Springtime Plants
By Sheri Bone

Springtime plants. In your mind, do you see lots of colorful flowers when this phrase is mentioned? Yellow daffodils, red tulips, violets, pink hyacinths? Not all plants have big showy, colorful flowers. Some are hidden. This article will focus on two woodland plants that have hidden flowers, but are true harbingers of spring. From the same family, their names evoke very different responses in people. They are Skunk Cabbage and Jack-in-the-Pulpit.

Yes, they are in the same plant family – Araceae. In this plant family, there is only one seed leaf (they are in the class of monocots), and the flowers are on a spadix. A spadix is like a fleshy spike that holds the little flowers. The spadix is usually under or partly enclosed in a leafy spathe. If you have ever seen a Jack-in-the-Pulpit, the part we call “Jack” is the spadix, and he is under the leafy pulpit (spathe). In the Skunk Cabbage, the spadix is usually hidden, but it’s there if you look deep inside the spathe.

One other characteristic that these two plants share is that all of their plant parts - leaves, stems, and roots - contain calcium oxalate crystals. These crystals are poisonous. When the raw plant is eaten, burning sensations, swelling, and irritation occur. It is said that the Native Americans knew how to prepare the plants for medicinal purposes. Folklore has it that bears, soon out of their winter sleep, look for Skunk Cabbage to eat as it helps to clean out their digestive tract. People who have tried to prepare Skunk Cabbage leaves to eat have reported that the leaves need to be boiled in at least three changes of water and, even then, they have a laxative effect and poor taste. Someone said that the best way to prepare the Skunk Cabbage is to boil the leaves with an old boot. After the leaves have been thoroughly cooked, toss out the leaves and water, and eat the boot!

Skunk Cabbage (Symplocarpus foetidus) is one of the very first plants to show itself in spring. As it starts to grow in wetland areas, it produces a great amount of heat. This is called ‘thermogenesis’ and will actually melt the snow as the purple spathes emerge. The spadix is well hidden, but the flowers on it produce an odor that attracts flies and other carrion feeding insects so that pollination will occur. Soon after pollination, as part of the normal growing process, large green leaves begin to appear, and the flower will slowly develop into a cluster of seeds. The leaves, when broken or crushed, give off a nasty smell, which is how this plant got its name. (Foetidus means ‘bad smelling’!) The leaves will start to die off in mid-summer, but the fruit of the Skunk Cabbage will produce hard, pea-like seeds that drop into the mud and are carried away by animals. All the while, the roots of
I continue to be amazed at the generosity of the corporations and individuals that support PEEC in so many ways. As a non-profit, PEEC relies on this financial and in-kind support to deliver the free and highly subsidized programing we offer to school groups and the general public.

Most recently we have received some generous in-kind donations from manufacturers and product retailers. Lumber Liquidators donated 2,900 sq. ft. of wood flooring to replace the worn out carpeting in our cabins and James Hardie donated over 10,000 sq. ft. of Hardiplank siding to re-side cabins 0-9. When the work is completed, the cabins’ exteriors will match the new group lodges and the duplexes. These donations, combined with the on-demand hot water heaters from Wei Wala, the insulation from BASF, and the hundreds of man hours of labor from the students and faculty of Monroe County Technical Institute (MCTI), mean PEEC has received close to $100,000 of donated materials and labor in the past year. In addition, this fall the National Park Service did extensive work to upgrade the PEEC lower campus septic system, which is vital, but largely unseen, work necessary to bring our campus infrastructure up to date.

I always walk around the PEEC campus and see the work that still needs to be done. PEEC continues to be a vibrant place for teaching, learning, and experimenting, so by its nature it needs to be in a constant state of change and improvement. Although the PEEC “to do” list never seems to get any shorter, it is rewarding to see and to reflect upon our accomplishments on the campus. I also recognize that it is not the buildings and the roads that are the focus of what we do, it is merely a framework. The forest, the waterways, the plants, and the animals that surround the campus, and our roles as guides and stewards, is what is truly important.
Not Just Another Song And Dance
By David Tennant

Imagine yourself sitting in a front row seat waiting for the main attraction to hit center stage. You’re comfortable, relaxed and anticipating a great show. As a matter of fact this show is like no other in the world... and it’s FREE! Suddenly the lead singer opens with his song that drives the crowd (especially the females) crazy... PEENT!... PEENT!... PEENT!

Well, given some of today’s music that very well could be an actual group, but it’s not. It is the courtship song of our American Woodcock.

The woodcock, which is also known as the timberdoodle, bogsucker, or mudbat and is related to sandpipers and snipes (remember snipe hunts in summer camp), looks like a potpourri of bird parts tossed together into one bird. Its bill, which is very sensitive and designed for probing into moist soils for a meal, seems to be much too long for its head. Its head, which seems to be too small for its bill and body, has eyes that are positioned toward the top to afford visual protection when its bill is in the soil. Its ears, Lord knows why, are located in front of its eyes. Put all of these parts together and you have a bird that looks rather strange but is, more importantly, very well adapted to its environment.

Although secretive, as it hunts through the moist woodlands for earthworms or insects, it is anything but shy when trying to find “Mrs. Right”. It all starts in early spring (early to mid-March) in an open, grassy field just before or shortly after complete darkness. He sets himself up in an area in view of prospective mates (similar to window shopping) and starts with his opening song which amounts to a loud, nasal “PEENT”. He may repeat this several times or many times and as he calls he turns his body to broadcast to as many listeners as possible.

Following his attempt to croon any female woodcocks, the male takes to the air in a spectacular and impressive Courtship flight. He spirals upward three hundred feet or more with his wings making a soft, twittering sound. When he reaches the zenith of his flight the song changes to a bubbling up-scale and down-scale tune as he descends to nearly the same spot as he started only a minute or so earlier. Once grounded he doesn’t wait to catch his breath (remember “the early bird catches a mate”; at least concerning woodcocks) he starts his “PEENT”... “PEENT”... “PEENT”... again prior to another roller-coaster courtship flight.

If his first performance is witnessed and enjoyed by an interested female, they will mate, followed by the male returning to his favorite “peenting” spot to start again.

Although not easily seen in the daytime, the American Woodcock’s courtship display is an enjoyable and memorable event that is not only free, but has top billing as one of the opening acts of spring.
Why Every Kid Needs to Go to Camp
By Allison Owczarczak

While every kid is not “cut out for camp,” they at least need to try it. Why subject kids to new places, faces, bugs, and dirt even if they say they hate it? Because camp will help prepare them for the rest of their lives without them even realizing it at the time.

I was the type of kid that LOVED camp. I could not wait for my parents to drop me off at camp and I intentionally wanted to go the last two weeks of camp so that I had something to look forward to all summer (that and the counselors were a little pooped and we could get away with more). While I never suffered from home sickness like some of my peers (and I could not even understand why they would want to miss home) after camp, I was actually Camp Sick for the rest of the year.

Camp is a special magical place where I learned how to meet new people when I went to a school with the same exact classmates from Pre-K until 8th grade. I learned that I couldn’t be a friend to everyone, and that everyone was not going to be my friend. Yes, it was my first lesson that sometimes there are jerks in the world, but I had to handle those situations with grace and dignity, and not stoop to their level. I learned about world cultures from the international staff that worked at the camp. I learned to be independent, self-reliant, and to try new things, even if it was a “no thank you” helping of some mysterious food that not even the counselors were sure what it was.

Camp improved my decision making. I had to decide what clothes I was going to wear, what activities I was going to do, what I was going to pack for the overnight, how many s’mores I would eat before getting sick.

Camp helped to foster my strong work ethic. From KP duty in the Dining Hall and cleaning the shower house to mucking horse stalls, I learned that many hands make for light work, and that it doesn’t matter who made the mess, someone has to clean it up. I also learned the difference between being a boss and being a leader; I respected the counselors more if they too were doing the work alongside us rather than barking orders and I respected the counselors more when they treated us as young adults rather than little children.

Camp also taught me to look out for others. I always had to be with my buddy, even if that meant I had to stay in the shallow end of the pool because they couldn’t swim in the deep end, or when to lend a hand, like looking for your buddy’s lost shoe or being late for an activity because you couldn’t just leave them behind.

Did I learn that you always don’t get what you want? Absolutely. I learned that you also had to make the best out of less than ideal situations; you can never just give up.

Camp isn’t JUST fun. It’s filled to the brim with teachable moments and social learning cues, which is why I firmly believe that every kid needs to go to camp. So sign up today for our nature themed day camp here at PEEC and see the changes in your own kids.
Christmas Bird Count at PEEC!
Compiled by Molly Check

Earlier this year, on a particularly cold and windy Sunday in January, 11 brave birders headed out into the zero degree temperatures to count birds. On Sunday, January 5, 2014, PEEC participated in the 114th annual Christmas Bird Count sponsored by the National Audubon Society. At PEEC, our group of birders included first timer counters, as well as some hardcore local birders who participate every year. One of our first timer bird counters was a young man who proved that the love of birding can be found in every generation! Thank you to all the participants that joined us this year!

Canada Goose – 60
American Black Duck – 7
Mallard – 23
Common Merganser – 12
Ring-necked Pheasant – 3
Wild Turkey – 6
Bald Eagle – 3
Sharp-shinned Hawk – 2
Cooper’s Hawk – 4
Red-shouldered Hawk – 3
Red-tailed Hawk – 15
Herring Gull – 14
Mourning Dove – 71
Eastern Screech Owl – 8
Great Horned Owl – 4
Barred Owl – 1
Red-bellied Woodpecker – 26
Yellow-bellied Sapsucker – 10
Downy Woodpecker – 28
Hairy Woodpecker – 8
Northern Flicker – 5
Pileated Woodpecker – 12
Blue Jay – 92
American Crow – 55
Common Raven – 4
Black-capped Chickadee – 59
Tufted Titmouse – 54
Eastern Towhee – 1
Red-breasted Nuthatch – 2
White-breasted Nuthatch – 26
Brown Creeper – 1
Carolina Wren – 15
Winter Wren – 2
Golden-crowned Kinglet – 18
Ruby-crowned Kinglet – 3
Eastern Bluebird – 55
Hermit Thrush – 12
American Robin – 413
Northern Mockingbird – 1
European Starling – 5
Cedar Waxwing – 47
Yellow-rumped Warbler – 19
American Tree Sparrow – 86
Fox Sparrow – 6
Song Sparrow – 60
White-throated Sparrow – 281
White-crowned Sparrow – 2
Dark-eyed Junco – 925
Northern Cardinal – 29
Purple Finch – 30
House Finch – 1
American Goldfinch – 51
House Sparrow – 18

Total birds: 2597
Total species: 53
I know everything has a history. But, I never really thought about the history of chocolate. I assumed it just appeared with the creation of man... or more precisely, woman. My research, however, shows that chocolate history goes back as far as 1000 BC.

Latin America, the Mayans and the Aztecs can all take credit for finding and refining chocolate. They used cocoa beans for currency! Imagine that? I’d be broke all the time! Seems, though, that not many people ate or drank cacao. It was way too bitter, at least until Cortez conquered islands that traded in sugar. We’ll never know who put the two together, cacao and sugar, but it was definitely a match made in heaven.

The Spaniards were pretty smart when it came to their chocolate discovery. They sent it off to Spain, but sold it only as a health food or medicine. Doctor’s prescribed chocolate as a cure for fevers, to aid in digestion, and to alleviate pain. When the church stepped in and approved chocolate as a nutritional supplement while fasting... well, the secret was out. Chocolate was too good to be used only as a medicine. As the first source of caffeine to reach Europe, beating coffee and tea by several years, sales were energized... literally.

Chocolate became a solid, as in “no longer only for drinking”, in the 1850’s. It was an Englishman by the name of Joseph Fry who thought cocoa butter, rather than hot water, would add to the taste. How right he was! Not long after, milk was added creating the first milk chocolate bar. The Swiss invented a machine to mix chocolate. Hershey started making kisses (so called because the machine that makes them looks like it’s kissing the conveyer belt), soldiers were given “energy bars”, and we now have a 35 billion dollar chocolate industry.

Of course, all of this took its toll on the environment. Rain forests were razed and cheap beans were grown. But, today things are changing for the better. Higher quality cacao varieties are grown in an environment that is very close to natural, helping preserve the rainforest.

And, maybe the best news of all, the antioxidants in chocolate are 5 times richer than those in blueberries! Antioxidants help rid the body of free radicals, which cause aging and disease. Antioxidant-rich diets have been linked to lower risk of heart attacks, stroke, cardiovascular disease, cancer, high blood pressure, cholesterol problems, arthritis, asthma, Alzheimer’s and more. A recent study at Harvard University has shown that eating chocolate can actually help you live longer. So... ta da, it’s GOOD FOR YOU! Sure, there’s fat, but only 25% of the bad kind. And sugar, yeah bad stuff, but dark chocolate doesn’t have too much. Caffeine? A one ounce milk chocolate bar has 6 mg of caffeine, less than half of what there is in cola and only a third of the amount in coffee.

Just don’t overindulge. Americans collectively eat one hundred pounds of chocolate every SECOND. M&M’s estimates 2,000,000,000 are consumed in the US every day. (To burn off one (1) plain M&M candy, you need to walk the full length of a football field. That’s a lot of football fields, America.)

Anyway, I’m glad I live in an age where chocolate is being perfected; forests are being saved; chocolate is getting better; farmers are using more natural methods; and chocolate is good for your health. So, as long as it doesn’t cause acne (proven fact), it aids digestion for those who are lactose intolerant (also a proven fact) and it makes me happy (proven a great anti-depressant), I will continue to eat chocolate with great pleasure.

www.Funfunnyfacts.com
www.facts-about-chocolate.com/health-benefits-of-chocolate
Spring Peepers
By Sheri Bone

On spring nights, you can hear them. Peepers. Small tree frogs singing for their mates.

If you live near a wetland, you will probably be serenaded by them all spring. And perhaps even into the summer. Choruses of male peepers puff out their vocal sacs and peep a high piping whistle. Loudly. You may not like the sound of the peepers if you live near their mating site. The chirping can be deafening. But I enjoy the sound. It tells me that spring is really here.

When my children were young, we liked to catch these little frogs. They are in the tree frog family, so I used to refer to them taxonomically as Hyla crucifer. The preferred name, however, is Pseudacris crucifer because they are a chorus frog. ‘Pseudacris’ comes from the Greek for ‘false locust’ based on the noise they make, and ‘crucifer’ means ‘cross’ because all Northern Spring Peepers have a small dark ‘X’ on their backs. On Martha’s Vineyard, they are commonly called ‘pinkletinks.’ Most people just call them ‘peepers.’

Being nocturnal, they are fairly easy to find in the spring evenings near ponds or other wet places. The males sing, attracting the females, so that mating can begin. When the male finds a mate, together they go into the pond so the eggs can be laid in the water. Just follow the sound of the ‘peeping’ and you will find the frogs.

We discovered some tricks to finding these little amphibians. Bring a flashlight, wear boots and tread slowly and carefully. They are usually a shade of tan/brown, so they blend in with their surroundings. Being so small (the adults grow to only about 1 ½ inches), it would be easy to step on them. Walk towards the peeping sound. When you get close to a frog, he will stop singing and wait for you to leave. At that spot, squat down and wait very quietly. Patiently. When the frog thinks you are no longer there, he will sing again, and then you can shine your beam in the direction of the song. You may be able to see the swollen vocal sac, which, in the light, has an iridescent hue and resembles a marble.

We used to take the little frogs we caught to the school so my children’s classmates could see what peepers look like in ‘real life.’ Almost everyone was amazed at their small size. Kids mistakenly called adult peepers ‘baby frogs.’ In captivity, peepers can live up to three or four years. In our neighborhood, we would let the schools keep the peepers for a few days and then return them to the pond.

No one really knows just how long peepers live in the wild. Once their job of mating and egg-laying is done, adult peepers find nearby places with insects to eat and rely on their camouflage to not get eaten themselves. The eggs, meanwhile, hatch into tadpoles within a week or two and then, within six to eight weeks, develop into smaller versions of their small parents. Depending on environmental conditions, though, the whole process (from egg to frog) can take over three months. Frogs are mature enough to participate in the mating ritual when they are about three years old.

Because they are in the family of tree frogs, peepers have little circular pads at the ends of their toes which allow them to climb trees. Usually, though, you will find them on the ground, near the edges of swamps, ponds, and other quiet moist areas. They find shelter under the leaf litter and logs. Sometimes they can be found during the day, but most of their activity is during the evening and night. Their main predators include snakes, salamanders, large spiders, snakes, owls, and other birds.

One fascinating fact about peepers is how they survive during the winter. They go through a hibernation period, but they do not burrow into the mud at the bottom of a pond as other frogs and toads are known to do. Like the Wood Frog (Lithobates sylvaticus), peepers will hibernate under leaves or logs. Sometimes during the winter their bodies will completely freeze, but they have a special substance in them that acts like anti-freeze so they can thaw out and live.

After the winter, they are one of the first species to begin mating. Which means peeping. Hence the name Spring Peeper. My favorite harbinger of spring.
Let’s connect these ‘dots’… in 2011 PEEC was approved as a Pennsylvania Educational Improvement Organization and therefore eligible to receive funding under the PA Educational Improvement Tax Credit Program (PA EITC) for its on-going environmental education programs.

PA businesses that contribute to PEEC under EITC are eligible for a tax credit equal to 75% of their contribution for a one year commitment and a tax credit equal to 90% of the contribution if the business agrees to provide the same support for two consecutive tax years.

From a PA tax perspective, this is financially more attractive to a business than a simple contribution. For example, if your business makes a simple contribution to PEEC of $10,000, it would provide $10,000 to PEEC and reduce its income by $10,000, with a resultant saving of $999 in PA taxes, assuming a 9.9% corporate tax rate. Under the EITC program, that same $10,000 donation would result in direct credit against taxes paid to the Commonwealth of $7,500 to $9,000.

DIME BANK, Honesdale PA was our initial EITC contributor in 2011 and continues to be an active partner. WASTE MANAGEMENT, Beach Lake, PA joined the EITC team in 2013.

Eligible PA businesses, like DIME BANK and WASTE MANAGEMENT can also contribute to PEEC’s on-going program for local elementary students and teachers called ‘Take a PEEC at Environmental Education.’ It is designed to “…make the connection come alive between the classroom, the students and nature and …aligns with the Pennsylvania Learning and Academic Standards.

All activities are designed to complement, extend and expand existing Elementary and Middle School programs and curriculum studies. Classroom teachers can choose the specific field study activities that best match up with their classroom needs.”

Since its inception in 2011, over 800 local elementary school students and their teachers from the Delaware Valley (DVSD) and the East Stroudsburg Area School Districts (ESASD) participated in the ‘Take a PEEC at Environmental Education’ program at little or no cost to them or their district. In 2014 we will serve an additional 450 students from ESASD and DVSD including the East Stroudsburg Elementary and Bushkill Elementary Schools, Shohola Elementary, and Delaware Valley Elementary Schools.

Teachers interested in the ‘Take a PEEC at Environmental Education’ please contact Sheri Bone at PEEC. If you would like more information about PA EITC, please call Flo Mauro or Jeff Rosalsky at PEEC. Businesses need also consult their tax professionals.
**PRE-REGISTRATION REQUIRED**
Unless otherwise indicated.

**TO REGISTER:**
Call PEEC at 570-828-2319
with credit card information available

**APRIL**

**Nuno Felting & Knitting**
From Thursday, April 03, 2014
To Sunday, April 06, 2014
Cost $255 / $205 Commuter Rate
Optional: Friday – Sunday stay is $205 / $155 commuter.
Join Patti Shreiner for a relaxing weekend in the Poconos. Guest instructor Bette Rycroft of NC will teach Nuno felting (kits available for $25) and/or knit an embellished headband with Patti. Supply list will be provided. Focus projects: felted scarf, knit headband. Includes lodging and meals!

**Women’s Weekend**
From Friday, April 04, 2014
To Sunday, April 06, 2014
$195 Includes Lodging & Meals
Get away from it all! Enjoy a relaxing weekend that includes a nature hike, canoeing, yoga, campfire, astronomy, and more. This wonderful new program includes a night in a comfortable yurt and six delicious meals. Register early!

**Spring Waterfalls**
Saturday, April 05, 2014, 1pm - 3pm
Cost $12
The melting snow and spring rains have raised the water level. Join us as we travel to some truly magnificent waterfalls. Dress in warm layers, wear sturdy footwear, and bring a camera! Call to reserve a seat in the van.

**Volunteer Day -- Spring Cleaning**
Sunday, April 06, 2014, 9am - 12pm
Help us clean up after winter and prepare for the spring. Many projects – all ages welcome. Snacks provided.

**EcoZone Discovery Room!**
Sunday, April 06, 2014, 1pm - 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.

**Sunday for Singles -- Off-Campus Hike**
Saturday, April 12, 2014, 1pm - 3pm
Cost $5
Enjoy a guided hike on a park trail. Explore nature and meet some new people. Call to reserve a seat in the van.

**Salamanders, Frogs, and More!**
Saturday, April 12, 2014, 1pm - 3pm
Cost $5 per person
Amphibians are stirring in the woods! Join us as we explore nearby breeding pools for salamanders, frogs, and egg masses. We'll provide nets and collection jars for gentle, up-close study. Wear boots and clothes that can get a little muddy or wet.

**Spring Peeper Search**
Saturday, April 12, 2014, 8pm - 9pm
Cost $5 per person
These tiny tree frogs have thawed out and are active again in our forested wetlands. Listen to the impressive choir made by these vocal amphibians as we carefully catch, study, and release them. Bring a flashlight for better searching!

**Earth Day Festival**
Sunday, April 13, 2014, 10am - 4pm
Cost $5 per car
Help us celebrate the Earth! There will be hands-on learning stations, interpretive hikes, conservation exhibits, animals, crafts, food, music, and much more! No pre-registration required.

**Spring Waterfalls**
Saturday, April 19, 2014, 1pm - 3pm
Cost $12
The melting snow and spring rains have raised the water level. Join us as we travel to some truly magnificent waterfalls. Dress in warm layers, wear sturdy footwear, and bring a camera! Call to reserve a seat in the van.

*Continued on Page 10*
Continued from Page 9

Introduction to Fly Fishing
Sunday, April 27, 2014, 9am - 12pm
Cost $15
Learn the basics of fly fishing. Practice knot tying and casting. Join Tom Battista from the Brodhead Chapter of Trout Unlimited for a fun afternoon and learn some new skills.

Salamanders, Frogs, and More!
Sunday, April 27, 2014, 1pm - 3pm
Cost $5 per person
Amphibians are stirring in the woods! Join us as we explore nearby breeding pools for salamanders, frogs, and egg masses. We’ll provide nets and collection jars for gentle, up-close study. Wear boots and clothes that can get a little muddy or wet.

MAY

Wildflower Walk
Sunday, May 04, 2014, 9am - 12pm
Cost Free
Celebrate the blossoming of spring with a walk in the woods. Join local flower expert Josie D’Alessandro as she shares identification tips and natural history of the local flowers. Bring a bottle of water and a camera for some pictures.

Pro Series: Herpetology with Dr. Thomas LaDuke
Saturday, May 17, 2014, 1pm - 4pm
Cost $20 ($70 for all 4 Pro Series Sessions)
Learn from the experts. Join Dr. Thomas LaDuke, Associate Professor of Biological Sciences, ESU, for an in-depth look at the amphibians and reptiles of the area. Study preserved specimen, search along the trails for herps, and learn a lot!

Native Plant Gardening Weekend!
From Saturday, May 17, 2014
To Sunday, May 18, 2014
$150 Includes Lodging, Meals, and Programming
by the Pike County Master Gardeners
Join us for a weekend full of great gardening information. Learn how to design a garden for native plants and pollinators. Commuter and day use rates available – call for details.

“Spring Fling” Family Nature Getaway Weekend
From Friday, May 23, 2014
To Monday, May 26, 2014
Cost Adults $210 / Child, Commuter, Day Rates Available
Bring your family and friends to experience the best of what PEEC has to offer. Interpretive hikes, animal presentations, fishing, canoeing, crafts, campfire and more! Includes three nights of lodging and meals from Friday dinner to Monday lunch.

Bird Photography 101
Saturday, May 31, 2014, 10am - 12pm
Cost $15
Learn how to take great pictures of birds! Join Bob Shank, wildlife photographer, for an in-depth look at attracting and photographing birds. Learn how to use a blind, create perches, and choose the right camera gear. Call for details.