



## A Botanical Mystery

This article started out intended to focus on fall-blooming trees, but the lists are heavily populated with non-natives. One exception is our native witch hazel, *hamamelis virginiana*, but its flowers don't bloom for me until Thanksgiving, and anyway, they're quite small and inconspicuous. In my yard, there's only one standout bloom right now: the snow-white and egg-yolk yellow, camellia-like flowers of the Ben Franklin tree, *Franklinia Alatomaha*. But is it native? There are conflicting opinions on that question. Its origins are as mysterious as everything else about this pretty tree.

John and William Bartram, horticultural explorers, were collecting specimens along the Altamaha River in what is now Georgia in October of 1765 when they came across a glorious sight: two or three acres' worth of a shrubby tree, unexpectedly in bloom so late in the year, with glossy green leaves turning bright red. They named the species for the river and their friend Benjamin Franklin, and collected some seeds and cuttings to bring home to their Philadelphia gardens. That was the last time anyone would ever see *Franklinia* in the wild.

What happened? There are several theories, and some of them suggest that the disappearance relates back to the trees' origin. Although there's no written evidence to confirm it, a single patch of land, heavily populated with a single species found nowhere else, suggests that what the Bartrams found might have been the remnants of a deliberately cultivated patch—but planted by whom? Theories range from very early European settlers to slave traders. The tree thrives in the conditions found in high-altitude tropical and sub-tropical climates—precisely the growing requirements for tea, to which *Franklinia* is related. Perhaps it made its way east from Asia along the Silk Road to Europe or Africa before crossing the Atlantic?

Another intriguing idea is that the tree “escaped” glaciation. As noted, there's no question that it does better in more northern, cooler climates, and it's possible that the glaciers killed it off in its original range, leaving only this small, ill-adapted patch to find limited success down south. The Bartrams may have stumbled upon a poorly adapted plant that was already struggling to survive in adverse conditions.

I'm skeptical of this last theory, though. The explorers described a grove of strikingly attractive trees, not some straggly specimens. Whether natives or nomads, it seems clear that in this one location at least, the trees had made themselves at home. Their location along the banks of the Altamaha River is telling. Lacking in drought tolerance,

they depended on the river for consistent moisture, but the river may have been their undoing. A fungus or other pathogen, carried downstream from the ever-multiplying cotton plantations, might have killed the trees. Or, it's entirely possible that whatever killed them arrived on the soles of the Bartrams' boots. And while it seems improbable that the tree was growing absolutely nowhere else, it's all too likely that the mysterious culprit spread far and fast, destroying any outliers before they could be found. For proof that's possible, we don't have to look any farther than the sad loss of the American chestnut, or the ominous proliferation of Japanese knotweed down the street from me. When those first explorers walked into that grove to collect seeds and cuttings, they may have simultaneously destroyed and saved the plant from extinction.

Scientists are exploring the *Franklinia* genome, in hopes of tracing its origin and solving the dual mysteries of where it came from and why it disappeared. Every single tree sold today descends from those few bits propagated in the Bartram's Philadelphia garden. Such a shallow gene pool is precarious—without much genetic variation, all the existing specimens share the same susceptibilities—but at least we get to enjoy this unusual tree. After this summer of incessant rain, my young tree is flowering generously. And there are lots of buds still to open, even though the bright green leaves are already starting to turn red. How many plants offer flowers and autumn color at the same time?

It's still possible that someone, someday, will find another stand of *Franklinia* hiding in some remote corner of the world. I hope it happens. Until then, I will cherish mine.

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Thank you for all the kind messages about my unexpected hip replacement. It turns out that the reports (by me) of an anticipated long road to recovery were greatly exaggerated. Dr. Amy Wasterlain is a wizard in the operating room; I'm pretty sure she could put Humpty Dumpty together again. While I'm still wary of the heavier tasks, I'm almost out of excuses for the sorry state of my gardens, and hoping to make real progress before the cold weather sets in.