



Valley Views

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August/September 2021

President's Note

By Jim Cummins, PVAS President



Thanks to science and caring people, our lives are returning to more normalcy, but it is a new normalcy. Covid concerns are still here, especially for those who have not been or cannot be vaccinated. Day-to-day life seems busier than before, routine tasks require more planning and preparation, paying attention to “little-big things” like making sure to have masks handy when we go out in public, just in case. But anxiety levels are lower, and many freedoms have returned: we are getting out and about again, going to restaurants for dinner, visiting with family and friends, hugging, breathing more normally. They all feel great! One valuable lesson from this awful pandemic is not taking day-to-day activities for granted.

But while many positive human interactions are reviving, our interactions with our bird friends have taken a sad turn. Birds are dying from a mysterious cause, and contamination or transmission from bird feeders is one suspect, so we are wisely curtailing or stopping our use of bird feeders as a precaution until more is known. We can and should clean our feeders more often. For the present, we have stopped using ours entirely. I so miss seeing our feathered friends on them. The empty feeders sit or hang there alone and forlorn. I frown and sigh when I look at them.

There is much evidence that a stressed environment and shifting climate are compromising our immune systems: not just human systems, but systems across a wide range of life on this beautiful and bountiful planet. A simple online search of the phrase “Climate change and disease outbreaks” provides a good sample of the many studies on the topic. Fortunately, many PVAS members and programs are working to reduce human-caused stress on the environment and climate. Please continue to participate in and support such actions. The more of us who lead by example the more likely it will be that family, friends, neighbors, whole communities, states, and nations will do the same. Thereby a new normalcy will also return to our good feathered, finned, and furry friends. They will multiply instead of disappearing.

It is regrettable that increased fires, floods, filth, and famine have not yet been enough to get all of us to collectively act more responsibly to reduce our negative impacts upon the planet, especially on climate. Adding deadly infections to the list of bad “f” things caused by human negligence surely should.

“Founders Day” Established in Honor of Jean Neely’s 90th Birthday

By Kristin Alexander, PVAS Executive Director

The 2021 Annual Meeting and Picnic was the perfect opportunity to establish and announce July 10th as “Founders Day” in honor of Jean Neely’s 90th birthday.

Jim Cummins, PVAS President, read the Proclamation aloud to the gathered members. The document outlined Jean’s many contributions to the chapter – from its inception, its establishment, her continued involvement throughout the chapters’ existence, and her dedication and support through volunteer efforts and financial contributions.



In her honor, Jim “proclaimed to declare each year on July 10th as Founder’s Day, with appreciation for Jean Neely’s founding of and dedicated service to Potomac Valley Audubon Society.”

Jean, who was in attendance, received a copy of the Proclamation to a standing ovation of the members in attendance. Happy Founders Day! And a heart-felt thank you, congratulations, and happy birthday to Jean. PVAS wouldn’t exist today without her.

Potomac Valley Audubon Society is dedicated to preserving, restoring, and enjoying the natural world through education and action.

Mysterious Bird Disease

By Wil Hershberger, Nature Images and Sounds, LLC

A mysterious, deadly condition has been affecting birds in our area and seven other neighboring states since late spring. It seems to have coincided with the emergence of the periodical cicadas. Affected birds exhibit swollen and/or crusty eyes and neurological symptoms such as falling over, trouble walking, arching their backs, and an inability to fly correctly. Many birds have also been found dead. The species that have been found dead or with symptoms include Blue Jay, European Starling, American Robin, Northern Cardinal, House Finch, House Sparrow, Eastern Bluebird, Red-bellied Woodpecker, Carolina Chickadee, and Carolina Wren.¹

Speculations have ranged from avian influenza to other viruses and bacterial diseases. Most common diseases have been ruled out since researchers were unable to transmit the “disease” to other, healthy birds. **However, out of an abundance of caution, wildlife agencies and state DNR staff are urging residents in the affected areas to remove bird feeders and birdbaths immediately. These are places where birds congregate and where diseases could be easily passed from one individual to another. Feeders and baths should be washed, soaked in a 10% Clorox solution, thoroughly rinsed, allowed to dry, and put away until some cause for this situation can be found.**

There was also speculation that it might have had something to do with the *Massospora* fungus that infects periodical cicadas. While this fungus produces powerful psychoactive compounds, it has been around for millennia, as have the birds. So, this is not a likely candidate.

Another theory suggests that insecticides sprayed on trees and periodical cicadas to control the cicadas and prevent damage to trees might be the culprit. The physiological conditions seem to support this hypothesis. Also, most of the affected birds were young or recently fledged, which is supportive of this theory since young birds are fed insects almost exclusively. All of the affected species are also known to eat periodical cicadas. Unfortunately, testing for pesticide residues is not typically useful since the compounds do not linger long within the bodies of animals – they are broken down through metabolism as well as by sunlight.

So, at this time, experts are leaning toward the theory that this might be a newly emerged bacterial disease. It may take several weeks for studies to reach any consensus on what the causative agent(s) might be. Finding the smoking gun may never happen as the cicadas have finished their 17-year cycle and are now fertil-

izing the forests to support the next generation of these amazing insects, and any spraying to “control” them has now ceased.

For now, please follow the DNR’s guidelines and remove, clean, disinfect, and store feeders and baths. If you see affected or dead birds, do not handle them with bare hands; use disposable gloves if you must handle affected birds. Report any suspected “diseased” birds to the state DNR.

We will let you know if there is a confirmed finding for what is causing these deaths and illnesses. If it turns out to be related to pesticides, that is unfortunate. Periodical cicadas occur only in eastern North America and are an amazing phenomenon of the natural world. The eastern forests also co-evolved with the



Some of the species being affected by the disease © Wil Hershberger, Nature Images and Sounds

cicadas and actually seem to benefit from this periodic pruning and extra dose of fertilizer the cicadas provide. While very young trees may be killed by heavy oviposition, older trees may benefit from the extra light allowed into the rest of the tree’s canopy and the increased lateral bud initiations.

Let’s hope that this problem is short lived and we can return to feeding and providing water to our feathered friends in the near future.

¹ List from Frank Kummer, *The Philadelphia Inquirer*, July 2, 2021.

PVAS Events

Adult Programs in August & September 2021

By Krista Hawley, Adult Program Coordinator

While August and September are filled with back to school and work activities, PVAS is also gearing up for fall programming. We are looking forward to seeing our PVAS community and having you join us at a variety of our programs - either virtually or in-person.

We are excited to announce that on Wednesday, September 8th, PVAS's Monthly Programs will return to our in-person format at the Education Center of the Hospice of the Panhandle. We will offer a Zoom link for those that are not able to attend in-person. Jim Siegel, Ecology Curriculum Manager, Branch of Conservation Science for the USFWS, will be presenting on *Turtles of the Eastern Panhandle*. Dr. Siegel will talk about their ecology and conservation and how the WV state regulations have changed, including how many WV reptiles and amphibians are completely protected now from collection and possession without a permit from the state.

On October 13th, the Monthly Program will once again be offered exclusively via Zoom. Carla Dove will present "*When Birds Collide*" *Feather Identification at the Smithsonian Institution*. Carla J. Dove is Program Manager of the Feather Identification Lab at the Smithsonian Institution's National Museum of Natural History. Her expertise is in the specialized field of microscopic identification of feathers. An important application of this research is to the field of aviation safety in determining the identifications of birds that are ingested into aircraft engines (birdstrikes) such as the one that caused US Airways flight 1549 to crash into the Hudson River on 15 January 2009. We look forward to seeing you in person on September 8th and virtually on October 13th!

Wil Hershberger is once again leading his popular *Singing Insect Walk* at Cool Spring Preserve. On Friday evening, August 20th, participants will join Wil as he sets off down the trails of Cool Spring Preserve, looking for, listening to and learning all about the various insects we hear in the summer and early fall months. Register today for this one of a kind gathering.

The Monarch Alliance is happy to be ramping up their fall programming. They will be offering various programs including the Fall Native Plant Sale (at Sunny Meadows Garden Center) and the Monarch Butterfly Parade (at Hagerstown's City Park),



both on Saturday, September 18th, and Monarch Tagging at Antietam National Battlefield on Saturday, September 25th. The Monarch Tagging is set in perfect timing with the fall migration of Monarchs to Mexico. Everyone is welcome to join the tagging event, however registration is required. Details can be found on the website

Joy Bridy's Nature Journaling Gatherings have been a wonderful addition to the PVAS community. Joy will continue to host these gatherings through the fall months. They are a wonderful opportunity to slow down, observe and enjoy the living details of PVAS's preserves and our area parks.

Beat the late summer heat with one of our early morning bird walks at either the USGS Eastern

Ecological Science Center or PVAS's Cool Spring Preserve. The trip leaders encourage anyone with an interest to join, regardless of their birding skills.

We have some exciting news that Birding 101 is returning in April of 2022! Registration will open this fall so make sure to watch our events calendar for details.

After a long wait, the Potomac Valley Master Naturalists have had a great start to their in-person classes. The 2020 cohort (which became the 2021 cohort) began their classes virtually, however were able to meet outside, in-person, at Yankauer Preserve for their June classes, and at the Nature Center at Cool Spring Preserve for July and August. If you are a Master Naturalist or current student, mark your calendars for the Saturday, October 9th celebration of our 15-year anniversary at Morgan's Grove Park. Details about this important milestone will be forthcoming. Master Naturalists that have an interest in birding can join Roy Boyle's Bird Walk for Master Naturalists on the C&O Canal on Saturday, August 7th. Roy is excited to try out his skills at hosting a bird walk, and hopes fellow Master Naturalists will bring along their field journals and birding apps and help share their knowledge on this walk.

PVMN applications for the 2022 year will be coming out in October. If you know someone interested in the program, please refer them to <https://www.potomacaudubon.org/master-naturalists/> or email at PVMN@PotomacAudubon.org.

PVAS is continually adding exciting opportunities to our ever-growing events calendar. Please be sure to check <http://www.potomacaudubon.org/calendar> often for the latest listings.

PVAS Events

Two Rivers Giving Circle Honors Kristin Alexander

We are happy to announce that the Two Rivers Giving Circle has honored our very own Executive Director, Kristin Alexander, with one of its two 2021 Conservation Awards!

The award recognizes Kristin for her contributions to natural resources conservation. The award will be formally presented at the Giving Circle's annual summer picnic at Charles Town's historic Harewood mansion on August 15 where she will receive a personalized, handcrafted platter made from local clay by award-winning potters Pam and Ren Parziale, of Sycamore Pottery in Leetown.

Also receiving a Conservation Award this year is Grant Smith, the president of the Land Trust of the Eastern Panhandle (LTEP). Grant is a long-time member of PVAS and has been the president of the LTEP in 2001.

The Two Rivers Giving Circle is a field of interest fund of the Eastern West Virginia Community Foundation. Since its inception in 2008, it has provided more than \$100,000 to Eastern Panhandle organizations engaged in natural resources conservation and historic preservation. It is one of the few grant makers in the region that focuses on these two fields, and PVAS gratefully receives support from this fund regularly.



Each year, the Giving Circle recognizes one or more individuals who have been leaders in one or both of these fields. The Giving Circle is composed of charitably minded individuals from Jefferson, Berkeley and Morgan counties who make annual contributions to the circle's fund. Contributions of any amount are welcomed, but those who contribute \$500 or more annually have the opportunity to be involved actively in the circle's grant making process. They meet twice each fall to review grant applications and decide which applications should be funded.

Summer Appeal Update

A heart-felt "thank you" goes out to everyone who has contributed to PVAS's Summer Appeal so far! We are approaching 50% of our \$25,000 goal. If you haven't given yet, it's not too late! But we need to wrap up the Summer Appeal by August 15th. An envelope is enclosed for your convenience.

Funds from this appeal will help get our preserves and programs ready for a very busy fall as programs return to nearly normal numbers, while using the knowledge and experience we've gained over the last 15 months to better serve more adults, children, and families in more diverse ways.

Help provide PVAS with the foundation it needs to ramp up its programs and services for the fall by giving to the Summer Appeal today! As always, thank you for your support. We promise to use your donations well in support of our mission: *preserving, restoring and enjoying the natural world through education and action.*

Volunteer Spotlight

Have you met Marie Van Valkenburgh?

Marie VanValkenburgh is an active Potomac Valley Master Naturalist and volunteer for the Potomac Valley Audubon Society. Marie is more than generous with her time, energy and pickup truck! While Marie's job keeps her busy during the weekdays, she is always available to help us out in the evenings and weekends.

She is an expert with a shovel and pile of mulch, hauls heavy bags of birdseed without complaining and wears a smile on her face as she tackles heavy duty trail work. Marie is always more than happy to load her pickup truck full of PVAS's tables, chairs, watercoolers, pop-up tents...you name it and she will haul it! During "This Race is for the Birds!," she is our go-to for errands, washing and filling water coolers, setting up tents and even directing runners.

We greatly appreciate Marie's dedication to helping us achieve our mission and could not be the successful organization we are without awesome people like her.

If you'd like to nominate someone you know for a shout-out, get in touch with Hannah Donnelly at Hannah@PotomacAudubon.org.



PVAS Events

PVAS Annual Picnic Welcomes New Board Members and Honors Those Stepping Off

By Kristin Alexander, PVAS Executive Director

The PVAS Annual Membership Meeting and Picnic was held July 10th this year at the Yankauer Preserve. Each year PVAS members gather together to enjoy each other's company, welcome new board members, and recognize board members who are stepping off the board. This year we took advantage of the date and celebrated Jim Cummins' 70th and Jean Neely's 90th birthdays as well. (Jim is the current PVAS President and Jean Neely is the Founder of the chapter.) We also took the opportunity to thank PVAS members for their incomparable support over the last 15+ months to help PVAS survive as an organization in spite of COVID.

This year PVAS welcomed the following new board members: Ginger Hankins (Vice President), and At-large members Dana Fogle, Keith Unger, and Mary Lynn Robinson. Board members who were elected to an additional term included Steve Paradis (Treasurer), and At-large members Pete Mulford, Patti Mulkeen-Corley, Melissa Gonzalez, and Rod Snyder. Continuing their terms on the board include Jim Cummins (President), Suzanne Offutt (Past-President), Carolyn Thomas (Secretary) and At-large members Patty Bain Bachner, Wil Hershberger, Georgia Jeppesen, Herb Peddicord, Susan Brookreson.

Donald Campbell and Mina Goodrich were recognized for their service to the board. Both are leaving after six years of outstanding service, due to term limits. A tree (species of their choice) will be planted at one of the preserves (also of their choice) in honor of their significant contributions to PVAS. Mike Sullivan, Shannye Carroll and Tiffany Lawrence were also recognized, as they were not recognized last year due to COVID. Redbud trees were planted at the Cool Spring Playspace last year in their honor.

Also recognized at the annual event was Jean Neely (Founder and Board Member Emeritus). July 10th happened to be Jean's 90th birthday, and we used the occasion to unveil the "Jean Neely Pavilion" sign that was presented to her virtually last year. In addition, PVAS announced the establishment of "Founders Day" on July 10th every year in Jean's honor. (See separate article with details.)

For COVID safety, everyone brought their own food this year, but Donna Hershberger prepared beautiful, individually boxed cupcakes and cakepops for everyone to enjoy for dessert. To add to the festive nature of the occasion, Bob Dean, Jim Cummins, Scott Rockwell, and Terrie Sheaffer provided live music.

PVAS is so fortunate to have incredibly supportive members, and everyone seemed to truly enjoy reconnecting with one another after a very long year. We thank everyone for coming, and hope to see even more folks at the event next year.

Camp Programs

That's a Wrap for Summer Camp

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

What a summer! Camp consisted of 8 weeks of camp, 40 campers per week, with 6 camp staff. This summer, camps were 100% full, and almost 200 children attended at least one of our camp sessions at either Yankauer or Cool Spring Preserves. I want to give a big shout out to our summer camp staff, counselors Molly Hardy, Sara Brown, Abby Freidline and Emily Sterling, and Yankauer Director Laurel Schwartz. Our camps would not have been so successful without them.

Here were some of the highlights at camp this year.

- Climbing on the 100-year-old fallen Chinquapin Oak tree at Cool Spring
- Releasing Brook Trout in Bullskin Run
- The Olympic games at Animal Olympics camp such as Crab Soccer, and penguin sliding
- The spy agility obstacle course at Unsolved Mysteries Camp which included crawling through hoops and ducking between ropes
- The team fort building competitions at Survivor Camp
- Orienteering through the preserve to rescue the CITs (camp volunteers) and performing first aid in a pretend rescue scenario
- Puddle Jumping and sliding on the mud slip and slide

Top Camp Quotes:

- After we finished playing a game with balls in the field, we asked the children to help pick them up. One camper replied "This is child labor."
- One day the staff were eating donuts at snack time. Camper A asked, "Why do they get donuts but we don't?" Campers B replied "Because they work harder than us!"
- We read a book about the life cycle of a praying mantis. In the story, the praying mantis nymph sheds its skin for a final time and becomes an adult. A camper then asked, "Does this mean it needs coffee now?"
- "Camp is great, but I hate school. I wish they taught us about taxes and revenue."



Family and Youth Programs

Goodbye Abby and Emily

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

It has been an absolute pleasure getting to work with our AmeriCorps members, Abby and Emily, this year. Their dedication to our mission and desire to be the best educators they could be was evident in everything they did.

They started off the year teaching outdoor school to homeschooled students. During their first month, they got in front of the camera and helped film six videos for our watershed program. It wasn't long before they started teaching virtual watershed programs to hundreds of 4th graders. In addition to the youth programs, Abby and Emily have worked with KC with land management work, and this spring, they led their own volunteer workdays at the preserves. They ended their AmeriCorps year with 8 weeks of summer camp.

They each brought new and exciting aspects to our programs. Abby, with her love of fish, helped us develop fish lesson plans. It was a joy to watch her put on her cardboard fish fins when she taught about fish anatomy. A very talented artist, Abby even created personified invasive plant "criminals" to use in teaching students about the problems non-native invasive plants cause to our ecosystems. Emily developed new games and activities for teaching about climate change. She also was the lead creator of our "Trail of Bones" family program in the fall, which consisted of a night hike, with bones hidden along the trail for the families to find. Abby and Emily truly have had a positive impact on the hundreds of campers and students they have worked with throughout this year. I have received many compliments and praises from teachers and parents alike, which have only re-affirmed our appreciation of the impact that Abby and Emily have had on our community's children. They will be greatly missed, but I am confident that they will continue to do great things in their next endeavors.

My Year with PVAS

By Abby Freidline

I sit here writing this in the midst of Audubon Discovery Camp, which is just about the most fun I've ever had at any camp. I have a moment to reflect on my service year with Potomac Valley Audubon Society. Just 1 year ago I was fresh out of college and was pretty unsure where my BS in Organismal Biology would take me. I thank my lucky stars that I found this amazing opportunity to work with PVAS. I came into this year of service with some experience with environmental education at other non-profits, but I can safely say that I learned more in this past year than most classes and internships in college. I am so glad I got the chance to learn from Amy and KC, as well as the other members of the staff.

The education staff created Outdoor School beginning in September, which was aimed towards providing fun and informational hikes for homeschooled students in the area. This was also when we began recording videos for sending to the 4th grade classes that were participating in the Watershed Education Program. If you haven't seen any of them, definitely check them out for a good laugh and a reminder about how important watersheds are!

I also was able to learn more about West Virginia flora by shadowing KC in between our homeschool programs and virtual lessons. I could probably identify Autumn Olive blindfolded at this point! I am so glad to have visited all 4 nature preserves that PVAS manages, and to have met some truly wonderful volunteers from the local community in doing so.

This past year has been a whirlwind for a variety of reasons, but I am proud to say that I have emerged on the other side hopeful and eager to put my new knowledge to use. Thanks to Krista, Kristin, and Hannah, who were always so welcoming and supportive throughout my time with PVAS. Whether it was chatting for hours while preparing the track for Race for the Birds, or helping me research a local advocacy campaign, I am so thankful for knowing you all. And thanks to KC, who kept me on my toes with new and exciting projects all year (and countless laughs)! Finally, with Amy's guidance I have actually realized my passion for environmental education. She taught me so many things in

such a short time, and I am beyond grateful for her patience and expertise. Thanks to her I am now a Beaver Believer, and will never pass up an opportunity to climb a neat tree.

I am extremely excited to go forward as an Environmental Science teacher for Spotsylvania County in Virginia. It will be challenging to incorporate all that I've learned this past year. I feel ready, however, thanks to the amazing folks at PVAS.

My Year with PVAS

By Emily Sperling

Joining AmeriCorps and working at the Potomac Valley Audubon Society has been a grand and unique opportunity for me over the past year. I am thankful for all I have learned and for the wonderful people I have had a chance to work with. Having the opportunity to help at such amazing nature preserves like Yankauer, Cool Spring, Stauffer's Marsh and Eidolon has been an awesome experience. Although Covid made my time here a little challenging for doing outreach, Amy was ever helpful as I learned to navigate new ways of reaching out to the classrooms, and having a positive impact on the students.

I am thankful that with Outdoor School we could still operate during Covid, when most schools changed to 100% virtual. It was great to be able to teach outside, interact with kids, and make an in-person connection with them. I especially enjoy working with the kids, and feel lucky that we could continue seeing and teaching them during Covid. Planning all the lessons is so rewarding when you see the kids learn, and hear the thoughtful questions they ask. I really enjoyed learning from and getting to know not only KC but also the volunteers on work days. Working with KC taught me a lot about the preserves and all of the different plants growing there.

PVAS plays such an important role in the community by doing outreach and educating all ages about not only the local nature preserves, but the greater environmental world that we all share. I feel honored to have played a small part in that role, and I am grateful for the opportunity given to me by Amy and all the wonderful staff here at PVAS.

Family and Youth Programs

Fall Youth Programs

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

As we gear up for the new school year, we are excited that many of the in-person school programs that we offered pre-Covid will likely resume. We will be offering general nature programs for elementary school students as well as our 4th grade watershed programs that will include field trips to our preserves.

In addition to school programs, we will be continuing our Outdoor School for homeschoolers and our Wee Naturalist program for preschoolers. Finally, we hope to offer some fun family programs.

Visit our website to learn more about the youth programs we have scheduled for this fall.



Youth Program Volunteers Needed!

Do you enjoy working with kids? If so, consider volunteering as a Youth Program Educator. Every school year we are in need of PVAS volunteers to help assist

PVAS staff in leading school field trips at our preserves. If you are interested in volunteering, contact

Amy at amy@potmacaudubon.org.



Conservation

Top 5 ways to lower your carbon footprint/impact

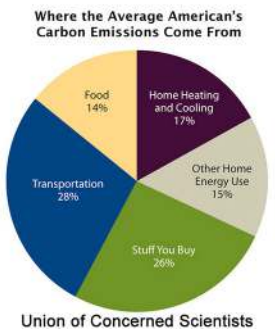
By Donald Vogel, Summer Land and Conservation AmeriCorps Service Member

1. With the summer heating up, the effects of climate change can feel even worse! However, there are many things you can do to limit your contribution to climate change. One of the top ways to do so is reducing the amount of driving you do. According to the Environmental Protection Agency (EPA), the transportation sector is the biggest contributor to greenhouse gas emissions, at about 30%. Greenhouse gas emissions are human-made emissions that trap heat in the Earth's atmosphere and help contribute to our warming climate. Cutting down your driving time through alternate forms of transportation can help limit these emissions. Other options such as carpooling or public transportation limit driving time and are much more feasible now as the Covid-19 pandemic dies down.



2. Another way to limit your carbon footprint (the amount of emissions caused by an individual) is to limit energy usage in your household. This can be done through simple actions such as limiting heat and air conditioning usage and keeping lights and appliances off when you're not using them. More effective actions that can limit energy usage include replacing incandescent lightbulbs with LED lights, and replacing old energy inefficient appliances such as refrigerators. This will also save you money on your energy bill!

3. Reducing the amount of waste you generate can also help lower your carbon footprint. According to the EPA, about 169 million tons of waste are incinerated each year. To limit waste, increasing recycling is extremely beneficial, as each ton of waste recycled or composted is equal to the energy usage of 3.56 homes a year. Avoiding things like plastic plates, utensils and straws and instead opting for reusable kinds can also help limit waste. Other kinds of waste that can be limited is food waste, by buying proper portions to ensure it can be eaten before it spoils.



4. Shopping sustainably can also help lower carbon emissions.

Looking for fair trade logos on clothing products can show if they were made sustainably, and research on companies can also show their sustainability. Reusing and donating clothes also helps greatly! Buying local products, especially food, not only supports the community but also limits the amount of emissions used through transportation of products. While shopping, using reusable shopping bags also helps limit waste.

5. Finally, lowering your meat consumption can greatly reduce your environmental impact and carbon footprint. According to the United Nations Intergovernmental Panel on Climate Change, a non-animal source food diet is the biggest way to mitigate greenhouse gas emissions on an individual level, with mitigation equivalent to 8 CO₂ equivalent megatons of greenhouse gas emissions per year. However, this is not the only option, as any lowered meat consumption helps! Limiting red meat in particular can greatly reduce individual carbon footprints. One popular idea is Meatless Mondays.



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Notes from the Preserves

Summer In the Preserves

By KC Walters, PVAS Land and Facilities Manager

Beavers, kittens and quack grass...oh my! The theme of this summer has been challenges. But it is through challenges that we grow as individuals, an organization and most importantly, a community centered around environmental stewardship.

While it appears that we have reached a mutual agreement and understanding with the beaver residents at Stauffer's Marsh, another beaver has moved in at Cool Spring and has been more challenging to accommodate. The beaver arrived at Cool Spring in mid-May, and his first objective was to stop the flow of water through the culverts under Lloyd Road, with the construction of a dam. Unfortunately, this damming project has resulted in flooding of the roadway, presenting a safety hazard. With a recommendation from Alison Zak, founder and executive director of the Human-Beaver Coexistence Fund, PVAS has brought in Ecotone Inc. to develop a management strategy and propose mitigation methods to allow the beaver to keep his dam while preventing the road from flooding. Ecotone will also help us assess the long-term potential impacts the beaver's dam may have on the rare marl marsh ecosystem that makes Cool Spring so precious. We are very excited to have beavers, a species that has largely been extirpated from the eastern panhandle, making a home at our preserves. It is a testament to our conservation work and the benefit these nature preserves have for all members of our community - not just the human residents!

Our second challenge of the summer was a feral cat who had a litter of kittens in the barn at Cool Spring. Cats are the number one predator of birds and are thought to have contributed to the extinction of 33 other species around the world. Thanks to our friends at Briggs Animals Adoption Center, the kittens will all find loving homes and not continue the cycle of predation and reproduction at our preserve. This incident serves as a reminder of the importance of spaying/neutering cats and keeping them indoors in order to save wildlife.

While we had intended to plant the Cool Spring Monarch Waystation in early June, our third challenge, quack grass, prevented us from doing so! During our pre-planting meeting, James Dillon made the unfortunate discovery of this horrifying garden weed. Because it spreads by rhizomes, quack grass is exceedingly difficult to eradicate. So, we emptied the garden of all the existing plants, many of which were saved in pots for replanting, and are working hard to manually eliminate every shred of quack grass rhizome. We now look forward to putting quack grass behind us and planting the Waystation in September!

Speaking of September, the annual United Way Day of Caring is just around the corner! This year, the Day of Caring will be held on Tuesday, September 14. We will host volunteers for several special projects at Cool Spring Preserve. Check our website for more details on projects and to register!

September also means it's time to bid farewell to our summer Land and Conservation AmeriCorps Service Member, Donald Vogel. He will be returning to the University of Maryland for his senior year. He has been an invaluable addition to the PVAS team this summer with his can-do attitude and outstanding work ethic. We wish him all the best, and thank him for his service!



Native Plant Sale

What: A benefit fundraiser for Potomac Valley Audubon Society and The Monarch Alliance (TMA)

When: Saturday, September 18 10 a.m. – 2 p.m.

Where: Sunny Meadows Garden Center (7437 Sharpsburg Pike, Boonsboro, MD 21713)

Join us for our Fall Native Plant Sale at our partner location, Sunny Meadows Garden Center.

We will feature fall nectar plants for pollinators, shrubs and trees for wildlife and of course MILKWEED for monarchs!

This fundraiser supports the environmental activities of PVAS and TMA. In addition, your purchases also help support TMA's Monarch Waystation Grant Program that provides over \$3,000 worth of native plants for worthy projects. Representatives from both PVAS and TMA will be on hand to talk to you about monarchs, other pollinators, the monarch's amazing annual migration, and our activities.

For further information, contact KC Walters (PVAS Conservation & Land Manager) at katelyn@potomacaudubon.org.



Potomac Valley Master Naturalists

Potomac Valley Master Naturalists – The Best Kept Secret?

By Kris Phillips and Rich Brager, PVMN Coordinating Committee Co-Presidents

Is the Potomac Valley Master Naturalist program the “best kept secret” in the Potomac Valley? If it is, this is not intentional.

So, who are the Potomac Valley Master Naturalists (PVMN)? Well, we are an all-volunteer group of dedicated, trained individuals who love the natural world. Established under the PVAS umbrella, we serve Jefferson, Berkeley, and Morgan Counties in West Virginia, and Washington County in Maryland, and are a part of the statewide West Virginia Master Naturalists program.

In order to become a Master Naturalist, you must first have a love of nature and a desire to share that love with the community. You must complete 62 hours of formal class and field work and complete 30 hours of approved volunteer service in order to become a certified Master Naturalist.

Each year PVMN provides training for approximately 20 new candidates. The 2021 candidates have had a particularly challenging year due to Covid restrictions, but through the miracle of Zoom, class work began in March as it usually does. We were able to resume in-person training in June, much to the delight of both students and instructors, and the day was filled with lots of learning, exploring and connecting with fellow classmates. PVMN veteran Ellen Murphy was the Recording & Sharing Instructor and introduced students to the importance of documenting observations, and different strategies for sharing this information. Rita Hennessy opened up her wildflower meadow for the field portion of her Wildflowers class, and students practiced identifying some of the plants growing in the meadow. The day concluded with a perennial favorite elective – Slime Molds – which was taught by Shepherdstown University professor, John Landolt. This year, students got to prepare their own slime mold specimens as well as view Dr. Landolt’s extensive collection.

In order to help ensure that PVMN is not a “best kept secret,” here are some links to help you find out more about us:

PVMN Web Page: www.potomacaudubon.org/master-naturalists/

WVMN Web Page: www.mnowv.org

Facebook: www.facebook.com/PotomacValleyMasterNaturalist

Instagram: [pvmn_naturally](https://www.instagram.com/pvmn_naturally)

Email: pvmn@potomacaudubon.org



Our enthusiastic trainees during their June classes at Yankauer Preserve!



Potomac Valley Master Naturalists are in search of Master Naturalists or current MN candidates to fill two new positions on the Coordinating Committee

Technical Leader & Communication Leader

For further details, please email co-chairs, Kris Phillips and Rich Brager at PVMN@PotomacAudubon.org



Save-the-Date!
Potomac Valley Master Naturalists
15th Anniversary Celebration!

Morgan's Grove Park

Saturday, October 9th
11:00am - 4:00pm

All Master Naturalists and Candidates are invited.

Bring along a picnic lunch and items for the silent auction.

We look forward to seeing you there!

Advocacy

What is Karst, and Why Should We Care?

By Neal Barkus, *Panhandle Progressive*

When I was a first-year student at the University of Virginia I was required to take a science course. The choices were physics, chemistry, biology or geology. “Rocks” is what the students called geology and it was reputed to be the least rigorous, so that’s what I took. It was a good choice. We learned about the various types of igneous rocks, and minerals like quartz and feldspar. One of the funniest things I ever saw scrawled on a bathroom wall was that geology professors Ellison and Earn “had committed hornblende together.” But I sense I am losing my way here.

Sedimentary rocks constitute another major category. Some sedimentary rocks are formed in oceans from small pieces of other rock and organic debris in the water that settle out and are compressed over millions of years. Limestone and dolomite are sedimentary rocks of this type. Those of us who live in the Shenandoah Valley, including West Virginia’s Eastern Panhandle, are living atop great areas of limestone.

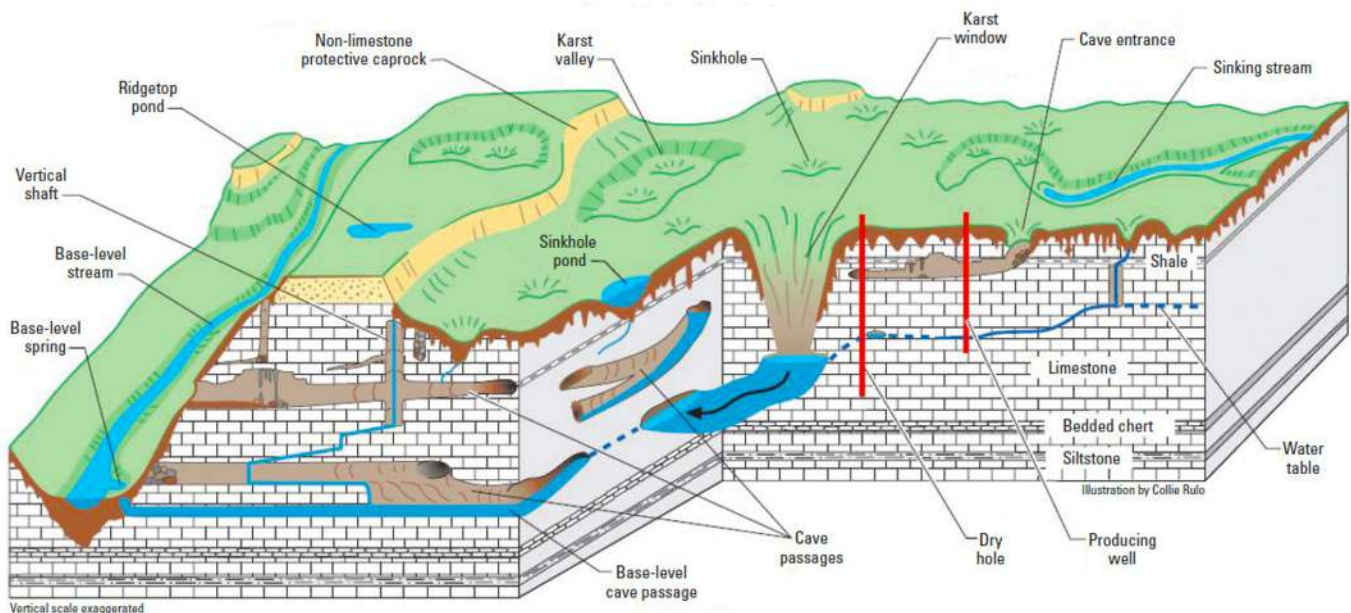
When the underlying rock in an area is hard, surface water features such as streams and lakes are plentiful. But when it consists of soft rock, like limestone, there are fewer surface water features because all the rainfall quickly seeps into the ground through cracks and fissures. In our area groundwater is where the action is. It moves around much more easily in limestone than in harder underlying rocks. Groundwater creates all sorts of interesting and sometimes dangerous underground features in limestone like caves and sinkholes.

The name for geologic areas like ours is karst terrain. Karst formations have high rates of permeability, resulting in reduced opportunity for contaminants to be filtered. While surface water like lakes and rivers are easily polluted simply by dumping contaminants, groundwater in karst terrain is just as easily polluted. That matchless research source Wikipedia tells us that “sinkholes have often been used as farmstead or community trash dumps. Overloaded or malfunctioning septic tanks in karst landscapes may dump raw sewage directly into underground channels.”

One of the chief complaints of the opponents of the Rockwool industrial development is that groundwater pollution from its operations can easily pollute drinking water sources for a large number of residents. A December 1, 2020 article in the *WV Independent Observer* noted that there were 100 wells within the 1-mile “buffer zone” surrounding the Rockwool plant. Much of the domestic drinking water in Jefferson County comes from wells – in 2011 approximately 679 million gallons per year. This is common throughout the state. The West Virginia Legislature has found that ninety percent of the state’s rural population depends on groundwater for drinking.

Industrial sources of groundwater pollution are not the only concern. The Eastern Panhandle is undergoing rapid housing development and other building. Any activity that disturbs the surface is a potential source of groundwater pollution.

Perhaps the best we can do is to monitor our groundwater carefully during this phase in our development. If that monitoring



Advocacy

What is Karst? continued from previous page

reveals hard evidence of groundwater pollution, then action can be taken before it is too late. That is the approach taken by a bill introduced in the last regular session of the Legislature by Del. John Doyle (D-Jefferson) and several others. The bill, known as HB 2980, sought to amend the Groundwater Protection Act by adding protections in karst terrain.

HB 2980 would have required any application for a permit, license or registration for activities that may affect groundwater in karst terrain to contain a groundwater contamination risk assessment, a design proposal for structures to contain any risk, and a water monitoring and contamination response plan at the site. Anticipating opposition from small business, the bill allows the Department of Environmental Protection to exempt activities having a *de minimus* effect on groundwater.

As with most environmental bills in the Legislature, HB 2980 died in committee without receiving a vote. The bill will be reintroduced in January 2022 at the next regular session and Del. Doyle has received assurances that the bill will get at least a hearing in committee. If you are inclined to contact your legislators on environmental matters, this bill should be at the top of your list.

GIVE THE GIFT OF MEMBERSHIP!

ALL of your dues will stay here to support local PVAS efforts and help us grow! And here's what you'll get:

- 10% member discount on program fees, facility rentals, and birthday parties.
- A subscription to our bi-monthly newsletter, *Valley Views*, and twice monthly e-newsletter, *Heads Up, PVAS!*
- Free or reduced admission to participating nature centers/museums.
- Discounts to participating **local businesses**.

Gift Membership Form

To purchase a gift membership, send in the form below with an enclosed check. Dues are \$50/household, \$35/teacher (covering membership for everyone in your household for one year, or \$20/full-time adult student (benefits apply to member only). Make the check out to "PVAS." For more details on membership, go to: www.potomacaudubon.org/support/become-a-member/.

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Recipient's Address: _____

City: _____ State: _____ Zip code: _____

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Recipient's Phone (optional): _____

Please note if you'd like us to mail your gift membership directly to the recipient of your choice, or to you. If you'd like us to mail it directly to the recipient, also note when you would like it to be mailed.

Clip and mail this form to:

Membership Chair, PVAS
PO Box 578
Shepherdstown, WV 25443



Thank you for your support!

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.

FREE & FAMILY FRIENDLY

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EVERY WEDNESDAY IN AUGUST
6:30PM - 7:30PM

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AUGUST 11TH
BOB DEAN & TERRIE

AUGUST 18TH
STEVE WARNER & FRIENDS

AUGUST 25TH
THE DILETTANTES

WWW.POTOMACAUDUBON.ORG

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The Potomac Valley Audubon Society meets at 7:00 p.m. on the second Wednesday 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.

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Vice President:Ginger Hankins (2023)
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Special Contacts:

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Valley Views editor/publisher:	Charlotte Fremaux (301-404-8639)newsletter@potomacaudubon.org

PVAS BOARD

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.