

The tree that ate Houston

By LISA GRAY Copyright 2010 Houston Chronicle

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Melissa Phillip Chronicle

Ben Havlak, 11, son of Houston Chronicle writer Lisa Gray, has a tree house in a backyard tallow tree. Tallow trees were once planted in Houston yards as ornamentals but are now elbowing out native plants.

My son's tree house has a knotted-rope ladder and a view of a bayou. He shows it off when his friends visit, and he likes to daydream about grand expansion plans (a lower deck! a trapdoor! built-in furniture!). That tree house would make me really happy, except for this: It's in a Chinese tallow tree, an invasive species hell-bent on dominating our ecosystem.

They breed explosively — one tree pumps out around 10,000 seeds — and they grow much faster than trees native to Texas. In China, moths and other predators keep them in check. But here, native animals and insects don't eat them, and neither will cattle. Grasslands, wetlands, established forests: Tallows devour them all.

Forget the Piney Woods. More likely, you're in the Tallow Woods. Around here, if you leave a piece of land alone — don't mow it, don't burn it, just let it go — tallows will probably blanket it within 10 years. Within 20, you'll have what ecologists call a “closed-canopy tallow forest,” a single-species ecodisaster unfriendly to birds, bugs and animals. Drive from Houston to Galveston, and most of the woody areas you'll see are covered in tallows. Around the Addicks and Barker reservoirs, the woods are almost all tallow.

According to the Texas Forest Service, Chinese tallows account for an astounding 23 percent of all trees in the eight-county Houston area. Loblolly pines take second place at 19 percent, and nothing else — not cedar elms, not water oaks, not sweet gums — manages to break 7 percent.

Memorial Park is largely free of them, but only because its staff and volunteers have battled them since the late '70s. For conservationists at the Katy Prairie Conservancy and the Armand Bayou Nature Center, the fight isn't just to keep the land free of tallow saplings but to clear full-grown tallow forests — a battle that requires heavy artillery: pesticides sprayed from planes, enormous mulching machines and regular prairie fires.

Knowing all that, I wondered: Should I let that tree house tree live? Or would the world be better if I chopped it down immediately? And how did the thing get into my yard to begin with?

Like Crisco

The story starts with Ben Franklin. Yes, *the* Ben Franklin: In 1772, during a diplomatic mission to England, he scouted for exotic plants that might prove to be cash crops back in the colonies. To Noble Wimberley Jones, a planter in Georgia, Franklin wrote that he was sending “a few seeds of the Chinese Tallow Tree, which will I believe grow & thrive with you. 'Tis a most useful Plant.”

At Rice University, Evan Siemann keeps a copy of that letter in his filing cabinet. Siemann, an assistant professor in the department of ecology and evolutionary biology, studies tallows. He and his graduate students study their insect resistance, their growth rates and how the American genetic stock has diverged from the Chinese. “A most useful plant!” he laughs.

In China, Siemann explains, tallows had been cultivated for more than 1,000 years for their berries — the same hard brown berries that Houston kids love to throw at each other. The Chinese would crop their tallows so that they stayed low to the ground, like grapevines, so the berries were easy to pick. They'd remove the woody covering to expose white berries with a waxy coating. That waxy coating could be then be steamed off to make vegetable tallow, a saturated fat used like butter or lard.

“Like Crisco,” Siemann explains.

Noble Jones' tallow-making efforts don't seem to have made money, but Franklin was right about one thing: The trees did most definitely “grow & thrive.” Now, says Siemann, descendants of Ben Franklin's tallows grow from coastal South Carolina down to north Florida.

Most Texas tallows, though, descend from later, ill-fated attempts to cultivate the tree as a cash crop. Between 1900 and 1910, a U.S. Department of Agriculture project grew tallows in Texas to

study their commercial viability. And again in 1949, another 20,000 seedlings were distributed along the Gulf Coast, in a project intended to promote them as an oilseed crop.

Nurserymen noticed how quickly tallows grew, in almost any soil type, and began energetically promoting them as ornamental trees. In the fall, they noted, the heart-shaped leaves give the Houston area a rare jolt of showy fall color — golds, reds, even purples.

During the city's post-World War II building boom, builders and suburbanites happily planted them in brand-new suburban yards like mine: Unwitting beachheads for the tallow invasion.

Give it an inch

Should I cut down the tree house tallow? I asked Siemann.

He shrugged. “It's probably about to die anyway,” he said. Tallows live only 50 years, which means that most of those intentionally planted in Houston are near the end of their life span. (It's no longer legal to sell them in Texas nurseries. And because the trees are messy and unfashionable, no one seems to bother bootlegging them.)

Besides, ecologists aren't worried about intensely managed land, like my suburban yard and the yards around it. Tallows don't invade yards that get mowed, even just once in a while. In his own yard, in Knollwood, Siemann says that rather than cutting down the mature non native trees, he's letting them die off and slowly replacing them with native species.

The problem, of course, is what tallows do to untended land. And given that they've already taken over so much, cutting down my elderly suburban tree would be like trying to cut air pollution by turning off my porch light: not entirely irrelevant but unlikely to have a noticeable effect.

I felt relieved. (I love that tree house.) But I also felt a little depressed: Even making a decisive sacrifice, there in my own yard, won't solve the problem. I'd sort of hoped to have that kind of power.

I settled for drawing two lessons from tallows.

One comes from Mickey Merritt of the Texas Forest Service: Be careful what you plant. Choose native species or plants that you're certain are not invasive. Beware of showy new heart-stoppers: Most probably aren't invasive, but the few that are can create tallow-size problems.

The second is this: Without meaning to, really without even thinking about it, we've changed Houston's wild areas to the point that nature can't just take care of itself. Even something as wild-looking as a prairie or a forest requires human intervention to keep tallows and other invasive species from wiping out everything else. If any piece of Houston's ecosystem is to survive, we can't just let nature take its course.