

A New Flora for Virginia

The Commonwealth's plant life has been catalogued and illustrated ... and not a century too soon!

—BY BLAND CROWDER—

IN DECEMBER, THE CURTAIN went up on the *Flora of Virginia*, the first manual since the middle of the 18th century to describe virtually all of Virginia's known plant species. The culmination of 11 years of effort by botanists, writers, illustrators and fundraisers, the 1,600-page book is a cutting-edge reference on the nearly 3,200 species native to or naturalized (not native, yet persisting in nature unaided) in Virginia. (The word "flora" means both the plant life of a region and a book that describes that plant life.) The new book is the work of the Flora of Virginia Project, the nonprofit foundation that catalyzed its production and raised the more

than \$1.5 million necessary for its creation.

Orchestrating this mammoth undertaking was Chris Ludwig, chief biologist with the Virginia Department of Conservation and Recreation's Division of Natural Heritage. In 2001, assuming the twin mantles of directorship of the Flora Project and presidency of its board, he also became a co-author of the *Flora* under an agreement with Natural Heritage, the Flora Project's chief partner. Alan Weakley, curator of the University of North Carolina Herbarium and a professor at UNC-Chapel Hill, and Johnny Townsend, staff botanist with Natural Heritage, are also co-authors.

Above: Spring beauty (*Claytonia virginica*) appears on the dust jacket of the *Flora*.

Ludwig says, "letting the user identify all plants that can be found here outside of the garden setting." Each species is described and additional information provided, including its blooming and fruiting times, habitat details and distribution in the state. And as in other floras, there are plant-identification keys, presenting paired descriptions of plant parts or habitat notes that lead the user to that elusive Final Answer—the name of a plant.

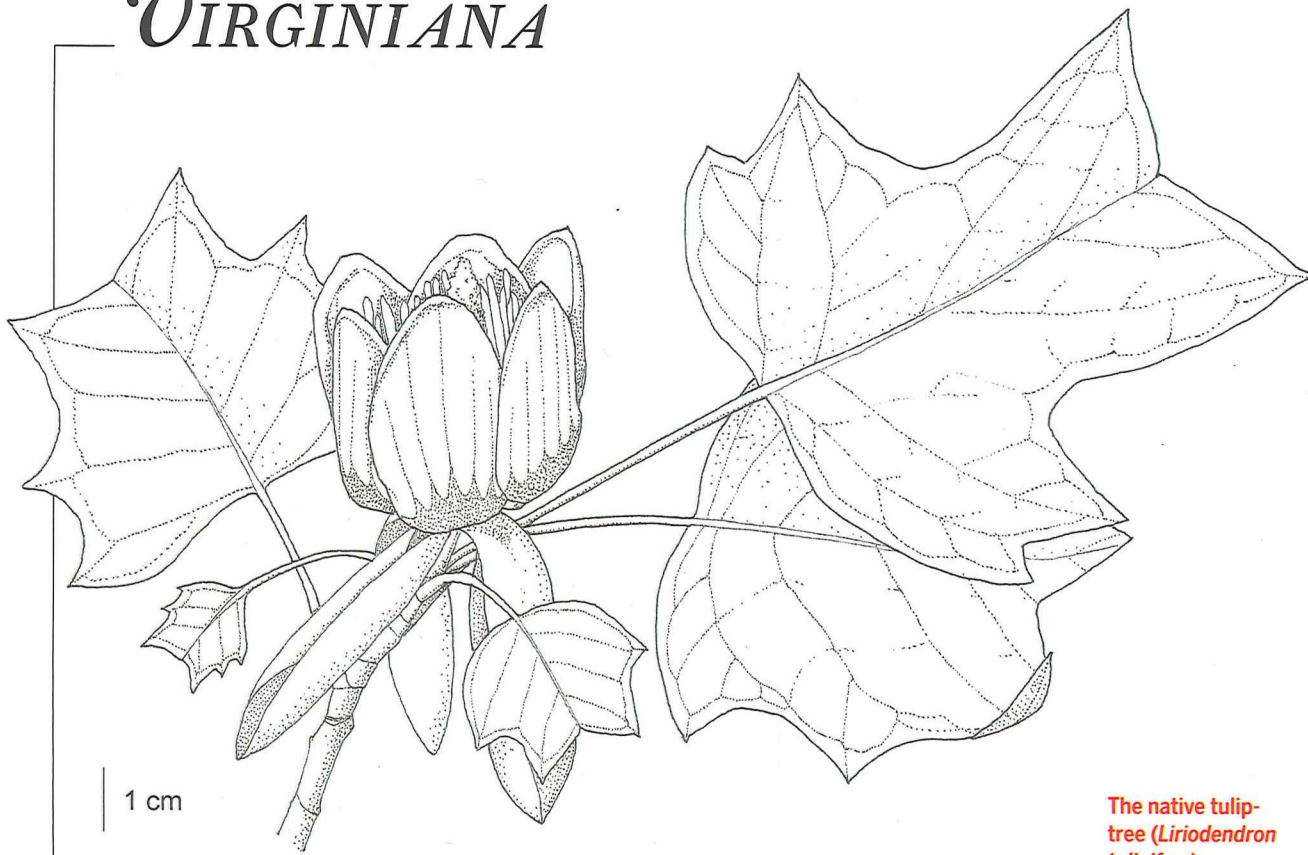
The *Flora's* cover girl, spring beauty, is a plant that, perhaps better than any other, can symbolize botany in Virginia. This delicate perennial, common in woodlands nearly statewide, is soft-spoken, its white petals veined or suffused with pink, its stem running deep underground to join its source, a little round starchy corm, a bulblike structure, which American Indians and colonists used to eat. Spring beauty is known to botanists by a Latinate name that is itself a time capsule of Virginia botany. The man who invented scientific names as we now know them, Carl Linnaeus, labeled it *Claytonia virginica* in 1753, simultaneously honoring not only the Virginia colony but also the man who first collected and described the plant—the clerk of Gloucester County, John Clayton (1694–1773).

It was largely Clayton's work that served as the foundation of the only other flora for Virginia, *Flora Virginica*, which was published in its second and final edition in Leiden, Holland, in 1762, exactly 250 years before the appearance of the new *Flora*. Written entirely in Latin, the first flora contained but one illustration, a map of the colony, or at least the part of the colony that had been mapped.

Of the 3,200 plants described in the new *Flora*, 1,400 are illustrated with original pen-and-ink drawings, which are aids to identification. To identify a plant usually requires close attention to technical detail, probing leafy parts and flower structures, and examining the hairiness of a stem or leaf using a forceps and a hand lens. But the *Flora*—though designed for botanists, planners, naturalists and students—will guide the novice through this jumble as well.

Ludwig predicts that the public's reception of the *Flora* will mirror the excitement that surrounded its production. "A way to gauge that is the amount of volunteer effort that people put toward it, and you're talking about thousands of volunteer hours," he says. "People really believed in this project." The *Flora* board is entirely volunteer, and its members have taken the cause to every corner of the state, talking to garden clubs, master naturalist groups and chapters of the Virginia Native Plant Society, another partner organization, whose chapters and members have repeatedly and solidly supported the project, Ludwig says. Board members and other volunteers wrote plant descriptions

VIRGINIANA



The native tulip-tree (*Liriodendron tulipifera*).

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some well-deserved fanfare. Donors to the project were recognized at three premieres in December held at the Wintergreen Nature Foundation's headquarters in Roseland, the Lewis Ginter Botanical Garden in Richmond and the Meadowlark Botanical Gardens in Vienna. This year and into next year, a series of talks, panel discussions and presentations will be offered in various parts of the state, with the support of the Richard Gwathmey and Caroline T. Gwathmey Memorial Trust. And the roll-out of the *Flora* will culminate from March through September 2014 as the Library of Virginia and the Flora Project present an exhibition on the state's plants, their study and their importance. A traveling art exhibit is in the works, as is a digital app for tablets and phones, says Ludwig, with funding for the app being provided by the Virginia Environmental Endowment.

With support from the Virginia Foundation for the Humanities, the Flora Project commissioned Richard Cheatham, an actor and principal of Richmond's Living History Associates, to research Clayton and create a character based on him. The Clayton character made a surprise appearance at each of the

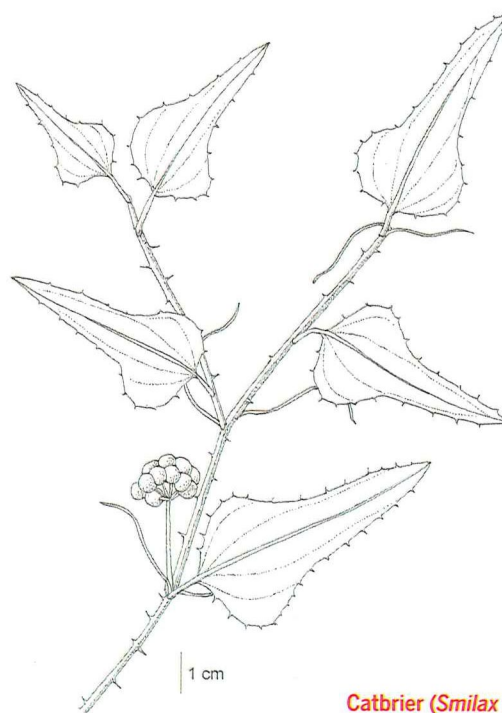
and proofread chunks of the manuscript, lent photographs and mounted *Flora* art exhibits, and wrote articles and grant proposals.

The project's volunteers are also a good reflection of the *Flora*'s audience for a couple of key reasons, says Ludwig. "One is a love of plants," he says. The other is devotion to conservation. "Look at the careers of board members Tom Smith, director of the Division of Natural Heritage, and Michael

Lipford, director of The Nature Conservancy in Virginia. They've known from the very beginning how important this project was in enabling that kind of conservation."

The *Flora*'s status and habitat information, included in each species description, will provide important information for people such as ecologists and planners who are charged with managing, protecting, finding, or restoring rarer species and sensitive environments, and for gardeners and landscapers, who are steering ever clearer of introduced species which can be invasive to the detriment of our native plants and natural habitats and their beauty.

The need for such a botanical and conservation tool was officially recognized in 1926 when the Virginia Academy of Science, then only in its third year, formed its Committee on Virginia Flora. While some local plant guides resulted, no statewide manual was forthcoming, but the committee and the idea remained alive. In the 1970s, some of the state's leading plant scientists formed Virginia Botanical Associates and published the *Atlas of the Virginia Flora*, now in its fourth incarnation as the *Digital Atlas of the Virginia Flora*, which provides information about plant distribution, species by spe-



Catbrier (*Smilax bona-nox*).

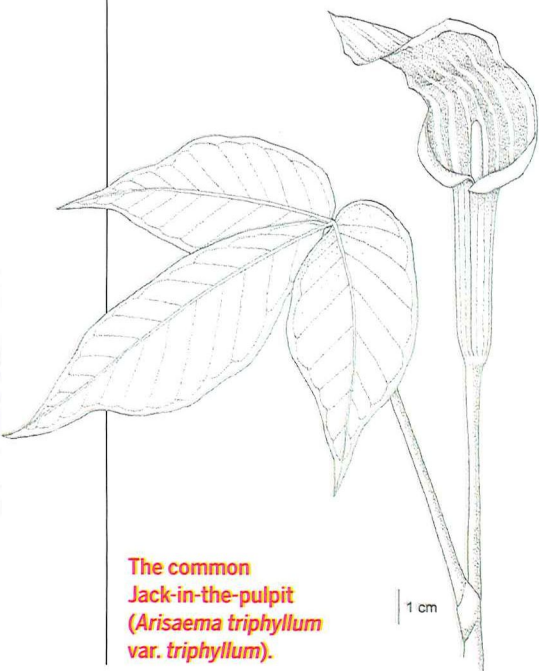
December premieres, giving Flora Project supporters a glimpse at the vagaries of publishing something as complex as a flora in the 1700s, when fire and pirates were only two challenges botanists faced.

"One day in the distant future, when I am long gone from this world," says Cheatham in character as Clayton, "there will no doubt be others who share my passion for the flora of Virginia. It is my great hope that they might find some small benefit from my life of investigation and collecting and that they will

also publish their work for the benefit of the world."

Ludwig and company have done just that, Mr. Clayton. ❀

Bland Crowder is associate director and editor with the Flora Project. For information or to order the Flora of Virginia (BRIT Press, \$79.99), go to FloraOfVirginia.org



The common Jack-in-the-pulpit (*Arisaema triphyllum* var. *triphyllum*).