

Valley Views

Volume 37, Issue 2

October/November 2018

Director's Report

By Kristin Alexander, PVAS Executive Director

It's going to be a busy fall! In addition to our "Raise the Roost" campaign, installing solar panels at Cool Spring, and our fall fundraiser, PVAS is very pleased to be partnering with the American Conservation Film Festival this fall.

PVAS is sponsoring the film *Backyard Wilderness*. This is a rather unusual thing for us to do. But I happened to be home when my husband, Jeff Feldman, was previewing the film in his role as festival president. I didn't intend to get sucked in, but I did. The videography was stunning. The subject was on point for PVAS as an organization that tries to get kids outside and connected to the natural world. At the end I turned to Jeff and said, "What would it take for PVAS to sponsor this film?"

We hope you come to see it for yourselves. It will be shown at NCTC on October 13, 10:00 a.m., during the family block. We'll be leading a "Backyard Wilderness" nature walk for families afterwards so everyone can discover the wildlife outside our back door.

Along with the film, we'll be hosting an interactive display developed by the Howard Hughes Medical Institute that accompanies the film. The exhibit will be at Cool Spring Preserve for the months of October and November (excluding October 13, when it will be at NCTC to accompany the film). The nature center will be open on Saturdays from 10:00 a.m.-4:00 p.m. during this time to allow more visitors to interact with the exhibit.

The morning of October 20, we'll host a BioBlitz at Cool Spring Preserve as an extension of the exhibit. We'll have scientists on hand to help registered guests discover the wildlife in our own "Backyard Wilderness." Families in particular are encouraged to attend. Participants will be encouraged to download iNaturalist (a free app that helps you identify natural discoveries) on a device beforehand. We'll train folks on the basics of using it, then put it to work on a semi-guided walk through the preserve in small groups. You'll "capture" the discoveries using iNaturalist, visit with scientists along the way, and then come back to upload all of the discoveries together in one place. The result will be a snapshot of natural discoveries cataloged that day as part of the event.

We hope this will be a very fun day for families to come out and discover what Cool Spring has to offer, but also that they

go home and discover the natural world in their own backyards. Participants are welcome to bring a picnic lunch and enjoy it at the preserve after the BioBlitz.

Please check our website for details on these events and for registration information. You can also e-mail or call me to learn more. We hope to see you at any or all of these exciting fall activities!

JiJi Russell Joins PVAS Team

We are pleased to announce that JiJi Russell has accepted the new position of Program Administrator. JiJi will be helping PVAS with communications, from managing our website and social media presence to administering our membership and donor programs. Although JiJi is new in the position, she is not new to PVAS. She was the event planner for the first-ever Potomac Arts Festival sponsored by PVAS in 2005.

JiJi comes to PVAS with a rich background in programming and communications. She has worked in both corporate and non-profit settings, most often filling roles that facilitate health, wellbeing, and lifelong learning. In 2006 JiJi co-founded Harmony Healing Arts Center in Shepherdstown and developed a popular free event series, along with co-directing the Center's yoga program.

She has a B.S. in Journalism and is a health coach and registered yoga teacher. More recently, JiJi has worked in higher education for both Shepherd University and American Public University in roles that featured ongoing project development and management, event planning, and various communications and administrative functions. She currently serves on the board of the Eastern Panhandle Society for Human Resource Management chapter, where she creates event registrations and maintains their membership database and mailing lists. JiJi looks forward to working with PVAS in a new capacity and facilitating the many extraordinary programs that PVAS has to offer.



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

Another New Species for the County and the State Found at Cool Spring Preserve

By Wil Hershberger

Last year's singing insect walk at Cool Spring Preserve uncovered a hoard of soft-singing Long-spurred Meadow Katydid (*Orchelimum silvaticum*) lurking in the brambles and thickets, seemingly all over the preserve. This was the first documented occurrence for this species in Jefferson County, and you can read more about it here: (<https://www.potomacaudubon.org/wp-content/uploads/2018/08/vvoct17.pdf>).

This year, the Potomac Valley Master Naturalists added a "Singing Insects" elective to their schedule. It had been a few years since this elective was offered, and Cool Spring seemed to be an ideal place to hold the class. After a 70-minute presentation about the natural history of *Orthoptera* and Cicadas, the class was let loose into the preserve. We slogged our way through wet grass and spongy, slippery soils looking and listening for any members of the singing insects of this area.



Slow-tinkling Trig photo © Wil Hershberger

The cicadas were in full choir as the sun was setting. In fact, it was nearly impossible to hear anything but the cicadas for 30 minutes or so as we made our way from the parking lot to the north edge of the marsh. Linne's, Scissor-grinder, and Swamp cicadas were treating us to an amazing concert. As the sky darkened, the cicadas relinquished the stage so that we could hear subtler voices. Listening to the marsh, we could hear Slightly Musical Coneheads rasping away in unison as well as the frog-like calls of Northern Mole Crickets drifting to our ears from their subterranean burrows.

The trees above us were coming to life with the combined voices of hundreds of Davis's Tree Crickets, their drowning songs punctuated by the higher-pitched screams of Two-spotted Tree Crickets. KC Walters' sharp, highly night-adapted eyes found a pristine female Two-spotted Tree Cricket at eye level for everyone to enjoy and examine. These arboreal species are hard to find this low. As we meandered along the trail, we were treated to the songs of Nebraska Conehead Katydid, Greater and Lesser Angle-winged Katydid, Oblong-winged Katydid, Broad-winged Tree Crickets, and Tinkling Ground Crickets. The soft, silvery trills of Jumping Bush Crickets became apparent only after dark had fallen. A group of synchronously chorusing Columbian Trigs was hard to hear over the other tree crickets. The most common, but not heard at all, was the diminutive Short-winged Meadow Katydid that were seen foraging in the grasses along the trails. Males sing so softly, and at such a high pitch, that they were completely drowned out by the other members of this summer symphony.

Once we were at the cairn, next to Bullskin Run, we paused and listened for several minutes to this most ethereal of sounds, the songs of crickets and katydids, drifting softly in the humid air. As we explored the area, someone noticed a small, brown cricket-like insect resting on some Orange Jewelweed. My first impression was that it appeared to be a Say's Trig, but it was about a meter off the ground and appeared darker than a typical male of this species. This unknown male was gently collected, brought back to the studio, placed in a singing cage, fed some Iceberg lettuce, and placed in a dark, carpeted walk-in closet set up for audio recording. After two days, the unknown trig started to sing. Immediately, it was apparent that this was NOT a Say's Trig - but something new. The song was moderately loud, 4-5 pulses per second, slow by cricket standards, and at a frequency of nearly 7kHz. There are several species of crickets that sing in this range, but few that chirp this slowly. The song resembles that of the Tinkling Ground Cricket but is even slower than this species' 7-9 pulses per second.

After a quick look at Dr. TJ Walker's website, it was found that this unknown cricket was a Slow-tinkling Trig, *Anaxipha tinnulenta*. This species and four similar species were just described to science by Dr. Walker and David Funk in 2014. While it was hypothesized that this species might occur in Jefferson County, West Virginia, this is the first documented collection in the state - and it happened at Cool Spring Preserve. (http://songsofinsects.com/crickets/slow-tinkling_trig).

PVAS Events

Adult Programs

As autumn finds its way back to our area and settles in, PVAS looks to embrace this change of season and celebrate all that it has to offer.

While our late summer days were spent learning about Monarch tagging and butterfly citizen science, and learning about plants that attract butterflies during our butterfly walks, we now eagerly look to owl banding trips, hawk watches, and more to fill our crisp fall days.

The extremely popular owl banding trips to Steve Huy's and Bob Dean's owl banding stations are on the calendar for early November. Each year, these fascinating trips offer a view into the world of the Northern Saw-whet, the smallest owl in the East and the only migratory owl.

Are any of you interested in continuing education? We have much to offer. September was busy with exciting natural history workshops on naturalist field journals and a mandala watercolor workshop. The educational opportunities will continue in October with Doug Pifer's workshop, "Drawn From Nature: John James Audubon and How He Drew the Birds of America," and Walt Sturgeon's workshop, "Fall Mushroom Hallmarks," which will be held at the National Conservation Training Center. In November, Susan Loonsk will offer another workshop in her series, "Art to Earth, An Ecopsychology Workshop."

Our monthly programs also offer excellent ways to gain knowledge about a variety of natural history topics. In October, KC Walters will share information she gained at Hog Island about the bird preservation process, bird banding, and of course the puffins! In November, Brett Billings, Senior Video Producer with the U.S. Fish & Wildlife Service, will give us a behind-the-scenes look at what it takes to get the best images for conservation with his program "Wildlife Thru the Lens: Conservation Thru Images."

The Potomac Valley Master Naturalists will be at Yankauer Nature Preserve on Saturday, October 27, for their annual fall gathering. All Master Naturalists and their families are invited to join any of the day's offerings. A full schedule of events is planned, including a morning bird walk, botany walk, potluck lunch, information about the history and future of Yankauer, and the building of an insect house. Anyone interested in learning more about the Master Naturalist Program is also invited to attend. More information can be found here: <https://www.potomacaudubon.org/event/pvmn-fall-gathering-at-yankauer-nature-preserve-2/>.

Please check the events calendar often, as new events are continually being added and updated.



Bob Dean with Saw-whet Owl © CJ White

Volunteer Spotlight

Have You Met Wil Hershberger?

Wil Hershberger is extremely generous with his time and talent. He has taught Birding 101 for 32 years (no, that's not a typo) and is a regular volunteer walk leader and instructor for PVAS. He is an expert in his field in recording songs of insects, he has many recordings of bird songs on file with Cornell Lab of Ornithology, and he has co-authored a book entitled *The Songs of Insects*, replete with photos and songs of insects. He is a talented wildlife photographer and shares his images with PVAS for our website, signs, and other communications. He is on the Grassland Birds Committee and regularly goes to visit properties to monitor and offer management "best practices." The birding map on the website is courtesy of Wil - as is the informative natural history article he contributes to every issue of *Valley Views*. He has even served in the role of President of PVAS. We heartily thank Wil for all of his varied contributions to PVAS over the years.

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



©Paul Koehler

PVAS Events

Birdseed Sale, 2018: Here Birdie, Birdie!

As many of us begin our preparations for colder weather and the onset of winter, we prepare our bird feeding stations for the season. To help with that, we invite you to participate in the annual PVAS Birdseed Sale that will run from September 12 through October 15, 2018.

We have changed our format somewhat from years past. This year we are partnering with Sunny Meadows Garden Center in Boonsboro, MD, which has been the site of our very successful native plants sale for the past two years. They have been very helpful in developing a product list and providing access to high quality birdseed at competitive prices. For the November 3 pickup date only, customers who pre-order can get a 10% discount on the regular prices of birdseed at Sunny Meadows. (The 10% discount is applied in the prices you'll see on the website order form and on the hard copy.)

The distribution date will be Saturday, November 3, at four locations in our region, one at each county in our service area: Sunny Meadows in Washington County; Audiology Inc. in Berkeley County; Cool Spring Preserve in Jefferson County; and Hunter's Hardware in Morgan County. You can order birdseed on-line at our website or by using the hard copy attached or enclosed. We are mailing order forms to former customers but don't want to miss anyone!

This year we are also offering a delivery service. For an extra \$25 you can have seed delivered to your door, courtesy of dedicated volunteers. This can be arranged by appointment.

If neither of these dates or options is possible, Sunny Meadows has offered to contribute 10% of the proceeds from birdseed and bird-related products on the first Saturday morning of the months December through March.

Support of our annual Birdseed Sale is one way you can support PVAS's wide variety of programs and its preserves. We also need volunteers to help with each site for the birdseed sale, and to be at Sunny Meadows on November 3 and the following "First Saturdays" to answer questions and share information about birdseed, feeders, habitat, and PVAS programs in general.

November 4 Fundraiser Features Green Home

Join PVAS at its Fall Fundraiser on Sunday, November 4, from 2-5pm. The event is being generously hosted by Rita Hennesy and Sean Palmer. Their green home, located on Terrapin Neck Road outside Shepherdstown, features 38 solar panels, a Bolt electric car and solar charging station, passive solar design, a masonry stove, reclaimed wood, a mini split air conditioner, double wall construction, and more.

In addition to the green home, Rita and Sean have worked very hard to create a pollinator meadow with great success. They will be at the event to talk about their home, their car, and their meadow.



Photos courtesy of Rita Hennesy



In keeping with the event's theme, "A Salute to Pollinators and All Things Green," the talented and generous events committee will be preparing foods made possible by pollinators.

We hope you'll join us to give kudos to Rita and Sean for their green efforts while supporting PVAS's programs and preserves. To request an invitation, contact Kristin Alexander at Kristin@PotomacAudubon.org or 304-676-

3397. Ticket levels include: Individuals \$50; Donor \$150 (admits 2), Patron \$200 (admits 2), and Supporter \$250 (admits 2).

PVAS Events

“Raise the Roost” for Chimney Swifts - Updates!

We’re making progress for Chimney Swifts.

PVAS signed a Memorandum of Agreement with Shepherd University that allows PVAS to build the roosting tower on the campus. We are accepting construction bids for the project as we write this article, and we hope to be able to report on any decisions we make in the next issue of *Valley Views*. Bids are due at the end of September.

“A Swift Night Out” chimney swift counts are also going on as we write this. Chimney Swifts can be seen circling chimneys in large numbers right now as they spiral down chimneys to roost for the night. We’re not seeing them in the quantity we’d like, but clearly they are still in the area and using some existing chimneys. Nancy and Elliot Kirschbaum led the count in Shepherdstown on September 8 and reported 380 birds in one chimney and 630 in another! No birds used

Knutti Hall. Our hope is that this time next year we’ll be able to watch them spiral into a brand new tower, built just for them, that can accommodate larger numbers. A large space is the preferred roosting habitat for the swifts as they gather to feed and roost communally before their 6,000-mile journey to the Amazon Basin for the winter. We’re glad that some of them have found places to gather for now, until we can all work together to “raise the roost.”

On that note, another exciting development is how people are coming together to help the swifts. We’re inviting folks to become members of the “Century Club” with a donation of \$100, or the “K Club” at the \$1,000 level. Of course, any level of giving is welcome as we strive to raise funds for the tower construction. One of our members, Carolyn Thomas, even used Facebook to raise money for the project in lieu of birthday gifts, raising \$1,000! We love the creativity and generosity of PVAS members and friends. Thank you for helping to make this project a reality.

To support this project, you can donate on our website, through PVAS’s Facebook page, or by check mailed to: PVAS, P.O. Box 578, Shepherdstown, WV 25443.



Pictured signing the Memorandum of Agreement are (l to r), Shepherd University President Dr. Mary Hendrix, PVAS Land and Conservation Manager KC Walters, PVAS Director Kristin Alexander, and PVAS President Suzanne Offutt.

**Family and Youth Programs****Youth Programs in “Fall” Swing**

PVAS’s fall youth programs are now in full swing. Our homeschool and preschool programs, which are held at Cool Spring Preserve, are off to a great start. Our homeschoolers started September with a creek exploration program, followed by a Monarch tagging program in late September. Programs covering topics such as Native Americans, trees, and decomposition are yet to come. Our Wee Naturalist preschoolers have been exploring the topics of butterflies and their habitats. Themes such as leaves, spiders, worms, and squirrels will be covered later in the fall. Every homeschool and preschool program brings at least one newcomer. In addition, an increasing number of individual homeschool and preschool groups are requesting private programs. The growing popularity of these programs means we are able to reach more and more kids.

PVAS is in the process of recruiting up to two AmeriCorps members who will be serving a year with us as environmental educators. They will instruct a variety of our youth programs, such as our Watershed Program, libraries programs, school programs and more.

We are also providing monthly nature programs to a few schools for the duration of the school year. Instructors find it rewarding to have multiple visits with the same group of students and be able to watch them grow and build their knowledge base.

Notes from the Preserves

In the Preserves

The United Way Day of Caring on September 11 was a great success. In total we had 26 volunteers spread out at three of our nature preserves. At Cool Spring, the volunteers weeded and planted the rain gardens with plants donated by Karin Field-Smith. They also cleaned up all the trails, which were a mess after recent storms. The Yankauer volunteers began work on our outdoor classroom with mulch donated from Potomac Farms Outlet, removed trash from the preserve, and installed a much needed ventilation fan in the pavilion. The Stauffer's Marsh crew planted 25 mountain laurel, donated by The Woods Resort, to provide an evergreen screen for the protection of waterfowl on the pond. They also planted a handful of native shrubs to diversify the preserve and removed rocks from the pollinator meadow to prep for continued maintenance. Additionally, a fantastic group of volunteers ensured a hot and delicious lunch was delivered to each of the preserves to feed our worker bees.



Thank you to everyone who helped out - and an extra thank you to the team leads, Amy Moore, Kristin Alexander and Steve Hartmann, for spending a day away from their regular duties to help KC at the preserves.



But the fun doesn't have to stop there! Several volunteers were not able to make it out to the preserves on the Day of Caring due to the rainy weather and flooded roads. We also had to delay the mulch donation to Cool Spring and completely postpone the cleanup at Flowing Springs Park. So let's keep the Day

of Caring spirit alive and carry it into October! KC is looking to reschedule these projects and hopes for another great turnout of spectacular volunteers. If you are interested in putting a team together and spearheading one of the ongoing projects (working on your own schedule), please email KC at Katelyn@potomacaudubon.org.

Winter is just around the corner, and so is the end of the year. We need your help to end the land management season on a high note. Be sure to check out the Month-at-a-glance calendars for upcoming workdays, and register on our new website. Oh, and come visit the preserves as summer turns into fall. Staff and volunteers work hard to keep them in good shape so that you can enjoy visiting them and connecting with nature.

Conservation

Top 5: Favorite Fall Hikes

The beautiful fall season is upon us. Gone are the muggy, hot days of summer, and winter will soon be creeping in, so now is the time to get outside and enjoy our wild and wonderful local hikes. While you can never go wrong with the spectacular view of the Potomac and Shenandoah rivers at the top of the classic Maryland Heights hike, here are a few new hikes you may not have considered before, brought to you by the PVAS staff.

1. Kristin recommends the Devil's Backbone trail in Sleepy Creek Wildlife Management Area. The trail is never crowded and has a phenomenal view from the top. Just keep your eyes open - rattlesnakes like it, too.
2. Looking for a challenging hike? Check out Raven Rocks, just outside the panhandle in Bluemont, VA. Amy recommends this hike particularly if you enjoy finding fun rock-climbing spots.
3. If you have a need for speed like Krista, she recommends checking out the trails at Antietam National Battlefield. There are lots of looping trails with diverse scenery, from creeks to woods to open fields. These trails bring excitement to a training run or a pleasure hike.
4. Not much of a hiker? Check out one of Ariana's favorite places for a leisurely stroll, the C&O Canal Towpath. Not only do you get to enjoy the billowing trees and the methodical flow of the river; your favorite four-legged friend gets to come along, too.
5. Though it sounds like self-promotion, KC highly recommends hiking the Zapolean Loop (formerly the yellow trail) at Eidolon Nature Preserve. From the trickling springs to the wonderful fall colors of a diverse forest, a fall hike at Eidolon is an enchanting experience.

Conservation

If You Feed Them, They Will Come

By Jane Vanderhook

Providing supplemental feed for birds is a very popular activity in this country. More than 53 million Americans do it. Nearly half of all American households purchased birdseed in 2016; they spend \$5 billion per year. Feeding birds improves the health of individual birds, increases bird survival rates, brings a larger variety and number of birds to the site, and allows us to enjoy a spectacle we might otherwise be unable to witness. Some have voiced concerns that supplemental feeding somehow weakens the bird population. In fact, the opposite is true.

A 2011-2013 Wild Bird Feeding Industry Research Foundation study found the following:

- At established feeding stations, the maximum number of birds visiting increases to a plateau.
- Birds from forested sites may use feeders, but continue to have territories and home ranges farther away from feeders.
- Bird feeding has localized impacts on the bird community immediately adjacent to a feeding station, as opposed to larger-scale, forest-wide changes.
- Bird feeding improves survival.
- Birds consistently appear to be in a greater overall state of health, including: improved body condition, lower stress, greater antioxidant capacity, greater nutritional condition, and greater immune function. Indeed, some birdseed mixes provide additional vitamins and minerals.
- One common myth has it that while it may be fine to feed during certain seasons, you make birds too dependent and lazy by feeding year round. Again, not so! Birds get less than 25% of their food from feeders when they are present, so feel free to feed and enjoy watching all year.

What should you feed?

Feed high quality birdseed from a reliable source. Be sure you know what you are putting in your feeder. That bag of supermarket birdseed might be good, and it might not, so know your source. Hint: PVAS sells only the highest quality birdseed at its birdseed sale. Use fresh birdseed, free of mildew, clumps or spoilage. The current year's seed is more nutritious and preferred by birds. I once tried two Nyjer seed feeders, one with new seed and one with last year's. The feeder with new seed emptied quickly; the old one remained untouched. Also, spoiled seed makes birds sick: don't use it. Keep feeders full and clean. If your feeder is empty, the birds will leave. It may take days for them to return if they ever do. (As an aside, please fill your feeders before the annual Christmas Bird Counts. We look for feeders, and it is so disappointing to see how many empty ones there are.) Dirty feeders can play a part in making birds sick. Store unused seed in a dry place, free of pests. Metal containers like new trash cans with locking lids will foil most critters.

You can find blends of a variety of seeds, or choose to feed one type only. Whatever you choose, here are some common types:

Sunflower Seed – Black Oil, Striped or Hulled: This is by far the most popular choice of seed with a choice of variety. Black oil sunflower seed has a higher fat content, is meatier, and has a thinner shell that smaller birds can peck through. Striped sunflower seed has less meat with a thicker shell. Both are messy, since the outer husk is waste. Hulled sunflower seed is just the kernel inside the shell. While it is more expensive, there is no waste and no mess. Sunflower seed will attract a wide variety of birds, including chickadees, house finches, titmice, jays, grosbeaks, cardinals, sparrows, nuthatches, woodpeckers, doves and goldfinches. Interestingly, 51% of all sunflower birdseed comes from North Dakota.

Nyjer Seed: This is also called thistle seed, and finches, redpolls and pine siskins love it. You will probably need to use a special feeder because it is small and lightweight and can blow away easily.

Millet: This is an annual grass grown reliably in semi-arid conditions principally in the Dakotas, Colorado and Nebraska. While many birds may kick it to the ground, in the south it is prized because painted buntings will flock to it. Here it attracts sparrows, juncos and buntings.

Also, your blends may include safflower seed, nuts, cracked corn and milo. Beyond birdseed, try suet, nectar, fruit, nuts, or mealworms, to bring in an even greater variety of birds, such as hummingbirds, orioles, jays, bluebirds and many more. You may pick from a range of feeders: tray or platform feeders, hopper or house feeders, window feeders, tube feeders, suet feeders, and Nyjer feeders (either upright or downward). Whatever you decide to feed, choose a bird feeder that is appropriate, and enjoy!

While you watch the spectacle, you can even contribute to science. Become a citizen scientist by participating in Project Feederwatch - Cornell Lab of Ornithology, <https://feederwatch.org>.

And if the experience inspires you to learn more about your feathered guests, you may want to take Cornell Lab Bird Academy's course "Feeder Birds: Identification and Behavior," which it offers online. And of course you can always take PVAS's own Birding 101 in the Spring.

Conservation

Native Bees Find a Home at Cool Spring

Dotti Mozden's retirement from a career in public service and IT gave her the freedom to reactivate her academic roots in biology and her keen interest in the natural world. When she joined the Master Naturalist class of 2017, she had no idea that she was starting on a journey to become an expert in native bees and how to provide nesting materials for them. Now, as a result of that journey and the commitment of a small group of volunteers, Cool Spring Preserve is becoming a haven for native bees.

There are 4,000 species of native bees in North America. The *Megachilidae* family, which includes mason and leafcutter bees, is probably the best known among them. Although the plight of honey bees (which were brought here from Europe) is getting a great deal of much-needed press these days, native bees need care and support, too. Native species are responsible for pollinating the vast majority of fruits and vegetables in North America, some 70-75% of our food. And mason bees are more effective pollinators than honey bees; 250 mason bees can pollinate an acre of apple orchards, which requires 20,000 honey bees.

Those who care about native bees and recognize their potential for agriculture have begun providing nesting boxes and tubes in their yards and orchards to attract and host the bees. At the 2017 Master Naturalist Annual Meeting, Dotti prepared a poster sharing her research on native bees, and included a sign-up sheet for those interested in volunteering to bring bee nesting boxes to Cool Spring Preserve. She ended up with a committed group: Paul Breitenbach built and installed the nesting boxes, J.P. Miller built trays that expedite mason bee cocoon management and the provision of clean nesting materials, and artist Susan Loonsk provided photo support. There are now three nesting boxes installed at Cool Spring, thanks to the help of manager Amy Moore.

But, as Dotti's research revealed, there is more to providing nesting opportunities for these bees than just putting up the boxes. USDA scientists and other bee experts have determined that there can be serious problems with human-provided concentrated nesting. These boxes become a prime target for the parasites, fungi, and mites that prey on native bees. Nesting materials must be replaced (preferably) or sanitized each year before a new generation of bees begins building nests for their eggs.

The Cool Spring bee boxes have become an experiment, allowing the committee to play the role of citizen scientists. A variety of species have shown up for nesting, and the end of the nesting season this fall will require the committee to learn a lot about the appropriate way to care for each species through their dormant season. They are also learning the best places to site the boxes and the need for additional resources, such as emergence boxes to help the bees leave their nests and cocoons in the spring, and how to protect the bee boxes from birds and other predators. This is part of the fun for Dotti: learning as they go.

The ultimate objective for Dotti is education and outreach. She is reaching out to Master Gardener and agricultural groups to provide educational materials and workshops. She wants to inform people putting out nesting boxes that they cannot simply "set it and forget it." If property owners are unable to keep up with the boxes and provide clean, new nesting materials each year, it is better to support the bees in other ways. For example, they can plant flowers that feed bees, keep bare soil available for ground-nesting bees, and follow "integrated pest management" principles related to pesticide use.

Dotti's story is a reminder that a PVAS program can inspire an interest, which can stoke a passion, which can lead to real change for the natural world and the people who love it. What is your interest? Let us know how we can help you learn more and apply your passion for the benefit of us all. And for more information about native bees and how you can help, please contact Dotti at dotmozden@yahoo.com.



The Monarch Alliance Announces Grant Program

The Monarch Alliance, a program of the Potomac Valley Audubon Society, announced the opening of its spring Monarch Waystation Grant Program to schools, universities, nature centers, and other organizations that want to use monarch waystations to add monarch habitat to the landscape and involve students in outdoor learning. This program is open to projects in Washington and Frederick Counties in Maryland, and Berkeley, Jefferson, and Morgan Counties in West Virginia. The grants are worth up to \$1,000 worth of plants. Applications are due by November 15, 2018.

Monarch butterflies are in trouble. The Eastern, migratory population of monarch butterflies has declined by about 80% over the last decade. Monarchs and other pollinators are struggling to survive numerous threats including disease, pesticides, climate change, and habitat loss.

This grant program is part of an "all hands on deck" approach, which includes increasing quality habitat across the monarch's breeding and migratory range. Every monarch waystation and pollinator garden can make a difference by providing milkweed and native nectar plants to support the monarch's life cycle from egg to butterfly. By working together, we can help reverse the precipitous decline in the monarch's population, and help stabilize it at approximately six hectares in the Mexican over-wintering areas.

Grantees will receive a voucher for the purchase of waystation plants at the Monarch Alliance Native Plant Sale at Sunny Meadows Garden Center next May. See the Monarch Alliance website for the application and more details. <https://www.themonarchalliance.org/grants>.



Advocacy

Making Sense of the Rockwool Controversy

By Neal Barkus, Panhandle Progressive

Plans by Rockwool (formerly Roxul USA, Inc.) to construct a 463,000 sq. ft. manufacturing facility in the City of Ranson have recently met with a firestorm of opposition. The facility, to be constructed on the old Jefferson Orchards property, will manufacture mineral wool insulation used in home and commercial construction. Opponents argue that the plant will emit huge amounts of toxic air pollution in close proximity to schools and claim that the approval process was intentionally under-publicized to avoid opposition. Proponents argue that this is the single largest development project in Jefferson County since the Penn National Casino, and that it will create 150 well-paid manufacturing jobs, boost ancillary business, and generate tax revenue for a substantial future period. To a large extent, this has become a contest of values.

I admit that I have come to this controversy late and that there is a lot I don't yet understand. As an observer, I was initially impressed with the maturity with which both sides approached it. Recently, however, the rhetoric from the anti-Rockwool faction has gotten rough and somewhat personal. Yet it is apparent that we are not dealing with villains on either side. One can hardly blame Rockwool for trying to develop its business in the U.S. or the Jefferson County Development Authority (JCDA) for recruiting Rockwool to the county. The Rockwool project is the kind of development the JCDA has been pursuing for decades. It is what Authority members have understood their jobs to be. Conversely, the opposition is not made up of eco-terrorists determined to wreck any development initiatives. There is sincere concern about the environmental impact of this facility, as well as what it means for further industrial development in Jefferson County.

The Product and Manufacturing Process

Mineral wool insulation has become increasingly attractive in the building process because of its efficiency as an insulator and its fire resistance. Rockwool products are produced from a combination of natural basalt rock and recycled slag from the steel industry. These are melted, spun into a fiber and cured into insulation. The company claims that buildings account for 40% of all energy use, and two-thirds of that is used for heating and cooling. It argues that insulation can play a key role in reducing heating and cooling costs, reducing greenhouse gas emissions, and providing a more comfortable work/living environment.

Rockwool's initial application to the WV Department of Environmental Protection (WVDEP) stated that the furnaces will be fueled by both coal and natural gas. Milled coal will be delivered by truck and the gas by pipeline. Some coal delivered in lump form will be milled on site. All other raw materials will arrive at the site by truck and be stored in enclosures or piles. One factor not sufficiently addressed by either side, or the state of West Virginia, is the cost of wear and tear on our highways from the heavy truck traffic, which will divert funds earmarked for road repair elsewhere.

The furnaces will operate at extremely high temperatures - greater than 2,700 F. Various filtering and capture technologies will be used to reduce the emissions from the process. But excess heat from the furnaces, as well as particulate and greenhouse gases that are not captured or filtered, will be emitted out of two 21-story smokestacks. Molten rock and slag will be extruded from the furnace, then spun and formed into the finished wool insulation, which will be shipped out of the facility by truck.

Rockwool recycles its own waste, and when fully operational the facility will deliver no waste to the county landfill. The water and much of the heat generated in the manufacturing process will be captured and re-used.

Emissions and the Permitting Process

A critical step in the approval process for a new industrial site is an application to the WVDEP for a Prevention of Significant Deterioration (PSD) permit. A permit is required where a new facility is proposed for an area like Jefferson County that either has none of the regulated pollutants or is below the regulated maximum.

The application explains the manufacturing process and the places and manner in that process where emissions will occur. It then seeks to demonstrate that those emissions are below the limits set by federal and state regulations. This is an important point. Our federal and state governments have already decided what level of pollution is acceptable from "new sources." If an applicant can show that its proposed facility will operate within those limits, then the regulations say the Secretary "shall" issue the permit. Many of us do not like where that leads, but that is reality.

The initial application for a permit was submitted by Rockwool on November 20, 2017. This application described the emissions expected from the facility's operation. Public notice of the application was given in the November 22, 2017, edition of the *Spirit of Jefferson*. The notice, which was in the same size print as all other legal notices, listed the chemicals and particulate matter that have since become the major focus of opponents.

For example, Rockwool announced that its operations might annually emit 239 tons of nitrogen oxides, 148 tons of sulfur dioxide, 74.1 tons of carbon monoxide, 153,000 tons of carbon dioxide equivalents, 104 tons of methanol, 67.6 tons of formaldehyde, and so

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on. The public notice announced that written comments would be received by the WVDEP for 30 days and provided the telephone number for inquiries. This notice complied with the applicable regulation. In my opinion, opponents need to do better than to allege that Rockwool was somehow sneaky in notifying the public. If there is any bone to pick with the process, it is with the laxity of the public notice regulations, not Rockwool's compliance with them.

The WVDEP is required to make available for public inspection all of the relevant documents and to put another notice in a newspaper of general circulation containing the same information from the first notice, but additionally that there has been a preliminary determination in favor of the permit, soliciting public comment and providing the procedures for requesting a public hearing. This was published in the *Spirit of Jefferson* in March 2018. No public hearing was requested by any interested party, so the WVDEP did not hold one. As a state we should do better than this. Public hearings should be required - not optional - for major new source pollution.

Apparently the emission amounts proposed in the application were below the permitted level in each case because the final permit, issued on April 30, 2018, approved the emissions. Then on September 18, 2018, in response to the furor about the agency's actions, the WVDEP issued the following statement: "There is no scientific evidence to suggest that the proposed facility will adversely affect human health or the environment. In addition to its plant in Mississippi, Rockwool has operated a similar facility in Canada for approximately 30 years. Based on the performance of the operations in Canada and Mississippi, and the WVDEP's stringent air quality permit application review process, there is no reason to suspect that the facility in Jefferson County poses a threat to people living nearby or to the environment."

We are now left with the prospect of significant increases in toxic chemicals and particulate matter being emitted into the atmosphere at the Rockwool site, although most likely these will affect our neighbors to the east more than us. Notwithstanding Rockwool's compliance with state emission limits, the Jefferson County environment will be considerably dirtier than before. The question is whether we value a clean environment more than the economic benefits that will accrue from the Rockwool project.

The Economic Bargain

The principal economic benefits Rockwool will bring to our community are manufacturing jobs and a substantial improvement in the property tax base that will fund schools. One thing our economy has lacked is solid manufacturing jobs for medium-skilled high school graduates. Rockwool claims that, when it is fully staffed, there will be 150 new jobs. A good portion of the 150 jobs, let's say 120, will be in this medium-skilled category. Others will be management and clerical jobs. Opponents argue that, while all jobs are important, Jefferson County has 57,000 residents and 150 jobs are not worth selling our environmental soul.

Although Rockwool hasn't disclosed a wage scale, competitive manufacturing jobs pay in a range between \$15 and \$22 per hour, in addition to benefits somewhere in the range of 22% to 40% of the wage rate. So I'm figuring the annual payroll for Rockwool manufacturing jobs will be in the neighborhood of \$6,500,000 (\$20/hr. + 30% benefits x 2080 hrs. x 120 jobs). This money will be subject to state income tax and will circulate in the economy, boosting ancillary businesses such as grocery stores, gas stations, and the like. But it is not accurate to say that all of this will be new money Rockwool brings to the county. Probably all of the people employed at Rockwool will come directly from other jobs, since unemployment is at an historic low. The new money will be the difference between what they were paid before and what they will earn at Rockwool.

In ten to twelve years, Rockwool will be paying millions of dollars of property tax to Jefferson County and the City of Ranson. Since these taxes will be based on the value of the taxed property at the time, it is hard to guess what they will be. We do know that, between 2020 when manufacturing operations will begin and 2030, Rockwool will pay vastly reduced taxes through what is called a PILOT Agreement. The PILOT Agreement has been approved by the Jefferson County Commission (JCC), the Jefferson County Board of Education, the City of Ranson, and several other officials.

The PILOT Agreement calls for real property tax payments of \$225,000 in 2020 but no additional payments until 2026, when Rockwool will begin making escalating payments until an \$815,000 payment in 2029. Presumably Rockwool will make full real property tax payments thereafter, which are not likely to be less than the 2029 amount. Rockwool expects to install perhaps \$75,000,000 in new equipment at the facility, but this will be completely exempt from personal property tax until 2028. Then the PILOT Agreement will permit personal property tax on the machinery but will artificially lower the value of the machinery on which the tax will apply to 5% of its depreciated book value. This sounds like a sweet deal for Rockwool.

Some Conclusions

Although our decisions can't be driven by this, it is hard to imagine any county in West Virginia - except Jefferson - that would turn down the opportunity for a facility like Rockwool, even considering the environmental impact. Most would be doing back flips

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to get it. Perhaps it is our relative affluence that allows us to be choosier.

So I am tempted - almost - to be understanding about the Jefferson County Commission's role in this. When one looks around for a governmental body that could have slowed the process until everything was fully vetted and discussed, that body was the JCC. Not the JCDA, which, as noted, is supposed to go out and secure opportunities for us to evaluate. The JCC has issued a memo saying that it had no control over anything except whether the county signed on to the PILOT Agreement, but this ignores the political reality and how much influence and control the JCC could have exerted if it had been solidly against the project.

Now some Commissioners are running for cover. Commissioner Tabb was one of the county officials who visited the Rockwool plant in Mississippi and was impressed with what she saw. But as of August 2, Commissioner Tabb changed her mind because of the citizen opposition to the air quality issue. She now opposes Rockwool. At the same August 2 Commission meeting, Commissioner Hudson said that the Rockwool situation is "starting to smell like a skunk." Commissioner Compton also claimed he is opposed to the Rockwool project, saying "The reason I agreed to this was I essentially thought it was going to bring jobs. Did I think it was to this extent of pollution and whatnot? Absolutely not."

It is not clear to me that anything can be done to stop the Rockwool project at this point. Permits have been issued and binding contracts have been entered. Rockwool has spent lots of money in reliance on these. If the JCC or one of the other governmental agencies that approved the deal backs out, there will be expensive litigation and an uncertain result. Indeed, Rockwool sent a letter on September 12, 2018, through its attorneys asserting that the company would suffer damages up to \$100 million if the JCC delayed the project.

What is clear is that the citizens of Jefferson County have not been well served by our County Commissioners. They did inadequate due diligence and had no clue about how the public would feel about the environmental issues. As but one example, here is a statement in the PILOT Agreement to which Peter Onoszko agreed as Chairman of the JCC: "The Commission has found that the [Rockwool transactions] will promote the public interests and public purposes by, among other things, providing certainty and soundness in fiscal planning and promoting the present and prospective prosperity, health, happiness, safety and general welfare of the people of Jefferson County."

Really? That's not going to go down well with the thousands of people who have signed up on the anti-Rockwool Facebook page and who pack public hearings night after night. Instead of owning their failure, our Commissioners profess to have been either duped or powerless. There needs to be some accountability in November.

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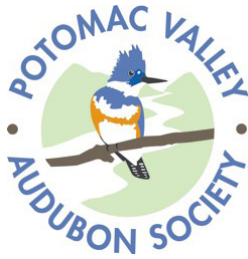
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October/November 2018

Printed on 100% post-consumer waste recycled paper

Volume 37, Issue 2

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