



PEEC
Pocono Environmental
Education Center



Spring Equinox 2012

Seasons

A Quarterly Publication to Advance Environmental Literacy



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Taking Care of the Earth- It's More Than Just RECYCLING

Written By Sheri Bone

Earth Day is just around the corner. If people are asked what they do to help take care of the earth, one common answer is, "I recycle."

Recycling is making a new or similar product out of an older one. Bottles, papers, and cans are taken to the recycling center. Glass is melted to make new glass containers. Plastic bottles can be made into different products including clothing and building materials. Old paper is made into new paper products. Cans, whether aluminum or steel, are formed into new metal products. Recycling helps to keep a lot of trash out of the landfills.

Recycling is important but there are two words that come before 'recycle' — Reduce and Reuse. The saying is Reduce, Reuse, Recycle. Those other parts of the recycle phrase must be heeded, too.

REDUCE

For the purposes of taking care of the earth, 'reduce' doesn't mean going on a diet and losing weight. It means to lessen the amount of garbage that is created. How can that be done?

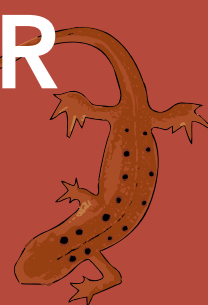
Consumers must look at what is purchased, the packaging that is associated with those products and where that packaging (cardboard, plastic, packaging peanuts, paper, etc.) will go after the item is opened. It means thinking about the item's lifespan. It requires looking and thinking carefully about the whole product — the item, packaging, the whole kit and kaboodle.

More on Taking Care of the Earth- It's More Than Just Recycling on page 6



SALAMANDER EGG SEARCH

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Message from the Executive Director

Jeff Rosalsky



The mild winter and the lack of snow at PEEC this year have left our trails continually clear and beautiful for hiking and bird watching. The trees are budding early, the grasses are greening, and the maple sap began to flow the first week in February. Unfortunately, the lack of snow and frigid temperatures meant neither cross-country skiing nor ice fishing this winter. We have adapted and made the most of what this beautiful national park has to offer.

In 2012, the theme of sustainability and sustainable living is a focus at PEEC. National parks, such as DWGNRA, are often at the center of the resource use equation when examining sustainable

living issues. Food, water, energy, and shelter requirements intersect and often conflict with land conservation priorities. Today, DWGNRA and the Delaware River confront new challenges from Marcellus Shale drilling to the north (which has the potential to effect water quality), new transmission lines which may bisect the Park, as well as the encroachment of the New York and New Jersey suburban housing sprawl at the fringes of the Park.

This spring, a program call Park Break, sponsored by the George Wright Society, the National Park Service, and the U.S. Geological Survey, will bring a group of Ph.D. and Master's students from across the country to PEEC to create a sustainability curriculum for us. The curriculum on sustainable living will target 8th-grade students and focus on the resource choices and tradeoffs we need to make as a society. In keeping with PEEC's interactive approach to teaching in a national park, the curriculum will consist of meaningful hands-on activities that reinforce the lessons of sustainability strategies and lifestyle compromises necessary to maintain the planet for the next generation.

This year is also PEEC's 40th year providing hand-on environmental education to people of all ages and backgrounds, regardless of ability, knowledge, or experience. Over this time, we have grown as an organization and continually refined our mission to keep us relevant and increase the positive impact we have. The new mission statement we adopted last year was a great beginning:

PEEC advances environmental education, sustainable living, and appreciation for nature through hands-on experience in a national park.

The Board and staff have also begun a new strategic planning process envisioning the PEEC of 2022. We have let ourselves dream a bit and focused on what we want PEEC to do, rather than getting mired in the mechanics of implementation. We encourage the input of the avid readers of PEEC Seasons and will keep you apprised of our progress.

The Re-Addressing of PEEC

PEEC has a new address. Rather than RR2, Box 1010, our new address is 538 Emery Road. In an effort to reduce confusion & enable 911 address location, many townships in the area have assessed & re-addressed properties within their borders. We are also hopeful that our new address will assist GPS users as well.

We would like to request that anyone with address changes help us update our records. Please either call (570-828-2319) or email (peec@peec.org) with your new address information.

Red-Tailed Hawk

By Jessica Snyder

The Red-Tailed Hawk is often described as the most commonly seen hawk in North America. Their ability to adapt to a wide variety of prey and habitats is part of the reason they have earned this title. From relentless persecution of predators, including hawks, in the 1920's and 1930's until later laws protecting them helped their population recover, these hawks have managed to survive and even thrive.

The Red-Tailed Hawk can commonly be found in the Delaware Water Gap National Recreation Area. They are most commonly seen along park roads near fields and woodland edges. They can also often be seen soaring above these same areas in search of small mammals and the occasional reptile or bird. One of the best areas to go in search of these predators is along the McDade Trail, which travels along some of the best Red-Tail Hawk habitats on the Pennsylvania side of the park.

When in search of Red-Tailed Hawks, birders will notice these daytime predators are large with browns above and light colors below. Most individuals also have a distinct band of brown across their bellies. One of the most distinct features is the orange-red tail normally found in adult birds, hence their name. However, juvenile birds can easily be distinguished from adults by their bands of brown across the tail and the general lack of red.

One of the best times to observe these magnificent birds of prey is during their fall-



Red Tailed Hawk

time migration, where thousands of Red-Tailed Hawks soar across Pennsylvania, using the wind and mountain ridges as invisible highways. During the fall migration, birds from the north travel all across the United States in search of warmer and more prosperous locations to call home for the winter. However, spring and summer can also be a prized time to view glimpses of these predators of the sky. Spring and summer mark the courting season, where pairs will often be seen swooping at and chasing each other while soaring together in the skies. Once the nesting season has begun, pairs build or refurbish a nest in a suitable location. The next few weeks are marked by incubation,

followed by vigorous feeding of the young. In the end, more than 80% of young will perish before reaching adulthood.

To learn more about the Red-Tailed Hawk and other wildlife stop by PEEC. While you are here, don't forget to check out our bird of prey displays in our lobby and carpet area. For more information about the park trails visit: www.nps.gov/dewa.



Red Tail Hawk's piercing gaze



A smaller Red Tailed Hawk in rest



Red Tailed Hawk perched

“TAKE ME FISHING” and “WOW” Grants Connect Youth and the Outdoors!

By Flo Mauro



PEEC recently received two grants, for its ‘Take Me Fishing’ and ‘WOW’ programs, from the Outdoor Nation, a national organization that

reconnects youth to the outdoors.

The ‘Take Me Fishing’ grant helps fund family fishing programs, an idea that Molly Check, Public Program Manager at PEEC, helped develop to increase youth participation in recreational fishing. The award is made possible by the Recreational Boating & Fishing Foundation (RBFF). The funding supports several programs for PEEC’s visitors to experience the art of fishing in a safe, fun environment. PEEC instructors that trained with the PA Fish and Boat Commission will lead the fishing classes and provide the necessary equipment. Fishing programs open

to the public will be held on May 19, June 2, and September 22, 10am-12pm.

“This is a wonderful opportunity for PEEC to teach the basics of fishing to visiting groups, summer campers, and members of the community,” said Molly Check. “I hope that our public programs will be well-received and full of eager fishermen of all ages.”

The “Women on the Water” grant supports an upcoming summer program developed by PEEC staff members Jessica Snyder and Sheri Bone. WOW most definitely reconnects youth to America’s natural and cultural heritage and totally supports the goals of President Obama’s America’s Great Outdoors initiative to create a 21st century conservation and recreation agenda. The grant was made possible by the National Park Service’s Rivers, Trails and Conservation Assistance Program, the community assistance arm of the National Park Service.

Women on the Water, now in its 3rd consecutive summer, also funded in part by a grant from the National Parks Foundation-America’s Best Ideas program, provides female high school students from urban Philadelphia, New York City, and rural Pennsylvania the opportunity to explore and learn about the Delaware River and its associated riparian ecosystems from its beginnings in upstate New York all the way to the bay in Philadelphia. The young women have many opportunities

to learn about environmental education while paddling and sleeping on the river, volunteering in the National Park visitor centers, and participating in a mentor/ internship program at PEEC.

“I envision these young ladies gaining a better understanding about the outdoor world and its opportunities, as well as having many powerful experiences that they can build upon later in life,” said Jessica Snyder, Summer Camp, Special Events, and Volunteer Coordinator at PEEC.

“We are very proud to turn our young people’s ideas into actions,” said Chris Fanning, executive director of the Outdoor Foundation, the organization that oversees Outdoor Nation. “The Outdoor Nation activation grants will help empower youth to take on their generation’s most significant outdoor challenges by removing barriers to outdoor participation, making the outdoors more relevant, and engaging more young people in outdoor activities.”

Outdoor Nation is an initiative of The Outdoor Foundation and was founded with initial support from The North Face, RBFF, The REI Foundation, The Conservation Fund and the National Park Service. For more information visit: www.outdoornation.org



VOLUNTEERS WANTED!

Spring Clean-Up Volunteer Day

April 1st, 2012 — 9am -12pm

Help with gardening, campus clean-up, and picnic table refurbishing

Earth Day Celebration Festival

April 28th, 2012 — 10am – 4pm

Help with set-up, take-down, crafts, clean-up, and exhibits

National Trails Day Volunteer Day

June 2nd, 2012 — 9am – 12pm

Help is needed for maintaining our trails. Trail clearing, marking, and repair.

Volunteers are also needed for our EcoZone Discovery Room. We are looking for dedicated and enthusiastic volunteers who are passionate about the environment and enjoy working with the public. Volunteer responsibilities could include exhibit supervision, tour guiding, interpretation, and general cleaning.



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Bat Facts and Bat House Tips

By Allison Owczarczak

THE IMPORTANCE OF BATS

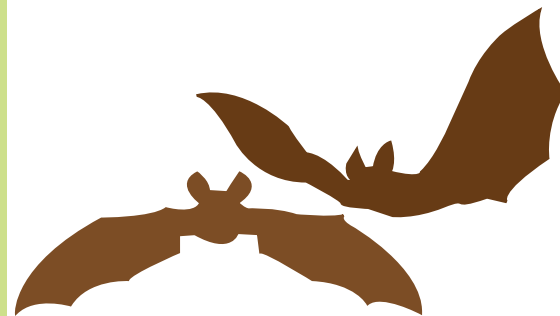
- 70% of bats eat insects that are usually considered as pests by humans such as mosquitoes and gnats. Bats also consume insect pests that cost American farmers an estimated one billion dollars annually. The larvae do considerable damage; they can reduce corn productivity 10 to 13% and force farmers to spray \$15 to \$25 in insecticides per acre (Whitaker, 1993).
- Bats play a vital role in maintaining the balance of nature. And, as consumers of vast numbers of pests, they rank among humanity's most valuable allies.
- A single little brown bat can catch hundreds of mosquito-sized insects an hour; a single big brown bat can eat between 3,000 and 7,000 mosquitoes in a night.
- Bats provide useful aids for medical research, particularly for the blind.
- From 1903 to 1923, at least 100,000 tons of guano (bat droppings) were removed from Carlsbad Caverns alone and sold to fruit growers in California (Tuttle, 1994). Railroad officials estimated that, early this century, they annually transported 65 carloads at 30,000 pounds each from Texas, making bat guano the State's largest mineral export before oil (ibid.). Guano extraction for use as a natural fertilizer is still being extensively used in developing countries and is making a comeback with organic gardeners.
- A single ounce of guano contains billions of bacteria useful in detoxifying industrial wastes, producing natural insecticides, improving detergents, and converting waste by products into alcohol.



BAT HOUSE TIPS

- Bat houses (boxes) are artificial roosting boxes that can be used by bats as nursery colonies in the late spring and for daily roosting during the summer months.
- The orientation of the box with respect to the sun is very important. A box should face south to southeast. By catching the morning sun, a box will heat up sooner in the day and maintain a higher daily temperature. 80°F - 90°F is the optimal range for a bat nursery.
- Larger boxes provide more temperature stability and tight-fitting sides and tops reduce heat loss.
- Tall boxes provide a temperature gradient. Bats can move up and down to find preferred temperatures.
- There should be a variety of crevice spaces to accommodate bats of different sizes.
- Do not use chemically treated lumber to construct a bat box and do not use oil-based paint or varnish on your finished box.
- The best place for your box is less than ¼ miles from a permanent water source. Place boxes about 12-15 feet from the ground, where there is some shelter from the wind.

For free building plans for bat boxes or to purchase one visit: www.eparks.org/wildlife_protection/wildlife_facts/bats/bat_house.asp



Staff Alumni Return to PEEC

Several former PEEC staff members are returning to PEEC on Labor Day Weekend, August 31 through September 3, 2012, to help with a few projects, engage in many 'remember whens', renew some friendships, and remark on how far we've come.

Les "Buzz" Gamble and John "Mac" Mac Farland have been meeting and conversing with Ted Wetzel and Jeff about our needs here at PEEC and their ideas to help us meet those needs. We have come up with two very needy and very do-able projects:

- Re-furbishing the boardwalk and bird blind on the Two Ponds Trail
- Renovating the exterior on Cabin '0' or '7'

Plans for both projects are currently being drawn up, as well as a few more details about the weekend. More information will be available in a few weeks.

If you are a former PEEC staff member and would like more info, would like to volunteer your services, and/or would like to just join us at some point during the weekend, please contact Les Gamble. You can reach him at: buzz.gamble@gmail.com.

Continued from page 1...

**How can the amount of garbage be reduced?
Here are some suggestions:**

- Buy less stuff. Do you really need everything that you buy? Don't get caught up in the advertising hype. Pay attention to how much stuff you have. Some 'wants' are fun, but pay attention to the things that are purchased on a whim and then are not used.
- Buy items that have less packaging. Buying in bulk is one way to accomplish this. I have a friend who buys a HUGE bottle of dish detergent and transfers the soap into a smaller bottle that is easier to handle. He saves in a few ways by doing this. Usually buying in bulk is cheaper and, when the big bottle is finished, there is less waste than there would have been. Then he recycles the big bottle so it will be made into something else.
- Farmers' Markets offer items sans packaging. Bring a cloth bag to transport the purchases. Some 'greener' markets require customers to bring in containers when they are purchasing items like shampoo. Find out about Farmers' Markets in your area.
- Instead of using disposable items for food and water, use cups and plates that can be washed and used again. Most people I know have a personal water bottle. Many of these people buy bottled water, too. Why not use water from the tap (I filter mine.) and use your own water bottle? It saves a lot of money, too! I have friends

and relatives who bring their own lunches to school and work, and they bring the food in reusable containers. It might be more work, but it helps cut down on trash. Every little bit helps.

- Before you head out to the store to replace something that seems to have seen the end of its life, think about it. Is there a way to make it usable again? Can you take it to a repair shop or a friend to have it fixed and/or restored? If it can't be saved as it was, keep reading about ways to reuse it!

REUSE

This part of the 'Reduce-Reuse-Recycle' mantra can be the most fun! Find ways to reuse items before they are tossed!

- If you sew, find creative ways to reuse old clothes, making new ones or different cloth items. Patchwork quilts can be made with squares of old clothes. I made a jean quilt once. Very heavy. Very warm.
- Use newspapers or magazine pages as wrapping paper. Reuse gift bags. Make cloth gift bags.
- Think outside the box when finding ways to reuse an old product. If it is a container, can it be used as a pencil box, a magazine holder, a flowerpot or something for a garden? (I have seen interesting garden features made with plumbing fixtures!)
- Donate your old items that you don't want any longer but are still in good condition to Good Will, the Salvation Army, or other worthy organizations.

- Hold a Yard Sale. Someone else may want what you have. And you can make a little money at the same time.
- Using cloth napkins and cloth bags for shopping – these are ways to reduce AND reuse.

RECYCLE

Once the 'reduce' and 'reuse' options have been exhausted, then it is time to recycle or toss. Also, take advantage of electronics recycling centers and watch for Hazardous Household Waste days. In addition to taking 'regular' products to the recycling center, put food waste in a compost pile.

BUY RECYCLED

The last but definitely not least step in 'reduce, reuse, recycle' is "BUY RECYCLED." It is not said as part of the phrase, but is gaining understanding as being a very important part of the recycling process. Buying recycled products helps to reduce the amount of natural resources that are used in creating brand new ones. The amount of energy used to create them can be less than creating new items, too. Take the time to look for "made with recycled products" information on the package. See how much of the new product was made with those materials. Many products are being made with recycled materials and this step helps to close the circle of recycling.

As Earth Day approaches, many people assess what they are doing to help make the world a cleaner and healthier place to live. Think about all of the parts of the recycling message as you consider ways to add one more piece to what you already do to help Mother Nature. Every little bit helps.



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At Home Aquaponics

By Kristin Heckrote

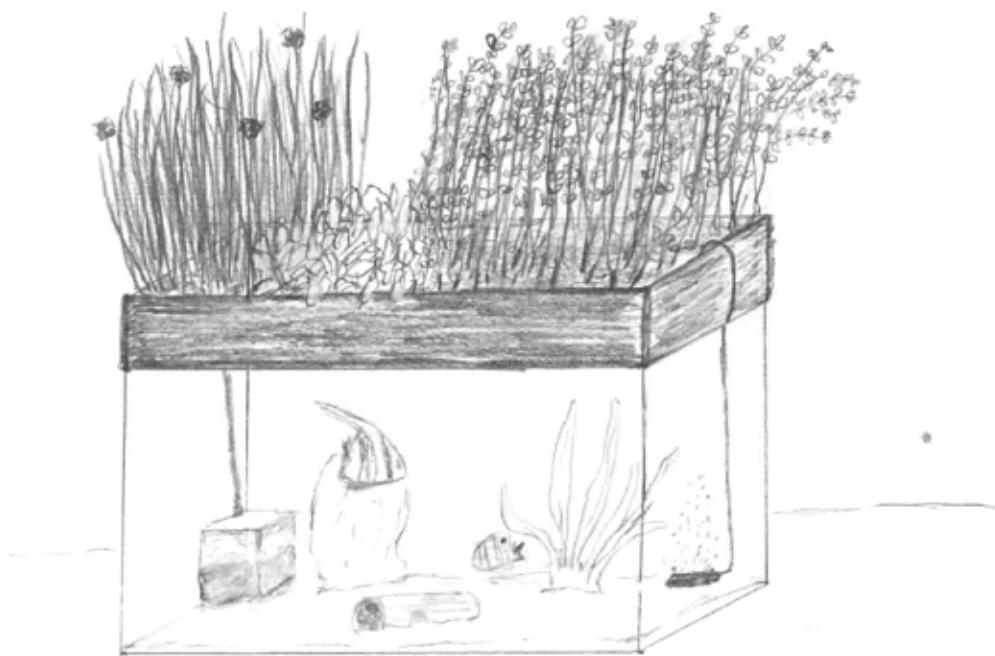
Where does the food that we eat come from? Lately, whether it is on television or on the internet, there is a lot of talk about food sources, buying local and sustainable food. Through all of the information, there is one great food source that stands out, a person's own garden. Growing food allows people to have control over what they grow. Gardeners know what was used to grow the food, where it comes from, and how fresh it is. But here in the Poconos, as well as many other places in the country, winter limits the outdoor growing season. A fun solution to getting fresh, local vegetables all year long is to set up a home aquaponics system.

Hydroponics is the growing of vegetables using a nutrient rich water solution instead of soil. Plants need 20 minerals to grow. These minerals are dissolved in water and combined with aeration to flow around the roots of the plants, providing both food and oxygen so that plants can grow.

Aquaculture is the general term for the growing of aquatic organisms for food. Fish, shellfish, and even some types of aquatic plants can be successfully produced.

As a combination of these two methods, aquaponics uses the water from the aquaculture to provide the nutrients for the hydroponics system. Using either gravity or pump systems, water cycles from the tank where fish are raised, through the bed where the plants are raised, and back into the fish tank. Bacteria in the plant growing bed converts fish waste in the water to usable nutrients for the plants. Systems are designed to form a balanced ecosystem. The high levels of nutrients flowing through the system provide a high crop yield. While most aquaponics systems are for large scale farming, they can also be built around a household fish tank.

Home aquaponics systems can either be purchased as a kit (search online under "home aquaponics system", but buy from a well-established company) or easily built. The systems are divided into several basic parts:



1. Tank where the fish are raised (along with normal fish tank items)
2. Filtering system that removes solids
3. Filtering system containing bacteria that converts ammonia into nitrites then nitrates
4. Growing bed that will hold the plants
5. Medium for the growing bed
6. Pump system that will move the water from the fish tank to the growing bed and back again
7. Light source

It generally takes about 3 months for a system to regulate itself and there may be some fish losses in that time (if your fish are at all valuable, use a separate tank to hold them until the system stabilizes). In putting a system together, there are several important points to keep in mind. In order for the plant to stay healthy, no light should reach plant roots. Plants need both nutrition and oxygen to grow successfully. Depending on the type of water that is used for the system, calcium, potassium, and iron may need to be supplemented. Oxygen levels should be maintained at 5 mg/l dissolved O₂ to water in an aerated system. The nutrient and oxygen flow needs to be distributed evenly through all parts of the growing bed, so that all plants are in the water in order to receive nutrition and maintain plant health. The pH of the water should stay about 7(neutral). If the pH is too

high, nutrients precipitate out of solution, preventing their absorption by the plants. If the pH gets too low, ammonia will build up in the tank, causing fish losses.

Using aquaponics in your home is a great food resource for many reasons. Pesticides or herbicides are not really an issue, allowing crops to be more organic. With very little evaporation occurring, less water is actually used when compared to what is needed for a regular garden to grow the same amount of plants. Having an indoor system easily controls growth variables like temperature and pH, allowing vegetables to be grown anywhere and anytime. The rich mineral content of the water provides a good nutrition base for plant growth, which helps plants both to grow faster and to produce a larger food harvest. While there are others, one last, great benefit needs to be mentioned. There is no weeding.

If you don't already have a fish tank set up, find an old one at a yard sale (reuse it), buy some guppies, and enjoy. Here are a few sites to help you get started:

www.aquaponicshelp.com/home-aquaponics

home.howstuffworks.com/lawn-garden/professional-landscaping/alternative-methods/aquaponics3.htm

aquaponics.com/articles/buildminiaquaponics.php

The Birds of Spring

By Molly Check

The beginning of spring is an exciting time of year for those who notice, appreciate, and love the cycles of Nature. So much is going on that I find it hard to keep track of it all. The quiet of winter is over and sounds fill the air. The thawing earth smells delicious and tiny green plants begin another year of growth.

It's different for everyone, but we all have something that symbolizes spring for us. You see it, or smell it, or hear it, and you just know that the cold, quiet grip of winter has let go for spring. My family's tradition is to watch for the first robins. My aunt tells a story of her childhood – her mother taught them to “tap robins” when they saw the first returning migrants in the spring. It's a simple movement that includes hitting your fist and palm together, but it does its purpose of marking the moment. Yesterday, there were no robins. Now, they are back. Taking time to stop and recognize the shift that has just happened is important, and a source of great joy. Spring has sprung!

American robins are in the group of migrants that head south for the winter, but only by 100-1000 miles. Since they have not left the country, they arrive back in March, well before the neotropical migrants that journey to Central and South America. Joining the robins as the harbingers of spring are the blackbirds, bluebirds, and woodcocks, among others.



Red-Winged Blackbird

Red-winged blackbirds arrive back from the southern fields and choose their territories among the wetlands and marshes of the Poconos. The males arrive first and set up their defenses around their chosen area, in the hopes of attracting several females to share his territory. Their call is invigorating as it travels across the chilly spring wetlands, and their bright yellow and red wing patches are beautiful to see among the dry muted colors of a cattail swamp.

Adding to the color of spring are the eastern bluebirds. My mother always calls me when she sees the first one of the season, and we compare the arrivals between western PA and the Poconos. We have several bird houses on the PEEC campus that provide valuable nesting sites for these birds. I usually see the first ones perched on the posts of the volleyball court, near one of the bird houses that's nestled between the swamp and the field. Their bright blue backs and rusty red bellies make me smile every time.

The woodcock is another bird that serves as a reminder that spring is here. The interesting habits of the woodcock are always fascinating to watch, but it's the first one of the spring that can make everyone in our office jump up and run outside when someone has “just heard the first woodcock peenting in the field!” This modest looking bird has excellent camouflage for the forest floor, where it spends a lot of its time. The dull mix of brown, black, and gray allows woodcocks to become almost invisible as they go about their business, feeding on earthworms, insects, and seeds. This clumsy looking bird is practically neck-less, with large eyes that search for predators. Although woodcocks have a goofy appearance, I think their courtship display is one of the most beautiful things you can see on an early spring evening. The male woodcock will strut around their chosen clearing or field, making their characteristic “peent” noise, before they take off like a bottle rock into the sky. They spiral upwards, twittering loudly, for a couple hundred feet, before diving back down towards the ground. Since they usually land close to the spot that they take off from, I like to sneak closer and closer with each upwards spiral, and see just how close I can get to this fascinating display.

Springtime is a season of movement. The



Bluebird

robins, bluebirds, blackbirds, and woodcocks aren't the only birds moving north. Throughout the month of March, thousands of waterfowl travel through our area, stopping at swamps, ponds, and lakes to feed and rest. Many of them are headed to a destination further north, but the spring season provides us with the opportunity to watch them as they parade by. Canada geese, wood ducks, black ducks, and green-winged teals are a few of the species that travel through our area.

The mass migration of the waterfowl is mirrored by the raptor migration. From March to June, thousands of raptors begin their northward migrations and can be seen soaring high in the sky. Hawks, eagles, falcons and vultures all take advantage of thermals – rising currents of warm air – to travel great distances while expending minimal energy.

All of this movement is invigorating to watch. The birds that arrive in early spring, with their bright colors and songs, are here to remind us that another cycle has begun. Life is continuing on, and you are invited to join in. So grab some binoculars, put on a warm coat, and head outside to see what you can see.

Get Your (Garden) Party Started!

By Sheri Bone

Springtime conjures up images of warm breezes, daffodils and tulips, and animals awakening from their winter sleep. But when is the best time to begin a vegetable garden? Is March 21st too early? When should the gardening begin?

According to my dad, who is the person I hold responsible for my love of all that is related to the environment, gardening is an activity that continues year-round. Summer is the time for gardens to grow and gardeners to begin harvesting and to continue being vigilant with maintenance. In autumn, the harvest continues, and more cleaning/maintenance occurs. When winter-time chill and snow is around, that is the planning time! Journals from the past few years are perused so that new garden maps and plans can be created. New recipes are gathered in anticipation of the coming year's bounty. And in the spring, that is when the magic of a garden begins.

Early Spring Planting

Even though my dad passed more than a decade ago, I can clearly hear him talking about planting peas and onion sets on his birthday – March 17. “Too early?” you ask. Not really. Both peas and onions are in the category of being ‘cold hardy’ vegetables. They grow well in cool weather and can handle the occasional cold snap that happens in early spring. You just need to be able to work the soil. It should not be snow covered nor should it be icy or too wet. When the soil conditions are right, you can plant the following vegetables, in addition to peas and onions, now:

Members of the cabbage family: Cabbage, Broccoli, Brussels Sprouts and Kale are usually started indoors in mid to late winter, and transplanted in early spring. They prefer the cool temperatures of spring and fall. Start them now both outside and indoors if you didn't start some seeds inside in January. Use your garden journal to take note of which group did better – those started as seed sown directly in the soil or those that were started indoors.

Lettuces and spinach can be planted as soon as the soil can be worked. They, too, prefer cool temperatures, and if the days get too hot too quickly, you will see them bolt in May or June. They can be sown again in mid-summer for a fall crop.

Carrot seeds can be planted now, and you should plant them near the onions. They are good ‘companion plants’ (More about companion planting at the end of this article.)

Leeks are another good vegetable to plant now and, if you haven't started them yet, you should start them indoors so that you have little seedlings to put into the ground when they are about 2 – 3 inches tall. There is nothing like good potato leek soup in the fall made from the potatoes and leeks grown in your own garden!

Starting Seedlings

Not all vegetables should be planted in the early spring. Tomatoes, string beans, and members of the squash family are not hardy. They do

not like cool temperatures. But they like long growing seasons, so it is important to start them indoors.

If you don't want to spend a lot of money for your plants, start your own from seed. When you purchase seeds, it is important to read the packets to find out if the seeds are disease resistant. Some seeds are treated with chemicals and that will be noted on the seed packet. It is your choice if you those with chemicals or not. If you plan to grow truly ‘organic’ vegetables, stay away from treated seeds.

Starting seeds indoors can be an expensive endeavor or it can be one that uses relatively little of your monetary resources. There are starter kits that can be purchased and all that is needed is a sunny window and occasional watering. On a more frugal note, I have used egg cartons and cut-down milk cartons with drainage holes punched into the bottoms as my starter pots. One thing you will need to have is healthy potting soil. Don't plan to use soil from your garden to start the seeds, unless you have added enough compost to make it airy and healthy. After I plant my seeds, I usually cover the starter pots with plastic wrap to help hold in the moisture and heat. Once the plants start to poke out of the soil, remove the plastic wrap. Monitor and water as needed.

Grow lights or sunny window? That is your choice. Before my father passed away, his indoor planting equipment could rival some small greenhouse establishments with potting tables, grow lights, and starter pots. I usually find a sunny window and put my starter pots there, turning them daily so the plants don't get spindly. Of course, his seedlings grew straight and sturdy while mine usually bend over, but with good care, mine are as healthy as his.

Before you actually put your seedlings outdoors, they should be ‘hardened off.’ Set your starter pots outdoors on nice days and if the nights are not too cold, let the seedlings stay outdoors overnight for a couple of days. Of course, the time of year you can do this depends on the plant. ‘Cold hardy’ plants can be hardened off in the early spring, tomato plants just before you set them in the garden in late May or early June.



Planning Garden Space

Just as the experienced gardener does, you will want to plan your garden area. How big a space will you need? My advice is **START SMALL!** Only plant vegetables that you know you will eat! Talk with neighbors or family members who have gardened to find out what has worked best for them. While you think you may want to transform your whole yard into a garden so that you can provide your family with the most nutritious meals you can, maintaining a garden can be overwhelming until you develop a system. And by 'maintaining' I mean weeding, hoeing, harvesting, and weeding some more.

So, how big and where should your garden be? Creating a garden space that allows you to reach in to pull weeds and harvest without stepping on the soil around the plants is an important goal. It needs to be in a sunny area and have good drainage.

Develop garden beds that are about 3-4 feet wide and 8-10 feet long. If your soil is healthy, you will realize an abundant harvest in a small space. Healthy soil is soil that has good nutrients for plant growth. Any soil can be made healthier with the addition of organic material which is a fancy way of saying 'compost.' Clay soil or sandy soil – they both become better garden soil with compost. If you haven't begun composting your leftover kitchen scraps, leaves and grass clippings, now is a good time to begin. There are many good publications about composting. It can be a labor intensive process, or you can be a lazy composter like I am and let Mother Nature do the decomposition. The more work you do, though, the sooner the compost is ready to use.

Companion Planting

Companion planting is a way to utilize the properties of certain plants to help repel insects and disease that might attack another. As mentioned earlier, carrots and onions are good companions. Potatoes and green beans are other good companions. Do not plant tomatoes and potatoes together, and be sure not to plant them where the other was for 3 years. How does a gardener know where they were planted 3 years ago? Good gardeners keep a detailed garden journal and garden map. And gardeners are always checking out resources to make their gardens better, whether those resources are composting pamphlets, companion planting books, or workshops about getting more harvest with less work!

Whether you plant your own seeds or purchase seedlings, whether you prefer flowers or vegetables, spring is a wonderful time for gardening because it is the time to start planning and preparing for the bounty of the earth. Let your garden party begin!



SPRING PROGRAMS AND GETAWAYS 2009

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

TO REGISTER:

Call PEEC at 570-828-2319
with credit card information available
Or download application: www.peec.org/pdfs/PEECProgramRegistration.pdf

MARCH

Boy Scout Weekend

March 24–25, 2012 | 9am registration

Cost: \$99 scout / \$40 adult

Attention all Webelos and Boy Scouts! Join us at PEEC for a weekend of badge work. The weekend includes a night of lodging and four meals.

Plan your Garden Day

Saturday, March 31, 2012 | 1–3pm

Cost: \$5 members / \$10 non-members

Join us for a discussion on spring gardening. Learn how, what, and when to plant. This is a great forum for sharing experiences and learning some tips.

APRIL

Volunteer Day – Spring Cleaning

Sunday, April 1, 2012 | 9am–12pm

“A single act of kindness throws out roots in all directions” – Lawrence G. Lovasik

Help us clean up after winter and prepare

for the spring. Hope to see you there!

Refreshments provided.

Sunday for Singles

Sunday, April 1, 2012 | 1–3pm

Cost: Free

This monthly hike is all about meeting new people and exploring nature together.

Spring Waterfall Tour

Saturday, April 7, 2012 | 1–3pm

Cost: \$20

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!

Salamander Egg Search

Saturday, April 14, 2012 | 1–3pm

Cost: \$5

Salamanders are stirring in the woods! Join us as we explore nearby breeding pools for salamander egg masses. We'll provide nets and collection jars for up-close study.

Fish Fry

Saturday, April 14, 2012 | 5–7pm

Cost: \$12 adult / \$8 child

Celebrate the opening day of fishing season at our 3rd annual community fish fry! Enjoy a delicious fish dinner with your family and friends.

Spring Peeper Search

Sunday, April 15, 2012 | 7–9pm

Cost: \$5

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!

Tumbling Waters Hike

Saturday, April 21, 2012 | 1–4pm

Cost: Free

This guided hike features a scenic overlook and two waterfalls. This three mile loop has a moderate difficulty level.

Sunday for Singles – off campus hike

Sunday, April 22, 2012 | 1–3pm

Cost: \$5

This monthly hike is all about meeting new people and exploring nature together.

This off-campus hike will visit a local trail. Transportation is provided - please call to reserve a seat in the van.

Earth Day Celebration

Saturday, April 28, 2012 | 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! Pre-registration is NOT required.

MAY

Drum Making Workshop

May 4–5, 2012

Cost: \$250 / \$200 commuter rate

Master drummer, Maxwell Kofi Donkor, will lead you through the steps of making your own drum, from selecting the materials to heading the shells. Create your own drum and bring it to a Moonlit Drumming program in the summer!

Introduction to Knitting

May 4–6, 2012

Cost: \$195 / \$150 commuter rate

Join Patti Shreiner for a relaxing weekend in the Poconos. Beginners are welcome – learn how to knit a scarf or tea cozy! Advanced knitters can knit a lace shawl or work on their own project. Includes two nights of lodging & six meals.

Native Plant Sale

Saturday, May 5, 2012 | 9am–4pm

Choose from a variety of native and deer resistant flowers, shrubs and grasses to beautify your yard. *Pre-sale for PEEC members on Friday, May 4, from 6–8pm.*

Wildflower Walk

Sunday, May 6, 2012 | 9am–12pm

Cost: Free

Celebrate the blossoming of spring with a walk in the woods. Bring a bottle of water and a camera for some pictures.

Warbler Weekend

May 11–13, 2012

Cost: \$195 – includes two nights of lodging and six meals

Enjoy guided hikes with experienced field leaders as they identify birds by sight, sound and habitat.



*Nature & Wildlife Photography Weekend
May 11–13, 2012*

Cost: \$250 / \$200 commuter rate

Join Len Rue, a widely published wildlife photographer, as he presents a wealth of information on the basics of photography as well as tips on photographing close-ups of flowers, insects, reptiles, amphibians, birds, and mammals. This workshop includes informational sessions and field trips to practice photography skills.

Introduction to Fishing

Saturday, May 19, 2012 | 10am–12pm

Cost: \$10

Learn the basics of fishing and then try your luck on our ponds. We provide all of the equipment. Supervised children only, please. No fishing licenses required. Spaces limited. Call to reserve your spot!

Sunday for Singles

Sunday, May 20, 2012 | 1–4pm

Hike our Tumbling Waters trail, a three mile hike with a moderate difficulty rating.

“Spring Fling” Family Nature Getaway Weekend

Memorial Day: May 25–28, 2012

Cost: Adults \$205 / 25% off ages 7–10

/ 50% off ages 4–6 / free under 3 /

commuter and day rates available

— call for details

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 nine meals.

Nature Photo Contest at PEEC

Enter our Photo Contest to win a PEEC Sweatshirt!

Please read the rules below & send submissions to peec@peec.org with the subject line “Photo Contest”.

- Photos must be of elements of nature. If any people appear in the photo, the entrant is responsible for obtaining, prior to submission, any releases or consents necessary for the exhibition of the photo.
- Photos must be the work of amateur photographers.
- Photos must be in a digital format (JPEG) and must be 5 megabytes or smaller.
- No more than 2 entries per person, please.
- The deadline for entries is April 30, 2012.
- All photos will be judged without photographer names attached.
- PEEC staff will choose the top 5 entries.
- The top 5 entries will be displayed in the PEEC lobby from May 15 – May 30, 2012. Visitors to PEEC will have the opportunity to vote for the winning photo during that time.
- Votes will be counted and the winner will be contacted on June 1, 2012.
- The winning photo will be displayed in the PEEC lobby and will be included in the summer issue of the newsletter.
- Photos submitted will become the property of PEEC and may be used in future marketing materials.

We look forward to seeing your entries!



17th ANNUAL

earth day

CELEBRATION



HELP US CELEBRATE OUR **EARTH!**

\$5 PER CAR
Entrance to all programs and activities

Hands-On Learning Stations, Guided Nature Walks,
Local Green Displays, Live Animals, Conservation
Exhibits, Vendors, Crafts,
Food, Music & Games

10AM – 4PM
SATURDAY
APRIL 28, 2012



SUNDAY FOR SINGLES

SUNDAY, APRIL 1, 2012 • 1 – 3PM



Call now to make your **RESERVATIONS**
mcheck@peec.org • www.peec.org

CALL PEEC
570.828.2319

FREE

PEEC is close to home,
where learning comes naturally!

Kids Page

MONARCH BUTTERFLIES

1. fly to Florida along coast of Texas and on into Angangueo, Mexico, for winter, up to 2500 miles.
2. follow the same path every year.
3. survive because they are toxic.
4. have bright colors to warn predators about the toxins.
5. shed their skin four times within two weeks of hatching as caterpillars.
6. are capable of making a trans-Atlantic crossing.
7. at two weeks old, weigh 3000 times as much as when they were born.

RED SPOTTED NEWTS

1. are toxic.
2. are voiceless.
3. have black pads at the bottom of the toes on their hind feet if they are male.
4. live for over 7 years.
5. are born into water.
6. have a homing device.

BEAVERS

1. are one of the largest rodents.
2. can close both their ears and nose.
3. have front teeth that never stop growing.
4. build lodges that can only be reached by underwater entrances.
5. can remain submerged for up to 15 minutes.
6. are second only to humans in the ability to manipulate and change their environment.

COMMUNITY FISH FRY

SATURDAY, APRIL 14, 2012 ♻️ 5-7PM

Reel in
the Fishing Season

*PEEC is close to home,
where learning comes naturally!*



**CALL
PEEC**

570.828.2319

\$12 PER
ADULT

\$8 PER
CHILD

WANTED

25 new (and/or used in excellent condition) inexpensive digital cameras

- 7-10 megapixels
- 3-4X optical zoom
- Similar to the:
Canon Power Shot
A1200
Vivitar V25
Kodak Easyshare
C143, C183, or C1505.

The challenge: To date 15 schools with almost 450 students participate in the "Digital Scavenger Hunt". We would like that number to increase because it's a fun way to reinforce learning, but have found that a number of schools hesitate because of the need to provide cameras.

The answer: Provide the cameras!

PEEC's 'Digital Scavenger Hunt' promotes and reinforces learning the identity of things in the natural world and helps visitors explore and become more comfortable in an outdoor setting. The "Digital Scavenger Hunt" is used to introduce visitors to the identity of the white pine tree, edge habitat, or as a review of the different concepts covered in their classes.

Contact: Kristen Heckrote, kheckrote@peec.org, to donate a camera.



SPRING PEEPEE SEARCH

SUNDAY, APRIL 15, 2012 • 7-9PM

Open Your Peepers
for

Peepers!

*PEEC is close to home,
where learning comes naturally!*

**CALL
PEEC**

570.828.2319

\$5 PER
PERSON



TUMBLING WATERS HIKE

SATURDAY, APRIL 21, 2012 • 1 – 4PM

IT'S A *Shore* THING!

 11th ANNUAL
Golf
Outing



Save the Date! **MONDAY, JUNE 18, 2012**