

The Turk's Cap

Volume 26, Number 1

Spring 2023

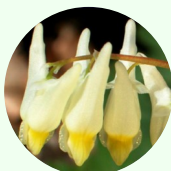
The Newsletter of the Delaware Native Plant Society



Letter from the President



The DNPS Turns 25!



Special Announcement



Something Precious



ACHOO!



Time for a Field Trip!



Events & More

DNPS Officers

President:

Eric Wahl

Vice-President:

Rick Mickowski

Treasurer:

Eric Zuelke

Secretary:

Emma Brown

DNPS Mission Statement:

Founded in March 1998, we are a volunteer-based, publicly supported non-profit organization dedicated to the conservation of native plants and their natural habitats through education, science, advocacy, and land stewardship.

Discover more at: <https://delawarenativeplants.org>



Letter from the President

Eric Wahl, President

Wow! Is it April already? It seemed like just yesterday we were celebrating New Year's and Valentines Day. The weather has been unpredictable, but I think we can safely say that spring is here. The trees are beginning to break bud and their leaves unfurl, and the flowering understory trees are starting to pop with color.

If you live near a newly planted buffer, edge of woodlands, or even near a water body, be sure to take some time and watch how the landscape evolves from season to season and year to year. This dynamic landscape that we live in is full of wonder and surprise. The issue of properly designed buffers is one that I promote through all my work and volunteerism. I feel that creating better buffers and connecting them from coastal communities to inland neighborhoods will exponentially help our local environment. Keep an eye out for talks and conferences about this subject.

DNPS has some great events coming up, including a field trip this month. Read on for more information and watch your emails. This year is poised to be one of our busiest yet, so get ready to learn about, plant, and promote native plants!

Stay safe and keep promoting native plants!

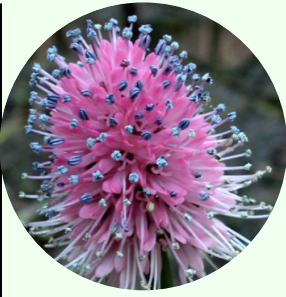
Eric Wahl

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Or find us at:

<https://delawarenativeplants.org/>





The DNPS Turns 25!

Eric Zuelke

To celebrate our 25th year, we wanted to share some highlights of things we've accomplished over the past 25 years in a timeline. The Delaware Native Plant Society couldn't exist without our members and our volunteers have made their marks on many of the items presented here.

A quantum singularity forms and results in the Big Bang and the creation of the Milky Way galaxy and the planet Earth. The first most important event in the natural history of our planet.

13.8 Billion Years Ago



Volume I Issue I of our quarterly newsletter, *The Turk's Cap*, goes out by snail mail to a small, but quickly growing, group of members.

15 April 1998



Our first organized member field trip. This one was to Iron Hill Park. We recorded over 55 species of plants.

25 July 1998



18 March 1998

A singular group of environmentalists meet at the Aquatic Resources Education Center in Smyrna Delaware, which results in an organizational meeting to create the DNPS. The second most important event in the natural history of our planet. 😊



1 May 1998

The first evolution of our website goes live, hosted by the now defunct Delaware.net



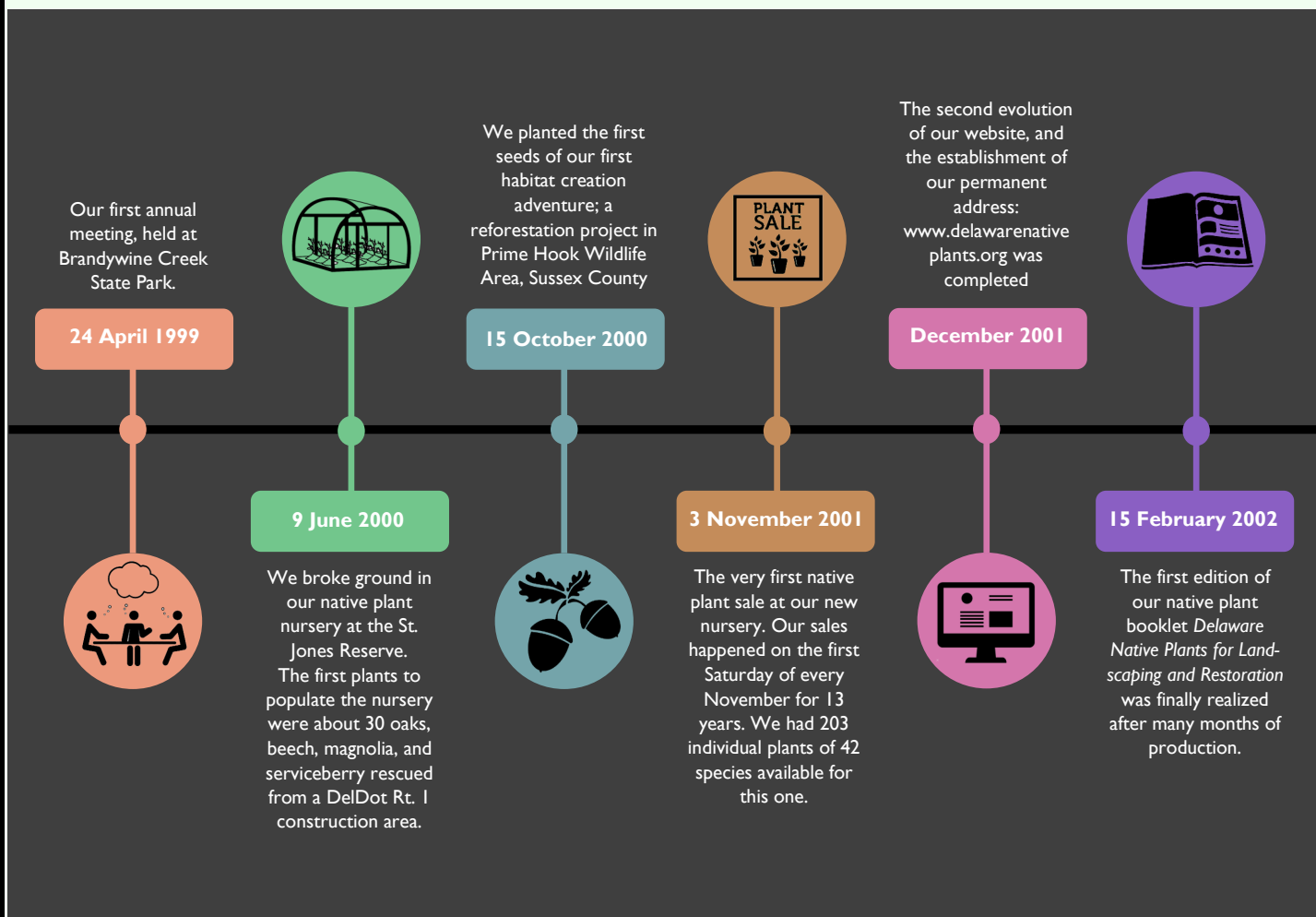
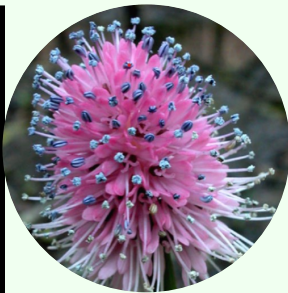
9 April 1999

The first hand-drawn version of our mascot plants (an alder, bald cypress, and turk's cap lily) were submitted by Chris Bennett and used for the first time in our newsletter digitally. These species were chosen at the organizational meeting.

Many Thanks

To all our members throughout the years...

Continued on next page...

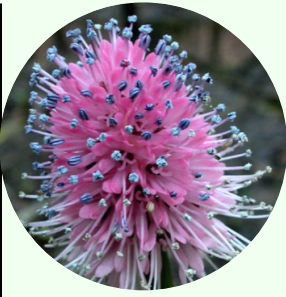


Many Thanks

To all our volunteers

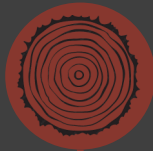
preparing, planting, mulching, weeding...

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Field work began on our second reforestation project at Blackbird Creek Reserve, on Union Church Rd in New Castle County.

2 October 2003



Field work began on our fourth reforestation project at Prime Hook National Wildlife Refuge, Sussex County.

5 October 2003



The first significant Officer reorganization occurred this month as our founder and first President, Keith Clancy, left Delaware for a new job and a new life in New York.

September 2004



4 October 2003

Field work began on our third reforestation project at Cedar Creek Natural Area, on Brick Granary rd. in Sussex County.



May 2004

After an exhaustive application process with the IRS that required numerous revisions and addendums, we were finally awarded our 501(c)(3) non-profit public charity status.



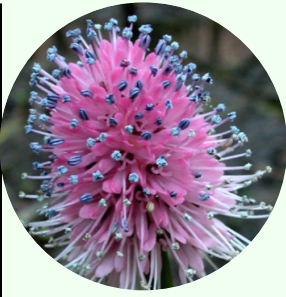
1 May 2006

The second edition of our native plant booklet was printed and delivered. The third edition was printed and made available on 28 January 2020.

Many Thanks

writing, reflecting, enjoying and reading...

Continued on next page...



Our application for the Adopt-A-Wetland program was accepted and we became the proud owners of a trio of wetlands in the newly created Big Oak Park south of Smyrna. The official dedication was on Sep 30th.

Aug & Sep 2006



11 December 2007

The third evolution of our website began production. It was at this time that we also got a refresh of our mascot plant designs, and our logo was created.



We turned over management of the native plant nursery to the St. Jones Reserve. They continue to use it for growing plants for their own conservation projects to this day.

Spring 2011



28 September 2013

This was the last native plant sale that the DNPS hosted. This one was in conjunction with the 20th anniversary of the St. Jones Reserve.



After many months of preparation between the DNPS and multiple partners, we held a celebratory kick-off event for the new Delmarva Branch of The American Chestnut Foundation.

11 October 2014



28 October 2017

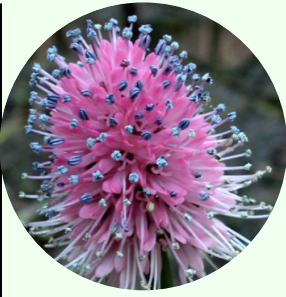
First day of field work in our partnership with the University of DE to renovate the demonstration garden at the Hugh R. Sharp Campus in Lewes. Originally constructed in 2004, the habitat needed some care and attention.



Many Thanks

and our native plants as they are seeding-in...

Continued on next page...



The fourth evolution of our website was finalized with the transfer of our domain to a new host; Wordpress.

The website was redesigned from the ground up. We also got another refresh of our mascot plants.

19 December 2018



9 November 2019

Pollinator habitat creation was the theme. A handful of volunteers descended on the Univ of DE Lewes flower garden, and we began the transformation of a forgotten piece of the old space into a new habitat, and we created a new wet meadow too.

Working with the Div of F&W, and the Sussex Regional Biologist, we began vegetation management in our 1st reforestation site at PHWA. We coined it the Sweetgum Mitigation Project. Cutting out gum and planting in more oaks & hickory.

19 October 2020



6 May 2022

Working with the DNERR Preserves Manager, and their conservation techs, we began a Sweetgum Mitigation Project in our 2nd reforestation site at Blackbird Creek. Again cutting out sweetgum and planting in more oaks & hickory & native shrubs.

We officially began a new habitat creation project. It is a partnership with the City of Dover, DE, to do a restoration of the pond in Dover Park to turn it into a wild-life pond with habitats for pollinators and many aquatic species.

24 January 2023

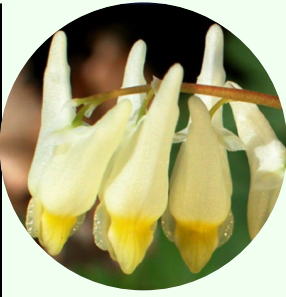


The future...

Who knows what adventures we'll get ourselves into. Got any ideas for us?

here's to more projects yet to be realized!





SPECIAL ANNOUNCEMENT



Introducing a brand new habitat creation project!



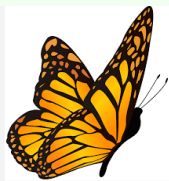
On 24 January 2023, the DNPS solidified a partnership with the City of Dover, DE to restore the stormwater retention basin at the northwest end of Dover Park and turn it into a wildlife pond full of native shrubs and wildflowers. The pond plantings will include floating and emergent wetland species and a buffer of upland species, all with a focus on pollinators and aquatic invertebrates.



Restoration activities will include cleaning up debris and trash, maintenance to the pond itself including dredging to DelDot specifications, cleaning out the inlet and outlet pipes, removal and reorganization of rocks at the outlet pipe, algaecide treatments, and cutting down tree stumps left from a previous clearcutting episode. Then, we will have volunteer planting events which will be announced at later dates as they are scheduled over at least the next two years.



We hope you all join us in our mission to make this a wonderful new habitat in a world where native plants and pollinators can use all the help we can give them!





Something Precious

William A. McAvoy

Box huckleberry (*Gaylussacia brachycera*) is an evergreen, dwarf shrub in the Heath Family (Ericaceae), which includes such species as blueberries (*Vaccinium*), and azaleas (*Rhododendron*).

The box huckleberry is rare in Delaware and is known only from a few locations in Sussex County. In fact, the species is globally rare, where it is found in the Mountains of Pennsylvania, West Virginia, Virginia, Kentucky, Tennessee, and North Carolina. On the Atlantic Coastal Plain, the species is known only from Delaware, and one location on the Western Shore of Maryland. Box huckleberry grows from 6 to 12 inches tall and forms large, widely spreading colonies.



The flowers of box huckleberry are self-sterile, meaning that they are not capable of producing seed without being cross-pollinated by another population or colony that is genetically different. Many of the populations within the species range are isolated from other populations, so fertilization does not occur, and fruit does not develop. Growth within isolated populations is strictly vegetative, which means that extensive, subterranean creeping stems continue to slowly grow-out from the edges of the colony. These populations are clones, so all the plants in the entire population are genetically identical, and thus, one individual plant. There are clonal populations of box huckleberry in Pennsylvania that cover many acres and are thought to be thousands of years in age.





ACHOO!

Emma Brown

Spring is here, and so is the pollen! Trees are flowering earlier and earlier each year– with wind-pollinated trees releasing that fluffy stuff that gets caught in our nasal passageways and makes us sneezy and watery-eyed. Consider a new perspective - that the pollen grains that afflict our respiratory systems are beautiful and as unique in shape and texture as the plants that produce them.

Palynology is the study of pollen present and past. There are many modern and palaeobotanical applications. Taking a simple look at a pollen grain, a given unit is referred to by the number of parts it possesses at the stage it is released into the atmosphere as fully-formed pollen granules. Monads are singular units (“mon” meaning “one,”) though often they are originally from a larger grouping, which are typically in multiples of two. Dyads (“dy” as in “two”) and tetrads (a group of four, “tetra,”) are commonly present among plants. The “exine” is the protective surface of the pollen grain, described by grooves, textures, or smooth surfaces, and the distinctive shapes of the “apertures” or openings pock-marking the exine also help to distinguish between grains of different species. There are several excellent online pollen libraries - resources containing microscope imagery of pollen grains. Although several academic institutions curating these digital libraries are located in Europe, some listings are of North American native plants. Though provenance is not specified, (there are no guarantees the pollen was collected from Delawarean plants,) the imagery gives us a good idea of pollen for a given species. Just as a maple leaf is characteristically lobed, so is maple pollen a rounded triangular monad, such as in *Acer negundo*. *Pinus strobus* pollen catches the wind, the curvature of “sunken” apertures loosely resembling that of a common cheese puff. Photographs of *Typha latifolia*, for instance, show classic tetrads. The much-less-sneeze-inducing insect-pollinated *Rudbeckia laciniata* produces monads with echinate (spiny) exines. Though *Lilium superbum* is not found in the PalDat database, other *Lilium* species generally have elliptical grains with furrowed exines. I highly recommend that you take the time to explore the variety and uniqueness of pollen from your favorite DE native species!

Favorite Source: PalDat Palynological Database - Austria - <https://www.paldat.org/>

Other Sources:

[Arizona State University Pollen Gallery](#)

[Science and Plants for Schools Pollen Image Library](#) Gallery - UK





Time for a Field Trip!

The Delaware Native Plant Society Members Field Trip to Bowman's Hill Wildflower Preserve

Near New Hope, Pennsylvania
Saturday, April 22, 2023



Transportation will be provided:

Leave NCC at 10:00 a.m. and return by 6:00 p.m. (90 minute drive). Van provided - meet in parking lot of Planet Fitness across from New Castle County Airport on Route 13.

You pay Entry Fee of \$12.00. Bring your own lunch to eat in the picnic pavilion.

Public guided tour begins at 2:00 p.m. Feel free to explore on your own.

Native Plant nursery will be open for sales. Please bring pot-tags so you can identify plants if bought at the sale.

Register your attendance by April 14th, by emailing rick.mickowski@delaware.gov In the event of heavy rain, we will postpone this event to another time.



Congratulations to Nancy Kassner who won the latest installment of
"Baffling the Botanists!"

The correct answer was: *B. Orthotrichum stellatum*– bald bristle moss

We are taking a brief break from baffling botanists
to botanize at Bowman's!



Events & More

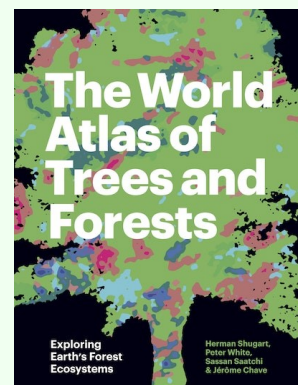
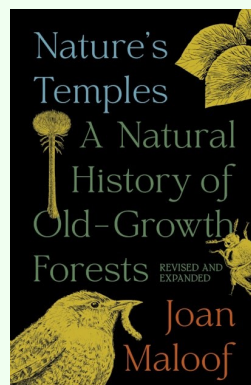
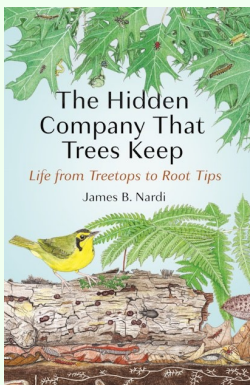
- April 8 [Plants & Landscape Design for RainScape Gardens](#) at Brookside Gardens Visitor's Center in MD 10AM-12PM \$25. Registrants receive native plants to take home.
- April 15 [Foraging Workshop at Coverdale Farm](#) 10AM-12PM \$35 (M: \$25)
- April 19 [Native Species Commission Meeting](#) via Zoom at 10 a.m. Open to the public.
- April 21 [Wilmington Earth Day at Cool Spring Park](#)
- **April 22 DNPS Earth Day Field Trip to Bowman's Hill Wildflower Preserve**
- April 29 Visit us at [Ag Day at UD](#) and buy some natives at the [UD Botanic Gardens Sale](#)
- May 6
[White Clay Creek Fest](#) at WCC State Park
[Water Family Fest and Native Plant Sale](#) at James Farm Preserve in Ocean View
[Delaware Nature Society Native Plant Sale](#) at Coverdale Farm Preserve
- June 3 [Newark area Garden Tour](#) by Delaware Center for the Creative Arts
- [Kent County Master Gardeners Native Plant Workshops](#) April & May Mondays -Live & Zoom
- [Mt. Cuba Center Classes](#)
- [Green Drinks Online](#)– Virtual BYOB Discussions the 3rd Monday every month

Many Thanks

To Jim MacKenzie, President of Octoraro Native Plant Nursery, for your generous donation to the Delaware Native Plant Society to help us celebrate our 25th anniversary!

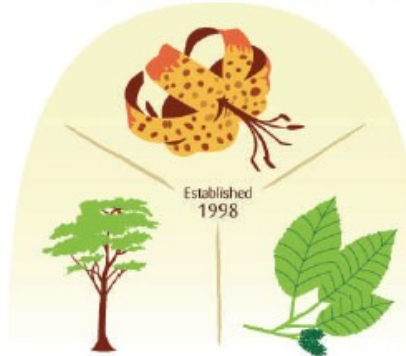
Princeton University Press Reading Recommendations:

- The Hidden Company that Trees Keep: Life from Treetops to Rooftops- James B. Nardi
- Nature's Temples: A Natural History of Old-Growth Forests - Joan Maloof
- The World Atlas of Trees and Forests: Exploring Earth's Forest Ecosystems - Herman Shugart, Peter White, Sassan Saatchi, and Jérôme Chave





MEMBERSHIP APPLICATION



DELAWARE
Native Plant Society

Membership is for 12-months, after which we send you a renewal notice.

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00

Donations are also welcome _____

Membership benefits include:

-  Our quarterly newsletter-*The Turk's Cap*, and website resources
-  Tips and tricks on gardening and landscaping with native plants
-  Annual workshop, symposium, and project work days

Member Information

Name: _____

Organization: _____

Full Mailing Address: _____

Phone Number: _____

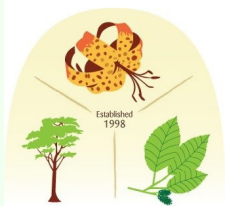
Email: _____

Please make checks payable to:
Delaware Native Plant Society
P.O. Box 369
Dover, DE 19903

Photography Index (on page 1 from top to bottom):

- *Salvia lyrata* – lyre-leaf sage
- *Helonias bullata*– swamp-pink
- *Dicentra cucullaria*– Dutchman's breeches
- *Gaylussacia brachycera* - box huckleberry
- *Dirca palustris* - Eastern leatherwood
- *Veratrum viride* – American false hellebore
- *Lilium superbum* – Turk's cap lily

Photographs courtesy of David G. Smith at www.delawarewildflowers.org



The Turk's Cap

Volume 26, Number 2

Summer 2023

The Newsletter of the Delaware Native Plant Society



Letter from the President



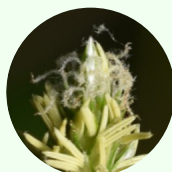
DNPS Planting Projects Progress



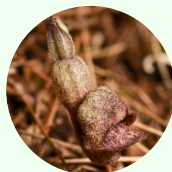
Field Trip Highlight: Bowman's Hill Wildflower Preserve



Sweetbay Magnolia Makes Scents



Sedge Talk with Bill McAvoy



Baffling the Botanists



Events & More

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Letter from the President

Eric Wahl, President

Summer is finally here, and along with it the Delaware Native Plant Society has new projects in the state.

We are very excited about a storm water pond restoration project taking place in Dover. You can read all about it further in the newsletter. DNPS is also working on other projects that includes invasive species removal and tree plantings. Keep an eye for these projects and more through our newsletters, membership emails, and social media posts.

We are beginning to plan for our Annual Fall Symposium. We should have a date and location in the near future, and we will be sure to send out information as soon as it becomes available. Our symposium is always popular and well-attended.

Thank you to all our members and supporters. Our organization depends on you to be a success and to extend our mission throughout the state. If you are interested in volunteering with one of our projects, please do not hesitate to contact us.

Stay safe and let's garden together!

Eric Wahl

Connect with the DNPS on [Facebook](#)

Or find us at:

<https://delawarenativeplants.org/>





Progress Update on our Dover Park Wildlife Pond Project

Article and Photographs by Eric Zuelke

The first day of fieldwork was completed on 14 April 2023. Water samples were taken for quality analysis, a fish survey was performed, and with the help of three Dept. of Parks and Rec employees, a small excavator was used to move rocks from around the pond outlet area to create two hardscape features, stumps were cut down to soil level, and a lot of trash, litter, and debris was removed. We also installed some small educational signs, and established a no mow zone that will be the edge of the wildlife habitat.

Since then, we have planted hundreds of individual plants from 17 species, and Eric Wahl and Rick Mickowski have come out to help plant. Most of them are doing very well and we have even had some bloom this season already, but the hydrology of the pond is dynamic to say the least and finding just the right home for certain species has been challenging.

Another challenge has been the amount of litter and trash that has accumulated since the pond was built in 1993. We have removed 15 bags of trash weighing approximately 150 pounds from this site so far. The trash has come from people throwing it into the site on purpose, and the wind blowing it in. Much of it is buried in the soil and as we dig plants in, we pull trash out. We are hoping that as the habitat matures, the community will accept it as a good looking place that should not be littered on!



14 April 2023, just before work began.



Creating hardscapes



Shipped plants



Rick planting *Iris versicolor*



Planting *Pontederia cordata*





7 July 2023, covered in duckweed (*Lemna* sp.)



Pontederia cordata



Lobelia cardinalis



Mimulus ringens

We've also seen 17 species of animals using the pond so far as well, including some very exciting dragonflies.





Field Trip Highlight: Bowman's Hill Wildflower Preserve

Article and Photographs by Eric Zuelke

We have been slowly celebrating our 25th anniversary year and our first little party was a trip to Bowman's Hill on 22 Apr 2023. A total of six DNPS members all met in New Castle County and took a 15-person passenger van up north and spent the day wondering at all the amazing plants, and buying a bunch of those plants also. Here's some highlights:







Sweetbay Magnolia Makes Scents

Article and Photographs by Pamela Crowe



In late May and June, my sweetbay magnolia tree (*Magnolia virginiana*) pleases me more than any other tree on my property. And I don't even need to see it! I simply need to inhale the fragrance that spills from its creamy white flowers. Like porcelain demitasse cups, the flowers perch on the branch tips of the 30-foot tree and produce a fragrance that smells (to me) like rose with a hint of lemon. The volatile organic compounds that make up the scent evaporate into the air around the tree, where I like to hangout when the tree is in bloom. In addition to me, the scent attracts a range of pollinators, including swallowtail butterflies, moths and beetles. The insects attract birds seeking caterpillars for their chicks. The fruits of sweetbay provide food for woodpeckers, tanagers,

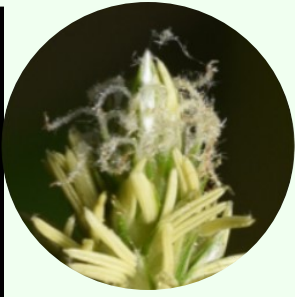


grosbeaks, cardinals, and finches. Sweetbay also provides nest sites, cover for wildlife, and it is the host for sweetbay silkmoth.

Considering all the ecological services that sweetbay magnolia offers, it makes sense to welcome this tree to a spot in your landscape for flowers, fragrance, shade and screening. Not to mention aromatherapy!

The genus name, *Magnolia*, is in honor of Pierre Magnol, a botanist from the 17th century. The specific epithet, *virginiana*, means “of Virginia.”





Sedge Talk with Bill McAvoy

By Sam Hoadley

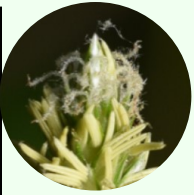
© 2023 Sam Hoadley, Mt. Cuba Center

I recently had the privilege of sitting down with Bill McAvoy to talk about sedges in the state of Delaware. In his role as Delaware's state botanist, Bill has spent the past 32 years studying the First State's native flora and habitats. Bill is an expert on the sedge plant family (Cyperaceae), which includes the genus *Carex*, and played an instrumental role in the planning and execution of the recently completed *Carex* trial at Mt. Cuba Center.

"I find sedges to be really fascinating plants," says Bill, "they are the types of plants that I will seek out when doing field work." Bill attributes his fondness for sedges partially due to their natural beauty, which he finds particularly striking in their often-overlooked details. Identifying sedge species can be challenging unless you know where to look. Close inspection of the seeds, or achenes, is often required, as they are frequently the most diagnostic feature of sedges. In those tiny seeds are shapes and structures that are both fascinating and beautiful.

Bill has tallied nearly 250 different taxa of sedges from ten different genera in the state. *Carex* is the largest of these genera, with 137 species found in Delaware. Forty-three percent of Delaware's native sedges are considered rare or uncommon, including one species of *Rhynchospora* that is federally threatened. Several sedge species are near-endemic to the state, meaning that they occur nowhere else but in Delaware and a few surrounding states.

Many sedges grow in unique and interesting habitats that are high in plant diversity, and these habitats often host other rare plants. Delaware is located in the Delmarva Peninsula along with the eastern reaches of Maryland and Virginia. Bill describes the convergence of these three states as a place with high habitat and plant

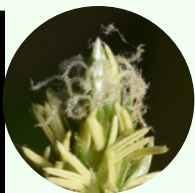


Carex intumescens Rudge and *Carex crinita* Lam var. *crinita*
Photos courtesy of delawarewildflowers.org

diversity. The area acts as a crossroads where species from both the northeastern and southeastern United States overlap; though the flora of the Delmarva Peninsula shares more in common with the plants of the south than those of the north. The rarity of some northern species in the area is a result of them having reached the southern limits of their geographic ranges; those same plants may be more common in other areas of their natural distributions.

Due to the rarity of some of these sedges in Delaware, Bill has actively worked to conserve several species, including one unnamed species of *Rhynchospora*, also known as beaksedge. This *Rhynchospora* species is exceptionally rare and is currently known to occur in just a few seasonally flooded wetlands in Delaware and Maryland. Bill was able to collect seeds from this imperiled sedge and delivered them to the greenhouse team at Mt. Cuba Center. Here, the team germinated the seeds and grew the plants until they were large enough to be transplanted back into suitable habitat in Delaware. Those reintroduced plants are now thriving and have resulted in a stable and growing population.

An additional example of Bill's proactive sedge conservation involves another unnamed



species, this one in the *Carex* genus. This *Carex* was described in the 1800s and was identified as an established species. It has since been determined to be a unique plant that only occurs in northern Delaware and in a few locations in eastern Maryland and southeastern Pennsylvania. One small population of this novel species was under extreme threat from encroaching invasive species, so Bill collected plant material to be propagated at Mt. Cuba. The established plants were then transplanted back into a suitable site, free from invasive species, resulting in a healthy new population of this rare *Carex* species in Delaware.

To conclude the interview I asked Bill, “Why should people care about and garden with *Carex*?” Bill responded by saying, “for the same reasons you would want to plant or promote the use of any native plant. They are part of the ecosystem and part of the chain of species diversity. They are often associated with other wildlife species including insects that require that plant to complete their life cycles and to survive. You are also able to preserve a part of Delaware’s nature heritage and native flora in your garden.”

This article is provided courtesy of [Mt. Cuba Center](#), a nonprofit botanic garden based in northern Delaware that is committed to the conservation of native plants.

To visit the original article, click [HERE](#)





Baffling the Botanists



I'm known as celandine poppy
I look like my non-native cousin, greater celandine (*Chelidonium majus*)
My flowers are much bigger than both greater and lesser celandine (*Ficaria verna*)
I form a groundcover along the forest floor and bloom in spring
Chipmunks love to eat my fruits
I'm in the poppy family (Papaveraceae)
Who am I?

Email your guess to plantearthfire@gmail.com by July 20th for the chance to win a prize!





Events & More

- Delaware Native Plant Society Planting Projects
Check out our [Facebook](#) page and stay tuned for details!
- [Delaware Botanic Gardens Tours](#) with the Director of Horticulture
- [Delaware Cooperative Extension & Master Gardener Workshops](#) -Live & Zoom
- [Delaware Nature Society](#) Programs and Events, Day Hikes, Night Hikes and Summer Camps!
- [Green Drinks Online](#)– Virtual BYOB Discussions the 3rd Monday every month
- [Mt. Cuba Center Classes](#)

Many Thanks

To Lynda Schafer, for your generous donation to the Delaware Native Plant Society on behalf of the marriage of Emma Brown to Nicholas Johnson!

Requests!

Just across the Delaware border into Pennsylvania sits the little “Landenberg Store,” minutes away from Newark. A very interesting request was taped to the countertop of the sweet shop & deli. “Beekeepers looking for unsprayed sumac seedheads. We will harvest.”

With just a phone number and a “Landenberg Gold” insignia, I had to call. The beekeeper described that she’s looking for *Rhus typhina* seed heads to burn in the smokers for the bees, helping them to control Varroa mite pressure and manage the bees for the making and harvesting of honey.

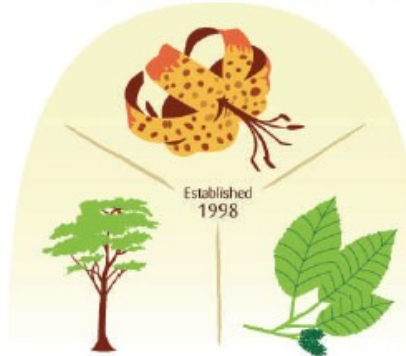
Contact carynlh@comcast.net if you have a patch of staghorn sumac away from roads and that isn’t sprayed with pesticides, and are willing to share some seed heads.

You can also find their Landenberg Gold Honey at the Newark Arts Alliance in Newark, DE.





MEMBERSHIP APPLICATION



DELAWARE
Native Plant Society

Membership is for 12-months, after which we send you a renewal notice.

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00

Donations are also welcome _____

Membership benefits include:

-  Our quarterly newsletter-*The Turk's Cap*, and website resources
-  Tips and tricks on gardening and landscaping with native plants
-  Annual workshop, symposium, and project work days

Member Information

Name: _____

Organization: _____

Full Mailing Address: _____

Phone Number: _____

Email: _____

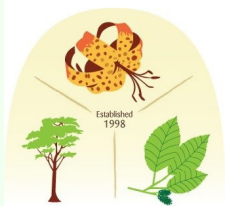
Please make checks payable to:
Delaware Native Plant Society
P.O. Box 369
Dover, DE 19903

Photography Index (on page 1 from top to bottom):

- *Botrypus virginianus* – rattlesnake fern
- *Gleditsia triacanthos* – honeylocust
- *Polygonatum biflorum*– Solomon's seal
- *Desmodium canadense* - showy tick-trefoil
- *Carex cephalophora* - oval-leaved sedge
- *Endodeca serpentaria*– Virginia snakeroot
- *Lilium superbum* L.– Turk's cap lily

Photographs courtesy of David G. Smith at www.delawarewildflowers.org





The Turk's Cap

Volume 26, Number 3

Autumn 2023

The Newsletter of the Delaware Native Plant Society



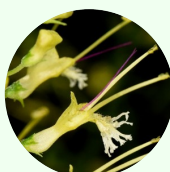
Letter from the President, Symposium, Events, Baffling Botanists, & More!



DNPS Sustainable Communities Grant!



Plant Highlight: *Callicarpa americana*



Wilmington Pollinator Gardens



Little Free Native Gardening Library



Fall Leaf Calligraphy

DNPS Officers

President:

Eric Wahl

Vice-President:

Rick Mickowski

Treasurer:

Eric Zuelke

Secretary:

Emma Johnson

DNPS Mission Statement:

Founded in March 1998, we are a volunteer-based, publicly supported non-profit organization dedicated to the conservation of native plants and their natural habitats through education, science, advocacy, and land stewardship.

Discover more at: <https://delawarenativeplants.org>





Letter from the President

By Eric Wahl, President

Hello members! Is it really autumn already? That must mean our annual symposium is nearing. And the perfect time to reiterate the reasons why we use native plants in our landscapes. Native plants play a vital role in maintaining biodiversity, as they have evolved to thrive in their specific regions. They provide habitat and food for local wildlife, support pollinators, and require less maintenance, reducing the need for pesticides and excessive water. Moreover, they help combat climate change by sequestering carbon and reducing the energy needed for upkeep.

By incorporating native plants into our gardens and green spaces, we not only enhance the natural beauty of our surroundings but also contribute to the health and resilience of our ecosystems. Let's embrace the use of native plants, take a step towards a more sustainable and harmonious environment, and spread our mission.

To that end, consider attending our annual symposium on November 4th. You should have received correspondence with registration information. This is a popular event and this year we are back at the visitors center at Bombay Hook National Wildlife Refuge.

Eric Wahl

Connect with the DNPS on [Facebook](#)

Or find us at:

<https://delawarenativeplants.org/>

This issue's interviews conducted by Emma Johnson, DNPS Secretary & "The Turk's Cap" Newsletter Editor



Events

WHAT?
OUR SYMPOSIUM!

WHEN?
SATURDAY
NOVEMBER 4th!

WHAT TIME?
10AM!

WHERE?
BOMBAY HOOK
VISITORS CENTER!

The Non-Tidal Wetland Flora and Habitats of Delaware

The Delaware Native Plant Society and the Friends of Bombay Hook welcome botanist, Bill McAvoy, to speak at our Annual Symposium. This presentation will describe the various non-tidal wetland habitats that are found in Delaware and include the diversity of plant life that these habitats support. Additionally, the rare plant species of non-tidal wetland habitats will also be discussed.

Bill McAvoy is the botanist for the Delaware Dept. of Natural Resources, Division of Fish & Wildlife, and has been in this position for over 30 years. Bill is responsible for documenting the flora of Delaware, with an emphasis on rare species. Bill conducts botanical research not only in Delaware, but throughout the Delmarva Peninsula, and has published a number of botanical research papers.

We will also discuss the progress and status of our initiatives throughout Delaware.



DNPS & The Friends of Bombay Hook
present

2023 Annual Symposium

WHAT: 2023 Annual Symposium
WHEN: Saturday, November 4th at 10:00 a.m.
WHERE: Bombay Hook Visitors Center, Smyrna Delaware
RSVP: Registration Required email ewahl@pennoni.com
Light refreshments and Lunch will be provided.



- Delaware Native Plant Society Planting Projects
Check out our [Facebook](#) page and stay tuned for details!
- Monday October 16, 6:15-7:45PM, [Green Drinks Online](#) Virtual Meeting on Electric Cars in DE
- Friday October 20, 7:30AM-5PM [Perennial Plant Conference](#), Scott Arboretum of Swarthmore College
- Saturday November 11, 10-11AM [DuPont Environmental Education Center](#) Happy Hiking
- Thursday November 16, 8:30AM-3PM Delaware Nursery & Landscape Association [Ornamental & Turf Workshop](#)
Featuring lectures:
 - Native Pollinators of the Mid-Atlantic - Stoneleigh Gardens
 - Solution-Driven Plants, Tried and True with a splash of New - North Creek Nurseries
- [Delaware Botanic Gardens Tours](#) with the Director of Horticulture
- [Delaware Cooperative Extension & Master Gardener Workshops](#) -Live & Zoom
- [Delaware Nature Society](#) Programs and Events
- [Green Drinks Online](#)- Virtual Discussions the 3rd Monday of every month
- [Mt. Cuba Center Classes](#)

Requests!

Landenberg Gold Honey Beekeepers looking for staghorn sumac seed heads! Must be away from roads & pesticide sprays. Have sumac? Contact: carynlh@comcast.net

Find Landenberg Gold Honey at the Newark Arts Alliance in Newark, DE.



DNPS Sustainable Communities Grant! Woohoo!

Our Projects Manager and Treasurer Eric Zuelke has been working hard on projects on behalf of our society. The Delaware Native Plant Society is proud of Eric's diligent devotion to all of the restoration and planting projects. To buy more plants and feed our volunteers, he applied for and received a grant!

Courtesy of the Delaware Nature Society, in partnership with Delmarva Power, the Sustainable Communities grant was awarded October 5th, at the DuPont Environmental Education Center (DEEC) at the Russell W. Peterson Wildlife Refuge in Wilmington. The ceremony began with a tribute recognizing this area as the historic Lenapehoking, homeland of the Lenape people, and continued by awarding grants to community garden, disaster relief, school garden program, wild lands organizers and outreach coordinators who will each use their grant funds for the continued development of their respective programs throughout the state of Delaware.

Eric's grant proposal focused on our Dover Park Wildlife Pond project—over the next few years, the goal is to increase biodiversity in the pond by adding native plants to create and improve habitat for native wildlife. In the grant proposal, Eric explains, "The first day of field work was on 14 April 2023, and we have planted approximately 500 individual plants of 13 species so far. However, there is quite a bit of seeding and planting still to do and this grant will allow us to meet our vision for the site." The project began with cleanup of the site, and in future, the success of the project will be measured by observing the variety of animal species that utilize the space's resources and as a home.

Eric plans to add these plants to the site during the remainder of the 2023 field season and in the spring of 2024. The species will be introduced as seeds and plugs:

- *Asclepias tuberosa* (butterflyweed)



Eric (middle) receiving the grant from Delmarva Power (left) and Delaware Nature Society (right) executives.

Photo courtesy of Rick Mickowski



The view from the 4th floor DEEC conference room

Photo courtesy of Emma Johnson

Continued on next page...



- *Carex lurida* (sallow sedge)
- *Carex vulpinoidea* (fox sedge)
- *Helenium flexuosum* (purple-head sneezeweed)
- *Lobelia cardinalis* (cardinal flower)
- *Monarda punctata* (spotted beebalm)
- *Rudbeckia hirta* (black-eyed susan)
- *Sagittaria latifolia* (arrowhead)
- *Schoenoplectus tabernaemontani* (softstem bulrush)
- *Solidago nemoralis* (gray goldenrod)
- *Symphotrichum novae-angliae* (New England aster)

We have had good luck so far with the plants installed in the spring of this year. There has been some mortality, but overall, the plants look good, and some are even blooming right now!

Please volunteer with us!

Contact ezuelke@juno.com to sign up!



Dryophytes cinereus, an American green tree frog, discovered inside a tree tube shelter at our Blackbird Creek Reserve reforestation site; another project location Eric works hard to care for to provide habitat for species like this one!

Photo courtesy of Eric Zuelke



Grant awarders and awardees in a group photo!

Photo courtesy of Rick Mickowski





Plant Highlight:

Callicarpa americana (American beautyberry)

By Olivia Hazelwood, Student of Plant Science



Callicarpa americana L. photo courtesy of
[NC State Extension](#)



Callicarpa dichotoma (Lour.) K. Koch
photo by Olivia Hazelwood

The sight of the beautyberry bush may have caught your eye before. Native to the southeastern United States, the most striking feature of *Callicarpa americana* is its abundance of vibrant violet berries. These grape-like orbs adorn the drooping branches in summer and persist all the way into late fall, forming a vibrant contrast against the bush's elliptic yellow-green leaves. The beautyberry truly lives up to its name.

Its small pink self-pollinating flowers bloom around June but are rather inconspicuous. Additionally, ornamental varieties have been bred to boast white and pink berries. Not only do these berries provide beauty, but they also provide ground cover for other plants and serve as a food source for local birds and other critters. This native is extremely low-maintenance, growing in sun or shade and only needing to be pruned each year to maintain its shape. For these reasons, the beautyberry is a popular choice for an ornamental landscape bush.

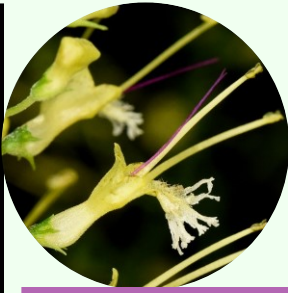
As part of my research on this native plant, I found a bush with ripe berries on the University of Delaware's campus (outside of Smith Hall) and tried a few. The berries had a mildly sweet and astringent taste, and the singular seed inside each berry was small, very brittle, and lightly crunchy. I was pleasantly surprised by the fact that they're edible and tasty. But it's generally recommended to eat them in moderation and not by the handful. The berries can also be made into jam, jelly, or wine.

It is a member of the mint family and the leaves have historically been crushed and rubbed on the skin to be used as insect repellent. Recent research has lent credibility to this tradition, confirming the leaf essential oils contain mosquito-deterrent properties. Additionally, current studies are working towards more fully elucidating the potential pharmaceutical applications of beautyberry's molecular components.

I hope this highlight allowed you to further appreciate the rich legacy of the beautyberry and its role as an awesome native plant!

Editor's note: *Callicarpa* species are very similar. How to tell them apart? The SE native has tighter fruit clusters, larger leaves, and a growth habit that is taller than wide. There are no species of *Callicarpa* native to Delaware.





Wilmington Pollinator Gardens

An Interview with Kerry Wilson, DNS Habitat Outreach Manager

WHYY recently released an article on the 27 new pollinator and food gardens to be established in Wilmington, thanks to grant-writing, organization and outreach efforts headed and coordinated by Kerry Wilson, the Habitat Outreach Manager for the Delaware Nature Society. Kerry's job is to connect the public with nature. The gardens she works to create in New Castle County serve communities, schools, and the environment. In Wilmington, nature can seem so far away, but humans are always part of nature, and our actions directly affect our environment. "A lot of this came to fruition because my job at DNS is Habitat Outreach Manager." Kerry explains she began working in Wilmington through the Sacred Grounds program of the National Wildlife Federation, partnering with the NWF, Delaware Center for Horticulture, Interfaith Power and Light program, and others, to install pollinator gardens on congregation grounds, creating designs based on what congregations envision for their space, and choosing native plant species to support wildlife and to build up the pollinator corridor, reducing heat island effect and alleviating stormwater issues by improving drainage through the design of the gardens. More projects evolved through Kerry's work, so she decided to seek funding to be able to help communities come up with habitat spaces of their own, rather than just providing consultation and walking away, which is how many urban garden efforts have worked in the past.

Kerry is working closely with Roshida Austin of Habitat for Humanity in New Castle. Kerry assisted with a plant list and pollinator garden design in a recent lot project in the Northeast, Wilmington. Most of the projects the grant will serve are in Southbridge, the East Side, West Center City and the Northeast.

Kerry's current and upcoming projects under the new grant:

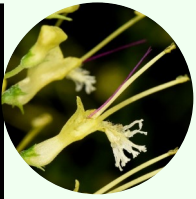
- East side: St. Michael's School & Nursery - Developing habitat spaces in the schoolyard for nature education and exploration.
- Wilmington: pollinator garden, Northeast and East Side backyard habitat spaces and lot project in Edgemoor.
- East Side & West Center City: two educational nature exploration & discovery gardens.

Projects supported by other grants:

- Buttonwood School & Museum: pollinator garden across the front of the school, funded by the US Fish & Wildlife Service grant, will bring them in "to Delaware's pollinator corridor story"
- Wilmington's Kirkwood Park: behind Stubbs Elementary School, four formal garden plots are being planted with native pollinator-supporting species, students will be able to use the gardens as a curriculum resource
- Wilmington's Haines Park: creation of an outdoor classroom, adding understory groundcover, grasses and shrubs in lieu of lawn beneath trees in the park

Kerry listens to the community's needs in the garden development plans. "Projects are very community-based, [we] see what they want to achieve with the gardens and make those ideas come to life. For the urban environment, it's more than getting some pollinator gardens in the ground, some of the bigger issues are also being tackled... [we] need to be a little more cognizant of how humans will be interacting with the space so that it's utilized and cared for... of a lot of these communities are looking for beautification in their neighborhood. As native plant enthusiasts... it's about caring about the native plants but also about caring about the humans in that environment as a priority. It's joyful work when you get to go out and you get to know a whole community of people and they welcome you into their neighborhood and allow you to work with them. I think it's a real honor when you're able to do that. It's not always easy but it's really good work and when it

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all comes together it's a good celebration point as well." Kerry loves when people get excited about plants and gardens and when people share their excitement about the plants. It's a motivational feedback loop- "people make you really want to do the work when you speak with them and they're excited and then you start getting excited!"

In Southbridge, Kerry says they are doing nature-based solutions work with a community by helping to install rain gardens identified in the Southbridge neighborhood action plan and incorporating native plants, normalizing the use of native plants in the area so that people can really see the benefits of those plantings. Kerry notes that on the east side of Southbridge there is a very big mosquito problem- the wetland system has some of the worst drainage in New Castle County, and remediating the drainage with rain gardens is a crucial step in improving the mosquito dilemma.

When I asked Kerry about the use of straight-species native plants compared to "nativars," or cultivated varieties of native plants. "It would be great if we could just do straight species- when you're working in a highly disturbed environment, and installing gardens next to sidewalks or between a sidewalk system, you can't put in straight species that get to be six feet tall. I understand the taller plant has more surfaces [for pollinators and as a host plant] because of its height. When you have a cultivar like 'Little Joe' Joe pye weed, that plant is still providing those ecological services in a way that might be more sustainable in that urban environment." Kerry addresses that some nativars have been cultivated in ways that won't benefit wildlife, such as flowers that have changed their colors and are not recognizable to their pollinators, but if the plant is serving similar ecosystem functions to the straight species, like dwarf Joe pye, they will use it. For instance, she tries to not have plants that flop over. "If we are planting things that are not going to fit the expectation of the community they are not going to be sustained in the long run." Kerry knows that many people, particularly in urban settings, still believe the stigma that native plants appear to be weedy, "until you start gardening with them and seeing the wildlife and being more open to having your garden look a little more 'wild' - you have to first have that entryway in; it gives people the look they are looking for while still being able to provide those services for wildlife. It's hard to work with people if you are extreme; you have to meet people where they are. I can't be so strict in that way, but planting at a park system is a different scenario versus on a corner of a street." Kerry explains there are times for being very dedicated to "only Delaware species, but even coneflower isn't from Delaware, and I think it's okay because

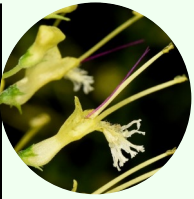
Top: *Eutrochium dubium* (Joe pye weed Willd. ex Poir.) E.E. Lamont

Middle: *Actaea racemosa* (black cohosh L.)

Bottom: *Solidago caesia* (blue-stemmed goldenrod L.)



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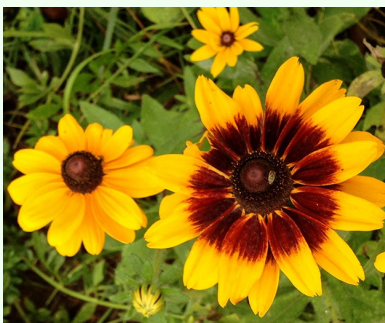
Above: *Asclepias incarnata* (swamp milkweed L.)

Below: *Asclepias tuberosa* (butterfly milkweed L.)



Above: *Aster ericoides* (white heath aster L.)

Below: *Rudbeckia hirta* (black-eyed Susan L.)



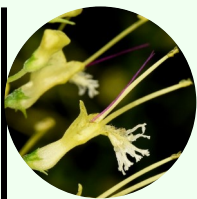
nature is not stagnant, that's just not how nature works, and our climate is changing and our world is changing, everything is so transient and that's going to happen with our plant systems as well."

But Kerry isn't necessarily a native plant purist "even in conservation," she says, "we want to work to get it back to what it should be, but I don't know if that's realistic." Kerry reminds us that in the city, most of the plants aren't readily escaping into wild systems. Reflecting on observations of her own garden, "you plant everything but then it finds where it works best. Part of the beauty of native gardening is letting go. We as humans have spent so much time fighting back nature- we can add things, we can still be dabbling in our gardens, but controlling them because we want them to look a certain way is an antiquated idea." Kerry has been watching her *Itea* spread and has decided to be okay with letting it grow. "I think there's a balance as with anything. Obviously you don't want to be bringing invasive things in," but using eco-regions as a resource is a good idea that Kerry stands by. She says it will help people when trying to buy native plants because many people buy them based on the common names. Common names can refer to multiple different plants, so having eco-region listed as an identifier can be very helpful.

It is also important to note that these 27 garden spaces are not exclusively pollinator gardens- they are food and pollinator gardens. Many of our practical small-garden high-yield food crops are not native to Delaware, but "you can't really separate those systems- the food system and the pollinator corridor...overlap" giving "relevance" to the community's work not just for the people of the community, but within the larger Delaware ecosystem - providing oases for pollinator species between infrastructure. She refers to these spaces as food community gardens with conservation plantings. As part of the grant work, Kerry will be connecting the staff of Delaware Nature Society's Coverdale Farm with the community members to whom these gardens belong. Coverdale staff will deliver educational programs to help community members to continue to grow their own gardens. "Gardening is a learning process- every garden is going to be a little bit different - [it's] really key to anyone, especially new people - you're never done learning with native plants or gardening in general!"

When asked what her go-to plants for conservation projects are, she said "one of the goals of this grant is to produce a list of plants that work well in an urban environment." For showy pollinator plants that are reliable in the increased warmth and compacted soil of the city, she often uses butterflyweed, and swamp milkweed, coneflower (*Echinacea*), bee balm (*Monarda*), and for shrubs, shad bush (*Amelanchier canadensis*), *Ilex verticillata* (winterberry holly), highbush blueberry (*Vaccinium corymbosum*). "We've done a lot of different woodies. I try not to stay too connected to any one." She tries to use plants that are typically underutilized to increase the diversity of the plantings, such as grasses that don't grow too tall such as tufted hair grass (*Deschampsia cespitosa*) and little bluestem

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(*Schizachyrium scoparium*), unassuming plants like horsebalm (*Collinsonia canadensis*) – a plant with very specific ecosystem services for specialist pollinators in part-shade habitat, and is also starting to use matrix plantings of low sedges (*Carex* species) beneath taller plantings for a green mulch layer even throughout winter.

Part of the challenge is the establishment process. Sheet mulching is a typical technique used overtop turf to suppress weeds and retain moisture. By adding organic matter during site preparation on top of the sheet mulch layer, you provide softer earth for the plants you want to grow, without disturbing the weed seed layer in the soil profile below. The plants are watered in at first, but many sites never get watered after that, aside from regular rainfall. This means plants have to survive through the summer drought without help. Typically, the survival rate is higher when planting projects are installed in fall- there is always some loss, but the moisture of winter and spring gives the plants a longer period of adjustment to be ready for summer stress. Blazing star (*Liatris spicata*) and black-eyed Susans have done particularly well in these cases. One of the garden spaces was hand-watered only about three times. In that garden Kerry put leaf mulch down at the start of the season, added triple shredded mulch on top, weeded a few times and left it alone, and the garden has done well on its own with plants that are well-suited to the space.

A few gardens have provided opportunities for shade plants – Valley Gardens is the oldest community garden in Wilmington, established in 1975. Kerry says conservation plantings have included many different ferns, black cohosh, and Pennsylvania sedge (*Carex pensylvanica*). *Heuchera americana* is a good shade garden plant, but is also “an absolute dream in a container, you’re supporting bees with that plant, I love the leaf on that plant,” and some other city garden spaces are entirely container gardens.

A plant that surprised Kerry is soft rush (*Juncus effusus*)- a wetland plant that is positively thriving in a horseshoe-shaped garden patch surrounded by concrete in full sun within the pollinator garden of Cab Calloway School for the Arts. Along with little bluestem, spiderwort (*Tradescantia virginiana*), blue-stemmed goldenrod, snow flurry aster (*Aster ericoides* ‘Snow Flurry’) and purple dome asters (*Symphyotrichum novae-angliae*), Kerry says “I can’t even describe how gorgeous that garden looks!”

Kerry says “there are opportunities for volunteerism, especially for people who want to work alongside community members in maintaining the gardens for whatever the needs might be.” To volunteer, contact kerry.wilson@delnature.org





Little Free Native Gardening Library

An interview with Rachael S., Botanical Bibliosoph

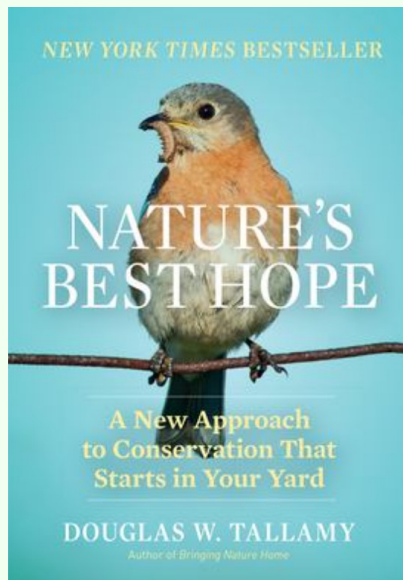
While bicycling around Newark, my husband and I love to pass by Rachael's library. It's hard not to stop and admire at her beautiful front yard filled with native plants. Even more eye-catching is the little library box she cultivates. It is entirely dedicated to the topic of gardening with native ecology in mind.

"I've been doing this for a couple years now," Rachael says. Rachael moved in to the neighborhood around 2020, and it became her first foray into gardening. "At the time I didn't know anything about gardening. This house was a blank slate—mostly grass, some things were overgrown—a lot of invasives actually, though I didn't know that at the time. I came across one of Doug Tallamy's webinars—I have to say it changed my life. I had no idea that native plants even existed."

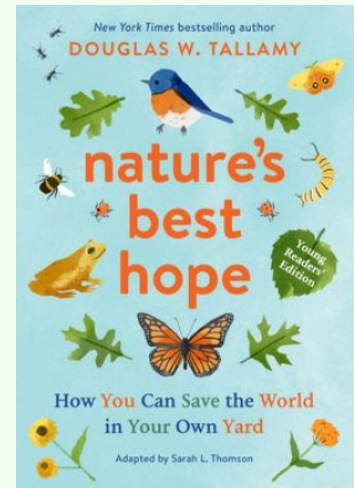
That was in October of that year- "I just went out right away and bought an aster. It was a cultivar. I still have it; it was my first attempt at a native plant." Rachael bought books to read to expand her knowledge on native plant gardening. She accumulated a lot of knowledge very rapidly, and a lot of reading resources! "It was so fun to read and plan for the garden in the spring." But she was running out of time in autumn to use her new knowledge. After reading the books, she decided to share her excitement with everyone. By December, she and her mother's joined forces to dig a hole and pour concrete for the base of the library. "I got my mom involved. I didn't know how to build a tiny library myself- we were digging a hole and putting cement in in December." Once installed, her mother also



Continued on next page...



Rachael's main source for books for the library, Betterworldbooks.com, has two versions of "Nature's Best Hope" listed; the original and one tailored to younger readers!



painted gorgeous wildflower designs on the sides of the box.

In spring and summer, Rachael worked hard on her garden to make it a dream come true. By the winter of 2021, she looked back on the year and felt pleased to really be making a positive impact with hard-earned improvements to the ecosystem in her yard. Thinking about other gardens, she knows many people have wildlife habitat signs installed in their yards but often she sees invasives popping up, and the signs don't really share with others how to get started on their own native plant journey.

Rachael's library works a little differently. Many little library boxes offer open exchange, where you can trade books on any topic. Rachael understands that people often want to take and keep the books, but also likes when people return them for other readers, labeling each book with the source location to encourage returning the books. It is of course dedicated to native plant gardening, and has signage that explains the purpose of the library, but sometimes people deposit books that are completely unrelated. Rachael moves them out of her library to keep the books on-theme, but the little library is not limited to books alone, and it's still evolving. "I had the idea to put the flyers in. I want to reorganize the little bin at the front of it with flyers that say 'please take one'...with vertical organizers to sort [the flyers] by topic, i.e. fall garden cleanups, turning off your lights during migration season. Just the other day there was a couple with their dog and they took a flyer. It's great to see people using the library."

When Rachael installed the library, her first order of business was to include the books that got her started. "The first thing I wanted to do was stock up on Doug Tallamy's books." "Nature's Best Hope" was her inspiration. His books "explain why native plants are important. The other books I buy are more about how to plant native plants. Over the years I've probably had 10 of Dr. Tallamy's books over that period. Buying some, some are taken, some get brought back but right now there are only two in the library...often it's filled but right now it's only a quarter filled." Rachael likes to restock her library in fall.

Rachael's library has a direct goal: "for anyone who has any interest at all in starting to use native plants and they don't know how to start...they can come grab whatever they find useful. Maybe they'll start planting more native plants."





Fall Leaf Calligraphy

An interview with Phyllis Harvey,
A Painter of Plants, *but not in the way you might think*

In Battery Park in Old New Castle, this year's Art on the Green had many craft vendors, but none as unique as Phyllis C. Harvey, a jovial woman with an unbe-"leaf"-able art style.

Her booth had one humble sign describing her beginnings as an artist- developing a passion for art at the age of nine, her Graphic Design degree from the Philadelphia College of Art, (now the University of the Arts,) and her preferred mediums of watercolor and pen and ink. It is with pen and ink that she illustrated the official Hagley Museum cookbook, and it is with pen and ink that, for the past 10 years (as of when the little sign was made,) she carefully renders the images of historic buildings in great detail directly on dried, pressed, and sometimes bleached leaves.

She does create art on leaves from around the world, as well as of places from elsewhere, but the pieces that stood out the most were the historic buildings from Delaware and nearby Chadds Ford on the leaves of sycamore, tulip poplar, oak and maple. Perceiving her art was like looking at a Wyeth painting flipped inside out - regional art that was as if the tree captured the humanscape, rather than the human capturing the landscape.

In some sense, it is very normal, the paper industry is a plant-based industry, and most paper was material from plants. But directly on delicate leaves, in their rawest form, is not raw or bold art. It is peaceful, calming, focusing, intricate, and introspective.



Continued on next page...



When asked about one of her pieces with a gazebo, she replied, “that’s at the du Pont Copeland estate”- and knowing Delaware history, I knew exactly what this meant. “That’s the Lammot du Pont Copeland gazebo! At Mt. Cuba Center! I’ve BEEN in that gazebo!” Needless to say, we felt a personal connection to the art piece and my husband and I bought the painting.

Phyllis sells her work already mounted and framed to protect the delicate leaves. The uniqueness, time, detail, and framing she puts into her work is well worth it. Most of the pieces we saw sold somewhere between \$35 and \$70. She doesn’t have a website and prefers to keep conversations one-on-one. She is a delight to talk to. If you are interested in purchasing her work or finding out more, contact me at plantearthfire@gmail.com and I will put you in touch.





Resources

DELAWARE NATURALLY'S Invasive Plant Alternatives

This law is intended to remove known invasive plants from commerce. These plants threaten natural ecosystems, reduce biodiversity and limit the services our natural lands provide us for clean water, wildlife, recreation and more.

Produced by the Delaware Native Species Commission

Shrubs

- Common privet (*Ligustrum vulgare*)
- Bayberry (*Myrica pensylvanica*)
- Inkberry holly (*Ilex glabra*)
- Summersweet (*Clethra alnifolia*)
- Japanese barberry (*Berberis thunbergii*)
- Fragrant sumac (*Rhus aromatica*)
- Eastern ninebark (*Physocarpus opulifolius 'Diablo'*)
- Fothergilla (*Fothergilla gardenia*)
- Winged euonymus (*Euonymus alatus*)
- Virginia sweetspire (*Itea virginica*)
- Blueberry (*Vaccinium corymbosum*)
- Red chokeberry (*Aronia arbutifolia 'Brilliantissima'*)

Vines

- Chinese wisteria (*Wisteria sinensis*)
- Trumpet honeysuckle (*Lonicera sempervirens*)
- American wisteria (*Wisteria frutescens*)
- Trumpet vine (*Campsis radicans*)

Trees

- Norway maple (*Acer platanoides*)
- Red maple (*Acer rubrum*)
- Scarlet oak (*Quercus coccinea*)
- American linden (*Tilia americana*)
- Callery pear (*Pyrus calleryana*)
- Carolina silverbell (*Halesia tetraptera*)
- Serviceberry (*Amelanchier laevis*)
- Washington hawthorn (*Crataegus viridis 'Winter King'*)

Delaware Naturally's Invasive Plant Alternatives

The Delaware Native Species Commission produced a list of native plants to use instead of non-native invasive plants

The Delaware Invasive Species Council produced an excellent PDF resource to read online: [Invasive Plants and their Native Lookalikes](#)

Partnership for the Delaware Estuary's [Native Seedlings Booklet](#) - Identify plants at their smallest!

Learn about the [Tree for Every Delawarean Initiative](#) (TEDI)

Groundcover

- Periwinkle (*Vinca minor*)
- Creeping phlox (*Phlox subulata*)
- Green and gold (*Chrysogonum virginianum*)
- Geranium (*Geranium maculatum*)
- English ivy (*Hedera helix*)
- Virginia creeper (*Parthenocissus quinquefolia*)
- Christmas fern (*Polystichum acrostichoides*)
- Wild ginger (*Asarum canadense*)
- Creeping jenny (*Lysimachia nummularia*)
- Barren strawberry (*Waldsteinia fragarioides*)
- Three-leaved stonecrop (*Sedum ternatum*)
- Hairy alum root (*Heuchera villosa 'Autumn Bride'*)
- Japanese pachysandra (*Pachysandra terminalis*)
- Allegheny pachysandra (*Pachysandra procumbens*)
- Golden groundsel (*Packera aurea*)
- Broadleaf sedge (*Carex platyphylla*)

MISTAKEN IDENTITY?
INVASIVE PLANTS AND THEIR NATIVE
LOOK-ALIKES



Scan this code with your smart phone to view the full publication!

DELAWARE INVASIVE SPECIES COUNCIL

DELAWARE INVASIVE SPECIES COUNCIL, INC.
Protecting Delaware's ecosystems by preventing
the introduction and reducing the impact of
non-native invasive species

Like us on Facebook!
@DEInvasiveSC
www.delawareinvasives.net



Baffling the Botanists

I am a tree with “two color” leaves - the tops of my
leaves are green, the undersides are white and
fuzzy
My spring flowers are catkins
My fruits are acorns
My habitat is in wet soils near water
Don't be fooled- this particular leaf ended up
being an odd shape!

WHO AM I?

- A. *Acer saccharinum* - sugar maple
- B. *Quercus bicolor* - bicolor oak
- C. *Liquidambar styraciflua* - sweet gum
- D. *Chionanthus virginicus* - white fringetree



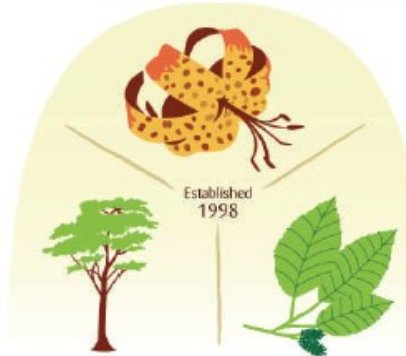
Email your guess to PLANTEARTHFIRE@GMAIL.COM by November 1st for the chance to
win a prize!



Previous quiz answer: *Stylophorum diphyllum* (celandine poppy)
No one guessed it! Can YOU figure out the mystery plant?



MEMBERSHIP APPLICATION



DELAWARE
Native Plant Society

Membership is for 12-months, after which we send you a renewal notice.

- ☐ Full-time Student \$10.00
- ☐ Individual \$15.00
- ☐ Family \$18.00
- ☐ Contributing \$50.00
- ☐ Business \$100.00
- ☐ Lifetime \$500.00

Donations are also welcome _____

Membership benefits include:

-  Our quarterly newsletter-*The Turk's Cap*, and website resources
-  Tips and tricks on gardening and landscaping with native plants
-  Annual workshop, symposium, and project work days

Member Information

Name: _____

Organization: _____

Full Mailing Address: _____

Phone Number: _____

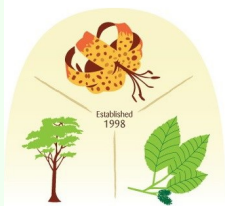
Email: _____

Please make checks payable to:
Delaware Native Plant Society
P.O. Box 369
Dover, DE 19903

Photography Index (on page 1 from top to bottom):

- *Lilium superbum* L. (Turk's cap lily)
- *Rhus typhina* (staghorn sumac)
- *Callicarpa americana* (American beautyberry) photo source: missouriplants.com
- *Collinsonia canadensis* (horsebalm)
- *Lactuca biennis* (tall blue lettuce)
- *Solidago flexicaulis* (broadleaf goldenrod)

Photographs courtesy of David G. Smith at www.delawarewildflowers.org



The Turk's Cap

Volume 26, Number 4

Winter 2023-2024

The Newsletter of the Delaware Native Plant Society



Letter from the President



Letter from the Editor



Getting Involved



A Pleasant Woodland Surprise



Planting Projects and Fall Symposium



Noshing on Nourishing Native Plants

DNPS Officers

President:

Eric Wahl

Vice-President:

Rick Mickowski

Treasurer:

Eric Zuelke

Secretary:

Emma Johnson

DNPS Mission Statement:

Founded in March 1998, we are a volunteer-based, publicly supported non-profit organization dedicated to the conservation of native plants and their natural habitats through education, science, advocacy, and land stewardship.

Discover more at: <https://delawarenativeplants.org>





Letter from the President

By Eric Wahl, President

Hello everyone, I've recently been working on green infrastructure elements in some of my designs as my role as a landscape architect in our state. Green infrastructure in Delaware plays a vital role in enhancing environmental sustainability. We as a community of ecological stewards should prioritize eco-friendly solutions to address urban challenges, promoting practices like permeable pavements, green roofs, and rain gardens. These initiatives aim to manage stormwater effectively, reduce flooding, and improve water quality. Our commitment to green infrastructure aligns with broader environmental goals, fostering biodiversity and mitigating the impact of urbanization on ecosystems. By integrating nature-based solutions into urban planning, we strive to create resilient communities that balance development with environmental preservation, ultimately contributing to a healthier, more sustainable future for both residents and the natural environment. I encourage you to further research green infrastructure and how you can be a part of our sustainable future.

Here's some more information to get you started:

<https://www.asla.org/greeninfrastructure.aspx>

<https://www.epa.gov/green-infrastructure/what-green-infrastructure>

<https://coast.noaa.gov/digitalcoast/topics/green-infrastructure.html>

Eric Wahl
DNPS President

Connect with the DNPS on [Facebook](#)

Or find us at:

<https://delawarenativeplants.org/>



Letter from the Editor

Emma Johnson

It has been five years since I have taken up the mantle of compiling “The Turk’s Cap” newsletter. It has been a great privilege to collect and share information with the Delaware Native Plant Society and I am glad to be part of this organization!

Every year, I set up each quarterly newsletter with articles pertaining to seasonal interest and am always looking to find new ways to think about familiar topics, reintroducing plants and their ecological interactions in new ways. Several seasons ago, one of the most frequent article authors proposed that we implement a yearly theme. Last year we incorporated articles on plant taxonomy, etymology and the history behind plant names. It was also our 25th anniversary year, which we celebrated heartily!

This year I wanted recipes to be a main focus. Since its inception, we have kept archival records of past newsletters, and in those past newsletters, we have had articles on plant-animal highlights, but also a good on portion edible plants, including recipes! If you have a recipe you want to share, please submit it to the DNPS and we’ll post it in an upcoming newsletter!

There is a lot of edible and medicinal knowledge and history surrounding our Delawarean plants, and it is fun to discuss our favorites.

So, this year, the articles will focus on looking forward to the next seasons, and enjoying the delightful flavors of the plants that mean so much to us!

In this issue we will:

- Explore events to participate in and books to read
- Look forward to spring with an article on azaleas
- Review our fall symposium and planting projects
- Reintroduce yummy recipes!

Autumn 2023 Baffling the Botanists answer:

Quercus bicolor, swamp white oak

Sheila S. is last season’s winner– she was not baffled, she was brilliant!



Getting Involved

Delaware Native Plant Society Planting Projects

Check out our [Facebook](#) page and stay tuned for details!

Third Mondays Monthly 6:15-7:45PM [Green Drinks Online](#) Virtual Meeting

[Delaware Cooperative Extension & Master Gardener Workshops](#) -Live & Zoom

[Delaware Nature Society](#) Programs and Events

[Mt. Cuba Center Classes](#)

Discover the new [Delaware Habitat Guardians](#)

Become a Delaware [Master Gardener](#)

Become a Delaware [Master Naturalist](#)

The second week in January was Delaware Urban Agriculture Week! [See what else the DCH is up to!](#)

[Greenscapes Symposium](#) Live Zoom Event Friday February 16 9AM-4PM

Young nature-lovers, study up for these great annual events with your schools!

[Delaware Envirothon](#) competitions include: Soils, Land Use and Forestry, Aquatic Ecology and Wildlife

[Delaware Science Olympiad](#) has events for students of all ages, but middle and high-school

students can compete in Ecology and Forestry events

These competitions provide opportunities for students to learn about the species around us and the habitats that they form together. Not all schools have allocated funding for natural science education as part of their daily curriculum, so these extracurricular experiences provide good opportunities for teachers and coaches to connect students with the livelihood, significance, and beauty of nature as part of a thoughtful scientific curriculum and introduce them to the idea of conscientious outdoor learning and environmental education.

Curl up with a book this winter:

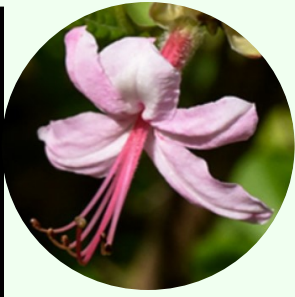
“[Climate-wise Landscaping: Practical Actions for a Sustainable Future](#)” by Sue Reed and Ginny Stibolt

“[The Milkweed Lands: An Epic Story of One Plant: Its Nature and Ecology](#)” by Eric Lee-Mäder

“[Wild Philly: Explore the Amazing Nature in and Around Philadelphia](#)” by Mike Weilbacher

Explore other parts of nature at the DuPont Environmental Education Center/Russell W. Peterson Refuge for [Late Afternoon Bird Walks](#), occurring once a month starting in January!





A Pleasant Woodland Surprise

David Brown

According to the University of Delaware Water Resources Center online database the pinxterbloom azalea (*Rhododendron periclymenoides*) is a “...perennial shrub, flowering in April and May, that is common on the Piedmont upland woods and slopes in New Castle County...”

It was a nice surprise to find this shrub on the banks of a tributary of Naaman’s Creek this year. Claymont is an old established community in Northern Delaware. Considerable heavy industry occurred here – steel plants, refineries and chemical companies. Now those locations are to be turned into a new train station, businesses, parkland, and other mixed uses.

The park I frequent was the former site of an industrial school for young women. It is now a woodland with a stream, playground and picnic areas and a walking and biking loop. Surrounded by major highways, it is a small oasis for people, birds and mammals. The stream is of ‘fair’ water quality according to Delaware Stream Watch standards. Turtles, frogs, toads and salamanders inhabit the woodland and stream.

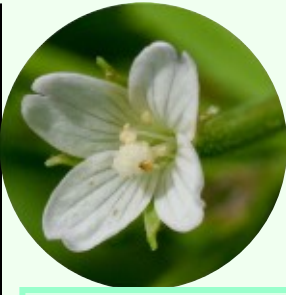
The woods host a variety of native and introduced plant species. The typical ground cover includes mayapple, spring beauty flowers, violets, the ubiquitous poison ivy, haircap moss and other plants. The understory and edge habitat includes *Clematis virginiana*, saplings of many species, blackberries, wineberries, sumac (either staghorn or smooth), and escapees such as star of Bethlehem, buttercups, daffodils, and morning glories.

April 17, 2023 while walking along the stream I came upon the pinxterbloom. Prior to this date I had only found it in the woodlands of Camp Tockwogh near Galena Maryland. It was growing adjacent to the stream but approximately five feet above the stream on eroding banks. It is the only specimen observed so far in these woodlands. I will keep an eye out for other surprises on my treks through this park.



Rhododendron periclymenoides
Photo courtesy of David Brown





Planting Projects– Blackbird Creek Reserve Reforestation Site Management Day



On 27 October 2023, in this densely-populated area of *Liquidambar styraciflua* trees (sweetgum), Eric along with Larry and Matt, two Delaware Natural Estuarine Research Reserve (DNERR) conservation technicians, rev up their chainsaws, clearing the space to plant a more diverse assemblage of trees and shrubs at Blackbird Creek Reserve.



Emma makes a clean cut with her trusty pruning saw to improve light conditions for a young *Aronia* being planted below, and clears up brush from large branches to make more planting spaces for young *Quercus* trees.

Continued on next page...



Above: trees previously planted at the site amidst some vibrant fall color

Below: the tools and watering supplies to get the job done



Continued on next page...



We planted some young *Amelanchier canadensis*, *Aronia arbutifolia*, *Celtis occidentalis*, *Corylus americana* and *Quercus alba*!



Many thanks to Octoraro Native Plant Nursery in Kirkwood, PA for their generous donation of plant materials in honor of our 25th anniversary.

Two of these plants were also purchased from the native plant sale at Adkins Arboretum.



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2023 Annual Fall Symposium Highlights

The 25th anniversary symposium began with overviews of our current planting projects and continued with a presentation on Significant Non-Tidal Freshwater Wetlands of Delaware. We also celebrated the 25th birthday of the DNPS with cake and pawpaw ice cream!

On the next pages you'll find the notes taken at the symposium by our Secretary, Emma Brown



Above is Eric, Bill is Below, both with all of you—our readership and members!
Thank you for attending, and for all that you do to help the DNPS.



Happy birthday to us!
Ice cream expertly made by Robert Meadows (in photo above), DNPS member, and 2023 winner at the Ohio Pawpaw Festival for largest pawpaw fruit (1 lb. 6 oz Susquehanna variety)!



Continued on next page...

**Project Overviews by Eric Zuelke**

1. **UD pollinator habitat Lewes campus**- large pollinator habitat, extension of native plant demo. Garden, 20 species so far, ongoing project, Jo-Anne Wazlowski – big volunteer efforts!
2. Reforestation sites – **woodland beach wildlife area**- started 2020, fallow field, \$1000 grant, bought trees & shrubs, most doing well, routine removals non-native & invasive plants, oak establishment now, shrubs [to put in] in a couple years.
3. **Blackbird creek reserve** – direct-seeded acorns in 2004, upland site, down to tributary (lower = wetter), hoping oaks would take off, but pioneer species took over. Vision of oak-hickory forest- each autumn, cut out sweetgum & tulip trees [to help later-successional species establish], cut out 12-ft spacings, plant oaks. Past 3 years cut out sweetgum. bought trees & shrubs with donation from Octoraro Nursery. Ongoing project.
4. **Dover park wildlife pond**- near Eric Z's home in Dover on White Oak Rd. Large park w/open space habitat. Stormwater management park pond, 5' deep at deepest. Park district clear-cut to open up pond BUT removed vegetation & herbicide around it 3 consecutive summers, paid for \$1700 plant material (city of Dover agreed to help with costs of plants for first year), dynamic hydrology of pond, can rise 24" in ½ hour with rain, takes 24-36 hours to go back down, hard to figure out where to place plants. Lowest areas = water, middle = occasionally flooded, higher = lawn w/no-mow perimeter. Added native aquatic pollinator plants (aquatic, pollinator, & both). Grant from DE sustainable communities- used to purchase seeds and plugs. Planting 11 species pollinator plants for upland areas in November 2023 (fall), spring to buy & install plugs w/ rest of grant. Pond has litter problem- people littering (culture of the place), wind blowing it in. When planting, had to remove trash from within holes first. *Helianthus angustifolius* blooming right now. There was a volunteer day in November w/ Edna Stetzer & Eric Z to go out in 2 kayaks to clean out in pond. Despite trash, good wildlife- turtles, fish, native crayfish, snakes, birds.

Announcement from Rick Mickowski

Also worked on Dover park project. Octoraro- Jim offered to host tour of Octoraro nursery in Kirkwood PA in spring for DNPS (Octoraro nursery & propagation nursery near Jennersville). Turning a new leaf conference in December 2023.

Keynote Presentation**Bill McAvoy- Flora of DE, Primary Author**

- Field studies- forms on rare species in need of conservation
- North American plants *Aronia arbutifolia*, *A. melanocarpa*, *A. prunifolia* previously labeled *Photinia* now use *Aronia* as the current accepted genus name, shown by recent taxonomic studies as distinct from their Asian counterparts, which still go by the genus *Photinia* (*P. glabra*, *P. serratifolia*)

Significant non-tidal freshwater wetlands in DE

- No protections in DE, some attempts to pass legislation have all failed, new efforts underway; call governor, convince wetlands are important.
- Natives of DE – 1642 species & taxa, 44% of those in wetlands (728), 88% of those non-tidal (641 plants), 44% of those are rare in DE (284 plants), 50% of those are in significant non-tidal freshwater wetlands of DE (143 plants)
- 2 distinct physiographic provinces of DE's 2500 square miles - Piedmont & Coastal Plain
- Below are described different types of non-tidal freshwater wetlands within piedmont and coastal plain regions and their characteristic species of plants and other organisms, including unique features of the sites and plants, and rarity of plant and animal species

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**Piedmont- 5% of land area of state**

- **piedmont stream valley wetlands** (USGS topographic map – showing closer lines indicating steeper slopes, Brandywine valley map)

-floodplains – groundwater seepage wetlands- percolates soil when rains, flows laterally, seeps out slope base to form wetlands

2 types of piedmont stream valley wetlands:

-**Open wet meadows/floodplains**- plants include

Impatiens capensis

Sagittaria latifolia

Asclepias incarnata

Vernonia noveboracensis

Symphotrichum puniceum

Eupatorium perfoliatum

Carex tetanica var. *canbyi* - RARE - note this *Carex* is endemic to northern New Castle County, Southeastern Pennsylvania, & Cecil County Maryland out of the entire world); (DNREC wetlands protection branch has maps of all wetland areas and statistics on quantity of acres lost per year to development/other)

Carex stricta- a federally-listed animal, the bog turtle, lays eggs only atop tussock sedge, is a specialist

-**Closed canopy wetland**- dominant species include

Symplocarpos foetidus

Chelone glabra

Viola cucullata- 10-11" tall

Arisaema triphyllum

Chrysosplenium americanum- golden-saxifrage

Dryopteris cristata

Bill recommends "learn the key characteristics of your families" and described Araceae

(for *Symplocarpos* & *Arisaema*) w/ spathe w/ spadix inside

Invasives, runoff, impervious surfaces, pollution- all affect these wetlands

Coastal Plain -95% of state

Forested wetlands- thousands of acres on coastal plain, map of Ellendale-Georgetown Area

Quercus - calls them "water oaks" - species include *Q. lyrata*- overcup oak- reaches northern extremes in

Delmarva, *Q. palustris*- does well in wet/dry soil, *Q. michauxii*, *Q. bicolor* - has LONG peduncle, *Q. phellos*- does well in wet/dry

Ilex opaca

Clethra alnifolia

Magnolia virginiana

Smilax laurifolia

Eubotrys racemosa- fragrant

Rhododendron viscosum

Rhododendron atlanticum

Osmunda spectabilis

Osmundastrum cinammomeum

Carex intumescens

Continued on next page...



Carex lupulina

Carex buxbaumii - RARE native- hits coastal plain only just in northeast New Castle County then follows Appalachians to Georgia, northern distribution otherwise mostly in New England & Pennsylvania piedmont.

Sub-categories in forested wetlands

Bald Cypress Swamp:

Taxodium distichum- northern limit of natural distribution in Sussex & Kent county DE, stressed in DE so never get as big as trees further south, a deciduous gymnosperm, characteristic "knees", brownwater streams/floodplains, James Branch in Laurel, DE Records to Trap Pond, DE, 63" buttress base of largest one Bill measured in DE (as of 15 yrs. ago)

Disjunct *Larix laricina* in western MD in frost pocket of MD mts., most others are in New England

Symplocos tinctoria- sweet leaf - evergreen, spring blooms

Atlantic White Cedar Swamps

Chamaecyparis thyoides- dominated by mostly this species, dark shady habitats, acidic (low) pH, Rare butterfly Hessel's hairstreak- caterpillars feed on foliage, lichen-wing mimic on trunks of trees (Bill speculates because the color of the wing spots match the lichen species on *Chamaecyparis* so closely).

Peat, sphagnum moss

Helonias bullata- swamp pink - fragrant flowers March-April

Callopogon tuberosus

Sarracenia purpurea var. *purpurea*- this and other carnivorous plants developed other ways to get nutrients in low-nitrogen environments

Drosera rotundifolia, *D. intermedia*

Alnus maritima subspecies *maritima*- endemic to Delmarva peninsula, DNPS mascot plant, subsp. *georgianus* (grows 1 spot in GA), *oklahomensis* (grows 1 spot in OK)

Inner Dune Depression Meadows

Cape Henlopen to Fenwick Island- floods winter-spring, dry summer season when plants grow, considered freshwater- threatened by groundwater pumping for drinking water

Characteristic species:

Ilex glabra

Vaccinium macrocarpon

Platanthera blephariglottis

Pogonia ophioglossoides

Spiranthes bightensis- finishes blooming in October

Utricularia juncea - carnivorous, terrestrial bladderwort species, has same mechanisms underground that others do in water..

Beach plums don't grow in the dune depressions, but do grow around them

**Photuris bethaniensis* - Bethany Beach Firefly- only found in DE & Assateague in depression meadows- first found at Bethany beach hence the name, populations are doing well

Seasonally Flooded Depressions (coastal plains seasonal ponds/Delmarva bays) - low depressions, open and sunny within wooded areas, usually 1 acre in size, elliptical, but can be larger with odd shapes, single or grouped ponds, fluctuating groundwater drives the ecology of these ponds: have groundwater-driven flooding in winter and spring when ground water table is high, late spring to summer, begins to drain, late summer to early fall will dry and produce lots of vegetative growth, Many seeds only germinate after ponds draw (dry) down

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Hottonia inflata- annual, winter basal rosette image shown, seeds germinate in late summer, overwinter underwater, produce shoots that produce leaves and spring flowers on surface of water.

Ranunculus flabellaris- only 3 populations in the Delmarva- have similar lifestyle to *Hottonia*

Boltonia asteroides

Coreopsis rosea

Fimbristylis perpusilla- annual sedge, didn't know it was this far north until the 90's, now more common on Delmarva than down south

Dichanthelium hirstii- one of the rarest grasses in the WORLD, found in one pond in Sussex county, two ponds in South Jersey, and 1 pond in (North/South?) Carolina, and 1 pond in Georgia- Bill McAvoy is the only person in the world to see all these populations.

Amphibians breed in these ponds, no fish because they are seasonally flooded- support tiger salamander, spotted salamander, marbled salamander, carpenter frog, gray tree frog, barking tree frog.

Summary: Significant Non-Tidal Freshwater Wetlands are in need of conservation

**Editor's note - "Significant" does not mean that other ecosystems are insignificant, just that these are the largest or most common types of ecosystems that characterize these areas and, likewise, that are characterized by the presence of particular species that define these areas.*

Q&A

Does forest service acknowledge importance of rare plants? Yes - they avoid disturbing them

Fringe-tree [*Chionanthus virginicus*] is common in these wetlands (wooded, piedmont)

Northern branches of Nanticoke watershed? - All freshwater non-tidal, West branch/gum branch channel ...pond... turtles, fish, amphibians

Groundwater? - wells affect it, cumulative effect of lawn watering

Protected plant species? - no protections preventing disruption of these areas

Sweetgums? - bases can survive some flooding and draining and be fine, but if flood more than a couple years in a row, will die back, but in dry years one after another new trees will establish themselves

Sweet bay & pepperbush? - some species can tolerate low levels of salinity

Swamp pink? - only protection it gets - if federal funds are used to prevent construction there

There is also significance to freshwater tidal habitats

Senator Hansen's bill for freshwater wetlands- status update?

Also good review process for redirecting development? - Plants are not on wildlife action plans?

DE needs a habitat protection law- many rare species & high biodiversity occur within these wetland & upland forest sites, protections would protect majority of rare species

New Castle County does better than Kent & Sussex with protections but still not great, Sussex 2024 has an interest in this

If DE had property taxes raised/reassessed for developers specifically, would improve protections for plant populations?





Noshing on Nourishing Native Plants

From Spring 2007 to Summer 2017, The Turk's Cap introduced a column featuring plant recipes. It's been a little while since delving in to recipes with native plants, and I thought it would be fun to reintroduce the column. This year we will re-print some of the old recipes, discuss sustainable harvesting practices and the ethical topics behind using native and non-native-harvested plants, and explore medicinal plant knowledge.

To kick off the year, here is a great recipe for using the sweet, delicious serviceberry fruit once late spring rolls around:

Serviceberry Muffins:

- 1½ cups all-purpose flour
- ½ cup sugar
- 2 teaspoons baking powder
- ½ teaspoon salt
- 1 egg
- ½ cup milk
- ¼ cup vegetable oil
- ¾ cup serviceberries



Photo by Emma Johnson

Lightly oil muffin pans.

In a bowl, measure and mix together flour, sugar, baking powder and salt.

In another bowl, beat egg; add milk and oil.

Pour liquid ingredients into dry ingredients.

Mix dry ingredients until just moistened, about 15 mixing strokes; batter should be lumpy. Fold in serviceberries.

Fill muffin cups two-thirds full.

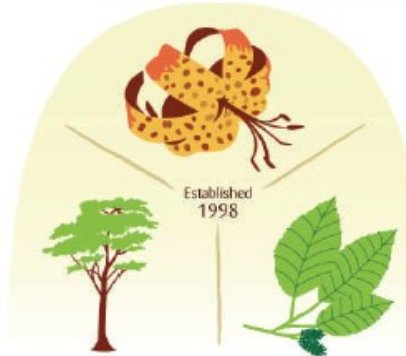
Bake at 400°F for 20 to 25 minutes or until golden brown. Immediately remove muffins from pans and cool on a wire rack. Yield: 12 muffins

Reprint. The Turk's Cap, Vol. 20: 1, 7 "Recipes using native fruits–Serviceberry, also called Juneberry" by Rick Mickowski, 2017. Recipe originally from the publication "Collecting and Using Alaska's Wild Berries and Other Wild Products, University of Alaska Fairbanks Cooperative Extension Service publication FNH-00120.





MEMBERSHIP APPLICATION



DELAWARE
Native Plant Society

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Organization: _____

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Dover, DE 19903

Photography Index (on page 1 from top to bottom):

- *Lilium superbum* L.- Turk's cap lily
- *Solidago sempervirens* var. *sempervirens* – seaside goldenrod
- *Baccharis halimifolia*- groundsel tree
- *Rhododendron periclymenoides*- Pinxterbloom azalea
- *Epilobium cordatum*- purple-leaf willowherb
- *Amelanchier canadensis*- serviceberry

Photographs courtesy of David G. Smith at www.delawarewildflowers.org