

Valley Views

Volume 40, Issue 2

October/November 2021

Director's Report

By Kristin Alexander, PVAS Executive Director



It seems like everything we do right now is done through the lens of safety. Every program, event, volunteer activity -- even feeding the birds – has to be vetted to keep people and wildlife safe as best we can. I'm so grateful to the staff for constantly weighing options for programs to maximize safety of our visitors and participants. Their creativity and sincere concern for our members is unmatched.

Thanks to due diligence and dedication, and thanks to being an organization that aims to get people outside, we've been able to adapt. We're cleaning more often -- surfaces, equipment, bird feeders, hands, masks -- all in an effort to keep ourselves and others safe. But, ultimately, it's being outside that is the most important and safest factor of all.

And thankfully that's not too hard for us. Outdoor School, Homeschool programs, and "Wee Naturalists" will continue since they are all outdoors. Our nature and birding walks continue. "Weed Warriors" are trained and can go help maintain the preserves on their own time. Our new "Babies in a Backpack" and "Wellness Walks" will help people explore the preserves, make new friends and perhaps learn a little something along the way. Wellness is a new program theme for PVAS, and more important than ever when being outdoors in nature is invaluable medicine.

We were even able to participate in United Way's Day of Caring after last year's hiatus caused by COVID. Granted, it was simplified; smaller in numbers of volunteers and held only at our Cool Spring Preserve. But the 25 volunteers were able to distance, mask up when distance wasn't feasible, and stay entirely outdoors while painting, deconstructing the back deck, and planting a new Monarch Waystation and pollinator garden. This is such a wonderful day for us, and we are grateful to the United Way for sponsoring the event and to the volunteers who participate. It's a lift to have so many projects completed at once. Many hands get so much done.

We're also pleased and relieved that the mysterious bird illness has subsided. I know many of you have been itching to get feeders back up for the enjoyment of birds and yourselves! You can purchase bird seed from PVAS to support bird conservation

efforts. Just remember to clean and disinfect the feeders weekly. Keeping our feathered friends safe is paramount, too.

And when we can't be outside, we'll go virtual. We'll bring back our on-line auction this November to help raise funds for PVAS, as our fee-based programs continue to be impacted. Our monthly programs will continue to be offered via Zoom for the foreseeable future. As much as we were looking forward to seeing you in person for our monthly programs this fall, your health and safety is more important. School programs too, will be virtual for the safety of students and instructors for the time being.

So, bear with us as we continue to navigate the various challenges and strive to keep everyone as safe as possible while continuing with our mission. I'm so grateful to be in a field where getting outside is the healthiest and safest place to be. I hope everyone can use PVAS preserves and programs to stay connected to green and wild spaces, in order to stay healthy, emotionally and physically.

Stay safe!

The Monarch Alliance 2022 Grant Program Seeks Applications

Opening Day:
September 15, 2021
Closing Day:
December 15, 2021
Recipients Announced:
February 1, 2022



Groups are encouraged to apply to create new or expand current Monarch habitat and get up to \$1000 worth of native milkweed and pollinator plants. Applications and detailed information, including the submission process and waystation requirements can be found at www.potomacaudubon.org/monarch-alliance/grants.

A Modest First for Cool Spring Preserve

By Wil Hershberger, Nature Images & Sounds, LLC

August 2021 had been hot and humid. Just hours before the PVAS singing insect walk at Cool Spring, a stormy front moved through the area, dropping the temperatures significantly. Five intrepid grigologists set out from the parking area under the din of chorusing cicadas. Morning (once called Swamp) Cicadas (*Neotibicen tibicen tibicen tibicen*) were the major players. A lone Robinson's Cicada (*Neotibicen robinsoniana*) creaked out his song as the sun set.

Winding our way along Linda's Loop, beside Bull Skin Run, we encountered a number of Northern Mole Crickets (*Neocurtilla hexadactyla*) calling from the marsh to the north, Short-winged Meadow Katydids (*Conocephalus brevipennis*) clamored through the seed-ladened grasses. A few

Davis's Tree Crickets (*Oecanthus exclamationis*) were tuning up for their nightly chorusing. Along the way, we were treated to great views of a Hag Moth caterpillar, parasitized tussock moth caterpillars, and a singing male Two-spotted Tree Cricket (*Neoxabea bipunctata*). As the cicadas diminuendoed, we could now hear that there were hundreds of Davis's Tree Crickets singing from the trees overhead, creating a wall of sound all around us.

Among the yellowing goldenrods, we found a singing male Broad-winged Tree Cricket (*Oecanthus latipennis*) in an excellent place for everyone to get a fantastic view of his instrument in action. The Common True Katydids (*Pterophylla camellifolia*) started

to ratchet out their songs from the tops of the trees, and a well-placed Nebraska Conehead (*Neoconocephalus nebrascensis*) was observed singing by all in attendance.

The aural transition from the deciduous woods to the open meadow was palpable. The heavy wall of trees crickets overhead faded, and the silvery trills of trigs and ground crickets could now be appreciated. A single male False Robust Conehead (*Neoconocephalus bivocatus*) belted out his tenor voice from the nearby, almost shattering the moment's tranquility.

As the nearly full moon shone in the east and we headed back toward the parking lot, dozens of Oblong-winged Katydids (*Amblycorypha oblongifolia*) were now singing from the brushy understory on either side of the path.

The following night, eleven curious Master Naturalists made this same trek. While many of the same sights and sounds were heard and seen, a few special treats awaited these eager learners. Among these were the chance to watch a brown-form of the Slightly Musical Conehead (*Neoconocephalus exiliscanorus*) sing from his head-down

perch on a goldenrod stem, the close inspection of a couple small crickets (trigs) that were momentarily captured then released – (Slow-tinkling (*Anaxipha tinnulenta*) and Say's Trigs (*A. exigua*) – and a male Broad-winged Tree Cricket. Seeing them up close with

a hand lens makes a world of difference in one's perspective.

A pale green katydid sparkled under the passing flashlight's beam as we wandered farther along the path. What could this be? It was tiny. I carefully collected this female from her somewhat concealed perch into a clear plastic cup. The maneuver was successful, and we were all looking at the first-ever Modest Katydid (*Montezumina modesta*) observed at Cool Spring Preserve. This was only the second record for this species in Jefferson County and the State! (see: https://www.potomacaudubon.org/wp-content/uploads/2018/07/PVAS-Valley-Views-October November-2019.pdf)

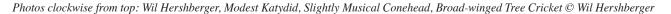
Everyone was still high from seeing this first record for the preserve as we made our way to the meadow. The full moon was bright in the east, creating a magical light over the wildflowers and grasses that stretched out before us. It added a golden hue to the trills and tinkles drifting up from the vegetation, bringing to mind the great poet Nathaniel Hawthorne and this passage from The Canterbury Pilgrims:

He listened to that most ethereal of all sounds, the song of crickets, coming in full choir upon the wind, and fancied that, if moonlight could be heard, it would sound just like that.

With all of the flashlights that were being used that evening, we were graced with a wonderful collection of moths that seemed to follow the group as we meandered – as if fairies were escorting our group through this magical landscape of sights, smells, and wonderful sounds.







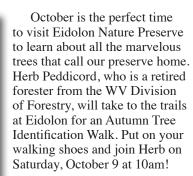
PVAS Events

Adult Programs

By Krista Hawley, Adult Program Coordinator

While the Covid pandemic ebbs and flows, PVAS has learned how to shift gears as well. Our goal is to continue to offer enriching opportunities for our community members and we are committed to creating safe, engaging and fun events and programs for everyone.

Our Monthly Programs will continue virtually through the fall. Jim Siegel, Ecology Curriculum Manager for the US Fish and Wildlife Service, kicked off the fall season with his well-attended and informative program "Turtles of the Eastern Panhandle." On Wednesday, October 13 we invite you to log on to our virtual program with Carla J. Dove, Program Manager of the Feather Identification Lab at the Smithsonian Institution. Carla will present *When Birds Collide*: Feather Identification at the Smithsonian Institution. On November 9th, Randy Robinson, US Fish and Wildlife Service, will treat us to an in-depth and insider scoop of the eagles that nest at NCTC, the Eagle Cam that captures their daily life and interesting natural history facts about these amazing creatures.



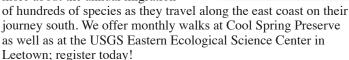
Some days it is nice to slow down and take time to *smell the flowers*. Joy Bridy's Nature Journaling Gatherings are the perfect opportunity to enjoy and observe your natural surroundings and to celebrate the changing seasons. The monthly gatherings take place a various venues around the Eastern Panhandle and everyone is welcome to join, regardless of your journaling experience.

With an eye on staying mentally and physically healthy, Krista Hawley is hiking the trails this fall with monthly Wellness Walks. Have you been wanting to explore the trails at one of our preserves but unsure of venturing out alone? Join the fun and take to the trails with her at Eidolon on October 12, Yankauer on November 16 and Stauffer's Marsh on December 7.

Looking to add some excitement to our evenings, Master Naturalist Candidate, Roy Boyle, is creating lively educational trivia games that focus on the natural history of our area. The name of the game is Kahoot!, which is used extensively throughout our schools as an engaging teaching tool. These virtual trivia games are a great way to 'gather' from the comfort of your home.

Our annual field trip to the Owl Banding Station at South Mountain is such a highly anticipated trip each year and we had high hopes of returning in 2021. However, given it's extremely tight indoor space, owl expert, Steve Huy, has made the difficult, but smart decision, to postpone the field trip again this year. We look forward to a return in 2022.

Fall is an excellent time to head out on a bird walk and learn more about the annual migration



The Master Naturalist 2021 Program will wrap up on October 2, with classes on Fish and Mushrooms, and on October 16, at Yankauer Preserve with classes on Soils and Geology. We would like to offer huge kudos to this year's students, instructors and coordinating committee members for their perseverance, flexibility and creativity during this challenging, but greatly successful year.

To find out more about these and other programs, subscribe to our biweekly *Heads Up!* and visit our website (<u>potomacaudubon.org</u>) regularly. We are adding programs and events all the time, so the website is the best way to keep up to date.



PVAS's on-line auction is back by popular demand. And it will be up and running the first week of November -- in time for your holiday shopping!

We're now accepting donations of high-quality goods and services to be auctioned in support of PVAS. In 2020, you donated kayak trips, antiques, nature-inspired jewelry, homemade pies, felt critter ornaments, fresh baked bread and other popular items and services. Those donations allowed PVAS to raise over \$7,000 during the first year of COVID. As

the COVID challenges continue, another virtual auction seems like a good idea!

To bring about another successful event, we need you! Do you have pottery, baked goods, heirlooms, a skill or service to donate, or other items/ideas? If so, please contact us! We're planning a "sneak peek" of items around October 20, but are accepting donations until October 25.

Please contact Kristin Alexander at <u>Kristin@PotomacAudubon.org</u> or 304-676-3397 about any items you'd like to donate and to arrange a pick-up or drop off. Thanks in advance for your support!

Note: The auction will be open for bids beginning November 1, and will close at 8pm on Sunday, November 7. Watch our website, Facebook, and *Heads Up* for details and a link for the auction.



PVAS Events

40th Annual Bird Seed Sale

Fill your feeders with high-quality seed and suet AND support PVAS's educational programs, conservation initiatives, and nature preserves at the 40th Annual Bird Seed Sale. We've once again partnered with our friends at Sunny Meadows Garden Center to offer everything from songbird food to suet designed especially for woodpeckers (and much more).

We are accepting orders online from September 15 – October 9. You may choose to PICK-UP your bird seed, keep it in STORAGE, or BOTH. This year in an effort to be more efficient and save paper, the ordering process has gone completely digital. If you have any questions about this process, please feel free to contact Hannah Donnelly at admin@potomacaudubon.org and (681) 252 1387.

Visit https://www.potomacaudubon.org/event/2021-bird-seed-sale/ to place your orders.



Chickadee © Wil Hershberger

Volunteer Spotlight

Have you met Suzanne Offut and Mike Zagerella?

They are one of PVAS's powerhouse couples! Suzanne currently serves on our board as the Past President. She is also leading the charge on our 40th Annual Bird Seed Sale. Mike serves more behind the scenes performing tasks such as weed eating at Yankauer. Together, they're even better!

For two months, each spring and fall, they organize and lead volunteers in performing Swift Watch, a community science effort to attract swifts to our Chimney Swift Tower at Shepherd University and monitor the activity. They maintain all of the equipment, track the data collection and participate in the Watch themselves. They have spent many nights at the tower at dusk with the hopes of catching a glimse of stealthy swift diving in to roost.

All of our PVAS volunteers are great! If you know someone who deserves a shout out, please contact Kristin at Kristin@PotomacAudubon.org.



Family and Youth Programs

Fall Youth and Family Programs

By Amy Moore, Lead Teacher & Naturalist/Audubon Discovery Camp Director

During this past year and a half year of COVID, one thing has become very clear to us: our community truly values youth educational experiences that can be safely done outdoors. We have watched children thrive in our programs and had many parents tell us that our programs have helped bring a sense of normalcy back to their children's lives.

Due to the success of our homeschool outdoor school programs developed as a result of the pandemic last year, we are delighted to bring it back again this year, per out community's positive feedback and requests. This program offers safe outdoor nature-themed learning opportunities to children in a time when indoor educational and socialization options are limited. Sessions are held once a week every month.



Our monthly Wee Naturalist pre-school programs were also extremely popular last year, so this year we are offering both a morning and an afternoon session each month. Finally we are offering some new family programs. Our new free program "Babes in a Backpack" program is a guided meet-up hike for parents/guardians with small children. We also have a Halloween "Trail of Bones" event, a Wreath Making Program, and a Winter Solstice Campfire program.

Did you know that we offer nature themed birthday parties at Cool Spring Preserve for kids? You can choose from one of many themed parties such as a Campfire Party, a Scavenger Hunt Party, an Animal Themed party, and more! We take COVID safety measures very seriously: programs are held completely outside, and masks are to be worn by everyone when social distancing cannot be maintained. We hope to see you at some of our fall family or youth programs.

Watershed Teacher Training

By Amy Moore, Lead Teacher & Naturalist/Audubon Discovery Camp Director

In early August, lead teacher and naturalist Amy Moore hosted a teacher-training for fourth-grade teachers in Jefferson County. A total of 11 teachers and 3 individuals from partnering environmental organizations came together to learn about, and collaborate on, leading environmental action projects with students. For the past 20 years, PVAS has been presenting our 4th grade watershed program in Berkeley and Jefferson County Schools. The program consists of five in-class lessons and one field trip to a local stream. The goal of this program is to show students how they are connected to local streams and rivers and how humans can hurt and help our watershed. As of this year our program now fulfills that goal, and beyond. Thanks to a grant from the Chesapeake Bay Trust, schools are now being provided funds to complete action projects with their students after the completion of the PVAS watershed program. This stems from an initiative for students in the Chesapeake Bay Watershed to complete a Meaningful Watershed Educational Experience or MWEE. MWEEs are learner-centered experiences that focus on investigations into local environmental issues that lead to informed action and civic engagement. Our traditional watershed program is almost a complete MWEE except it was missing the Stewardship and Civic Action component. Thanks to the grant, we are now able to help students have the full MWEE experience.

The key to student actions projects is to have them be 100% student driven. That means students are given complete autonomy to research, choose, and develop a project by collaborating with each other. As teachers learned in the training, their role is to step back and let students take the reins. We introduced teachers to tools students can use to help them identify the root causes of issues in their watershed, as well as a system called Criteria Based Decision Making that uses criteria that the students establish to help decide what action should be taken to address a determined issue. Students then conduct any necessary research,

such as interviews or data collection, to gain the information they need to enact a project. It has been proven that children who participate in student-led civic engage-



ment projects are more likely to become more civically involved adults, who are more conscious of community issues and choose to be a part of the solution.

Additionally at the training, educators from the Cacapon Institute, West Virginia Department of Environmental Protection (WVDEP) and the West Virginia Conservation Agency shared ways that they could support classes as they work on action projects. For example, The Cacapon Institute is a great resource for helping to create rain gardens and undertake tree plantings. The WVDEP offered support on projects related to recycling, litter clean-ups, and composting.

Last school year, a few teachers were actually able to do action projects with their students. After completing the watershed program, the students at Shepherdstown Elementary were very concerned about trash in our oceans. Thus, they developed a project where they designed logos promoting the use of reusable items that they then painted onto reusable canvas bags. At another school, one class created informative posters about keeping our watershed clean that they then hung around the school building.

Laurel Schwartz, PVAS's new Watershed Education Coordinator will now be in charge of helping schools complete MWEEs. We are excited to see what projects students take on this year.

Family and Youth Programs

Meet Our New Team Members

By Amy Moore, Lead Teacher & Naturalist/Audubon Discovery Camp Director

PVAS has three new team members who started in September. Over the past few years, our youth programs have grown quite a

bit. Thus, we decided to create a new full-time position and hire Laurel Schwartz as our Watershed Education Coordinator. In this role, Laurel will be in charge of creating watershed curriculum and training, supervising instructors, as well as supporting schools with environmental action programs.

The watershed program was previously managed by lead teacher Amy Moore, who now will be able to devote more time to our other youth programs.



You may recognize Laurel's name, as she served as an Ameri-Corps Environmental Educator for PVAS in 2019-2020, and was our Yankauer Camp Director this past summer. She is an amazing educator, and are so excited that we were able to bring her on full time. Laurel is a lifelong Jefferson County resident and Shepherd University graduate with a Bachelors degree of Science in Environmental Studies and a concentration in Sustainable Resource Management. She has previous experience working as a seasonal Park Ranger for both the National Park Service at Harpers Ferry National Historical Park, and for the Army Corps of Engineers at Loyalhanna Lake Recreation Area. Most recently, Laurel worked for Virginia Tech as a Soil Science Research Associate, and as a Jefferson County Substitute Teacher. In her free time, Laurel can be found hiking, spending time with her dogs, relaxing in a hammock, or in the kitchen trying out new recipes.



We would also like to welcome Gus Rasich and Jade Harris to the PVAS team. They will serve for one year as AmeriCorps Environmental Educators and will lead many youth and family programs, as well as assist with volunteer workdays at our preserves.

Gus is from Richmond, Virginia where he studied Scientific Illustration, with a minor in Environmental Studies, Gus loves

to learn about wildlife, especially species native to wetlands and coastal environments. He believes in the power of scientific illustration and visual tools to educate and excite students. Gus has worked with authors to illustrate several children's books, as well as illustrated educational posters covering environmental concepts. He has created educational resources covering insect life cycles, wildflower biodiversity, light pollution, and more. Gus aims to build a career that combines natural history illustration, museum studies, and environmental education. In his free time, he enjoys spending time with his middle-aged pit bull (named Amber), cycling, and painting.

Jade earned her BA in Wildlife and Conservation Biology from the University of Rhode Island. Both before and after her graduation she worked with children for a variety of organizations. She first discovered a love of working with kids after her time with the YMCA as an after-school and summer camp counselor. After graduating college, she began working with the Alabama 4-H Science School as an environmental educator. Since then, she has explored various career fields including wildlife rehabilitation and teaching preschool. She has, however, always returned to environmental education as her true passion. Jade has worked with the Bird Conservancy of the Rockies as well as Calvert County Natural Resources Division as an environmental educator. In her free time Jade enjoys reading, and spending time with her fur children. If you have the chance to meet any of our new team members, please be sure to give them a warm PVAS welcome!

Introducing Esther: PVAS's Snake Ambassador

By Amy Moore, Lead Teacher & Naturalist/Audubon Discovery Camp Director

In late August, PVAS's newest animal ambassador, Esther the Corn snake joined the PVAS team. Why is she named Esther? Try saying her name like this: *Essssssssther*. Ah ha! Does that make sense now?

Corn snakes, Pantherophis guttata, are found from south-

ern New Jersey to Virginia, and their main range is from North Carolina to Florida, and west to Louisiana and Southern Tennessee. They are not commonly seen because they are fossorial, meaning they are burrowing animals. They spend much of their time in rodent



borrows and tree root canals in open hardwood forests. However, if you are to find a corn snake in the wild, it would likely be in open fields where they hunt their prey. The name "corn snake" is believed to be from how their checkered belly resembles Indian corn.

Esther, along with our four turtles, Scute the Eastern Box Turtle, Willow the Wood Turtle, Poppie the Red-earred Slider, and

Family and Youth Programs

Snake Ambassador continued from previous page

Louie the Eastern River Cooter all serve as what we call animal ambassadors. These animals are used in youth programs to teach children and families about wildlife and give people a close encounter with animals that they may never have the chance to meet. The ultimate goal is to inspire love and appreciation for these particular animals that will extend to the wild animals of their species that they represent.

The West Virginia DNR placed Esther in PVAS's care after the DNR confiscated some Corn Snakes that were illegally being sold in the pet trade. As of May of this year, new regulations make it unlawful to take or possess most native reptiles and amphibians in West Virginia without a DNR issued permit. When the DNR confiscates reptiles, oftentimes, these animals cannot

be released back into the wild, and so most must be re-homed to a nature center or educational organization that is given legal documentation to possess these animals. Thus, PVAS has permits to possess every single one of our reptiles, including Esther.

Although PVAS's reptiles may seem cute and seem like they would be great pets, we remind children that PVAS has these animals because they were illegally taken from the wild, and that if it were possible, the best place that they could be is in the wild.

We are hoping that Esther will help dispel any fears or misconceptions of snakes among our program participants. Many people kill snakes in the wild, thinking that snakes are 'bad' and will cause harm. Corn snakes are often killed because they are misidentified as venomous copperheads. The truth is, when they feel threatened, all snakes would prefer to hide and get away from you, with biting being the last resort. It is also important to note that snakes play a vital role in our ecosystem as they are predators to other animals and serve as food source for animals higher on the food chain. The presence of snakes in the environment keeps the ecosystem in balance. If you have chance to meet Esther, be sure to give her a warm *Sssssalution*.



Progress In the Preserves

By KC Walters, PVAS Land and Facilities Manager

PVAS's participation in the 27th Annual United Way Day of Caring on September 14 was a huge success. After taking a hiatus in 2020, it was so great to once again be a part of the biggest volunteer day of the year.

This year, we hosted volunteers at Cool Spring Preserve to work on some big projects that were a long time in the making. Our group of 25 volunteers split up into four work crews, each with a special mission. One crew set to work under the leadership and guidance of James Dillon to plant a Monarch Waystation in front of the Nature Center. This Waystation, designed by James, features all native species that support our pollinator friends. And of course, there's plenty of milkweed in the new garden for Monarchs.



We had two crews take on painting projects. One crew took on the enourmous task of painting our front deck, while the other crew set to work painting all of our picnic tables and benches. This heavy-duty paint/stain was specially formulated for older wood. It helps reduce the splinters and fill in the cracks and also creates a water-resistant barrier for the wood. This will help prevent rot and lead to quicker dry times. No more soggy bottoms sitting at our picnic tables after a rainstorm! This new paint will ensure our wooden outdoor features last for many, many years to come.

Last but certainly not least, the fourth crew deconstructed the back deck attached to the Nature Center. Our programs have simply outgrown the small deck and the steep step off the end of the deck had become quite hazardous. We are now planning to have a concrete patio poured next spring that will span the entire length of the back of the Nature Center. Eventually, we hope to add an eave extending off the building to create a covered outdoor program space... perhaps even including a living roof!

In the meantime, we are planning to complete the trail boardwalk project on Linda's Loop this fall. All of the wood from the deconstructed deck will be recycled for the trail boardwalk. Thanks to the careful work of the demo crew, all of the deck boards can be reused in the new build and nothing will go to waste.

Despite the August-like heat and humidity, these volunteers put their hearts into completing these projects. It was so wonderful to see so many familiar faces return to lend us a hand once again, and to also have new faces join us. If the last year has taught us anything, it's to not take a single moment for granted!



Conservation

A Swift Recap

By KC Walters, PVAS Land and Facilities Manager

By the time you are reading this, the Chimney Swifts will be well on their way back to the Amazon Basin for the winter. They have had a very busy summer in North America, and here in Shepherdstown.



Swift Watch returned in April 2021. Several veteran "swifties" (our dedicated swift watchers) and a few new volunteers joined forces to monitor the Chimney Swift Tower on Shepherd University's campus. The volunteers set up a speaker at the base of the tower,

playing an audio lure to attract migrating swifts to come in to roost. Swifts were observed circling in the area and they seemed to be investigating the tower, but no one was observed taking the plunge into the tower in the spring.

The "swifties" returned to their posts in August to monitor the fall migration. And on August 6, five swifts "darted in from the left and went into the tower without circling." This was our first report of swifts actually spending the night in the tower! Slowly,

a few more swifts began using the tower as the month went on. In September, 4-5 swifts were seen routinely using the tower. It was very interesting that these swifts



did not twitter or circle the tower. They always came in stealth as ninjas just after dark. While there are not yet mass number of swifts using the tower, we believe the consistent use we observed this fall is the first step in the right direction!

On August 13, we held our second ever Swift Night Out event. We set up four interpretation stations at locations throughout Shepherdstown that played a key role in the Swift story. At least 35 participants visited each station before taking in a spectacular Swift show behind the Shepherdstown Libarary. Four hundred sixty Swifts were observed circling before dropping in to roost for the evening. Our participants then enjoyed Swift Sundaes courtesy of Rock Hill Creamery.

All in all, it was a wonderful Swift-filled summer and we look forward to welcoming the flocks back in Spring 2022!

A Monarch Minute: Butterflies' Busy Month

By Bruce Guthrie

Friends and members of PVAS and The Monarch Alliance recently held several events to see the Monarch butterflies off on their migration to Mexico.

Tagging events were held on September 11 near Charles Town, on September 18 at the City Park Fall Fest in Hagerstown, MD, and on Sept. 25 at the Antietam National Battlefield in Sharpsburg, MD. Small, round, sticky-backed and numbered tags were placed on the wings of captured Monarchs, and the butterflies were released. The tags do not hinder their flying ability. A log giving each tag's number, the gender of the Monarch, and where and when it was tagged was kept, and at the end of the season the information will be sent to the group Monarch Watch. If a tagged butterfly is then found in the wintering grounds in Mexico, or along the path of the migration, the information can help scientists understand the distribution of the butterflies, the timing and path of the journey, and mortality along way.



The Monarch migration is one of the curiosities of nature. Each winter, millions of Monarchs make their way to a mountainous area in central Mexico, where they gather in stupendous clusters on a particular species of fir tree to wait out the winter. In the spring, they fly to northern Mexico and the southern US, where they mate, lay eggs, and die. Their descendants fly further north, repeat the process, and die; each succeeding generation spreading further north, as far as Canada. Except for the generation that migrates to Mexico, each generation lives out its entire life, egg to demise, in five to seven weeks. But the "super generation" – the fourth or sometimes fifth generation, the ones that will fly to Mexico, starting in late summer or the fall – lives up to eight months. Taking advantage of high-altitude wind currents, traversing sometimes thousands of miles over a period of about a month, they find the Mexican mountains that neither they, their parents, nor grandparents have ever known, and settle in their winter sanctuary.

Gaining a fuller understanding of this migration is the primary goal of the community science tagging project, which began in the 1990s. Monarch Watch says it distributes more than a quarter of a million tags to volunteers across North American each year. More information can be found at https://monarchwatch.org, and tagging kits can be ordered from the site (\$15 for 25 tags).

Did you see many Monarchs this year? The butterflies face many challenges, including threats to their wintering grounds, habitat changes, and the loss of milkweeds that are the sole food of their caterpillars. This year, according to Sandy Sagalkin, former director of The Monarch Alliance, "we had a very hot summer, and most of the Monarchs took a detour around our region, since they do not do well in 90-degree weather."

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Monarch Minute continued from previous page

One way to promote the survival of future generations of Monarchs is to plant native plants that provide nectar for adults and serve as hosts for caterpillars. Such plants were featured at the Fall Native Plant Sale held by PVAS and The Monarch Alliance on September 18 at Sunny Meadows Garden Center in Boonsboro, MD. Part of the proceeds will go to the Alliance's Monarch Waystation Grant program, which provides native plants for worthy local projects. We had a great turnout for a fall sale. Nearly 1,000 native plants went to their forever homes. TMA and PVAS made \$4000 from the sale to support our grants and programs. We had folks come from up to 4 hours away to support our cause and help the Monarch butterfly!



Potomac Valley Master Naturalists

Is That Plant I Just Saw a "Weed Champion"?

By Ellen Murphy, PVMN Class of 2007, with research by Susan Fluharty, PVMN Class of 2009

Recently, a Facebook friend asked me if I could identify a plant that was growing in his yard. His question was "plant or weed?" It was Common Mullein, although not yet in bloom. I tried to spin the plant in a positive way, but I finally commented that it's usually considered a weed. I think that was all he needed to whack it down. He saw it as undesirable while I think of Common Mullein as one of the prettiest and easiest to identify roadside weeds. For most people weeds are undesirable plants. I think many of them just don't have a good Press Agent! There are a number of common roadside plants that can be called "Weed Champions" because there doesn't seem to be much that can take them down! Some of them are invasive, outside their native range, and they can take over an area, while others are native plants that can also be aggressive, but they are not invasive.

Common Mullein (*Verbascum thapsus*) is native to Mediterranean countries and was brought to North America by early settlers in the mid 1700's who already knew of its many uses. It is a biennial plant that exhibits only the soft rosette of leaves (which can grow fairly large) during its first year. The tall stalk appears in its second year. You usually see the light yellow flowers blooming between June and September along the side of roads. By fall, the tall, brown stalks appear, which is what you will probably notice from now through the winter. There is some evidence that the Romans dipped the stalk in tallow for use as a torch. According to legend, witches also used them for light, which explains its occasional nickname of "hag taper." Mullein also has some homeopathic uses for cough, digestive issues, and headaches.

One of my favorite wildflowers is Chicory (Cichorium intybus). I love the pretty blue color that is commonly seen from June into October, so it is likely still blooming in some places along the road. Sometimes it is called blue daisy, coffee weed, or blue bachelor's button. Chicory is a perennial, native

to Africa and is a member of the Aster family. You will find it in well drained soil and full sun and the young plants can be hard to see, but when left alone, it can grow up to five feet tall. The blue flowers appear in the second season. The roots, leaves, and flowers are edible, but very bitter. Chicory was used as a coffee substitute in the American South during the Civil War because it was thought that the roasted and ground root tasted similar to coffee. (At least some people thought so!) It is still a popular coffee additive in places like New Orleans, and if you are interested, look for coffee with chicory in the grocery store. (One common brand is Luzianne.)

My absolute favorite Champion Weed is Goldenrod (Solidago

sp.). When I would see it after Audubon Discovery Camp had ended for the summer, I knew fall was on its way! It blooms into October, so is likely still showing off its golden flowers.



Goldenrod is also a member of the Aster family and of the 100 species of the plant, 24 can be found in West Virginia. It is commonly seen in open fields and meadows. Legend has it that where goldenrod grows, buried treasure can be found! That might be easier than finding the end of the rainbow but getting permission of the landowner might be a good idea before you start digging holes. This beautiful wildflower gets a bad rap because so many people who have seasonal allergies blame Goldenrod. Not fair! The blame should really go to Common Ragweed! All sorts of pollinators are attracted to Goldenrod which means the pollen does not become airborne. Common Ragweed (Ambrosia sp.), which blooms at the same time as Goldenrod, but is generally finished blooming in September, is the plant to blame for seasonal allergies. 75% of people who suffer from seasonal allergies are allergic to ragweed. The plant, native to Mexico as well as North America, self-pollinates by wind with the upper (male) flowers sending out pollen to the lower (female) flowers. The plant survives only one season, but a single plant can produce up to 1 billion grains of pollen! The pollen has actually been found 2 miles up in the atmosphere. That's why you might have been sneezing this past summer! Indigenous people used the crushed ragweed leaves to alleviate insect stings and as a tea for fevers and digestive problems.

Two other plants that are somewhat similar in appearance are Yarrow and Queen Anne's Lace. They are both common, white weeds that appear on the side of the road, but if you look more closely, they are quite different in appearance. Yarrow (Achillea millefolium) is in the

Aster family and is known by many names including common yarrow, devil's nettle, milfoil, and soldier's wound wart. It is native to North America as well as Asia and Europe and reproduces through rhizomes, not seeds. It is a perennial that blooms from June through September. Wild yarrow flowers are generally white; it is the cultivated varieties that have different colors. At the top of the stem, small white flowers form in flat-topped or dome-shaped clusters. The leaves are aromatic and feathery, giving it a fern-like appearance. Yarrow can be confused with Queen Anne's Lace (*Daucus carota*), as both plants bloom about the

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same time and both are quite tall, but look for the dark purple floret in the center of the umbrel of Queen Anne's Lace. Yarrow does not have this. The florets of Queen Anne's Lace are also shaped differently, with small flower clusters growing from



multiple thin stalks coming from a common center on the main stalk. Queen Anne's Lace is a member of the parsley family (although often called Wild Carrot because of its root shape) and is commonly seen from May through September. Both of these white plants have just passed their primary blooming season, but you may still find a few plants in bloom and they will be everywhere again next summer.

Now that fall is here, a very common weed that suddenly seems to appear everywhere is Teasel (*Dipsacus sp.*). This member of the Aster family blooms from July to September, but it is the fall and winter appearance that is more often noticed. The dried plants have a distinct egg shape on top of a long stalk and if you look at them closely, you'll find that the seed heads are very prickly. In fact, in some parts of the United States Teasel was cultivated before the 19th Century because the dried heads of the plant were once used in the textile industry to raise the nap on woolen cloth. Now the plant is much more commonly found in dried flower arrangements (and the subsequent seed dispersal from the dried seed heads somewhat explains why it is often found growing in cemeteries.) Teasel can be an important food source for some birds such as goldfinches and blackbirds which may be a reason for us to forgive its aggressive invasive behavior.

Finally, when I first noticed Groundsel (Senecio vulgaris), I thought it was some kind of funky dandelion. It certainly looks like it with similar leaves and numerous small yellow flowers that never seem to open fully. In addition, the mature seeds (which appear anytime from spring to late fall) are fluffy white tufts, not quite like a dandelion puffball, but similar enough to be confusing and to earn its nickname "old man in the spring." This member of the Aster family is a fast-growing annual, going from seed to mature, seed-producing plant in 5 weeks and a single plant can be responsible for up to a million other plants in a year! A warning, though, Groundsel is definitely NOT edible and can cause liver damage, so leave it alone if you entertain thoughts of a side-of-the-road snack.

These examples of Weed Champions are not the only ones you might see as you drive down the road, but knowing what they are, may make the drive more interesting. Your passengers may be amazed as you point out a plant and tell them about it. What better way to use your Master Naturalist knowledge!

PVMN Anniversary Celebration Update

The Potomac Valley Master Naturalist's 15 Year Anniversary Celebration was scheduled for Saturday, October 9th.

Due to concerns over the increase in the Delta variant in our area, the Celebration has been postponed. We look forward to gathering with our fellow Master Naturalists once it is safe to do so!

Advocacy

The Future of Carbon Capture

By Neal Barkus, Panhandle Progressive

Carbon capture is a term used to describe a group of technologies that either remove carbon directly from the air or remove it from waste gas as fossil fuels are burned. The carbon "captured" is either buried or used in the manufacture of other products. The Intergovernmental Panel on Climate Change includes carbon capture as one of many methods that must be employed if the world is to limit temperature rise to no more than 1.5 degrees Celsius.

The U.S. does not have a dedicated research program for carbon capture. Funding has been piecemeal. But in the \$3.5 trillion infrastructure legislation under consideration in Congress, advocates see an opportunity to change that. The first funding for carbon capture came in the 2005 Energy Policy Act. Now several bills have been proposed to amend that Act to strengthen the research funding and tax credits for carbon capture projects.

The carbon capture method eventually supported by Congress is important to West Virginia. Removal of carbon from the air addresses carbon already released, while capture in the burning of fossil fuels permits the continuation of reliance on those fuels versus renewables. West Virginia coal interests are lining up behind removal from fossil fuel gasses for obvious reasons.

But the truth is that neither method of carbon capture and storage is feasible now at the scale necessary to make even a tiny improvement in the climate change monster. Currently, around 40 megatons of CO2 are captured and stored annually worldwide, equivalent to about 0.1 per cent of our emissions. Funding carbon capture projects is a bet on the future.

Many, although not all, environmentalists oppose carbon capture. They worry that carbon sequestered underground will still find its way to the surface through leaks, pipeline spills and geologic activity. They also rightly argue that carbon capture employed in the burning of fossil fuels does not wean us from these harmful fuels. The entire mining, drilling and pipeline infrastructure would still be present and require capital investment that could be spent on renewables.

Perhaps more to the point, environmentalists point out that carbon capture generally does not work. FutureGen Alliance, backed by the U.S. Department of Energy, attempted to demonstrate carbon capture at a coal-fired power plant in Illinois. After spending \$1.65 billion, DOE suspended the project in 2015. More recently, Chevron conceded that it has fallen short of its carbon capture targets after spending \$3 billion on a project in Australia. Throughout this period, the cost of solar and wind projects has plummeted.

Undeterred, a bipartisan group of legislators recently sent a letter to House and Senate leadership outlining a legislative program for breathing some life into the carbon capture concept. Many of these legislators hail from oil and coal-producing states, including David McKinley who represents West Virginia's 1st Congressional District.

The letter proposes a "targeted suite of carbon management policies," including the buildout of regional CO2 transport and storage networks, enriching the tax credit available for carbon

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Advocacy

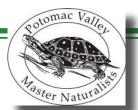
Future of Carbon Capture continued from previous page

capture projects, and "robust funding" for commercial scale carbon capture pilot projects. They urged Congressional leaders to pass several pending bills that would amend current law to achieve all these goals.

Notably these legislators also urge reforming the law to incentivize utilities to retrofit existing coal-fired units with carbon capture technology. I am certainly no expert, but these bills seem to dress up carbon capture in virtuous language, while really aiming to bolster the coal and other fossil fuel industries. Rep. McKinley has proposed one of these, called the "Net-Negative Carbon Dioxide Baseload Power Act." This bill would have the Secretary of Energy begin a retrofit program for existing coal-fired plants that use at least 70 per cent coal.

Perhaps friendlier to the environment overall is the direct air capture method for removing carbon. The technology for this has existed on a small scale for many years – it is what enables air inside a submarine to be reused. One recent venture in Iceland will use a chemical called sorbent to capture carbon contained in the air circulating through. Once it is fully operational, the project will capture 4000 metric tons of carbon each year. The size of this experimental operation will soon be eclipsed by one in the Southwestern U.S.

The ultimate question is whether the cost of capturing a ton of carbon by direct air capture can be brought down to around \$100. This will be a difficult target to meet – the cost incurred by Climeworks, the company building the Iceland project, is expected to be around \$500 per ton. But if costs can ultimately be reduced to around \$350 per ton, these experimental projects may reveal enough promise to attract the funding necessary to improve the technology and drive costs down.



Are you interested in learning about your local environment and providing valuable education and service to your community?

The Potomac Valley Master Naturalists invite you to apply to join the 2022 Master Naturalist Program.

Applications will be available starting November 1, 2021 and will be due January 31, 2022. Classes and field study will begin in the spring of 2022.

Applications can be found at <u>PVMN.org</u>. Please email <u>PVMN@PotomacAudubon.org</u> with any questions.

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About the National Audubon Society

National Audubon has a membership program that is separate from PVAS. To become a National member, go to the Society's website at www.audubon.org, and click on "join." If you join National Audubon and reside in Berkeley, Jefferson, or Morgan counties in West Virginia, or in Washington County Maryland, you will automatically become an affiliate of PVAS, but not a full PVAS member. Affiliates will have access to our communications, and invitations to our events. However, all National Audubon dues go to the National Audubon Society and are not shared with PVAS. We heartily invite you to become a dues-paying member of both organizations.



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The Potomac Valley Audubon Society meets at 7:00 p.m. on the <u>second Wednesday</u> of each month, September through May. Programs are free and open to the public. For additional information about PVAS or its programs and activities, please contact any of the board members listed here or see http://www.potomacaudubon.org. PVAS serves the Eastern Panhandle of West Virginia and neighboring Washington County, Maryland.

All Officers, Board Members, and Staff can be contacted at 681-252-1387.

PVAS Board meetings take place the first Thursday of every other month (September through June).

Meetings are open to all PVAS members. Please contact the President or Vice President if you would like to attend.

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