



PEEC
Pocono Environmental
Education Center



Summer Solstice 2014

Seasons

A Quarterly Publication to Advance Environmental Literacy



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**Pocono Environmental
Education Center**

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Making Your House A Home (for birds, butterflies, and other wild animals)

By Philip "Flip" DeRea

Reprinted
Vernal Equinox 1993

A house is made of brick and stone, but a home is made of love, ~~alone~~ twigs and mud and bits of grass. I guess it all depends on who you ask. For wildlife, the term "home" is synonymous with the term "habitat," and good habitat is becoming harder and harder to find.

As natural habitat is lost to development, our privately owned open spaces and backyards have become more important to the survival of native wildlife. When making plans for your yard this spring why not take nature and convenience into consideration? Planting and encouraging native vegetation provides important food and shelter (two of the components of habitat) for birds, butterflies and other animals while at the same time saving you time and energy.

Native vegetation, having adapted to life in your climate and soil, will thrive with little or no care. The time you previously spent watering, weeding, and mowing can now be put to use observing and enjoying nature in your own backyard. If you must water something make it a bird bath. Bird baths are a simple way to provide birds with water (habitats' third component) for drinking and bathing. Open spaces left to overgrow will become naturally populated with native species. The task of seed dispersal and planting will be completed effortlessly by wind and wildlife.

Here in the Northeast some particularly useful (to wildlife) and attractive (to humans) trees, shrubs, and vines are: oaks, blackberries, cherries, pines, dogwoods, grapes, blueberries, mulberries, and raspberries. Make a visit to a good local nursery to find out which plant types are best suited to your particular soil and sunlight conditions. A mixture of plants that have different flowering & fruiting times will keep your yard alive with activity during spring & fall migration, nesting time, and throughout the winter.

By converting our backyards from semi-barren expanses of vegetative monoculture (grass) to wildlife preserves, we help to maintain nature's balance, and at the same time bring that balance into our own lives.

References:
"Backyard Habitat For Birds," Cape May Bird Observatory/NJ Audubon
"Attracting Birds To Your Back Yard," Nature Science Network Video
American Wildlife & Plants A Guide To Wildlife Food Habits, Dover Publications



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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

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Message from the Executive Director

Jeff Rosalsky



While PEEC's instructional classes focus on hands-on environmental and sustainability education, I envision the PEEC campus as a large teaching laboratory where the structures and the systems reflect more than just best practices--but innovation, as well.

Innovative solutions are essential to a non-profit like PEEC effectively updating our existing physical plant, given our budget constraints. We analyze campus improvements with regard to initial and operating cost, life of the system, usage patterns, and maintenance considerations. It is easy to look at cutting edge improvements, such as LED lighting, and shy away from them as the initial cost seems prohibitive. Our approach is that if the technology is compelling, the price will decrease as economies of

scale emerge. The challenge, with outdated pieces of infrastructure, is to thoughtfully position PEEC during the gap between "need to upgrade" and "technology affordability."

Last year the light fixture ballasts in our dining hall began to fail one by one, and the cost to replace them was going to be \$8000—and that wouldn't even cover LED lighting. The existing fixtures themselves housed old bayonet style CFLs and while the guts were broken, the fixtures were in good shape and quite attractive. After several hours in Home Depot and the PEEC maintenance shop, Ted Wetzel and I figured out a way to replace the guts of the fixtures to accommodate modern screw style CFLs for under \$300. The added benefit was that once LEDs are within our price range, we can just replace the CFLs with LED bulbs in a few hours.

Lately, we have been receiving requests for many more sustainability classes focused on the PEEC campus. As PEEC increasingly is seen as a changing and adaptive laboratory for sustainable innovations, we hope that students will propose their own sustainable changes for the PEEC campus as well as their home communities.



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

The Great Blue Heron

By Sheri Bone

Imagine that you are taking a leisurely drive or stroll along the Delaware River. Out of the corner of your eye you see something flying. It's a big bird, and it resembles a pterodactyl with a crooked "S" shaped neck, large wings, long bill, and legs stretched out behind. A pterodactyl? It can't be! And it isn't. What you are seeing is a Great Blue Heron.

Heron are long-legged birds, found along freshwater and coastal areas, throughout North and Central America. The Great Blue Heron (*Ardea herodias*), commonly nicknamed GBH, is the largest of the heron family. Other members of this family are egrets and bitterns. The adult GBH stands about three feet high, but when it stretches out its "S" shaped neck, it can reach about four feet. It has a wingspan of about six feet. Its long legs allow it to hunt in deeper waters than other herons or egrets. When it flies, it generally reaches speeds of 25 mph, but can go as fast as 35 mph. Interestingly, this large bird weighs only about six pounds.

The Great Blue Heron is a very patient bird. It will stand in the shallows, waiting for fish to come close enough. It will either stab a large fish with its long pointed bill or grab a smaller fish between the two mandibles of its bill. It swallows the fish whole. Even though the neck is narrow, it is structured to be able to swallow a very wide fish. Sometimes, though, herons choke on fish that are too big.

Fish are not the only food in this bird's diet. Great Blue Herons have been seen spearing mice, frogs, turtles, snakes, and even other small birds. Because of the structure of the vertebrae in its neck, the heron can strike at its prey with lightning speed. If ever you needed to help an injured GBH, proceed with great caution and wear goggles. Its strong bill can cause serious injury to whoever handles the bird.

While they hunt alone, herons build nests in colonies. They use sticks and build bulky nests high in trees. Like eagles, Great Blue Herons often reuse a nest, adding sticks to it each year. The male brings sticks and the female works them into the nest. Older nests can be recognized by their large size. Great Blue Herons lay from three to seven eggs, but the



usual number is four. The young heron chicks emerge from the eggs with downy feathers and open eyes, but they can't move well. They are cared for by the parents for up to six weeks, when they reach adult size.

Baby chicks can be aggressive to each other, and will push each other out of the nest. Predators, such as eagles, crows, ravens, gulls, hawks, and raccoons, will kill the young herons in the nest. Adult herons have no natural predators, although occasionally they have been killed by bobcats or coyotes while fishing.

Sources: Cornell Lab of Ornithology and the National Geographic Society



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The Problems with Bottled Water and What You Can Do About It

By Allison Owczarczak

- Plastic bottle production in the United States annually requires about 17.6 million barrels of oil.
- Worldwide bottling of water uses about 2.7 million tons of plastic each year.
- Transporting bottled water to market produces air pollution and emissions of carbon dioxide which contribute to global warming.
- The energy it takes to transport the water to market, to chill the bottles, and collect the empties is the energy equivalent of filling each bottle a quarter of the way with oil.
- About 86 percent of empty plastic water bottles in the United States land in the garbage instead of being recycled. That amounts to about two million tons of PET plastic bottles piling up in U.S. landfills each year.
- Many plastic bottles end up being incinerated, releasing toxic byproducts such as chlorine gas and ash laden with heavy metals into the air. - See more at: <http://www.riverkeeper.org/campaigns/tapwater/bottle-water/#sthash.wDMDmJ89.dpuf>



What Can We Do About It?

Reduce

Avoid the need for bottled drinks altogether. You can save resources by drinking from glasses or water fountains whenever possible when you are out.

Reuse

Invest in a BPA-free reusable bottle. Carry a refillable, BPA-free bottle when you are on the go, and refill it whenever the option arises.

Recycle

Find out which plastics your municipality recycles and sort them accordingly.

But above all, reduce. It is the most important step of the 'Three R's.'

New Amazon Program Enables Shoppers to Easily Donate to Their Favorite Nonprofits ... as in PEEC!

AmazonSmile is a new program that enables Amazon shoppers to easily donate 0.5% of their purchases (\$.50 per \$100 spent) to their favorite U.S.-based nonprofits. With \$26.5 billion in sales estimated for the fourth quarter in 2013 alone, up to \$13.25 million in funds could be raised.

Through a partnership with GuideStar USA, over one million nonprofits are already listed in the AmazonSmile database and all shoppers need to do is search for and select their favorite nonprofit to have 0.5% of their eligible Amazon purchases donated. When you shop at smile.amazon.com, you will find the exact same low

prices, vast selection and convenient shopping experience as Amazon.com, with the added bonus that Amazon will donate a portion of the purchase price to your favorite charitable organization...like PEEC!

Shoppers can select any 501(c) (3) in the GuideStar USA database, but for the nonprofit to receive the funds, they must register with AmazonSmile. Tens of millions of products on AmazonSmile are eligible for donations. Recurring Subscribe-and-Save purchases and subscription renewals are not currently eligible.

You use the same account on Amazon.com and AmazonSmile. Your shopping cart, Wish List, wedding or baby registry, and other account settings are also the same.

From time to time, Amazon may offer special, limited time promotions that increase the donation amount on one or more products or services or provide for additional donations to charitable organizations.

How to Sign Up for AmazonSmile:

1. Visit smile.amazon.com and login to your Amazon account... you will need to select a charitable organization to receive donations from eligible purchases before you begin shopping.

2. Search for and select your favorite nonprofit. Amazon will remember your selection, and then every eligible purchase you make on AmazonSmile will result in a donation.

FYI....donations are made by the AmazonSmile Foundation and are not tax deductible by you.

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BUTTERFLY WALK

SATURDAY JULY 27, 2014 • 1PM-3PM

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Summer Astronomy

By Molly Check

Summer nights are perfect for stargazing. You may have to wait a little later until it gets dark, but it's worth the wait. A warm summer evening is perfect for lying on a blanket and checking out the heavens above.

When I teach astronomy programs, the majority of adults admit to feeling overwhelmed with the idea of learning the different stars and constellations. There are, after all, billions of stars in the sky, and we can usually see several thousand of them. The good news – it's a much more manageable task if you know how to approach it. Consider that there are only 88 modern constellations recognized by the International Astronomical Union. We live in the Northern Hemisphere, so that cuts the number almost in half for us. Divide that by the four seasons, and you end up with about 12 constellations per season. Not so bad, right?

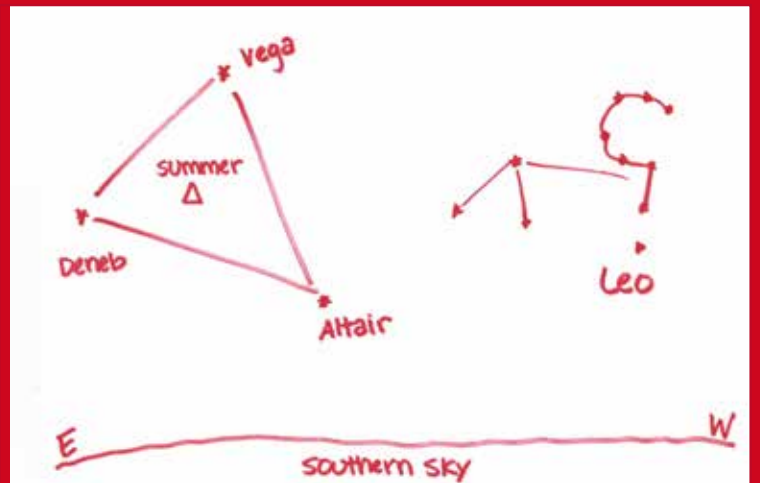
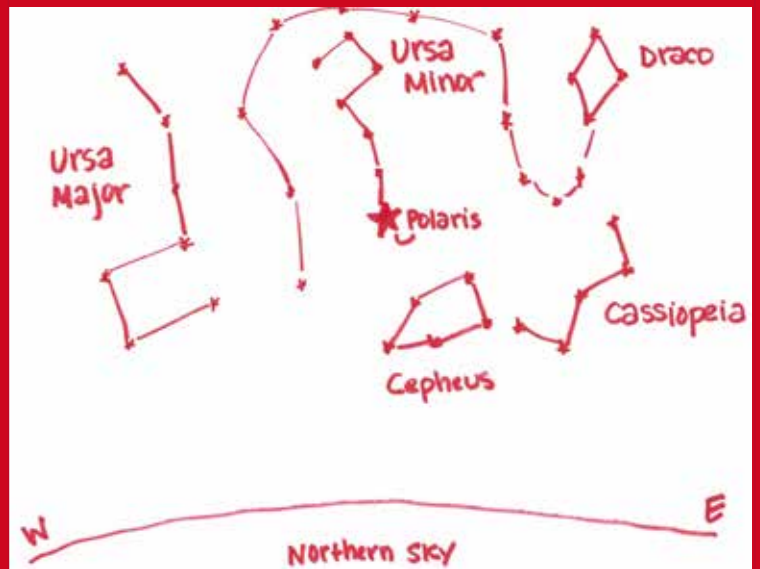
Most of the constellations (groups of stars) that we see in our Northern skies fall into one of two patterns. The first group includes five constellations that are circumpolar. As the name states, they appear to circle around the pole star (a.k.a. the North Star, or Polaris). Many people think that the North Star is the brightest star in the sky, but that is incorrect. It is fairly average in its luminosity, but remains important because of its proximity to Earth. Throughout history, people all over the world have used the pole star to navigate at night. It remains fixed in its position, marking due north, while the five circumpolar constellations appear to circle around it.

The circumpolar constellations are Ursa Major (includes Big Dipper), Ursa Minor (includes Little Dipper), Cassiopeia, Cepheus, and Draco the Dragon. If you watch the circumpolar constellations throughout the year, they appear to rotate counterclockwise around the North Star.

The second pattern, the Ecliptic, has many more constellations that follow it. The Ecliptic is an imaginary line that is the projection of the Earth's orbit around the sun. It is the line that the sun travels each day, from east to west, across the southern sky. The sun, moon, planets, and zodiac constellations all follow this line, as well as many other constellations.

During the summer, Leo is the most obvious constellation. Leo is a fairly large constellation and takes up quite a bit of the southern sky. Look for a big, backwards-facing question mark, marking the head of the lion. The stars to the left (east) of the head make up the rest of the lion's body and hind feet. The dot of the question mark is the bright star Regulus. I remember its name because it's similar to "regal," for a lion. Regulus is one of the top brightest 25 stars in the sky, although it's actually a double binary star system (meaning there are two sets of two stars, all very close together).

Behind Leo, rising in the east, is the Summer Triangle. The Summer Triangle is an asterism (a group of stars that are recognizable as an



object, but are not a complete constellation), just like the Big Dipper and Small Dipper. The three points of the Summer Triangle are Altair (constellation Aquila, the eagle), Vega (constellation Lyra) and Deneb (constellation Cygnus, the swan). It may take some practice to spot these three bright stars, but once you find them in the sky, it's fairly easy to track their march across the southern sky. The last star in the Summer Triangle sinks below the western horizon just as the colder temperatures of fall arrive.

Each star, each constellation, offers us a glimpse into the universe. There are countless mythological stories, from many different cultures, that explain the positioning and movement of the stars. Don't like their stories? You can make up your own! If you're interested in learning more about astronomy, start small. Buy a star map, or print one from online. This summer, try to find Leo in the southern sky, and watch him move from east to west over the course of the season. Any one night of star gazing can be overwhelming, but if you go out night after night, you will quickly come to recognize the patterns and constellations of the summer sky. Happy star gazing!

There is an Eagle in Me that Wants to Soar...

By Mariann Oswald

It was not by accident that the Bald Eagle, a large bird of prey, was chosen as our national bird, much to the chagrin of Benjamin Franklin who thought a wild turkey was better suited for the position. Let's test your knowledge a little further.

1. Do you know in what parts of the world you can find bald eagles? They are only native to North America. About half of all the bald eagle population lives in Alaska. No wonder, since Alaska is large, wooded, and has lots of waterways and lakes, something eagles look for in a home. But what about our area? In 1963, there were an estimated 417 mating pairs in the lower 48 states. Since their inclusion on the U.S. Fish and Wildlife Service Endangered Species Act list in 1990, mating pairs in Pennsylvania grew from 5 to over 93 in 2007, in New York from 13 to over 110 and in New Jersey from 5 to 53. In May of 2007, the Center for Biological Diversity determined that there were approximately 11,040 pairs in the lower 48 and so, at that time, the bald eagle was taken off the list of endangered and threatened species. They were thriving! How? Simply through the government's ban on the use of DDT in the United States (1972), the

bald eagle's inclusion on the Endangered and Threatened Species list, and education.

Public education efforts, restoring and protecting habitat, and reintroducing the bald eagle back into the wild made such a difference. To continue protecting our national bird, over the 20 years following delisting, the birds and their nests will be monitored every 5 years. An increase of 25% is expected over each 5 year period. If population declines, state agencies will determine cause and effect and subsequently create a plan before the bald eagle nears endangerment. There are several laws that protect bald eagles, as well. It can be a felony and carry a stiff fine to violate these laws.

2. It's not easy taking care of a national treasure, especially one whose wingspan is 8 to 10 feet wide. That's more than the distance from a normal ceiling to floor. And, did you know that the ladies are 25% larger than the gents? The female's body is about 3 feet long. They sure don't look that big up there in the wild blue yonder.

3. Bald eagles like to build their nests (aeries) at the top of the tallest trees in areas with low population. Bald eagle's nests are ENORMOUS! They are the largest nests of any bird – an average of 13 feet in depth, 8 feet in width and a total weight of over 1 ton. The largest bald eagle's nest, found in Florida, was 20 feet deep, 9½ feet wide, and weighed almost 3 tons! How could two eagles possibly build such a big nest? Unlike small birds, bald eagles build and add to their nests over many years. One nest in Ohio was used by the same mating pair for 34 years.

4. Bald eagles mate for life. They lay an average of 1 to 3 eggs each year. Incubation is 35 days. Then the little peeps start. Baby eagles are called eaglets. They are born grey and slowly turn brown as they grow. Bald eagles don't get their white head and tail feathers until they mature at 4 or 5 years old. That's one way to tell the age of an eagle when you see them soaring above. Most young fledge by the Fourth of July and live to be 35 to 40 years old in the wild.

5. Slow building but very fast flying, bald eagles



can soar at 30 miles per hour, over 10,000 feet high and swoop down at 100 miles per hour to grab their prey. An eagle's eyesight is to be envied. They can see more colors than humans AND they can see to the front and side at the same time, not to mention they can see 10 times better than humans. They can see a fish a full mile away! An eagle can't turn its eyes, like a human can, but an eagle can turn its head 270 degrees. That's almost all the way around. Their eyes are so well protected they can even look directly at the sun! And, yes, they sleep with their eyes closed.

6. Their primary prey is fish. Did you know bald eagles are strong swimmers? But, they are known to prey on a variety of mammals such as rabbits, deer fawns, beaver, and raccoons as well as other birds and amphibians. And let's not forget the insects. Although they can only carry half their own weight (averaging around 9 pounds) in prey, eagles will drag a meal along the ground or surface of the water to kill it if it is too big to fly away with.

How much did you already know? Did you know that bald eagles are not bald? They have white heads and tails. "Bald" is actually an old English word meaning white. Did you know that bald eagles each have about 7,000 feathers? Did you know that bald eagles don't sweat? They cool off by panting, spreading their wings out to catch a breeze as they perch in the shade.

And you thought bald eagles were just a beautiful, graceful creature, a national symbol since 1782, proud, strong, and agile. They are all that... and so very much more.



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'Bridging the Gap' with the William Penn Foundation

By Flo Mauro

The William Penn Foundation (WPF) is a grant-making foundation established in 1945 in Philadelphia, PA, by businessman Otto Haas and his wife Phoebe. It strives to improve "the quality of life in the Greater Philadelphia region through efforts that foster rich cultural expression, strengthen children's futures, and deepen connections to nature and community. With numerous partners, the WPF works to advance a vital, sustaining, just, and caring community.

WPF's newest initiative hopes to improve the drinking water for millions of people from Wilmington, DE to New York City. It recently announced a \$35 million plan to "protect and restore" the water in the Delaware River Watershed — the 13,500-square mile water source for 15 million people. The grant aims to protect more than 30,000 acres, implement more than 40 restoration projects, and pilot new replicable incentives for landowners and businesses alike.

On April 3, 2014, PEEC became one of the Foundations' newest partners. The William Penn Foundation awarded a 22-month grant to PEEC in the amount of \$82,500 for educational programs along the Delaware River through its multi-faceted Women on the Water and Bridge the Gap programs.

Women on the Water (WOW), entering its 4th year, is a multi-disciplinary, experiential education program focused on building excitement and engagement in young women for the natural world, the Delaware River, the Delaware Water Gap National Recreation Area (DWGNRA), its neighboring public lands, and its connection to Philadelphia. WOW provides female high school students from urban areas, including Philadelphia, the opportunity to learn about the Delaware River and its associated natural and 'built' communities.

"Bridge the Gap" (BTG), entering its 2nd year, engages and connects local families of all ages and abilities with the national park and public lands that are in their backyard, namely the DWGNRA. Participants will explore the Park's natural resources via its terrestrial and water trails and (hopefully) become fully vested land stewards by helping to conserve natural resources and actually maintain the trails. The trails and associated programs will serve as the "bridge" that heightens community awareness and use of all Park resources. A listing of upcoming BTG public activities is posted on PEEC's website.

For more information about The William Penn Foundation, WOW, and BTG please visit: www.williampennfoundation.org and www.peec.org.

PEEC is grateful for the major support from the following institutions:

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The William Penn Foundation

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PEEC's IndieGoGo Campaign

PEEC has recently launched an IndieGoGo Campaign – Children's Residential Solar Lab. In the Children's Residential Solar Lab, visitors will be able to monitor the amount of power being generated using meters in the cabin and see trends throughout their day, as well as the specific impact of their use of outlets, lighting, etc. on the amount of energy they are consuming. This pilot program will involve converting one cabin to a photovoltaic solar array, with advanced monitoring capabilities. We will install four (4) 500-watt solar panels on one of our cabins and make it the centerpiece of a new program focusing on the environmental impact of renewable energy. This system features an iPad app that will allow visitors to monitor the amount of energy being produced by the system and compare it to the amount of energy being consumed. We plan to eventually expand the project to include 3 additional cabins using other types of renewable energy sources, including thermal solar, passive solar, and geothermal.

Our aim is to make people aware of their role in power consumption and increase understanding of the potential for renewable energy to replace or supplement existing power sources. Since the renewable sources may not generate all the power required for the cabins, they will be tied into the existing power grid, so that any slack can be taken up. The other advantage of this is that any additional power they generate will go right back into the grid, leading to cost savings. We are able to implement this project in stages, adding more panels as additional funding is secured. The success of renewable energy depends upon educating people on its benefits. This system will allow people to directly see the benefits of renewable energy, compared to conventional energy sources, paving the way for a future built upon renewable energy sources.

Check out PEEC's IndieGoGo Campaign <http://igg.me/at/childrens-residential-solar-lab-peec/x/6791405>

How to Know when It's Summer

By Andrea Ace

After the multitude of snow days that have pushed back the school year in many districts across the country, most people are ready for the summer to arrive.

How do we know when it's summer? Many of us who work at PEEC could list certain plants, animals and natural trends that let us know summer has arrived. For others of us, we base the changing of seasons around habits and traditions, like having a backyard barbeque, going to the local pool or swimming hole, or turning on the air conditioner.

For many years, my family spent parts of the summer at a campground with my aunt, uncle and cousins. Our days were occupied by meandering along the hot, dusty paths, biking up hills (followed by the exhilarating careen down), swimming out to the dock in the middle of the lake, and getting into trouble I probably shouldn't mention in this newsletter. At the end of the day, everyone gathered back for dinner and sat around a campfire while waving away the persistent mosquitoes.

In addition to camping with family, I was lucky enough to attend summer programs in the park near my grandmother's house, go to vacation

bible school in a neighbor's backyard, and attend sleepaway camp at a Girl Scout camp. I know there were times during the summer when the air was so hot and humid that all my eight-year-old self could do was sit in a shady spot and feel the sweat pooling in the crook of my elbow, but those aren't the times I remember.

Looking back, I now realize my enrollment in these activity-packed summers were because both of my parents worked full-time and wanted to keep me occupied and out of trouble. They probably did not realize that these experiences would have such a strong impact that their child would continue to work in the camping industry as an adult. I now consider it my career to provide positive summer experiences for campers who attend PEEC's day camp.

Children who come to our camp will play games while learning, laugh a little too loudly, and spend time with some of the coolest people on the planet. These children may leave PEEC each day with a splash of mud or paint that wasn't there when they arrived, but hopefully they will also leave with the kind of memories that won't wash away. And that is how they will know it is summer.



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SUMMER DAY CAMP 2014

7 SESSIONS • JUNE 30 - AUGUST 15

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

TO REGISTER:

Call PEEC at 570-828-2319
with credit card information available

JULY

"Celebration with a Bang"

Family Nature Getaway Weekend

From Thursday, July 03, 2014

To Sunday, July 06, 2014

Cost: Adults \$210 / Child, Commuter,

Day Rates Available

Bring your friends and family to experience the best of what PEEC has to offer. Nature hikes, animal presentations, swimming, canoeing, fireworks, campfire and more! Price includes three nights lodging and meals from Thursday dinner to Sunday lunch.

Frog Frolic & Frog Frenzy

Saturday, July 12, 2014, 1:00pm - 3:00pm

Sunday, July 13, 2014, 10:00am - 12:00pm

Cost: \$5 per person

Join us for a fun afternoon at the ponds and streams! Learn about some of our frog friends as we gently catch and release these hopping amphibians. Wear boots and plan on getting a little wet and muddy!

Moonlit Drumming

Saturday, July 12, 2014, 6:30pm - 9:30pm

Cost: \$30 adult / \$15 child

Master drummer, Maxwell Kofi Donkor, is back for another unforgettable experience. Enjoy an introductory lesson and a drumming circle under the moonlit sky. Don't miss this great event! No experience necessary. Call to reserve a drum.

Sunday for Singles Nature Hike

Sunday, July 13, 2014, 1:00pm - 3:00pm

Cost: Free

Enjoy a guided hike on a PEEC trail. This program is all about exploring nature and meeting new people.

Summer Canoe Paddle

Saturday, July 19, 2014, 10:00am - 12:00pm

Sunday, July 20, 2014, 10:00am - 12:00pm

Cost: \$5

Start summer off the right way! Paddle a canoe...and try out our new kayaks! Beginners are welcome—we teach you everything you need to know. Dress appropriately—you may get wet. Call to reserve a canoe.

Ecozone Discovery Room!

Saturday, July 19, 2014, 1:00pm - 4:00pm

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



Nature at Night

Saturday, July 19, 2014, 8:00pm - 9:30pm

Cost: Free for members /

\$5 for non-members

A summer evening is the perfect time to head outside. Take a walk in the woods, listen for frogs and look at the stars.

Gardening: Vertical Gardens

Sunday, July 20, 2014, 1:00pm - 3:00pm

Cost: \$5

Join the Pike County Master Gardeners for an introductory class on creating vertical gardens. This is a great forum for sharing gardening tips and ideas.



Wild Edibles Walk

Saturday, July 26, 2014, 10:00am - 12:00pm

Cost: Free

Nature provides food for us in the form of many plants. Join us on a hike focused on wild edibles. No collecting will be done within the Park. Call to reserve a seat in the van.

Butterfly Walk

Sunday, July 27, 2014, 1:00pm - 3:00pm

Cost: \$5

Learn about the wonderful world of butterflies! Join David Trently on a search through the fields and around the ponds for butterflies and dragonflies. Call early—spaces fill up fast!

Ecozone Discovery Room!

Sunday, July 27, 2014, 1:00pm - 4:00pm

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.

Little Eco Explorers: Beavers

Sunday, July 27, 2014, 1:00pm - 3:00pm

Cost: Free

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.



In Their Own Words

Thank You Letters from Students

Dear PEEC:

I had a lot of fun at all of the activity's but my favorite was pond ecology. I liked it because I got to find animals then we got to learn about what we found. I also liked when we got to learn about our senses and be blindfolded while we had to walk in the woods holding a rope.

We played lots of games with our tour guide Mason. We played this one game where we had to use lots of teamwork.

I really liked the ecozone. One of my favorite things was the beaver dam. I liked it because it looked so realistic. I also liked the bat cave.

I learned a lot of stuff at PEEC like what lives in a pond, how to use your senses, and to use teamwork. I learned and had so much fun at PEEC.



Build-a-bear



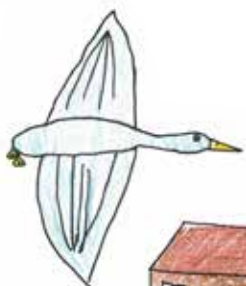
Dear PEEC:

Thank you for letting the fourth grade come to your environmental center. It was really fun going with our guide Mason. He took us through many routes in the forest which were all great.

I liked the pond ecology. The campfire was great because we got to sing songs and eat s'mores. The best part about PEEC was that we got to go on the senses trail. Also the gift shop had many items that I liked, especially the mazes. Seeing birds fly and identifying them was really interesting. In the eco-zone there were many fun things like the eagles nest and fossil finding. My favorite was the build a bear. In the bat cave we saw how limestone was made which is really cool. The other fun part about PEEC was that we got to stay overnight and everybody was having fun in their dorm. One of the best games I played in the beginning of the field trip was sneaky fox. We won three times. I wish we could learn more about nature.

Dear PEEC:

I had such a wonderful time at this educational place. My favorite part was taking off our shoes and smelling them. My favorite activity was blindfolding ourselves and walking through the forest. I never thought I would make it. The campfire was a lot of fun I liked the s'mores. Speaking of food, the meals were delicious and I loved your French toast. We played a fun game called "sneaky fox," one person would put some keys behind their back and they would count to 3. When he was finished counting everyone would have to freeze. If the person saw someone move everyone would go back. But if he didn't the game will continue till someone gets the keys. When he does he will guess who if he guesses wrong the kids will have to change the person who has it till they reach the starting line. That was my favorite game. I learned that in the middle of hibernation a lot of bats die because a fungus wakes them up, but when they do they are still hungry but there is no food. I had a lot of fun.



Dear PEEC:

I had a lot of fun going camping. Thank you for having us. I learned a lot about the environment. My favorite activities were pond ecology and hiking. The campfire was a lot of fun. The cabin was nice, but we didn't go to sleep immediately. My councilor was Mason and he was really nice. We played the game Sneaky Fox. The food was really good. We also played Bat and Moth. It was a lot of fun. I was against Will. He was the bat and I was the Moth. I was really quiet when I stepped. Then he started going crazy!! It was a lot of fun. I hope I come again.



Dear PEEC:

Hi. I came here with Moravian Academy's 4th grade from Bethlehem, PA. Nothing really happened there except only the BEST OVERNIGHT FIELDTRIP EVER filled with awesome games and activities! When we got there, we got assigned our bunk partners and our rooms. The beds were comfortable and the room was spacious but not too big. Later, we got assigned to our counselors. I got Mason AKA the BEST COUNCILOR IN THE WORLD!!!! The first game that we played was sneaky fox, and then a few other games. I loved the eco zone. The food tasted great. I was a swamper at dinner. It was fun to get my food first.

We learned about our senses and how they get stronger if you lose one. In wild life studies, we learned about animals and their habitats.

I learned a lot from my trip to PEEC and I hope I can come back soon.

Dear PEEC:

Thank you for letting the Moravian Academy go to your facility! I really enjoyed the campfire and the ecozone. My favorite part of the campfire was the s'mores! The other thing we did at the campfire was we sang two call and repeat songs. My favorite part of the ecozone was the bat cave. The other things we did were the beaver dam, the fossil dig (probably my second favorite) and the skins! I hope if I come back the eco bikes and the fish are there!

Wait, I forgot my real favorite part, the Senses Trail! I crashed into a very high (probably all) amount of trees. I also stumbled on a log or two. It even seems that rocks really hate me!

The gift shop was also pretty cool! I was thinking of getting a walking stick but instead I got a snake slap bracelet and a white tailed deer stuffed animal. I had three extra dollars, which for me is a lot because I usually have exactly \$0 when I leave a gift shop.

I also really liked the cafeteria. It was wide open and had huge windows. It has a pretty cool view. The food was also very good. The first day I got baked ziti, for dinner I got, well I forget, for breakfast the next day I got French toast, and for lunch that day I got pizza!

I learned a lot of things at PEEC. One thing is that turtles have tails. Another is that people litter more in water then land.