

Cold has little impact on giant salvinia

By Steve Bandy, Marshall News Messenger

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Temperatures dipping into the 20s or hovering in the low 30s might cause some people to worry about vegetation. For those fighting the giant salvinia on Caddo Lake, it isn't cold enough.

"The cold weather we're having is not killing the salvinia, although it does brown the tops and slows its growth some," said Robert Speight of the Greater Caddo Lake Association. "I don't know exactly how cold it has to get to actually kill the stuff, but we probably don't get that cold here."



Courtney Case/News Messenger

[\(ENLARGE\)](#)

A Texas Parks and Wildlife sign warns people of the dangers of giant salvinia on the waters of Caddo Lake Wednesday. Despite colder temperatures throughout East Texas recently and pesticide spraying, the invasive plant continues to thrive.

Once established, the fern forms dense mats that eliminate all other aquatic vegetation in the area, eliminating even phytoplankton and zooplankton, which are vital to healthy fish populations.

"The cold does retard the growth of salvinia. The plant is at its most vigorous around 82 degrees, so cold winters do help some," Canson added.

But the cold also is a hindrance. In 2008 weevils were introduced to areas of Caddo Lake to aid in the fight.

"The weevils that like to eat the salvinia are not as cold-hardy as the salvinia," Speight said. "They have a hard time in the winter."

Jack Canson of the Caddo Lake Institute, the lake's self-proclaimed "weed warden," agrees.

"Giant salvinia survives freezing temperatures," he said. "If ice forms on the water and maintains for about 72 hours, the plants will die. But I don't think we've had any ice formation at Caddo recently."

Giant salvinia, of *Salvinia molesta*, one of the world's most noxious aquatic weeds, is notorious for dominating slow-moving or quiet freshwaters.

Its rapid growth, vegetative reproduction and tolerance to environmental stress make it an aggressive and competitive species known to impact aquatic environments, water use and local economies.

Originating in Brazil, it first appeared in Texas in 1998. It was first reported at Caddo Lake in 2006. Under ideal conditions, populations of giant salvinia can double every five to eight days. It is resistant to cold weather and can survive for weeks out of water if kept moist.

Texas Parks and Wildlife Department officials will check the areas in which the weevils were introduced this spring to determine how many survived.

"We can still spray during the winter, but we're at the mercy of the weather," Speight said. "The herbicide we use in winter is a 'contact killer,' meaning it kills only the part of the plant it touches, whereas the stuff we use during normal times is a 'systemic' — it absorbs into the plant and kills the entire plant.

"We typically try to spray on warm, sunny winter days without much wind. Needless to say we don't get too many of those around here."

Speight said spraying is curtailed when temperatures are near freezing for several reasons, "the main one being that we don't want to harm our equipment by having something freeze and burst."

He added that freezing reduces the effectiveness of the herbicides.

While the cold nights may be having an effect on the invasive plants, the mild afternoons appear to be negating that.

"I was on the water Friday and saw plenty of giant salvinia," Canson said.

"Here and there I saw patches that appeared to be cold-damaged, but new plants will grow out of those fragments — and most of what I saw looked pretty healthy."