UPCOMING EVENTS

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NOV 17	Turkey Talk
	Van Scott Nature Reserve, Beach Lake, PA • 4pm-5pm
DEC 2	"Over and Under the Snow" and Craft
	Van Scott Nature Reserve, Beach Lake, PA • 12pm-1:30pm
JAN 6	Eagle Watch Bus Tour
	Lackawaxen, PA • 11am-3pm
JAN 20	Eagle Watch Bus Tour
	Lackawaxen, PA • 11am-3pm
JAN 27	Eagle Watch Bus Tour
	Lackawaxen, PA • 11am-3pm
FEB 3	Eagle Watch Bus Tour
	Lackawaxen, PA • 11am-3pm
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Events require advance registration. Visit www.DelawareHighlands.org/events or call 570-226-3164/845-583-1010 to learn more or register for these events.

Our Events Calendar is updated regularly throughout the year.

Native and Invasive Species Corner

Spongy Moth: The Latest Update

Beech Leaf Disease

• Conservancy Responds to Timber Theft



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DELAWARE HIGHLANDS CONSERVANCY



Conserving our natural heritage and quality of life in partnership with landowners and the communities of the Upper Delaware River region.

Fall 2023

A Guide to the Stewardship of Protected Lands with the Delaware Highlands Conservancy

Conservancy Responds to Timber Theft on Protected Property

As a nationally accredited land trust, the Delaware Highlands Conservancy's primary responsibility is to ensure that the terms of its conservation easements, set forth to permanently protect each property's unique conservation values, are being upheld. Through required annual property visits, frequent communication with landowners, and diligent recordkeeping, the Conservancy strives to reduce instances that have adverse effects on the protection of these properties. Occasionally, incidents do occur and the Conservancy is obligated to take legal action.

During a walk on her property in April 2019, Helen Beichel, a landowner of a conserved property in Sullivan County, New York, discovered that a logger had crossed her well-marked property boundary, illegally cut down and removed 120 sawtimber-grade trees, and destroyed a memorial site dedicated to the original property owner and donor of the conservation easement, Tom Raleigh.

The trees cut were primarily mature white oaks—not only the most valuable trees on the site, but also the most ecologically important for production of the food supply critical for wildlife habitat. In addition, the logger created roads across the property traversing wetlands and vernal pools and left mud-filled ruts across steep slopes, endangering the high-quality stream located nearby.



Since this discovery was made, the Delaware Highlands Conservancy has worked in partnership with the landowner, the New York State Department of Environmental Conservation, and legal counsel for restitution. In 2023, a settlement was reached between the Conservancy, the landowner, and the defendants in this case to provide remediation and restoration of the trees that were removed and to repay the Conservancy's legal expenses in defense of this conservation easement.

Read the full story, including the history of this unique property, on our website at https://delawarehighlands.org/conservancy-responds-to-timber-theft-on-protected-property/.

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What is Highlands LandLines?

You already receive the Delaware Highlands Conservancy's regular newsletter, Highlands Journal. Our newsletter is distributed to all of our landowners, members, and other like-minded folks who are interested in the Conservancy's activities, accomplishments, and conservation goals.

This publication, Highlands LandLines, comes to you twice a year and is dedicated to landowners who have a conservation easement with the Conservancy. LandLines provides you, the landowner, with useful information and tips for the stewardship of your land and conservation easement. This publication is also available electronically.

Participate in LandLines!

We are interested in your ideas for future articles and features, or your comments on the publication in general.





www.DelawareHighlands.org **Van Scott Nature Reserve** 571 Perkins Pond Rd Beach Lake, PA 18405 www.DelawareHighlands.org

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Stewardship of Your Property

Stewardship staff encourage you to reach out any time you have questions or concerns about your conservation easement. There are several activities and uses that may require the Conservancy's feedback or approval, so it is always a good idea to contact us before making any significant changes, including the following:



BEFORE YOU BUILD

A conservation easement may allow for residential or agricultural structures to be built on the property. However, it is important to confirm with the Conservancy that your easement permits new structures or the expansion of existing structures, and to follow the proper process before beginning any construction.



BEFORE YOU CUT

Your conservation easement may require the forest on your property to be cared for and managed in accordance with a forest management/ stewardship plan. Please contact the Conservancy before starting any forest management activities, as they must be reviewed and approved prior to any timber harvesting activities per the easement terms. We can also provide a list of natural resource professionals to help you achieve your land management goals.



BEFORE YOU SELL

Conservation easements run with the land even if you sell or transfer the conserved property, which means subsequent landowners are also bound by the terms of the easements. Informing and connecting the Conservancy with the realtor and ultimately the new landowner(s) before selling or transferring your property helps with reducing the risk of easement challenges or violations after the transition is complete.



STEWARDSHIP STAFF



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A Note from Steve The Conservancy's Summer 2023 Satnick Stewardship Intern



As the weather gets cooler and the leaves begin to change colors, I find myself looking back fondly to the warm and sunny days I was able to have this summer as the Satnick Stewardship Intern with the Delaware Highlands Conservancy. While there were days of rain, clouds, and even smoke, each day was a new experience in stewardship, monitoring, and the invaluable necessity of conserving our natural environment.

I am happy to be part of an organization that places the natural values of the Upper Delaware River region so highly, and pleased to announce that I will remain within the Conservancy in a new role as Conservation Programs Associate. In my new position, I will continue to work in stewardship and monitoring, as well as assist in tasks related to the Poconos-Kittatinny Cluster (PKC) through the Delaware River Watershed Initiative, land protection, and education. I am proud to continue with the organization ensuring our natural lands are as beautiful as they are now for generations to come.

Thank you to all departments for allowing me to peer into your role at the Conservancy and thank you to Nicole for your wealth of knowledge and insight on stewardship. I am looking forward to the next steps at the Conservancy as I continue gaining experience in conservation and doing my part to conserve our natural environment.

All my best,

Steve

Spongy Moths, continued...

The use of insecticides is a common prevention practice, though spongy moth populations have steadily increased despite the wide-spread use of insecticides.

To aid in the prevention of outbreaks, there are a few steps the public can take: inspect your yard in the fall and winter for egg masses and douse any you find in boiling water; and inspect your vehicle to ensure egg masses are not being transferred between areas. The wrapping of trees in sticky paper is a common practice, though it has been shown to be ineffective in trapping many caterpillars and may do damage to the tree and trap beneficial insects and wildlife.

With public cooperation in prevention and continued scientific research into eradication, there are hopes that the spongy moth will eventually leave North America's forests. However, until then, their one-hundred-year reign and destruction of forests will only continue.

Invasive Species Corner

Wineberry (Rubus phoenicolasius Maxim.)

Wineberry (Rubus phoenicolasius), also known as wine raspberry, is a multi-stemmed shrub that was introduced to the United States in the 1800s for its edible berries and is still being used today by berry breeders.

Wineberry is covered in small, reddish hairs and thorns, and can grow up to nine feet tall. The plant has toothed, compound leaves that form three leaflets, alternate along the stem, and are green on the top and white underneath. Wineberry has five-petaled white flowers that bloom in the spring and turn into raspberry-like fruits in the summer.

The plant can be found along the edges of streams, wetlands, and forests, and can form large, dense thickets that displace and restrict light to native vegetation. Wineberry can spread by wildlife dispersing

its seeds and through root nodes. The plant is also host to many viruses that can affect native raspberries, such as raspberry yellow spot. Wineberry can be managed manually and with herbicide application, but all plant material should be bagged and removed from the site.

Sources: https://elibrary.dcnr.pa.gov/GetDocument?docId=1738763&DocName=wineberry.pdf https://adkinvasives.com/Invasive-Species/Detail/30

Native Species Spotlight

Turtlehead (Chelone spp.)

Turtlehead (Chelone spp.) is a fall-blooming perennial plant that is found throughout the eastern half of the United States. The plant's name derives from the flower's resemblance to a turtle's head, but it is also commonly referred to as shellflower.

Turtlehead is comprised of four species that slightly vary in flower coloration and leaf shape. The plant prefers to grow in moist to wet soils and between full sun and partial shade. Given their long blooming time, the species are great for gardens and pollinators, such as bees, butterflies, hummingbirds, and other insects. The plant has also been historically used in natural medicine for many different ailments.

Sources: https://www.fs.usda.gov/wildflowers/plant-of-the-week/ chelone_glabra.shtml

https://hort.extension.wisc.edu/articles/turtlehead-chelone-spp/

https://extension.psu.edu/programs/master-gardener/counties/adams/news/2021/turtlehead-a-great-addition-to-a-moistgarden-bed



Beech Leaf Disease

By Steven T. Gosch

Since its first detection in Ohio in 2012, beech leaf disease (BLD) has rapidly spread across the East Coast with an alarming potential to drastically change the Eastern deciduous forests of the United States. The disease has been confirmed as far north as Maine and as far south as Virginia, and its rapid spread quickly outpaced scientists' attempts at understanding it. Many residents along the east coast first learned of the disease by finding it on their own beech trees while scientific research and public information were slow to come to the forefront. However, in the years since its discovery, more is known about the disease – including a potential method of prevention.

When one thinks of a disease affecting plants, it is easy to venture first to the world of fungi. A variety of fungi are responsible for many common plant diseases such as mildew, leaf spot, and root rot. Though, beech leaf disease surprised scientists with a



different culprit – a new species of nematode, *Litylenchus crenatae ssp. mccannii*. While it is not uncommon for nematodes to cause disease, its rapid spread left scientists with more questions than answers. It was unknown how they were spreading so quickly, and almost just as important - it wasn't certain where they had come from.

Current research into beech leaf disease is ongoing, and a present theory suggests birds as the likely carriers of *L. crenatae ssp. mccannii*, introducing them to new areas in their droppings. When it infests a host beech tree, it overwinters in the leaf buds. This causes new leaves to show a characteristic dark green interveinal banding pattern in the spring with leaves appearing smaller, wrinkled, and leathery. In severe infestations, the leaves will fall off, though a single beech tree can have both heavily infested and untouched branches. Leaf buds killed by BLD typically regrow, though new leaves emerge paler and less robust. BLD is fatal to the tree in 90% of cases, and research in Ohio is showing American beech trees dying an average of 6-10 years after infection.

With BLD proving lethal, scientific research into preventative treatments is of utmost concern given that beech trees comprise 80% of eastern deciduous forests alongside maple. In 2017, researchers in Ohio experimenting with PolyPhosphite 30, a potassium fertilizer marketed for lawn care, found that drenching the soil with the product or injecting it directly into the tree reduced the number of nematodes over a five-year trial period. Phosphite products have a history of being used in the control of phytopathogens as they stimulate plant defenses, and the research into the use of PolyPhosphite 30, while in preliminary stages, is showing to be a potential counter to *L. crenatae ssp. mccannii* in infested beech trees.

Though beech leaf disease is rapid, science is keeping pace as an increasing number of researchers from various fields do what they can to understand the disease while investigating methods of preventing it. If you find BLD on your property, take photos of symptoms (tree leaves, bark, and the entire tree if possible) and submit your findings to your local Department of Conservation or the imaplinessives Network.

Spongy Moth: The Latest Updates

By Steven T. Gosch

Imported to the United States from Europe in 1869, the spongy moth (*Lymatria dispar dispar*) was originally revered for its potential to create a new silkworm industry in the West. The spongy moth arrived at a lab in Massachusetts with plans to interbreed them with silk moths but were accidentally released into the local environment. At the time, the release was deemed as a non-issue, though nearly one-hundred years later the spongy moth has continued to expand its range and proven to be incredibly destructive to North America's forests.

Spongy moths have an unprecedented capability of creating outbreaks when population numbers increase exponentially. During these times, caterpillars quickly defoliate trees, cover houses, and can even rain down on residents.

Methods for their eradication have primarily fallen on the pesticide industry, though recent evidence suggests that the spongy moth may have more natural predators than previously thought. Known to be preyed upon by wasps, beetles, and mammals such as mice, recent research has found that the yellow-billed cuckoo, a bird native to North America's forests, is also a main, new predator of spongy moth caterpillars.

While many introduced species can thrive and reproduce exponentially due to lack of natural predators, the spongy moth caterpillar bears a striking resemblance to the eastern tent caterpillar, a favorite prey of the yellow-billed cuckoo. Yellow-billed cuckoos congregate where hairy caterpillars are abundant, and do not seem to differentiate between the native and invasive species. One yellow-billed cuckoo is capable of eating thousands of caterpillars per day, though even at this rate it is not enough to bring the population outbreak under control.

While research into new predators is promising, additional methods are required to decrease the number of caterpillars that become breeding adults. Current methods include trapping and physical removal, though the latter has left many individuals with uncomfortable allergic reactions.

The tiny hairs of spongy moth caterpillars, called setae, contain histamines that can cause itchy, red rashes. In cases where the setae encounter mucous membranes, such



as through inhalation, shortness of breath and difficulty swallowing may also occur. In areas with high populations of spongy moth caterpillars, these setae can travel with the wind and cause reactions at a distance. The setae can additionally remain in the soil, tree bark, and their silk cocoons causing reactions for months after the caterpillar has left the area.

Continued on page 6...