

Establishing a Riparian Forest Buffer on the Bluestone River

David Richert, Virginia Department of Forestry

Although many landowners associate tree planting with the springtime flush of growth, the late fall dormant season is also a biologically appropriate season for tree planting. Some landowners who are faced with a lengthy springtime to-do list may actually prefer planting trees in late fall because of logistics or the availability of volunteer labor. This was the case for Tazewell County landowner Lloyd Evans, who completed a tree-planting project on his farm near Bluefield, Va., during the week of Thanksgiving.

Evans' goal was to establish a riparian forest buffer to improve water quality and wildlife habitat along the Bluestone River – a Virginia tributary to the New River that is challenged by water quality impairments from sediment, bacteria and PCBs. To achieve this goal, Evans sought the help of Justin Laughlin, a wildlife biologist, stream restoration specialist and local contact for the Virginia Department of Game and Inland Fisheries' Virginia Landowner Incentive Program, a cost-share program that can cover up to 75 percent of the stream restoration project costs in certain designated watersheds. Laughlin coordinated the planting of several hundred trees along the Bluestone River and the construction of a fence to restrict direct livestock access to the water.



Planting trees is one way to boost your appetite for the Thanksgiving holiday!

The buttonbush is a medium-sized deciduous shrub that produces small, round fruits (hence the name). The planting crew planted the buttonbush trees in the row closest to the river so that their overhanging branches would eventually drop their "buttons" into the water. According to Laughlin, these "buttons" are a preferred food of ducks and other waterfowl. Silky dogwood, a shrub, was also planted in the row closest to the river. Though the silky dogwood is genetically similar to the flowering dogwood, it bears little resemblance – a deciduous shrub with nondescript flowers. To many, its distinguishing feature is the maroon color of its young shoots and buds.

The ground was rocky and the progress slow. The adjacent fields appeared to have more rock than soil, and what little soil there was had been compacted by livestock. A co-worker joked that when the soil is this rocky, farmers set fence posts by balancing them on top of the rocky soil and then planting poison ivy and honeysuckle around the fence posts to keep them standing upright.

The tree planting crew worked in assembly line fashion. Once the sod was "scalped" (removed) from the surface of the ground, and a suitable hole had been dug, the seedling was placed in the hole and its roots were covered. The seedlings were planted at the correct depth and care was taken to remove any air pockets around the roots. Four-foot plastic tree shelters were then slipped over the seedlings and the shelters' bottom ends were buried about two to three inches deep within the soil to protect against voles and other small rodents. The tree shelters, if properly maintained, should also provide some protection from deer browse or damage sustained from buck rubbings. In the final step, the tree shelters were staked upright using white oak stakes; two feet by two feet weed mats were laid out on the ground around the seedlings to reduce competition from weeds and grass, and small nets were slipped over the tops of the tree shelters to keep out birds.

By the end of three days of planting, the riparian buffer was nearly finished. According to the Virginia Cooperative Extension publications 420-151 and 420-152 – Understanding the Science Behind Riparian Buffers, this riparian forest buffer will benefit both water quality and wildlife habitat. Riparian forest buffers can reduce the volume of sediment, excess nutrients and other water-borne pollutants that impact water quality. Added cover, more nesting sites and an increase in food sources are just a few ways this buffer will benefit wildlife. Completing a riparian buffer project like this one requires several key elements, but it can only happen with the support of a landowner like Lloyd Evans, who elects to establish a riparian forest buffer in recognition of its many benefits.

The Virginia Landowner Incentive Program (LIP) is a federal grant program funded by the US Fish and Wildlife Service and administered by VDGIF. It can provide cost-share of 75% of conservation project costs to landowners willing to install and maintain stream restoration and riparian buffer projects on their property for a minimum of 10 years. These LIP projects are undertaken to improve degrading lands, reduce sediment in streams, and improve critical habitats for at risk species. For more information about the VA LIP program, visit the website www.dgif.virginia.gov/habitat/lip or contact Justin Laughlin: Justin.Laughlin@dgif.virginia.gov

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The Virginia Department of Forestry protects and develops healthy, sustainable forest resources for Virginians. Headquartered in Charlottesville, the Agency has forestry staff members assigned to every county to provide service to citizens of the Commonwealth. VDOF is an equal opportunity provider. With nearly 16 million acres of forestland and more than 144,000 Virginians employed in forestry, forest products and related industries, Virginia forests provide more than \$27.5 Billion annually in benefits to the Commonwealth.

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VIRGINIA FOREST LANDOWNER UPDATE

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NEWS -- NEWS -- NEWS -- NEWS -- NEWS -- NEWS -- NEWS -- NEWS -- NEWS

- New on-line classes for landowners, loggers and natural resource professionals are now available. Classes include:
 - Laws Affecting Water Quality and Forestry Operations in Virginia
 - Protecting Water Quality with Best Management Practices in Virginia

These 30-minute modules are **FREE** and each one qualifies for 0.5 SAF CFE credits. Visit www.sharplogger.vt.edu/onlineCE.html.

- 2009 Tax Tips for Forest Landowners is now available at www.timbertax.org
- Estate Planning for Forest Landowners is now available at www.srs.fs.usda.gov/pubs/31987. A limited number of hard copies are available through the Virginia Forest Landowner Education Program – contact Jennifer Gagnon 540/231-6391.
- If you are a non-industrial private landowner, **MONEY** is available for **YOU!** For a complete listing of programs in Virginia, visit the Virginia Department of Forestry's website www.dof.virginia.gov. Some cost-share/incentive programs that are available include:
 - Conservation Activity Plans (under the EQIP Program) – pays up to 75% cost share for landowners to have a forest management plan prepared by a professional forestry consultant.¹
 - Conservation Stewardship Program (CSP) – for non-industrial private landowners for maintaining or adopting practices that promote conservation.¹
 - Water Quality Improvement Fund (WQIF) – for landowners who implement on-the ground actions that improve riparian areas.²
 - Pine Bark Beetle Protection Program (PBBPP) – helps landowners conduct pre and commercial thinning in their pine forests.²
 - Reforestation of Timberlands (RT) – assists landowners with costs associated with site prep, planting and release of pines.²
 - Virginia Agriculture BMP Program – cost share for landowners who improve water quality in streams, rivers and the Bay.³

¹contact your local Natural Resources Conservation Service Office for details: www.va.nrcs.usda.gov/

²contact the Virginia Department of Forestry for details: www.dof.virginia.gov

³contact your local Soil & Water Conservation District for details: www.dcr.virginia.gov/soil_and_water/swcds.shtml



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VIRGINIA FOREST LANDOWNER UPDATE

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



Virginia's Big Woodland Transfer Adam K. Downing, Virginia Cooperative Extension & Mike Santucci, Virginia Department of Forestry

Virginia is poised to see one of the greatest shifts in forestland ownership since the Kings' Grants of yore. A combination of factors have been in play over the last few centuries culminating in an aging Boomer generation that now owns the majority of Virginia's woodland. With relative affluence and affordable land, boomers have acquired farm and forestland over the years, and are now poised to pass much of that land on to the next generation of owners.

Family forest landowners control 10.1 million acres, or 64%, of Virginia's 15.4 million acres of woodlands. However, the future sustainability of Virginia's forestlands are at a crossroads, as they are experiencing significant loss. Commercial and residential development is behind most of the 27,000 acres of forestland that are lost each year. And the same is true of the approximately 100,000 acres of farmland lost an annual basis. We are at a point now where even more forest land ownership is in transition.

Consider that forest landowners aged 55 and older comprise 63% of all family forest landowners, encompassing 70% of woodland in private ownership. In the next 25 to 30 years, Virginia will see the largest intergenerational transfer of forestland in its history. The decisions landowners make now will have a profound effect on whether our farms and forests are conserved or converted to non-rural uses.

What will happen to your land? Will it pass to your heirs, or simply be sold to a new owner? Will a new owner value the land for the products it grows or will they value its potential for development? For landowners, the implications of these decisions are personal, familial and financial. Few challenges facing Virginia's 373,000 family forest land owners are more important than the issue of passing the family forest on to the next owners. Many owners want to preserve their family lands but don't know how to involve family members in their ownership and management.

If you own land and you're not sure you've done adequate planning, the time to start is now. Many good resources exist to assist landowners through the process. It is essential to assemble a good team of professionals, including an attorney competent in estate planning for land transfer and a Certified Public Accountant familiar with the tax implications of various landownership and estate planning tools. The team may also include a financial planner, a conservation specialist, a consulting forester, or tax attorney.

According to Julie King, an estate-planning attorney in Charlottesville, who helped teach a recent short course for forest landowners on transferring land, "You may use a will to transfer ownership of your property, but a will typically isn't enough to ensure that your goals and desires for the land will be maintained. You should talk with your family about goals for your land. These are conversations you may want to avoid, but there is security in knowing your wishes will be carried out." King also encouraged landowners to look at all their assets and consider whether alternatives, such as organizing ownership as a trust or limited liability company, or placing their land in a conservation easement may better achieve their goals.

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TEN STEPS to SUCCESSFUL FAMILY FOREST TRANSITION PLANNING

1. Discuss and write down your goals (vision) for the property and the family.
2. Discuss these written goals with your family.
3. Create a family business entity to own the land.
4. Have regular family meetings to discuss the business and share your passion.
5. Set family employment policies before you hire any family members.
6. Discuss and write down important decisions.
7. Create non-financial reasons for the family to keep the property.
8. Get your kids and grandkids out to work and have fun on the property.
9. Create a governance structure that will survive your passing.
10. Remember to have fun!

Excerpted from: Ties to the Land: Your Family Forest Heritage. Planning for an Orderly Transition

Events Calendar			For the most complete listing of natural resource education events, visit the on-line events calendar at www.cnr.vt.edu/forestupdate		
Contact	Date	Location	Event	Time	Fee
DCR	Jan., Feb., March	Virginia State Parks	A variety of events and activities For a complete list visit: www.dcr.virginia.gov/parks	Varies	Varies
TL	Jan. 15-18 Feb. 12-15 Mar. 13-14 April 10-11	Harrisonburg	Spring 2010 Permaculture Design Course Understand and work with natural systems to design sustainable environments that produce food, shelter, and energy.	All weekend	\$995-1200
CG	Jan. 19 - Mar. 9	Roanoke	Grower's Academy Vegetable and cut flower production. Learn about low-impact, small scale farming; learn to develop a business plan and new growing techniques.	6 - 9 (Tuesdays)	\$210
AD	Jan. 20	Charlottesville	Woods & Wildlife Conference Landowners of all acreages learn about forestry and wildlife management practices.	8 - 5	
MSF	Jan. 21	Galax	Wildlife Habitat Improvement Learn basic requirements of common game species, and the forestry practices that can help meet those needs.	6 - 9	Free
JT	Jan. 30	Virginia Beach	Winter Wildlife Festival	All day	Free
IT	Feb. 1-2	Staunton	The Virginia Association of Forest Health Professionals 18th Annual Conference For rural and urban forest health professionals. SAF CFE Credits available.	All day	\$75 full; \$50 one day
HH	Feb. 6	Gloucester	Sustainable Timber Harvesting & Marketing This short course covers the basics of timber sales, including contracts, bidding, and estate planning.	8:30 - 5	\$40/person; \$50/couple
AN	Feb. 9	Charlottesville	Forest Landowner Association Workshop: How to Increase Forest Productivity and Profits Hear cutting-edge research on intensive pine management and how this can help you increase profits.	9:30 - 5:15	\$10
MY	Feb. 26	Harrisonburg	Timber Tax for Owners & Managers Linda Wang from the USDA Forest Service will cover the basics of timber taxation and new rules and regulations.	8:30 - 4:30	\$40
MY	Mar. 12		Cruisin' Through the Woods Part I A hands-on class which will teach you to estimate timber volumes on your land.	9 - 4	\$20 (or \$35 for Parts I & II)
MY	March 19		Cruisin' Through the Woods Part II A hands-on course which will teach you how to use GPS for better forest management planning.	9 - 4	\$20 (or \$35 for Parts I & II)
GP	April 16-18	Wintergreen	VFA Annual Convention Future Issues Impacting the Forest Supply Chain	All weekend	Varies

Event Contacts			
Contact	Name/Affiliation	Phone	e-mail/website
DCR	Department of Conservation & Recreation	804/786-1712	www.dcr.virginia.gov/parks
TL	Terry Lilley	434/296-3963	www.blueridgepermaculture.net
CG	Christy Gabbard	540/558-8010	cgunnels@vt.edu
AD	Adam Downing	540/948-6881	adowning@vt.edu
MSF	Matthews State Forest	276/236-2322	www.dof.virginia.gov/stforest/index-matthews.htm
JT	Jeff Trollinger	803/367-8747	jeff.trollinger@dgif.virginia.gov
IT	Ian Treggett	540/658-8000 x 1059	NA
HH	Helen Heck	804/443-1118	helen.heck@va.usda.gov
AN	Alicia Niles	800/325-2954	aniles@forestlandowners.com
MY	Matt Yancey	540/564-3080	yancey@vt.edu
GP	Glenda Parrish	804/278-8733	gparrish@vaforestry.org

You Ain't From Around Here! Exotic Invasive of the Quarter: Asian Lady Beetle

Jennifer Gagnon, Virginia Tech

In the Winter 2007 edition of the *Virginia Forest Landowner Update*, I featured the hemlock woolly adelgid (HWA) in "You Ain't From Around Here!" In this article, I touted the on-going research to control HWA by releasing ladybird beetles (aka ladybugs, lady beetles), which are adelgid predators. Little did I know that the publication of this article would result in my phone ringing off the hook for weeks. Virginians were outraged that researchers had intentionally released these critters. One caller claimed she swept up buckets of ladybugs from her walkway every day in the fall.

So, I did some more research. Turns out, the ladybird beetles that are being released as a biological control agent are not even in the same genus (*Sasajiscymnus*, *Scymnus* and *Laricobius*) as the one so many of you deplore, and have not been shown to be invasive. In fact, one of the main challenges with using these as a biological control is getting them to reproduce in the wild. The troublemaker trying to move in with you is the multi-colored Asian lady beetle (also known as the Japanese ladybug or Halloween lady beetle), in the genus *Harmonia* (one of six exotic lady beetle species in the United States).

In the spring, adult Asian lady beetles lay their yellow eggs in upright clusters on host plants (up to 20 eggs/day). These hatch into larvae which molt 4 times before entering an immobile pupal state. After several days, the adults emerge; the entire process from egg to adult takes approximately 20 days. Asian lady beetles only feed on other insects, outdoors. They are voracious eaters of aphids, scale and other soft-bodied arthropods, (an individual can eat up to 300 aphids before it even reaches adulthood), and mainly live in orchard trees and forests. Since their introduction (which was probably both intentional and accidental), use of insecticides in crops such as pecans, has decreased dramatically, and they are generally considered to be a beneficial insect.

So why all the fury? The problems begin when the weather turns cold (September - November). These insects are not cold hardy and seek winter shelter. They are attracted to light, warmth, and areas with high surface contrast (think black shutters on a white house). Asian lady beetles release pheromones to attract other individuals, resulting in large clusters occurring most commonly on sunny sides of light-colored rock outcrops or homes on hillsides or near forests. While they are clustered on your home, they seek out crevices, like cracks around windows and door frames, in which to over-winter. They will mostly remain in cracks, walls and attics. But in the spring, when the temperatures warm up, they leave dormancy and may accidentally enter your home in an attempt to exit the walls.

Now, Asian lady beetles do NOT chew holes in wood or fabric and do not lay eggs in your home. They do not carry disease or sting. They do, however, exhibit a stress response when squashed or agitated known as reflex bleeding. Reflex bleeding is the release of a foul-smelling yellow fluid from the leg joints. Outdoors, this deters predation. Indoors, it stains your walls and fabrics. Some individuals may have an allergic reaction to Asian lady beetles. Additionally, studies have shown that some crops infested with Asian lady beetles can become contaminated. For instance, if they are on grapes, they can alter the taste of wine. There is also concern about these non-native species displacing some of our native ladybugs, whose populations have been on the decline since the establishment of the non-natives.

So, while these are far from the most noxious of exotic invasives I've covered, they can still be a nuisance to many folks.



Variety in markings.

Photo by: Bill Ree, Texas A&M.

Control
Because of their agricultural benefits, the use of pesticides is NOT necessary OR recommended for control. The best thing to do is to prevent these insects from entering your home in the first place. Simply use a high quality caulk to fill in exterior cracks and crevices before the weather starts turning cold. Replace and repair any damaged screens. Creating afternoon shade by planting trees along the south and west sides of your home may be a good deterrent to clustering.

If these critters do get into your house, sweeping and vacuuming are good ways to remove them. Ladybug houses, sold in garden departments, will not keep the beetles out of your home. You can build a trap that uses light to attract the insects in otherwise dark areas, such as attics. Directions for building a trap can be found at: <http://www.ars.usda.gov/is/br/lbeetle/001030.trap.pdf>. Once they are trapped, you can dispose of the trap bags. Or, as one researcher did in the 1980's, keep the bag of insects in your refrigerator, remove it once a week to warm them up and allow them to drink sugar water, and release them outdoors in the spring. If you do this, PLEASE let me know. I'd love to hear about your adventures in Asian lady beetle care.

[Transfer cont. from page 1](#)

The first step in all of this is to clearly identify what your goals are. This should be accomplished on both an individual level and as a family. Because this all important first step can be hard to take and challenging to facilitate, many good materials have been developed to help do this. *Ties to the Land: Your Family Forest Heritage. Planning for an Orderly Transition* is an award winning tool for woodland owners to use in transferring their land to the next generation.



We've reviewed this and other material in-depth in preparation for the recently held workshop and feel it does a great job. Complete with tips for communication and setting up family meetings to the difference between and LLC and LLP, this is a great resource for getting started. If you missed the workshop but are in need of some assistance, we recommend this resource. It can be purchased from Oregon State University at: <http://www.familybusinessonline.org/resources/ttl/home.htm> or by calling 1-800-859-7609. We also have tentative plans to offer a repeat of the "Focusing on Land Transfer to Generation NEXT" short-course next year in the Warrenton area.

Even for those of us who don't own land, this is an important juncture in our well being as a society. The management decisions made by family forest owners play a crucial role in determining the health and conservation of the natural forest systems upon which we rely for the sustainable flow of natural goods, and environmental services. Virginia's private forestland is the largest contributors to wildlife habitat, clean water and renewable wood products to name a few. What happens to this land touches us all.

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Tomorrow Woods Program Part I: Land Conservation

Rob Suydam, Virginia Department of Forestry

Virginia has established itself as a leader in land conservation by being one of only three states nationwide that has transferable state income tax credits as incentives for landowners who are interested in protecting their land from development. This state tax incentive, along with federal tax benefits, has generated a great deal of interest in land conservation, particularly conservation easements, resulting in the protection of over 170,000 acres of land in just the last two years.

The Virginia Department of Forestry (VDof) has a unique funding program in southeast Virginia called Tomorrow Woods that provides funding to assist landowners interested in establishing a conservation easement. When donating a conservation easement, landowners are responsible for paying up-front costs including fees for attorneys, appraisal, title search, and title insurance. The Tomorrow Woods program provides funding towards these costs by reimbursing the landowner directly. This program is available to forest landowners in the counties of Dinwiddie, Isle of Wight, Prince George, Southampton, Surry, Sussex, and the City of Suffolk.

The goal of this program is to conserve, establish, and enhance forests, with a focus on productive, private working forests. VDof's goal is to work with landowners to protect large blocks of working forests by keeping them intact and unfragmented through the development of an agreement called a conservation easement.

A conservation easement is a voluntary legal agreement between a landowner and a government agency or land trust that permanently limits future development of the land to protect its conservation values. The terms of the easement are negotiated between the landowner and the organization that will hold the easement, in this case, VDof. The terms of the easement are perpetual and apply to all future landowners. The organization holding the easement is responsible for ensuring the easement's terms are followed.

Conservation easements limit the division and development of the property. Depending on the size of the property and the conservation values being protected, it may be possible for the landowner to retain the right to build one or more additional structures, or exercise one or more divisions. Landowners continue to own, use, and control their land, and can sell it or pass it on to heirs. Easements generally allow for the continuation of current uses such as forest management, agriculture, hunting, and fishing. Easements do not require landowners to provide public access.

Forest conservation easements protect the ability of current and future landowners to manage their forestland for a sustainable flow of natural goods and services in perpetuity. For more information on the Tomorrow Woods land conservation program or any other land conservation issues, please contact Rob Suydam.

Rob Suydam is the Forest Conservation Specialist in Sandston - robert.suydam@dof.virginia.gov 804/328-3031

Coming up in the Spring 2010 Edition of the Forest Landowner Update:
Tomorrow Woods Program Part II: Enhancement and Afforestation Assistance