

Having a plan and doing something (anything) in preparation for your eventual harvest could go a long way for your property. David M. Smith said in his silviculture textbook, “The ultimate act of regenerating a stand is so crucial that it should be kept in view throughout the whole rotation.” If the groundswell of proactive family forest owners was big enough, just some preparation for harvest could have a pronounced impact on the entirety of Virginia’s forest products industry. Conveniently, the job of a forester is to help you, the landowner, make this type of plan. Seek them out and you’ll agree, they’re some of the finest, most intelligent and best-looking people you’re likely to meet.

Next: “Mesophication.” You may have heard this word. It’s a 50-cent word we academicians throw around to make ourselves sound learned. We use it a lot. All it means is plants that like wetter growing environments (i.e. mesic species) are, for a myriad of reasons, showing up where drier species used to dominate. So, in all likelihood, those seedlings and saplings you have hanging out beneath the canopy in your forest are probably mostly these mesic species. You’re being meso-phied as you read this and you didn’t even know it. Don’t be alarmed, you’re not alone. It’s essentially what’s happening across the country. It’s concerning because the dry-loving species are the species that have been dominating these forests for the longest amount of time, meaning thousands of years. The species in the overstory are dry-loving but their eventual replacements in the understory are all wet-loving. So, what happens when we harvest? Well, we see these wet-loving species become more common components of mature forests. This could mean our forests become less tolerant of drought, stop providing certain habitat and food sources for wildlife, possess less valuable timber species, and the forests, on the whole, just behave differently than they ever have – and we don’t really know what that could ultimately mean.



Nonnative invasive species are affecting the composition and function of our native forests. This photo shows dead ash trees (back right), killed by the emerald ash borer, and nonnative invasive tree of Heaven (front left) coming in underneath.
Photo by: Jennifer Gagnon, Virginia Tech.

forests function and interact with the abiotic and biotic environment is pushing us toward an uncertain future. We don’t know how worsening droughts and more mild winters may influence the population of a nonnative defoliator. We don’t know if tomorrow a new nonnative invasive pest will emerge. Luckily, we have a system in place to look into this kind of stuff. There is an army of Poindexters, like myself, who have committed themselves to trying to figure out remedies to big problems like this. And there is research that’s been done and is continuing to be done to help guide decision-making in the woods to address this very issue.

Now, the best news: The Virginia Department of Forestry is launching a new effort to help landowners tackle these issues. You will be able to find the support you need to help you make informed and effective decisions. In the subsequent articles on this topic, we will lay out exactly how. Stay tuned!

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Advance regeneration, such as this oak seedling, need to be well-established prior to a timber harvest to ensure adequate regeneration will be present after the harvest. Although harvesting may damage these smaller trees, they will quickly respond by resprouting. Photo by: Craig Lorimer, University of Wisconsin, Madison.

VIRGINIA FOREST LANDOWNER UPDATE

Spring 2022



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VIRGINIA FOREST LANDOWNER UPDATE

Events, news, and information promoting the stewardship of Virginia’s forest resources.

The Troubles with Virginia’s Hardwoods By: David Carter, Virginia Tech

I’ve been asked to share the grim and ghastly challenges Virginia’s hardwood forests face. Our hardwood forests, or more broadly, our natural forests, have a lot of issues: a decline in timber quality; widespread conversion toward mesic species; nonnative invasive plants, pests, and diseases; and the looming threat of climate change. Addressing these issues is doable. But, addressing these issues will require you, the landowner, to invest money into your forest and not likely see a return on that investment in your lifetime. That’s rough. What’s more, even if you are willing and able to do the work, you may not be able to find a contractor. Let’s try to address these issues one at a time and talk about what you, as a landowner, can do about them. Among all this bad news, there is good news, I promise.

High-grading is a four-letter word for foresters. The directive for such exploitative harvesting is “cut the best and leave the rest.” It’s sometimes described as “mining for timber.” Loggers like it because it’s the most efficient use of their time; landowners permit it because post-harvest they still have something resembling a forest and money in their pocket. If you own a naturally regenerated forest in Virginia, it’s likely that it’s between 65 and 120 years old, was once completely cutover, and has been high-graded multiple times since. The negative impacts of high-grading may not be apparent to the untrained eye and landowners may opt to have it done again. The result is acres of woodlots that don’t possess enough quality timber to financially support quality management. In other words, there are so few trees of any value left, the only economically feasible harvesting a logger is able to do is high-grade. Unfortunately, forests often can’t regain the value lost from this type of harvesting on their own. Furthermore, without the self-funding mechanism of sorts in the form of harvest profit, the expensive management option of slowly putting value back into a high-graded stand via deliberate management is likely to never become popular. High-grading is an insidious and widespread problem that degrades a forest resource over lifetimes, with each new generation of landowners buying or inheriting land they never knew to possess a greater quality. The quality of today’s forest is often just accepted as “what it is.”



A high-grade harvest leaves less-desirable trees behind, including ones with crooked, diseased, and damaged stems, as well as less-preferred species. The remaining canopy cover is still relatively closed, preventing the adequate light needed to promote regeneration of desirable oak species.

Photo by: Rich Steensma.

Many of the species we seek to have in our forests (e.g. oaks, hickories, walnut) need to be abundant in the understory as seedlings and saplings prior to harvest, or else they’re unlikely to show up in great numbers or at all post-harvest. Harvesting a hardwood stand is commonly the only management decision a landowner makes. This is partially the reason why we see an increase in species like blackgum, red maple, and yellow-poplar throughout Virginia. These species thrive under the default management regime of “wait, harvest, then cross-your-fingers something valuable grows back.”

Hardwoods cont. on page 5

EVENTS CALENDAR			For the most complete listing of natural resource education events, visit the on-line events calendar: https://forestupdate.frec.vt.edu		
Contact	Date	Location	Event	Time	Fee
MP	Year-round	Statewide	Virginia Master Naturalist Volunteer Basic Training Local Virginia Master Naturalist chapters hold basic training courses for new volunteers on various schedules. Visit http://www.virginiamasternaturalist.org/chapters-a-map-and-contacts.html for a map of chapters and information on training schedules and application procedures as they become available.	Varies	Varies
15Forest	Fridays	Online	Fifteen Minutes in the Forest Join Virginia Cooperative Extension's Forestry Team every other Friday for a video on a natural resources-related topic.	12:15	Free
JMc	April 25-26	Online	Mapping with Drones Small Unmanned Aircraft Systems (sUAS) are permeating many sectors of industry, and are increasingly being employed as data collection platforms to support of an array of applications. This is an intensive, yet introductory level workshop, and can be considered a drone boot camp.	9 - 5:00	\$200
VFA	May 3-5	Blacksburg	Virginia Forestry Summit Come to Blacksburg to learn about forestry's hottest topics.	Varies	Varies
JG	May 5	Blacksburg	Landowner Extravaganza! Whether you are already in Blacksburg attending the Virginia Forestry Summit or just looking for a place to spend a lovely spring weekend, make plans to attend this event. A catered lunch will be followed by a number of educational opportunities. Choose from: <ul style="list-style-type: none">• Tree Identification and Forest Ecology Field Trip• Preparing for Generation NEXT Legacy Planning Workshop• Virginia Tech's Urban Forest Field Trip• Agroforestry Field Trip• Forest Products Research and Innovations Field Trip	12:30 - 5:00	\$10* for Summit attendees; \$15* for everyone else
AD	May 12	Colonial Heights	13th Annual Vegetation Management Workshop Learn about options for site preparation for planting, controlling fire ants, controlling weeds in solar installations, cost share opportunities, and more! Recertification credits available.	8:30 -5	\$50*
JG/EP/BW	May 20-21	Galax	SW Beginning Woodland Owner Retreats The Retreats were developed for those new to active woodland management. A combination of classroom, field trip, and hands-on activities will be used to teach concepts of sustainable woodland management.	May 20 7:15 - 6 May 21 7:15 - 1	No Lodging Individual \$65* Couple \$110** Lodging Individual \$105* Couple \$190**
SD	June 1	Staunton	2022 Virginia Forest Carbon Symposium In this symposium, you will learn about the importance of forest carbon markets, what markets are available to urban forest managers and family woodland owners, and how to get involved.	8 - 3:00	\$30*
*Meals included; **Meals & lodging included					
EVENT CONTACTS					
Contact	Name/Affiliation		Phone	e-mail/website	
MP	Michelle Prysby		434-872-4580	www.virginiamasternaturalist.org	
15Forest	Fifteen Minutes in the Forest		ZOOM live: https://virginiatech.zoom.us/j/97509089739 YouTube: https://www.youtube.com/c/VirginiaForestLandownerEducationProgram Facebook live: www.facebook.com/VFLEP		
JMc	John McGee		540-231-2428	jmcg@vt.edu	
VFA	Virginia Forestry Association		804-278-8733	vfa@forestry.org	
JG	Jennifer Gagnon		540-231-6391	jgagnon@vt.edu	
AD	Adam Downing		540-948-6881	adowning@vt.edu	
BW	Bill Worrell		276-889-8056	bworrell@vt.edu	
EP	Ellen Powell		434-977-6555	ellen.powell@dof.virginia.gov	
SD	Sabina Dhungana		434-220-9115	sabin.dhungana@dof.virginia.gov	

Plant Virginia Natives: An Initiative Grounded in Collaboration By: Virginia Witmer, Virginia Coastal Zone Management Program and Nicole Hersch, New River Valley Regional Commission

Virginians are increasingly hearing that planting natives will help improve the environment – especially habitat for declining pollinator and bird populations – but many are not sure where to start.

Plant Virginia Natives is a collaborative initiative network of partners engaged in state-wide and regional strategies to increase the knowledge, use, and availability of native plants. The Virginia Coastal Zone Management Program (CZM) Program introduced, coordinates, and funded the initiative through grants from NOAA since 2008. Virginia CZM is a network of state agencies and coastal localities, with the Virginia Department of Environmental Quality as the lead agency. Regional marketing campaigns and partners across the commonwealth add additional support and resources to the project.

The Plant Virginia Natives initiative advances the shared goals of the partners outlined in an Action Plan (downloadable from PlantVirginiaNatives.org):
Goal 1: Continue to encourage and increase collaboration and coordination among partners engaged in native plant education, communication, and marketing.
Goal 2: Enhance knowledge of the value of native plants.
Goal 3: Increase Virginia-grown native stock, and consumer access to native plants.
Goal 4: Increase demand and use of plants native to Virginia by:

- Landscape and land use professions (including engineers, landscape architects, and anyone involved in land development
- Homeowners
- Landscaping and demonstration restoration projects on public land (state/federal) and also private (landowners/non-profits)

One of the projects of the initiative is regional native plant marketing campaigns throughout the coastal zone, across the Piedmont, and into the mountains.

There are now nine regional campaigns in Virginia, engaging over 150 state, regional, and local partners.

The regional native plant marketing campaigns help meet the goals of the initiative by focusing on helping landowners learn more about their property and the ecological benefits of a native plant landscape; and recruiting local garden centers and other providers to promote and increase the supply and variety of the native plants they carry. The campaigns also work with local jurisdictions to strengthen policies that favor native plant landscaping.

The regional native plant campaign model basically has three components. The campaigns work with local and regional native plant providers on point-of-sale materials to help customers find native plants, such as signage and plant tags, thus encouraging both the demand for and supply of native plants.

Campaigns collect commitments or pledges to plant natives (such as signatures during public events.) A decal reminds people of their pledge. By displaying this decal in a publicly visible way, those who pledge also help spread the campaign’s message within their community.

Finally, the campaigns use captivating communications to convey the benefits and to increase knowledge of native plants. Regional native plant guides have been the most popular resource. Seven guides have been published, including six coastal guides designed and funded by Virginia CZM - Eastern Shore, Northern Neck, Northern Virginia, Central Rappahannock, Virginia Capital region, Southeast Virginia, and the Northern Piedmont. Guides for the Southern Piedmont and Southwest Virginia are currently in production. Over 100,000 full-color guides have been distributed. All guides are downloadable from PlantVirginiaNatives.org, which is a growing hub for information about native plants, linking visitors to all the partners have to offer.

Each of these full-color guides highlights 100 or so species of flowering perennials, ferns, vines, grasses, shrubs, and trees with a photo, description, symbols for light and moisture requirements, wildlife value (butterfly, caterpillar, bird), and interesting facts. Indices list hundreds of additional species. The guides include sections on conservation landscaping; right plants for right places; native plant demonstration gardens; and, additional resources about native plants and landscaping with native plants. Each regional guide also highlights invasive plants of particular concern in the region and native alternatives.



Yellow Buckeye, *Aesculus flava*, Courtesy of Jennifer Lovern, Draper Springs Nursery, Draper, VA

Yellow buckeye is a native Virginia tree with showy yellow flowers in the spring. Photo by Jennifer Lovern, Draper Springs Nursery.

Plant Virginia Natives cont. from page 3

The Plant SWVA Natives Campaign is the first campaign to reach the Mountain Region of Virginia. It covers from Roanoke and Botetourt County all the way to Lee County along the Tennessee and Kentucky borders. The New River Valley Regional Commission is supporting the campaign and recently received a grant from the Virginia Outdoors Foundation to create the Plant SWVA Natives Guide and start a native plant propagation program. The propagation program is a partnership with the non-profit Live, Work, Eat, Grow and will take place at a local community garden. Their current goal is to provide support to native plant education and get more native plants in the ground across Southwest. If you have suggestions or partnership ideas reach out to Nicole Hersch.

In 2021, the Plant Virginia Natives initiative offered a Landscaping with Virginia Natives webinar series with over 3,000 attendees across the state. Hundreds more have watched the recordings now available on PlantVirginiaNatives.org. The message of the 12-part webinar series is that every home landscape, with lawn areas reduced and planted with natives, makes a big difference, and that the cumulative efforts of home gardeners and property owners across the state help create habitat corridors.

The series keynote presentation is given by entomologist, researcher, and author Dr. Doug Tallamy. A core concept of Tallamy’s recent book, *Nature’s Best Hope*, is an idea he calls the Homegrown National Park, one that is created by us, as individuals–in our own yards.

Doug Tallamy and fellow University of Delaware researcher Desirée Narango teamed up with Peter Marra, director of the Smithsonian Migratory Bird Center, to investigate the link between nonnative plants and birds' population growth in these landscapes. The study, published in *Proceedings of the National Academy of Sciences of the United States of America* (<https://www.pnas.org/content/115/45/11549>), directly ties breeding success of birds to landscaping choices. The team's research focused on the Carolina chickadee, a species that needs insects to reproduce and survive, including thousands of caterpillars to rear its young. Properties dominated by nonnative plants have fewer plant-eating caterpillars. The research found that if landscapes in the chickadee’s nesting and foraging range have more than 70 percent native plant biomass, chickadees have a chance to sustain their local population. As soon as the native biomass drops under 70 percent, that probability quickly plummets to zero. These observations of the chickadee are a loud conservation alarm for other birds like the warblers, vireos, and thrushes.

Tallamy says that in 84 percent of the counties in the U.S., native oaks are the most important tree followed by native cherries and native willows. While these three species are a valuable part of the tree canopy, when managing forests for biodiversity it is important to consider forest layers: canopy, understory, shrub, and groundcover. Each layer provides support, like habitat, cover, and food to a variety of wildlife. Regeneration of a diversity of plant species is key to ensure that our forests continue to support an abundance of life. To learn more about specific species in each layer right for your region of Virginia, visit PlantVirginiaNatives.org and download a plant guide near you.

Partners on the core planning team for the series included Lewis Ginter Botanical Garden, Blue Ridge PRISM, Maymont Foundation, Virginia Native Plant Society, VDOT Pollinator Habitat Program, Virginia Master Naturalists, Virginia Master Gardeners, New River Valley Regional Commission, and the James River Chapter of the Garden Club of Virginia.

Blue Ridge PRISM (Partnership for Invasive Species Management), an organization focused on invasive species management, hosted Tallamy’s presentation. The spread of invasive plants is an issue that is getting more attention and is also a topic addressed in the series. Encouraging landowners and gardeners everywhere to choose plants native to Virginia reduces the risk of invasive plants escaping and impacting our forests, fields, parks, waterways, and backyards. Find invasive species management resources, including invasive species fact sheets and control and management recommendations, at BlueRidgePRISM.org

Working together is proving to be a beneficial strategy for the Plant Virginia Natives initiative. The regional native plant marketing campaigns and the webinar series is an example of how collaboration among many partners helps us reach into all corners of the state with our shared message about the numerous benefits of Virginia’s native plants.

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Gray Dogwood, *Cornus racemosa*, Courtesy of Ian Caton, Wood Trush Natives, Floyd, VA

Gray dogwood is a native flowering woody option for wooded areas. Photo by: Ian Caton, Wood Trush Natives.