This winter has been quite busy for me compared to some of the sleepier seasons we’ve had at PEEC. I’ve been busy taking our classes online teaching “Seasonal Survival” to many of our local school students who are all at home looking out at piles of snow, waiting for warmer days. One of the most infamous critters we talk about are groundhogs, also known as woodchucks, whistle-pigs, and (my favorite) dirt-beavers. Many of our kids have heard of Groundhog Day or have seen Punxsutawney Phil on the television predicting the weather. So here are a few fun facts and myths about our beloved backyard friend.

**MYTH:** Groundhogs were always used to predict the weather.  **FACT:** The tradition of animal forecasting came from Europe where hedgehogs, badgers and bear were used in Celtic traditions to symbolize the awakening of spring. When colonists arrived in America, groundhogs started taking the blame for additional weeks of winter.

**MYTH:** If a groundhog sees its shadow, we are guaranteed to have more winter. **FACT:** In the long history of recording groundhog predictions, Punxsutawney Phil has been correct 39% of the time. Usually most groundhogs are busy hibernating and only wake up early to mate in March. A February groundhog would be very comatose with a body temperature of about 40 degrees Fahrenheit and a pulse of about 5 beats per minute.

**MYTH:** Woodchucks chuck all the wood.  **FACT:** Groundhogs actually do not eat wood at all! While they are rodents, they are more closely related to squirrels. Groundhogs are quite happy chewing on garden plants and young roots, as well as digging extensive burrows that can be anywhere from eight to sixty feet long with multiple chambers.
Message from the Executive Director

As is often the case when I write my Seasons messages, I look back at what I wrote the previous year. I am curious what was happening then and what seemed most relevant—and, if I am being completely honest, I want to make certain I don’t repeat myself. This year I dreaded re-reading my spring 2020 message from the early stages of the COVID-19 pandemic. To my surprise (probably a function of when I write these and when they are incorporated into the newsletter) my column focused on my 2020 sabbatical in Bonaire undertaking coral reef restoration. My words were ones of promise, hard work and hope--kind of uplifting--which is something needed about now as we work our way out of the pandemic.

The pandemic, and its forced isolation, has rewritten many of the ways we each live our lives. It has given us time to reflect (in between binge watching Netflix series) and determine what is really important to us. Despite the horrific cost in life, health, and finances, we have received a bit of a restart in 2021. We have all made lists of things we want to do when they are available to us again, be that celebrating with friends and family, going out for a meal, seeing our favorite sporting event, travelling or scuba diving. Hopefully we will prioritize more and use our time more efficiently and each focus on the common good a little more.

Perhaps it is the coming of spring (I am sitting in my office with 17 inches of snow outside, freezing rain falling from the sky and icicles obscuring my window), but I am hopeful for the future. Children are naturally curious and seek to understand the way things work in the world and just figure things out. During the pandemic, the adults have reclaimed some of these attributes and hopefully spent more quality time with the younger generation. My hope is that when we are allowed to see each other’s faces again in public, we will not lose these qualities. I am also looking forward to seeing people smile.
The Do’s and Don’ts of Hiking with a Dog
By George Johnson

Man’s best friend, dogs, have been hiking and exploring with humans for thousands of years. A lot has changed since those times, but one thing has at least stayed the same, and that’s the desire to go out hiking with your furry friends. Families are allowed to bring their dogs along the trail with them here at PEEC, but there are a couple of Do’s and Don’ts that everyone should be aware of to ensure that they have a positive experience with their pets.

Don’t leave your pets waste bags at the end of trailheads or in the middle of the trail. Most centers will have at least one, if not more, trash cans near their trailheads so that folks can properly dispose of their waste. Even if the bags you use are biodegradable, you still want to find a can to dispose of it. The reason why we ask guests to do this has to do with our waterways. It’s a crazy process and chain of events that starts when it rains and the waste washes into our lakes/ponds. With the now higher amount of nutrients, algae will feed off them and grow like crazy. Eventually however, the algae use all the excess nutrients in the water, leading to massive amounts of algae dying. In turn, through the decomposition process, bacteria start to eat the dead algae and deplete the O₂ levels within the water. Finally, if the O₂ decreases enough, it’ll actually cause the other wildlife within the water to die from asphyxiation. The whole process is called eutrophication. Hikers leaving their dog’s waste on the trail isn’t the sole cause of this issue, but doing so will contribute to the problem.

Do check beforehand if dogs are allowed on the trails. Like I just mentioned, dogs are allowed on PEEC trails, but not every place is as accommodating. Most places do allow dogs on the trail, but there are a handful of locations that they aren’t allowed, Dingmans Falls and Raymondskill Falls in particular for the Delaware Water Gap National Recreation Area. Other places may allow dogs on the trails, but may not recommend a dog hiking on a particular trail. Ridgeline, at PEEC for example, is a trail that I would not recommend a dog taking because of the single, very steep section. If you ever have any questions or need recommendations if you’re planning on bringing your dog, then the best course of action is to give the organization a quick call/email in advance. It never hurts to ask!

Don’t let your dog off the leash while hiking. At PEEC, while dogs are allowed on the trails, they are not allowed to be unleashed at any time. Dogs that are off leash have a much greater potential to harass and bother local wildlife, especially if they are not well trained. Being located within the park, we are surrounded by a huge amount of wilderness and it can be very easy for an unleashed dog to run off and get lost in the forest. There have been a handful of times where other hikers will find a lost dog on a PEEC trail and bring them to the office where we’ll try to locate and contact their owners. In addition, especially around our main campus/parking lot, we have quite a few cars and roads around. By keeping your pet on a leash, it’ll greatly diminish the chance that an accident would occur.

Do bring plenty of water for yourself and your pet to drink. Your pet needs just as much water as you do when you’re out and about on the trails, if not more. With all the advantages that fur provides, it can also hamper an animal on extremely hot days. Long hair breeds during the summer in particular need much more water to stay cool. Humans have the benefit of taking off layers, to a certain point at least, but your furry friends don’t have that option. In addition to bringing enough water, you will also need to bring a bowl or something for them to drink out of. There are many different types of portable bowls, and some even fold up to make transportation much easier.

Every furry friend in the family deserves the chance to get out and experience the wilderness with their human companions. Every family member though needs to remember these Do’s and Don’ts so that they can all have a positive experience out on the trails.
Development Department News
By Joel Penkala, Director of Development

As we roll into 2021 I can’t help but wonder what this year will bring. 2020 was certainly a year of change for us all, and for me, it was one of new beginnings. I took up the role of Director of Development here at PEEC on March 1st and was only settling into my new office when the initial wave of COVID forced closures at PEEC. I will admit it was a time of doubt for me as I am sure it was for so many others.

Now, almost a year later, I can say that the doubt was merely a passing cloud and I couldn’t be more pleased with our progress this year. The first few months of 2020 were spent focused on immediate COVID relief program grants through the Federal, State, and Local Government as well as so many charities and foundations that reacted quickly and efficiently to meet the growing needs of facilities like PEEC. PEEC received a grant from Greater Pike Community Foundation that allowed staff to use our kitchen facility, left empty as a result of no school groups, to produce meals for Pike Agency on Aging and First Responders in our region.

PEEC participated in North East PA Gives, NEPA Gives, for the first time in 2020. This incredibly successful day of giving raised thousands of dollars in the late spring, which helped bolster PEEC programming through the summer. PEEC plans to participate in NEPA Gives again in 2021, so keep an eye out in early June. Your support on this specific day of giving helps PEEC to achieve various goalposts during the campaign.

Generous foundation donors like William Penn Foundation, Victoria Foundation, and others allowed PEEC to convert some grant funding into operating funds to reopen PEEC; socially distanced of course. Once open, PEEC’s trails saw the highest attendance ever, demonstrating a clear need for accessible outdoor spaces. PEEC’s Summer Camp was well attended as well and ran with all appropriate PPE and sanitation measures.

As the summer came to a close, PEEC staff started looking at how to deliver our programming despite the lack of school trips. The result was PEEC into the Classroom, a virtual environmental education curriculum presented by PEEC Educators. The program was supported by funding from Pike County, The Alliance for Watershed Education, and First Energy Foundation, and has provided Environmental Education programming to over 1200 students since September.

As always, we like to take this time to thank all of our donors for their support. 2020 could have been a tough year for PEEC, but with continued and generous support for our mission, we were able to remain open and meet the challenges that came our way. I am excited to see what 2021 has in store; I for one believe it will be a great year!
Tough as Trails
By Derek Scott

Tough as trails – a saying that describes all of us as we continue to wrestle with the impacts of COVID-19. But despite the challenges COVID-19 has presented to PEEC, we have done our best to adapt, just like so many of the plants and animals we educate visitors about every year here at the center. One of our annual programs that has had to adapt as a result of COVID-19 is our Run, Hike, Crawl 5k. Rather than hosting the event in-person this year, we’ll be moving to a virtual event - Tough as Trails.

Where the Run, Hike, Crawl had been a designated 5k loop, the beauty of the Tough as Trails fundraiser is that, besides being able to participate from anywhere, you can choose your own distance and own route. We know that support for PEEC branches well beyond the tristate area, so we’re excited to host an event that our friends from far and wide can be a part of, regardless of how they like to spend their time outdoors.

If you’re interested in helping to support PEEC and the work that we do, mark your calendar to join us virtually the weekend of May 1st and 2nd. Participation is easy - go to our website peec.org or check out our Facebook page for more info. Once there, follow the “how to” on getting signed up and registered to run.

All proceeds from the event go directly to supporting the Pocono Environmental Education Center. Help us continue to ensure that present and future generations are educated, enlightened, and inspired to protect our environment and life live sustainably.
The Earth is Full of Lava Monsters
By Emma Roth

One of my favorite fun facts that I love telling students is “Water is lava”. Usually they don’t believe me, but in a sense it’s true. There are a few definitions I need to get out of the way before I go on.

Lava: molten rock that has flowed onto the surface of the earth or other planetary body

Mineral: a naturally occurring, inorganic element or compound with an orderly internal structure, chemical composition, and a crystal form.

Rock: a naturally accruing aggregate of one or more minerals

The first part of the “water is lava” argument is simple: Ice is a mineral. This is an un-disputed fact in geology as ice meets all the criteria to be considered a mineral. Any geologist would agree with this statement.

The next part of the argument is equally simple: ice can form into rocks. This is seen most commonly at glaciers, where layers of snow and ice are compacted down. The individual ice crystals (snowflakes) are compacted to the point where they re-crystallize and form a rock, made out of ice. This, too, is an undisputed fact among geologists.

And finally, the third part of the argument: melting glaciers creates lava. We know that glaciers are rocks, and lava is melted rock, therefore, when glaciers melt lava is formed. This lava just happens to be in the form of water.

Now this is where there is some controversy. Some definitions of lava include the statement that it has to be erupted from a volcano or fissure in the Earth’s crust, which would exclude glacial meltwater in this definition. However, our argument for water-lava is not complete. Even with this additional requirement in the definition of lava there is hope. At certain locations deep in the sea there are hydrothermal vents. These vents are fissures on the sea floor where geochemically heated water is expelled into the ocean. The water from these vents meet the stricter definition of lava.

Water is lava. All living organisms need water to survive, including all the plants and animals we regularly interact with. So in a sense, humans, and all other living things on earth, are actually lava monsters. Will scientists take this opinion seriously? Probably not, but it’s fun to think about anyway.
SPRING PROGRAMS AND GETAWAYS 2021

PRE-REGISTRATION REQUIRED
Unless otherwise indicated.

TO REGISTER:
Call PEEC at 570-828-2319

APRIL

Girl Scout Badge Festival
Saturday, April 10th - $25 Full Day
9:30am-4pm
Brownies will work on their Eco Friend & Hiker badges. Juniors will fulfill the Animal Habitat badge. Cadettes and Seniors will work on the Scout Ranger patch. Overnight options are available for all age levels, ask for more information! Payment is required at registration. Space is limited - call early! Overnight accommodations with meals are available for $43/person.

Salamanders, Frogs, and More!
Sunday, April 11th - $5
10am-12pm
Amphibians are stirring in the woods! Join us as we explore nearby breeding pools for salamanders, frogs, and egg masses. We’ll provide nets and collection jars for gentle, up-close study. Wear boots and clothes that can get muddy or wet.

Camp Hidden Falls Tour
Sunday, April 11th - $10
1pm-4pm
Camp Hidden Falls is an old Girl Scout Camp that was acquired by the NPS in 2018. Come with us as we explore the property and see how many waterfalls we can find. Spaces are limited - call early to reserve a spot.

Bridge the Gap: Bike the McDade
Saturday, April 17th - Free
1pm-4pm
Join us for a bike ride along the McDade Trail! We will provide all equipment and transportation. Please bring a water bottle and wear sturdy footwear. We will have extra water and snacks available. *Lead support is provided by the William Penn Foundation.* Call for details.

Bridge the Gap: Spring Peeper Search
Saturday, April 17th - Free
7:30pm-9pm
These tiny tree frogs have thawed out and are active again in our forested wetlands. Listen to the impressive choir made by these vocal amphibians as we carefully catch, study, and release them. Bring a flashlight for better searching! *Lead support is provided by the William Penn Foundation.*

Waterfall Tour
Sunday, April 18th - $10
9am-12pm
The Delaware Water Gap has quite a few waterfalls within the park that all flow into the Delaware River. Join us for the morning as we check out some of the larger and well known falls in the park. Spaces are limited so call early!

Ecozone Discovery Room!
Sunday, April 18th - $2 per person
1pm-4pm
Climb into a bald eagle’s nest, crawl into a bat cave, explore a beaver lodge, and dig in a fossil pit! Explore this indoor discovery room and enjoy hands-on exhibits on natural history, sustainability and the local environment. No registration required. *Limited to 15 people at a time*

Gourmet Picnic at PEEC
Saturday, April 17th - $25
Live music begins at 12pm
It’s finally spring! Enjoy a gourmet picnic and live music at PEEC! Take your pick of indoor or outdoor seating while you revel in the spring weather. Registration required. Call for details.

MAY

PEEC Tough as Trails
May 1st-2nd
Support PEEC by hitting the trails and racking up as many miles as possible. Sign-up as an individual or as part of a team and participate from anywhere! Hikers are encouraged to gather pledges for every mile they cover to help support PEEC. In addition to receiving a t-shirt, participants have the chance to win additional prizes for completing Tough as Trails goals.

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**SPRING PROGRAMS AND GETAWAYS**

Continued from Page 9

**Plant Sale!**
*May 8th & 9th - Free admission*  
*9am-4pm*
Choose from a variety of native and deer resistant flowers and grasses to beautify your yard at our annual plant sale! Sun loving and shade loving plants will be available. Remaining plants will be sold through the following week so stop by to check them out! PEEC Members will be able to join us for a pre-sale on May 7th from 5 – 7pm.

**Edible & Medicinal Plant Walk**
*Saturday, May 8th - $5*  
*10am-12pm*
Nature provides food & natural remedies for us in the form of many plants. Join us on a hike focused on wild edible & medicinal plants. No collecting or consumption will be done during the program.

**Create Your Own Walking Stick**
*Sunday, May 23rd*  
*1pm-4pm - $30/Walking Stick*
Spend the afternoon with us as we create handcrafted walking sticks. Wood, tools, gloves, and aprons will be provided, as well as suggestions and pointers on how to personalize your work. Pre-registration required.

**Memorial Day Family Camp**
*Weekend Memorial Day Weekend: May 29th-31st - Adults $225*  
*Child, Commuter, Day Rates Available*
Bring your family and friends to experience the best of what PEEC has to offer. Interpretive hikes, animal presentations, canoeing, campfire and more! Includes three nights of lodging and meals from Friday dinner through Monday lunch.

**Frog Frolic**
*Sunday, June 6th - $5 10am-12pm*
Spend the afternoon with us at our ponds and streams! Learn about some of our frog friends as we gently catch and release these hopping amphibians. Wear boots and plan on getting wet and muddy.

**Bridge the Gap: Pond Paddle**
*Sunday, June 6th - Free 1pm-3pm*
Join us for a paddle around our ponds! Beginners are welcome – we teach you everything you need to know! Dress appropriately – you may get wet. Call in advance to reserve a boat. *Lead support is provided by the William Penn Foundation.*

**Bridge the Gap: National Trails Day**
*Saturday, June 5th - Free 1pm-3pm*
Take part in a national effort to introduce more people to the great outdoors. One of our knowledgeable staff will guide and teach about our forests. We never know what exactly we’ll find out there, so don’t be afraid to ask plenty of questions along the way. *Lead support is provided by the William Penn Foundation.*

**Nature at Night**
*Saturday, June 12th - $5 8pm-9:30pm*
A pleasant summer evening is the perfect time to head outside. Take a walk in the woods to listen for owls, look at stars, and enjoy the music of the night. Enjoy fun activities that test your night vision. We recommend you bring a flashlight!

**Like PEEC?**
*Show it on Facebook!*

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**MAY**

**Birds and Brewhs**  
*May 7th – 9th - $215*  
*Call for commuter & day rates*
Spring migration has begun! Join us for a wonderful weekend of bird watching and beer tasting. Enjoy guided hikes that teach how to identify birds by sight, sound and habitat. Program is geared towards beginners and experts alike. Saturday night we’ll provide beverages from our local breweries while you enjoy our campfire! Includes two nights of lodging and meals from Friday dinner through Sunday lunch.

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**JUNE**

**Edible & Medicinal Plant Walk**
*Saturday, June 5th - $5*  
*10am-12pm*
Nature provides food & natural remedies for us in the form of many plants. Join us on a hike focused on wild edible & medicinal plants. No collecting or consumption will be done during the program.