



PEEC
Pocono Environmental
Education Center



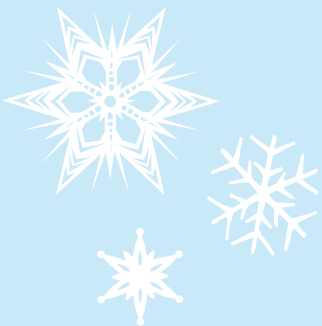
Winter Solstice 2020

Seasons

A Quarterly Publication to Advance Environmental Literacy

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Pocono Environmental
Education Center

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European Larch



American Beech

The Beech and the Larch: Opposing Oddities

By Emma Roth

In school, I generally learned there were two types of trees: deciduous trees that lose their leaves in the winter, and evergreen trees that stay green year round. In almost all cases, the deciduous trees have broad leaves and produce flowers in the spring, while the evergreens have needle-like leaves and produce cones. There are two trees found at PEEC that rebel against this pattern. They are the American Beech and the European Larch.

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

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Message from the Executive Director

Winter 2020 / 2021

I don't know about you, but I am a big "list" maker. I keep lists of the mundane like chores, lists of books I want to read, things I want to buy, movies I mean to see, diving vacation spots etc... I get great satisfaction from crossing off items, which is really rather silly since I put them there in the first place. Some things are perpetually on these lists either because they are so boring I keep putting them off, like organizing tax returns, or unrealistic like climbing El Cap. The past nine months of no travel, minimal

socializing and severely interrupted work have given me time to check off the easy tasks and re-evaluate the unrealistic ones.

The PEEC staff has been able to do much of the same sort of work and get to some of the projects we promised ourselves we would do--if we had the time. For years Stephanie, our Director of Education, has wanted to do more school outreach in the winters and set up online programming for students who can't come to PEEC. In 2020 these things have finally been accomplished and we are sending instructors to schools and providing online classes. Ironically because of COVID-19, the amazing foundations that help support PEEC have provided funding for our outreach and online education. Even when PEEC returns to normal operations, we intend to continue these programs as a complement to our overnight environmental and sustainability education programs. Meanwhile, Derek, our Director of Operations, has been working to improve the EcoZone exhibits and augment our health and safety protocols. Marc and Ted have been making the campus even more beautiful and energy efficient.

While I would prefer to have hundreds of muddy, wet and noisy students outside my door distracting me from getting work done, the pause of 2020 has given me the time to focus on wish list projects. All of the staff at PEEC have adapted to do the same with their less structured days. While we look forward to things getting back to the normal, hectic work of teaching, guiding and inspiring students, I believe PEEC will come back more resilient and robust than ever.

Thank you to our PEEC into the Classroom sponsors:

Alliance for Watershed Education
 Pike County CARES Funding
 PPL Foundation

Through in-person and virtual outreach, PEEC has reached 745 elementary - high school students with 40 lessons at 7 schools in 2020. PEEC into the Classroom will be continuing in 2021.



PEEC into the (Virtual) Classroom

By Stephanie Sherman

Outreach holds a special place near and dear to my heart. There's something so much more personal when I come into a teacher's class and bring a bit of nature indoors. It's exciting and scary all at the same time. Have I forgotten anything? Where on earth do I find my classroom of kids? Are the kids enjoying this? All of those thoughts usually run through my mind before, during, and after each program, along with a multitude of ideas inspired from getting out of the normal routine. When I asked in March 2020 for funding for "PEEC into the Classroom," I had no idea that my classroom would be a Zoom call. Now, I am in the midst of week three for "PEEC into the Classroom" and have found that, though the platform has changed, the personal touch of nature is all the more important.

Are we doing in-person outreaches? Yes, I've taken my show on the road to a few of our local schools as we social distance, mask up, and everyone gets their own materials. Our most popular outreach so far has been Seasonal Survival, where each of our students has the opportunity to create their own nest for a gelatin "critter" cup. It's been good to

get back in the classroom, even if it's socially distanced. Seeing the kids light up as I pull out a giant bear pelt never gets old as we talk about the importance of insulation and animal adaptations to survive the winter. Even my high schoolers were excited to see how a simple leaf nest meant the difference between "life" and "death" for their gelatin cups.

It's a little harder to see kids eyes light up on a Zoom call, but I've found the responses still come through. Instead of pulling out a pelt in-person, I'm magnifying fur under our EcoZone microscope as "The Lab" station has become my new home-base for bringing in our virtual programs. Coupled with a few PowerPoint pictures, that little microscope has opened up a world of "wows" for kids who have been remote learning most of this year.

Is a virtual outreach more effective? Before this, I would have said "no way," but now I'm starting to see something different happen. My Zoom classes usually get a worksheet ahead of time asking them to find some object in their house or neighborhood. I like to use this to prompt the students for discussion (if they feel

chatty that is) and suddenly my outreach has become connected to their homes. I'm having kids run around the house counting clocks and plates to then identify the minerals in them. They are looking outside and finding nests or building their own before we talk. Now that's an impact I would rarely see by just going in-person to a school.

I don't think virtual is a long term solution and we all look forward to schools returning to normal. In the meantime, I am taking the time to remind myself that this is giving us an opportunity to find new and creative solutions. My virtual outreaches have become holistic with pre-and post-materials. It's been good to create new resources that will only aid our future lessons. Has this year been scary? Terrifying, but I've learned that great challenges usually create amazing new opportunities. I hope this is a wonderful start to making "PEEC into the Classroom" another important part of our environmental education mission.



How to Make the PEEC Calendar

By George Johnson

It's that time of the year again for me, time for the public program calendar to come out. Every season here at PEEC has its own trials and tribulations. The spring is usually entirely full and we're busy with school groups, rentals, and programs. Summer has camp going on in full swing. Winter is.... well winter.... but the fall is when I start organizing and thinking of the next year.

Believe it or not, on average it takes me about 2 months to flesh out and complete the final copy of the program calendar that gets circulated. I start the process in September by reaching out to all of our outside presenters to see if they are interested in returning and also what dates they'd like to host a program. PEEC has a fantastic group of local experts who all bring fresh and exciting methods of teaching to the public. They are all truly masters of their fields and love to share their knowledge with others.

After those dates are settled, then I start to look at all of our own PEEC programming. Throughout the year, I take notes on all of our public programs which are then used to remind myself what went well, what didn't, is this one program not getting enough attendees, was hosting an evening program

on a Sunday night a good idea (no it's not), etc. If there are any changes to the programs and their descriptions/names, then now is the time I make those. It's also the time when I add in new programs and take out those that aren't well attended. I also make sure during this time to check in with Emma, our Group Coordinator, to make sure I don't overbook our staff. I probably shouldn't schedule a public program when there's a very large school group also scheduled to come in that day. The process is almost like a giant puzzle that I'm trying to piece together.

Once most of the puzzle is completed, it's usually around mid-October and time to start compiling my calendar for a report to the National Park Service to approve. Because we are on National Park land, they need to approve of all of the public programs and events that we host throughout the year. So they receive a basic calendar in mid-November that just lists the dates, times, and descriptions of each of our programs. Once I get their approval, then I start working on the public version of the calendar.

The public version is the calendar that everyone gets to see and the one we promote online. Around the office I like to call it the fancy version, with all the colors and pictures. This is the most tedious, but most important part of the process. The formatting has to be just right and all those little details have to be exact. Any mistakes on this one after



it's been released are incredibly difficult to track down. Finally, after all the edits are completed, I can finally breath a sign of relief.

Scheduling all of the programs we offer across the year is a long process, but it makes the upcoming year that much easier since I've done most of the legwork in advance. If there's ever a program you'd like to see us offer, then don't hesitate to reach out to us in the early fall. I'm always looking for new ideas and I love to hear feedback from our guests.

The Beech and the Larch...

Continued from front page

During spring and summer, the American Beech looks like any other deciduous tree. It has broad, oval shaped leaves and smooth bark. When fall and winter hits, things begin to change. While the leaves on the beech tree do die and turn brown, they do not fall off the tree. Instead, the tree holds on to these dead leaves throughout the winter. This property of holding on to a dead part is called marcescence. Now the big question: why does this happen? Well, we don't really know, but there are a couple of theories. The first theory is that by holding on to the dead leaves, and only dropping them in the spring when new leaves begin to form, the tree is delaying the nutritional input into the soil from the decomposing leaves to spring, when the tree does most of its growing and needs the most nutrition.

Another theory is that the dry dead leaves protect the nutrient-packed buds of the plant from being eaten by grazers such as deer, as the leaves hide the buds and are not as palatable to the animals. These are just theories, and the true reason is not known.

On the opposite side of the weird tree realm is the European Larch. These look like classic evergreens with their needle leaves and small cones. Despite this, they are deciduous. Unlike the other needle-leaved trees we have, the larch turns yellow in the fall, before shedding all its leaves for the winter. Like marcescence in the beech, the question is why does this happen? Unlike the beech, this time there is an answer. The European Larch is native, as its name suggests, to Europe. Specifically, the mountains, such as the Alps and the Pyrenees. These areas are known for their heavy snowfall. Leaves provide surface area for snow and ice to collect. Too much snow could break branches and harm the tree. By shedding their leaves, the larch is able to remove some of this danger.

Many plants and animals have strange, and sometimes seemingly opposing strategies to surviving harsh conditions, but despite this there is always an evolutionary reason behind their behaviors and adaptations. We just may not know what that reason is yet.

How to Dress in Layers for Winter Months

By Derek Scott

Ask anyone what their favorite season is and chances are pretty good they won't say winter. It's estimated that approximately 10% or less of Americans enjoy the season, with many reporting seasonal depression this time of year. As someone who enjoys winter weather, I've often found that the reason behind the disdain for the season is the lack of knowledge regarding how to properly insulate. To help convince you there's more to winter than complaining about being cold, we're going to cover how to dress in layers.

Just like any other time of year, it's important to be prepared if you anticipate spending time outdoors. That seems straightforward, but proper layering takes more thought than remembering to grab a water bottle on a hot summer day. To help you prepare, we're going to break down clothing into 3 distinct layers.

1. Base Layer

A solid base is important with a lot of things in life and, believe it or not, this is often the layer people have the most trouble getting right. The primary responsibility of the base layer is to help with moisture management. Even during cold winter months, any level of physical activity is going to result in your body perspiring. While this seems like it shouldn't be an issue if you're wearing a heavy jacket, the moisture on your body actually leads to heat being drawn away from you. Have you ever noticed that you feel cold when you're wet, even if the water is warmer than the air temperature? This is because water has a higher heat conductivity than air, meaning that you more rapidly lose heat through water than through air of the same temperature. To combat this during winter, look for fabrics that are snug and move moisture away from your body such as polyester, nylon, or wool.

2. Middle Layer

A middle layer is responsible for retaining the heat radiated by your body and in a lot of ways, is the easiest layer to figure out. The key here is really just simplicity. Stick to fleece or down material and pick a thickness based on how much warmth you want from this layer. The one thing to keep in mind here is that without the other layers, more insulation doesn't necessarily mean you'll stay warm.

3. Outer Layer

An outer layer is responsible for protecting you from wind, rain, sleet, and snow. In the base layer section, we discussed how water draws heat away from your body causing you to feel chilled. Wind has a similar effect where the air that has been warmed by your radiated body heat is displaced with cold air. This phenomenon is known as "wind chill". For an outer layer, look for materials that are either water-repellent or waterproof as well as wind-resistant. Keep in mind that layers that keep water out can also sometimes lead to trapping body moisture.

It's worth mentioning in closing that certain clothing and jackets are intentionally manufactured to fill the role of multiple layers. These can simplify the need to mix and match on your own, but can lead to issues when you want to shed or swap layers with changes in weather. At the end of the day, do what is easy and comfortable for you depending on what kind of outdoor activities you anticipate.

WINTER PROGRAMS AND GETAWAYS

2021

PRE-REGISTRATION REQUIRED Unless otherwise indicated.

TO REGISTER:

Call PEEC at 570-828-2319

JANUARY



Cross Country Skiing

Saturday, January 9th & 16th • 9am-12pm

Bridge the Gap: Free Admission

Saturday, January 23rd • 9am-12pm

\$20 adult / \$10 child

Enjoy the winter woods with beginner ski lessons. Learn the basics of cross country skiing and practice on our campus. Skis, poles & boots provided - register w/shoe size to guarantee a spot. Winter Ecology will be an alternative program in the event of no snow only on January 18th date. **Lead support is provided by the William Penn Foundation.**

Intro to Snowshoeing

Sunday, January 10th & 17th • 10am-12pm

Bridge the Gap: Free Admission

Sunday, January 24th & 31st • 10am-12pm

\$10 adult/ \$5 child

Learn the basics of snowshoeing and enjoy a winter walk through the woods. 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. Animal Tracking will be an alternative program in the event of no snow. **Lead support is provided by the William Penn Foundation.**

Winter Ecology Hike

Sunday, January 10th • 1pm-3pm

Bridge the Gap: Free Admission

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

Lead support is provided by the William Penn Foundation.

Bird Bonanza

Sunday, January 17th • 1pm-3pm

Bridge the Gap: Free Admission

Spend the morning watching our feeders and putting together your own unique, custom-made bird feeder from a variety of recycled materials just in time for spring.

We'll provide everything you need, but you are welcome to bring your own supplies. Great craft for children! **Lead support is provided by the William Penn Foundation.**

Winter Ecology Hike

Sunday, January 23rd • 1pm-3pm

Bridge the Gap: Free Admission

Learn how different plants and animals survive the winter. Join us on a hike and experience PEEC in the wintertime. All ages welcome. **Lead support is provided by the William Penn Foundation.**



Eagle Watch

Saturday, January 30th • 9am-3pm

\$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 10 spaces.

Ecozone Discovery Room!

Sunday, January 31st • 1pm-4pm

\$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. Limited to 15 people at a time.

FEBRUARY

Intro to Snowshoeing

Saturday, February 6th • 10am-12pm

Bridge the Gap: Free Admission

Saturday, February 20th • 10am-12pm

\$10 adult / \$5 child

Learn the basics of snowshoeing and enjoy a winter walk through the woods. 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. Winter Ecology will be an alternative program in the event of no snow. **Lead support is provided by the William Penn Foundation.**



Bird Bonanza

Saturday, February 6th • 1pm-3pm

Bridge the Gap: Free Admission

Spend the morning watching our feeders and putting together your own unique, custom-made bird feeder from a variety of recycled materials just in time for spring.

We'll provide everything you need, but you are welcome to bring your own supplies. Great craft for children! **Lead support is provided by the William Penn Foundation.**

Cross Country Skiing

Sunday, February 7th • 9am-12pm

Bridge the Gap: Free Admission

Sunday, February 21st • 9am-12pm

\$20 adult / \$10 child

Enjoy the winter woods with beginner ski lessons. Learn the basics of cross country skiing and practice on our campus. Skis, poles & boots provided - register w/shoe size to guarantee a spot. Animal Tracking will be an alternative program in the event of no snow. **Lead support is provided by the William Penn Foundation.**

Winter Ecology Hike

Sunday, February 7th • 1pm-3pm

Bridge the Gap: Free Admission

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

Lead support is provided by the William Penn Foundation.



President's Day Family Camp Weekend

President's Day Weekend: February 12th- 15th
 Adults \$225 / 10% off ages 11-13 / 25% off ages 7-10 / 50% off ages 4-6 / Free ages 3 & under

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

Ecozone Discovery Room!

Saturday, February 27th • 1pm-4pm

\$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. Limited to 15 people at a time.



Vegan Board Game Dinner

Saturday, February 27th

\$30/ \$15 for children 10 and under

5pm Games Start 6pm Dinner Served

PEEC is pleased to announce our 3rd annual Vegan Board Game Dinner! Play board games and unleash your competitive spirit as you enjoy a fantastic meal with all plant-based ingredients. Not a vegan? Not a problem! Start the New Year off right with healthy, fresh, scratch-made, mouthwatering deliciousness! Bring the whole family for a fun and exciting evening. *Payment required at registration. Call early to reserve your seats.*

Eagle Watch

Sunday, February 28th • 9am-3pm

\$20 per person

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 10 spaces.*



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EAGLE WATCH



\$20 PER PERSON

**JANUARY 30TH & FEBRUARY 28TH
 9AM-3PM**

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