

Taking on a Lake-Eating Monster in East Texas



Michael Stravato for The New York Times

Mike Turner sprayed herbicide recently on the weed *Salvinia molesta* on Caddo Lake near Uncertain, Tex. The weed suffocates all life beneath it.

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1. Chokehold on East Texas

2. Caddo Lake, the largest natural lake in the South, is known for its cypresses, teeming fisheries and waterfowl habitats.

3. Residents in East Texas are working to stop a noxious weed from smothering it.



Caddo Lake covers 35,000 acres in Texas and Louisiana.

UNCERTAIN, Tex., July 25 — How this one-time steamboat landing on Caddo Lake got its name is, well, uncertain — as uncertain as the fate that now clouds this natural wonder, often called the state's only honest lake.

With more submerged acreage than Minnesota, [Texas](#) has just 166 bodies of water commonly considered lakes. All but one of them, according to the Texas Parks and Wildlife Department, are artificial reservoirs, most created in the 1950s to fend off drought.

Now that one, Caddo Lake, a mystical preserve of centuries-old mossy cypress breaks, teeming fisheries and waterfowl habitats, is under siege by a fast-spreading, Velcro-like aquatic fern, *Salvinia molesta*, also known as Giant Salvinia.

In what East Texans here liken to a horror movie, the furry green invader from South America, which is infiltrating lakes in the American South and abroad to growing alarm, is threatening to smother the labyrinthine waterway, the largest natural lake in the South, covering about 35,000 acres and straddling Texas and Louisiana.

“It’s probably the most dire threat that the lake has ever faced, and we certainly have had more than our share of threats,” said Don Henley, the drummer, singer and songwriter of the Eagles, who grew up in nearby Linden, keeps a double-wide trailer on Caddo Lake and has put his celebrity and fortune behind efforts to preserve it.

The United States Geological Survey calls *Salvinia molesta* one of the world’s most noxious aquatic weeds, with an ability to double in size every two to four days and cover 40 square miles within three months, suffocating all life beneath. The plant is officially banned in the United

States, but it is carried from lake to lake by oblivious boaters, to the point where some private lake communities now limit access to boats already there.

“It’s your classic 1950s drive-in-movie-monster plant,” said Jack Canson, director of a local preservation coalition and a former Hollywood scriptwriter who, under the pseudonym Jackson Barr, co-wrote a B-movie plant thriller, “Seedpeople,” released in 1992.

On Tuesday, Mr. Canson and six local waterway and community officials gathered around a table here to trade sightings of the weed and plan how to spend \$240,000 appropriated by the Texas Legislature. “I started to put down yellow markers,” said Robert Speight, president of the lake association, showing a map stuck with yellow pins. But he said he gave up: “I ran out of yellow.”

With most of the growth spreading unchecked on the Louisiana side, where Texas residents say the authorities have been preoccupied with Hurricane Katrina recovery, local advocates raised \$35,000 for a two-mile net, put up in June, to seal off Caddo Lake’s more contaminated eastern half.

“We just stuck our necks out,” said Paul Fortune, a contractor who has lived his whole life on the lake. “We just did it.” But propagating leaves still float through gaps left open for boats, and are spread by the boats themselves.

In one area of Louisiana, along a thicket of cypresses called the Big Green Brake, the *Salvinia* has already grown out into the lake as a luminescent green crust over the water. “It’s at the stage where it starts to lose its eerie beauty and starts to look like a real monster,” said Mr. Canson, the prow of his motorboat poking cracks in the matted covering like an icebreaker. Even flamethrowers have failed to kill it, he said. And beetles that devour the plant elsewhere die in the Texas cold.

Now chemical weapons have been thrown into the battle.

Mike Turner, a burly boat mechanic who calls himself part of the “Caddo Navy,” has set aside his business to go out daily in his small boat for \$25 an hour to spray *Salvinia* infestations with a government-approved herbicide mixture of diquat and glyphosate and surfactants to make it stick to the leaves.

“It gets in the water hyacinth and it hides, like it’s a thinking animal,” said Mr. Turner, removing the surgical mask that protects him from the chemicals.

“I’m finding stuff that was not there two days ago,” he said, mopping his brow in the rising morning heat. He said he felt the task was hopeless at first and considered moving but changed his mind. When he was born 40 years ago, he said, his parents dipped his feet in the lake, and he did the same 12 years ago with his newborn daughter, Patte.

“I’m trying to preserve this for her and her grandchildren,” Mr. Turner said. “Who we are won’t mean a lot a hundred years from now; it’s what we leave behind.”

Ken Shaw, chairman of the Cypress Valley Navigation District and a retired paper executive with a home and boat on Caddo Lake, said that no matter what, he too was there to stay. “There’s nowhere else I’d rather be,” Mr. Shaw said. “If *Salvinia* takes over, so be it.”

There is a lot to preserve, historians say. The only natural lake in Texas, perhaps augmented by a blockage of the Red River in the late 1700s or early 1800s, was home to the Caddo Indians said to have given Texas its name — *tejas* was their word for friend. The lake was once part of a navigation system that carried steamboats up the Mississippi River from New Orleans and along the Red River as far inland as Jefferson, Tex. The difficult landing here may have given Uncertain its name. A replica paddle-wheeler, the *Graceful Ghost*, now chuffs through the sloughs carrying tourists.

After Texas was founded in 1836, the lake became an outlaw haven so violent that two groups of warring vigilantes — the Regulators and the Moderators — fought each other to establish order, as chronicled in “Caddo Was...,” a published account by Fred Dahmer, a native of Uncertain, who died in 2001. A pearling business from the abundant mussels flourished here, and in defiance of county dry laws “beer boats” slaked local thirsts. [Lady Bird Johnson](#) was born in nearby Karnack where her father, [Thomas Jefferson](#) Taylor, ran a general store. And Howard Hughes Sr. tested his revolutionary rotary oil drilling bits on platforms in Caddo Lake.

The lake has long been called one of Texas’s best-kept secrets for its mirrorlike reflections of moss-draped cypresses along 88 miles of marked boat “roads,” bald eagle sightings, alligator haunts and prize fishing: a 500-pound bony fish called an alligator gar was once netted here and another, not much smaller, was caught on a rod and reel. Y. A. Tittle, the former star quarterback, keeps a lake house here with a cabin on the dock, Mr. Fortune said, where he can pull up a trap door and fish from inside.

Well before the *Salvinia* threat, Mr. Henley, having underwritten an effort to protect historic Walden Pond in Massachusetts, came home to Caddo Lake in the early 1990s to fight plans to dredge a transport canal that he called ruinous. On that victory, he and a lawyer-friend from

Aspen, Dwight K. Shellman Jr., founded the Caddo Lake Institute in 1993. They were crucial in getting most of an 8,500-acre decommissioned Army ammunition plant turned over to the federal [Fish and Wildlife Service](#) for a Caddo Lake National Wildlife Refuge in 2004, although decontamination work at the site is continuing.

Some local businessmen who had pressed for an industrial park instead were further outraged when the Caddo Lake Institute formed a coalition in 2001 with other local groups concerned about protecting the lake under guidelines of the Ramsar Convention on Wetlands, a conservation treaty signed in 1972 in Iran. Mr. Henley was denounced as a [United Nations](#) tool — “kooky stuff,” he called it — but the discovery of Salvinia in Caddo Lake last year overshadowed everything else.

“We spent years here fighting politics, “ Mr. Turner said. “Now it’s Mother Nature.”