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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

Jennifer L. Gagnon, Editor

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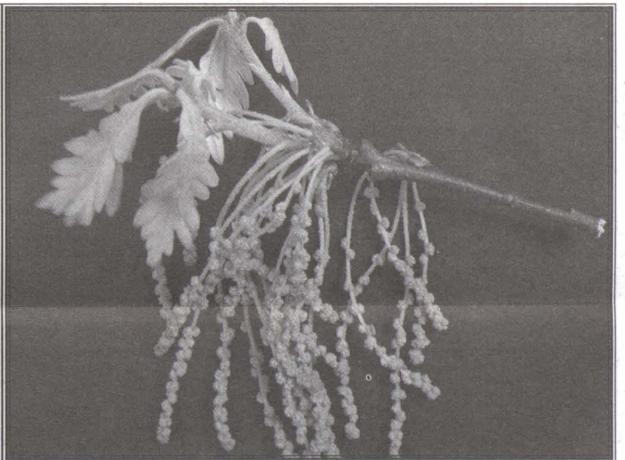
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Wildflower of the Year

By: Adam Downing, Virginia Cooperative Extension

We are more than half-way through 2011. Do you know what Virginia's wildflower of the year is? You might as well not even try guessing because it's on a plant that most folks don't even think of as having flowers. The Virginia Native Plant Society designates a wildflower each year to represent the beauty and preference of natural/native plants in Virginia's landscapes as opposed to non-native and sometimes invasive plants. This year they chose the white oak. *Quercus alba* is an awesome tree but you might not think if it as a flowering sort.

Angiosperms are flowering plants and most anything that comes to your mind as a plant is an angiosperm. Most of the broad-leaved shrubs and bushes in this region flower, although some, like the white oak, are somewhat inconspicuous. These flowers, once pollinated (often by insects), produce seed. In some cases we call this fruit, especially if the seed is surrounded by something we like to eat like apples, blackberries or watermelon.



White oak female flowers (left) are reddish-green and can easily be overlooked. Search for them in the spring, when new leaves are emerging. The male flowers are called catkins (right).

Photos by: John Hayden, Native Plant Society Botany Chair.

Gymnosperms, on the other hand, produce seed a bit more simply by forgoing the flower mechanism and often rely on wind to carry the spores for reproduction. Pines, spruce, fir and ginkgo trees are well known gymnosperms. Great trees, but they simply don't flower.

Oak, maple, hickory, ash, and beech, on the other hand, do flower. Their flowers are not as showy as some of their native companions such as dogwood, viburnum and redbud, but they flower nonetheless. And the flowers of the white oak tree are not only uniquely beautiful but also very important.

To begin with, white oak is in the group of flowering plants termed monoecious. This simply means that both male and female flowers occur on the same tree. The male flowers are slightly more noticeable than the female flowers and form a catkin, an elongated, slim cluster of petal-less flowers which are full of pollen. The pollen is released into the wind after which the male catkin falls off the tree. You may be familiar with this stage of the process if you have a mature oak near you. High pollen counts, allergies and dropped catkins are the evidence that male oak flowers have been about their business.

The female flowers occur near the tips of branches in groups of 3 or 4 on short spikes from the base of newly developing leaves. The male pollen that happens to land on a female flower results in fertilization and there an acorn will grow. White oak acorns mature in a single season, as opposed to oaks in the red-oak group, which mature the following season. White oaks take approximately 50 years to reach sexual maturity and may produce acorns for the next 100 to 150 years after that. Acorn production is somewhat unpredictable as this tree's strategy is to overwhelm its forest friends (squirrels and such) every few

Wildflower cont. on page 6

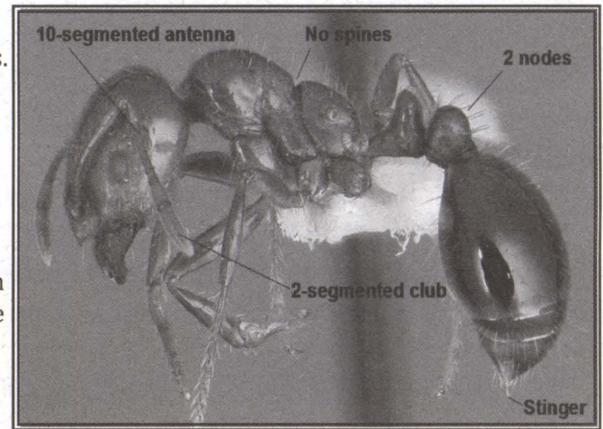
EVENTS CALENDAR			For the most complete listing of natural resource education events, visit the on-line events calendar at www.cnre.vt.edu/forestupdate		
Contact	Date	Location	Event	Time	Fee
DCR	Oct., Nov. & Dec.	Virginia State Parks	Find fall activities in Virginia's State Parks: http://networkedblogs.com/m4q4E	Varies	Varies
MP	Year-round	State-wide	Virginia Master Naturalist Volunteer basic training. www.virginiamasternaturalist.org/chapters.html	Varies	Varies
ND	Oct. 4	Charlotte, MD	The Emerald Ash Borer: What it Means for Woodland Owners This workshop will review the emerald ash borer's physiology and the impact it has had so far.	7 - 9 p.m.	\$10
JK	Oct. 11	McHenry, MD	Medicinal Roots of Appalachia and Forest Management Discover the lore, tradition, and science behind Appalachia's most popular native medicinal roots, from ginseng and black cohosh to Solomon's seal and stoneroot. Learn how management of your forest can help with the production of these species..	7 - 9 p.m.	\$10
JF	Oct. 13	Pittsylvania County	35th Fall Forestry & Wildlife Field Tour Help celebrate the 35th anniversary of the bus tours! Join natural resource professionals and other landowners as we visit private, public, and industry lands to learn about managing forests and the wildlife in them. View full tour details and register on-line at: www.cnre.vt.edu/forestupdate .	8 - 5	\$45
LLA	Oct. 14	Webinar	Longleaf Container-Grown Seedlings: What's Good? What's Bad? What to Look for in Your Seedling Shipment During the 2011-2012 planting season somewhere between 80 and 100 million longleaf pine seedlings will be planted across the Southeastern U.S. This webinar will help the participant identify potential problems with their seedlings prior to planting.	12 - 1	Free
CSWCD	Oct. 19	Brightwood	Small Farm Field Day Tour Brightwood Vineyards and Farm, an organic and diversified vegetable, fruit, poultry and goat/sheep farm. Please preregister.	1- 5	Free
PEC	Oct. 20	Winchester	The Future American Landscape: Getting Off the Turf Treadmill Attend this free lecture by Neil DiBoll, President of Prairie Nursery in Wisconsin, who will be speaking on the benefits of native species and why natives are the logical choice for landscapes.	7 p.m.	Free
AD	Oct. 21	Spotsylvania County	35th Fall Forestry & Wildlife Field Tour See above or visit www.cnre.vt.edu/forestupdate .	8 - 4:30	\$45
KH	Oct. 22	Washington, VA	Plant & Nature Walk Join naturalists Neil Diboll, Cole Burrell, Sally Anderson and Peter Heus for a plant and nature walk at the Jones Nature Preserve in Rappahannock County. Lunch and a group discussion with our guest naturalists will follow the guided tours.	9 - 1:30	\$15
NC	Oct. 25	Sussex County	35th Fall Forestry & Wildlife Field Tour See above or visit www.cnre.vt.edu/forestupdate .	8 - 4:30	\$45
BW	Oct. 28	Washington County	35th Fall Forestry & Wildlife Field Tour See above or visit www.cnre.vt.edu/forestupdate .	8 - 4:30	\$30
JG	November	Farmville	Real Forestry for Real Estate If you sell rural lands, this 8-hour class will teach you more about your product - including how to determine land use history and site quality, tree ID, the value of forests, and more. Approved for 8 PLE/CE/Appraisal CE credits. Please visit www.cnre.vt.edu/forestupdate for more details.	8 - 5	\$25
WP	Nov. 16	Webinar	Prescribed Fire and the Public: Myths and Realities There are many conventional beliefs about prescribed fire that have been discounted by fire researchers. This webinar summarizes findings from recent research on the social acceptability of prescribed fire, identifying key variables that influence approval and what role they play.	12 - 1	Free

RIFA cont. from page 3

RIFA's are typically not found deep in the forest. They usually build their mounds in lawns, sidewalks, roadways, or near dumpsters, trash cans and kitchen gardens. However, they can also be found in more open forest stands, in areas where a lot of sunlight reaches the ground.

How to Identify RIFA's

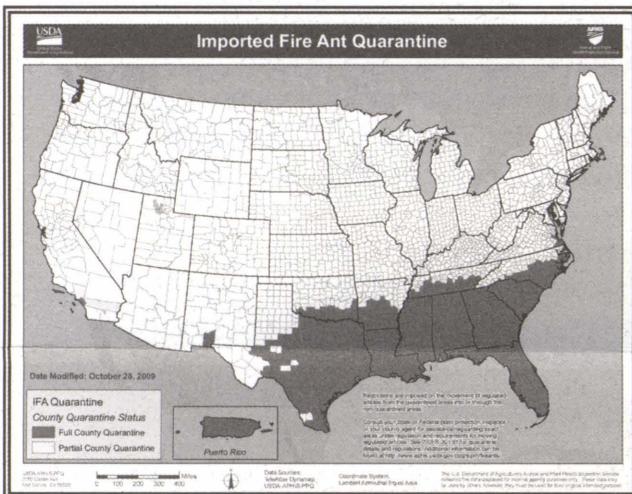
If you're not an entomologist, RIFA's are tough to identify – they look like ants. Their size can vary from 1/8 to 1/4 inch, and their color can vary from brown to red. If you have a microscope on hand, and are familiar with ant anatomy, you can look for the following characteristics: the pedicel or waist contains two nodes; the antennae are 10-segmented ending in a 2-segmented club; the end of the gaster has a stinger. For the rest of us, just look for the mounds. The mounds are cone-shaped, 12-15" wide, and 10" tall. They have hard rain-resistant crusts.



Ant anatomy. Photo by: USDA APHIS PPQ Archives.

Control

If you find what you think is a fire ant mound, first check and see if you are in the quarantine area. If you are NOT in the quarantine area, please call the Virginia Department of Agriculture and Consumer Services at 804/786-3515 to report your sighting. If you ARE in the quarantine area, you may either call a qualified professional, or attempt to treat the infestation yourself.



If you want to attempt control on your own, there are two common methods which can be used. You can either treat the mound directly, or broadly treat a larger area.

Treating a Mound

There are several ways to treat a mound. For effective control using any of these methods, it is important to not disturb the mound prior to treatment. Disturbances may result in the queen being moved, which will displace the infestation, but not eliminate it (and potentially cause harm to the disturber - from personal experience, I know that push mowing through the mounds in your backyard is a satisfying experience, however, about 50% of the time your mower will get bogged down, leaving you in the middle of a shower of displaced fire ants, raining from the sky).

• **Drenching:** This method of control requires the entire mound to be flooded with a large volume of liquid insecticide. However, the queen may be deep inside the mound and the insecticide may not reach her.

- **Surface application of dust/granular insecticide:** For this method, insecticide is spread directly on or around the mound. Some formulations may need to be watered in. Again, you run the risk of not reaching the queen.
- **Mound injections:** An insecticide is injected directly into the mound, helping ensure the poison penetrates deeply enough to reach the queen. Best if done by a professional.
- **Gas/boiling water:** These home remedies are generally not very effective and can be dangerous to the humans using them. In some cases they may even be illegal. Not recommended.

When using a mound application, all the individual mounds must be identified and treated.

Treating a Yard

For treating large areas, such as your entire yard, a broadcast application of bait can be used. Baiting is typically a slower control method than direct mound treatments, but it is usually safer and more effective. Baits are insecticides suspended in oil and injected into a carrier, such as a corn kernel. The bait should be placed in areas where the ants forage (you may need to observe your ant colonies to determine where these areas are). Ants typically forage in temperatures above 65°C and below 85°C. Also, the bait should be applied sparingly – too much will repel the ants. And the bait should not be applied directly on the mounds because the ants will treat it as refuse, instead of feeding on it. Also, keep in mind the oils are typically water soluble, so check the radar before putting out your ant bait.

From my experience living and working as a forester in Florida and SW Georgia, I have approximately one million traumatic fire ant stories. Thank you for allowing me to share some of them with you. It's been therapeutic. For more information on the RIFA in Virginia, please see Virginia Cooperative Extension publication 444-284, *Red Imported Fire Ant (RIFA)*, by Dini Miller (available at: <http://pubs.ext.vt.edu/>).

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

You Ain't From Around Here! Exotic Invasive of the Quarter: Red Imported Fire Ant (*Solenopsis richteri*)

By: Jennifer Gagnon, Virginia Tech

Many years ago, my parents moved our family from Massachusetts to central Florida. Upon arrival, we proceeded to participate in typical touristy activities (things long-time residents would never even consider doing!). These activities included: purchasing 3-season passes to Disney; swimming in our pool on Christmas Day; and visiting sinkholes (there is no karst topography in eastern MA). Our first sinkhole viewing trip entailed a drive to Winter Park in July (the irony of the name wasn't lost on us, as we sweltered in the 105 degree heat). After five minutes of admiring the grass-filled depression, my brother began to jump around like a lunatic, screaming and slapping at his feet. As he frantically removed his shoes and socks, some helpful locals laughingly informed us he had been standing in a fire ant mound. Hence, our introduction to these vile critters (the ants, not the locals). From then on, the Gagnon family was much more aware of where they put their feet.

There are actually two native and two invasive fire ant species in the United States. The two native species are the tropical and the southern fire ant. The two invasive species are the black imported fire ant and the red imported fire ant (RIFA). I can't tell you which ones are responsible for the attack on my poor brother, but the most common species is the RIFA. In fact, it has eliminated the two native species from most of their range, and has displaced the black imported fire ant in some areas. And, in Virginia, the RIFA is the only fire ant species that has been identified.

The RIFA arrived in Mobile, Alabama from South America around 1930. In those days, soil, which probably housed RIFA's, was used as ballast for cargo ships. Since then, RIFA's have spread to Texas and Florida, and up to Oklahoma and Virginia, and over to New Mexico and California. The first RIFA's were identified in Hampton, Virginia in 1989, and are now established throughout Hampton Roads. Individual colonies have been found as far west as Montgomery County. Fortunately, here in Virginia, we are not yet inundated by these critters. Yet. In the southern U.S., as many as 97,000 queens may be produced per acre of infested land per year. A mature queen can produce 1,500 eggs per day.

Like many invasive species, RIFA's have a variety of reproductive methods. These include:

1. **Mating flights:** This is the primary means of colony propagation. Male and female reproductives fly out of the nest and mate. The newly formed queens start their own colonies.
2. **Budding:** One or more queens and a group of workers will move out of the colony to form a new one.
3. **Flooding:** In areas prone to flooding, groups of workers will form rafts of workers and place the queen and her brood on top, and float to safety. I have witnessed this terrifying amazing adaptation in a seasonally flooded pond. The worker ants which form the raft constantly rotate, so any one ant was only under water for a short time, allowing them to survive in the flooded conditions.
4. **Humans:** Moving infested sod, nursery plants and mulch. In fact, this method has been the most effective means of dispersal.

Now, aside from forcing people to rip off their footwear, fire ants cause a number of other problems. Most people find the mounds unsightly, especially in the middle of their lawns. RIFA's make picnicking rather unpleasant, as they both bite AND sting (one of my favorite things to do when I first moved to Virginia was to lie in the middle of my RIFA-free yard and watch the plump friendly black ants working. Lying in the lawn in areas with fire ants is not a wise move). RIFA's are aggressive and respond quickly to any disturbance. Their bites do not hurt, but their stings cause small painful wounds that develop into pustules within 48 hours. Some people may have severe reactions, and in some rare cases, may die.

RIFA's are omnivores and will eat almost any species of plant or animal, dead or alive. They feed on seeds, shoots, fruits, and seedlings of many native plant species, reducing their abundance. They can also displace native ants, which can be important seed dispersers, and native pollinators. Additionally, RIFA's nurse populations of other plant-damaging insects such as scale, mealy bugs, and aphids – these insects produce honeydew on which the RIFA's feed.

As far as animals are concerned, RIFA's are bad news. They can have a serious negative impact on ground nesting animals such as snakes, turtles, birds, reptiles, rodents and amphibians. They can also cause serious harm to young livestock, and grazing animals are subject to stings on their mouths.



*Overhead view of a typical RIFA mound.
Photo by: Chris Evans, River to River CWMA.*

Useful Resources and Updates

We've had some unusual events here in Virginia this year, from a rash of tornadoes this spring, to hurricanes Irene and Lee with their torrential rains, and an earthquake. Many of you may have experienced timber damage from one of these events. When dealing with potential timber losses from natural disasters, the best place to start is to have a professional forester visit your property to assess the damage and provide advice for how to recover. The Virginia Department of Forestry has a list of consulting foresters on their website (www.dof.virginia.gov). Before hiring anyone, be sure to check their references and find out if they are a member of the Society of American Foresters and/or the Association of Consulting Foresters.

You can also read up on your options. The University of Florida has a publication called *Assessing Hurricane-Damaged Trees and Deciding What to Do*, and the National Timber Tax website has information on how to deal with timber losses on your tax return. Many more Extension publications dealing with hurricane-damaged timber can be found on the e-answers website: <http://e-answers.adec.edu>.

Also, you may recall the Fall 2010 edition of the *Update* featured an article on the thousand cankers disease of black walnut. At that time, the disease had not been found in Virginia. However, in August, the disease was found in Chesterfield and Henrico Counties. The Virginia Department of Agriculture and Consumer Services has since placed a quarantine on both of these counties, as well as the nearby City of Richmond. No walnut trees or any of their parts, can be removed from the quarantine areas (this includes nuts, logs, stumps, roots, branches, mulch and chips). Please help stop the spread of this fatal disease by abiding by the quarantine.

Learn more about thousand cankers disease of black walnut from the USDA Forest Service: <http://www.fs.fed.us/foresthealth/fhm/sp/tcd/tcd.shtml>.

If you're looking for ways to enjoy this beautiful autumn in Virginia, visit the Virginia is for Lovers website (www.virginia.org/fall/) to find scenic drives, fall festivals and other fall experiences.

Finally, if you receive the Virginia Forest Landowner Update via U.S. Mail, you may have noticed the absence of the Summer 2011 edition. That edition was distributed only electronically and is available at the Forest Update website: www.cnre.vt.edu/forestupdate. Apologies for any inconvenience. Rest assured, future editions will continue to arrive in your mailbox!

EVENT CONTACTS

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JF	Jason Fisher	434/476-2147	jasonf@vt.edu
LLA	The Longleaf Alliance	NA	www.longleafalliance.org
CSWCD	Culpeper Soil & Water Conservation District	540/825-8591	stephanied@culpeperswcd.org
PEC	Piedmont Environmental Council	540/347-2334	www.pecva.org
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WP	Webinar Portal	NA	www.forestrywebinars.net/

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Fall 2011

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Wildflower cont. from page 1

years with a bumper crop so large that they can't all be eaten, and some will be left to germinate.

While I am not a fan of the acorn as a source of food for myself, I am a fan of the tree and I applaud the Virginia Native Plant Society for stepping out on a limb with this designation. White oak is a fantastic tree for many uses. Once fully grown, there is little that will compare with the stately oak in form and function; the neat flowers are a bonus.

For more information on this wildflower and the Virginia Native Plant Society, go to: <http://vnps.org>.

Adam Downing is the Forestry and Natural Resources Extension Agent for Virginia's Northern District; adowning@vt.edu; 540/948-6881.

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