

# Giant Salvinia Eradication in Evans County Georgia





# Species Profile



**Scientific Name:**

*Salvinia molesta*

**Common Names:**

Giant salvinia  
Kariba-weed  
Water fern

**Country of origin:**

Brazil

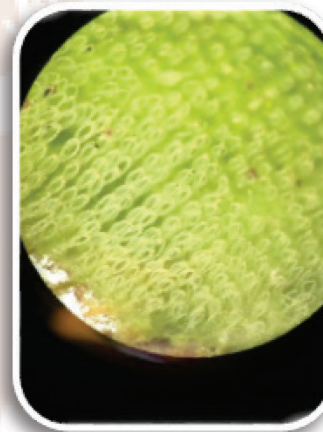
**Reproduction:**

Asexual



# Identification

- Plants form free-floating colonies
- Oblong floating leaves 1/2" – 1 1/2" long with distinct midrib
- Underwater leaves are modified into root-like structures
- Stiff hairs on top of leaf that branch into 4 parts which reconnect at the tip forming an “egg beater” appearance
- Leaf hairs on common salvinia do not reconnect



# Environmental Impacts

- Thick mats cause oxygen depletions
- Absence of light kills native vegetation
- Waterfowl overwintering areas
- Forms structures for emergent vegetation
- Completely blocks waterways and irrigation and power generation intakes





# Control Methods

- Biological
  - Salvinia weevil (*Cyrotobagus salviniae*)
- Mechanical Removal
- Water Level Drawdown
- Chemical
  - Floridone (Sonar, Avast, etc.)
  - Diquat (Reward)
  - Glyphosate (Rodeo)
  - Penoxsulam (Galleon)
  - Flumioxazin (Clipper)



# U.S. Introduction and Spread



- Originally cultivated as part of horticulture industry
- First discovered outside of cultivation in 1995 in South Carolina
- First public waters discovery was in 1998 Louisiana's Toledo Bend Reservoir
- Has now been identified in at least 12 states

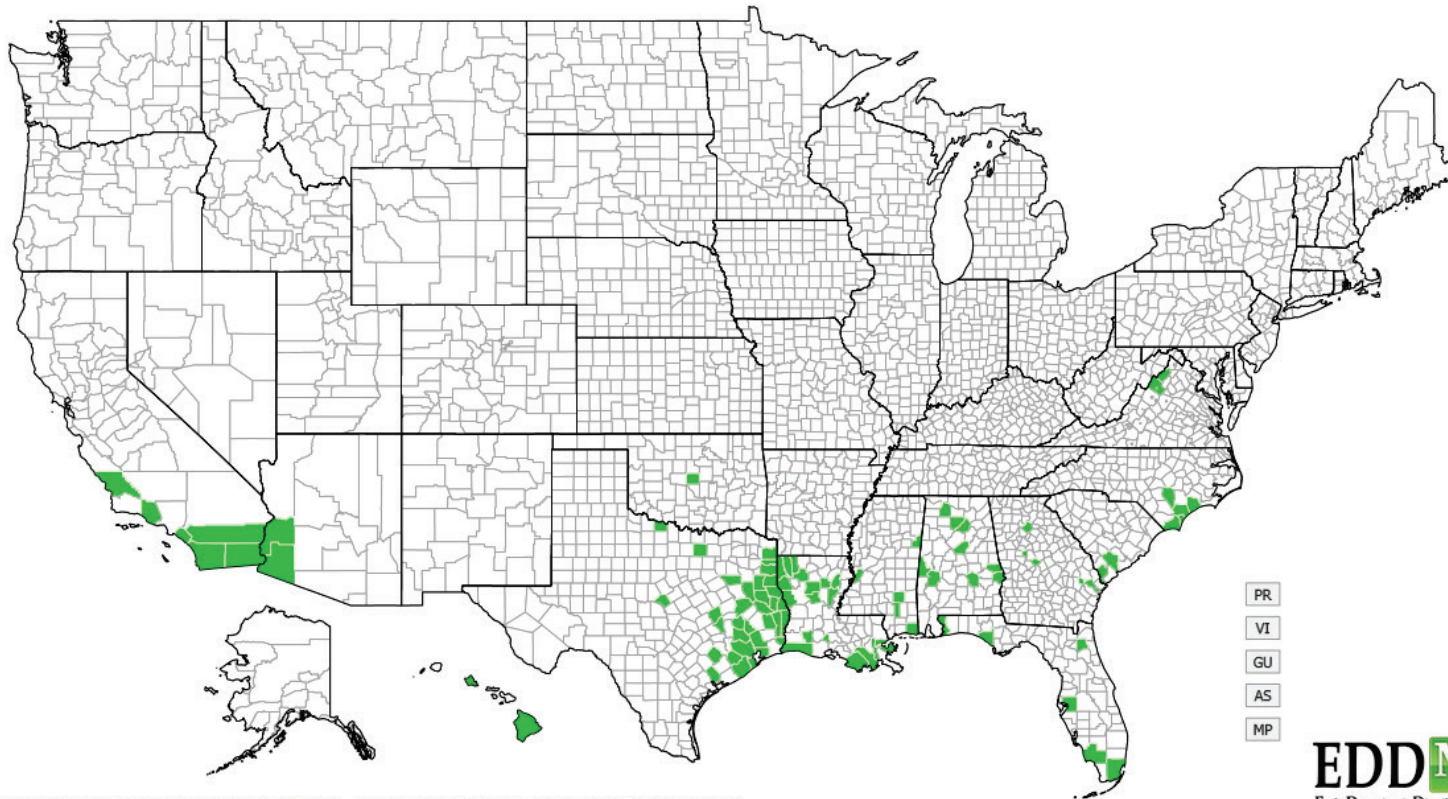




# U.S. Introduction and Spread



*Salvinia molesta*



**EDD MapS**  
Early Detection & Distribution Mapping System

Last observation: November 2, 2014 - Map generated: December 22, 2014

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# Learning From Our Neighbors



Giant Salvinia chokes lakes, kills fish and can double in size in seven days. It can live out of water for up to two weeks, and you spread it when you enter other lakes.

**SO CLEAN YOUR  
BOAT, TRAILER  
AND GEAR!**



[www.texasinvasives.org](http://www.texasinvasives.org)



## **WARNING** Giant Salvinia Alert For Caddo Lake!

**GIANT SALVINIA** is a small free-floating plant that grows in clusters and develops into dense, floating mats or colonies. This plant can double in size from 4 to 10 days and cause severe oxygen depletion in lake waters. It is illegal to possess or transport Giant Salvinia. Report any sightings to Texas Parks & Wildlife.



### **ATTENTION BOATERS!**

Texas law requires you to inspect your boat and trailer for Giant Salvinia. If portions of the plant are found, you must remove it before entering the water. Do not dispose of the plant in the water. If a receptacle is not available, put it in a garbage bag. You may be fined when the fueling is complete.

## **WARNING** GIANT SALVINIA PRESENT IN RESERVOIR



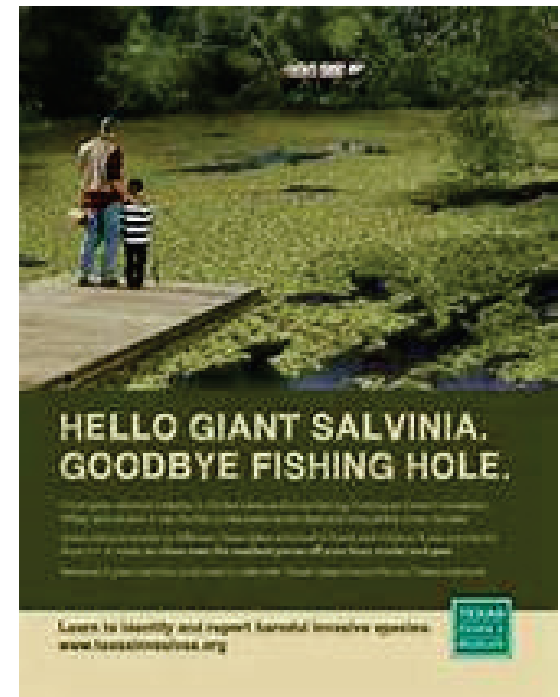
**STATUS:** Giant salvinia is a floating aquatic plant prohibited in the United States by Federal Law. Giant salvinia grows rapidly and forms thick mats which crowd out other vegetation, degrade water quality, and impede recreational access. Giant salvinia poses a serious threat to all water bodies in East Texas.

**IT IS ILLEGAL TO POSSESS OR TRANSPORT GIANT SALVINIA**

**PREVENTION:** Giant salvinia is easily transported to other water bodies by boats, propellers, and trailers. Even small plant fragments can create new infestations.

**INSPECT AND CLEAN BOATS AND TRAILERS  
BEFORE LEAVING LAUNCH AREAS**

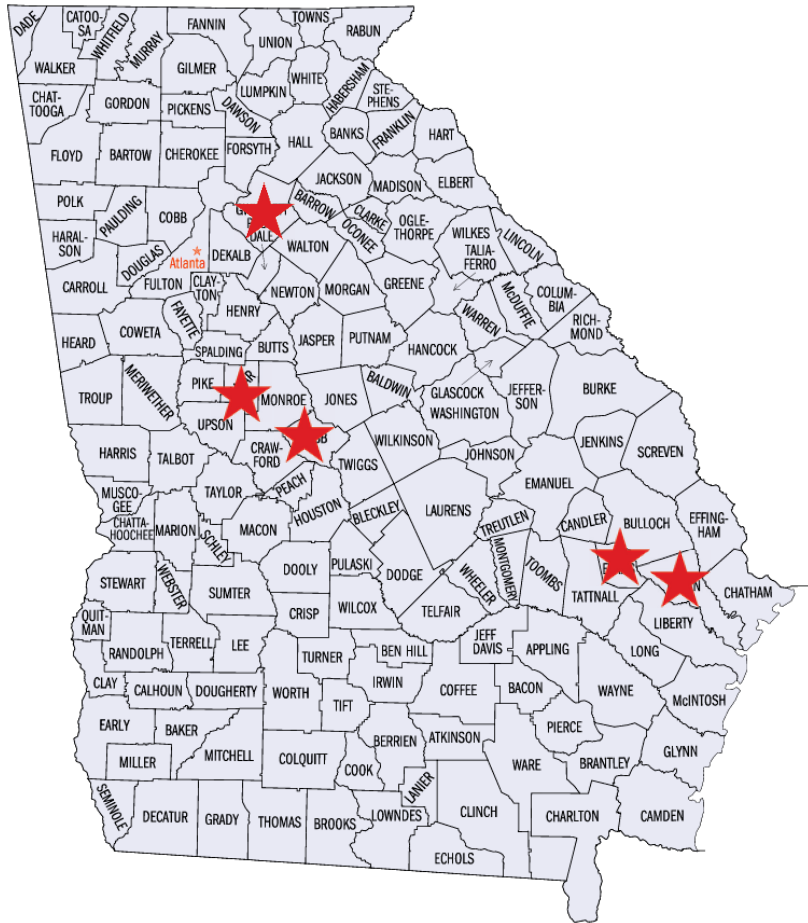
For more information please call 809-384-9965



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# Giant Salvinia in Georgia



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# Evans County 2015



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# Evans County 2015



Strickland Pond  
Approximately 3 acres



Shuman Pond  
Approximately 0.5 acres

- First reported in 2014 but was incorrectly identified
- Reported to GA DNR in January 2015

# Evans County 2015



Ditch between Shuman  
Pond and Strickland Pond



Access area into  
Mr. Sands property

- Cause of introduction still unknown
- Due to winter water temperatures and a wet spring, treatment didn't begin until April 2015



# Evans County 2015



Wooded area adjacent to  
GA Power Right of Way



GA Power Right of Way  
Approximately 5 acres

- Initial pond treatment of 40 ppb liquid Sonar and 30 ppb granular Sonar
- A 1% diquat solution has been used for all land applications and follow-up pond treatments

# Evans County 2015



Strickland Pond



Shuman Pond

- Team has spent more than 300 hours on inspection and treatment
- Purchased more than \$2000.00 worth of chemical and equipment

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# Evans County 2015



New growth deep within  
clumps of bulrush



Small salvinia plants are  
hidden by terrestrial plants

- Conducting follow-up treatments every 3-4 weeks
- Continue to find new-growth plants
- Will continue follow-up treatments into 2017 to ensure 100% eradication

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# Questions?



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