BRANCHING OUT

Maryland's Woodland Stewardship Educator

COLLEGE OF AGRICULTURE & NATURAL RESOURCES

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UNIVERSITY OF MARYLAND EXTENSION | WOODLAND STEWARDSHIP EDUCATION

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Parting Thoughts

Jonathan Kays, University of Maryland Extension

As I am about to retire after 32 years as a University of Maryland extension forester, I want to take this opportunity to share some thoughts with you, the readers of *Branching Out*, and others who have benefited from the Woodland Stewardship Education program. Below are some the big points I have endeavored to share from over the years.

First, take steps to be a good steward of natural areas around your home. Your woods are dynamic and changing even if you do nothing at all, as succession results in some trees dominating and others being lost. Are vines bringing down some trees or invasive plants crowding out natives species? Take an active role in directing succession by planting, cutting or killing plants to favor others. If you decide to do nothing and let nature take its course, let it be an informed choice.

Second, get involved with your neighbors where you share mutual interests. Wildlife is a primary interest of most people, but it does not recognize boundaries, so the more you can do in collaboration with friends and neighbors, the more wildlife benefits. You can influence decisions on a larger scale, by doing such things as getting involved with other landowners to effect change in the community and state level actions that affect forests.

Third, support the forest industry, for it is an essential partner to private woodland owners, to make forest and wildlife management economically possible. Forests will need tending to maintain forest health, enhance wildlife habitat, or realize other objectives. Assistance for harvest planning is available from extension, state forestry agencies, and private foresters. While there is a current movement to encourage tree planting, those trees will need care in the future. A viable forest industry is needed to facilitate this.

Fourth, continue to take advantage of the learning opportunities available from our program and other sources. Educational programs and assistance are available for two broad areas of forest ownerships: Smaller acreages from 1 - 9 acres, and larger, more traditional forest properties over 10 acres. Eighty-five percent of woodland ownerships in Maryland are from 1-9 acres. "The Woods in Your Backyard" program is a great resource for owners of small parcels. Many of you with larger properties have taken advantage of online courses and programs targeted to larger acreage owners.

Fifth, never underestimate your part in shaping Maryland woodlands and your contribution to their health and their future. Many citizens think government entities own most of the woodland in Maryland so they feel insignificant in the landscape, but not so. About three-quarters of Maryland's woodlands are privately owned, so their future depends not on the government but the individual forest stewardship decisions of over 150,000 Maryland citizens just like you.

Enjoy, investigate and use your land with your family to learn about nature and natural resource management. Your forest can be an outdoor classroom, a gym, a source of entertainment, a family gathering place, a hunt club, or whatever you want to make it. Use it to better understand ecological principles that help answer basic question like: Why do trees grow where they do? Why are wildlife only found in certain places? The list of possibilities is endless.

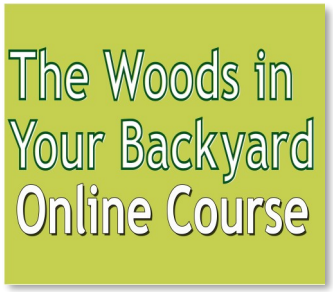
Be a lifelong learner. This is what I plan to do as I move on! It has been my pleasure to do my small part and to share my love of forestry with each and every one of you. Blessings as you continue to provide stewardship to Maryland's woodlands.

Inside this issue:

Registration is Now Open For the Spring Session of "The Woods in Your Backyard" Online Course

Registration is now open for the Spring 2022 session of "The Woods in Your Backyard" online course. Our course is designed primarily for small-acreage property owners who want to learn how to care for or expand existing woodlands, or to convert lawn space to woodlands.

The self-directed, non-credit online course runs for ten weeks, from March 28 to June 6. It is offered through the University of Maryland's Electronic Learning Management System, and is accessible from any Internet connection and Web browser.



You have a terrific program that makes us better stewards of nature. It is hard sometimes to feel like as an individual I can make an impact. ...Your course gives a little hope that acting individually can lead to systems-wide improvements.
- Betsy M., Maryland

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.

The course costs $95.00 and each session 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*. Visit our website page about the course at this link for more information, including frequently asked questions, updated registration information, and a way to preview the course at no charge.

Go to this Eventbrite link for participant comments, more information, and how to register.

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

Share Your Views on how Maryland Manages State Forests

The Maryland Department of Natural Resources is inviting public comments on proposed fiscal year 2023 annual work plans for four state forests: Chesapeake/Pocomoke, Green Ridge, Potomac/Garrett, and Savage River.

The comment period closes March 4, 2022 for these work plans, which will go into effect with the start of the 2023 fiscal year in July.

The annual work plans, according to the DNR, "help the department identify priorities within the scope of the forests' long-range management. They address composition, establishment, growth, health, and quality, along with construction and maintenance projects."

Maryland Forest Service Acting Director Anne Hairston-Strang notes that public comments are an essential part of managing the health of the state's forests. "We are dependent on the public's input to help us develop the most comprehensive and effective management practices for the forested lands and tracts."

Comments can be provided online at the DNR website or emailed to stateforests.dnr@maryland.gov.

Woodland Wildlife Spotlight: Gray Fox

When most people hear the term "fox," they think of the red fox, which we profiled in the Winter 2021 issue of *Branching Out.* Indeed, most depictions of foxes in literature and media depict a red fox. The red fox is so ubiquitous, as well as so connected to English colonial history through hunting, it comes as a surprise to many that Maryland is home to a second species of fox. However, the gray fox is indeed native to the state and the region, and can be found throughout most of North America. In fact, this successful species can also be found throughout Central and northern South America as well.

The gray fox (*Urocyon cinereoargenteus*) and its more well-known cousin share some similar traits. Both are omnivores, eating small prey such as rabbits, shrews, moles, and birds, plus fruits, nuts, and certain herbaceous plants. Both have bushy tails. But here these two members of the dog family diverge. The gray fox has shorter legs than the red. Its coat is a coarse mix of gray on the back, reddish-brown on the sides, chest, belly, and legs. The tail has a black stripe running the length of it and a black tip.

Additionally, the gray fox prefers deciduous forests for its habitat, preferring areas with dense cover for protection and with water nearby. It has retractable claws that enable it to climb trees, making it one of only three dog species worldwide with this ability. The fox will leap into lower branches or shinny up a trunk, using its back legs to push and its front legs to grasp the bark. It will jump from one branch to another to hunt birds and squirrels, and to consume fruit, particularly in the springtime when berries become a large part of its diet. Leaving a tree is the reverse order as it descends head-first.

The gray fox is mostly nocturnal, although it has been observed during daylight hours on occasion (they have been observed sunning themselves in trees). They will create dens in tree cavities, in hollow logs, in brush piles, or under or among rocks. These behaviors help account for its infrequent observations by humans.

For gray foxes, the winter is an important time. Solitary during most of the year, males and females will socialize only during the breeding season, which in Maryland occurs from January through March, generally 2 to 4 weeks later than the red fox. During this time, gray foxes may use a series of sharp barks or yips to call to or attract a mate. Unlike its noisier red cousins which have a variety of famous calls, the otherwise quiet gray fox relies on powerful scent glands to mark territory and attract a potential mate.

Gray foxes mate for life, and they will create bedding inside their den consisting of, among other things, the fur and feathers of its prey. Females will give birth in these dens to a litter of on average two to five pups about two months after mating. Both parents provide for the newborns, which are blind and covered in black fur. Males will provide most of the food scraps after they are weaned at three to six weeks of age. The male will also teach the young how to hunt. The young will stay with the female until the fall, at which point they will venture out on their own. Gray fox territories are usually two to four miles in size, and they have been known to aggressively ward off red foxes where their habitats overlap.

The mature gray fox has few natural predators. Juveniles may fall victim to bobcats, coyotes, and great horned owls, but humans seem to have the most impact on the species. Threats include habitat loss due to woodland fragmentation, degradation, and conversion to agricultural uses for farming, or to urban uses such as housing. According to canids.org, gray foxes are frequently captured by mistake when other more highly-desired furbearing species such as bobcats are targeted. The gray fox's coarse coat makes it less desirable than other mammals for fur trapping purposes, but the species is managed by the state of Maryland for that reason.

Gray Fox Basics

Appearance: Gray back and shoulders; reddish-brown sides, chest, belly and legs. Long bushy tail with black stripe on top and at tip. Males and females have same coloring.

Gray fox in Allegany County, MD. Photo by Mike Burchett, Maryland Biodiversity Project

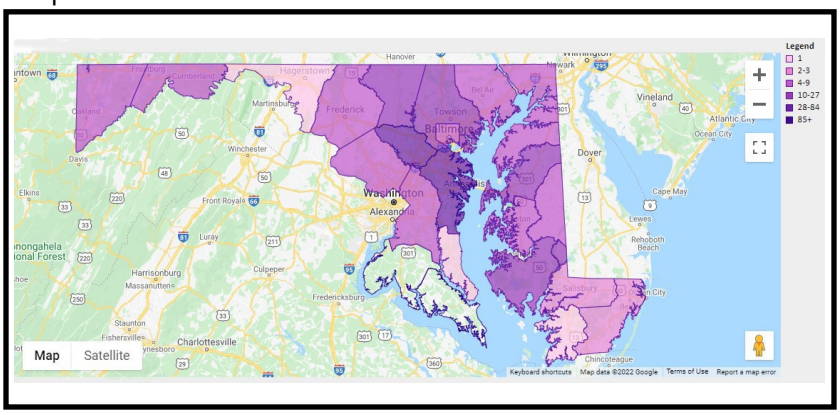
Size: 30 to 44 inches in total length. Weight 8 to 15 pounds. Males slightly larger than females.

Lifespan: 6 to 10 years in the wild; up to 12 years in captivity.

Gray fox in tree. Photo © Todd Fitzgerald, iNaturalist.org

Invasives in Your Woodland: Canada Thistle

In keeping with the existence of multiple names for invasive plant species, in this article we look at *Cirsium arvense*, which many observers may know as "Canada Thistle." It is also known as creeping thistle, as well as green or perennial thistle, depending on the source. Others express their opinion about it by calling it hard thistle and cursed thistle. Regardless of the name, Canada thistle is not only not native to Canada or North America but to Europe and Asia. It has been introduced to many other regions of the world, including South America, New Zealand, Australia and Ireland. In the United States, it is found throughout the northern and southwestern states. In the mid-Atlantic region, it is widespread in Pennsylvania, Delaware and West Virginia. It is found mostly along the Blue Ridge and in the northern counties in Virginia. Distribution in Maryland is another matter. For this series, we often share distribution maps from EddMapS, from the Center for Invasive Species and Ecosystem Health at the University of Georgia (also the host of invasive.org and bugwood.org). However, their Canada thistle map is at odds with the one from the Maryland Biodiversity Project (below; click here for full-size map and select the "County Map" tab) shows a much wider spread of the plant.



Canada Thistle distribution in Maryland. Courtesy marylandbiodiversity.com.

What is it?

Canada thistle is an aggressive and colonial perennial, with both male and female plants. It is considered a noxious weed in Maryland and in many other areas across the U.S. It is most often found in disturbed areas, such as roadsides or agricultural lands that have been abandoned or that are being converted to woodland through early successional stages. It can also be found on the edges of wetland habitats as well, such as stream banks, where it can present a significant problem in riparian habitats. It requires full sun, and can thrive in lawns, landscapes, and rights-of-ways, where it can out-compete native species by overtopping them to block sunlight and by sinking deep tap roots to monopolize water sources.

How does it spread?

Unlike other thistles that spread mainly by seed every year, Canada thistle can spread through its extensive root system, that grows both vertically and horizontally through the soil. This extensive root system leads to colonies of plants in distinct patches. In Maryland, seed production runs mid-May to June; each plant can generate up to 1,500 seeds that are primarily spread by the wind.

Canada Thistle flowers. Photo by Eric Coombs, Oregon Department of Agriculture, Bugwood.org

How can I identify it?

Immature Canada thistles emerge as a rosette and rapidly grow to up to 6 feet tall on slender shoots. Unlike many thistles, the long, narrow leaves are not especially prickly. The female plants produce multiple bright purple flowers that turn white as the seeds mature. Patches of Canada thistles that are producing their downy seeds can give the appearance of a snowstorm in a strong wind. See the photo gallery on the next page.

How can I control it?

Any treatment of Canada thistle will require repeated attention for several years, as seeds can remain viable in the soil for up to 20 years. Mowing is an effective treatment but needs to occur several times throughout the growing season to ensure that plants do not mature. Herbicide treatments have provided mixed results, especially in areas that are already colonized by Canada thistle. The best control seems to be vigilance, especially in areas where property owners are managing for early successional habitats for wildlife or are planting seedlings for woodland restoration. Early action to remove young plants will reduce the likelihood of colonization.

For more information:

Learn more about Canada thistle:

Worst Weed in Maryland? - Maryland Invasive Species Council
Canada Thistle - University of Maryland Extension Home and Garden Information Center
Canada Thistle - iNaturalist

Image Gallery:
Canada Thistle

Canada thistle basal leaves in Kent Co., Maryland.
Photo by Nancy Martin, Maryland Biodiversity Project

Canada thistle flower. Photo by Rob Routledge,
Sault College, Bugwood.org

Canada thistle foliage. Photo by Richard Gardner,
Bugwood.org

Canada thistle flowers. Photo by Leslie J. Mehrhoff,
University of Connecticut, Bugwood.org

News and Notes

Could Ghost Forests Benefit Birds?

The expansion of "ghost forests" along Maryland's coastlines has challenged property owners and land managers alike. Last October, these were highlighted during our Woodland Wildlife Wednesday webinar (available here). Experts are now speculating that these areas may now provide unexpected benefits for certain species of birds.

Read more about this topic in this article from *Audubon*.

Blackwater NWR. Photo by US Fish & Wildlife Service.

New MDOT Urban Tree Grant Program

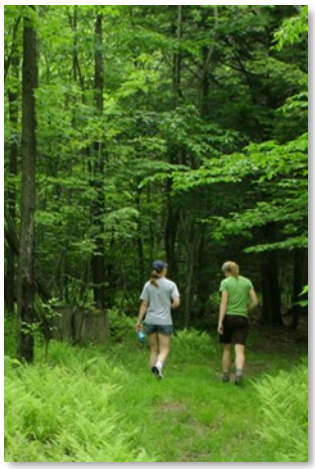
Construction projects, particularly those related to transportation (such as mass transit or road expansion) often result in the loss of trees on both public and private land. The Maryland Dept. of Transportation (MDOT) has announced a grant program that can assist with the cost of replacing lost trees.

The program is coordinated by the Maryland Urban and Community Forestry Committee, a subcommittee of the state Association of Forest Conservancy District Boards. Groups may apply for up to $5,000 to mitigate the cost of replacing trees lost to transportation projects.

The next deadline for grant applications is July 15, 2022. Contact your local Forestry Board office for more information and assistance. A full contact list is available at http://www.marylandforestryboards.org/downloads/Chairs%20&%20Secretaries%20with%20websites.pdf

Ten Reasons People Get Lost in the Woods

Anyone who has worked in a land management agency can share stories of individuals who have gotten lost. This article, originally published in *Outdoor Life*, documents how getting lost happens, even in our increasingly-connected world, shares a variety of interesting tidbits about search and rescue efforts, and offers ways to avoid becoming a statistic.



Read the full article here.

Jonathan Kays Interviewed for Voice of America

University of Maryland Extension Forester Jonathan Kays was recently interviewed by Voice of America for its *VOA Connect* series. Episode 210, entitled "Sustainable Lifestyle," features individuals "who are creating a healthier life for themselves and the environment."

In his segment, called "Forensic Forestry," Kays walks through the woods at the Western Maryland Research & Education Center and shares his views on ways to read the forest and to keep woodlands healthy.

Watch Kays' segment on our YouTube channel here. Watch the full episode on Voice of America here.

The Mystery of Marcescence

As summer yields to fall, deciduous trees throughout the mid-Atlantic states lose their leaves in an often-spectacular display of color. However, not all hardwood trees participate in this pageantry, and decide to hang onto their leaves until spring. The brown and withered leaves may be difficult to spot among an otherwise dull and brown landscape, but when winter snows blanket the woodland, these surviving leaves are easier to spot.

American beech tree in winter. Photo by Pennsylvania Parks & Forests Foundation.

Sometimes these are young trees. Other times, these are older, taller trees that have kept their leaves on lower limbs. These trees are practicing "marcescence" (pronounced "mar-CESS-enss"). The word comes from the Latin *marcescere* ("to fade"). In our area, this occurs on oaks, American beech, hornbeam, Eastern hophornbeam, and witchhazels. In most deciduous trees, leaf drop occurs in autumn when cells between the twig and the end of the leaf stem create an abscission layer. The cells separate from each other, leading to the leaf falling. But in marcescence, this doesn't occur until spring.

While scientists have named the process, they are unsure why it exists.

Some theorize that marcescent leaves provide a fresh layer of mulch around the tree by adding nutrients for growth in the new year. This is particularly advantageous when the tree is growing on a dry, infertile site, which is where oaks and beeches are often found, out-competing other species. Another thought is that these leaves will help conserve soil moisture in the spring by adding shade to the forest floor.

Additional hypotheses hold that marcescence is tied to wildlife. The dried leaves will provide a certain amount of shelter from winter winds for birds. It may also be that the process is a defense mechanism against browsers such as deer. Scientists speculate that the tree limbs retain the dry and definitely un-tasty leaves to discourage browsing. Deer prefer to feed on more tender and nutritious buds and twigs. The conjecture is that these dried leaves may make it difficult for browsers to nip the new buds, or that they simply hide the new growth.

Regardless of the reason that marcescence exists, it provides an interesting contrast in a woodland in a snowy landscape or against a bright blue winter sky. But when new growth begins with the spring, the expanding buds will push the old leaves off and the branches will soon be covered in new greenery.

Marcescence on an eastern white oak. Photo courtesy seashoretoforestfloor.com

This Issue's Brain Tickler...

Last issue we challenged you to identify the tree from which this nut comes. Congratulations to Kate Ellis for correctly identifying it as a mockernut hickory.

For this issue, we're providing a photo **and** the individual's identity. This is John S. Ayton, pictured in 2004:

What important role did Ayton play in the management of Maryland's woodlands?
Email Andrew Kling at akling1@ umd.edu with your answer.

Events Calendar

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

March 3, 4, & 5, 2022
Women Woodland Owners Virtual Conference
Online
The National Women Owning Woodlands Network will be holding a virtual conference focusing on forging connections between women and forest stewardship. Registration closes March 2nd. Visit this link to register.

March 10, 17, & 24, 2022, 2:00 - 4:00 pm
Natural Area Management Services Webinar Series: Case Study
Online
This 3-part webinar series from The Woods in Your Backyard Partnership aims to inform and equip green industry professionals with knowledge and skills to provide additional services to clientele while improving ecosystem health. The program provides in-depth instruction related to the management of a small-acreage property from start to finish through our case-study scenario. This series will increase your knowledge and skills so you can gain an edge over the competition and grow your business by providing additional services for your clients. To learn more and to register, visit this Eventbrite link.

March 16, 2022, 12 noon-1 pm
Woodland & Wildlife Wednesday Webinar: "*HealthyWoods* App Helps Landowners Assess Woodland Health"
Online
Assessing the health of a woodland property when you don't have a lot of knowledge about how it grows and what to look for is a challenge. The use of new mobile apps makes exploring your woods fun and educational. *HealthyWoods* is a collaborative effort between forest specialists from Kentucky and other hardwood-producing states in the Appalachian region, including Maryland, and provides woodland owners with a convenient tool to scout the health of their woods. It is suggested participants download the *HealthyWoods* app and become familiar with it prior to the webinar at https://healthywoodsapp.org/.

To register: go.umd.edu/woodlandwildlife

March 22-23, 2022
Woods in Your Backyard Train the Trainer workshop
Ramada Inn, Hagerstown MD

For green industry service providers only who are interested in implementing sustainable practices for woodland, wildlife, water quality, and recreation on small acreage properties. This free Train The Trainers workshop from The Woods in Your Backyard Partnership focuses on natural area management and provides assistance and incentives for participants to implement future Woods In Your Backyard programs by their organizations.

For more information and to register, go to https://umewiybytrainthetrainer.eventbrite.com.

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