



Spring 2015

THE FROGHORN

~ SILVER LAKE NATURE CENTER ~

Friends of Silver Lake Nature Center *Mission Statement*

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The Silver Lake Nature Center creates opportunities for the natural habitats of Silver Lake to inspire students of all ages and abilities with the wonder and beauty of this living treasure. Through education, recreation, research and advocacy, we attract new friends to Silver Lake and its watershed, and together preserve this priceless heritage for generations to come.

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Visit us on the Web!
www.silverlakenaturecenter.org

The Animals are Back!



If you have not been to the Nature Center Building recently, you may not be aware that the renovations are done and the snakes and turtles reside in their new homes. Back in February 2014, when the Center lost power for an extended time, all of the animals were relocated to the intern cottage. They spent more than a year in their temporary homes until the completion of the building renovation

and the new displays.

No longer contained in small aquariums, our aquatic turtles—a red-bellied turtle and a red-eared slider—have huge tanks where they can swim, exercise, and bask under the warm lights. A Plexiglas bubble in the middle of their new habitat allows our nimble visitors the opportunity to view the turtles from inside the aquarium. The habitats for the snakes also provide a lot more space for them to stretch out and move about. Each snake has a hiding place to visit if they feel antisocial. The changes make our exhibits safe and comfortable for our animals and our visitors.



The new displays also offer an opportunity for visitors like you to contribute. The cabinet that shows off the species found at the Center has an empty table designated for items brought by visitors to share with everyone—make your contribution.

Stop by and view the changes. We know you will like them! Consider “adopting” one of the animals. By adopting an animal, you provide us with some financial support to keep them well fed and to maintain their health. Even though she knew the turtle would not be seen by the public, Marie Roarty adopted the red-eared slider in memory of her father, Nick Boruch through June 30, 2015. Nancy Bartle adopted the pine-bull snake through 2015. Consider adopting one of the other display animals!

The *FROGHORN* is published quarterly for the Silver Lake Nature Center, a facility of the Bucks County Department of Parks & Recreation, by the Friends of Silver Lake Nature Center.

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www.silverlakenaturecenter.org

Open: Tuesday - Saturday, 10 am - 5 pm
 Sunday, 12 pm - 5 pm
 Closed: Monday
The Bucks County Department of Parks and Recreation does not discriminate on the basis of disabilities in its programs,

Solar Energy for the Earthship

Early on we decided that our Earthship, besides being independent of fossil fuels for heating and cooling, would utilize photovoltaic panels for lighting and appliance needs. Mark Bortman from Exact Solar graciously decided to do the work for us, and Don West donated funds to purchase the panels.

Exact Solar recently was awarded the Best of Philly 2014 for solar panel installation. In an article Mark wrote for the Yardley Voice, "Something is happening now that I never could have imagined. As recently as a couple of years ago, it seemed that solar panels were the domain of the rich and NASA. That is not the case anymore. Solar panels have become mainstream, so mainstream that there's now a category for Best Solar Panel Installations in the Best of Philly annual awards.

"Prices have dropped considerably (by 50% in under four years) and the number of solar customers continues its upswing... solar power is now a primary source of new electricity capacity, the second largest in 2013. Installations were up 79% in the first quarter of 2014 over the first quarter of 2013. There's now enough solar installed in the US to power three million homes!"

Mark goes on to say, "The solar industry has created more than 3000 jobs in PA and 6500 jobs in NJ. In addition, solar helps lower conventional electric prices by reducing peak demand and avoiding the costs of additional infrastructure from centralized power plants.

"At only half of a percent of U.S. electricity capacity, it would be hard for anyone to call solar "mainstream." However, the benefits of solar are substantial and growing. We should make more people aware of that so that they and the world can benefit from going solar."

Check out Exact Solar's [website](#) for lots of helpful and interesting solar energy information. If you have any questions, contact Mark directly: 267-825-0918 or mark@exactsolar.com Thanks Mark, for being a local leader in the field, and thanks Don, for helping to make solar energy a reality for our Earthship!

Congratulations on Her Retirement!

Our long-time administrative assistant (13 years) and Silver Lake educator and volunteer (another 10 years), Carolyn Girgenti has retired. Thanks, Carolyn, for your dedication to the Nature Center. We will be honoring Carolyn at this year's annual Volunteer Recognition on March 14th. Come on out to wish her well as she begins to find time for all those things that a full time job gets in the way of.

Climate Change – Do We Make a Difference?

by Robert Mercer

Anyone who reads my columns knows that I am convinced that the changing climate is significantly the result of human activity—anthropogenic climate change. It is fair to ask that I present my reasoning. My thinking can be tracked by exploring past issues of this newsletter. All of the referenced articles can be found on our website. I want to start with the question asked in an earlier article, [Is Climate Change Real? – 11/4/11](#) which explored research done that convinced many that climate change is real. The answer was, “yes.”

The question left unanswered was, “is this change anthropogenic?”

For millennia, humans lived off the land. They only had their bodies or the power of a few domestic animals like horses or oxen. For heat or fuel, they used wood, dung, or other readily available combustibles. But, trees remove carbon from the air and store it in wood. Trees can easily cycle that carbon.

Only about 4500 years ago did humans begin to use coal, a fuel which burns hotter than wood. Demand rose as supplies of wood diminished. Still, the use was small enough for natural systems to absorb.

Oil tracks a similar pattern. First used in China about 1700 years ago, it only became a major source of energy starting in the mid-1800's. Coal, oil, and gas are fossil fuels.

It was the Industrial Revolution that promoted the widespread burning of fossil fuels and our current standard of living. How would your life be different without the luxury of fossil fuels? A musing, [Addiction](#)

[12/12/10](#), touches on this slightly.

Fossil fuels accumulated their carbon reserves over millions of lifetimes. For millions of years, geologic processes slowly removed carbon from the atmosphere until atmospheric carbon reached the level we now enjoy, where the temperature of the planet is something our bodies can tolerate. As we release this ancient carbon back into the atmosphere, the natural system cannot keep up in the struggle to remove the excess carbon.

My musing, [It Is All a Matter of Scale – 2/6/11](#) detailed how much carbon is released by humans and compared that to how much volcanoes release. We far exceed the natural systems.

[Another Hot Summer – 8-15-2012](#) explored a comment by a visitor that we humans could not have as much impact as an atomic bomb. The energy we release is comparable to the largest nuclear device ever

exploded (detonated every 17 hours). While this is not carbon, it does demonstrate the scale of human impact.

As I poked around, I became convinced the cumulative impact of each and every person on earth can alter the climate just as the abundance of trees in the rainforests or the amount of microscopic plants in the ocean makes a difference.

With that understanding, I recognize that everything I do to reduce the release of carbon also makes a difference. Yes, it may be two steps towards disaster and one step back, but I promise to try to take the one step back every chance I can. How about you? A more detailed version with links to the other articles is available on our website.



Scout Project 2014

by Robert Mercer

Each year we are fortunate to have several young men choose to do a major volunteer project at the Nature Center. These fellows are working towards the rank of Eagle Scout. Eagle projects require a significant commitment of time and energy.

Mike Burns rebuilt a section of boardwalk, making it a little wider and easier to negotiate with our tractor and trailer. He also repaired some damage that walkway incurred during the flooding in 2012. He provided most of the material.

Brian Liptrot tackled a major project in building the band shell for the amphitheater. Brian provided almost all of the material and all of the labor. He worked with the township to have the structure meet building code and to secure the building permits.

Dakota Archer built a number of bat boxes and placed them around the community including some here at the Silver Lake Nature Center. A bat box provides a safe place for bats to spend the summer. In the winter they move to deeper caves. Bats, currently under attack by the white-nose fungus, need all the help they can get.

Brody Salzman's project, while a major effort, is something you may never notice. Brody built a hibernacula for snakes and other reptiles. Snakes need a place below the frost line where they can overwinter without fear of freezing. This space needs open pockets. As a result, Brody's project is underground where you will not see it, but the snakes of Silver Lake will certainly find it and appreciate it.

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County of Bucks
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Please thank our Business Partners whenever you can!

Educational Income Tax Credit (EITC)

Friends of Silver Lake Nature Center is now recognized as an Education Improvement Organization by the Department of Community and Economic Development.

What is an Education Improvement Organization?

An organization that has been recognized and approved by the DCED as providing 'innovative educational programs'

What is EITC?

A program unique to Pennsylvania. Tax credits equal to 75 percent of an eligible business' contribution up to a maximum of \$750,000 per taxable year. Can be increased to 90 percent of the contribution, if business agrees to provide same amount for two consecutive tax years.

Why should a business participate?

It reduces tax liability while supporting the local communities and generating good will.

Which businesses are eligible?

Businesses authorized to do business in Pennsylvania who are subject to one or more of the following:

- Corporate Net Income Tax
- Insurance Premiums Tax
- Capital Stock Franchise Tax
- Mutual Thrift Institution Tax
- Bank and Trust Company Shares Tax
- Insurance Company Law of 1921
- Title Insurance Companies Shares Tax
- Personal Income Tax of S corporation shareholders or Partnership partners

How to apply?

For a business application guide and a link to the electronic application, go to

<http://www.newpa.com/>.

for the Kids

Baby & Me Nature Walks

Who: Parent(s) and/or caregiver(s) with their child or children of all ages

What: Nature discovery and exercise walk on our trails (stroller & carrier accessible); see what lives in our various habitats and what they do during the different seasons. After the walk, we gather for a "BYOL" (Bring your own Lunch) in our covered picnic pavilion with access to our natural outdoor Kids Play Area.

When: Fridays, March 13, April 10, and May 15 from 10am to 12pm

Afterschool Nature Camp

6 through 12 year olds from 3:30 until 5:00 pm

\$60 members/\$80 non-members per season

Spring: 10 Thursdays from Mar. 5 to May 14

Fall: 10 Thursdays from Sept. 17 to Nov. 19

Details: Each session we will offer a healthy snack option, then we will be exploring the nature preserve, learning about the habitats and creatures, playing games, learning survival skills, journaling, and having fun, all while making new friends and memories while being outside!

Calling All Scouts!!

Silver Lake Nature Center offers a variety of Girl and Boy Scout programs!

We cover all kinds of Girl and Boy Scout programs, including Flag Retirement Ceremonies, Badges, Journeys, Service and Volunteer Projects, and more!

Scouts can also enjoy night-time programs, such as Night Hikes and Sleepovers! Both programs include an indoor presentation focusing on nocturnal life, a walk on the trails (without flashlights), a campfire, marshmallow roast, storytelling, and a sing-a-long.

We will also work with you to suit the needs of your group with such options as fire building, fire safety, skits, and awards. For more information on these and all of our Scout program offerings, contact PattiAnn at the Center at palynn@co.bucks.pa.us or 267-880-5022.

Come Celebrate at Silver Lake!



We offer a variety of options for children of all ages and grown-ups: birthday parties, bridal showers, baby showers, anniversaries, meetings, and other important events.

Our regular two-hour party includes: one theme-related party craft; nature walk with theme-related activities (indoor activities in case of bad weather); and use of building, auditorium or pavilion, kitchen, rest-rooms, tables, and chairs.

Fee per child: \$9 member

\$12 non-member

Fee includes one free adult per child. Minimum: 10

Some of our additional options include night hikes, campfires, and kayak trips. We'll work with you to find the right program for your event. Fees vary according to type of party.

For pricing info, visit

www.silverlakenaturecenter.org or contact PattiAnn at 267-880-5022 or palynn@co.bucks.pa.us.

Kids & Nature Returns on Thursday, April 2nd and/or Friday, April 3rd!!

Six to ten-year olds are invited to be *Nature Explorers* during their spring break!

Nature Explorers will get to investigate the trails, play games, make a craft, visit with our animals, and more! Activities will be held both outdoors and indoors.

Light snacks will be provided, but please be sure to bring a lunch and a bottle of water. Sign up for one or both days!

Fee per person per day: \$35 member; \$40 non-member

Registration and payment are due by Friday, March 27th. Please call 215-785-1177 or email palynn@co.bucks.pa.us to register.



Keystone Biology Workshop

Thank you!



Silver Lake Nature Center held its first Biology Keystone Workshop on Thursday, January 22, 2015.

Since all Pennsylvania Students must pass the Keystone Biology Exam to graduate, teachers must find ways to prepare their students to answer the more difficult level of questions that comprise the exam. The Workshop connected several Assessment Anchors with hands-on Inquiry-oriented activities at Silver Lake Nature Center, a unique natural and local resource.

The day started with a brief review of food pyramids, communities and bio-intensification (pesticides increasing as they move up through the food chain) as well as energy loss (10% is carried on to the next consummation level) in preparation for a walk on the grounds to see these principles in actuality. The walk concluded with an Earthship tour and an explanation of the science concepts behind the building.

After a short break, the participants were introduced to five stations of activities to support the outdoor activities and the Anchors which supported the learning of the principles involved. The stations included leaf/tree identification using QR-codes on a cell phone, websites/information about Genetically Modified Organisms (GMO), growing micro-organisms in hay or grass infusion (with samples provided to the teachers), comparison of various animals (their form and function with discussion of evolutionary adaptation) and abiotic/biotic comparisons. Lunch was filled with informal discussions.

After lunch there was a short presentation on the Keystone Exams and the use of Webb's Depth of Knowledge and how to write the higher order thinking type of questions that are found on the Keystone Exam. Several handouts to facilitate question writing were offered, and practice in identifying types of questions was completed. Participants then broke into several groups, and each group wrote two higher order level questions based on the Anchors that were covered on the walk and at the stations. The participants, as a group, then looked at the questions and discussed them. The day concluded with an evaluation of the experience and activities which will be utilized to improve the presentation.

All the participants provided positive feedback on the experience. One biology teacher commented that the workshop provided the connection he was missing from what he knew needed to be done to how to achieve it. He would now be able to help his students to be better able to handle the different types/levels of questions on the Keystone Biology Exam so they would earn "proficient" and graduate from High School. The goals of the Workshop were definitely met!

- All the volunteers, vendors, members, and FOSL Board members who helped make our Nature Fest a success.
- Bonnie O'Boyle for keeping our Gift Shop well stocked and for hosting the special private sale to benefit SLNC.
- Animal caregivers and Greeters, who have waited patiently while the animals have been off site.
- Pat Rossi for creating the color fliers of our programs and events and for keeping the bulletin board at the lake up-to-date.
- Everyone who has helped with our recent mailings, including invitations, program schedules, the newsletter, and many more mailings: Diana Bullard, Marie Wojcik, Glenn Rodkey, Margaret McGinnis, Jeanne Winerip, Mary Lou Boyer, Joan Foley, John McGrath, Mary Ida Reitz and Elaine Gramlich.
- All our volunteers who show up for our Volunteer Work Day on the first Saturday each month. You're terrific!
- Hope Sauppe, Jeanne Stemmer, Glenn Rodkey, Sr., Len Jankowski, and Joan Foley - and everyone else - for donations of food for our Volunteer Work Days.
- Volunteers who helped with our Bird Seed Sales: Mary Beth Hartmann, Jeanne Stemmer, Kevin Sauppe, and Sue Grayeski.
- All those who came to our annual Holiday Potluck Dinner. Your food and friendship is delightful!
- All our birders for keeping us aware of the birds in our area.
- The over 200 volunteers who put in almost 10,000 hours of volunteer service, worth an estimated \$72,000 in 2014!
- The 2014 Century Club: Thank you to all 27 of the volunteers who put in over 100 hours of volunteer service last year!

Welcome Dan Karlberg!

As the Administrative Assistant to the Silver Lake Nature Center, I look forward to interacting with all the wonderful Staff, Board Members, SLNC Members, Volunteers and Visitors; and with the beautiful and inspiring natural environment.

My appreciation of nature includes a history as an artist who explored and performed in site specific locations both natural and man-made. In addition to exploring, walking and biking in nature, I tend to vegetables, fruits and flowers at my plot of ground at the Benjamin Rush Community Gardens.

My administrative support experience includes financials and customer service.

Upcoming Events

New Sunday Naturalist Programs

You are probably familiar with our Sunday Strolls – an hour long, free program open to all. Recently we have begun ‘Sunday Naturalist Programs.’ These programs replace some of the Sunday programs, run a little longer (an hour and a half to 2 hours) and delve deeper into a particular topic. Some recent programs have focused on Art in Nature, Ferns, and Wild Edibles. The fee is \$6/ members, \$8/non-members. The new format allows us to travel farther afield and focus on a particular area of interest. Coming up is Forest Ephemerals on April 19!

Earth Day Concert with Chris Westfall on Saturday, April 18th at 7:30pm

We are pleased to welcome back singer, songwriter, musician, and Nashville recording artist, Christopher Westfall! Join us as we celebrate *Earth Day Every Day!*

Visit www.silverlakenaturecenter.org or call 215-785-1177 for tickets/information.

Tickets: \$12/person (all ages) in advance (by 5pm on 4/17); \$15 at the door.

Volunteers



Calling all volunteers!

Contact Jenn Bilger at 267-880-5024 or jlbilger@co.bucks.pa.us

Volunteer Work Days from 9 am-2 pm

The first Saturday each month.

Saturday, April 4th

Saturday, May 2nd

Saturday, June 6th

Give us four hours and we will give you lunch.

Earth Day Work Day

Saturday, April 18th from 9 am to 2 pm

We will be cleaning up our local watershed, the Mill Creek-Otter Creek Watershed, by picking up litter and debris on and around Magnolia and Silver Lakes.

Flea Market & Craft Fair

June 20th from 8 am to 2 pm

We will need bakers, info table, and parking lot volunteers for this event.

Greeter(s)

We are searching for volunteers to greet visitors, answer phones, and run the cash register.

Animal Caregiver(s)

We need 1 year commitment (training included) from one day per week volunteers (hour or two) to feed our exhibit animals, clean their tanks, and handle them.

CIT's (Counselors-In-Training) Needed

We are looking for high school or college students willing to help as volunteer counselors at our summer camp.

Summer Camp Guest Naturalists Wanted

We are looking for people with a special skill, talent, or knowledge base who are willing to volunteer to lead mini-programs for our summer camps.

PA Master Naturalist Training

The PA Master Naturalist training will again be held at SLNC this Fall, check out our website for more details on how to register.

Volunteer Accomplishments:

Our wonderful volunteers have helped in too many ways to count.

The Watershed Monitoring group continues to chemically test the Mill Creek-Otter Creek watershed for pollutants. Our greeters returned to welcoming visitors on the phone and in person and help us with many varied tasks. Sandy Wah helps all staff by editing all of our newsletters and any correspondence with the public, and I am sure all of you appreciate that! Our mailing volunteers continue to help us get our publications out to our membership. Our animals have returned and the animal caregivers have come back to feed, water and clean the tanks of our turtles, snakes, and fish, who are all very thankful for their wonderful care. Our Earthship building project continues to bring out some of the hardest working volunteers who put their sweat equity into this exciting new exhibit.

All of our volunteers make it possible for us to do so many amazing things here, THANK YOU!

Please share this newsletter with a friend. Thanks!



Silver Lake Nature Center
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Bristol, PA 19007

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Mark Your Calendar



Fine Wine and Fare on the Delaware
Saturday, April 26, 2015
5 - 7 pm

*Join us for an evening of fine wine
and food pairings
at the beautiful home
of Cissi and Louis Quattrocchi,
800 Radcliffe Street in the historic town
of Bristol Borough.
Enjoy a wonderful evening on the Delaware!*

Tickets: \$50 per person

All proceeds benefit the Silver Lake Nature Center.

Kayak Season is Almost Here!

We have a full schedule planned with intros, full moon, and easy to difficult kayak outings. Trips begin early May.

May 3—Full Moon

May 9—Pine Barrens

May 10—Mothers Day Intro



Check out our web site for complete schedule.

Summer Camp!

We offer 8 weeks of full and half day camp, Monday thru Friday, June 29 through August 21, plus special weeks for preschoolers, and opportunities for teens to be Counselors-in-Training! Sign the kids up for one week — or all of them!

Call Jenn for details at 267.880.5024
or email jlbilger@co.bucks.pa.us