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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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Pond Management – What to Think About?

by: Brian “Scutter” Lee, *Biological Solutions, Inc*

Ponds provide excellent opportunities for owners to manage a valuable fisheries resource, and enjoy the fruits of their labor when things go right. Common problems associated with pond management include unbalanced fish populations, aquatic vegetation, and costs incurred to resolve these issues. The first question that is critical for any pond owner to ask is, “What is the desired management goal for the pond?” Will the pond be managed for recreational fishing, aesthetics, storm water retention, irrigation, or will the pond be managed to serve multiple uses? Extension offices, state fish and wildlife agencies, and/or private consultants need this information to provide the pond owner with management recommendations for both short-term and long-term management of the pond. Some common “hot topics” regarding pond management are addressed below. These topics focus on ponds managed to support recreational fishing.

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us to share photos,
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comments and more!

Pond Construction

Before investing money and time building a pond, make sure you have an adequate water supply to fill your pond, and more importantly the proper soils that will retain water. Pond size should be at least one acre to prevent desirable fish from being over-harvested. The maximum pond depth should not exceed 10 - 12 feet, and ponds should have a minimum shoreline depth of 3 feet to prevent aquatic vegetation from reaching undesirable levels.

Fish Stocking

Common mistakes that pond owners make are stocking the wrong species, and stocking fish without having a pond surveyed. For most ponds in Virginia, the best advice is to KEEP IT SIMPLE. Desirable fish to stock are largemouth bass, bluegill, redear sunfish, channel catfish, golden shiners, and fathead minnows. It is not recommended to stock gizzard shad, blue catfish, pickerel, pumpkinseed, and especially black and/or white crappie. These fish overpopulate, experience slow growth rates, and/or compete with desirable fish such as largemouth bass for available forage.

Many pond owners think stocking fish is going to solve all fish population problems. Frequently, stocking fish creates more problems than it solves. Stocking without conducting a survey often results in wasted money. A survey will determine if stocking is necessary, and if so, what species, size, and numbers to stock based on desired management goals of the owner.

Aquatic Vegetation

Aquatic vegetation provides critical nursery habitat for juvenile fish, supplies oxygen, and creates ambush points for predator fish. If aquatic vegetation exceeds optimal levels (> 30%), ponds may be negatively affected causing excessive angler hook fouling, fish kills, and unbalanced fish populations. If aquatic vegetation reaches undesirable levels, the target species should be positively identified by a qualified person. Once identified, proper control measures can be recommended. Common management techniques include chemical (spraying herbicides), biological (stocking triploid grass carp), or mechanical (removing with machine or by hand). It is critical that pond owners understand and comply with local, state, and federal regulatory requirements commonly associated with spraying herbicides and stocking triploid grass carp.

For more information on pond management, go to the Virginia Department of Game and Inland Fisheries (VDGIF) website and click on the following link <http://www.dgif.virginia.gov/fishing/pondmanagement/>. This link provides pond owners with additional information to assist with pond management.

Scutter Lee is the owner/president of Biological Solutions Inc.
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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 **Unless otherwise noted, please pre-register**	Time	Fee
DCR	Aug., Sept., & Oct.	Virginia State Parks	A variety of events and activities. For a complete listing, visit: www.dcr.virginia.gov	Varies	Varies
SVA-REC	Aug. 5	McCormick Farm, Steele's Tavern	Shenandoah Valley AREC Field Day This field day has something for beef cattle, sheep, and forestry producers in the Shenandoah Valley interested in forage production, grazing, and forest management. Dinner is provided.	1:00 p.m.	Free
AD	Aug. 12 & 19	Charlottesville	Forestland Succession - Transfer to Generation NEXT Learn effective strategies for passing your farm and forestland, in tact, to your heirs. Attendance at both sessions is required.	12:30 - 7:00 p.m.	\$50 (\$40 with a family member)
DR	Aug. 14	Blacksburg	Hardwood Charcoal Demonstration Learn to convert wastewood into charcoal!	All day	Free
JM	Aug. 14 - 16	Appomattox	Mother & Daughter Outdoors This event is designed primarily for women. It is an excellent opportunity for anyone 9 years of age and above to learn the outdoor skills usually associated with hunting and fishing, but useful in a variety of outdoor pursuits.	All weekend	\$90
TNC	Aug. 15	Warm Springs Mtn. Preserve	Fire Ecology Hike	1 - 4:00 p.m.	Free
AH	Aug. 25	Petersburg	24th Annual Agricultural Field Day - Agri-Tourism	8:00 a.m. - 3:00 p.m.	Free
KP	Aug. 27-29	Blacksburg	Virginia Christmas Tree Growers Association Annual Meeting	Varies	Varies
AD	Sept. 5	Madison	Charcoal Making Demonstration Learn how to convert wastewood into charcoal!	8:00 a.m. - 12:00 p.m.	Free
RRRC	Sept. 17	Culpeper	Living Lands Workshop This all-day event will focus on green infrastructure and will take place at the Daniel Technology Center in Culpeper.	TBA	TBA
NC	Sept. 24	Southampton	Fall Forestry & Wildlife Field Tour Visit privately owned forest land to learn about forestry & wildlife management practices. Interact with a cadre of natural resource professionals and enjoy a great lunch!	8:00 a.m. - 4:30 p.m.	TBA
ATFS	Sept. 25-28	Washington D.C.	National Tree Farmers Annual Meeting	All day	Varies
JF	Oct. 3	Franklin County	Fall Forestry & Wildlife Field Tour see above	8:00 a.m. - 4:30 p.m.	\$45
NC	Oct. 3	Emporia	Forestry Walk-n-Talk Join us for an informal discussion about prescribed burning, wildlife and pine management and timber sales.	9:00 a.m. - 12:00 p.m.	Free
AD	Oct. 16	Orange County	Fall Forestry & Wildlife Field Tour see above	8:00 a.m. - 4:30 p.m.	\$45
MY	Oct.	Rockingham County	Fall Forestry & Wildlife Field Tour see above	8:00 a.m. - 4:30 p.m.	\$45
BW	Oct.	Carroll County	Fall Forestry & Wildlife Field Tour see above	8:00 a.m. - 4:30 p.m.	\$45
MJ	Oct. 9	Dinwiddie County	Wildlife Habitat: From Concept to Reality An outdoor workshop to demonstrate and explore wildlife habitat requirements, concepts and application in your fields and forests.	10:00 a.m. - 4:00 p.m.	\$10.00
NM	Oct. 23	Appomattox-Buckingham State Forest	Wilderness Survival Weekend Courses in the basics of survival, primitive shelter, water & wild edibles, basic map & compass, fire, first aid prevention, & intro to tracking skills. Participants must be 16 years or older. Those under 16 must be accompanied by a registered adult.	All day	TBA

You Ain't From Around Here!

Exotic Invasive of the Quarter: English Ivy (*Hedera helix*).

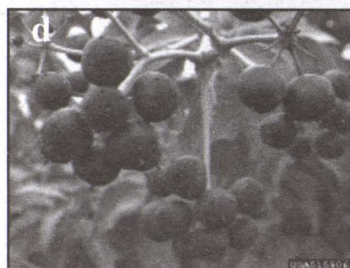
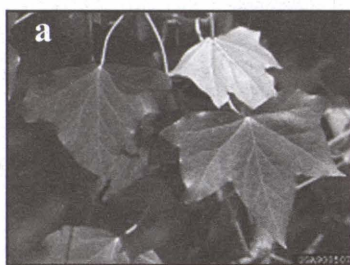
By: Jennifer Gagnon, *Virginia Tech*

We can buy it at local nurseries. We can buy it on-line. Landscapers plant it in our yards. Heck, this plant is such a part of our culture, it has clip art. So, there's no way English ivy can be an exotic invasive, right?

Normally in this column I feature species which no one would consider using as a landscaping plant (i.e., kudzu, *ailanthus*, multi flora rose), but this one's a bit trickier. English ivy has been widely planted as an ornamental and developed into hundreds of varieties – prized for its easy growth, shade tolerance and year-round green foliage. But this species is truly a wolf in sheep's clothing.

English ivy is thought to have been brought over by European settlers as an ornamental; since then it has been used not only for landscaping but also, erroneously, for erosion control. English ivy is a climbing vine which attaches to bark and bricks with small root-like structures which exude a sticky substance. Older vines can reach up to a foot in diameter and 90' in length.

According to Invasive Plants of the Eastern U.S. (www.invasive.org), English ivy is one of the most "abundant and insidious invasive plants". The ability to grow under a wide range of light and soil conditions allows it to thrive in forests, edges, fields, hedgerows, coastal areas, salt marsh edges, and backyards. Formation of dense mats on the ground precludes the growth of native grasses, forbs and legumes. English ivy also invades tree crowns, preventing sunlight from reaching the leaves, eventually resulting in tree mortality. The heavy vines weigh down trees, resulting in tip up or blow down.



Because it does not form extensive underground root systems, English ivy does not provide effective protection for soils on steep slopes. The leaves and berries contain glycoside hederin – which can cause toxicosis if ingested. Birds, however, are able to tolerate low levels of the toxin, and eat the fruits and disseminate the seeds (English ivy can reproduce both from seeds and sprouts). Furthermore, this species is a home to undesirables such as rats, slugs, mosquitoes and bacterial leaf scorch, a pathogen which harms native and ornamental trees. English ivy is not, however, a parasite. The small rootlike structures which adhere the vine to trees do not penetrate into the bark.

How to identify English ivy:

- **Leaves:** Two distinct leaf forms – (a) juvenile (more commonly seen) and (b) mature. Both types are dark green with white veins; waxy to leathery, hairless, and alternately arranged. Juvenile leaves have 3-5 lobes while the mature leaves are generally un-lobed and rounded. Mature leaves are often found in the full sun.
- **Flowers:** This vine will bloom June through October when exposed to full sun. Flowers (c) are small, pale yellow-green, in terminal clusters.
- **Fruit:** Ripens in late winter to spring; (d) black-purple spherical drupes with a thin fleshy outer covering occur in clusters. Fruits contain 1-3 hard stone-like seeds which may persist through winter if not eaten.
- **Bark:** Woody, pale green (younger), sometimes reddish tinged, gray brown shiny bark (older).

How to control English ivy

Mechanical Options:

- **Cutting:** Cut vines as close to the ground as possible. The vines tangled in tree crowns will eventually die, but may continue to live for several growing seasons. The stumps will continue to sprout, so repeated cuttings will be necessary.

Photos by: (a) James H. Miller, USDA Forest Service; (b) Chris Evans, River to River CWMA; (c) Richard Old, XID Services Inc.; and (d) Forest & Kim Starr, USGS.



English ivy overwhelming a mature tree. Photo by: Randy Cyr, Greentree Technologies.

- **Grubbing:** Dig or pull entire plants, including roots and runners. Effective on small or new infestations. Bag and dispose of ivy.
- **Mulching:** Cover English ivy with several inches of mulch. For additional control, cover mulch with cardboard. The mulch will need to stay in place for 2 growing seasons.

Chemical Options*

- **Stem applications** (apply after cutting vines 2" above the ground):

Apply products like Brush-B-Gone®, Brush Killer® and Roundup Pro® Concentrate undiluted to cut stems. Using a paint brush or a plastic spray bottle, apply herbicide to the cut surface, especially the perimeter inside the bark which is the living portion of plant. Be sure to follow the instructions on the label. The label is the law.

*Disclaimer: Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.

So once you have your English ivy under control, your yard may look rather bare. What are some good native replacement species? Some alternative vines include: Virginia creeper and crossvine (although these two can also get out of hand). Some alternative ground cover plants include: partridgeberry, foamflower, creeping flox, wild ginger, lady fern and evergreen woodfern.

Jennifer Gagnon is an Extension Associate in the Virginia Tech Department of Forest Resources and Environmental Conservation. 540/231-6391 jgagnon@vt.edu

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Contact	Date	Location	Event **Unless otherwise noted, please pre-register**	Time	Fee
JG	Nov. 6, 7 & 8	Appomattox-Buckingham State Forest	Landowner Weekend Retreat Emerge yourself Friday afternoon through Sunday at lunch in forestry lectures, hands-on activities, and interactions with natural resource professionals. Includes meals and lodging.	Friday 3:00 p.m. - Sunday 1:00 p.m.	\$35/ person; \$50/couple

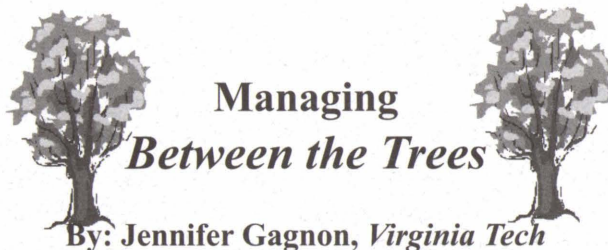
If you have a natural resource education event you would like listed, please submit details to forester@vt.edu:

Upcoming submission deadlines for calendar:

Edition	Events Occurring	Submission Deadline	Edition	Events Occurring	Submission Deadline
Fall 2009	Nov., Dec., Jan.	Sept. 9, 2009	Spring 2010	May, June, July	Mar. 9, 2010
Winter 2010	Feb., Mar., Apr.	Dec. 9, 2009	Summer 2010	Aug., Sept., Oct.	June. 9, 2010

Event Contacts

Contact	Name/Affiliation	Phone	e-mail/website
DCR	Department of Conservation & Recreation	804/786-1712	www.dcr.virginia.gov/parks
SVAREC	Shenandoah Valley AREC	540/377-2255	***
AD	Adam Downing	540/948-6881	adowning@vt.edu
DR	David Richert	276/228-2879	david.richert@dof.virginia.gov
JM	Jimmy Mootz	804/367-0656	jimmy.mootz@dgif.virginia.gov
TNC	The Nature Conservancy	540/839-3599	www.nature.org
AH	Andy Hankins	804/524-5960	cstreetman@vsu.edu
KP	Kyle Peer	276/694-4135	krpeer@vt.edu
RRRC	Rappahannock-Rapidan Regional Commission	540/829-7450	http://www.rregion.org
NC	Neil Clark	757/657-6450 x 406	southeast@vt.edu
ATFS	American Tree Farm System	***	www.treefarmssystem.org
JF	Jason Fisher	434/476-2147	jasonf@vt.edu
MY	Matt Yancey	540/564-3080	yancey@vt.edu
BW	Bill Worrell	276/889-8056	bworrell@vt.edu
MJ	Mike Jones	***	mpjones@wildblue.net
NM	Nate Mahanes	434/248-5444	nmahanes@dgif.virginia.gov
JG	Jennifer Gagnon	540/231-6391	jgagnon@vt.edu



Managing *Between the Trees*

By: Jennifer Gagnon, *Virginia Tech*

I often hear some version of the questions “I would like to grow ginseng (shiitake mushrooms, goldenseal etc.). What do I need to know to get started? How can I find markets for my products?” Managing for non-timber forest products (NTFPs) can be both fun and profitable. NTFP’s can be anything from pinecones to white pine tips to mushrooms. This occasional feature, *Managing Between the Trees*, will provide resources for learning about the management, harvesting and marketing of different types of NTFP’s. Additional information can be obtained from the Virginia Tech Non-Timber Forest Products website: <http://www.sfp.forprod.vt.edu>.

Since I have recently acquired a hive, this quarter’s featured NTFP will be honeybees. I’ll be honest - honey production on a small scale is probably a break-even endeavor at best. Larger-scale operations can be more profitable. More and more folks are managing bees for honey, propylis, royal jelly and beeswax production, as well as for pollination. Bees are intelligent, interesting and complex creatures. For example, when a worker bee finds a source of nectar, she will return to the hive and perform a dance. This dance will communicate to the other bees the distance to, and type of, nectar. This is called nest mate recruitment, as the other bees will respond to the dance by joining in the nectar gathering. Nectar is an essential food source for bees, as it’s the building block for honey. Pollen and water are other bee-essentials.

The U.S. has no native honeybees; the first honeybees were brought to the U.S. from Europe in 1622. The most common bees for honey production are the Italians, brought to the U.S. in 1859. They are valued for their high honey production and gentle nature. Africanized bees are in the southeastern U.S., and may be in some areas of Virginia. These bees are more aggressive and produce less honey than European bees. They can still be managed, but different tactics must be used.

There are a number of ways to get started keeping honeybees. I purchased all new hive components, including two 10-frame deeps (also called hive bodies or brood chambers – this is where the bees store their honey and pollen for the winter and where they raise their brood), a honey super (where the bees store our honey), a feeder (to fill with sugar water to start the colony and get them through the winter), and a 3-lb bee package (about 12,000 bees!). All together, this ran about \$350.

You can also purchase an established hive or a nuc. An established hive is just that – a complete hive. Thoroughly inspect the hive for insect and disease problems before purchasing it (or have someone come with you who knows how to perform a hive inspection). And bear in mind when moving a hive, either move it no more than 2 meters OR more than 2 miles, to keep the bees from becoming disoriented. A nuc is a mini-hive of five established frames which can be moved into a larger 10 frame hive body.

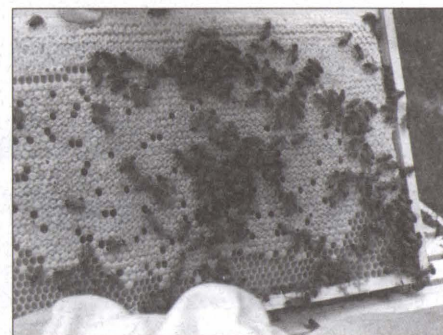
Most hive losses occur during winter. Bees start raising brood in late January – February to prepare for the early nectar flows. Unfortunately, at this time of the year, honey stores in the hive are low (hives need at least 60 lbs of honey for the winter) and no new food is yet available, so starvation is a possibility. Feeding bees during this time period may help them survive until the first nectar flows of spring. If you opt to feed your bees, prepare yourself to spend some money on sugar - a full hive will easily eat 12 cups of sugar water a day.

Honeybees are also vulnerable to many insects and diseases. Integrated pest management (IPM) and maintaining a healthy vigorous hive are the best ways to minimize problems (note – it is not using chemicals). Of course, as I’m learning, proper hive management is complex. Fortunately, it’s also fun.

You can keep up with my beekeeping experiences (complete with color photos) by becoming a fan of the Virginia Forest Landowner Update on Facebook (<http://www.facebook.com> - search for Virginia Forest Landowner).

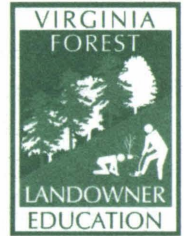
Interested in keeping bees? Visit these on-line resources:

- American Beekeeping Federation: <http://www.abfnet.org>
- Bee Culture Magazine: <http://www.bee-culture.com/>
- Beekeepers Association of Northern Virginia: <http://www.beekeepersnova.org/>
- Honey Bees and Pollination: <http://www.virginiafruit.ento.vt.edu/VAFS-bees.html>
- Virginia’s Farmer’s Markets: <http://www.vdacs.virginia.gov/vagrown/frmsmks.shtml>
- University of MN Extension: <http://www.extension.umn.edu/distribution/horticulture/DG7554.html>
- Virginia Beekeepers Association: <http://www.virginiabeekeepers.org>
- Virginia Department of Agriculture & Consumer Services: <http://www.vdacs.virginia.gov>
- Virginia Tech Beekeeper Site: <http://www.apiculture.ento.vt.edu>



SUMMER 2009

Virginia Cooperative Extension
 Department of Forestry (0324)
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 Blacksburg, Virginia 24061



VIRGINIA FOREST LANDOWNER UPDATE

New River Land Trust Conservation Easement Programs

This fall the New River Land Trust will co-sponsor, along with the New River Highlands RC&D Council, Virginia Cooperative Extension, Big Walker Soil & Water Conservation District, Virginia Department of Forestry and the Virginia Outdoors Foundation, a series of educational meetings for landowners in Southwestern Virginia on options for long term sustainable forest management. Meetings will be held in the counties of Bland, Carroll, Floyd, Giles, Grayson, Pulaski and Wythe. Representatives of the co-sponsoring organizations and will provide landowners with information about investing in sustainable forestry with conservation easements as one option to keep working forestland in forest land use. Meeting dates, times and locations will be scheduled later this month and this will be available by contacting the folks listed below.

John R. Eustis Assistant Director New River Land Trust joeustis@newriverlandtrust.org (540) 951-1704	David Richert RC&D Forester-Western Virginia Virginia Department of Forestry david.richert@dof.virginia.gov (276) 228-2879	Rachel Havens District Manager Big Walker Soil & Water Conservation District Rachel.Havens@va.nacdnet.net (276) 228-3515 ext #3
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CONTACT OUR SPONSORS AND STATE NATURAL RESOURCE MANAGEMENT AGENCIES:



Virginia Department of Forestry	Virginia Tech Department of Forestry & Virginia Cooperative Extension	Virginia Forestry Association	Virginia Department of Game & Inland Fisheries
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 www.cnr.vt.edu/forestupdate	3808 Augusta Ave Richmond, VA 23230 804/278-8733 www.vaforestry.org	4010 West Broad St. Richmond, VA 23230 804/367-1000 www.dgif.virginia.gov

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Rachel Havens

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