant and now proves a threat to natural freshwater systems in the U.S.

### Where to Look

Giant salvinia is found in lakes, ponds, streams, rivers, freshwater wetlands, and cultivated rice fields. Populations have been found scattered throughout the southeastern U.S. from eastern Texas through eastern North Carolina and north to Pennsylvania. In 2000, a small population was found in an ornamental pond in Washington DC but was quickly eradicated.



Figure 1 *Salvinia molesta*. Robert Vidéki, Doronicum Kft., Bugwood.org

This species can grow and spread across water surfaces, forming dense floating mats that cut off light. Given the right conditions,

it may double in size during a single week.



Figure 2 “Beater” hairs on upper leaf surface. Mic Julien, Commonwealth Scientific and Industrial Research Organization, Bugwood.org

### Identifying the Plant

Giant salvinia is a free-floating aquatic fern with leaves that become compressed into chains as they grow. The leaves are about 0.5 – 1.5” long, oval, folded to wavy and are covered with arching hairs on the upper surfaces. The small hairs join at the tips to look like egg beaters. Mature plants have underwater root-like structures that conceal stalks with egg-shaped spore cases attached. In the U.S., this plant can over-winter and reproduce vegetatively.

The native *Salvinia minima*, appears very similar to giant salvinia but the leaf hairs do not join at the tips to form “beaters”.

### How to get rid of it?

Once introduced into an aquatic ecosystem, Giant Salvinia grows rapidly. The best control of Giant Salvinia is prevention. Let boats and equipment dry thoroughly and/or be cleaned

before entering a new body of water. Another source is dumping of aquaria.

Once established, giant salvinia can be removed by hand and piled to dry out in the sun before disposal.

The eradication of large infestations requires use of commercial herbicides. Research on the biological control of Giant Salvinia through introduction of the weevil, *Cyrtobagous salviniae*, has proven promising thus far.



Figure 3 Roots. Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

### Resources

Plant Invaders of Mid-Atlantic Natural Areas, 4<sup>th</sup> ed. (2010). <http://www.nps.gov/plants/alien/pubs/midatlantic/samo.htm>

United States Department of Agriculture. Animal and Plant Health Inspection Service. Giant Salvinia Pest Alert. <http://www.invasive.org/publications/aphis/gsalvini.pdf>

Floating Fern (Salvinia) [http://wiki.bugwood.org/Archive:BCIPEUS/Floating\\_Fern\\_%28Salvinia%29](http://wiki.bugwood.org/Archive:BCIPEUS/Floating_Fern_%28Salvinia%29)

<sup>1</sup> This species has been identified as a potential or emerging threat to natural areas in the mid-Atlantic region