

often there is a failure to address the diversity of weeds. The list of common weeds, most of which are non-native that we have introduced from foreign places, is long.

You might know or recognize some of these invaders: multiflora rose, privets, bush and Japanese honeysuckle, tree of heaven, garlic mustard, autumn and Russian olive, Oriental bittersweet, Japanese stiltgrass. There are many more. So, why work at weeding them from the woods? Simply, these plants are very competitive and displace native species. While they provide a sense of health with their green leaves and often abundant fruit, they provide little support to native woodland species. Sure, birds feast on the fruit, but few insects eat the leaves. A complex cycle needed to help nesting birds to fledge their young, which depend on insect protein, is partially broken.

This story of species interdependence is complex and it extends across landscapes, from your backyard to your neighbors, to the woods, and beyond. It is not necessarily fully understood by even those who study and research such things. Nonetheless, if you own land -- lawn, fields, or woods -- there is much to learn. To help you and others learn more about your role in managing our land and woods, a second edition of *The Woods in Your Backyard: Learning to Create and Enhance Natural Areas Around Your Home* has just been released. This 108-page, spiral-bound book, with a forward by Doug Tallamy, who is nationally known for his work on the interaction of native plants, insects, and birds, can help you develop a plan to manage the land you care for.

To purchase your copy of *The Woods in Your Backyard* written by faculty at Penn State, University of Maryland, and Virginia Tech, visit <http://palspublishing.cals.cornell.edu> or call 607-255-7654.

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Let's Wave this Good-bye: An Update on Wavyleaf Basketgrass

By: Adam Downing, Virginia Cooperative Extension, and Kevin Heffernan, Department of Conservation & Recreation

An article in this newsletter (Spring 2014. V. 28 No.2) exposed this plant to Virginia landowners. Since then we've learned a few things. It is not, as previously thought, an escaped plant from a living basket arrangement. While there are some similarities, it is a distinct species as determined from genetic testing. Its name has been some source of debate that has now been settled. As of January 13, 2016 it is *Oplismenus undulatifolius* (Ard.) P. Beauv.

Seed & dispersal methods:

- It makes lots of seed.... Upwards of 6000 seed/m².
- Germination rates range from 15 to nearly 90%.
- Humans disperse the sticky seed, more so with fleece and denim than nylon or twill.
- Deer and dogs also disperse the sticky seed that can stay stuck for hours or days.
- Seed viability is not known at this time.

- Basically nothing eats it and a few insects such as cockroaches, rove beetles and ground beetles, live amongst it.
- It is very competitive in shade and partial-shade environments.

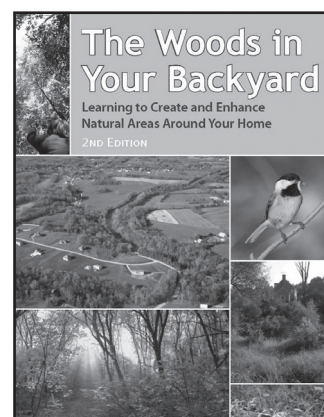
Control options: While more data is needed, preliminary results suggest the following recommendations from the DCR:

- Before seed-set, control small patches by hand pulling.
- Before seed-set, control larger areas with either glyphosate, a broad-spectrum herbicide that affects all plant species, or clethodim, a grass-specific herbicide.
- Do not apply control treatments to wavyleaf grass on property you do not own or are not legally authorized to manage.
- Care should be taken to avoid contact with plants that have set seed. If this is unavoidable, use duct tape to remove all seed that sticks to clothing, shoes or gloves. Keep pets away from the sticky seeds.
- Several years of control will be required to deplete the seed bank.

There are currently 42 known locations of this nasty thing in the following counties: Albemarle, Clarke, Fairfax, Fauquier, Greene, Madison, Page, Rockingham and Warren. Most of these have been found on public lands where resource professionals are intentionally looking. Recent finds by private landowners suggest the presence may be significantly greater. FOR THIS REASON, we are asking every landowner to look and we hope you don't find it. To learn how to identify this plant, visit Towson University's website: heron.towson.edu/wavyleaf. Report findings of this species directly to Kevin Heffernan. Thanks for your help!

Acknowledgement: the data for most of this article comes from Dr. Vanessa Beauchamp in the Department of Biological Sciences at Towson University.

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VIRGINIA FOREST LANDOWNER UPDATE

SPRING 2016



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VIRGINIA FOREST LANDOWNER UPDATE

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

VIRGINIA FOREST LANDOWNER EDUCATION PROGRAM

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Backyard Woods

By: Jim Finley, Penn State

Adapted by Adam Downing, Virginia Cooperative Extension

When I think of the word "woods" I immediately go to a place in my mind where I spent a lot of time in my first 1.5 decades of life. It was a very unremarkable little patch of woods between our yard and a drainage ditch. Knowing what I know now, it was "nothing," but to me it was pretty special because I could explore, hide, build and discover. This little half-acre patch of woods was important to me.

Do you have woods in your backyard? Approximately 75% of Virginia's privately owned woodlands is in ownerships of 10 acres or less. Your woods, no matter how small, are big in importance! They contribute to the ecological systems that every Virginian relies on for clean air and water. They provide wildlife habitat and beauty that benefit you, your family and the community at large.

Whether you have hundreds or just a couple of wooded acres, you may have plans for and visions about its use. In financial terms, your land is an asset; however, studies have repeatedly found that owners identify or associate other values or benefits with their woodlands. Perhaps not surprisingly, woodland owners, both large and small, report finding value in the solitude afforded by their woodlands and a sense of enjoyment with owning land. In fact, these are the two most popular values reported and are closely followed by wildlife and hunting.

It would seem that solitude, enjoyment, wildlife, maybe hunting, and many other values associated with woodland ownership should be rather easy to achieve -- they are just there and accrue over time. However, owning woodlands commonly spawns a sense of stewardship and responsibility to care for the resource for future generations. Extending this idea further, landowners may recognize that owning land connects them to a larger landscape, which is part of a community comprised of land, water, wildlife, plants, and people. This community depends on and is influenced by the actions of all who have stewardship over the land -- regardless of the size of ownership. To enhance the values landowners attribute to their land or woods it is often necessary to become actively involved, to work toward some desired future condition.

The idea of improving land is accepted by many people at some scale. In the United States homeowners and communities invest time and money "improving" landscapes. The driving force is often aesthetics -- improving the beauty of the place. Sometimes the improvement may extend to function -- making changes to improve how a landscape functions. A common example of increasing importance might be managing storm water: capturing water runoff from roads, driveways, roofs, and lawns and having it infiltrate into pervious soils by building and planting rain gardens.

Changing and improving small spaces such as lawns seems to come naturally. People seem to get it and there are resources -- think magazines, garden shops, education events -- that help guide these decisions; neighbors tend to indirectly or directly encourage a sense of community to improve where they live.

Those trees and woods in the backyard are somehow different. Certainly the scale is different; if not in area, certainly in height and complexity. Temporally, woodlands change by seasons, but come back pretty much the same every year. Green is often the dominant color that people associate with health, especially in woodlands. However, left alone, woods become "messy," and the tendency is to "clean them up." In small woodlots and even large ones, a common response is to leave it alone if it seems healthy, and to tidy up messes. We remove dead trees; we leave live ones.

Woods are like any garden landscape. There are reasons to renew, weed, and thin. Think about it. At some point the trees and plants growing there reach their end -- age, competition, storms, insects, diseases, or whatever cause trees to decline or die. Where will the replacements come from? In healthy forests, especially in Virginia, nature should help by "planting" the next tree. Unfortunately, in many woods, especially the smaller ones near urban centers, there is a failure to weed and thin sylvan gardens. Too

Useful Resources

For years now, Virginia's SHARP Logger Program has been offering on-line training modules for logging professionals. I recently looked through them and realized how useful they are for private woodland owners as well. Each free learning module is approximately 30 minutes long. Check out these topics:

- Limbing and Topping Safety (this particular video must be viewed using Firefox or Safari)
- Laws Affecting Water Quality and Forestry Operations in Virginia
- Protecting Water Quality with Best Management practices in Virginia
- A Search Indeed: How to Conduct a Property Deed Search
- Basic Chainsaw Safety and Directional Felling
- Cruisin' Through the Woods

All are available at: <http://www.sharplogger.vt.edu/onlineCE.html>

CONTACT OUR SPONSORS AND STATE NATURAL RESOURCE MANAGEMENT AGENCIES:



Virginia Department of Forestry	Virginia Tech Department of Forest Resources & Environmental Conservation & Virginia Cooperative Extension	USDA Forest Service Forest Stewardship Program	Virginia Forestry Association	Virginia Sustainable Forestry Initiative SIC/Virginia Tree Farm Committee
900 Natural Resources Drive Ste. 800 Charlottesville, VA 22903 434/977-6555 www.dof.virginia.gov	228 Cheatham Hall 0324 Blacksburg, VA 24061 540/231-6391 http://forestupdate.frec.vt.edu	1400 Independence Ave. SW Washington, D.C. 20078 202/205-8333 http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml	3808 Augusta Ave Richmond, VA 23230 804/278-8733 www.vaforestry.org	3808 Augusta Ave Richmond, VA 23230 804/278-8733 www.vaforestry.org/virginia_tree_farm.html

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EVENTS CALENDAR			For the most complete listing of natural resource education events, visit the on-line events calendar at http://forestupdate.frec.vt.edu		
Contact	Date	Location	Event	Time	Fee
DCR	April, May & June	Virginia's State Parks	A variety of events and activities For a complete list, visit: www.dcr.virginia.gov/parks	Varies	Varies
MP	Year-round	State-wide	Virginia Master Naturalist Volunteer basic training www.virginiamasternaturalist.org/chapters.html	Varies	Varies
VFA	April 20-22	Virginia Beach	Virginia Forestry Summit: Sustaining our Forests through Local Action Join professional foresters, loggers, wood products manufacturers, and woodland owners at this annual meeting. Educational programs will be available for everyone.	Varies	Varies
VW	April 26	Ruckersville	Sources of Funding for Land Management & Conservation There are a wide variety of land management and conservation programs available to farm and forest owners in Virginia. Learn which ones are best for you.	6-8	Free*
JF	April 29 May 6 May 21	Halifax Lynchburg Alberta	Spring Venture Outdoors! Interested in learning about current forestry issues that pertain to the health and management of your land? If so, join Virginia Cooperative Extension and partners at the location nearest you for this for this one-day program.	9 - 4	Free*
JG	May 2- July 22	On-line	On-line Woodland Options for Landowners Registration opens March 1. Learn the basics of forest management, from setting goals and objectives to developing a management plan, in this 12-week class.	Varies	\$45/family
FEOP	May 5	Franklin	The Growing Interest in Longleaf Pine See page 4 for details.	8:30 - 4:30	\$10* landowners \$35* NR professionals
AD	May 6 May 13 May 20 June 10	Fauquier Co. Frederick Co. Charlottesville Rockingham Co.	The Woods in Your Backyard See page 1 for details.	9 - 2 12 - 5 9 - 2 12 - 5	\$40*
BW	June 11	Dickensonville	Bees, Blooms & Bluegrass Festival Screening of the Forest History Society's new documentary: <i>America's First Forest: Carl Schenck & the Asheville Experiment.</i>	9 - 7	Free
AD JF BW NC	October	Prince William Dinwiddie Tazewell/ Buchanan Mdl Peninsula	40th Anniversary - Fall Forestry & Wildlife Field Tours Join VCE, natural resource professionals, and fellow forest owners to celebrate the 40th anniversary of these popular tours while learning about forest and wildlife management on private, public, and industry-owned lands. A complete schedule will be available in August.	All-day	Varies

If you are a real estate professional or Commissioner of the Revenue, and would like more copies of *Welcome to the Woods! A Guide for New Virginia Woodland Owners*, please contact Jennifer Gagnon, jgagnon@vt.edu.

*meal(s) included

EVENT CONTACTS

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MP	Michelle Prysby	434/872-4580	www.virginiamasternaturalist.org
VFA	Virginia Forestry Association	804/278-8733	www.vaforestry.org
VW	Virginia Witmer	804/698-4320	virginia.witmer@deq.virginia.gov
JF	Jason Fisher	434/276-2147	jasonf@vt.edu
JG	Jennifer Gagnon	540/231-6391	jgagnon@vt.edu
FEOP	Forestry & Environmental Outreach Program	919/515-9563	http://www.ncsu-feop.org/longleaf
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You Ain't From Around Here! Exotic Invasive of the Quarter: Spotted Lanternfly (*Lycorma delicatula*) Jennifer Gagnon, Virginia Tech

Although I wasn't planning on continuing with species which aren't currently in Virginia, I came across this little beauty in my reading and couldn't resist. So, here is the story of a lovely, but destructive, leafhopper called the spotted lanternfly (*Lycorma delicatula*) which has been found in Pennsylvania.

First, some etymology:

While I wasn't able to find *Lycorma* in the Latin dictionary, I was able to find two roots, *lyc* and *lyco*. *Lyc* means lamp, which seems appropriate because this insect was given the name lanternfly in part because of a mistaken belief that its head was illuminated. However, *lyco*, the root of *lycopersicum*, meaning tomato, is also is appropriate because of the red coloration on the hind wings of the adult leafhopper. And, once you look at color photos of this species, you'll understand that *delicatula*, meaning luxurious, sumptuous, and pretty, is a quite reasonable name.

Now some entomology:

The spotted lanternfly, a native to China and Vietnam, was first detected in five townships in SE Pennsylvania in 2014. This set off a rapid response the likes of which I'm not sure we've ever seen in the US. Within six weeks of identification, the five townships were quarantined, meaning no infected materials could be removed from the quarantined area. Within five months, Pennsylvania had received \$1.5 million from the Farm Bill to implement detection, control, and research projects to stop this insect.

These insect are not flies; they are not moths; they are leafhoppers. Leafhoppers are members of the family *Cicadellidae*, plant feeders that use piercing and sucking mouthparts to draw sap from grass, shrubs, or trees. They are not strong fliers, but they are strong jumpers. Their hind legs are modified for jumping and carrying pheromones. When the insects are immature, they are easily knocked off plants. They take this opportunity to choose more-preferred species and disseminate from their siblings. This movement strategy is called climb and fall.

Egg masses are laid in the late summer and early fall on smooth surfaces. The preferred surface is tree of heaven bark, but they will lay on any smooth-barked tree, rocks, and outdoor household items such as lawn furniture. Human movement of these last items, when they have egg masses on them, has caused the spread of other insects, such as the gypsy moth caterpillar. So educating homeowners to look for these egg masses will be critical to helping prevent human-caused spread of the spotted lanternfly. The spotted lanternfly overwinters in these egg masses and hatches out in the spring.

Damage

Why this massive, instantaneous effort? Because the spotted lanternfly, in spite of its great beauty, is one bad leafhopper.

All life stages of the spotted lanternfly feed on the phloem (the vascular tissue in plants), consuming massive amounts of sap. They also excrete substantial amounts of sugary liquid, which harbors mold. Affected trees will have weeping wounds of sap on their bark, resulting in accretions of honeydew around their bases. The bases of the trees and the surrounding soil turn black from sooty mold fungal growth. This invites not only disease, but also bees, wasps, hornets and ants. In the native range of the spotted lanternfly, these impacts do not normally kill host plants; absence of natural predators outside their native range, however, can lead to over-infestation and cause disease and death in plants.

Now when I tell you the food of choice for these insects is tree of heaven, you might think, "Wait, what? Well then doesn't that make them a beneficial insect?" Unfortunately, no. Because they feed on many other species as well. Affected species include apples, plums, cherries, grapes, peaches, nectarines, apricots, almonds, pines, oaks, walnuts, poplars, willows, maples, and sycamores. As such, these insects could have a significant negative impact both in the forestry and viticulture industries in Virginia.

How to identify

There are six stages in the spotted lanternfly's life cycle. Once the eggs hatch, the insects go through four instars (nymph stages) before undergoing a partial metamorphosis into their adult form. As instars 1-3, the nymphs are black with white spots and wingless and prefer feeding on smaller plants. In the 4th instar, red mottling appears under the white spots and the nymphs begin moving to larger trees and grapes, where they will continue to feed as adults.

The adults are really quite lovely. Their front wings are gray with black spots except for their edges that have black rectangles outlined in gray. Their hind wings are red, black, and white. Spotted lanternfly legs and heads are black and their abdomens are yellow with broad black bands. An adult is typically 1" long and 1.5" wide.

Fresh egg masses, with 30-50 eggs in each, can be found on smooth surfaces, both living and non-living. Fresh egg masses have a gray, waxy, mud-like coating. Hatched egg masses look like brownish seed-like deposits in four to seven 1" long columns.

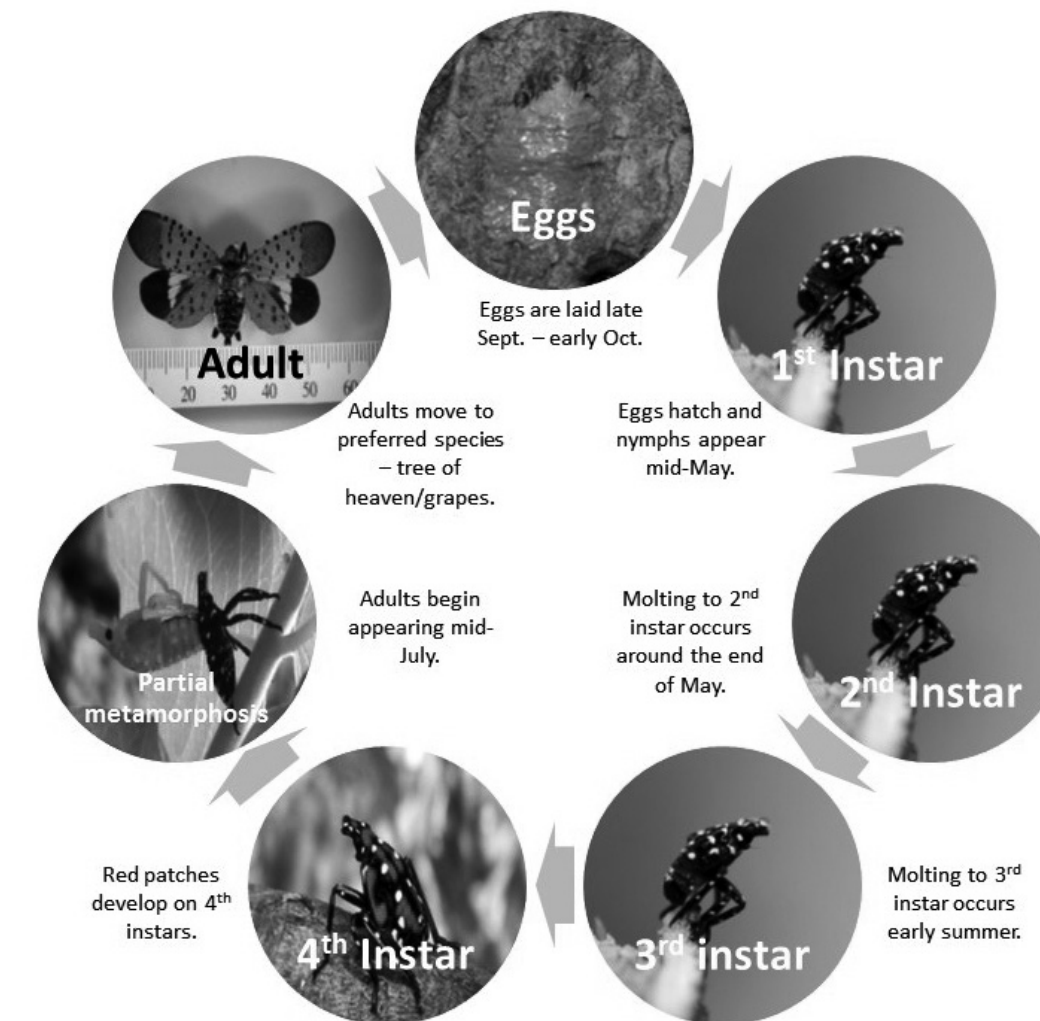
Lanternfly cont. from page 3

How to Control?

The effectiveness of Pennsylvania's monitoring and control efforts remains to be determined. As of December 2015, volunteers have scraped off 603,645 egg masses and trapped 174,390 insects using sticky brown tree bands. However, the quarantined area has expanded from a few townships in one county to four counties, in just one year. This could be a result of the insects actually spreading (or being spread), or from the outreach efforts resulting in a greater awareness. Most likely it is some combination of both. Since this insect is so new to the US, research to understand and control the spotted lanternfly is in its early stages. So right now, the focus is on stopping the spread by educating landowners about this threat.

Keep a lookout for these bad leafhoppers – here's hoping you DON'T see any. But, if you do, please report the sighting to Pennsylvania's Bad Bug Hotline; badbug@pa.gov; 866/253-7189.

Jennifer Gagnon is a Project Associate in the Department of Forest Resources & Environmental Conservation; jgagnon@vt.edu; 540/231-6391.



An approximation of the annual life cycle of the spotted lanternfly. Photos by: Holly Raguza, United States (adult and egg mass), and Lawrence Barringer, Pennsylvania Department of Agriculture (all others). Life cycle graphic by Jennifer Gagnon, Virginia Tech, (based on observations in China).

The Growing Interest in Longleaf Pine

Join the North Carolina Forest Service, the Virginia Department of Forestry, and partners for a day-long workshop featuring all things longleaf pine! Learn about the history of longleaf pine forests in the most northern part of its range, Southeastern Virginia and Northeastern North Carolina, and its significance in the cultural and natural histories of these two fine states. Learn about the diversity of values longleaf pine management has to offer, from enhanced wildlife habitat and superior wood products to increased access for recreation and reduced wildfire risk. Learn how to identify where restoration of longleaf is most suitable and how to get started. Visit remnant old growth stands as well as recently restored sites to see on-the-ground efforts being made to sustain and restore this important forest to its former glory. Advanced registration is required and is \$10 for landowners and \$35 for professionals seeking CFEs. Registration includes lunch and educational materials. For more information and to register, visit <http://www.ncsu-feop.org/longleaf> or call 919-515-9563 (Monday-Friday 8AM to 5PM). Payment may be made by credit card or check. Online registrations begin on March 1, 2016.