2022 Stewardship at Adkins Arboretum
Annual Report

A 400-acre native garden and preserve, Adkins Arboretum provides exceptional experiences in nature to promote environmental stewardship.

Nodding lady's tresses (*Spiranthes cernua*). *Photo by Kathy Thornton.*

We've added a new species to the Arboretum list! This year, we discovered nodding lady's tresses (*Spiranthes cernua*) growing in Nancy's Meadow! This orchid joins six other native orchids recorded at the Arboretum. Interestingly, nodding lady's tresses are usually found in moist thickets or grassy swamps, so we were surprised to observe them in a dry meadow area growing amongst trumpet creeper (*Campsis radicans*), yarrow (*Achillea millefolium*), and blackberry (*Rubus sp.*) Nodding lady's tresses are believed to be able to self-fertilize through a process known as agamospermy, in which the plant can produce seeds from unfertilized ovules! Additionally, this orchid supports pollinators such as bumblebees and bees of the family Megachilidae.

Summary

We kicked 2022 off with a snowy start encouraging us to be patient as we commence another year! The snow transformed Adkins into a wintery wonderland and allowed our staff to focus on planning for our first full year of programming and events post quarantine.

The Visitor's Center and facilities saw some great improvements in the installation of energy efficient mini-splits (funded by **MAERDEF** and the **France-Merrick Foundation**), fiber optic internet, and a new phone system! Thanks to funding from the State Highway Administration, the Visitor's Center also has new information display boxes and three map boxes at different points on the grounds to help orient visitors. Additionally, the Visitor's Center now offers an outdoor water fountain, new exterior lights, Feather Friendly dots, and a shade sail. The installation of the mini splits and removal of the old furnace allowed us to organize and update the back utility room with new flooring.

Nature never stops and neither does our work on the grounds. From thistle surveys and phenology observations to trail repair and invasive plant control, our staff were busy promoting biodiverse landscapes and offering safe spaces in nature for people to thrive. In the fall, we performed extensive repairs on our 1980s tractor to make sure that it was ready for invasive and meadow management in the fall and into 2023!

By the Numbers

- 10 acres of meadow burned
- 42,870 sq. ft of invasive plants removed by staff
- 2.32 acres grazed by goats
- 1 miniature gnome wave hill chair built
- 9 mini splits installed in the Visitor’s Center
- 1 super fast internet system installed
- 1 new phone system
- 155 sq. ft of windows treated with Feather Friendly film
- 665 volunteer hours dedicated to grounds and gardens
- 1 acre of cultivated gardens maintained
- 1 garden fence repainted
- 1 new orchid species observed on site
- 29 wood duck fledglings
- 72 bluebird fledglings
- 239 ticks removed from our grounds team
- 13 acres of meadow bush hogged
- 229 native plants planted
- 7,875 native plants sold
- $92,179.42 in native plants sales
- 5 miles of trails maintained
- 6,004 phenology observations reported
- 2 memorial benches installed
- 52 Mystery Monday posts

Staff

Land Steward **Kathy Thornton** continued to provide care for the grounds, goats, nursery, facilities, and stewardship efforts. We were also excited to welcome **Michael Micriotti** back part-time for his expert help on the grounds and facilities. Consulting Horticulturist **Leslie Cario** led the volunteer group Garden Stewards in the care of the Parking Lot gardens, as well as led grant efforts in the plant database and native plant education.

Staff continued

Leslie Cario also managed the native plant nursery and plant sale with seasonal assistance from our awesome nursery crew: **Ruth Menefee, Naomi McCafferty,** and **Chuck Barbour**. Visitor Services Coordinator **Michelle Draper** and Executive Director **Ginna Tiernan** provided scheduling assistance and Visitor Welcome Associate **Chad Angelini** assisted with receiving plant material. Assistant Director **Jenny Houghton** and Michelle Draper helped to maintain and supervise the volunteer work efforts in Emily's Play Garden, while Youth Educator **Martha Sullivan** brought some added excitement to the garden in the form of a pumpkin patch, kid-sized wheelbarrows, and elements encouraging interactive play!

We are grateful to the members of our Science Advisory Committee: **Sylvan Kaufman**, **Brian Knox**, **Deborah Landau**, **Dan Small**, and **Lorie Staver**, who continue to provide valuable advice and recommendations for our land stewardship practices. Science Advisor Sylvan Kaufman also oversaw and provided guidance for improvements and several grant efforts.

Cultivated Gardens

Parking Lot Alive!

This year, we welcomed back the volunteer **Garden Stewards** for a second year! Leslie Cario led the volunteers in workdays throughout the year to maintain and learn from the Parking Lot Alive! garden. These gardens add up to about 1 acre throughout our main parking lot offering a vibrant welcome and a diverse habitat showcasing native plants and stormwater best management practices. Special thanks to **Delmarva Native Plants** (pictured at right), who donated a truckload of native plants for the Parking Lot Alive! Gardens, including *Helianthus angustifolius*, *Helenium flexuosum (pictured at bottom right)*, *Monarda punctata*, and *Panicum virgatum*. Also, a special shoutout to volunteer **Kathy Airel**, who created an extensive guide to the plants in the Parking Lot Alive! gardens. This guide is under review and then will be used as a training tool for volunteers working in the garden, as well as for education and outreach with the public.

Emily's Play Garden

Volunteers reconvened under the direction of Jenny Houghton to weed the garden. Martha Sullivan and Michelle Draper worked in the garden to make it extra special for the kids and families who visit.

Cultivated Gardens continued

The play garden now has a new rain barrel for kids to use in the mud kitchen, tree cookies for explorative play, and mini wheelbarrows! Kids involved in homeschool, preschool, and summer camp programs will be working and learning in the play garden throughout the year. The volunteers painted the interior of the garden fence transforming it into a colorful space that highlights the plants.

Additional Gardens

Staff continue to tend the additional cultivated gardens on site. The front entrance garden is cut back in early spring each year and weeded. Over the years, some native white asters have seeded in, which we have allowed to grow in moderation to help with weed control, as well as to offer more nectar and pollen opportunities for insects. Our back Visitor's Center gardens seemed to reach their stride this year, giving off a casual, but intentional wild meadow vibe. Many of these plants seeded themselves in and supplemented the foundation plantings to create a low-maintenance, diverse, and natural look. These areas are anchored by Virginia sweetspire (*Itea virginica*), bald cypress (*Taxodium distichum*), possumhaw viburnum (*Viburnum nudum*), and switchgrass (*Panicum virgatum*). The nursery gardens were cleaned up and the fence was planted with various *Monarda* species and *Salvia lyrata* to beautify the area and display the differences in *Monarda* species. Plans are also underway for the installation of a demonstration garden “Virginia’s Garden” in 2023 and a youth education garden in 2024!

Wetland

We were very excited this fall to observe an American Bittern (*Botaurus lentiginosus*) visiting the wetland! Early reports from volunteers **Nancy Stewart** and **Beth Lawton** brought lots of visitors and avid birders. We had a relatively dry fall, which meant the wetland water level was lower than usual. The low water level made for easy food for the American Bittern, who happily feasted on tadpoles. Volunteer and birder extraordinaire **Jim Wilson** highlighted the bittern in one of our eblasts saying that American bitterns are normally secretive and prefer to hang out in dense marshes, but for this bittern, abundant food seemed to win out. Occasionally, the bittern displayed the classic startle response freezing with its head up and brown and white striped throat displayed attempting to look like surrounding marsh grass. Pretty good camouflage!

Forest and Edge

Our staff are dedicated to maintaining safe and beautiful trails throughout the Arboretum. Thanks to a grant from the **State Highway Administration**, we were able to continue focusing our efforts on trail work, as well as improving signage and accessibility to maps and information on site. New and improved signage was installed along Tuckahoe Valley Trail and map boxes were installed at the boundaries of where Adkins Arboretum meets Tuckahoe State Park as well as in the main parking lot. Information boxes were also installed at the front and back of the Visitor's Center to help orient and inform people, even outside of business hours.

Meadow Management

We were so excited to get to burn the **South Meadow** in April! The burn was not as hot as we would have liked since the grasses were already starting to green up, but we are still thrilled to have had about half of the meadow burned. This burn created an interesting patchwork of burnt areas, which helps to promote structural and plant diversity. This process rejuvenates the meadow and helps to prevent ecological succession by keeping the woody species out. Special thanks to the burn team from local **DNR** and **Soil Conservation Districts** who conducted the burn and to our Science Advisory Committee member Deborah Landau, who helped review the burn plan.

Prescribed burns are an important management tool for refreshing meadow habitats. Naturally, fires used to happen more frequently than we might expect. As we have developed our landscape, we have increased fire suppression both on purpose (putting out wildfires, removing understory brush) and indirectly (through fire breaks such as roads and developments). As a result, fires that do happen are much more severe and in areas where fires are suppressed, we see an increase in invasive species and or dense understory habitats.

Did you know that some plants require fire to thrive?

Some plants have evolved to respond favorably to fire. In fact, some are pyrophytic and fire dependent and require the intense heat from fire for seed germination. Other plants are considered fire adapted or fire tolerant, meaning they can survive a fire and tend to benefit from the effects of the fire. This is an evolutionary strategy to take advantage of the light and nutrients of a recently burnt (and therefore open) landscape. For our area on the Coastal Plain, *Quercus spp.* are some of the most common fire dependent species. Additionally, *Scutellaria spp., Vaccinium spp.,* and *Carya spp.*, are fire tolerant. Some studies have even shown that fire can reduce disease-carrying tick populations.

Meadow Management continued

As a successional meadow, **Nancy's Meadow** has undergone some different meadow management practices. The plant community and structure in this meadow would not carry a fire, so our staff are working with a bush hog and selective tree removal to keep the meadow areas open. Nancy's Meadow has very unique topography and soils serving as a host for special native plants like *Andropogon ternarius* and *Spiranthes cernua*. There are many RTE species that require open and sandy meadow habitat. It is our hope to achieve these conditions to foster a unique and increasingly rare habitat. Additionally, plant debris from Nancy's Meadow is collated into brush piles, which serve as important shelter for birds and small mammals. Nancy's Meadow is home to several woodcock, which favor a mix of forest and open field.

Additionally, we are excited that our **demonstration meadow** is starting to fill in! This meadow is adjacent to our parking lot and once was overflow parking. In 2019, we attempted to plant trees in this area with no success. Since we let it rest and grow, we are gradually seeing meadow grasses and wildflowers, as well as some tree saplings seeding in.

Invasive Plants

Since our focus is on preserving and maintaining a native landscape, invasive plant management is a large part of our stewardship practice at Adkins. A few of the main invasive species that we're actively working on controlling are:

Phragmites (*Phragmites australis*) is omnipresent on the Eastern Shore. We are fortunate at Adkins that the phragmites patches are confined to the wetland edges. We contracted with **Chesapeake Wildlife Heritage** to selectively spray the phragmites in the fall to keep the phragmites in check and eventually, hopefully, eradicate them. Phragmites thrives on the edge of marshy habitats, where there is full sun and plenty of moisture. Phragmites can quickly turn biodiverse marsh habitats to dense monocultures, as well as changing the marsh hydrology.

Often found along wet ditches and forest edges, **Japanese knotweed** (*Reynoutria japonica*) grows along Eveland Rd. and mostly remains contained to the entering stream area east of the wetland. We hope to control and contain the knotweed to prevent it from spreading into more delicate wetland and stream habitats. Japanese knotweed thrives due to its extensive and hardy root system and while some recommend digging up the root system, that can also cause extensive disturbance to surrounding native plants potentially allowing for a secondary invasion. At Adkins, we routinely cut the grown stalks back, which exhausts the roots. While this method takes time and persistence, it allows us to keep tabs on the knotweed. The knotweed stalks are then removed and allowed to dry in the sun for a few weeks (to ensure that it doesn't resprout from the cuttings) before composting the plant debris. Eventually, we may work with a contractor to assess whether an herbicide application would be indicated.

Invasive Plants continued

Spotted knapweed (*Centaurea stoebe*) grows prolifically in old field sites and tends to appear in nutrient-deficient soil. As a biennial, spotted knapweed produces a basal rosette of leaves in its first year and flowers in its second. Sometimes, it can resprout from its taproot, and it can persist for longer than two years. Key to its aggressive spread, however, is that it can produce 1,000 to 20,000 seeds per plant with a 90% viability for five to eight years. These areas have accumulated impressive seed banks and each year we work to ensure that the plants are either removed or at least, not allowed to go to seed, to slowly but surely keep the seed bank at bay. We attempt to pull the majority of the spotted knapweed in the demonstration meadow adjacent to the parking lot and mow the areas in Nancy's Meadow to experiment with different management methods.

Sericea lespedeza (*Lespedeza cuneata*) forms dense patches in meadows and forest edges outcompeting native plants. This invasive lespedeza tends to have white blooms with purple centers. There is a native species (*Lespedeza virginica*) with pink flowers that is helpful in providing cover and food for birds in the winter. Lespedeza is a nitrogen fixing legume (Fabaceae), so it is very effective at growing in nutrient-deficient or disturbed soils. At Adkins, we mow the lespedeza in late summer and early fall to prevent seed set and exhaust the roots.

Native Plant Nursery



Leslie, Naomi, and Ruth wrapped up another wonderful season at the nursery! Plant sales continued to be offered online in the spring and fall with much success. Online sales and scheduled pickups allow our team to better care for the plants and therefore offer a happier and healthier plant to the customer. The nursery team welcomed the help of volunteers, who assisted with customer pickups, as well as Visitor Services Coordinator Michelle Draper and Executive Director Ginna Tiernan who provided scheduling assistance and Visitor Welcome Associate Chad Angelini, who helped unload plant deliveries. Michael Micriotti and Kathy Thornton assisted with deliveries and pulling orders as needed.

The nursery team also extended plant sales through some pop-up on-site shopping for select events and at the Visitor's Center in the fall. Visitors seemed to enjoy the selection and this may be a good blend of online and on-site availability allowing us to offer a good quality product and to get more plant material out of the hoophouse and into people's gardens. In 2022, the nursery sold 7,875 native plants bringing in about $92,000 in sales.

Additionally, the nursery team completed improvements to the hoophouses, replacing the irrigation heads to improve water efficiency and ensure optimal plant coverage.

Goodbye to the Goats

At the end of 2022, the goats wrapped up their final grazing season at Adkins and officially relocated to a private farm where they have been enjoying their retirement.

Over the last decade, these lovely ladies have helped the Arboretum clear roughly 600,000 square feet of invasives and brambly edges. The goats came to the Arboretum as part of a targeted grazing program, which allowed goats to do what they do best! We guided them to browse areas that needed to be cleared of invasive vines and shrubs. With the herd retired, we will continue in their stead using ecologically appropriate methods to steward the native landscape.

We learned a lot working with the goats over the past ten years. Takeaways include:

Benefits

- Ability to access and open up brambly thicket areas that equipment cannot.
- Marketing and mascot value
- A teaching opportunity for kids and visitors
- Demonstrated the role of grazers in the ecosystem (though goats aren't necessarily native to this ecosystem)

Considerations

- Some studies suggest that the deworming medication for livestock can negatively impact the invertebrates in the ecosystem. Given a herd size of four, the impact was likely minimal, but it is certainly a consideration for larger, more intensive herds.
- Labor and cost: Healthy goats mean happy goats! Our staff were dedicated to excellent goat care. Between daily checks and care, setting up grazing locations, vet care, and supplemental feed in the winter, our little herd was time and cost intensive.
- Goats graze and browse, which significantly cuts back yearly growth, but do not kill most invasives.
- They can create disturbance by opening up an area. They also like to create bare soil areas where they can rest.
- Infrastructure and weather: For the welfare of the goats, it feels necessary that there is a caretaker that lives on site or in close proximity to the goats. Inclement weather and random accidents are unpreventable, but having someone readily available can be difficult when they are housed at a public business.
- Public element: While most people have good intentions and loved visiting the goats, we contended with some issues of unauthorized feeding and harassment. This certainly will always be a consideration for any feature accessible to the public.

Goodbye to the Goats continued

The Main Takeaway!

Goats are an amazing management option for clearing an area that can then be followed up with manual removal, treatment, and or replanting (if the seed bank is deemed insufficient to outcompete a secondary invasion).

We are grateful to the generous donors, Eagle Scouts, and caregivers who ensured our goat herd was well cared for! And thank you to the many Arboretum visitors who waved and said hello to the goats. They brought many smiles to our faces, and we hope they did the same for you.

Science and Research

Living Collections Database

Leslie Cario, Sylvan Kaufman, Ginna Tiernan, and Kathy Thornton continue to work with **Sean Lynn** and **Madi Kaye** at the **Washington College GIS Program**. It continues to be a work in progress! Once complete, we will have a field app that allows us to collect data and map plants on site and then upload that data to a comprehensive platform that shows plant location and information. While Washington College is working on the database transition, Leslie, Sylvan, and Kathy are working on the documentation, protocols, and planning for the next steps of the **IMLS Inspire! grant**, which involves adding wildlife interaction information to the plant records. Also, thanks to Ginna, we now have a new iPad for survey collecting and a new database/nursery computer, which will help us to work efficiently and know that our new database will be functional and secure.

Leslie Cario worked with volunteer **Marta McCave** to give our plant descriptions an update! Marta is working on researching plants (starting with those we offer in the native plant nursery) and is editing and writing plant descriptions to include general information, as well as notes on horticulture, botany, and wildlife interactions. This information will eventually be accessible on our new Living Collections Database, as well as our plant sale website.

Bluebirds

We had our first bluebird egg on March 29! Perhaps “early bird catches the worm” also applies to early nests! Interestingly, this nest seemed to take longer from first egg laid to chicks fledged, but they seemed to do just fine in the end! To reduce the number of house sparrow nests, our grounds team checked the boxes every 7 days this year. As a result, we did not have any successful house sparrow nests and this gave bluebirds more of a chance for a successful nest. Across the twenty bluebird boxes, we had 72 bluebird fledges, as well as some tree swallows and Carolina wrens.

Science and Research continued

Phenology

The phenology group logged over 6,000 observations this year, which was up from 4,663 observations in 2021. This year, the phenology group joined an additional phenology campaign for redbuds, which is a nationwide effort to understand the impacts of climate change on redbud phenology. Their primary questions are: 1) When do redbud trees flower and fruit across the tree's range? 2) How does the timing of these events vary across geography and elevation? 3) Has the timing of flowering and fruiting advanced in recent years? This effort is led by Dr. Jorge Santiago-Blay of the National Museum of Natural History and Penn State York as well as the **USA National Phenology Network**.

Wood Ducks

Adkins Arboretum monitors eight wood duck boxes and contributes data to the **Maryland Wood Duck Initiative**. The 2022 numbers on site and from across Maryland seem to be encouraging. According to **Cliff Brown**, Director of the Maryland Wood Duck Initiative, the 2022 hatchling numbers seem to be on par with previous seasons with about 6,700 ducklings from 1,600 boxes across the state, with private nesting programs increasing each year. At Adkins, we recorded 23 hatchlings with a 79% hatchling success rate (hatched eggs presumed to have fledged).

Eastern Tent Caterpillars and Brood X

Kathy Thornton contributed some observations to **Dr. John Lill**, from **George Washington University**, who was researching eastern tent caterpillars and possible impacts from the cicada Brood X. Eastern tent caterpillars (*Malacosoma americanum*) are often thought of as pests, but they rarely cause lasting damage to their host trees and they are an important food source for migratory birds! According to the **Maryland Biodiversity Project**, "Celebrate the tents. Celebrate the caterpillars." We are happy to see these tents appear in the spring because we know the migratory birds are coming and they will have plenty of food!

Ecology

Barometer Earthstar

The Parking Lot Alive! gardens have been alive with more than just plants and animals — it's developing fungal diversity too! A new fungi was observed growing in some of the garden beds this year: the barometer earthstar (*Astraeus spp*). This fungus starts in a small puffball shape and as it matures, the outer fruiting body tissue splits open into a star. It can open up in response to higher humidity and close them if the conditions are too dry.

Not to be confused with true earthstar fungi of a different genus, the barometer earthstar is differentiated by its ability to "measure" the available water and humidity and reflect that in its rays. This fungus tends to grow in open, sandy soil, or in this case, our parking lot gardens! According to the Maryland Biodiversity Project, recent studies have identified new species of *Astraeus*, which adds some confusion to which species occur where and have which characteristics.

Aphids, ants, beech trees, and black sooty mold

by Kathy Thornton

One of my absolute favorite things about nature is taking a moment to slow down, take a close look, and find a whole amazing world right there in front of you. I often see black sooty mold on the branches of beech tree throughout the winter and into the growing season. This year, however, was the first year I saw this whole complex symbiotic relationship play out. On a walk with some visitors from the **Nature Conservancy**, a few of us stopped to look at the fresh (and unpigmented) sooty mold *Scorias spongiosa*. Only found on American beech trees, this fungus eventually turns black and becomes what most people recognize as black sooty mold. On the fresh unpigmented sooty mold, ants scurried along next to wasps, both seemingly content next to the other despite their predator-prey relationship. Both were more focused on the sweet honeydew produced by the woolly beech aphids.

This fungus is part of an interesting and complex series of ecological relationships. In the highlighted photo, the aphids produced a sugary honeydew, which attracts ants and wasps. This honeydew collects on surrounding leaves and branches, generally creating a thin black film of black sooty mold on the beech tree leaves. When the honeydew is in high concentration, the black sooty mold produces a large mycelium (as seen in the picture) that looks like a sponge. This mycelium starts as a tan color and then matures into a black mass (which we often see closer to winter). In this example alone, we have at least five species involved *that we can see!* Nature is so cool and complex!

Sustainability and Connections

ArbNet

Did you know that your favorite local arboretum is also an **ArbNet Level II accredited Arboretum**?! ArbNet is an interactive community of arboreta run by the Morton Arboretum. ArbNet has created an Arboretum Accreditation Program to establish and share professional standards for arboreta around the world. The accreditation process assesses planning, governance, number of species, staff and volunteer support, educational programming, and conservation efforts. In 2021, Adkins Arboretum joined 577 globally accredited arboreta. As we develop our efforts in living collections and conservation, Adkins aspires to work towards the Level III accreditation, which involves more extensive and comprehensive plant species documentation, as well as participation in collaborative conservation activities.

The Climate Toolkit

Adkins Arboretum joined 86 other institutions worldwide as a participant of **The Climate Toolkit** initiative for museums, gardens, and zoos. This initiative is lead by the Phipps Conservatory in partnership with the American Alliance of Museums, American Public Garden Association, and Botanic Gardens Conservation International. The goal is for institutions to "Share. Mentor. Learn." and to collaborate on ways to address climate change within their organization and community. Adkins Arboretum's focus area is in Landscapes and Horticulture ensuring that 25% of all lawn/garden equipment is electric, that 50% pesticides and fertilizers used are not derived from fossil fuels, and that lawn areas are reduced and replaced with native plants. Additionally, Adkins Arboretum is focusing on energy usage by reducing fossil fuel use and ensuring that building renovations reduce energy use.

We're Seeing Dots!

The Visitor's Center windows received some functional decoration this year! Michael and Kathy installed **Feather Friendly** dots, which are designed to prevent and reduce bird window strikes. We've received a lot of interest from the public and local organizations and have been happy to share our experience with them. Research has shown that between 365 and 988 million birds die from window strikes in North America each year. Our office buildings are located in close proximity to meadow and forest habitat, which make it particularly important for us to make these habitats as safe as possible. Installation of the window dots has greatly reduced our window strikes and has become a great conversation starter for how we as a society can help birds — from preventing window strikes to plant native habitats!

Master Species List

Our Land Steward was fortunate to travel to Minnesota in the fall to attend the **Natural Areas Association** conference! She attended several days of lectures, workshops, and field trips learning about prairie ecology, bog ecology, nocturnal insects, aquatic vegetation, and new land management strategies and ideas. She also toured the Tamarack Nature Center, which provided a lot of wonderful ideas relevant to Adkins.

Inspired by the **Friends of Sax-Zim Bog** in Minnesota, Kathy developed a Master Species List for Adkins Arboretum that collates data from the Living Collections Database, plant surveys, and iNaturalist observations. Currently, the Arboretum is host to 873 living species and there are many more to identify and document. In 2023, Kathy hopes to incorporate conservation status codes, to help us identify and protect plant and animal populations that may be struggling.

Herbaceous Plants: 296
Woody Plants: 122
Grasses: 42
Sedges: 23
Vines: 23
Ferns: 16
Mosses: 6
Rushes: 4

Fungi: 33
Lichen: 2

Insects: 154
Birds: 98
Reptiles: 17
Arachnids: 15
Amphibians: 12
Mammals: 12
Fish: 3

Community Support

Thank you to our corporate sponsors who offered in-kind services on our grounds in 2022! **Bartlett Tree Experts of Stevensville** and **Unity Landscape Design/Build** helped us with tree pruning and removal, as well as trail maintenance to ensure that our trails and grounds are safe and enjoyable for visitors. Thank you for your support!

We would also like to thank **Tuckahoe State Park** for their assistance and partnership in some hazard tree removals, as well as programs, initiatives, and grant applications.