

BRANCHING OUT

Maryland's Woodland Stewardship Educator



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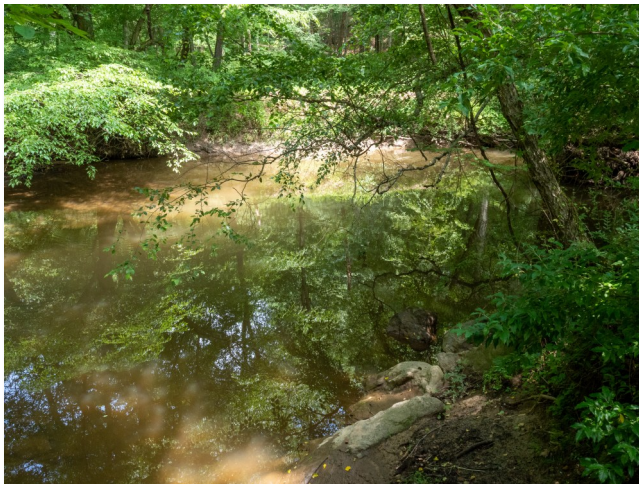
Good News Among the Challenges

Andrew A. Kling, *Branching Out* editor

Without a doubt, Maryland's woodlands face an increasing number of challenges. The newer threats, such as spotted lanternfly and beech leaf disease, join a long list of plants and insects that require managerial vigilance. But it is also important to recognize the good news among the less-than-good.

At the heart of the good news is the increasing understanding of the roles played by native trees and shrubs. Native plants have co-evolved with local wildlife, such as birds, insects, and pollinators, providing food and shelter tailored to their needs. Reforestation with native species helps filter stormwater, stabilize soils, and protect the Chesapeake Bay watershed from nutrient and sediment runoff. Additionally, native woodlands better resist pests, diseases, and extreme weather.

These are the woodlands that planners and managers intend to create across Maryland. For example, in 2025, the state's forests received a significant boost through several notable programs and achievements. Earlier issues of this newsletter have noted the work related to the "5 Million Trees" initiative; this spring, the Maryland Department of Natural Resources surpassed its seasonal tree planting goals in Howard County. [Program participants planted 46,800 new trees across 107 acres.](#) This accomplishment moves the state even closer to the 5MT target by 2031 and supports Howard County's specific objective of reaching 50% tree canopy cover by 2030.



"Quarantine Hike Through Maryland Park along Northwest Branch
Anacostia River"

Photo by [Admiralnemo/Adobe Stock](#)

Meanwhile, Montgomery County introduced [Bill 18-25](#) to reinforce forest conservation, incentivizing landowners to preserve trees and codifying the county's goal of no net loss of forests. Statewide, revisions to the Forest Conservation Act require stream buffers, regular measurement of tree canopy, and strengthened replanting obligations following forest loss, all of which provide added protection to Maryland's rich natural heritage.

The revisions to the FCA continue the commitment shown at the state level, such as 2022's [Conservation Finance Act](#). [This legislation, the first of its kind nationwide](#), continues to foster private sector participation by allowing traditional infrastructure financing methods to be applied to green and blue infrastructure projects, such as forest conservation and restoration initiatives. It introduces a pay-for-success model where the state only pays when ecological projects deliver the desired environmental outcomes, significantly reducing financial risk for private investors.

In addition to the Conservation Finance Act, [Maryland's cost-share programs](#) further incentivize private landowners by offering reimbursement for approved forestry management practices such as tree planting, thinning, and site preparation, covering up to 65% of costs.

Collectively, these 2025 milestones signal a greener, more resilient future for Maryland's forests, delivering environmental, recreational, and climate benefits to communities across the state.

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Registration is Now Open For the Fall Session of “The Woods in Your Backyard” Online Course

The Woods in Your Backyard Online Course

Registration is now open for the Fall 2025 session of “The Woods in Your Backyard” online course. Our course is designed primarily for small-acreage property owners who want to learn how to care for or expand existing woodlands, or to convert lawn space to woodlands.

The self-directed, non-credit online course runs for ten weeks, from **September 8 to November 17, 2025**. It is offered through the University of Maryland's Electronic Learning Management System, and is accessible from any Internet connection and Web browser.

The course closely follows the published guide of the same name, but includes some important extras. Quizzes reinforce the important concepts of the text. Optional activities give participants the opportunity to share one or more of their stewardship journal entries, or photos or narratives of their woodland stewardship

accomplishments. In addition, many of the course's units are accompanied by short videos, created and produced by Woodland Stewardship Education staff. These 2- to 5-minute videos demonstrate essential skills and techniques (such as tree identification or crop tree release) and share the experiences of other woodland owners.

The course costs \$125.00 and each session is limited to 25 participants. Each paid enrollment includes printed copies of “The Woods in Your Backyard” guide and workbook, plus a copy of *Common Native Trees of Virginia*. [Visit our website page about the course at this link for more information, including frequently asked questions, updated registration information, and a way to preview the course at no charge.](#)

Go to [this Eventbrite link](#) for participant comments, more information, and how to register.

If you are a Maryland Master Naturalist or a Maryland Master Gardener, participating in this course can contribute to your annual hours commitment. See [this link](#) for more details.

The Woods in Your Backyard has been the perfect opportunity for us to learn the best strategies to take on our dream of a natural environment that welcomes wildlife and provides beauty and solace.

-Pat B., Maryland

Always Verify Tree Service Contractor Credentials

Maryland DNR

Maryland homeowners need to know the proper steps to take when hiring tree removal companies to clear damaged and downed trees, limbs, and branches. They may be contacted in the aftermath of storms by unqualified contractors who attempt to undercut the competition by operating without proper insurance, training, skills, and licenses that keep themselves and their clients safe.

Fortunately, it's easy to follow the proper procedures. Only Maryland Licensed Tree Experts (LTEs) should be hired to trim branches and remove damaged and downed trees – they are the **only** tree care professionals who lawfully can perform this work in Maryland. Use the [Maryland Forest Service LTE search tool](#) to show all available options in your area. Also, LTEs are easy to spot as they are required to post their number on the side of their vehicles.

Unlicensed tree care businesses may advertise misleading credentials. Homeowners should verify the company has a licensed tree expert on staff by asking to see their license, or checking the license number through the [Department of Natural Resources](#) website. By hiring a LTE, a homeowner is ensured to get someone who knows what they're doing

and is properly insured. The insurance aspect is particularly important; if you hire someone who is uninsured or underinsured and an injury or property damage occurs, you could be responsible for paying to fix it.

Other important recommendations include:

- Obtain more than one estimate for the proposed work.
- Get a written contract that states the work to be performed and the cost.
- Never pay the full amount before all the work is completed as per the written and signed contract.

The Maryland Tree Expert Law was adopted in 1945, providing a state-wide law addressing tree care work done for compensation on private or public property in Maryland. A criminal conviction for a first offence under the Tree Expert Law is a misdemeanor and is subject to a fine up to \$500. Anyone who believes they've been approached by an unlicensed business advertising or practicing tree care services in Maryland can contact the [Maryland Forest Service](#) at 410-260-8531 or [file a complaint online](#).

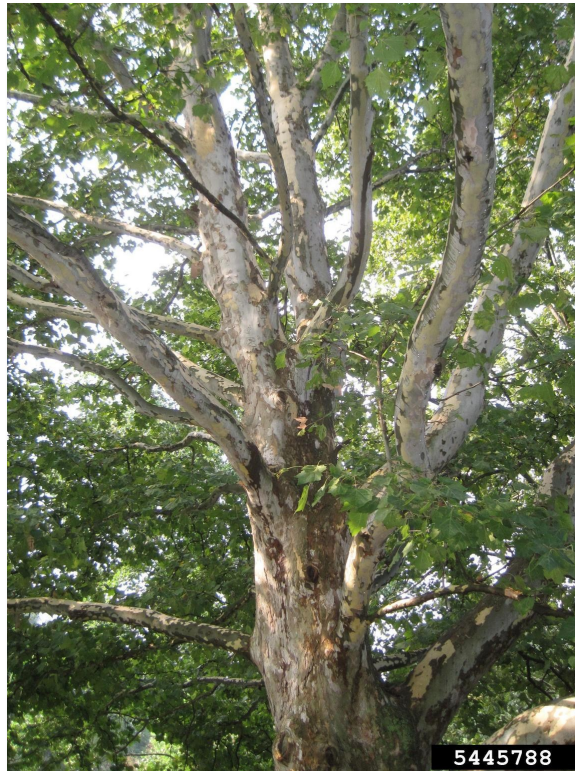
Native Trees of Maryland: The American sycamore, *Platanus occidentalis*

Daniel Pratson

The American sycamore (*Platanus occidentalis* L.), a member of the plane tree genus, is native to a broad portion of the Middle and Eastern portions of North America, extending from south-central Texas to southern Maine. Sycamore trees (sometimes referred to as “buttonwood” trees) are most often found in low-lying, riparian areas across Maryland, although they are also common pioneer hardwood species in abandoned fields and mining sites. Interestingly, sycamores tend to persist through most successional stages and are often present in mature, “climax” forests, given their ability to live around 200-500 years.

American sycamore trees are monoecious, which means that both male and female flowers are found on a single tree. The heartwood of old sycamores often rots out and creates habitat for wildlife including black bears and cavity-nesting birds. The broad leaves of sycamores provide ample shade, one of the many reasons why these trees are often planted in suburban and urban areas across the state. Sycamore bark is brittle and easily flakes off trunks as they grow and expand; the mottled brown, grey, and white patches across sycamore trunks make these trees easily recognizable.

American sycamores can be harvested for their timber, which is used for applications ranging from furniture to butcher’s blocks. In the Mid-Atlantic and Appalachian regions where sugar maple (*Acer saccharum*) trees are less common, some people collect sycamore sap to produce syrup. American sycamore is also utilized for



American sycamore trees have irregular patches of flaky bark that give trunks their distinctive look.

(Photo: Rob Routledge, Sault College, Bugwood.org)



A “moon tree” sycamore stands outside of the Goddard Space Flight Center in Greenbelt. The tree was planted in 1977.

(Photo: Jay Friedlander)

woody biomass purposes; saplings can be purposely *coppiced* (cut at the stump to promote future re-sprouting) on timed rotations to feed biomass markets.

Currently, the largest measured tree in Maryland is an American sycamore (clocking in with an incredible circumference of 27 feet and a height of 145 feet!) located in Montgomery County, at the Dickerson Conservation Park. The C&O Canal Towpath also hosts an abundance of extremely large sycamores growing alongside the path. During the Apollo XIV mission in 1971, Astronaut Stuart Roosa, a former US Forest Service smoke jumper, carried a variety of tree seeds on the mission. The seeds were germinated upon the mission’s return and have been planted

across the county – many of the surviving “moon trees” are American sycamores, one of which is currently located at the Goddard Space Flight Center in Greenbelt, Maryland.

Sources:

Maryland Big Tree Program.

<https://www.mdbigtrees.org/websitedata>

Burns, R., and Honkala, B. *Silvics of North America Volume 2. Hardwoods. United States Department of Agriculture (USDA), Forest Service, Agriculture Handbook 654.*

Taylor-Ide, L. & Collins-Simmons, S. *American Sycamore Sap & Syrup: What We Know and What We Don’t.* Future Generations University. <https://woodlandstewards.osu.edu/sites/woodlands/files/imce/20240913%20American%20Sycamore%20Sap%20%26%20Syrup.pdf>

Woody biochar: A promising stewardship tool for Maryland's trees and forests

Daniel Pratson

Over the past few months, I have received several phone calls from residents across the state who share a similar problem: they have large trees in their yards that need to be trimmed or removed, yet they do not want the wood to go to waste. Is there any productive use for the woody material that will come from their trees?

In many ways, these calls reflect important aspects of relationships between trees and people in Maryland; estimates project that nearly 3.1 million acres across Maryland (about 50% of the state's lands) are covered by tree canopy, and that a majority of the 2.2 million unique parcels across the state feature some amount of tree cover [1; 2]. However, sawmills generally purchase timber from harvests carried out on multiple-acre forested properties, which means that many residential trees are destined to become woodchips or firewood.

A diverse ecosystem of researchers, industries, and unique partnerships across the country work to identify productive uses for woody material that might otherwise be considered waste. **Woody biochar** represents one such material, produced from a relatively simple process, and that has varied applications and potential markets.

What is biochar? How is it produced in forests? What is it used for?

Biochar is a type of charcoal made from organic material (e.g., plant residue, manure) through a process called *pyrolysis*, which is when materials are broken down into constituent parts under "thermal decomposition," or high temperature burning [3]. So, in forestry applications, woody



Limbs and other woody material are generally left after timber harvests and can make future management challenging. Woody biochar processing can decrease the volume of woody material and produce a usable product.

(Photo: Daniel Pratson)

biochar is created by igniting dried branches and woody material, then extinguishing the material before it turns into ash.

Woody biochar production in forestry applications decreases the amount of flammable woody material in forests, cutting down on wildfire risks and facilitating future management. Biochar is often produced in industrial facilities, but recent research has ground-truthed on-site production in forests using mobile kilns or air-curtain burners [3].

After it is produced, biochar can be applied to directly forest soils; the unique molecular structure of biochar helps to trap heavy metals and retain moisture, so woody biochar has been utilized to amend soils in abandoned mine sites and manage stormwater runoff [3].



On-site woody biochar production. The woody debris is burned in an air curtain burner (center). The resulting biochar is extinguished and piled in a collection trailer (right). Photo: Ryan Armbrust, Kansas Forest Service, Bugwood.org.

USDA's National Resources Conservation Service has recognized woody biochar production as a conservation practice eligible for cost-sharing, and there are plans to establish an industrial biochar processing plant in Allegany County, Maryland [4; 5]. Biochar is sought after by agricultural producers, nursery operators, and specialty gardeners to improve soil conditions.

Given the large amount of woody biomass destined for woodchip piles or landfills across Maryland, a unique opportunity exists to research the potential markets for biochar applications and the financial accessibility of mobile woody biochar production methods for private landowners, especially those with small acreage parcels. Woody biochar may ultimately play an important role in forest stewardship and management across the state.

“It Takes Habitat, & Habitat Takes Work”: Restoring Bobwhite Quail



Quail habitat on the Nanticoke River WMA Photo by Rachael Pacella, Maryland DNR.

The threatened bobwhite quail are calling once again in the Nanticoke River Wildlife Management Area in Wicomico County, thanks to habitat restoration by a partnership led by the Maryland Wildlife and Heritage Service.

The species requires early successional habitats, which includes open grasslands and low-growing shrubs. A total of 60 acres of forest was thinned in 2017 and has been maintained as early successional habitat since then with frequent prescribed fires. The result? A quadrupling of bobwhites between 2021 and 2024. According to Quail Forever Chesapeake Bay Chapter Officer John Brader, “It takes habitat, and habitat takes work.” [Read more from the DNR here.](#)

Garrett College Home to Two Historic Seedlings

Garrett College in McHenry, MD hosted a seedling planting ceremony in July which featured the offspring of two iconic Maryland trees: The Wye Oak and the Liberty Tree. The planting ceremony also celebrated the college’s designation as an Arbor Day Foundation Tree Campus. Participants observed that both the Wye Oak, located in Wye Mills, and the Liberty Tree, in Annapolis, lived to be several hundred years old, and looked forward to similar lifespans for the offspring. “The Wye Oak was once the largest white oak in the country, and lived to be nearly 500 years old before falling in 2002,” noted Katherine Phillips, the urban forestry coordinator for the Maryland Forest Service. “The Liberty Oak was a tulip poplar under which American revolutionaries gathered in the name of freedom. It lived to be approximately 400 years old before falling in 1999.”

[Read more about the ceremony here.](#)

Report Beech Leaf Disease Sightings to MDA

As beech leaf disease (BLD) continues to impact Maryland’s trees, the MDA’s Forest Pest Management professionals continue to survey for BLD and the nematode that causes it.

Permanent survey plots have been set up across Maryland since 2019.

Citizens can report symptoms of BLD via the “Tree Health Survey” app ([Mac only, here](#)) or by email to

fpm.mda@maryland.gov.

For additional information, visit the UMD Extension Website at: [https://](https://extension.umd.edu/resource/beech-leaf-disease-maryland/)

extension.umd.edu/resource/beech-leaf-disease-maryland/



BLD in Knoxville/Gapland area (Frederick Co., MD). Photo by Steve Nagy, Mead Tree Experts

2025 American Chestnut Photo Contest Now Open

The American Chestnut Foundation (TACF) invites photographers and chestnut enthusiasts to submit their images of the American chestnut. The contest is open through December 31, 2025, so there’s plenty of time to get shots of their chosen trees during a couple of seasons.

Winning photos will appear in a future issue of the Foundation’s *Chestnut* magazine. Prizes include TACF gear, and the first-place winner will also receive a one-year TACF membership.

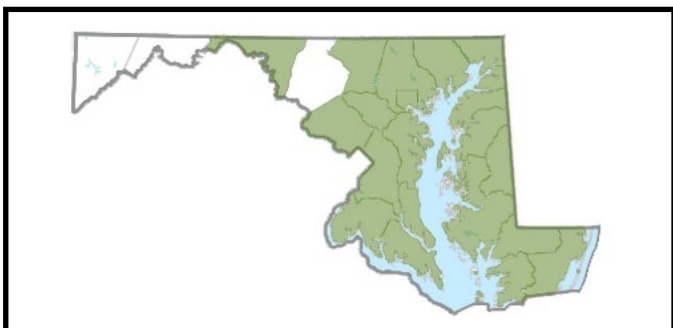
Complete details about the contest can be found [here](#).



“Fresh American Chestnut Leaves” photo by Brian Fox, 2023 Photo Contest. Photo courtesy of TACF

Invasives in Your Woodland: Paper Mulberry

In the Fall 2023 issue of *Branching Out*, we profiled the white mulberry, which was introduced to the United States with the intention of creating a silkworm industry. In this issue, we take a look at the paper mulberry. Although the names are similar, the paper mulberry arrived under different circumstances. Originally native to eastern Asia, including Japan and Taiwan, its bark has long been valued for making paper and cloth. But it was valued for its rapid growth and aesthetic qualities and was introduced to the U.S. in the early 1900s as a fast-growing ornamental shade tree. Over time, it was planted widely in urban and suburban landscapes; its robust nature made it attractive for planting in city parks and streets, as well as in yards and rural homesteads. Its resistance to air pollution, drought, and variable soil types further contributed to its widespread use in landscaping. However, it escaped cultivation and began to colonize natural areas. In the succeeding century, paper mulberry spread across much of the east coast and as far west as Texas and Oklahoma. It is considered invasive in nearly three dozen states as well as a dozen countries worldwide. It is reported across Maryland except for Garrett, Allegany, and Frederick counties. See the map below.



Paper mulberry distribution in Maryland, from [Maryland Biodiversity Project](#).

What is it?

Paper mulberry (*Broussonetia papyrifera*) is a small to medium-sized deciduous tree, reaching up to 45 feet in height. Paper mulberry prefers full sun and thrives in disturbed environments, such as forest and field edges, roadside verges, floodplain forests, and areas where the soil has been disturbed or native plants have been removed. The roots are quite shallow, which can lead to wind-throw and uprooting. Toppled trees can lead to soil erosion and further infestation of the newly-disturbed area.

How does it spread?

Paper mulberry spreads both via seed dispersal and vegetatively. Root suckers can emerge up to 75 feet from

the main tree. Wildlife consume the fruit, and birds can disperse the seeds over great distances via their droppings.

How can I identify it?

Paper mulberry trees have tan, smooth, moderately furrowed bark, milky sap, soft and brittle wood, and twigs that are hairy and reddish brown. The species is dioecious, producing male and female flowers on separate trees. Male flowers form long clusters in spring, and female flowers yield bright reddish-purple fruit in summer. See the photo gallery on the next page.



Paper mulberry trees. Photo by [Chuck Barger, University of Georgia, Bugwood.org](#)

Identifying paper mulberry solely on the basis of leaves can be challenging. Leaf shape is highly variable. They are often lobed or mitten-shaped, with pointed tips and serrated edges; the upper leaf surface is rough, and the underside is densely hairy and grayish. Leaf arrangement can be alternate, opposite, or whorled. Paper mulberry may be confused with the exotic white mulberry and native trees such as red mulberry, sassafras, basswood, and white poplar.

How can I control it?

Due to the shallow root system, young paper mulberries can be removed from moist soil by hand pulling. Young plants can be cut to the ground, followed by repeated monitoring to ensure resprouting does not occur. Mature trees can be controlled via herbicides such as glyphosate or triclopyr applied by basal bark, cut-stem, hack-and-squirt, or injection methods.

For more information:

Learn more about paper mulberry:

[Invasive Plants in Pennsylvania: Paper mulberry](#) (PA DCNR)

[Fact Sheet: Paper Mulberry](#) (Plant Conservation Alliance's Alien Plant Working Group)

Paper mulberry ([Plant Invaders of Mid-Atlantic Natural Areas Field Guide](#), p. 115)

Image Gallery: Paper Mulberry



Paper mulberry thicket. Photo by Chuck Barger, University of Georgia,
Bugwood.org



Paper mulberry bark. Photo by James H. Miller,
USDA Forest Service, Bugwood.org

Variability of leaf shape in paper mulberry trees.

(Left) Caroline Co., MD. Photo by Wayne Longbottom, Maryland
Biodiversity Project

(Right) Photo by Chuck Barger, University of Georgia, Bugwood.org



Events Calendar

August 25, 2025, 7:30—8:45 PM

The Importance of Mycorrhizal Fungi for Tree Propagation Online

Presented by the Maryland Native Plant Society and co-sponsored by the University of Maryland Extension. Tree propagation is a major component of many restoration and conservation projects. As research shows, mycorrhizal fungi are key to the success of this crucial work. In this talk, Dr. Adriana Corrales will explain the importance of mycorrhizal fungi for native plant propagation. For more information and how to register, visit <https://www.mdflora.org/event-6190921>

October 22-25, 2025

Society of American Foresters National Convention Hartford CT

Celebrate 125 years of professional forestry in the United States during our annual conference, themed "From Roots to Canopy: 125 Years of Forestry and Natural Resources." This event will bring together foresters, researchers, and policymakers, to reflect on the rich history of forestry, share current advancements, and look ahead to the future of sustainable forest management. [Visit https://eforester.org/Safconvention2025](https://eforester.org/Safconvention2025) for more information.

November 7-9, 2025

Alliance for the Chesapeake Bay's Chesapeake Watershed Forum National Conservation Training Center, Shepherdstown WV

This Issue's Brain Tickler...

Last issue we asked about how two dates (May 2, 1941 and June 6, 2002) are connected in Maryland forest history. The answer is the Wye Oak: it was declared the Maryland tree on the 1941 date, and was toppled in a storm in 2002. Congratulations to Fred Dickinson and several others who shared the answer.



For this issue, we travel back to the early days of the World Wide

Web. What was the website address (URL) of the first website for this program that debuted in 2001? Email Andrew Kling at akling1@umd.edu with your answer.

The Alliance for the Chesapeake Bay's 20th Annual Chesapeake Watershed Forum is a watershed-wide event reaching over 400 restoration and protection practitioners to inspire and empower local action towards clean water. We share successful tools and techniques, offer lessons and learnings from on-the-ground work, build capacities of local organizations, foster partnerships, educate on new initiatives and emerging practices, network with others, and celebrate our successes. [Learn more and register here.](#)

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