

SHENANDOAH SAW-WHET

ISSUE #8: WINTER
2021 / 2022

A NEWSLETTER OF THE *SHENANDOAH CHAPTER* OF THE VIRGINIA MASTER NATURALISTS PROGRAM.

OUR NEWSLETTER IS NAMED IN HONOR OF THE NORTHERN SAW-WHET OWL — A SPECIES OF GREATEST CONSERVATION NEED IN THE SHENANDOAH VALLEY.

UPCOMING EVENTS & OPPORTUNITIES

Audubon Christmas Bird Count

December 13th thru January 5th

Chapter Meeting

February 15th, 2022

Great Backyard Bird Count

February 18th – 21st, 2022

Virginia Master Naturalist Training Class

March 19 to May 21, 2022

FROM THE EDITOR

BY TIM KOPPENHAVER

I recently took a trip to one of Virginia's lesser-known state parks – Caledon State Park in King George County. It's not on the way to anything, so if you're visiting Caledon, it's only because you want to. And I think most any Virginia Master Naturalist would want to.

Caledon is a lovely 2,500-acre property bordering the Potomac River and laced with ten miles of multi-use trails through a variety of habitats including profusions of native plants and old growth forests. It's a wonderful place to employ your VMN skills and knowledge.

Virginia is a vastly diverse state which is clearly evident in the variety of wonderful state parks which dot the commonwealth. In just our chapter's territory alone, we're fortunate to have three great parks: Sky Meadows, Shenandoah River, and Seven Bends. All three are easy to access and offer unique landscapes.

The Department of Conservation and Recreation - who oversees the state parks and is a sponsor of the state VMN program - is not resting on their laurels. The number of parks continue to expand with the recent addition of Clinch, Widewater, and Machicomoco.

If you're looking for ways to experience Virginia's diversity, look no further than one of its 41 excellent state parks.

PRESIDENT'S MESSAGE BY KELLY MACOY

As we prepare to say good-bye to 2021, I want to thank you for another successful year. Even though COVID variants kept us on our toes, we were able to meet via Zoom for our Chapter meetings and even hold an in-person training class this fall. Welcome the Class of 2021!

Switching from the class of 2021 to the first class of the Shenandoah Chapter...Congratulations to Sally Anderson for being awarded Volunteer of the Year. Sally has been with us from day one. Her vast knowledge and contributions have helped our Chapter flourish.

This is my last Saw-Whet newsletter as Chapter President. We are fortunate to have Mary Beth Yarbrough as incoming President. It looks like 2022 will be an active year with a new President and the return of the spring training class and volunteering opportunities with Virginia Working Landscapes.

FAMOUS NATURALISTS

Who among us hasn't turned to a Peterson's Field Guide, especially the *Peterson's Guide to the Birds of Eastern North America* and its distinctive arrows highlighting field marks? First published in 1933 and completely revamped three times, this mother of all field guides sold millions of copies and launched the Peterson Series, which today numbers 50 titles and includes guides to everything from animal tracks to moths, the atmosphere to eastern forests, seashells to ferns. **Roger Tory Peterson** (Aug 28, 1908 – Jul 28, 1996) beyond just authoring the field guide, was an American naturalist, ornithologist, illustrator, and educator, and was one of the founding inspirations for the 20th-century environmental movement.

Peterson followed a kinder path of bird study. Unlike his predecessors who would shoot birds either with camera or gun in order to study them, Peterson used observations and a paintbrush instead. He believed a painting gives a *composite* of experience rather than what's captured by a fleeting point in time. His "Peterson System" of identification was created for use by amateur naturalists, rather than specialists. The system is essentially a pictorial key based upon readily noticed visual impressions rather than the technical features of interest to scientists. The system also involves patternistic drawings with arrows that pinpoint the key field comparisons between similar species.

The Roger Tory Peterson Institute of Natural History in Jamestown, New York is named in his honor and remains a thriving research facility to this day. In 2000, the American Birding Association established the Roger Tory Peterson Award for Promoting the Cause of Birding. A biography, *Birdwatcher: The Life of Roger Tory Peterson* by Elizabeth Rosenthal, was published in 2008, the centenary of Peterson's birth. And in 1980 the Presidential Medal of Freedom was presented by President Jimmy Carter declaring Peterson "*an unabashed lover of birds and a distinguished ornithologist, he has furthered the study, appreciation and protection of birds the world over.*"

MEMBER PROFILE – CLASS OF 2021

By Alex Newhart

Our first training class in two years held its last class on Saturday, November 6th. There were 16 new member trainees and one returning member, **Lilly Ermert**, who was in the 2017 class. As with all of our past classes, we have new members with a breadth of experience and backgrounds. One thing to note is that we had three new members from Shenandoah County and only our second new member from Page County. I think this reflects the increased number of projects in that part of our chapter area, particularly since the founding of Seven Bends State Park.

We had to make some changes to how we ran the class this fall for two reasons – the time of year and the pandemic. This gave the trainees a little different experience than most of us had when we took the class. For example, you can imagine that a field trip to Thompson Wildlife Management Area is a little different in the fall than it is in the spring. There were also a few new instructors this year. **Rob Lamar** (class of 2019 and Rebecca's husband) taught the dendrology class for us this year. **Charlie Price**, who transferred to our chapter from the Merrimac Farm Chapter in 2020, taught the weather lecture. And since the retirement in 2019 of **Don Flegel**, our soils instructor, we were able to find **Nick Livesay**, a Conservation Specialist with the Lord Fairfax SWCD to teach that subject.

One change we made to the class was a significant one – not having members volunteer to help during the class sessions. This meant that our new members have not had as much opportunity to meet our membership, so I encourage you to welcome them and introduce yourself when you find them at a volunteer event.

We are planning to hold a Spring 2022 training class. The application process for new members opened in early December and will close on January 31st, 2022. Contact **Rebecca Harriet** (shenandoahvmn@gmail.com) for more information.



Bill Moore studies a plant during the botany field trip.



Gael Shaffer, Alice Findler and Regina Wardwell study a bird nest.



Julie Pineiro looks for birds during the ornithology class.

HELP SPREAD THE WORD ABOUT OUR UPCOMING TRAINING CLASS



Become a Virginia Master Naturalist

The Shenandoah Chapter of the Virginia Master Naturalist Program is offering a **2022 MASTER NATURALIST TRAINING COURSE** for new members from Mar. 19 through May 21, 2022.

If you:

Love nature
and want to
Volunteer your time
to your community,

**This program
is for you!**

The Virginia Master Naturalist Program is a statewide organization that provides education, outreach and service dedicated to the beneficial management of natural resources and natural areas within Virginia. Once you become a member we will prepare you to become a volunteer as a certified Virginia Master Naturalist.

What does the training cover?

Birds, Botany, Climate, Ecology, Geology, Insects, Mammals, Weather, and more.

Who is it for?

Adults or high school students 14 years or older accompanied by an adult who also must become a member. Participants need not have previous experience in the natural sciences.

When and where will it be held?

Classes will be held between March 19 through May 21, 2022 on Wednesday evenings from 6:00 to 9:00 pm and on Saturdays from 9 a.m. to 2 p.m. Classes are planned to be held at the Blandy Experimental Farm and State Arboretum of Virginia, however a final decision on the location has not yet been made.

Is there a charge to participate?

The cost of the program is \$220. A limited number of full and partial scholarships are available.

How can I find out more?

Contact: Rebecca at vmnshenandoah@gmail.com

Applications are being accepted until January 31, 2022.

The Virginia Master Naturalist program is sponsored by:



Virginia Master Naturalist programs are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation or marital or family status.

2021 Shenandoah Chapter Volunteer of the Year

Sally Anderson

A thoughtful and dedicated naturalist, Sally is constantly researching and learning about a wide range of subjects related to nature.

Incredibly generous about sharing knowledge and time with many individuals & organizations:

- Shenandoah Chapter and State VMN Programs
- Piedmont & state VNPS
- Flora of VA
- The Clifton Institute
- And Blandy... to name a few.

An active Shenandoah Chapter member from year one and is a long-time volunteer at Blandy.

A valuable resource for our chapter, leading our botany class year after year and being available and patient answering our botany questions.

An invaluable supporter of the Pollinator Plot Project - donating time, money, plants and most importantly her vast botanical knowledge.

Vernal Pool monitoring at multiple locations.

Shared knowledge and spent time on invasive removal projects at Sky Meadows SP, Thompson WMA and other locations.

Helped with Wavy Leaf Basket Grass and other invasive plant species education at Sky Meadows SP teaching her fellow VMNs, park staff and others.

Does all of this in an approachable, gentle way with an easy-going manner. Does all of things so quietly that people do not realize just how very much she does.

Let's all recognize **Sally Anderson** as the 2021 Shenandoah Chapter Volunteer of the Year.

VOLUNTEER SERVICE

VIRGINIA MASTER NATURALISTS ARE DEDICATED TO VOLUNTEERING IN THEIR COMMUNITIES PERFORMING DUTIES SUCH AS CITIZEN SCIENCE, EDUCATION, STEWARDSHIP, AND CHAPTER ADMINISTRATION. A SAMPLE OF SHENANDOAH CHAPTER MEMBER'S EFFORTS IS PRESENTED BELOW.

SKY MEADOWS POLLINATOR PLOT UPDATE

By MK Ruffner

Recent Efforts – By the Numbers

14 days of two or more volunteers working. 26 days of an individual working. 13 VMNs volunteered.

Workdays mostly involved weeding and edging, and a bit of general maintenance, planting, and on-site planning. We are finally going to have some plant identifications in place (yay!). **Andy and Margie Miller** gave me some great advice on how to create some fade resistant labels. **Kathy Simmons** offered to donate some beautiful, durable, engraved plant tags that she is having made. **Kristin Zimet, Sally Anderson** and I are working with her on layout. Having the plants identified will be a big step in helping the Shenandoah Master Naturalists and park visitors learn the names of our native plants and which species we have selected. Outreach and education!

Thank goodness there were no big planting projects in 2021 as it was a very dry year at SKSP. We lost some plants this year due to the drought conditions. And others to deer, rabbit, and groundhogs.

We will know more next Spring about Cicada damage to our saplings; a few got tip die-back, but they are native plants so they should be just fine!

We did have some plants of several species donated by Sally Anderson, some of these went into the little plot at the head of Sensory Explorers Trail and the rest put in the Triangle Plot. We also received a donation of plants and seeds from a Piedmont VNPS board member.

Karin Newlun, her husband, and I extended the Pavilion Plot by several feet. This will help the park as it should prevent people from driving onto the field at that point. It also gives more growing room for the Grey Dogwood shrubs that **Diane Krumme** donated a couple of years ago. These Native Shrub Dogwood are thriving and spreading. The birds this fall seemed very interested in the berries.

Hope to see you at the Pollinator Plots; there are always plenty of volunteer opportunities there.



MASON BEES

By Ursula Sherrill



Blue orchard mason bee (Photo credit: stellariagraminea)

I recently spoke with **Ariel Firebaugh**, the Director of Scientific Engagement at the University of Virginia Blandy Experimental Farm about her Mason Bee (in the genus *Osmia*) pollinator research. In early 2021, Dr. **T'ai Roulston** (Blandy Curator and UVA Research Associate Professor) and Dr. Firebaugh invited the Shenandoah Chapter of the Virginia Master Naturalists to participate in a citizen science project aimed at discovering what role bee hotels play in efforts to conserve native mason bees in our region. If willing, VMN volunteers would monitor hotels in their yards for 30 weeks (March-October) to search for answers to this question.

Dr. Firebaugh soon had twenty-seven volunteers busily setting up hotels, also called bee nest boxes, in their yards on a chilly mid-March morning. The hotels are small wooden boxes about the size of a loaf of bread to attach to a building's exterior, fencepost, etc. at about three feet above the ground. The front should face east or southeast. Inside each bee hotel are twelve tiny nesting blocks. There are two layers of blocks: six on the top level have an 8 mm entry hole drilled in the end that faces out into the yard. Six lower-level blocks have 6 mm entry holes in the end facing out. Entry hole size differences can accommodate egg-producing females from diverse insect populations, from tiny mason bees to long, sleek dark blue mud dauber wasps.

Over the spring and summer months, the volunteers photographed the front of their bee hotels weekly and recorded activities they saw, such as nest completion and storage of provisions in nest boxes to support the growing larvae. They reported weather conditions, movement of bees or other insects which they saw enter or leave the boxes or close the nest box entrance with clay after filling it with eggs and tiny balls of nectar, pollen, or dead insects to feed larvae developing inside nest blocks.



In mid-October, volunteers returned their bee hotels with developing insect larvae and pupae inside. Dr. Firebaugh will present detailed content analysis in coming months, but she has already noted that, on preliminary examination, several participants have blue orchard mason bee larvae present. She saw a lot of potter wasp larvae. A couple of volunteers have cocoons from leaf cutter bees that create structure in their nest boxes. Some resin bee adults protected their nest blocks from parasites by covering them with a shield of impenetrable resin. Hard-to-open blocks held developing resin bee larvae, she discovered.

As a UVA environmental science graduate student, Ariel Firebaugh embarked on her first major field study, firefly ecology, with UVA advisor **Kyle Haynes** in 2013 at Blandy Experimental Farm. The completion of this research coincided with Ariel's growing curiosity about the lives of native bees, especially mason bees and wasps. Most native bees and wasps are solitary and nest in cavities like plant stems, whereas naturalized honeybees nest in hives or colonies.

This research builds on a multi-year study led by Dr. Roulston and former Blandy graduate student, Dr. **Kate LeCroy**. In collaboration with Virginia Master Naturalist citizen scientists across the state, LeCroy and Roulston discovered that two non-native mason bee species (*Osmia cornifrons* and *O. taurus*) have become widespread across the Mid-Atlantic region while several native mason bees (including the blue orchard mason bee, *O. lignaria*) have declined. The 2021-2022 mason bee monitoring project continues LeCroy and Roulston's work. The goal of this project is to learn more about how bee hotels might be used to promote conservation of native cavity-nesting bees and wasps in our region by studying the prevalence of disease and parasitism in bee hotels, and by assessing the use of bee hotels to re-introduce native mason bees to areas where they are locally absent.

In the Shenandoah Valley where plentiful apple orchards support a thriving fruit processing industry, growers and agricultural scientists are learning about native pollinators, such as mason bees and blue orchard mason bees. Since the 2000's, a mysterious disease now known as colony collapse syndrome, began to stalk honeybees. This cluster of problems includes Varroa mites, bee tracheal mites, lack of flowers and habitat space, and neonicotinoid pesticide residues. The stricken honeybees abandoned their hives en masse, or rapidly died in substantial numbers. Growers were desperate to solve the devastating collapse of their hives. However, substituting other pollinators for honeybees has not been a useful option.



One reason is that many flowers are pollinated by several insect species, both native and naturalized, some of which live solitarily. Among many examples of crops pollinated by a “team” of insect species are watermelon (*Citrullus lanatus*) which is pollinated by three bee species: honeybees, bumblebees, and solitary bees. Apple orchards are pollinated by a guild of bees and flies: honeybees, orchard mason bees, bumblebees, solitary bees (*Andrena spp.*, *Halictus spp.*, *Osmia spp.*, *Anthophora spp.*) and hover flies (*Eristalis cerealis*, *Eristalis tenax*). Clearly, both native and naturalized pollinators often work side by side to pollinate crops. The health of pollinators is thus important to ensure their survival and ongoing production of their crops for human nutrition.

At Blandy, Dr Roulston, and Dr. Firebaugh are collaborators on this project to see if using bee hotels can promote greater numbers of mason bees in this area. Scientists need to be clear about the usefulness of bee hotels in promoting and protecting mason bee populations from diseases and parasitism. Probably there is a level of parasitism that is normal and does not hurt the bee population too greatly. The question is whether the level of parasitism is higher in a bee hotel or in the wild. Not only do bees such as naturalized honeybees experience parasitism and disease, such as colony collapse syndrome, native solitary bees also struggle with threats to their survival, such as disease, predation from larger insects, and aggressive parasites.

Ariel has had a life-long fascination with insects because they were the most unique and colorful wildlife species she saw as a child growing up in Atlanta. After graduating from Roanoke College in Salem, Virginia, she entered graduate school in the Department of Environmental Sciences at the University of Virginia in Charlottesville. Her UVA graduate advisor, Dr. Kyle Haynes, is a UVA Research Associate Professor who studies native and invasive insects at Blandy.

In spring of 2022, Dr. Firebaugh's research work with VMN volunteers will start with mason bee larvae and pupae already present in the nest boxes. Researchers will be especially interested in whether mason bee hotels are a valuable tool for supporting and increasing mason bee populations. Look for a report of the findings in a future issue of The Saw-Whet.



PROJECT UPDATE: VERNAL POOLS @ SKY MEADOWS

By Laure Wallace and Hannah Bement

Thank you to all that helped with putting a liner in the lower vernal pool on the Sensory Explorers' Trail at Sky Meadows State Park on November 13th. What fun was had - mud, rain, hard work and lots of enjoyment. We successfully cleared the pool and laid a 25x30 foot pad and liner, replaced rocks and logs and added leaf litter back onto the liner. It is now all ready for a new crop of wood frogs and salamanders.

If you have not walked the trail lately, take a stop by and see the work that was completed - the first of two research projects on these experimental pools.

NATURALIST RESOURCES OF NOTE

WILDFLOWER CALENDAR - Shenandoah National Park:
www.nps.gov/shen/learn/nature/upload/WildflowerCalendar_Web.pdf

WHAT'S BLOOMING NOW - State Arboretum of Virginia:
blandy.virginia.edu/arboretum/what-s-blooming-now

VIRGINIA BIRDING AND WILDLIFE TRAIL:
vafwis.dgif.virginia.gov/FindWildlifeVA/#/findWildlife

WILDLIFE VIEWING TIPS - Virginia Department of Game & Inland Fisheries:
www.dgif.virginia.gov/wildlife-watching/respect-wildlife/

PHENOLOGY VISUALIZATION TOOLS - From USA National Phenology Network:
<https://data.usanpn.org/vis-tool/#/>

WELL-READ NATURALIST - Reviews of books about natural history
<https://www.wellreadnaturalist.com/category/reviews/>

NATURESERVE EXPLORER - Provides conservation status, taxonomy, distribution, and life history information for more than 95,000 plants and animals in the United States.
<https://explorer.natureserve.org/>

NEW ANSROP - Alliance of Natural Resource Outreach and Service Programs promotes awareness and citizen stewardship of natural resources through science-based education and service programs. <https://anrosp.wildapricot.org/>

CHAPTER PROJECTS OF NOTE

Sky Meadows: Sensory Trail, Outdoor Lab, Pollinator Plot and Bluebird Trails
Bluebird Trial at Blandy Experimental Farm
Lake Frederick Educational Outdoor Lab
Blue Ridge Wildlife Center Volunteering
The Trails at the Museum of the Shenandoah Valley

If interested in helping with these projects, please reach out to any of our chapter officers or committee chairs or email us at ShenandoahVMN@aimail.com

PHOTO STORIES

IMAGES CAPTURED BY SHENANDOAH CHAPTER VMNS ALONG WITH DESCRIPTIONS OF THE SPECIES, PHOTO TECHNIQUES, AND OTHER USEFUL TIPS & INFO.



PHOTOGRAPHER: *Mary Beth Yarborough*

LOCATION: *Blandy Experimental Farm*

SUBJECT SPECIES: *Ginkgo biloba* leaves, a tree species native to China.

CAMERA: *iPhone 11*

PHOTOGRAPHER COMMENTS: *Per Mary Beth: "Where we saw most of the Ginkgo color this year at Blandy."*



PHOTOGRAPHER:

Tim Koppenhaver

LOCATION:

Caledon State Park, King George County, VA

SUBJECT SPECIES:

*Rust colored trees in photo are bald cypress (*Taxodium distichum*)*

CAMERA:

Canon EOS REBEL T3i, 1/160 sec. f/7.1 75 mm

PHOTOGRAPHER COMMENTS:

The color layers and patterns of this autumn view caught my eye.



PHOTOGRAPHER: *Alex Newhart*

LOCATION: *White Post, VA*

SUBJECT SPECIES: *Red-bellied Woodpecker (Melanerpes carolinus)*

CAMERA: *Nikon D750, 200-500mm lens at 500mm, f/5.6, 1/1250 sec, iso 1250*

PHOTOGRAPHER COMMENTS: *The Cornell Lab of Ornithology Project Feederwatch is in full swing (<https://feederwatch.org/>). You can join now to collect bird counts weekly at your bird feeders and earn citizen science volunteer hours.*

MEDIA RECOMMENDATIONS

Documentary recommendation from Friends of Dragon Run – an organization dedicated to preserving the Dragon Run swampland in Middlesex County, Virginia.

Water's Way: Thinking Like a Watershed



What *The Chestertown Spy* Say About This Film:

Water's Way guides us along the streams and rivers and the streets and parking lots in a beguiling narrative. The film seduces us with beauty while helping us to understand how water gets started and taking us on its natural journey that for many of us ends in the Chesapeake Bay.

Seldom has nature and nurture been so beautifully paired. The filmmakers joyfully paired their craft and passions.

If you would like to contribute Media Recommendations for publication in an upcoming newsletter, please send feedback to shenandoahvmn@gmail.com and include why you feel our chapter would benefit from your recommendation.

PLACES OF NOTE

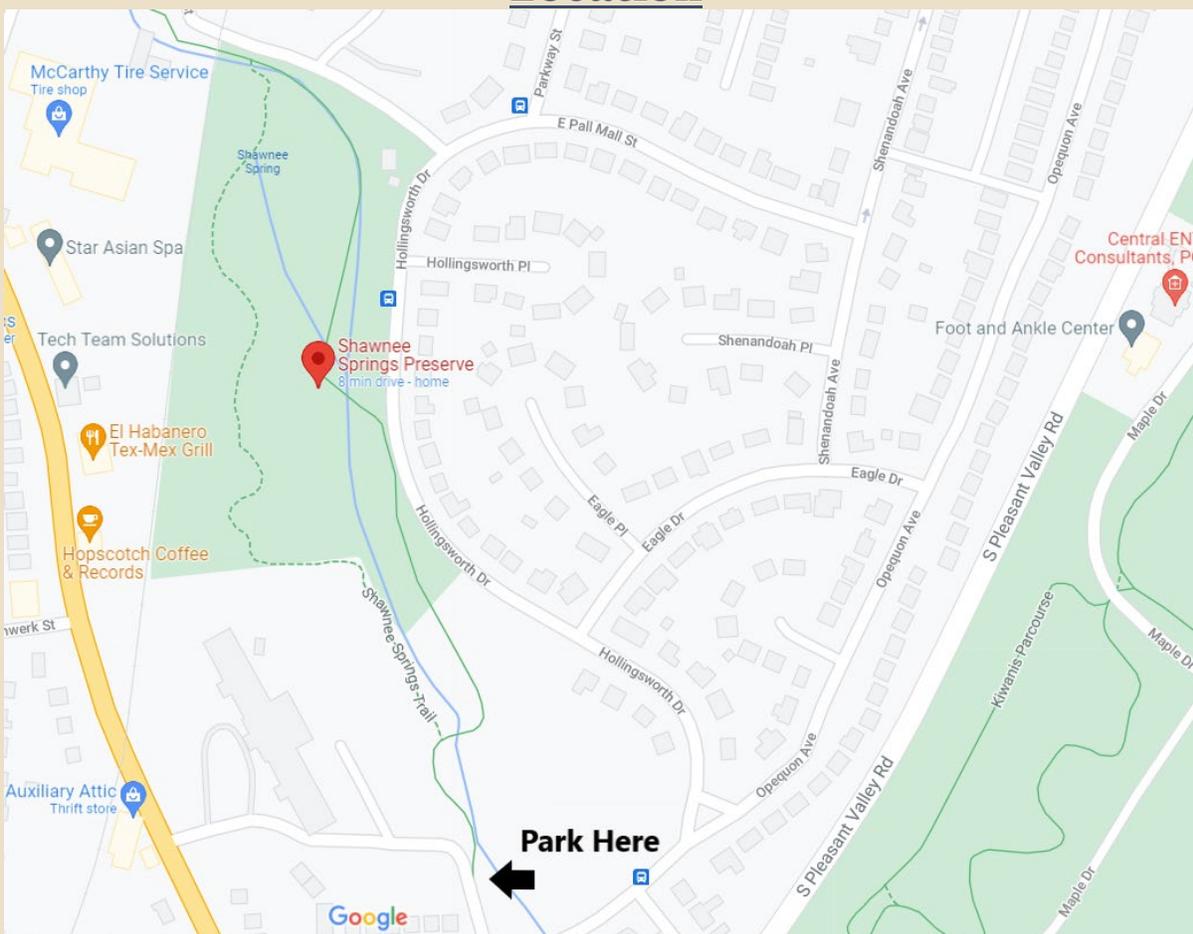
INTERESTING LOCATIONS TO VISIT IN OUR SHENANDOAH CHAPTER TERRITORY

SHAWNEE SPRINGS PRESERVE

Overview

This preserve encompasses fourteen acres of rocky upland forests, springs, and wetlands. It is the site of an old Civil War hospital, Sheridan's Field Hospital. Shawnee Springs includes a wooded walking trail and a section of the paved Winchester Green Circle pathway. This preserve is owned by the city of Winchester and located between downtown Winchester and Jim Barnett Park. The Green Circle connects Shawnee Springs Preserve to many of the community's natural spaces, historic sites, and commercial areas.

Location





The Virginia Master Naturalist program and the Shenandoah Chapter are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer.

CONTACT US

Shenandoah Chapter of the Virginia Master Naturalists

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President: Mary Beth Yarbrough

Vice President: Rebecca Harriett

Secretary: Ellen Schwalenstocker

Treasurer: Susan Galbraith

Education Committee Chair: *Rebecca Harriett*

Membership Committee: *Alex Newhart*

Volunteer Opportunities: *Michelle Fontaine*

Outreach Committee: *Tim Koppenhaver*

Program Committee: *tbd*

Sky Meadows Outdoor Lab: *Ed Tobias*