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

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Summer Best Management Practices For Your Woodland

This winter and spring has been quite challenging, with cold temperatures and record amounts of rainfall. Early June saw flooding and major rain events for many weeks, resulting in delays for planting of trees and crops. The wet and damp weather increased the incidence of fungal diseases such as anthracnose. One of the major problems resulting from torrential downpours is the erosion of soil and transport of sediment into streams and rivers.

Best Management Practices or **BMPs** are required during a forest harvest to help minimize erosion and sediment loss, but landowners should use the recent weather events to see how they can better implement BMPs on their properties. Are there trails and roads that have been washed out, or culverts that have been plugged and overtopped? The basic principle of BMPs is to slow the movement of water to allow it to percolate through the soil. This keeps it from building velocity, eroding the soil, and carrying sediment into streams, which impacts water quality. Good stewardship includes maintaining BMPs on your property regardless of if you are harvesting timber. It will allow for safe access for recreation and other purposes.

Some of the more common BMP practices that landowners can address include:

- Keeping culverts clean of debris so water flows without obstruction. If culverts have been damaged, get them repaired before they compromise or destroy a road or bridge crossing.
- Checking bridge crossings after storm events to see if they need reinforcement or repair. This will save additional expenses if the structure fails in the future.

Cleaning out trail or road culverts is an essential BMP. Photo courtesy Chris Schnepf, University of Idaho, www.forestryimages.org

- Using water bars when you have a steep road grade. Water bars at an angle of 30 to 45 degrees will divert water off the road. The spacing between the water bars should decrease with increasing road grade. If you already have water bars, they may need to be repaired. Depending on how they are constructed, water bars can be used to slow vehicles or make it difficult for vehicles to access an area.

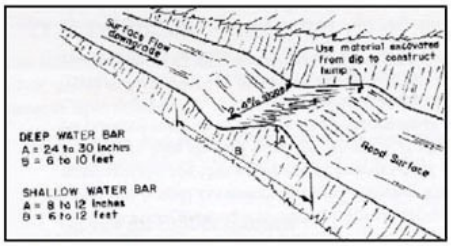


Fig. 2 Specifications for a Water Bar
(New York State BMP Field Guide)

Parts of a typical water bar.

- Assessing the riparian buffers if you have streams or rivers on your property. Consider widening the buffers by planting trees or allowing natural succession to take place. Cost-share programs assist with the expense of tree planting in riparian areas. Consult your state forester for more information about programs in your area.
- Looking for places where overland flow from major downpours have caused erosion and seeing how the problem can be reduced or eliminated by using BMPs.

A complete description of forestry BMPs and how they are implemented in Maryland can be found in a publication from the Maryland Department of the Environment, the Maryland Dept. of Natural Resources, and the State Soil Conservation Committee. Read the guide at this link.

Inside this issue:

Becoming a Steward of the Land:
UME Forestry Program Offers Certification Course

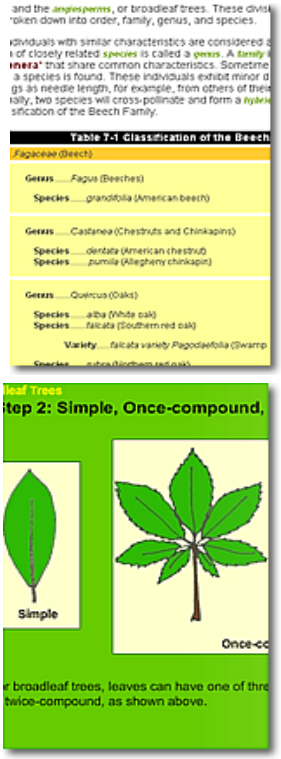
Learn to be a steward of the land this fall with the University of Maryland Extension General Forestry Course. Both paper and online versions of the course will be offered, beginning Sept.1 through Dec. 15, 2018. Registration is now open. **Interested participants can register online at http://extension.umd.edu/forestry-course**.

This is a **non-credit course** with no formal classes – work from the comfort of your home using your own woodlot, a friend's or a public forest. The course covers how to protect your trees from insects, diseases, and fire; step-by-step procedures walk you through a forest inventory and stand analysis; and the details of the forestry business are presented, including tax nuances and the sale and harvest of forest products. Ultimately, the course exercises help you develop the framework for a stewardship plan for your forest.

The cost for this forestry course is $150. Included in the cost are copies of the supplemental readings ("A Sand County Almanac, The Woodland Steward, American Forests: A History of Resiliency and Recovery," a small pamphlet entitled "What Tree Is That?" and "Common Native Trees of Virginia Tree Identification Guide"). The paper version text and appendices for the course are in binder form. Online users receive a flash drive of the paper version of the text and appendices. A certificate of completion is awarded when all assignments are completed.

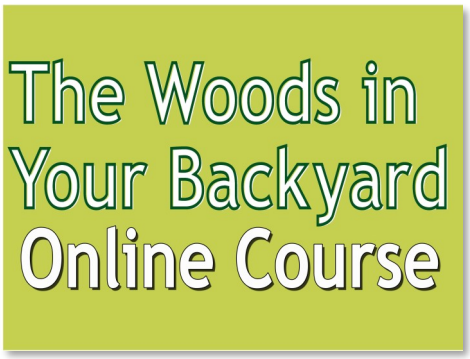
To learn more about the course and what it entails, go to http://extension.umd.edu/forestry-course. There you can read a lesson from the text, view an interactive exercise, read through detailed course information and FAQs.

For more information, contact Nancy Stewart at the University of Maryland Extension, Wye Research and Education Center, P.O. Box 169, Queenstown, Md., 21658, 410-827-8056, ext. 107, or nstewar1@umd.edu. **Check our website for more details!**



Sample course pages

"The Woods in Your Backyard" Online Course



In May, 24 participants wrapped up the fourth session of "The Woods in Your Backyard" online course. The course is designed for those with small-acreage properties who want to learn how to care for or expand existing woodlands, or to convert lawn space to woodlands. Most of this session's participants were interested in the course as private landowners, while a few were involved in land stewardship for private/non-profit organizations.

This self-paced, non-credit online course runs for ten weeks. It is offered through the University of Maryland's Electronic Learning Management System, and is accessible from any Internet connection and Web browser.

The course closely follows the published guide of the same name, but includes some important extras. Quizzes reinforce the important concepts of the text. Optional activities give participants the opportunity to share one or more of their stewardship journal entries, or photos or narratives of their woodland stewardship accomplishments. In addition, many of the course's units are accompanied by short videos, created and produced by Woodland Stewardship Education staff. These 2- to 5-minute videos demonstrate essential skills and techniques (such as tree identification or crop tree release) and share the experiences of other woodland owners.

If you are a Maryland Master Naturalist or Maryland Master Gardener, participating in this course can contribute to your annual hours commitment. See this link for more details.

The next session of the course is slated to run September 5—November 20, 2018. The course costs $85.00 and is limited to 25 participants. Each paid enrollment includes printed copies of "The Woods in Your Backyard" guide and workbook, plus a copy of *Common Native Trees of Virginia*. Registration through Eventbrite will open in late July. Visit our website page about the course at this link for more information, including updated registration information and a way to preview the course at no charge.

Woodland Wildlife Spotlight: Common Muskrat

Maryland's geography features a wide variety of aquatic ecosystems, including the Chesapeake Bay, the Potomac River, and hundreds of lakes, ponds, swamps, marshes and smaller rivers and streams. If your property includes any of these habitats, it may be home to one of North America's native rodents: the common muskrat.

The muskrat, despite the name, is not a rat, but the other part of its name is apt. The adults emit a strong, musky odor that they use to communicate with each other through territorial markings. They are similar in appearance to the native beaver and to the introduced (and invasive) nutria, which also favor aquatic habitats. All three are good swimmers and primarily herbivores. But the muskrat is smaller than beaver and nutria. It weighs up to 4 pounds and is generally about 20 inches in length, including the elongated tail, which is flattened on the sides for use as a rudder when swimming.

The muskrat excels at swimming. It has thick, glossy fur that varies in color from blackish to silvery-brown that keeps the animal warm in the water. Its ears are small and nearly hidden within the fur. Its partially-webbed back feet propel it above and under the water. Individuals have been observed swimming underwater for as long as fifteen minutes, surfacing for three seconds, and then submerging for another ten minutes. This adaptation comes in handy when escaping pressures from predators such as raccoons, owls, hawks, and other raptors. However, one of its primary predators, the mink, is also a skillful swimmer and is more agile than the muskrat on land.

The rodent's diet is mostly marsh plants, especially cattails and rushes. Their behavior helps keep bodies of water open for other aquatic species and birds. They often construct platforms in marshes where they can eat food they have collected.

In marshy areas, they will construct dome-shaped lodges from leaves, stems, roots and mud that are 2 to 4 feet tall, with one or more underwater entrances. In other areas, such as alongside streams, they may burrow into banks to create a den. These structures will serve as protection from predators and as nurseries.

Muskrats are prolific breeders and can have up to three litters of 5-7 kits each year. The first litter is born early in the spring after a 30-day gestation. The young can swim after about ten days and can eat plants after three weeks. After one month, the young are now independent and are forced out of the lodge to find new territory.

The muskrat is mostly nocturnal, although they may be observed swimming or sunning on a log during the day. Because of its wide-ranging habitat, you can observe them literally from coast to coast. To learn more about muskrats in Maryland, visit the Chesapeake Bay Program, the Maryland Department of Natural Resources, and the Maryland Biodiversity Project.

Top: A muskrat in Howard County, 2014. Photo by Bonnie Ott, courtesy marylandbiodiversity.com
Above: Swimming muskrat. Photo by Phil Myers, University of Michigan Museum of Zoology
Below: A muskrat lodge in Montgomery County, 2016. Photo by Bonnie Bell, courtesy marylandbiodiversity.com

News and Notes

Upcoming WSE Programs

The Woodland Stewardship Education (WSE) program has several programs coming up in July and August:

On July 27th, Extension Forester Jonathan Kays will present a **"Forestry Friday"** workshop on tree identification at the Western Maryland Research & Education Center in Keedysville MD (Washington County). This afternoon will include time in the WMREC woodlands and feature a variety of tools you can use to get to know the trees on your property or in your neighborhood. The workshop costs $8 per person and is limited to 30 participants. Registration is required. Visit this Eventbrite page for more information and to register.

On Tuesday, August 7th, the next **Woodland & Wildlife Webinar** will discuss Emerald Ash Borer, with an emphasis on its potential impact on ash habitats on Maryland's Eastern Shore. UME's Jonathan Kays will be joined by Colleen Kenny of the Maryland Department of Natural Resources Forest Service for this one-hour presentation. The webinar is scheduled from 12 noon to 1 PM and is free of charge. Registration is recommended. Go to this link to register.

The next **"Forestry Friday"** workshop for woodland property owners will be held August 17th at Mount Nebo Wildlife Management Area in Garrett County. The afternoon will focus on creating and enhancing young forest habitat for wildlife, including a tour of Mount Nebo's young forest habitat demonstration areas. In addition, representatives of University of Maryland Extension and Maryland DNR Forest Service will share information about services available to landowners.

This valuable workshop costs $8 per person. Registration is required and is limited to 30 participants. For more information and to register, go to this Eventbrite page.

Invasive Plant ID Workshops

UME's Master Gardener program is offering two invasive plant identification workshops in September. Learn how to identify these species through hands-on and field exercises. Each program is limited to 20 participants each. The September 8th program is intended for educators and landscape/natural resources professionals. The Sept. 15th workshop is intended for homeowners, woodland owners, and woodland managers. Please call 410-535-0291 to RSVP.

Just One Invasive Insect Impacting Forest Birds

A new long-term study of the impacts of the invasive insect hemlock woolly adelgid on eastern hemlocks shows its impact beyond the loss of trees. As eastern hemlock forests are declining, birds that are specialized to those trees are also disappearing.

Penn State researchers compared surveys of hemlock forests in the Delaware Water Gap in Pennsylvania and New Jersey from 2000, before the adelgid had caused decline, with data from the same forests fifteen years later. They found that as hemlock-specific birds left the habitats, birds normally found in more general hardwood forests replaced them.

Dead hemlocks at Delaware Water Gap. Photo courtesy threatenedforests.com

Read more about the study at this link.

It's Tick Season!

Now is the time to refresh your knowledge of how to deal with ticks. There are a variety of preventative measures that you can take when working in your woodlands or your property in general to avoid ticks, including wearing long-sleeved shirts and long pants, closed-toe shoes, and repellent.

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

The Centers for Disease Control has a series of web pages dedicated to dealing with ticks, including where they live, how to remove them, and symptoms to check if you do get bitten by one. One of the most valuable resources is its primer on tick identification, which includes full-sized illustrations and photographs. Click here to visit the CDC's tick website.

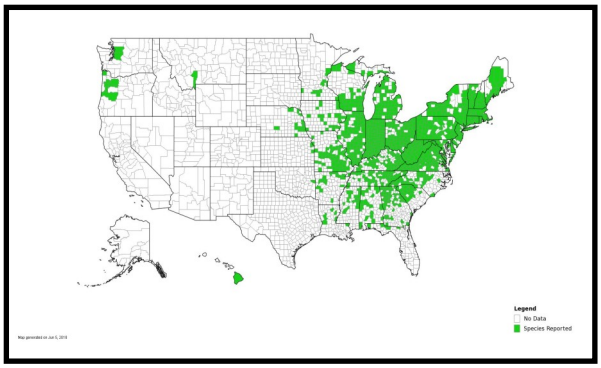
Invasives in Your Woodland: Autumn Olive

Autumn olive is a multi-stemmed deciduous shrub that is another example of the best intentions gone awry. This species was widely planted for erosion control and to provide wildlife habitat. It provided vegetation cover quickly and helped stabilize a variety of sites. However, autumn olive is now considered an invasive plant species for a variety of reasons. While it is not illegal to sell the plant in every jurisdiction where it exists, many natural resources management agencies and organizations discourage property owners from further planting.

Autumn olive foliage. Photo by Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

What is it?

Autumn olive (*Elaeagnus umbellata Thunb.*) is a native of Japan, China and Korea, and was first introduced to the United States as an ornamental plant in the 1830s. It is also called Elaeagnus, Oleaster, or Japanese silverberry. It remained in small numbers until the 1940s, when organizations began to plant them in revegetation projects of disturbed areas. These included railroad rights-of-way, utility rights-of-way, roadsides, disused strip mines and abandoned gravel pits. Autumn olive was chosen for many of these sites because of its nitrogen-fixing nodules that enable it to endure and even thrive in poor soil conditions. It also tolerates the effects of salt and drought. Consequently, autumn olive spreads rapidly into open spaces, including abandoned fields and early successional habitats. It out-competes and displaces native plants by creating dense shade conditions that hinders growth of plants that would normally grow in such full sun conditions. Today, it is found throughout most of the eastern U.S., as far west as Missouri in substantial numbers, and in other states further west in isolated communities.



Autumn olive US county distribution. Courtesy eddmaps.org.

How does it spread?

Autumn olive spreads rapidly through two main methods. The nitrogen-fixing nodules allow it to grow in even the most unfavorable soil conditions. Additionally, it can produce up to 200,000 seeds and eight pounds a year in fruit that birds find extremely tasty. The seeds are distributed far and wide as the birds consume the berries, fly away, and excrete the seeds.

How can I identify it?

Autumn olive is a multi-stemmed deciduous shrub that can grow as tall as 20 feet. The bark is olive drab and the branches contains many thorns. The shrub has waxy green leaves, elliptical in shape and alternate in arrangement, with silvery scales on the undersides. It blooms early in the spring with cream–to pale yellow-colored blossoms. The highly-abundant berries follow, which are pink to red and dotted with scales. The berries themselves are quite small—less than 1/4 an inch in size. See the photo gallery on the next page.

How can I control it?

Once established, autumn olive is often difficult to eradicate from a habitat without continued effort. Individual plants will re-sprout if mowed or cut; it will also re-sprout from the stump if it is burned. In fact, areas in which autumn olive has been cut, mowed or burned often encounter more abundant regrowth. There is also the chance that new growth will begin when seeds from adjacent areas arrive. Mechanical controls, such as pulling and digging, can be effective in removing small seedlings and sprouts. Take care to remove and bag all fruit if possible.

Chemical controls are the most effective means presently available for dealing with autumn olive. Using the cut stump method with an immediate application of glyphosate in a 20—50 % solution has proven effective in killing the roots and preventing re-sprouting. This method can be followed both late in the growing season (July to September) and in the dormant season. Foliar application can be effective as well; ensure complete coverage of the foliage and avoid spraying desirable vegetation.

For more information:

Learn more about autumn olive:

Autumn olive (Penn State Extension)

Journey with Nature: Autumn olive (The Nature Conservancy)

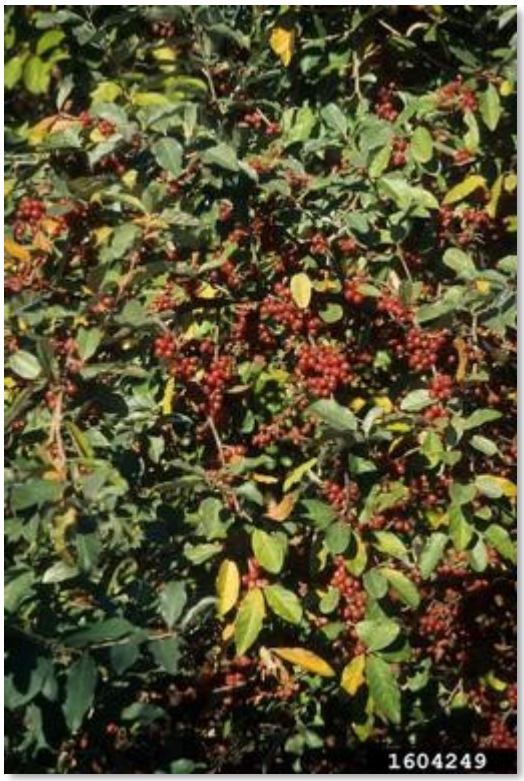
Plant Invaders of Mid-Atlantic Natural Areas: Autumn Olive (National Park Service & U.S. Fish and Wildlife Service)

Image Gallery:
Autumn olive

Autumn olive plants. Photo by Chris Evans, University of Illinois, Bugwood.org

Autumn olive foliage. Photo by James H. Miller, USDA Forest Service, Bugwood.org

Autumn olive flowers. Photo by Nancy Loewenstein, Auburn University, Bugwood.org



Autumn olive fruits. Photo by John Ruter, University of Georgia, Bugwood.org

Maryland Logger of the Year

Agnes Kedmenecz

Maryland-Delaware Master Loggers are a vital part of the forest products industry. They understand the many functions of our forests and their role as caretakers of this important renewable resource. A MD-DE Master Logger harvests the trees today without sacrificing the benefits of tomorrow. For three generations, the Glotfelty Lumber Company has been a shining example of this philosophy. They are known for excellent work of timber stand thinning, regeneration cuts, applying BMPS, and forest road design and construction in MD and WV. I am pleased to recognize the Glotfeltys as the 2017 Maryland Logger of the Year.

Donald Glotfelty Sr., along with his wife Betty, began their logging business in the rolling hills and deep valleys of Oakland, Maryland back in the 1950s. He brought in new technology as he was one of the first in his area to purchase a Timbco 445 C, changing how the trees were harvested. His son, Donald Jr., better known as "Butch," followed in his father's footsteps. Butch incorporated community service into the company and later branched out on his own along with his son Eric. Eric enhanced his passion for the woods by earning a degree in forestry at Maryland's Allegany College.

Butch has been a MD-DE Master Logger for 23 years and his son Eric has been one for 21 years. The Glotfeltys cruise timber sales, lay out and build the roads and log landings as needed on timber sales. Eric and Butch work closely with state, county foresters and industry foresters to make sure that all BMPs are met and each job is closed out according to state guidelines. The Glotfeltys take pride in their work and take the time to connect with their clients to ensure they are highly satisfied before leaving the sale.

Butch and his wife, Ann, along with Eric and his family are very active with the Mountain Logger Cooperative and support the "Log a Load for Kids" program. Butch is also a member of the Potomac Garrett State Forest Advisory Board. Glotfelty Lumber Company is a member of the MFA and WVFA. In honor of the great work they do as a MD-DE Master Loggers, Eric, Butch and the Glotfelty family were presented with a plaque and a STIHL chainsaw during the February Mountain Logger Group meeting in Deep Creek, MD. Thank you to the Glotfeltys for the care they take in the important work they do!

Donald "Butch" Glotfelty (left) and Eric Glotfelty with a Komatsu 455L-3

From left to right: Ann Glotfelty, Anita Simmons, Agnes Kedmenecz, Donald "Butch" Glotfelty, Todd Berman, Eric Glotfelty, Jaxon Glotfelty, Eva Glotfelty, and Betty Glotfelty

This Issue's Brain Tickler ...

Last issue, we featured this small bird. Congratulations to both William Schockner and Joanne Sheffield for identifying the American Woodcock within ten minutes of each other!

For this issue, we feature another species that prefers early successional habitats. The migratory songbird below breeds in wet thickets, tamarack bogs, and open, second-growth woodlands, and is in decline in its southern range, including Maryland.

Name this species! Email Andrew Kling at akling1@umd.edu with your answer.

Photo courtesy Cornell Lab of Ornithology

Events Calendar

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

July 27th, 2018
Forestry Friday Workshop
Western Maryland Research & Education Center, Washington County MD
12:30 PM—4:30 PM

The next Woodland Stewardship Education program "Forestry Friday" program will focus on tree identification. The workshop cost is $8 per person;. Registration through this Eventbrite link is required and is limited to 30 participants.

August 7, 2018
Woodland & Wildlife Webinar: Emerald Ash Borer
August 17, 2018
12:00 PM—1:00 PM online

This free webinar will discuss the latest spread of the Emerald Ash Borer, its potential impact on the ash habitats of the Eastern Shore, and much more. Register via this link.

August 17, 2018
Forestry Friday Workshop
Mt. Nebo WMA, Garrett County MD
12:30 PM—4:30 PM

This "Forestry Friday" will be held at the Mt. Nebo WMA in Garrett County. The workshop will focus on creating and enhancing young forest habitat for wildlife. The workshop cost is $8 per person and is limited to 30 participants; register through this Eventbrite link. Registration is required.

September 1—December 15, 2018
General Forestry Course online

The next session of the University of Maryland Extension's General Forestry Course begins September 1. The non-credit course includes techniques for protecting trees from insects, diseases, and fire, for creating a forest inventory and stand analysis; and much more. See page 2 for more details.

September 5– November 20, 2018
"The Woods in Your Backyard" online course

The next session of "The Woods in Your Backyard" online course begins September 5. The course is designed for small-acreage landowners or managers who want to get more out of their woodland properties or who want to convert lawn to woodland. See page 2 for more details.

September 8th and 15th, 2018
Invasive Plant ID Workshops
Community Resources Building, Prince Frederick MD
10:00 PM—1:00 PM

Learn essential skills for identifying invasive plant species at one of two workshops offered by the Maryland Master Gardeners program. See "News and Notes" on p. 4 for more information.

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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.

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