



PEEC
Pocono Environmental
Education Center



Seasons

Winter Solstice 2014

A Quarterly Publication to Advance Environmental Literacy

Fuzzy Folklore: The Woolly Bear Caterpillar

Pyrharrctia isabella

By Lea Della Vecchia

We are all familiar with the woolly bear caterpillar. Perhaps you've spied them scurrying across the road or sidewalk in autumn, or maybe you've picked one up and had it roll into a bristly ball in your hand. They are brown and black, approximately an inch and a half long, and are seen everywhere when the leaves begin to turn. The woolly bear caterpillar can travel up to a mile per day! Their native range is from northern Mexico throughout the United States and into the southern third of Canada. They have thirteen body segments, and are covered in bristly hairs of black and a brownish, coppery red color. The scientific term for the hair on their bodies is called setae. The woolly bear caterpillar can molt up to six times in their larval stage; each molt ends an instar stage of the caterpillar.

The woolly bear is a generalist feeder, which means it will eat most herbaceous plant material. They hatch from eggs in the late summer and spend the fall eating. Some of the woolly bear's favorite foods are bitter plants—clover, dandelion, milkweed. They overwinter under logs, rocks or leaves in their larval stage. In the springtime, they continue eating, and then they spin cocoons where they spend two weeks before they emerge into the world as Isabella Tiger Moths.

The woolly bear caterpillar is often a topic of folklore—the caterpillar is said to predict the severity of the upcoming winter. The longer the brown stripe in the middle of the caterpillar, the milder the winter will be. If the brown stripe of the caterpillar is narrow, the winter will be harsh. It is said that the thirteen segments of the woolly bear's body correspond to the thirteen weeks of winter.

This myth became widespread in 1948 after Dr. Howard Curran, curator of insects at the American Museum of Natural History in New York City, took a trip to Bear Mountain State Park in the lower Hudson Valley, New York to perform a study on the woolly bear caterpillar population. He brought his wife, some friends, and a reporter from the New York Herald Tribune. He collected fifteen caterpillars and averaged their brown segments, and formed a prediction about the upcoming winter. Dr. Curran and his crew founded the Society of the Original Friends of the Woolly Bear, and continued their predictions for the next eight years. They found the brown stripe on the caterpillars



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Message from the Executive Director



There is definitely an ideological tension surrounding the incorporation of technology into hands-on environmental education. Some consider its use, from smart phones, to tablets to more elaborate holographic displays, a cutting edge mechanism to engage students in a manner very familiar to them. Students are more inclined to engage because they can use the technology they know, and love, to enhance their understanding of the natural world. Other educators would prefer to see all devices collected and locked away until the students return home. They consider the technology a distraction from hands-on interactions with the fauna and flora. Eyes focused on small screens miss the wonder on either side of the trail, not to mention the tripping hazards.

PEEC tends to fall in between the two camps for both the technology we employ and that which the students bring from home. For any potential new technology PEEC incorporates in our displays and our classes, we ask a few fundamental questions. First, does the technology truly enhance the educational experience for the student, or is it at best a novelty and at worst a distraction? Is it intuitive and easy to use for all ages and abilities? Does it assist learners who may be more visual or auditory or non-traditional learners in other ways? Does it require limited maintenance on the part of educators and is it robust enough to work consistently with tens of thousands of annual visitors?

An affirmative answer to all of these questions, and a reasonable cost, makes a new technology worth our consideration. For the past several years we have had a touch screen display in our lobby with species information from PEEC's 2010 BioBlitz; a PC with several interactive renewable energy breakeven models; and an iPad in the EcoZone with supplemental information about bats. All are well used, but each presents the staff with challenges in updating and device uptime. We have recently put QR codes on our trail guides in the main building, so hikers can instantly download our guides to their smart phones. It's free, fast and saves paper.

Devices students bring with them, present their own set of challenges. Our policy, at the moment, is not to provide the students with our public WiFi password and, given the poor cell reception in our area, calling and texting are inherently limited. We prefer that students don't use their smart phones at all while at PEEC, given their more distracting applications, however, we recognize that for many students their smart phones may be their cameras as well. We certainly don't want to discourage their inclination take nature photos for sharing or identification purposes. Likewise, if a student has legitimate research based questions, the internet is a phenomenal and instant resource for the most obscure facts.

We continue to evaluate our best practices for the appropriate use of technology in environmental education. I expect that our views will continue to shift over time, as both personal habits and the devices themselves evolve. Still, I think it will be quite some time before technology can replicate the wonder of a student at Front Pond catching a green frog in her hands or spotting a red eft crossing Scenic Gorge Trail.

Ask Andrea!

The column to ask questions about PEEC, the environment, and the mysteries of nature.

Question: Is PEEC open during the winter?

PEEC's trails are open year-round. Make sure when hiking during the winter to keep in mind the earlier sunset times as well as the added resistance that snow can create. In addition to hiking or snow-shoeing on our trails, PEEC offers public programs in winter ecology and cross-country skiing. Winter outdoor activities can be much more exhausting, but it can also be more rewarding. I love going out on the trails after a fresh snowfall and feeling the stillness of the forest around me.

Question: What are those trees in front of the main building at PEEC? Are those weeping willows?

Close! They're weeping beech trees. It is a variety of the European beech and is a non-native species. Most weeping trees are cultivated for their characteristic look and used as ornamentation. Twigs on weeping trees are softer and create the drooping look.

Question: What are some sustainable ways to survive the winter?

As the natural world shifts to adapt to the change in temperature, we also should be changing our habits. Many of the money-saving winter tips you hear may seem familiar; this is because humans have been living sustainably for hundreds of years. It has only been since the industrial age, invention of plastic, and mass production of chemically preserved foods that we have veered away from some simple ways to live sustainably.

You've probably already heard about some common suggestions for sustainability during the colder months – winterize your home, put plastic cling wrap across your windows, turn down the heat and wear an extra sweater.

Animals prepare for winter by stockpiling food in a cache somewhere hidden. Many of us already do this without realizing. If you can the extra veggies from your garden in the fall, you're saving that food instead of wasting it. If you re-use mason jars when canning, make double batches of soup or chili and freeze them for later in the season. These frozen containers can also help your freezer's energy efficiency!

Question: I found an injured animal on the side of the road. Can I bring it to PEEC?

Thank you for your compassion and taking the time to help an injured animal. Unfortunately, PEEC does not have the facilities to handle or rehabilitate injured animals. The Pocono Wildlife Rehabilitation and Education Center (poconowildlife.org) can be a good resource. Delaware Valley Raptor Center (dvrconline.org) is located in the Milford area and may be able to help with birds of prey.

Question: Can you tell me what bird I saw outside the window of my house? It didn't have any bright colors and I didn't see it clearly.

Maybe, but you didn't give me much to go on. Given that it's winter right now, some of the common birds you might see outside your window are black-capped chickadees, tufted titmice, juncos, and cowbirds. If you bird watch while drinking your morning coffee (I know I do!), you should consider helping PEEC and the National Audubon Society with their Christmas Bird Count on January 4th!

Do you have a question about nature, the environment, or sustainability? Please send questions to Andrea at aace@peec.org. (Questions may be edited and names will be omitted).



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EAGLE WATCH FOR EAGLE ENTHUSIASTS

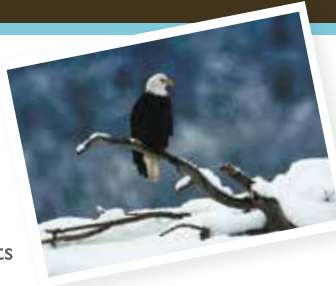
SATURDAY, JANUARY 24, 2015 • 8:30AM – 3:30PM



Join Jan Lokuta on a trip north in search of eagles.

Visit the Mongaup Reservoir, the Delaware River, & the Eagle Institute to look for winter residents and nesting pairs.

Bring a lunch, camera & warm clothes; we'll be leaving PEEC right at **8:30am**. Includes a special stop at "Eagle Day!"



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Going Paperless!

By Mariann Oswald

There are times when I find paper very handy and somewhat necessary. So, in my opinion, going paperless can be daunting. None the less, cutting way down is a worthwhile endeavor. According to 41pounds.org, junk mail destroys more than 100 million trees each year. On average, our great country produces and delivers 41 pounds of junk mail to each and every person each year. Can you imagine? 41 POUNDS OF JUNK MAIL! EACH YEAR! And, if you are like the majority, more than half of it ends up unopened in the trash. And where does the trash go? Landfill. Brilliant! Cut down trees to create a junk mail mountain.

So it's obvious that going paperless would help the environment. And, come to think of it, going paperless would save me a lot of time and money as well. Okay, I've convinced myself it's a good idea but now what?

First I want to stop getting all of that junk mail. I can lose 41 pounds in one year and not give up my chocolate. To my amazement, there are many services for this purpose. Just look up "junk mail opt out". Some are free, some not. Much of your junk mail has an address, phone number or website that gives you the option to opt-out, if you want to tackle it yourself. In any case estimate at least 6 months before you see a real difference. In the meantime, be sure to shred all of those offers that have your name and address on them. Identity theft is not fun.

Next, I want to set up accounts to make payments online. I remember when my son first told me about this option. I wasn't very responsive. I was terrified that giving my information to companies would mess up my whole "system". Wrong. Lost checks, misapplied payments, late fees, interest... they are what messed up the system. So, now as I receive a paper statement I am going to look up the company's website, payment options, look up my account, sign up for e-bills and sit back, relaxed, knowing my bill will be paid on time. (One tip that will come in handy: set up an email account just for bills. Can't miss 'em that way.)

But, I'll still get bills for odd things, like car repairs, gifts I ordered, stuff my mother ordered. I can take the same steps for those. 1. Lookup website, 2. Check for payment options, 3. Set up an account, 4. Schedule payment. No envelope, no postage and no reminders necessary.

Now what do I do with the paper statements? What do I do with all of those piles of papers in my house? Digitize. I never even thought

about the fact that my printer is also a scanner. Now I'll use it... a lot! I can just scan and save my bills, receipts... whatever. (Another quick tip: I'll save the documents to an external hard drive and store it off-site.) I'm a bit compulsive so I want to have a different flash drive for each category. (i.e.: household bills are pink; repairs are blue; tax receipts are green; gift receipts, orders and packing slips are purple; health records, insurance are black) I can copy my emailed receipts to the flash drives, too. I still don't trust my computer to hold it all, and give it back when I need it. But, hey, now all of my files and bills will fit in a cubby on my desk instead of in the file cabinets across the room. Those ugly cabinets will be leaving any time now, as soon as my son answers his cell phone.

Other mini-hints I found while looking for paper-saving tips:

- Have you ever noticed that a signature is needed on a lot of forms received in email? Easy solution... I saved a digital signature on my desktop. I use it all the time on PDF's. Saves time and paper. No more printing, signing, scanning and sending.
- Use your tablet or smartphone for lists. My daughter makes her shopping list on her phone as she goes through her day. She doesn't have to search for it AND she has it when she goes shopping. Imagine that!
- Subscribe online to magazines and newspapers. You can save the recipes and articles you like without saving the whole magazine. No more wondering where you put what, when. Flash drive to the rescue.
- Read books on an e-reader. I know a lot of people still like to hold a real book. I'm with you on that. But it really is nice to carry an e-reader instead of a book. If I'm not in the mood for Game of Thrones I just switch to James Paterson or Lee Child.
- Health documents? Oh, my, there can be an overabundance of these. I have most of my tests, scans, and MRI's on disk. My doctor has a portal that I can access for test results, reports, prescriptions, appointments and such. So easy... and paperless!
- Recycle. Most of you do this already, thank you. But, just a reminder: after you shred, remember to recycle. Did you know that in Sweden shredded paper is used for fuel? They are way, WAY above the USA on the list of countries working on sustainability issues.

• Toilet paper and paper towels. Now here's where I have a hard time changing, literally. I like my soft, fluffy toilet paper. I don't want to use recycled toilet paper. Am I allowed one indulgence? Just one? I'll give up the paper towels and use rags. No problem. But NOT my toilet paper!

• Coupons? Business cards? I haven't figured out an all-inclusive answer for these yet. My grocery store has digital coupons on their website that you download to your store card. But, there are still a lot of coupons out there just begging to be clipped. Some stores will now accept pictures of coupons on your cellphone. But, not all. And... if you have the coupon, why not clip it? I think I'm losing my momentum for a paperless society. Let me think on this awhile.

The biggest downside I see is... well, it will be going through the piles I have all over the place. I know there's stuff I need to save, or at least digitize. But, that could take me... could take me... no, I don't even want to estimate the amount of time. I guess the overall answer is that you have to be resigned to making it a habit to cut down on paper use. Don't look back; look forward to a future less piled with papers. It's kind of like when recycling started; it wasn't an easy change but it was well worth it in the end. Clean counters, less mail, less trash, more trees, cleaner air, cleaner water... definitely worth the effort.

Workawesome.com/office-life/paperless/
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Chickadees and Cardinals

By Sheri Bone

Now is the time that many people begin thinking about setting out bird feeders for the winter. It's getting late enough in the season that neighborhood bears are in their sleeping dens so they don't steal the food (and feeders) during the night. And it's late enough in the season that many birds need to hunt far and wide for their favorite foods.

For most insect eating birds, that means migrating to warmer places where insects live year round. Many seed eaters, though, stick out the winters in our colder climes and find seeds where they can. And often those places are in backyard bird feeders. Two favorite birds that can be found at bird feeding stations are chickadees and cardinals.

Cardinals, with their bright red plumage, add wonderful color to what can be a bleakly colored season. Vermillion feathers flashing across white snow is gorgeous. Cardinals can be also identified by the crest on the tops of their heads. Their beaks are thick, and if you look closely, you can see that they "wear" a little black mask.

Here are some interesting facts about cardinals. The Latin name of the Northern Cardinal is *Cardinalis cardinalis*. (Who knew that would be so easy?) Female cardinals are tan with some reddish tinges in their wings, tails and beak. Baby cardinals, regardless of their gender, tend to look like the females. The babies are fed by their parents until they are about three and a half to four weeks old, although they begin to fledge about ten days after hatching.

Male cardinals are very territorial. They will bang into windows if they see their reflection, thinking it is another male cardinal. I have witnessed Mockingbirds and Cardinals fighting with each other when they both have wanted the same trees. (I couldn't bear to see who won.)



"friendly" and "cute." It is smaller than a cardinal and has, obviously, a black cap, black bib and white 'cheeks.' Its body is mostly white and buff colored, and there are black feathers on its grayish wings and tail.

The Black Capped Chickadee is in the Titmouse family. Its Latin name is *Poecile atricapillus*. Like most birds, the Black Capped Chickadee has a few songs it trills for different reasons. The familiar "chick a dee dee dee" is used when it is alarmed. More frequently used, though, is its two noted song that sounds like "fee-dee" with the 'dee' note lower than the 'fee' note. Not as popular as the cardinal to be designated as a state bird, only two states claim it as theirs: Maine and Massachusetts.



Chickadees are not real fighters. If another bird or predator is in their territory, they will move to a new place. They tend not to be frightened by humans, either. They eat a variety of things, including both seeds and insects. They

are cavity dwellers, so providing a birdhouse might encourage them to your yard, although they prefer to build in partially rotting trees. These decomposing trees provide a good food source (insects) as well as a place to nest. In the winter, though, they eat sunflower and other birdseed as a way to supplement any insect material (larvae, insect casings and hidden insects) they find.

It must be that many people like cardinals, though, because they are the State Bird for seven states. No other bird has that many states claiming it as the state bird. (The next closest is the Western Meadowlark, with six states.)

If you are someone who likes cardinals and wants to see them more during the winter, set out a feeder that has lots of sunflower seeds. While cardinals will eat a variety of seeds (and in the summer they will supplement their diet with insects), it has been noticed that they prefer sunflower seeds.

Another bird that frequents backyard feeders is the Black Capped Chickadee. Many of the sources I consulted to gather the information for this article mentioned that chickadees are

Bird watching is a very popular activity. Encouraging birds to your yard is a good way to learn more about them, listen to their songs and observe their habits. If you decide to put out a feeder, keep it filled and provide a variety of seeds. You will most likely have a nice mix of winged backyard visitors coming to your yard, hopefully cardinals and chickadees!

Fuzzy Folklore: The Woolly Bear Caterpillar

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to be fairly long each year, and each winter was relatively mild, compared with averages. Coincidence?

As it turns out, Dr. Curran's study did not encompass a large enough population sample to be scientifically proven. Scientists have noted that woolly bear caterpillars from the same clutch of eggs can have varying lengths of their brown segment. Additionally, each time the woolly bear molts, it has fewer black segments on its body. Though this folklore has not been scientifically proven; at the same time, it has also not been disproven.

Though their bristles may not predict the severity of winter, they do come in handy for the woolly bears. The bristles help the woolly bear caterpillar to freeze from the outside-in, which helps to reduce the amount of freezing and thawing the organisms do over the winter. Each time the woolly bear thaws and freezes again, they use a lot of energy. The fewer times they do this, the more energy they will have to pupate in the springtime. Their cells are also filled with a cryoprotectant, which is a substance within their bodies that helps them to freeze solid without damaging any of their cells.

Though scientific backing on the myth of the woolly bears may be lacking, it's still a fun activity to predict the severity of winter based on these little critters. What have the woolly bears you've seen this fall indicated—will we have a long, harsh winter this year?

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Engineering for Winter

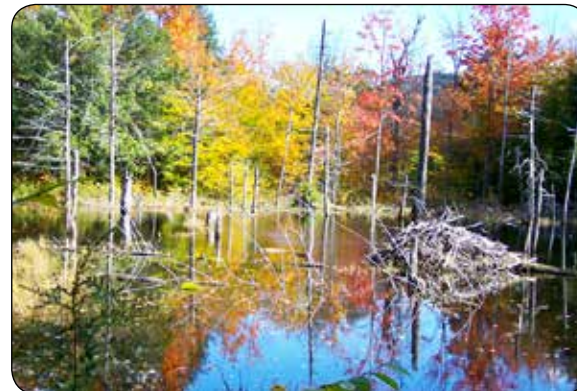
By Allison Owczarczak

For several months, beavers have been hard at work preparing for winter. You can think of North America's largest rodent as a pack rat of sorts. They cache branches and logs of their favorite foods, such as aspen, sugar maple, alder, and birch to name a few, underwater near their lodge. They will also have branches sticking out of the water as well. These branches will help to trap and hold blowing snow above the food cache, which will help to prevent the ice forming as thick as it would in other parts of the pond due to snow's insulating properties.

Another interesting phenomenon that assists beavers in winter is called dark body radiation. The sun's energy still penetrates the blanket of insulating snow and warms the wood that has been gathered and melts ice around it. In the IMAX documentary 'Beavers: The Best Dam

Movie You Ever Saw', there is great underwater footage of dark body radiation at work. This allows the beavers access to their winter food without it becoming inaccessible in the ice.

Beavers also carefully prepare their lodge for those cold drafty days by packing mud into the gaps created by the sticks. They can be so toasty inside on a cold winter's day that steam can be seen rising from occupied lodges through any gaps they may have missed.



As for the beaver's metabolism, it changes quite significantly from their lean appearance in the summer to their autumn bulk-up and, with increased winter loafing, they can still gain weight when they have cached enough for the winter. During winters when food isn't as plentiful, they draw from a fat supply in their tail.

All of these behavioral and physical adaptations, as well as regulated hunting, have helped the beaver make a comeback from being nearly extinct in the 1800's to an estimated 10-12 million alive today.

If you take a trip to PEEC this winter be sure to see the new beaver lodge on Front Pond opposite the man-made spill way. A young group of beavers arrived in October and have set-up residence.



Growing Produce Year-Round

By Derek Scott

For most, winter is the time of year to bundle up inside next to the fire with a good book and a hot beverage. Unless you live in a milder climate, you're probably used to cold weather and snow for a good part of the season. For those of us who enjoy toiling in our gardens, this can be a bit disheartening. Luckily, there is a way to start your crops weeks in advance, or even during winter months, without fear of losing them to frost and frigid temperatures.

Most people are familiar with the concept of a greenhouse; a structure with transparent siding used to trap heat and control growing conditions for plants. But how exactly does a greenhouse work? What is the science behind it?

All objects emit radiation, and wavelength is determined by the temperature of the emitting body. Solar radiation reaches earth in short wavelengths, which possess more energy than long wavelengths. This radiation is capable of passing through the siding of a greenhouse unimpeded, very much like it does with our atmosphere. Once inside, the radiation is absorbed by plants and other surfaces within the greenhouse. Because these objects are much cooler than the sun, they radiate a much longer wavelength of infrared radiation. Gases in the atmosphere such as water vapor and carbon dioxide are capable of absorbing and reflecting this radiation. Much of the reflected radiation remains trapped within the greenhouse, raising the temperature as a result.

Before you create your greenhouse you'll want to determine what exactly it is you want to grow. Providing adequate conditions for certain crops can prove challenging, especially those that require much warmer climates. Ideal winter crops can grow between 45°F and 65°F, and withstand extremes down to 32°F. Hardy plants like broccoli and cauliflower, as well as leafy greens such as lettuce and spinach are great winter crops. These plants thrive because they do not require the high light intensity of crops that produce fruiting bodies such as tomatoes.

After deciding what crops to grow, you can begin to design your greenhouse. The size can be as big or small as desired; the ideal shape being one that provides the most surface at a 90° angle to incoming solar radiation. This allows the largest amount of radiation to be absorbed, with the smallest amount reflected.

Arch shaped greenhouses are popular for this reason, as they reduce the likelihood of solar radiation being reflected. In addition to shape, you'll want to decide on a siding material for your greenhouse. Plastic is a common choice, as it's cheap, flexible, and insulates much better than glass. Glass however, has a higher light clarity and is more aesthetically pleasing. Polycarbonate provides the best of both worlds, and has become one of the more popular choices over the years.

Now that you've decided on your set-up, it's time to start building your greenhouse. But what if you're not looking to create a substantial backyard structure? If you're more of a hobbyist, you can make a small indoor greenhouse out of materials you might have lying around. An unused double-sided shelf can be used as a frame, or one can be made out of 2x4s or PVC piping. The siding doesn't need to be anything fancy; any plastic wrap will work since it's not competing with the elements. Any area with natural lighting is ideal; however, even household fluorescent bulbs can be used for small-scale greenhouses. That being said, your plants will benefit from at least 6 hours of darkness each night.

Whether you're a garden junkie or just looking to jump-start your spring planting, designing



and maintaining a greenhouse can be a great winter project. Every plant is different, so make sure you design your greenhouse accordingly. Regardless of what you decide, nothing beats fresh produce during the winter months!



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WINTER WATERFALLS

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9:30AM – 12:00PM



This is a great time of year to enjoy the waterfalls. See them as they cascade down through chunks of frozen ice and snow. Dress warm, wear sturdy boots, and bring a camera! **Call to reserve a seat in the van.**

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Bird Eggs

By Laura DeWolff

I was cleaning out a forgotten corner at PEEC recently when I came across a drawer of bird eggs. The drawer did not belong to a cabinet; it was simply shoved on top of a shelf and forgotten. The eggs were covered in years of dust, grime, and neglect. Excited by the discovery, I began to clean the eggs for display, and was delighted when the first one I cleaned was dated 1916. These were some old eggs. I spent a few days very carefully removing the dirt and replacing the cotton padding. By the time I was done, I had forty identified species of eggs and eighteen unidentified species.

Though there is some scientific value in egg collecting, there is little to no value in people having private collections. Measuring the thickness of eggshells was beneficial when addressing the problems of DDT. However, in the late 1800s, egg collecting became a hobby. People passionately sought out eggs to add to their collections, and caused a lot of harm to the birds they collected from. Entire clutches of eggs would be taken, impacting the reproduction of many species. The damage done was first addressed legally in the Migratory Bird Treaty Act of 1918. Several laws since then have also outlawed the collecting of bird eggs.

However, I do occasionally come across a partly eaten, or a hatched egg shell, on one of my hikes. It has been a rare occurrence for me to be able to identify what the egg is. My discovery has helped me to better recognize what different eggs look like. After I have finished identifying the eggs, they will be put up in a display at our center. There are also several good resources for anyone else interested in knowing what egg they may have seen on a hike. I have been referring frequently to the book *A Guide to the Nests, Eggs, and Nestlings of North American Birds*. I have also found Google to be an invaluable tool. Our modern technology has now made it possible to become very familiar with eggs without all the damage that early enthusiasts have had.

Dr. S. Marie Kuhnen Memorial Field trip Series Search for Eagles in Delaware Water Gap National Recreation Area And along Upper Delaware Scenic River



Join John (Jack) Padalino, President Emeritus of the Pocono Environmental Education Center (PEEC) and Paul F-Brandwein Institute, partner with the National Park Service Delaware water Gap NRA by caravan to search for eagles the first Sunday of January, February and March 2015.

THERE IS NO CHARGE

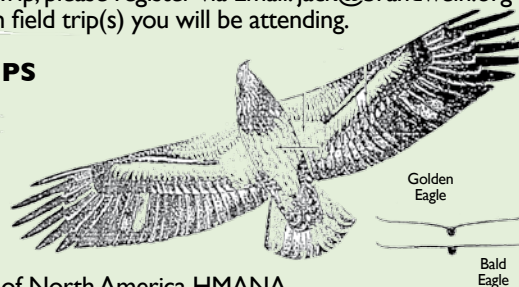
Meet in the PEEC parking lot, Briscoe Mountain Road at 8:00 a.m. OR Meet 10:00 a.m. at the Historic Callahan House, 101 Route 209 South, mile marker 21, Milford, PA - **WEATHER PERMITTING.** Dress warmly, bring binoculars, field guides and a lunch. The search for eagles will conclude along the Lackawaxen River approximately 4:00 p.m.

To participate in a Search for Eagles Field Trip, please register via Email: jack@brandwein.org or Phone: 570-296-6752 to indicate which field trip(s) you will be attending.

SCHEDULED EAGLE FIELD TRIPS

Sunday - January 4, 2015
Sunday - February 8, 2015
Sunday - March 8, 2015

Eagle observation data that we collect will be shared with the National Park Service, Sussex County Bird Club, Eagle Institute and Hawk Migration Association of North America HMANA. An eagle identification field guide and a "Search for Eagles" activities hand-out will be provided by the Brandwein Institute. Join us to Search for Eagles, the symbol of our nation.



Golden
Eagle

Bald
Eagle

WINTER PROGRAMS AND GETAWAYS 2015

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

TO REGISTER:

Call PEEC at 570-828-2319

JANUARY

Cross Country Skiing

Saturday, January 3, 2015, 9-11am

Sunday, January 4, 2015, 1-3pm

Cost: \$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.



Ecozone Discovery Room!

Saturday, January 3, 2015, 1-4pm

Cost: \$2 per person

Climb into a bald eagle's nest, crawl into a bat cave, 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.



Christmas Bird Count

Sunday, January 4, 2015, 8am

Cost: Free

It's the National Audubon Society's 115th 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 pair you up with a more experienced birder. Pre-registration is required for this event.

Cross Country Skiing

Saturday, January 10, 2015, 9am-11pm

Sunday, January 11, 2015, 1-3pm

\$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 for Eagle Enthusiasts!

Saturday, January 24, 2015, 8:30am-3:30pm

Cost: \$20

Join Jan Lokuta on a trip north in search of eagles. Visit the Mongaup Reservoir, the Delaware River, & the Eagle Institute to look for winter residents and nesting pairs. Bring a lunch, camera & warm clothes; we'll be leaving PEEC right at 8:30am. Includes a special stop at "Eagle Day!"

Cross Country Skiing

Saturday, January 24, 2015, 9-11am

Sunday, January 25, 2015, 1-3pm

Cost: \$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.

Little Eco Explorers: Black Bears
Saturday, January 24, 2015, 1-3pm

Cost: \$5 per child

It's a new program for 3-6 year olds! Join us for a story, craft, and activity focusing on a particular critter. Call for details.

Animal Tracking

Sunday, January 25, 2015, 1-3pm

Cost: Free

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

Ecozone Discovery Room!

Sunday, January 25, 2015, 1-4pm

Cost: \$2 per person

Climb into a bald eagle's nest, crawl into a bat cave, 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.

Cross Country Skiing

Saturday, January 31, 2015, 9-11am

Cost: \$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.

Introduction to Snowshoeing

Saturday, January 31, 2015, 1-3pm

Cost: \$10

Learn the basics of snow shoes and enjoy a winter stomp through the woods. No experience necessary - we provide the equipment and teach you everything you need to know. Register early to guarantee a spot.

FEBRUARY

Cross Country Skiing

Sunday, February 1, 2015, 1-3pm

Cost: \$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.

Continued on Page 10

WINTER PROGRAMS AND GETAWAYS 2015

Continued from Page 9

FEBRUARY

Eagle Watch

Sunday, February 1, 2015, 9am-3pm

Cost: \$20

Join Jan Lokuta on a trip north in search of eagles and other rare wintering birds such as ravens. Visit the Mongaup Reservoir, the Delaware River, and the Eagle Institute to look for winter residents and nesting pairs. Bring a lunch, camera, and warm clothes. Call to reserve a seat in van.

Cross Country Skiing

Saturday, February 7, 2015, 9-11am

Sunday, February 8, 2015, 1-3pm

Cost: \$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.



Animal Tracking

Saturday, February 7, 2015, 10am-12pm

Cost: Free for Members / \$5 Non-Members

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

Winter Waterfalls

Sunday, February 8, 2015, 9:30am-12pm

Cost: \$12

This is a great time of year to enjoy the waterfalls. See them as they cascade down through chunks of frozen ice and snow. Dress warm, wear sturdy boots, and bring a camera! Call to reserve a seat in the van.

"Winter Wonderland" Family Nature

Getaway Weekend

From Friday, February 13, 2015

To Monday, February 16, 2015

Cost: 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, crafts, campfire and more! Price includes three nights of lodging and meals from Friday dinner to Monday lunch. Join us for a wonderful winter weekend!

Cross Country Skiing

Saturday, February 21, 2015, 9-11am

Sunday, February 22, 2015, 1-3pm

Cost: \$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.

Ecozone Discovery Room!

Saturday, February 21, 2015, 1-4pm

Cost: Free

Climb into a bald eagle's nest, crawl into a bat cave, 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.

Wilderness Skills

Sunday, February 22, 2015, 10am-12pm

Cost: \$5

Learn a variety of outdoor survival skills, ranging from fire building and camping preparedness to tracking and stalking animals. Ages 10+ please.

Cross Country Skiing

Saturday, February 28, 2015, 9-11am

Cost: \$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.

Introduction to Snowshoeing

Saturday, February 28, 2015, 1-3pm

Cost: \$10

Learn the basics of snow shoes and enjoy a winter stomp through the woods. No experience necessary - we provide the equipment and teach you everything you need to know. Register early to guarantee a spot.



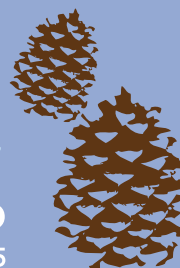
PEEC
Pocono Environmental
Education Center

WINTER Wonderland



FAMILY NATURE GETAWAY WEEKEND

PRESIDENT'S DAY WEEKEND • FEBRUARY 13-16, 2015



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

Call for Details.

POCONO ENVIRONMENTAL EDUCATION CENTER
538 Emery Road • Dingmans Ferry, Pennsylvania 18328

PEEC is located off of Route 209 inside the Delaware Water Gap National Recreation Area in Dingmans Ferry, PA.

**CALL
PEEC**
570.828.2319

**\$225 PER
ADULT**

CHILD, COMMUTER & DAY RATES
- CALL FOR DETAILS

Call now to make your
RESERVATIONS

peec@peec.org • www.peec.org