BRANCHING OUT

Maryland's Woodland Stewardship Educator

COLLEGE OF AGRICULTURE & NATURAL RESOURCES

University of Maryland Extension – Woodland Stewardship Education

http://extension.umd.edu/woodland

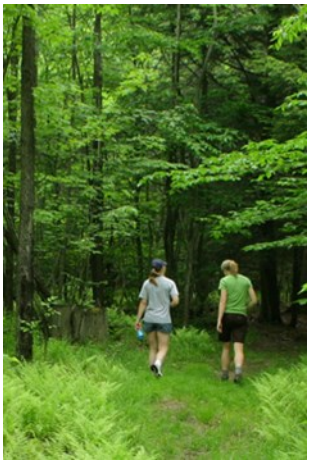
UNIVERSITY OF MARYLAND EXTENSION
Solutions in your community

Volume 24, No. 1

Spring, 2016

A Walk in the Woods

The book (and recent movie adaption of) *A Walk In The Woods* by Bill Bryson is an entertaining account of hiking the Appalachian Trail. Hiking in your woods may lack the breathtaking views of majestic mountains, silent forests, sparkling lakes, and face-to-face contacts with bears, but every woodland has its own attributes. The question is, how do I enhance what my property has to offer? To do that you need a well-designed, constructed and maintained trail or road to access your land, something many woodland owners do not have. Below are a few considerations:



- In some cases, an existing road or trail can be cleared of brush and overhanging vegetation to allow at least 8-10 feet of width so vehicles can move or people can walk. Some old roads and trails are so poorly constructed that erosion will be a major problem, so best management practices (BMPs) may be needed, or some sections may need to be relocated.
- If you are establishing a new trail or road, walk your property and then view it on Google Earth to locate a trail that winds around and accesses points of beauty, wildlife viewing areas, or other unique features. Minimize steep slopes and wet areas, and lay out the location to minimize maintenance. Existing deer paths provide good opportunities for trails. Mark the center point with some plastic flagging and don't be afraid to alter the center point after you re-walk the area a few times…it is likely you will change your mind.
- Use best management practices to control erosion and water runoff. Trail organizations (such as *American Trails*), and forestry sources (such as the MD DNR Forest Service) have information on BMPs for trails and wood roads. Practices may include installing water bars every so far to direct water off of a trail or road to minimize erosion, or installing a underground culvert to direct amounts of drainage.
- Trails through meadows or old fields can provide great wildlife viewing opportunities but these are prime areas for ticks so make your path wide enough that two people can walk side by side and not touch side vegetation.

There are a number of factors to consider whether you are improving and existing trail or road or creating one anew. Do some research lay out something for your property. It may take awhile to implement but it will provide an opportunity for great enjoyment.

We're on Facebook!

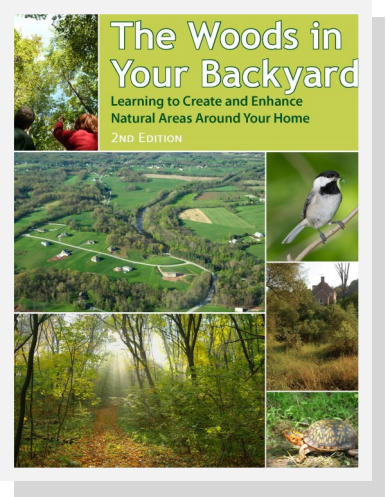
The Woodland Stewardship Education program is on Facebook. We invite you to read about news and notes related to woodland management from across the region and the nation. We'll also share information about upcoming events and articles we think you'd find interesting.

Find our new page at https://www.facebook.com/UMDWSE, or search for "Woodland Stewardship Education program" on Facebook.

Inside this issue:

Now Available!

The Woods in Your Backyard, 2nd Edition



The first edition of *The Woods in Your Backyard: Learning to Create and Enhance Natural Areas Around Your Home* was published in 2006. The guide helped thousands of landowners of 1 to 10 acres in the mid-Atlantic area enhance the stewardship of their land. They learned valuable techniques about caring for their natural areas, including how to convert lawn to woodland, how to enhance existing wooded areas, and how to cooperate with neighbors to enhance wildlife habitat.

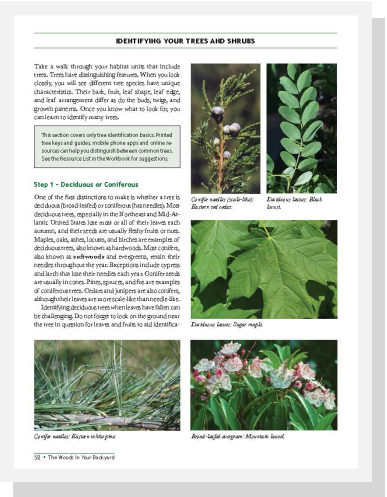
Now the guide has been revised and updated. Highlights of the new edition include:

- A new Foreword by Doug Tallamy, author of Bringing Nature Home
- Methods for documenting your natural area projects through a "stewardship journal"
- Tips for identifying your natural area's natural and wildlife habitats
- Expanded and up-to-date information related to non-invasive plant species
- Expanded information about water resources, including tips for creating and maintaining riparian buffers, and identifying and preserving wetlands
- A new section on best management practices for soil resources and conservation
- A fully revised and expanded Glossary

The 108-page guide contains more than 100 color photos and illustrations, and includes information tables, case studies, appendices, and an index.

Contributors include natural resources specialists at the University of Maryland, Penn State University, Virginia Tech and Forests for the Bay.

The 2nd edition of *The Woods in Your Backyard* is now available to order through Cornell University's Plant and Life Sciences Publishing (PALS, formerly NRAES). Each copy is $23.00, with quantity discounts available. For more information, click on the cover image or go to http://go.umd.edu/WIYB-2nd-edition to order.


IDENTIFYING YOUR TREES AND SHRUBS

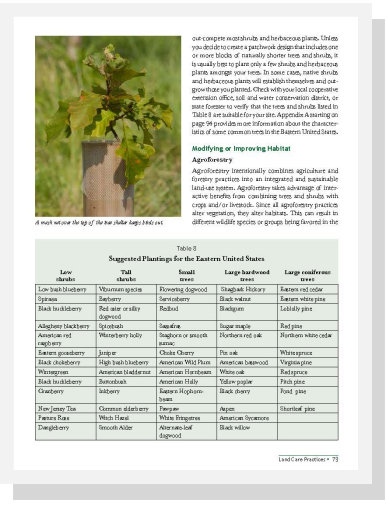
Take a walk through your habitat units that include trees. Trees have distinguishing features. When you look closely, you will see different tree species have unique characteristics. Their bark, fruit, leaf shape, leaf edge, and leaf arrangement differ as do the buds, twigs, and growth patterns. Once you know what to look for, you can learn to identify many trees.

This section covers only tree identification basics. Printed tree keys and guides, mobile phone apps and online resources can help you distinguish between common trees. See the Resource List in the Workbook for suggestions.

Step 1 - Deciduous or Coniferous

One of the first distinctions to make is whether a tree is deciduous (broad-leafed) or coniferous (has needles). Most deciduous trees, especially in the Northeast and Mid-Atlantic United States lose some or all of their leaves each autumn, and their seeds are usually fleshy fruits or nuts. Maples, oaks, ashes, locusts, and birches are examples of deciduous trees, also known as hardwoods. Most conifers, also known as softwoods and evergreens, retain their needles throughout the year. Exceptions include cypress and larch that lose their needles each year. Conifer seeds are usually in cones. Pines, spruces, and firs are examples of coniferous trees. Cedars and hemlocks are also conifers, although their leaves are more scale-like than needle-like.

Identifying deciduous trees when their leaves have fallen can be challenging. Do not forget to look on the ground near the tree in question for leaves and fruits to aid identifica-


out complete mix of shrubs and herbaceous plants. Unless you decide to create a patchwork design that includes one or more blocks of naturally shorter trees and shrubs, it is usually best to plant only a few shrubs and herbaceous plants amongst your trees. In some cases, native shrubs and herbaceous plants will establish themselves and outgrow those you planted. Check with your local cooperative extension office, soil and water conservation district, or state forester to verify that the trees and shrubs listed in Table 8 are suitable for your site. Appendix A starting on page 99 provides more information about the characteristics of some common trees in the Eastern United States.

Modifying or Improving Habitat

Agroforestry

Agroforestry intentionally combines agriculture and forestry practices into an integrated and sustainable land-use system. Agroforestry takes advantage of interactive benefits from combining trees and shrubs with crops and/or livestock. Since all agroforestry practices alter vegetation, they alter habitats. This can result in different wildlife species or groups being favored in the

Table 8
Suggested Plantings for the Eastern United States

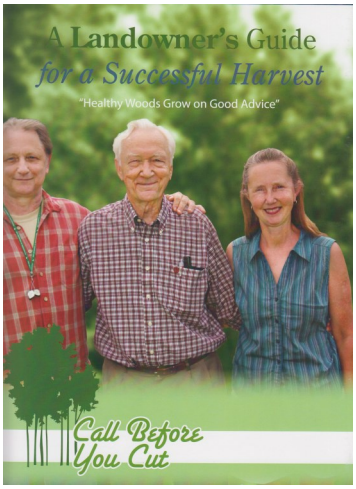
Low shrubs	Tall shrubs	Small trees	Large hardwood trees	Large coniferous trees
Low bush blueberry	Viburnum species	Flowering dogwood	Shagbark Hickory	Eastern red cedar
Spiraea	Barberry	Serviceberry	Black walnut	Eastern white pine
Black huckleberry	Red osier or silky dogwood	Redbud	Shadgum	Loblolly pine
Allegheny blackberry	Spicebush	Sassafras	Sugar maple	Red pine
American red raspberry	Winterberry holly	Seaphora or smooth sumac	Northern red oak	Northern white cedar
Eastern gooseberry	Juniper	Choke Cherry	Pin oak	White spruce
Black chokeberry	High bush blueberry	American Wild Plum	American basswood	Virginia pine
Wintergreen	American bladdernut	American Hornbeam	White oak	Red spruce
Black huckleberry	Buttonbush	American Holly	Yellow poplar	Pitch pine
Gaultheria	Inkberry	Eastern Hophornbeam	Black cherry	Pond pine
New Jersey Tea	Common elderberry	Pawpaw	Aspen	Shortleaf pine
Fetterbush	Witch Hazel	White Fringetree	American Sycamore	
Dangleberry	Smooth Alder	Alternate-leaf dogwood	Black willow	

Sample pages from the second edition.

University of Maryland Extension and Partners Join "Call Before You Cut" Program

In March, the University of Maryland Extension and twelve organizations from across the state partnered to join a forestry stewardship program called "Call Before You Cut." The program is coordinated by the Ohio Department of Natural Resources and the Ohio State University through the website at callb4ucut.com. Maryland becomes the ninth and easternmost state to join the program, which includes states as far west as Missouri and as far north as Minnesota.

The goal of Call Before You Cut is to provide woodland landowners with the necessary resources in their state for ensuring that they harvest their timber in the most efficient, cost-effective, and ecologically-sound manner possible. Each participant state's web pages include links to important publications, World Wide Web resources, and state and local experts. Additionally, property owners can use a web form to request free information by mail, which includes important local resources. For example, Maryland landowners will receive a packet (shown at right) with information related to state-specific erosion and sediment control regulations, the different types of foresters licensed within Maryland, and state and Extension resources for more information.



The University of Maryland Extension's partners in this program are:

- Maryland/Delaware Master Logger
- Maryland Tree Farm Program
- Maryland Dept. of Natural Resources Forest Service
- Maryland Forests Association
- Maryland Farm Bureau
- Maryland Association of Soil Conservation Districts
- Maryland Forestry Association
- Western Maryland Resource Conservation and Development Council, Inc.
- Forests for the Bay
- The Nature Conservancy
- Society of American Foresters
- Association of Forest Industries, Inc.

For more information, go to http://callb4ucut.com/maryland/.

Forestry Friday Events Return for 2016

Field tours and workshops for woodland owners and managers are a unique opportunity to learn about wildlife and forest management, and Saturdays are a traditional time to offer programs. However, many landowners have other obligations and priorities for Saturdays. As an alternative, the University of Maryland Extension will again offer Forestry Friday programs during 2016. Surveys indicate that many woodland landowners are willing to take off Friday afternoon and attend an educational event, rather than give up a Saturday with family and friends.

Our first program, on handheld GPS, will be offered on June 10th. Check our website's Event Calendar at http://extension.umd.edu/view/events/371/woodland/list for more details, and see a brief history of GPS on page 4.

Thinking About Staying Warm Next Winter?

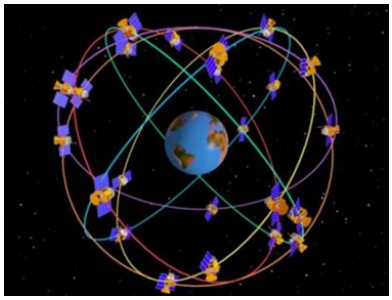
If you heat with firewood, now is the time to think about getting your wood for next winter. Why? Because it takes 6-9 months to season wood properly to about 20% moisture, which provides the most heat (measured as British Thermal Units, or BTUs) and lowest emissions. Research indicates that about 60% of people who burn firewood collect and process the wood themselves. However, whether you buy it or do it yourself, the outcome is usually the same: most people burn wood that is not properly seasoned and it creates problems with using your stove.

One myth is that if a tree is dead, its wood is dry; it merely needs to be cut and split and it is ready to go. Actually, dead trees still have a lot of moisture in the wood. In fact, hardwood does not start to dry significantly until it is split, so cutting it into rounds is not enough to start the seasoning process. The University of Maryland Extension's firewood drying study used 8-14" diameter fresh-cut hickory logs. The wood was cut into 16-inch rounds and put in a well-ventilated and covered area along with hickory rounds that were split into firewood pieces. After one year, the un-split rounds still had over 30% moisture when split while the split wood was 20% moisture. Wood needs to be split to dry!

So if you cut your own firewood, now is the time to cut and split it and cover it so that air can circulate through the woodpile and dry it in time for the fall. If you buy firewood, now is the time to buy it because many producers sell wood that is not properly seasoned, so by purchasing it now you can store and cover it so it can dry by fall. The added bonus is that prices are typically cheaper this time of year.

The Rise of the Handheld GPS

Global Positioning System (GPS) devices were developed by the United States military at a cost of about $12 billion, and have been available to the general public since the 1980s. But until 2000, the U.S. government practiced something called Selective Availability, which meant they purposefully degraded the information that civilian GPS systems received. This meant that the devices could lead you off course by as much as 300 feet (91 meters), while the military version got you within 10 feet (3 meters) in most cases. On May 2, 2000, this practice was lifted, and the devices really took off in the civilian market, and companies like industry leader Garmin found themselves with lots of business.



GPS is actually a system with three major components that include: 1) 24 satellites orbiting the earth at any given time; 2) five ground control stations around the world; and 3) the actual GPS receiver you hold in your hand. The ground control stations continuously track the satellites and update their positions so accuracy is maintained. The GPS device receives information or radio signals from the satellites and measures how long it takes for the signal to reach the device. Since the signal travels at the speed of light (186,000 feet per second), the distance to the satellite equals 186,000 ft/sec multiplied by the time it took to receive the signal. The receiver continuously measures the distance from a number of satellites; once a GPS device knows its distance from at least four satellites, it can use geometry to determine its location on Earth.

Most people associate GPS devices with those in your car that help you get where you are going. Detailed road maps that came loaded in your GPS device made getting lost nearly impossible and stopping to ask for directions a thing of the past. Smartphones also have GPS, but unlike handheld units that read directly off of satellites, phone GPS requires a cell tower for proper operation. For most applications outside, phones are not reliable and not sturdy enough to stand up to being dropped and banged around. It is the more rugged handheld GPS units that have become so important for recreationalists, foresters, landowners, and other natural resource purposes. Very simply, handheld GPS provides an "address" no matter where you are on the Earth. Rather than a street number, it is the latitude and longitude of the exact spot when you press the button. This address is known as a "waypoint." The GPS unit stores the waypoint and enables you to recall that location with the "Go To" command.

Handheld GPS units have evolved from the basic units soldin the early 2000s. Those devices had weak antennas that were unable to keep a signal under trees or forests or any type of cover. Today's units work in dense forest and urban canyons. Many will keep a signal inside a structure if there is a window. Basic units are available online for around $125-$150, and the better units with more mapping capability for around $300-$350.

GPS units range in price from the lower cost unit on the left to the GPS mapping units on the right with larger screens and more functions.

GPS handhelds sold in the last 3-5 years can usually be purchased with marine, trail and topographic maps already installed on the memory card. This is the most user-friendly option, and usually the most cost-effective package deal. Older units lacked any detailed topographic maps; you had to purchase separate software, install it on your computer, and transfer those maps to your GPS unit. Newer units typically have topographic maps installed for the entire United States.

Creating waypoints is very useful for marking a favorite hunting stand, fishing spot, property boundaries or other important locations. You can then tell the GPS to "Go To" the waypoint at some later time, which is very useful for hunters looking for a tree stand or their car when it is dark. Topographic maps on your handheld enable you to find other locations you want to "Go To," create a new waypoint on your screen, and then go to that location. This is especially useful in case of an emergency or if you are lost. Not only can you provide emergency responders your latitude and longitude location, but you could also find the nearest road or access point on the topographic map on your handheld GPS, and take a direct route to the location.

Handheld GPS can also record your "track," which is the actual route you took to go from one place to another, including the distance, time, and many other variables. This is useful for hiking or measuring the length of a road, and it will even tell you the acreage of a field that you walk around. You can save these different tracks for later use.

Handheld GPS technology has developed to a high level since 2000 and is worth consideration by anyone who spends time in the outdoors. All GPS handheld units can be used with computers and waypoints and tracks easily downloaded into programs like Google Earth. There is a wealth of other software applications available but we will leave that for another day.

Woodland Wildlife Spotlight: The Red-tailed Hawk

Throughout Maryland's habitats, you will find one of the most successful raptors in North America: the Red-tailed Hawk. This bird of prey is found as far north as Alaska and as far south as Panama and the West Indies, occupying deserts, grasslands, deciduous and coniferous forests, as well as agricultural and urban areas. Like other raptors, Red-tailed Hawks in northern latitudes may migrate south during winter months. However, those in central or southern latitudes may be permanent residents. For example, the grounds of the US Fish & Wildlife Service's National Conservation Training Center, just across the Potomac River from Maryland in Shepherdstown WV, is home to an internationally-known bald eagle pair that migrates and returns to a nest every year, but also houses a population of Red-tails that live there year round.

Red-tailed Hawk, Vienna VA. Photo copyright Gil Miller.

Many people see Red-tails as the birds soar in circles on thermal currents above open fields. They can also be seen perching on trees, fence posts, or telephone poles alongside the road. They are easy to identify as they perch; they have rich brown feathers on their back with a distinctive cinnamon-red tail. Its chest and underwing feathers are paler, with a dark bar from shoulder to wrist that is apparent in flight. Whether soaring or perching, the birds are looking down on the open areas beneath them, keeping an eye out for its prey. In Maryland, the hawks will capture mice, voles, rabbits and ground squirrels, among other animals, providing an important check on rodent populations.

As late winter turns to spring in Maryland, Red-tailed Hawk pairs have finished preparing their stick nests. These are found in trees up to 70 feet above the ground, or on the occasional man-made structure, such as building ledges in urban areas. By April, the female lays a clutch of one to five eggs, which hatch after 28 to 35 days. Clutches of two or three eggs are the most common. The female does the majority of the incubating, while the male hunts and brings food to her. He occasionally spends time on the eggs when she decides to "stretch her wings" and leave the nest for a brief time.

Once hatched, the young are dependent on their parents for food for the next six weeks or so. After about 45 days, they begin to leave the nest, with short flights during the fledgling period, which lasts another three weeks. By the time they reach four months of age, they are capable of capturing their own food and become independent.

Adult female Red-tails are up to 25% larger than the males, which is common among raptors. Males weigh generally 25 to 46 ounces (690 to 100 grams), while females weigh 32 to 52 ounces (900 to 1460 g). The female's body length ranges from 20 to 26 inches (50 to 65 cm), while the male generally runs from 18 to 22 inches (45 to 56 cm).

They reach full maturity after two years, and generally mate for life, only taking a new mate when the original partner dies. They will occupy the same nesting territory year after year, defending it from juvenile hawks and other birds that compete with them for the same food, such as great horned owls.

Underside of Red-tailed Hawk. Photo copyright Brian K. Wheeler/VIREO.

These owls begin their nesting behavior in December, earlier than the Red-tails. Because the owls do not construct their own nests, they may take over one vacated by a Red-tail pair. If the Red-tails discover that their nest has been taken over, they will construct a new one in the same territory.

The Red-tailed Hawk's adaptability has led it to become one of the continent's most successful birds. According to the North American Breeding Bird Survey, its populations have increased throughout most of its range since the 1960s. Partners in Flight, a cooperative effort among conservation groups at government, international, professional and amateur levels, estimates Red-tails have a global breeding population of 2.3 million birds, with 75% of those spending some part of the year in the United States. Consequently, the species is not considered threatened.

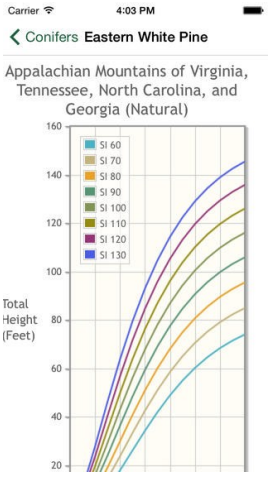
So the next time you take a long drive, keep an eye out for a Red-tail. Chances are it will be the first hawk you see.

News and Notes

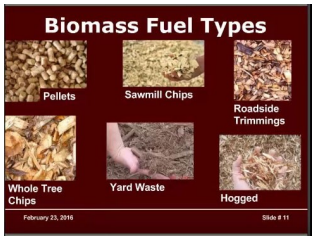
New Forestry App Updates an Essential Publication

Professional foresters have long relied on the "Service Forester's Handbook," a 135-page publication that helps them convert figures, calculate volumes and perform other essential calculations. It remains in use today although the handbook was last updated in 1986. Understanding that the content needed to be brought into the 21st century, William Hubbard, a Southern Region Extension forester with the Association of Southern Region Extension Directors, spearheaded the development of an app to complement the paper handbook.

Hubbard worked with University of Georgia Extension and technology specialists to develop the app for both Android and Apple platforms. In addition to the facts and figures found in the original guide, the app includes calculators to help foresters determine soil texture, tree stand density, and much more. Download it from the Apple Store here and from Google Play here.



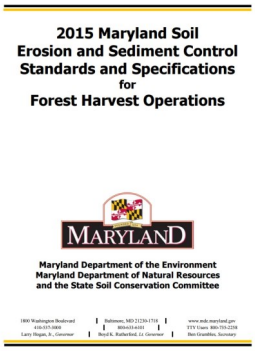
New WSE Webinar Available



The latest webinar from the Woodland Stewardship Education program was held February 25th. "Commercial Wood Energy Grants Available: Do You Have a Viable Project?" featured Jonathan Kays of the University of Maryland Extension, Paul Lewandowski of AFS Energy Systems, Dan Rider of Maryland Department of Natural Resources, and Chris Clark of the Maryland Energy Administration. The presentation provided an introduction to commercial projects that use woody biomass as fuel, reviewed how Maryland businesses could develop consistent supplies of biomass fuels, and covered the Maryland state energy grant criteria.

The webinar is now available on our YouTube channel at https://youtu.be/RZK422Pd9vM.

Updated Maryland Soil Erosion and Sediment Control Publication



After many years of planning, discussion, and analysis, the Maryland Department of the Environment, The Maryland Department of Natural Resources, and the State Soil Conservation Committee have issued an updated publication that is essential for anyone planning a timber harvest. "2015 Maryland Soil Erosion and Sediment Control Standards and Specifications for Forest Harvest Operations" provides valuable information for protecting the state's vital soil resources and reducing the impact that harvests may have on waterways.

The publication (PDF) is available through the Woodland Stewardship Education website's Publications Library here.

2015 Timber Tax Publication Now Available

Dr. Linda Wang, National Timber Tax Specialist for the USDA Forest Service, has compiled her annual update to federal income tax regulations related to woodland owners who are involved in timber sales. The publication outlines special favorable tax provisions on timber designed to encourage private forest management and stewardship.

The two-page publication includes information and examples related to sales of timber and timber-related products, installment sales, cost-share payments, and much more. While it is important to remember that the document does not constitute legal or accounting advice, it does provide worthwhile information that woodland owners can use when consulting tax professionals.

The publication is available in the Woodland Stewardship Education's Publications Library here.

Eastern U.S. Forests More Vulnerable to Drought than Before 1800s

Jeff Mulhollem, Penn State University

Over thousands of years, most forests in the eastern United States evolved with frequent fire, which promoted tree species and ecosystems that were both fire and drought resistant. In little more than a century, humans upset that balance, suggest researchers, who blame the change, in part, on the well-meaning efforts of Smokey Bear.

Since the 1930s, the composition of forests in the region has changed markedly, according to Marc Abrams, professor of forest ecology and physiology at Penn State. Drought-sensitive, fire-intolerant tree species, such as maple, birch and hemlock, have become more prominent, and drought-resistant, fire-adapted species, such as oak, hickory and pine, have declined.

"Eastern forests are changing in a way that we haven't seen for thousands of years, and this is basically because they have gone through major changes in disturbance regimes and land-use history," Abrams said. "The change to less drought resistance -- part of a process known as mesophication -- has serious implications in a warming climate, which portends more frequent and more severe droughts."

Since the 1930s, the composition of forests in the region has changed markedly. Drought-sensitive, fire-intolerant tree species, such as maple, birch and hemlock, have become more prominent, and drought-resistant, fire-adapted species, such as oak, hickory and pine, have declined. (Photo courtesy Marc Abrams, Penn State University)

The trend toward less drought resistance in Eastern forests began about 140 years ago with the advent of clear cutting to build and fuel a rapidly industrializing society. This was followed by catastrophic fires that burned most of the trees that remained on the region's landscape. Forests began to regrow as before, but in the 1940s the Smokey Bear fire suppression regime began.

As a result, in the 70 years or so since, with forest fire largely suppressed by firefighting crews and no longer a significant factor in ecosystem adaptation, Eastern forests have become more vulnerable to drought.

"Our forests are in a state of flux from these two very contrasting land-use history events," Abrams said. "We had a lot of fire on the landscape during the time of Native American occupation and also during early European settlement and the associated clear-cut era -- so we went from a moderate to large amount of fire to an era of overprotection. With Smokey Bear, we have lost fire, and we need to get it back. This issue is on the radar screen of foresters."

Abrams collaborated with Gregory Nowacki of the Eastern Regional Office of the U.S. Forest Service on the study, which was published in March in the journal *Tree Physiology* (here). The researchers categorized tree species according to drought tolerance and adaptation to fire. Considering factors such as tree species longevity, temperature preference and shade tolerance, they examined the relationship between forest composition trends and land-use patterns, disturbance events and historical weather records.

Researchers analyzed historical human impacts and land-use legacy by merging the fields of tree physiology and forest ecology, an approach Abrams said grew from a realization that the distribution and dominance of each tree species corresponds to an expression of how it interacts with its environment. He noted that long-term change in forest ecosystems is directly relatable to the underlying physiological attributes of component tree species.

This kind of analysis provides a robust assessment of the role and impacts of the most important drivers of forest dynamics, namely climate change and land-use history, Abrams added. This method reveals interrelated changes at the forest-type and forest-biome level that come from consideration of extensive and long-term forest survey records, some dating to the precolonial period.

From the time of European settlement to the present, forests in the eastern United States experienced major compositional changes. This includes a large overall decline in conifers, such as pine, hemlock and larch, expansions of disturbance-oriented aspen and oak species in former conifer-northern hardwoods or subboreal forests, and a nearly ubiquitous increase in fire-sensitive, shade-tolerant maple across all regions.

"The results of our research indicate that vegetation changes since European settlement in the eastern United States are caused to a greater extent by [human-caused] alteration of disturbance regimes -- clearing for agriculture, wood harvesting, introduction of nonnative pests and diseases, and fire suppression -- than by climate change," Abrams said. Indeed, land-use practices can mediate

changes in forest composition that run counter to climate trends.

"What is particularly fascinating about our study is that while forests have changed primarily as a result of altered land-use history, they are changing in a way that likely will make them more vulnerable to future climate change, including drought."

American Tree Farm System Celebrates 75 Years, Commits to the Future

American Forest Foundation

In February, the American Forest Foundation (AFF) kicked off its celebration of the 75th anniversary of the American Tree Farm System (ATFS), the largest and oldest sustainable forestry program for family forest owners. In celebration, AFF's governance, Tree Farmers, volunteers and partners have pledged to measurably increase their impact on the clean water, wildlife habitat and wood supply that comes from family-owned forests.

“Our woodlands are facing incredible challenges today – a changing climate, catastrophic wildfires, insect epidemics, development pressures, and much more,” said Tom Martin, President and CEO of AFF. “Yet we continue to need the clean water, wildlife habitat and wood supply we depend on from our forests. Tree Farmers exhibit the most exceptional forest stewardship that helps protect and enhance these benefits.”

ATFS originated in 1941 with the dedication of the first Tree Farm in Washington state. The program was created, by the then-known American Lumber Manufacturers Association, as a way to engage and support landowners in order to ensure the health and safety of the forests and wood supply that came from them.

“ATFS was founded on the concept that recognizing landowners who practiced good forest stewardship, would encourage their neighbors to do the same,” said Salem Saloom, a Tree Farmer from Brewton, Alabama. “But what really happened was a social movement that many describe as the greatest voluntary forest conservation movement in this country’s history.”

ATFS leaders made critical shifts in the program over time, evolving the mission to stress that good stewardship is more than growing trees for wood fiber, but also to provide clean water, home for wildlife and space for recreation, all of which are exemplified on the ATFS sign. Today, the program is internationally recognized and endorsed by the global Programme for the Endorsement of Forest Certification (PEFC), with more than 80,000 Tree Farmers sustainably managing more than 21 million acres of forest.

As part of the 75th celebration, kicking off at the ATFS annual leadership conference this year held in Seattle, AFF and ATFS leaders have committed to growing the impact of the program on some of the most critical issues facing society: providing clean water and addressing the wildfire threats especially in the west, enhancing wildlife habitat and biodiversity, and ensuring sustainable wood supplies for the forest products we consume every day.

“Family forest owners own the largest share of forests in the U.S.,” said Kathryn Fernholz, Chair of the AFF Woodlands Operating Committee and Executive Director of Dovetail Partners, a Minnesota-based environmental think tank. “ATFS has been successful at engaging many of these families and individuals across the country but we can do more to grow the impact of the work we do on the ground, by engaging and supporting more landowners."

AFF, taking a regional approach, conducted a series of assessments, and surveyed partners and ATFS leaders to identify opportunities where family forest owners could have an increased impact.

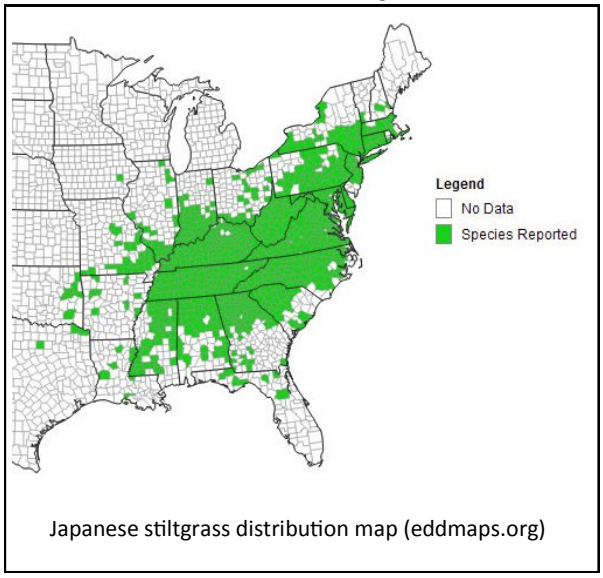
In the West, 78 percent said wildfire, and its impact on the water supply, was the most critical issue, where woodland owners could play a role. In the Northeast, 70 percent identified wildlife habitat as the top opportunity, where forest owners could make a difference, noting the majority of wildlife habitat in the region falls on family and individual properties. In the South, 80 percent agreed engaging more woodland owners in forest management to meet the growing wood supply needs while conserving habitat, was the top priority.

AFF in the coming months will publish measurable goals around its commitment, pending the completion of assessments and Board approval.

Invasives in Your Woodland: Japanese stiltgrass

This issue's invasive plant goes by a number of aliases. Besides the most common name, Japanese stiltgrass, it is also known as Nepalese browntop, Chinese packing grass, and others. No matter what you call it, *Microstegium vimineum* is an invasive grass that threatens native plants and natural habitats in the eastern United States.

Japanese stiltgrass.
Photo by Chuck Bargeron, University of Georgia.
Www.invasive.org



Japanese stiltgrass distribution map (eddmaps.org)

What is it?

Japanese stiltgrass is native to Japan, China, central Asia and India. Its first documented appearance in the US was in 1919 in Tennessee; Apparently it was used as packing material for porcelain from China and escaped.

Today, this invasive has successful invasive has colonized a variety of habitats throughout the eastern half of the nation, including every county in Maryland, and reaching as far west as Texas.

David Apsley of Ohio State University Extension calls Japanese stiltgrass "very adaptable" because it "can tolerate low-light environments with sufficient soil nutrients and moisture; conversely, it can tolerate low-nutrient and low-moisture environments with adequate light. When there are adequate amounts of nutrients, moisture, and light, it can thrive and out-compete most native understory plants."

It can be found in the moist, open ground of woodlands, floodplain forests, wetlands, fields, thickets, roadsides and ditches, It can also colonize open lawns, where favorable conditions of moist, rich soils high in nitrogen from fertilizers allow it to thrive.

How does it spread?

Japanese stiltgrass spreads in a fashion similar to many grasses. Its flowers are small and hidden, but are self-fertilizing. Each plant can produce 100-1,000 seeds that remain viable in the soil for as long as three years. The seeds germinate very quickly in soils that have been disturbed by both natural and mechanical means. Deer do not browse on this grass, but an abundance of deer may overbrowse native plants and disturb the soil enough so that the invasive can take root.

How can I identify it?

Japanese stiltgrass is an annual that typically grows one to three feet in height. Although it grows in sprawling mats, the plant itself resembles a miniature bamboo. Leaves are narrow and lance-shaped. They have a distinctive, pale, silvery stripe of reflective hairs on the upper surface. It is similar in appearance to several native grasses, including Virginia cutgrass, Pennsylvania knotweed, and some smartweeds.

How can I control it?

This grass has very shallow roots, so removal by hand-pulling is easily accomplished, especially when the soil is moist. It is best to do in late summer when the plants are mature; doing so earlier in the year encourages further flowering and early seed dispersal.

Chemical herbicides may be necessary to treat extensive infestations. Grass-specific herbicides, such as Ortho Grass B Gon, are best when used in spot treatment (such as in landscape beds). Other herbicides, such as Roundup or Accord, are non-specific and are best applied to infestations where no other plants are present.

For more information:

University of Maryland Extension Woodland Stewardship Education site: "Forest Threats—Invasive Trees and Shrubs": http://extension.umd.edu/woodland/your-woodland/forest-threats-invasive-trees-and-shrubs

National Park Service/Plant Conservation Alliance's Alien Plant Working Group, "Least Wanted: Japanese Stiltgrass": http://www.nps.gov/plants/alien/fact/mivi1.htm

"A Primer for Timber Harvest Planning and Execution and Invasive Species Management": http://go.umd.edu/forestguild-stiltgrass

See the Japanese stiltgrass gallery on the next page.

Image Gallery:
Japanese stiltgrass

Photos by Jonathan Kays, University of Maryland Extension, except where noted

Clockwise from top right: Fibrous root system of Japanese stiltgrass. Notice the prop roots extending from the nodes.

Japanese tiltgrass foliage. Note the shiny, whitish mid-rib and the hairs along the margin. (Photo by Ohio State University Extension)

Japanese stiltgrass seeds can be carried on shoes, equipment and vehicles, so roads and trails are a main route for its spread.

Stiltgrass fungus. An unknown fungus has impacted some stitlgrass spreads in some areas of West Virginia, but it is not yet well understood.

Dead stems of stilt grass from the previous year creates a thick layer hampering desirable regeneration and creating a possible fire hazard.

This Issue's Brain Tickler ...

In our last issue of *Branching Out*, we spotlighted an invasive plant with several nicknames, including "devil's tearthumb." What is the more common name of this fast-growing pest?

Last issue's Brain Tickler asked for the number of trees on Earth. The number is three trillion. Congratulations to Rick Abend for being the first with the answer.

In Need of Stumpage Price Information for the Timber Market?

Maryland does not maintain a timber market report that allows woodland landowners to look at trends and values paid for standing timber (known as stumpage). However, Pennsylvania and West Virginia do. They can provide some guidance for Maryland woodland owners near those states. Timber Mart-South provides south-wide average prices. Individual reports for the 11 southern states may require a purchase.

A timber market report is intended to describe general trends in the market, ignoring specific timber tract variation. In addition, there are many factors which can influence the price of timber found on a given tract of land. These factors include, but are not limited to: size, species and quality of timber, total volume and volume per acre, logging conditions, distance to the mill, season of the year, current market conditions, and end product of manufacture.

It is recommended that landowner use the services of professional forester to market timber and better understand your local market. Your county forester with the MD DNR Forest Service can provide a list of private consulting and industrial foresters, and they are available online at www.extension.umd.edu.

Access to the various stumpage price reports are available at http://go.umd.edu/stumpage.

Events Calendar

For more events and information, go to http://extension.umd.edu/woodland/events

April 12, 2016
Successful Timber Harvests
Online webinar, Penn State Extension

For private forest landowners, harvesting timber could be a once-in-a-lifetime decision that can have long-term effects on the forest and on the landowner financially. It is very difficult and sometimes impossible to fix mistakes. Therefore, a thorough understanding of the process and the responsibilities of the landowner, forester and logger are critical. This free webinar will discuss these responsibilities so that every effort can be made to ensure a successful timber sale. Presented by Joe Harding, Director of Forestlands, Penn State Dept. of Ecosystem Science and Management.

Approved for 1.0 Society of American Foresters CFE credit, Category 1-CF. Approved for 1 credit hour Pennsylvania SFI CE.

The one-hour webinar will be offered twice (at noon and at 7:00 PM). Each session is free, but registration is requested. Click here for the 12 noon session and here for the 7 PM session.

April 21, 2016
National Firewood Workshop
Western Maryland Research & Education Center, Keedysville MD

The workshop is a one-day educational and networking event to provide the firewood processing industry the latest knowledge on processing, kiln drying and marketing of firewood. The intent is to help firewood producers, firewood buyers, firewood equipment makers, foresters and arborists, landowners, loggers, extension agents, and woodstove manufacturers, make money in the firewood business. Continuing education credits are available from the Society of American Foresters, MD Master Logger, and Mid-Atlantic International Society of Arboriculture. For more information, go to http://extension.umd.edu/events/thu-2016-04-21-0900-national-firewood-workshop.

April 22-23, 2016
American Paulownia Association Annual Conference
Wye Research & Education Center, Queenstown MD

This year's conference focuses on Mid-Atlantic Paulownia timber and production. Presentations will include a review

of various Paulownia species of the region; harvest and production updates; and updates on Paulownia and renewable energy and carbon credit programs. Two field trips are scheduled for Saturday at a pair of Paulownia plantings in Maryland.

For more information, visit the American Paulownia Association website at www.paulowniatrees.org.

May 9, 2016 9:00 AM—11:00 AM
Removing Invasive Plants project
Sligo Creek Parkway, Takoma Park MD

Join the Friends of Sligo Creek as they begin their seasonal work to remove invasive garlic mustard and to scout for native mayapples along section 6 of the parkway, from Colesville to Forest Glen. Meet at the parking lot along the parkway at Dallas Ave. The two-hour project is open to groups and student service hours are available. The project will be repeated throughout the spring and early summer. Go to http://www.fosc.org/RIPEventSched.htm for more details and other project dates and times.

May 10, 2016
Forestry Herbicides: A Review of Principles and Recent Research
Online webinar, Penn State Extension

Forestry labeled herbicides are a low risk and effective means of controlling undesirable forest vegetation in hardwood forestry. They can be used for achieving many objectives including: establishing desirable regeneration, increasing tree growth and timber production, creating and enhancing wildlife habitat, and controlling non-native/ invasive plants. This presentation will highlight forestry herbicide application methods, products, and treatment guidelines for controlling interfering vegetation as well as provide an update on a number of forest management herbicide research projects. Presented by Dave Jackson, Forest Resources Educator, Penn State Extension.

Approved for 1.0 Society of American Foresters CFE credit, Category 1-CF. Approved for 1 credit hour Pennsylvania SFI CE.

The one-hour webinar will be offered twice (at noon and at 7:00 PM). Each session is free, but registration is requested. Click here for the 12 noon session and here for the 7 PM session.

UNIVERSITY OF MARYLAND EXTENSION

Solutions in your community

Branching Out
University of Maryland Extension
18330 Keedysville Road
Keedysville, MD 21756-1104
301-432-2767

Editors: Jonathan Kays and Andrew A. Kling

Published four times per year and distributed to forest landowners, resource professionals, and others interested in woodland stewardship.

To Subscribe:

Via Web Site: Go to www.extension.umd.edu/woodland/subscribe-branching-out and submit the requested information.

Via Email: Email listserv@listserv.umd.edu. In the body of the message, type SUB branchingout your name (example: SUB branchingout John Doe).

You will be notified by email when a new issue is available, with a link to the website.

Hardcopy subscription: Mail check or money order for $10 per year, payable to University of Maryland to the address above.

This and back issues can be downloaded for free at www.extension.umd.edu/news/newsletters/branching-out .

All information, including links to external sources, was accurate and current at the time of publication. Please send any corrections, including updated links to Andrew A. Kling at akling1@umd.edu.

Send news items to Andrew A. Kling at akling1@umd.edu or 301-432-2767 ext. 307.