



PEEC
Pocono Environmental
Education Center



Winter Solstice 2017

Seasons

A Quarterly Publication to Advance Environmental Literacy

INSIDE THIS ISSUE

Message from the Executive Director	2
Why Snowshoe?	3
5 Photography Tips for Beginners	4
PEEC's Grant Programs	6
A Winter Challenge	7
PEEC's Watershed Hero	8
How Many... What?	8
Calendar Events	9
Annual Appeal 2017	10

**Pocono Environmental
Education Center**

538 Emery Road
Dingmans Ferry, PA
570 • 828 • 2319

peec@peec.org
www.peec.org

Oh, Beech Tree, You Hold Onto Your Leaves

By Sheri Bone

Autumn. The time when deciduous trees have a wild party full of color, and when the party's over, the leaves drop. Usually the colors are vibrant (not so much this year) and the 'fall' part of a leaf's life happens quickly. A big wind, a big rain, a heavy frost, and the leaves are all on the ground. Unless you are an American beech (*Fagus grandifolia*). Then, some, even many, of the leaves hang onto their twigs for dear life. This is similar to what happens with evergreens, but the American beech is definitely a broadleaf deciduous tree. What is going on? Evergreen envy?

When you come to PEEC, the two big trees out front of the Main Building are Weeping beech. They are not American beech trees, but have similar characteristics to their cousins (except that their branches hang down.) Some similar characteristics are the bark, the leaves and the buds. The trunk is gray and smooth, sometimes inviting people to use it for carving names and initials. (Daniel Boone's famous legendary carving about him killing a bear was made in the bark of a beech tree.) The leaves are simple (not compound) and have distinct, straight veins that come off of the middle vein. The American beech's leaves are larger than the Weeping beech. The buds for next year's leaves are long and thin, and are attached to the twig at the base of an existing leaf. (Someone reported that the buds resemble mini cigars.) These buds are easy to spot, and is the characteristic that helps you know you are indeed looking at a beech tree. The fruit is called a beechnut. It has a hairy, four lobed outer husk. The nut is loved by many animals, including deer, rabbits, squirrels, turkeys, opossums, bears, and even humans.

What makes American beech trees stand out from other trees, in addition to their tall stature (they can grow to over 80 feet), silvery gray bark, and dark green leaves, is the fact that many of their leaves hang on in the winter. Retention of dead matter is called marcescence. (Some oaks, ironwoods, and witch hazel do this as well.)



American Beech Leaf



Beech Nut Husk

The leaves turn golden in the fall, and many of them fall to the ground. But the ones that hang on become tan, dry and brittle, and they rattle in the wind. Is there a good reason why this happens?

The scientific reason for the leaves being retained is an enzyme that is needed to encourage the leaf to break away from its twig is not released in the quantities for the shedding to occur. It could be related to the amount of rain that fell that year, or maybe not. It just might be the way that tree is supposed to have its leaves behave. No one has a great answer as to why marcescence happens.

Is there a benefit to having the tree hold onto some of its leaves? The answer to this question is equally unclear.

Continued on page 2

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

Executive Director Jeffrey Rosalsky
Director of Development Ed Winters
Director of Business Mgmt. Mariann Oswald
Facilities Manager Ted Wetzel / Marc Wetzel

PEEC PEOPLE

Director of Education Stephanie Sherman
Director of Operations Derek Scott
Group & Grant Coordinator Sheri Bone
Program Planner Ryan Gerbey
Weekend Workshop Manager /
Volunteer Coordinator George Johnson
Dining Hall Manager Wendy Gannon
Public Relations/Marketing Janine Morley

INSTRUCTORS & INTERNS

Nathan Gilson, Beth Kuemerle, Nathan Lanan,
Ryan McLaughlin, James Scott

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

Design & Layout Niki Jones Agency, Inc.
Editor Janine Morley

Contributing Writers
Sheri Bone, George Johnson, Mariann Oswald,
Jeff Rosalsky, Derek Scott, Stephanie Sherman

Contributing Photographers
PEEC Staff Photos



Message from the Executive Director

The winter months at PEEC are some of the most beautiful times and allow us reflect on different aspects of the natural world. The bare deciduous trees unveil spectacular vistas on Tumbling Waters and Scenic Gorge Trails and the cold morning air is somehow more silent. We hike more slowly and deliberately and, hopefully, are more observant. We also have time to reflect on the prior years' progress and our plans for the new year.

We have several staff who are new to PEEC or have taken on new roles as we grow the organization. Derek Scott, who was our Public Programs manager for years, is now our Director of Operations and Stephanie Sherman, who was our Summer Camp manager, is our new Director of Education. George Johnson joined us to take up the mantle from Derek and now oversees our public programs and is our weekend manager. The changes are a sign of developmental growth for the individuals and for PEEC.

Over the winter months, we also have time to evaluate PEEC's program offerings and make refinements, improvement and additions. New insights from fresh perspectives are essential as we strive to keep PEEC vital and relevant. New staff always bring engaging ideas and skills to PEEC. As I write this, Stephanie is leading our first Vacation Nature Camp--the Monday after Thanksgiving is a school holiday in PA. George is keen on expanding PEEC's entomology offerings--and that is just the beginning. Who knows what else will evolve from our brainstorming. I just keep us on mission and make sure we have the funding and infrastructure to keep educating the students. Ok...I sometimes get to do fun stuff too...

Oh, Beech Tree, You Hold Onto Your Leaves

Continued from Page 1

Perhaps the growing buds are protected from deer and other winter plant eaters by the dry leaves. (Apparently, dried leaves are less tasty than exposed twigs of other trees.) Perhaps they allow the tree to retain more moisture that is needed for winter survival and spring renewal. Perhaps with fewer leaves on the ground, decaying will occur more rapidly, allowing for more nutrients to get into the ground for the following spring's needs. Again, no clear answers but good guesses.

Whatever the reason, the big picture shows that the dry leaves will be pushed off the branches by the new growth in the spring, and the cycle will begin again. New big green leaves will grow and more beechnuts will be produced as the American beech provides shelter, shade and food for Mother Nature's children.



Weeping Beech Leaves and Buds

Why Snowshoe?

By Derek Scott

Of all the recreational activities that people enjoy during the winter months, snowshoeing is often one of the least popular. Of course, this all depends on who you talk to. As a big advocate for snowshoeing, here are my top 5 reasons everyone should give it a try this season.

1) Snowshoes are easy to use

If you've ever tried taking up skiing or snowboarding, then you know it's a process. Unless you're very coordinated, it takes practice to get used to balancing while moving and taking turns without falling. With snowshoeing, the learning curve is much easier. The biggest adjustment for most people is just getting used to having something strapped to their feet.

2) It's great exercise

If your goal for the New Year is to drop a few pounds, snowshoeing is a lot more fun than hitting the gym. Between the weight of the snowshoes and the difficulty of moving through the snow, on average you'll be burning about 500 calories an hour based on your weight and height. Throw in some elevation change and that number can quickly increase.

3) The cost of getting started

If the price of ski and snowboard equipment has kept you from getting out during the winter, snowshoeing is a cheaper alternative. Sure, some snowshoes can be expensive, but when compared to the cost of similar quality ski and snowboard gear, it's much more reasonable.

4) Trails aren't crowded

In general, trails tend to be less busy during the winter months, especially with significant snowfall. Even so, snowshoes will give you more accessibility than cross country skis in areas with narrow paths and uneven terrain, meaning you can explore more of the trail less traveled.

5) The scenery

The biggest motivation to get out and snowshoe is the scenery. Winter landscapes are mesmerizing, even if the trail happens to be one you've traveled before. It's hard to beat the feeling of laying down the first set of tracks on a snow covered trail.




PEEC
 Pocono Environmental
 Education Center


BRIDGE THE GAP
 Come Out & Enjoy The Park!
 DELAWARE WATER GAP
 NATIONAL RECREATION AREA

SKI THE MCDADE TRAIL

SATURDAY JANUARY 20 · 9AM - 12PM

Enjoy the winter woods with beginner ski lessons; learn the basics of cross country skiing. Skis, poles & boots provided - register with shoe size to guarantee a spot.

Bridge the Gap date funding provided by the William Penn Foundation.

FREE


PEEC
 Pocono Environmental
 Education Center


BRIDGE THE GAP
 Come Out & Enjoy The Park!
 DELAWARE WATER GAP
 NATIONAL RECREATION AREA

INTRODUCTION TO SNOWSHOEING

SATURDAY, JANUARY 20, 1:00 - 4:00 PM

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.

CALL PEEC

570.828.2319

FREE

5 Photography Tips for Beginners

By George Johnson

A couple of years ago, I was tasked with teaching conservation photography lessons for students. At the time I had zero experience with photography, aside from the occasional point and click shot at family gatherings. At the time I had this image in my head that good photography required high end, fancy, and expensive equipment for the best pictures. While all that stuff certainly can help, I soon came to realize that the most important elements for photography are the basic techniques, which anyone can do with any camera. So listed below are 5 essential tips for anyone looking to tip their toes into the world of photography.



*The **Red** milkweed bug surrounded by the **Green** background really stands out.*



A back lit shot of a leaf so you can see all the little veins.

1) Color

Proper use of colors is the most basic technique, but can be the most powerful since they can convey and bring forth certain emotions or feelings in a person. Red, for example, can often be associated with feelings of anger or danger. Additionally, one needs to think about the mix of colors included. Remembering back to elementary art class, they use the color wheel to teach which colors go well together. Photography uses that same wheel in the same manner. Colors that are across from each other on the wheel, or complementary colors, tend to visually stand out and really pop from the photo.

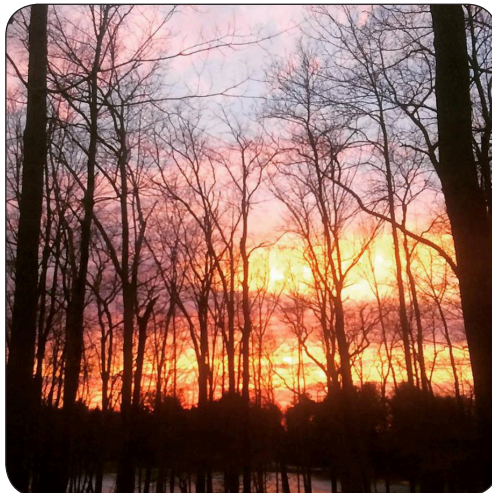
2) Light

In conservation photography it's very likely that the only source of lighting you'll have is the sun. So where you stand in relation to the sun can be a big deal in order to achieve the best results. If the sun is shining directly on your subject, or what you're taking a picture of, then it's called front lighting. If the sun's behind the subject, then it's called back lighting. With front lighting you'll be able to pick out and notice all the various colors present in the photo, at the small cost of losing some depth. However, by using back lighting you'll save the depth in return for those colors. It might take some time and practice but you'll eventually find a way to balance both aspects out for the kind of picture that you're looking to capture.

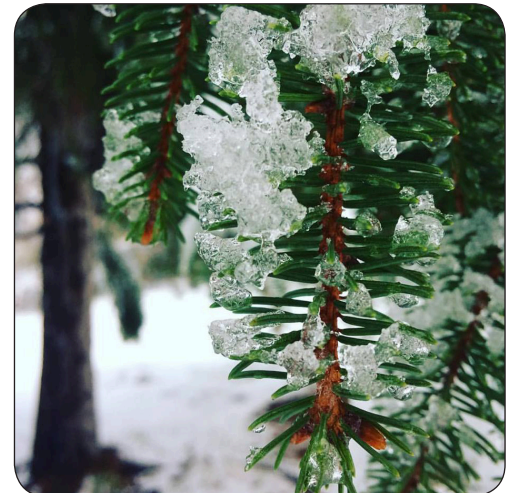
3) Lines

Lines are a fun and interesting way to help break up certain views. They can also be used to help guide one's eye through the photo and help give some extra depth. Horizontal lines, often ridgelines or tree tops, can often give a person a sense of stability, whereas vertical lines can give off an indication of height.

*First Photo on Left:
Vertical lines created by the back lit trees*



*Second Photo on Right:
Horizontal lines made from the various spruce needles*



Continued on page 5



4) Composition

Composition is a tricky technique to master. It involves how to frame the photograph itself to find the right perspective. That might include changing the angle of the photograph being taken, crouching low and looking upwards for example. It could also include positioning yourself extremely close to the subject in order to take a nice macro shot. You just have to play around with the different angles to find the best one that appeals to you the most. Don't be afraid if it takes some time or you end up

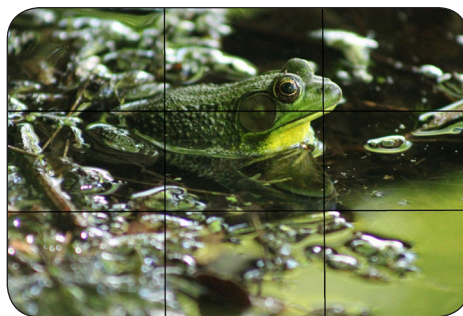
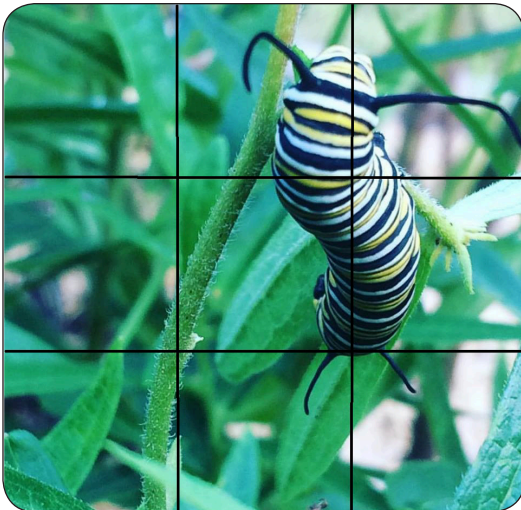
taking a lot of photos. Every picture is unique and it can be rather difficult to nail a perfect shot on the first try.

First Photo on Left:

A nice close up (Macro) picture of a newly emerged moth. I had to lay down completely in the field for this one.

Second Photo on Right:

Some natural framing created by the branches and leaves of the forefront of the picture.



Notice how the main stars of both of these pictures are just along the outside of that center box.

5) Rule of Thirds

So this is more of a guideline than a hard and fast rule to abide by, I break it myself if I find that the picture needs it. First, you want to imagine that every picture is divided up into a 3x3 grid box. Then, when you're taking your picture, you want to try and avoid putting things directly in the center of the camera, opting instead to place them around the center at the corners of the boxes. This practice is counter intuitive to what most people do since most photos these days are of people posing together for special events. When your eye first looks at a new picture however, it will naturally move in a "Z" motion across the photo and unconsciously spend more time at those intersections. So by purposely setting up your picture to have the subject at or near those special regions, then you're naturally making your photo more visually appealing.



PEEC
Pocono Environmental
Education Center

EAGLE WATCH



FOR EAGLE ENTHUSIASTS

Saturday January 27
9:00am-3:00pm

Join us on a trip north in search of eagles and other rare wintering birds.

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 20 spaces.

\$20 PER PERSON

I am by no means an expert photographer, but for those who are looking to learn a little bit about the field, then this is the place to begin. Start small by maybe focusing on one or two of these tips at a time, and then slowly start to incorporate more techniques into your pictures. It'll take some time to play and experiment with each photo, but as long as you're patient and practice then you'll certainly get better. I look forward to seeing what kind of fun and interesting photos are taken on our trails!

PEEC's Grant Programs

By Sheri Bone

As a 501(c)(3) non-profit organization, PEEC receives its funding from user fees, donations and grants. We receive no federal or state funding for our operating costs. This article will focus on some of the grants we have received this past year.

1. William Penn Foundation (WPF) – A generous funder, the WPF has awarded PEEC several grants through the years. The programs that have most benefited from this generosity are “Bridge the Gap,” “Women on the Water,” and “Boys in Boats.” All three of these programs encourage people to get outdoors (i.e., learn how to paddle, identify the factors needed for healthy watersheds, hike more) and have fun! When you hike or paddle at PEEC, please be sure to come back to the office to take our survey. We use the information you provide to plan for future programs, and you'll get a sticker, too! The WPF also supports the Alliance of Watershed Educators, of which PEEC is a member. Next year, additional WPF funds will help us bring students from Philadelphia and Camden to PEEC to learn about healthy watersheds.

2. Sanofi Pasteur – The Sci-Q Project is the recipient of the funding from Sanofi Pasteur. This program is geared for 20 science loving students heading into 8th-10th grades in the fall. Receiving hands-on lessons from the PEEC leaders and classes from ESU professors, the Sci-Q kids have participated in projects relating to wildlife forensics, canoed through the Delaware Water Gap to study geology, made robotic arms, and so much more. We are lucky enough to have the funding from Sanofi Pasteur run through the 2018 Sci-Q Project, so check our website in early January for more details about next summer's event.

3. Victoria Foundation (VF) and PSEG – VF and PSEG funds helped make a Summer Science program happen for 75 lucky Newark, NJ middle schoolers. Hiking, Ecology classes, Campfires, Wildlife Presenters – these classes and more kept this 4th year of Summer Science students busy. The Summer Science trips extend back to the classroom as the participants design an environmental project for their school neighborhood.

4. Dana and Christopher Reeves Foundation - A few years ago, PEEC received funding from this worthy foundation, earmarked for a wheelchair lift in our EcoZone. It took longer than we planned, but finally, this past spring, the lift was purchased and installed. We are so glad to make our EcoZone ‘everyone friendly!’

5. Weinberg Foundation – Our partnership with the Easterseals Camp Growing Green program could not exist the way it does without funding from the Weinberg Foundation. Special needs campers come to PEEC for a 6 day adventure: hiking, assisting with gardening chores, swimming at an area lake, and socializing with other campers who are on-site. This is such a wonderful program, and we are glad to be in this partnership.

PEEC is continually applying for (and receiving) grants/donations from generous organizations. The newest funders will help us provide environmental classes to schools along the PennEast Pipeline, and also expand our teaching about watershed health. Thank you to all of the foundations and organizations who have given so much to help PEEC meet and share its mission – ‘To advance environmental education, sustainable living, and appreciation for nature through hands-on experience in a national park.’



A Winter Challenge

By Stephanie Sherman

Winter is coming. It's been a pop culture phrase for years now, but for many of the plants and animals, it's a fact of life. The days grow shorter, morning frosts make the air extra crisp and I begin to think about all the exciting changes that are happening, not just for the weather, but for the entire ecosystem. Here at PEEC we give students a special chance to explore what winter means for plants and animals through our Winter Ecology class. This class highlights some of the unique survival adaptations we often do not see from the luxury of our cozy homes.


We know winter is coming when the leaves change and everyone starts thinking about how bright those evergreen trees are compared to the dull brown branches. In Winter Ecology, we take a look at why this happens. Many of our leafy trees are deciduous, meaning that each year the leaves are shed only to regrow in the spring, and while we may be depressed when all the autumn colors have faded, those trees are best prepared for a winter's slumber in dormancy. When trees shed their leaves, they are beginning to store more water into their roots to prevent their branches from freezing. If an extra cold evening catches a tree off guard, those branches could freeze and crack open. Likewise, a sudden snow while the leaves are still on could carry so much weight the limbs would break. Evergreen trees have a different strategy that lets them persist even in the snow. Unlike the delicate deciduous leaves, coniferous tree (named because their seeds are dispersed in cones) have needle like leaves that have a hardy

waxy coating that can withstand the cold and freezing. As for the snow? An evergreen tree comes to that classic point not just because it's stylish, but also because the snow will slide right off those branches when the weight becomes too much.

For many animals, evergreen trees act like giant umbrellas from the snow, creating hollows for safety, while other animals take refuge in the large amounts of leaves from the deciduous trees. It's always inspiring to challenge my students to think about how an animal would use their surroundings to survive. Would they prefer to take shelter under the hollow of a pine tree or would they prefer to make a nest of leaves to keep them warm? A lot of planning goes into surviving the winter from chipmunks and squirrels stashing away acorns to deer that change their entire eating habits from leafy greens to the chewy sapling stems. Even something like building a nest is not so simple. The way an animal prepares its winter home could determine whether they see the spring.


Either way, many of my students are finding other exciting winter adaptations as they scramble about the forest trying to survive. Per chance they came across a midden pile of a red squirrel as it hoards all of its spruce cones on a fallen log, or maybe it's the footprints of a white-footed mouse that has surfaced from its tunnels under the snow. These teachable moments are priceless when exploring around PEEC, along with the beauty of the winter itself. My challenge now is for you to take a closer look and see if you can find all of those hidden winter survival strategies the next time you take a hike!




PEEC
 Pocono Environmental
 Education Center

ANIMAL TRACKING

JANUARY 28 • 10:00AM – 12:00PM



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.

\$5 PER PERSON

How Many... What?

By Mariann B. Oswald

1. How many flowers must a honey bee visit to make one pound of honey?

- A. 2 million C. 1/2 a million
B. 1 million D. 100 thousand

2. How many pounds does a bald eagle's nest weigh?

- A. 100 pounds C. 8000 pounds
B. 2000 pounds D. 1 million pounds

3. How many pine needles, on average, are on a 7 foot Christmas tree?

- A. 1 million needles C. 60 million needles
B. 6 million needles D. 100 million needles

4. How many ornaments should you put on a 7 foot tree?

- A. 1000 C. 100
B. 3000 D. 300

5. How many times does a person sneeze per year?

- A. 50 C. 1000
B. 500 D. 2000

6. How many pairs of shoes does an average woman have at any particular time?

- A. 100 C. 20
B. 50 D. 8

7. How many snowflakes make a good snowball?

- A. 100,000 C. 500,000
B. 300,000 D. 700,000

8. How many bristles are on a standard toothbrush?

- A. 100 C. 500
B. 200 D. 2000

9. How many ones are on a 1 dollar bill?

- A. 50 C. 18
B. 35 D. 14

10. How many marbles fit in the capital building rotunda?

- A. 654,321,123,456
B. 801,937,527,888,214
C. 2.60851597*1010
D. 2.50894524* 100

Answers on Page 10

PEEC's Watershed Hero

By Sheri Bone

PEEC is a member of the Alliance of Watershed Educators (AWE) which includes 22 additional environmental centers. All of the centers are located in the Delaware River Watershed, between PEEC (we are the northernmost center.) and Delaware, along both the PA and NJ sides of the river. This AWESome group has been instrumental in helping to educate the public about watershed health. The group collaborates on different activities that encourage knowledge about the watershed. Centers send staff members, belonging to different AWE committees, to meetings that address efforts about watershed health. AWE is funded by the William Penn Foundation.

Why was AWE started? **The Delaware River Watershed** provides drinking water for 15 million people! That means we need to take care of the watershed so our drinking water is protected. There are other reasons, too, but this one is the most compelling!

One of the projects developed by the AWE leaders is "River Days." In the fall (usually occurring between the middle of September and the middle of October), each center denotes a day filled with watershed awareness activities. The "Ice Cream Float" activity held during PEEC's Fall Family Fun Day/River Days Event was an idea shared from another center in Philadelphia! We also had hiking and paddling (without ice cream) as part of our River Days activities. Getting more people to paddle on the water and have them hiking more of the trails in the watershed are goals of River Days. When people participate in activities in and around the watershed, they will be more likely to take care of it.

Teaching people about how to increase watershed health – taking care of the land that eventually drains into the Delaware River – is another goal of AWE. While many people like to think only of the water in a watershed, the watershed is much more than that. It includes the land, the roads, the woods, people's yards and gardens, and all of the places where rainwater that falls will flow to the river. Teaching this concept to everyone can be daunting, but the AWE leaders asked each center to find and recognize someone in their neighborhood who they could call their "Watershed Hero." This person should be a role model with the way he or she lives his/her life. This person should also be a member of the community who teaches others about caring for the watershed.

PEEC's leaders thought long and hard about who to recognize as our "Watershed Hero" and decided on John Casey. John is a Park Ranger in the Delaware Water Gap National Recreation Area. He is the Trails Supervisor, in charge of 2 teams of NPS staff who keep the trails maintained and safe for park visitors. He also coordinates the efforts of volunteers (the Trail Stewards) who come to the park each month to do work on the area's trails. When PEEC held its first Earth Day Watershed Clean-Up last April, John was instrumental in helping to organize the activities and people. Yes, John is an everyday watershed hero, and frankly, he was embarrassed to receive our recognition of his work. Why? Because he just does what he knows best, taking care of the woods and trails, without looking for any reward, and that's another reason we chose him.

Thank you, John, for being our Watershed Hero!



WINTER PROGRAMS AND GETAWAYS 2018

**PRE-REGISTRATION REQUIRED
Unless otherwise indicated.**

TO REGISTER:

Call PEEC at 570-828-2319

JANUARY

Christmas Bird Count

Monday, January 1 – 8:00am Start
Free

It's the National Audubon Society's 118th 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.

Cross Country Skiing

Bridge the Gap: Ski the McDade Trail
Saturday, January 20 – 9:00am-12:00pm
Free

Enjoy the winter woods with beginner ski lessons; learn the basics of cross country skiing. Skis, poles & boots provided - register with shoe size to guarantee a spot. Bridge the Gap date funding provided by the William Penn Foundation.

Cross Country Skiing

Sunday, January 14 – 1:00-3:00pm
Sunday, January 21 – 1:00-3:00pm
Saturday, January 27 – 10:00am-12:00pm
Sunday, January 28 – 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 with shoe size to guarantee a spot.

Bridge the Gap: Intro to Snowshoeing
Saturday, January 20 – 1:00pm-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 Ecology Hike

Sunday, January 21 – 10:00am-12:00pm
\$5

Learn how different plants and animals survive the winter. Join us on a hike and experience PEEC in the wintertime. All ages welcome.

Eagle Watch

Saturday, January 27 – 9:00am-3:00pm
\$20

Join us on a trip north in search of eagles and other rare wintering birds. 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 20 spaces.

Animal Tracking

Sunday, January 28 – 10:00am-12:00pm
\$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.

FEBRUARY

Cross Country Skiing

Bridge the Gap: Ski the McDade Trail
Saturday, February 10 – 9:00am-12:00pm
Free

Enjoy the winter woods with beginner ski lessons; learn the basics of cross country skiing. Skis, poles & boots provided - register w/ shoe size to guarantee a spot. Bridge the Gap date funding provided by the William Penn Foundation.

Cross Country Skiing

Saturday, February 3 – 10:00am-12:00pm
Sunday, February 4 – 1:00pm-3:00pm
Sunday, February 11 – 1:00pm-3:00pm
Saturday, February 24 – 10:00am-12:00pm

Sunday, February 25 – 1:00pm-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 guarantee a spot.

Eagle Watch

Saturday, February 3 – 9:00am-3:00pm
\$20

Join us on a trip north in search of eagles and other rare wintering birds. 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 20 spaces.

Little Eco Explorers: Eagles

Sunday, February 4 – 10:00am-12:00pm
\$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.

Ecozone Discovery Room!

Saturday, February 10 – 1:00pm-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. No registration required.

Winter Ecology Hike

Sunday, February 11 – 10:00am-12:00pm
\$5

Learn how different plants and animals survive the winter. Join us on a hike and experience PEEC in the wintertime. All ages welcome

"Winter Wonderland" Family Nature Getaway Weekend President's Day Weekend: February 16 -19, 2018 Adults \$225 / Child, Commuter, and Day Rates Available

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!



INSPIRED AT PEEC! HELP PEEC CHANGE MORE LIVES



My eighth grade class from Germantown Academy in Fort Washington, PA, was privileged to experience a multi-day visit to PEEC in 1980. Through hands-on sessions with PEEC's educators, we explored the nature and ecology of the Delaware River Basin. I can still recall hiking to the top of Mount Tammany and taking in the inspiring vista of the Delaware Water Gap.

In my career today as an environmental attorney, I am grateful to have gained an early appreciation for our natural resources through the school program at PEEC.

- Rodd W. Bender

- A native Pennsylvanian, Rodd received his undergraduate degree from Brown University, a masters in public policy concentrating on environmental policy from the John F. Kennedy School of Government at Harvard University, and a law degree from the University of Pennsylvania.
- Prior to joining his current law firm, Rodd worked as a consultant on water protection programs to the U.S. Environmental Protection Agency in Washington, DC.
- Since 1997, Rodd has been an environmental attorney with Manko Gold Katcher Fox LLP in Bala Cynwyd, PA. He assists clients in acquiring, remediating and redeveloping "brownfield" properties, and counsels businesses and other entities on compliance under a range of environmental regulatory programs.

Please help PEEC continue to change lives by donating to our Annual Appeal. Your donations help us to create programs that engage young people in science and environmental studies, changing their world and ours.

Sincerely,

Jeff Rosalsky
Executive Director



THANK YOU! FOR CONSIDERING PEEC FOR YOUR YEAR-END DONATION

PEEC is a 501(c)(3) non-profit organization and is a part of the CFC and SECA campaigns.

PEEC's CFC Code: **36280**

PEEC's SECA Code: **9200-0041**

PEEC's Federal Tax ID: **23-2424742**

DONATE ONLINE AT WWW.PEEC.ORG

Answers From Page 8

1. A honey bee must visit one million flowers to make just one pound of honey. Or, in other words, one lonely little bee must visit 367,932 flowers for me to enjoy my ice cream (Yes, I put honey on ice cream).
2. A bald eagle nest is roughly 8 feet wide and up to 13 feet deep. They weigh one ton (2,000 pounds) on average. In Alaska where the eagles are larger, nests can weigh up to 3 tons.
3. The average 7 foot fir tree has 60,000,000 needles. Of those, approximately 59,138,263 end up on my floor. Did you count yours this year?
4. So, the recommended number is 300. But, if you want to see a tree with 1300 ornaments, stop by before January 1st.
5. This, of course, depends on pollen count in your area. The average, overall, is about 1000 times per year. Personally, I think I sneezed 627 times today alone. Achoo!

6. On average, women have 20 pairs of shoes in their closet. My closet currently holds 27 pairs of boots, 8 pairs of sneakers, 9 pairs of loafers, 16 pairs of sandals, and 3 pairs of slippers. Do slippers count?
7. Going by ounces, figuring there are about 100,000 snowflakes per ounce, a 5 ounce snowball (small) would have half a million (500,000) snowflakes. I stock up on 8 ounce snowballs for when my grandson comes over. Big piles... strategically placed.
8. On average, there are about 2000 bristles on a standard toothbrush. I think mine is looking sparse. I hate it when they get stuck between my teeth.
9. Amazingly, only 14.
10. 2.60851597*1010. That there is a lot of marbles. I wonder who lost them?