

Message from the Executive Director	2
Things to Consider When Making Eco-Friendly Home Renovations	3
Home Renovations	J
Bald Eagles Along the Delaware River	4
Bridge the Gap and River Days	4
Why Wool?	6
It's Not Easy To Be	6

## Pocono Environmental **Education Center**

PEEC Calendar Events

7-8

538 Emery Road Dingmans Ferry, PA 570 • 828 • 2319 peec@peec.org

www.peec.org

# Superpowers and Survival

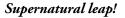
By Andrea Ace

Comic books, movies, and television feature heroes and villains who possess amazing superpowers ranging from extreme strength to being able to survive in extreme situations.

Many organisms within the natural world have developed superpowers of their own in order to survive! While amazing animals exist all over the world, this article will focus on critters from this geographic region.

## Electricity!

Bumblebees can senses electric fields in flowers to determine the potential for collecting pollen. Bees build up a positive electrical charge by quickly beating their wings, which helps pollen stick to their hairs when they land on a flower - think of static electricity on a dry winter day! Sensing the electrical field (or lack thereof) allows bees to know which flowers have been visited by other pollinators without having to land on each flower.



Humans often perceive insects as pests, but the success of these insects is due to the adaptations they've developed to survive. A flea can jump up to 200 times its body length. That's like a six-foot tall human jumping 400 yards! Not only can they jump long distances, but fleas can jump 30,000 times without stopping - imagine that same six-feet tall human jumping about 6.8 miles without stopping - that's a lot of hopping! Fleas' ability to jump this high is not due to their muscles, but is more like a multi-jointed spring mechanism.

#### Flash!

Ruby throated hummingbirds are so small and fleeting that they can be easy to miss. And if you have one of them zip by you, it's easy to mistake their presence for a bee. This is because of their super speed and endurance! Hummingbirds can beat their wings 53 times per second and are

such precise pilots, they can go from full speed to instantly hover, change directions, or pluck insects off of spider webs. In ideal circumstances, they can fly 1,200 miles without stopping on their migration to Mexico or Central America. In order to survive such a long flight, they need to gain 25 to 40 percent extra body weight.

### Invisibility and Camouflage!

Imagine being able to disappear in the blink of an eye. Many creatures have this superpower by way of camouflage that helps them blend in with their surroundings and avoid confrontations with potential predators. Some insects and caterpillars look like sticks and plants, while owls have coloring that lets them blend into tree bark. Young deer have spots on their back that helps

Continued on page 2

Winter Solstice 2016



### **PEEC Board of Trustees**

#### **OFFICERS**

Chairperson: Dr. K. Joy Karnas Vice-Chairperson: Marc Gold Treasurer: Brian O'Hare Secretary: Henry Skier

#### **TRUSTEES**

Dr. Barbara Brummer Eric Hamill (of Counsel) Richard R. Lindsey Charles Paull Norman W. Spindel Dr. Howard P.Whidden

#### **PEEC MANAGEMENT TEAM**

leffrey Rosalsky **Executive Director** Director of Development Ed Winters Director of Business Mgmt. Mariann Oswald Facilities Manager Ted Wetzel

#### **PEEC PEOPLE**

Director of Education Allison Owczarczak Group & Grant Coordinator Sheri Bone Program Planner / Assistant Summer Camp Director Ryan Gerbehy Public Program Manager / Volunteer Coordinator Derek Scott Summer Camp Director / Special Events Coordinator Andrea Ace Dining Hall Manager Wendy Gannon Public Relations/Marketing Janine Morley

#### **INSTRUCTORS & INTERNS**

Diana Corrado, Amanda Dahms, Beth Kuemerle, Nathan Lanan, James Maloney, Ryan McLaughlin, James Scott

PEEC Seasons is a Quarterly Publication of the Pocono Environmental Education Center Marketing and Development Office.

Design & Layout Editor

Niki Jones Agency, Inc. Janine Morley

Contributing Writers Andrea Ace, Sheri Bone, Paul Denikin, Ryan Gerbehy, Mariann Oswald, leff Rosalsky, Derek Scott

Contributing Photographers John Jose, James DeMers PEEC Staff Photos





## Message from the **Executive Director**

As we have descended into late fall, past the season of the beautiful orange, red and yellow foliage, it has been a magnificent time for hiking at PEEC this year. The air at mid-day is cool and crisp but, with the sun on your shoulders, not too cold if you maintain a brisk pace. The mostly bare oaks and hickories overhanging the trails reveal their skeletal shapes, the result of years of eking out

their meager growth rings on Pike County top soil—fractured gray shale. The vistas from the Tumbling Waters Trail overlooks fully reveal themselves; both the recently cut corn and soy fields in the valley below and the mixture of evergreen and deciduous trees across the Delaware River on the western slope of the Kittatinny Ridge. It is tranquil and unspoiled and I count myself lucky to have the trail to myself. When I do occasionally pass other hikers, I wonder if they recognize the same unspoiled beauty when they stare into the distance.

Unfortunately, much of the world no longer share these amazing natural wonders, as people encroach on undeveloped lands. We humans are the biggest threat to the natural world. We have an odd relationship with nature. We fight to control, to conquer and to tame nature, whether it is building new roads or harnessing fossil fuels for our modern lives. At the same time, we strive to appreciate and to enjoy, and hopefully preserve, nature's raw beauty. We require the resources the land has to offer, in order to maintain and improve the standard of living we have come to enjoy. Unfortunately for the natural world, there are ever more of us on this planet. Clearly, there is no easy solution to this conflict—there is no magic wand one can wave to resolve it. In fact, this tension is further exacerbated as the developing world tries to raise its standard of living.

Unless the human race is very lucky, and wins some lottery of the universe by finding free energy and natural resources, progress toward sustainability and preserving the natural world will come in tiny, incremental steps. This is where PEEC's role in environmental and sustainability education is so vital. We need to motivate the best and brightest next generation of students to care enough about the environment and to work on discovering solutions to our energy, natural resource, food and clean water needs.

## Superpowers and Survival

Continued from Page 1

them "hide" when resting in a pile of sundappled leaves.

And of course, animals that are brightly colored or very easy to see often have another survival superpower....

#### Poison and Venom!

Many brightly colored plants and animals are often sending a message of warning to potential predators or consumers - beware! Plants and animals that create poison or venom can cause pain, sickness, and death in other organisms. The difference between poison and venom? Poison is absorbed through touch, inhalation

or ingestion (eating), while venom is injected. So plants like poison ivy may cause a rash by coming into contact with it and some plants will cause sickness if eaten. Snakes are one of the most notable creatures that create venom; Northeastern Pennsylvania has two species of venomous snakes: northern copperhead and timber rattlesnake. Unlike villains that may use these super powers in comic books for vengeance, animals and plants that have poison or venom have developed this adaptation to survive from other animals that may interfere with its survival.

### Regeneration Healing!

Continued on page 3

## Things To Consider When Making Eco-Friendly Home Renovations

By Paul Denikin - DadKnowsDIY.com

Going green is a wonderful way to help the environment, but when it comes to making eco-friendly renovations to your home, there are some important things to consider. Outside budget and design, you'll also need to think about how much space the renovations will take up, how to save on energy costs, and how to stay <u>safe</u> while making the renovations.

There are some factors which seem like small decisions but will actually impact your footprint on the environment or the way your home's energy will be used, so it's important to work with a contractor or builder who has experience in eco-friendly designs and can give you advice on the best ways to make a positive impact. You should do your own research, as well, in order to find the most advantageous ideas for your family and personal needs, but here are a few tips for getting started.

### Be honest about your needs

It's easy to want to try to get everything out of your home that you've always wanted during a renovation, but sometimes the desire to have a giant living room that will only really be used on holidays is just impractical. Think about how much space you and your family will need on a daily basis, and consider moving up instead of out. If you have an attic space, you might be able to easily add on several feet by raising the roof to create bedrooms upstairs or a guest bath.

### Color is important

You might not be too concerned with color when it comes to your renovation, but many people have had success with light colored roof tiles over shingles where heat is concerned. In areas of the U.S. that have 100-degree days, color is important. Dark shingles draw heat to attic and upstairs areas, so going light could reduce your utility costs.

## Consider going solar

While solar panels can be expensive, you might be able to find used ones that still generate a good amount of energy. You can use these to heat your home and take comfort in the fact that they are totally green all while saving money on your utility bills.

If panels are outside your budget, you can always find other ways to use the sun to your advantage. Open up those curtains during the day and use natural sunlight rather than electricity; in the winter, make the most of sunny days by letting solar power heat up the most-used rooms in your house.

### Replace those bulbs

Take out those old bulbs and replace them with eco-friendly compact fluorescent ones. They typically use up to 75% less energy than



Photo via Pixabay by James DeMers

incandescent bulbs and last up to ten times longer, so not only will you be saving money on your electric bill, you also won't have to worry about replacing them every couple of months.

#### Make changes in appliances, too

Even if you're focusing mostly on other rooms in the house, don't neglect the kitchen and laundry areas. These days you can find "smart" appliances which use technology to help you slash utility bills and conserve water, and even if you have to pay a bit more in the beginning, you'll see the savings later in the year. Water heaters, refrigerators, and stoves all come with smart functions now, so do some research online to find the one that's best for your family, then sit back and watch your utility bills drop.

## Superpowers and Survival

Continued from Page 2



All organisms can regenerate something in their body – for humans, the most notable examples are skin cells and the liver. Some animals, like

lizards and amphibians, can regrow a limb or tail! The five-lined skink is a local example. Its bright blue tail encourages predators to go for the tail first because it is more visible. An impact will cause the tail to detach, so the lizard can escape. However, because the tail helps with balance and fat storage, they have evolved the ability to regrow it over weeks or months. The regenerated tail won't have vertebrae like the original tail; instead it will have a cartilage tube.

### Sources and Additional Information:

Bees: http://www.nature.com/news/bumblebeessense-electric-fields-in-flowers-1.12480 Fleas: http://news.bbc.co.uk/earth/hi/earth\_news/ newsid\_9391000/9391478.stm Regeneration: http://www.arkive.org/common-five-lined-skink/plestiodon-fasciatus/image-G143039.html http://cobras.org/lizard-facts/http://www.eurostemcell.org/factsheet/regeneration-what-does-it-mean-and-how-does-it-work

Hummingbirds: https://www.allaboutbirds.org/ guide/ruby-throated\_hummingbird/lifehistory http://time.com/4252432/hummingbirdmigration-pattern/

Superpowers: http://powerlisting.wikia.com/wiki/ List\_of\_Supernatural\_Powers\_and\_Abilities Venom vs. Poison: http://mentalfloss.com/ article/67171/what-difference-between-venomand-poison

**Pennsylvania Snakes:** http://www.paherps.com/ herps/snakes/





## Bald Eagles Along the Delaware River

By Derek Scott

Everyone knows that the Bald Eagle is the national animal of the United States, yet few have actually had an opportunity to see them in the wild. While there are documented populations in most of the 50 states, they tend to be few and far between. Moving into the winter months here in the Delaware Water Gap, the likelihood of coming across these majestic creatures is better than any other time of year.

Winter is a great time of year to see eagles in our area because as lakes and rivers freeze over in northern sections of the United States, these birds, which rely on fish as a source of food, must find new hunting grounds. Depending on winter conditions, Bald Eagles can begin to migrate to our area as early as the beginning of December, often staying into March. The National Park Service has estimated that at least 200 different eagles will use stretches of the Delaware River at some point during the winter months. It should be noted that not all eagles seen in our area are necessarily migrants either. Year after year, more Bald Eagles are establishing themselves as residents of the Delaware Water Gap, with nests up and down the river.

Peak season to see Bald Eagles in our area is anytime during January and February. Look for pockets of open water along the Delaware River and you'll likely see congregations of eagles. If you're looking for a guided experience to all of the hot spots in the Tri-State area, come join us on Sunday, January 22<sup>nd</sup> from 9am – 3pm as our knowledgeable staff lead one of our annual eagle watch programs. It's never too early to call and register – spaces are limited and they fill up quickly!

## Bridge the Gap and River Days

By Sheri Bone

For the past few years, when you have hiked our trails, paddled on our ponds, biked the McDade Trail or participated in a Delaware River Day Paddle, you might have been asked to complete a "Bridge the Gap" survey. During our Harvest Festival, many of you stopped by my "River Days" display and learned a little more about healthy watersheds, made a promise, and completed an "I Made a Pledge" form. What are these programs, and why do we ask you to take surveys? What is done with the information that is collected?

"Bridge the Gap" (BTG) is a program that has been growing at PEEC for the last five years. It started with funding from the National Park Foundation as a way to connect our local residents to the Delaware Water Gap National Recreation Area, and provide programming for hiking, biking and paddling. After we got that program started, our funding stream changed. All of the BTG programs are now funded by the William Penn Foundation. While we still encourage people to know more about the national park in their backyard, we are more involved with sharing the connection, the bridge, between healthy forests and healthy waterways, specifically the streams and creeks that flow into the Delaware River.

"River Days" is also a concept that is funded by the William Penn Foundation. It is not necessarily a program but an understanding that the Delaware River watershed supplies drinking water for millions of people, and that what we humans do ON the land affects the water in, on and under that land. Taking care of the land means that we are taking care of our drinking water, whether we have private wells or get it from municipal resources. Twenty three other nature centers located in the Delaware River Watershed participate in activities associated with River Days. "Watershed Stewardship" is a good term for the emphasis that is put on programs that are run with the William Penn Foundation monies.

A watershed – what is a watershed? Think about rain. Imagine in your mind that it is raining, and you can see the water flowing down the land to a particular place, which is usually a body of water. Maybe it's a stream, lake or river. A watershed is all of the LAND that drains to one particular waterway. Since a watershed is land (and not water or a building),

it includes trees, rocks, grasses, houses, roads and everything else that exists on the land. We can liken how watersheds are named to your home address.

Your address includes many places. You live on a particular street, in a particular town, in a particular county, in a particular state, in the United States which is also part of the North American continent. You are a resident of all of those places. Similarly, smaller watersheds are part of larger watersheds. For example, when it rains at PEEC, some of the rainwater will flow into Alicia's Creek (the stream alongside Brisco Mountain Road.) So, PEEC is in the Alicia's Creek Watershed. But, that's not all. Alicia's Creek flows into the Delaware River, so PEEC is also part of the Delaware River Watershed.

Since a majority of the people who come to PEEC live in the Delaware River Watershed (which includes part of New York, New Jersey and Pennsylvania), our focus is taking care of the land (including the parts we can't see - the underground parts) to protect the most precious resource we have – our water. The BTG surveys we have asked you to fill out (or complete on the Kindle) and the River Days pledges you made are part of our effort to increase awareness of the health of the Delaware River Watershed. Your personal information is never sold, but sometimes has been shared with our funders (who have promised to never sell or share it) as they tally what we are doing and help with future programs.





We have taken note of your answers, found out how far you have come to hike, bike or paddle, and tally your 'votes' as to the importance of issues that affect the health of a river. We have discovered that many of you want to help keep the river clean by doing River Clean-up. Because we have 'listened' to your answers, we have started to design activities and programs that help you become better watershed stewards than you already are. So, if you noted that you want to participate in a river clean-up effort, you are in luck!

Next EARTH DAY (April 22, 2017), there will be a stream and trail clean-

up! We will be working with staff and volunteers from the Delaware Water Gap National Recreation Area to physically clean up the trails, creeks and streams. Don't be disappointed that we won't be actually on the river. Other groups do major river clean-ups which require boats, canoes and tools which may not be appropriate for our watershed steward friends to use. But the efforts we make that Saturday will be VERY IMPORTANT! If the streams, creeks and trails that are in the watershed and lead to the river are not clean, then the Delaware River will not be clean.

Final details (time and which streams/trails) are not available at this point, but make sure you read the Spring SEASONS newsletter and information about our Public Programs to get those details as the date gets closer. In the meantime, mark your calendars now! Plan to be an active Delaware River Watershed Steward during Earth Day 2017!







## Why Wool?

By Ryan Gerbehy

Very often on television, movies, camping trips, etc. someone will talk about how wonderful a material wool is. They may talk about how wool will retain heat when it's wet, how it will shed water, and how it is far superior to cotton. But knowing why wool does all the things it does is often missed in campfire chats or glossed over on TV survival shows. So here, in the next few paragraphs, I will explain why wool earns its reputation.



Mammalian Insulation is a pretty simple concept on its face. We (mammals) are warm blooded and will metabolize the food we eat and generate heat. Some of that heat will radiate into the air surrounding us. If we keep that heat from being carried away we will get warmer.

Wool works to keep us warm because of air, specifically, the air pockets created by the

structure of the woolen fibers. If you were to look at a wool fiber under magnification, the fiber would look vaguely like an unhusked cob of corn. The layers of material peel away from each other slightly and create tiny gaps; these gaps are filled with air. That air is essentially trapped; it is not going to be easily dislodged by the moving air around it. Think of how intense the wind can be in an open field compared

to a sheltered stand of trees. It's the same principle. Conversely, synthetic fibers like in a fleece jacket are smooth. This makes them dry fast, but they do not hold onto nearly as much air as a similarly thick wool jacket would.

The often stated factoid that wool will keep you warm even when wet is true, but sometimes overstated. A soaked wet wool blanket will pull



more of your heat away from you than a dry one. The air pockets created by the fibers will remain unsoaked, due to the water's surface tension. So there will still be trapped, warm air in the fabric of the blanket.

Some of the properties that make wool work well for us make it a bit of a pain to maintain. When cleaning, the heat and agitation of a regular washer and dryer will cause the scales of the fibers to entangle and hook together. Doing this purposefully is called fulling, doing it by accident means you now have a sweater that could fit a 9 year old. The fulling process creates a thicker, softer material, but, unless you are certain your wool items can go into the dryer, it's better to let them dry slowly on a rack. For those who cannot stand the itchiness of wool fabric there are blends that keep some of the warming and moisture resistant properties of 100% wool, while making them far more comfortable and easy to clean.

In short, wool is a pretty fantastic and versatile fabric. Please consider it the next time you are buying gear for a rainy or snowy camping trip.

## It's Not Easy to Be Eco-Friendly

By Mariann B. Oswald

Lately we've heard a lot about Climate Change, Health and Wellness, the Environmental Impact and other issues that have prompted me to aspire to a better lifestyle. I was a bit confused as to the difference between "green living" and "sustainable living", however, so I took to the internet to see what my revised lifestyle should be. Here is what I found, 1. Green living is a lifestyle that tries in as many ways as it can to bring into balance the conservation and preservation of the Earth's natural resources, habitats, and biodiversity with human culture and communities. In other words, it means creating and living a lifestyle that works with Nature, instead of against it, with no longterm or irreversible damage to any part of the environment. 2. Sustainable living is a full commitment to a lifestyle that is balanced, natural and environmentally conscious.

In my view, what all of this boils down to is that you start out living "green" as a way to attain a "sustainable" way of life. It's kind of like climbing your first set of stairs, climb one step, then sit and take a break, then tackle another step. So, I set out to take on those scary, towering steps before me.

Ah, where to start. I'll try my daily living and a few sore points that have bothered me. Think about it. Paper plates, paper towels, paper cups may be made of recycled paper, but they still go to the landfill, are comparatively expensive, and unnecessary. What's wrong with a plate, cup, towel? And bottled water? Don't get me started. It doesn't matter how many times the plastic is recycled if it will eventually end up at the dump. There are SO many healthier, more sustainable alternatives.

Another sore point... JUNK MAIL! Did you know that the average person gets 69 POUNDS of junk mail each year? Believe it or not, that means approximately 96 MILLION trees per year are used to produce junk mail in the US alone! How do you stop it? One way is to go on DMAchoise.org for details on how to stop the deluge. Another is OptOutPrescreen. com. Catalogs... oh my. Some days if I didn't get catalogs I wouldn't get any mail. Send an email to abacusoptout@epsilon.com and tell

them to take you off the lists. Or, of course, you can call the company directly or mail it all back to them.

Reusable grocery bags are great. Those of you who read my articles may remember one about plastic shopping bags? I still tell complete strangers about the island the size of Texas in the Pacific that is made up entirely of plastic bags and bottles. It's hard to even imagine, but it's there. The problem with reusable bags is, well, they are usually at home or out in the car while I'm shopping. I think I finally got a handle on that problem, though. I now clip my shopping list to the bags and, when I'm ready to go, throw my purse in the top of the bags. If I forget them now, I'm a total lost cause.

Getting ready for the holidays, frazzled and disorganized, my house all topsy-turvy and the last thing I want to think about is new ways to be Eco-friendly. So as not to overwhelm, I won't look at the whole picture and try to tackle it all at once. I think I'll start with the paper towels. If not me... who? If not now... when? Eco-friendly, here I come.

## PEEC Seasons



PRE-REGISTRATION REQUIRED Unless otherwise indicated.

### **TO REGISTER:**

Call PEEC at 570-828-2319

### **JANUARY**

Cross Country Skiing Bridge the Gap: Ski the McDade Trail Saturday, January 21 – 9:00am-12:00pm Free

Enjoy the winter woods with beginner ski lessons. Skis, poles & boots provided - register w/shoe size to guarantee a spot. McDade Trail dates funding provided by the William Penn Foundation.

Cross Country Skiing Sunday, January 15 — 1:00-3:00pm Sunday, January 22 — 1:00-3:00pm Saturday, January 28 — 10:00am-12:00pm \$20 adult / \$10 child

Enjoy the winter woods with beginner ski lessons. Learn the basics of cross country skiing and practice on an old logging road loop. You decide how many loops to ski. Skis, poles & boots provided - register w/shoe size to guarantee a spot.



Christmas Bird Count Sunday, January I – 8:00am Start Free

It's the National Audubon Society's 117th annual Christmas Bird Count! The longest running Citizen Science survey in the world, the Christmas Bird Count provides critical data on population trends. You can register for the area around your house and participate from the comfort of your living room, or you can venture out into a different part of the count circle. If you're a beginner, we'll try to pair you with a more experienced birder. Pre-registration is required for this event.

Ecozone Discovery Room! Saturday, January 21 – 1:00-4:00pm \$2 per person

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.



Eagle Watch Sunday, January 22 – 9:00am-3:00pm \$20

Join us on a trip north in search of eagles. Visit the Mongaup Reservoir, the Delaware River, & the Delaware Highlands Conservancy to look for winter residents and nesting pairs. Bring a lunch, camera & warm clothes. Call to reserve a seat in the van – Maximum of 18 spaces.

Animal Tracking Saturday, January 28 – 1:00-3:00pm \$5

Animals leave behind clues that give us glimpses into their lives. Explore our natural areas for tracks, trails, scat, territory marks, chew marks, and other signs animals leave as they travel through the fields and forests of the Poconos.



Active Adventures: Winter Ecology Hike Sunday, January 29 – 10:00am-12:00pm Free

Learn how different plants and animals survive the winter. Join us on a hike and experience PEEC in the wintertime. All ages welcome. Funding for this program is provided by the AllOne Foundation.

Bridge the Gap: Intro to Snowshoeing Sunday, January 29 – 1:00-4:00pm Free

Learn the basics of snow shoes and enjoy a winter walk along the McDade Trail. No experience necessary – we provide the equipment and teach you everything you need to know. Register early to reserve a pair of snowshoes & guarantee a spot. Funding for this program is provided by the William Penn Foundation.

### **FEBRUARY**

Cross Country Skiing
Bridge the Gap: Ski the McDade Trail
Saturday, February 4 – 9:00am-12:00pm
Enjoy the winter woods with beginner ski
lessons. Skis, poles & boots provided - register
w/shoe size to guarantee a spot. McDade Trail
dates funding provided by the William Penn
Foundation.

Continued on Page 8

## PEEC Seasons



Continued from Page 7

### **FEBRUARY**

guarantee a spot.

Cross Country Skiing
Sunday, February 5 – 1:00-3:00pm
Saturday, February 11 – 10:00am-12:00pm
Saturday, February 25 – 10:00am-12:00pm
Sunday, February 26 – 1:00-3:00pm
\$20 adult / \$10 child
Enjoy the winter woods with beginner ski
lessons. Learn the basics of cross country
skiing and practice on an old logging road

loop. You decide how many loops to ski. Skis,

poles & boots provided - register w/shoe size to



Active Adventures: Little Eco Explorers: Eagles

Saturday, February 4 – 1:00-2:30pm \$5 per child

A fun hands-on program for young children! Join us for a story, craft, and activity focusing on Bald Eagles. Call for details. Funding for this program is provided by the AllOne Foundation.

Fire Building Sunday, February 5 — 10:00am-12:00pm \$5

Make fire without matches by learning techniques that involve sparks and found or prepared tinder. Ages 10+ please.

Ecozone Discovery Room! Saturday, February 11 – 1:00-4:00pm \$2 per person

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.

Winter Ecology Hike Sunday, February 12 – 10:00am-12:00pm Free for members / \$5 for non-members Learn how different plants and animals survive the winter. Join us on a hike and experience PEEC in the wintertime. All ages welcome.

Bridge the Gap: Intro to Snowshoeing Sunday, February 12 – 1:00-4:00pm Free

Learn the basics of snow shoes and enjoy a winter walk along the McDade Trail. No experience necessary – we provide the equipment and teach you everything you need to know. Register early to reserve a pair of snowshoes & guarantee a spot. Funding for this program is provided by the William Penn Foundation.

"Winter Wonderland" Family Nature Getaway Weekend

President's Day weekend: February 17-20 Adults \$225 / 25% off ages 7-10 / 50% off ages 4-6 / free under 3

Bring your friends and family to experience PEEC in the wintertime. Cross country skiing, animal tracking, nature hikes, snow tubing, campfire and more! Price includes three nights of lodging and meals from Friday dinner to Monday lunch. Join us for a wonderful winter weekend! Commuter and day rates available – call for details.

Animal Tracking Saturday, February 25 – 1:00-3:00pm \$5

Animals leave behind clues that give us glimpses into their lives. Explore our natural areas for tracks, trails, scat, territory marks, chew marks, and other signs animals leave as they travel through the fields and forests of the Poconos.



#### **MARCH**

Sugar Shack Scramble Saturday, March 4 — 9:00am-12:30pm \$15

Join us for a hike through the woods out to the "Two Saps" Sugar Shack and enjoy hot cocoa and pancakes with fresh maple syrup! Sign up for a 9am or 9:30am start time. Spaces limited – this program sold out in 2015 & 2016!

Ecozone Discovery Room! Saturday, March 4 – 1:00-4:00pm \$2 per person

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.

Active Adventures: Healthy Hikes Sunday, March 5 – 1:00-3:00pm Free

Enjoy a guided hike on a PEEC trail. This program is all about getting outside, exploring nature, and meeting new people. Funding for this program provided by the AllOne Foundation.

Active Adventures: Introduction to Orienteering Sunday, March 12 – 1:00-3:00pm Free

Come learn how to use a map & compass on our orienteering course. We'll show you the basics before you try and find all the points. Space is limited – call early! Funding for this program provided by the AllOne Foundation.

Active Adventures: Intro to Mindfulness Saturday, March 18 – 10:30am-12:00pm Free

Experience the benefits of Mindfulness. Explore difference techniques to being more present day to day. Find yourself more focused, less stressed, and improve the quality of communication and relationships. We will focus on exercises including mindful eating, visualization and quieting the mind, and the power of being alert through being in nature. Funding for this program provided by the AllOne Foundation.

