

# LEEPfrog

The Newsletter of the  
Lutherlyn Environmental  
Education Program



Volume 33

Winter 2024/2025

## Maple Sugaring in a Changing Climate *by Todd Garcia-Bish*

When we started maple sugaring at Lutherlyn in 1994, we planned for a maple sugaring season that would begin mid-February and last through the middle of March. For many years, we didn't have very many groups in February because it was usually too cold. This spring, all but two of our schools will be in February. This is a very tangible result of climate change.

The maple sugaring season ends when the buds open on the maple trees. Since 2008 (when we formally began keeping track), the date that red maple trees have opened their buds has trended from the end of March to the beginning, with 2024 having the earliest ever date of March 3rd. Academic researchers have had similar findings in studies of maple producers from Virginia to Quebec. They have found that the sugaring season begins 8.2 days earlier and ends 11.4 days earlier than 40 years ago. Notice that the difference in beginning and ending dates also means that the sugaring season is, on average, 4 days shorter than it had been.



In addition, researchers have found that the amount of sugar in the sap is declining. For sugar maples, as average temperatures rise, respiration rates (how much sugar they use) seem to increase faster than rates of photosynthesis (how much sugar is produced). This means that the amount of sugar that trees can store will decrease as the climate warms.

Reducing carbon emissions quickly will enable us to continue producing maple syrup in Pennsylvania. The season may be earlier, shorter, and require a little more work, but it will still be feasible to do – if we can reduce the amount of pollution being produced. It will take some significant changes, but the rewards are sweet!



### Inside this issue:

Program Highlights	Pg. 2
Earthcare Corner	Pg. 3
Terra Dei Homestead	Pg. 3
Public Programs	Pg. 4



## Notes from the Naturalists *by Erica Miller*

Thanks to a generous donation, we are happy to report that there will soon be a new display at the Discovery Room here at Lutherlyn: a prehistoric woolly mammoth (*Mammuthus primigenius*) tooth! The left molar tooth – found in the Netherlands in the town of Klein-Doenrade – is over 10,000 years old. It weighs about 15lbs and comes from an adult that was approximately 50-60 years old.

This species of mammoth lived during the Pleistocene Epoch, approximately 400,000 to 4,000 years ago, thriving in the cold, tundra-like environments of northern Europe, Asia, and North America. They were well-adapted to their frigid surroundings, with thick fur, a thick layer of fat, and long, curved tusks. They coexisted with early humans, who may have hunted them for food, clothing, and tools. The woolly mammoths began to disappear around 10,000 years ago, likely due to a combination of climate change which led to the warming of their environment and the shrinking of their habitat, and human hunting pressures.



## **Project Update: Universal Access Trail Reaches the Marsh**

by Todd Garcia-Bish

In September 2018, we started a universal access trail with 36 feet of gravel path and one boardwalk. Our goal was to create a trail to the marsh that would be “usable by all people to the greatest extent possible.” In December, we completed the 34th and final boardwalk needed to reach the marsh.

This project would not have been possible without the many volunteers who helped carry materials to build the boardwalks and the people who donated money to the project. We continue to work on a gravel portion that will make this into a loop trail, as well as boardwalks in other areas around Miller Lake to make additional portions more accessible.



## **Happy Retirement Mir!**



In 1989, Mir Youngquist-Thurow started the Lutherlyn Environmental Education Program as her master's thesis at Slippery Rock University. Within a matter of years, the program was serving thousands of students and growing by leaps and bounds. Mir went on to start the Agape Center for Environmental Education in North Carolina in 1996. After 28 years of stewarding that program and reaching thousands of North Carolina students each year, Mir has decided to retire. We would like to wish a very happy retirement to our founder and first director, Mir Youngquist-Thurow. She has not only been instrumental in creating highly successful EE programs, but she has also inspired generations of people to take care of God's creation. Well done, Mir!

## **Program Highlights: Nature Nerds & LEEP Homeschool Series**



The Lutherlyn Environmental Education Program is committed to creating opportunities for community members of all ages to reconnect with nature. This spring, we are thrilled to announce two unique programs offering immersive, hands-on experiences for nature enthusiasts: the adults-only Nature Nerds Retreat and our Spring Homeschool Program Series.

For those who seek solace in the great outdoors and want to deepen their connection with nature, the Nature Nerds Retreat is the perfect getaway. This adults-only weekend retreat offers guided hikes, hands-on workshops, stargazing sessions, and, of course, SCIENCE! It's a chance to meet fellow nature lovers, share experiences, and rediscover your inner explorer. For more information or to register, visit: [www.lutherlyn.com/nerds](http://www.lutherlyn.com/nerds).

Homeschooling families can also take part in a unique spring series designed to take learning outdoors. From exploring maple sugaring to discovering the water cycle, wildlife habitats, and more, these hands-on field trips give students the opportunity to explore the world around them in a meaningful way. To learn more or reserve your spot, visit: [www.lutherlyn.com/homeschool](http://www.lutherlyn.com/homeschool).





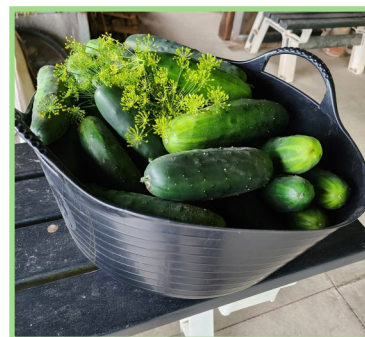
## **Terra Dei Homestead: Growing Knowledge** by Erica Miller

At Lutherlyn's Environmental Education Program, we strive to foster a love for nature, sustainability, and education. As part of this mission, we are excited to announce that we are currently growing a Pennsylvania Master Gardener for the Terra Dei Homestead! Erica Miller, who is entering her third year as a member of the LEEP team, began training in October 2024 and will complete her certification in March 2025.

The Pennsylvania Master Gardener program has a rich history and will be an invaluable asset to both Terra Dei and the surrounding community. Established in 1982 as a partnership between Penn State University and local communities, the program trains volunteers to share their expertise in horticulture, environmental stewardship, and sustainable gardening. Today, more than 3,500 Master Gardeners volunteer across all 67 Pennsylvania counties, helping people create beautiful, healthy gardens while supporting ecological sustainability through research-based information.

Having a Master Gardener at Terra Dei will enhance our program by expanding the scope of our environmental education efforts. With increased horticultural knowledge, we hope to offer in-depth gardening workshops and hands-on planting projects that will empower individuals to become knowledgeable, engaged, and effective gardeners. If you are interested in learning more about the Pennsylvania Master Gardener Program—or if you think you might like to become one yourself—visit [www.extension.psu.edu/programs/master-gardener](http://www.extension.psu.edu/programs/master-gardener).

Whether you're a gardening enthusiast or simply looking to learn more, there are endless opportunities to grow alongside us. We look forward to seeing how this new certification will help Lutherlyn cultivate even more knowledge and joy in our community!



## **Earthcare Corner: Family Forest Carbon Program** by Todd Garcia-Bish

Forests are extremely important ecosystems. They produce oxygen, moderate temperatures, enrich soil, prevent erosion, clean water, sequester carbon, and provide food, fuel, and building materials. In the United States, over 50% of our forests are managed by private landowners. The way that these forests are managed will have a direct impact on wildlife, our climate, and our future. One of the sustainability tools available in Pennsylvania and 18 other states is the Family Forest Carbon Program (FFCP).



The FFCP is a joint venture of the American Forest Foundation and The Nature Conservancy. It is designed for landowners that have at least 30 acres of forested land and are interested in stewarding their forest to benefit the environment and their family. The landowner receives advice from a consulting forester, a site-specific forest management plan, and annual income. In exchange, FFCP markets verified carbon credits to companies that want to reduce carbon emissions. The carbon credits are based on the carbon being sequestered by the landowner's woodland.

In May, the Lutherlyn Board of Directors signed a letter of agreement with the Family Forest Carbon Program. Lutherlyn has already benefited from the advice of FFCP's consulting foresters as we deal with the impact of the woolly adelgid on our hemlock trees. They are also providing us with ideas for dealing with invasive plant and animal species that impact our woodlands. To learn more about the Family Forest Carbon Program, visit their website: [www.familyforestcarbon.org](http://www.familyforestcarbon.org).

**Contact us:** Lutherlyn Environmental Education Program, Box 355, Prospect, PA 16052  
(724) 865-9079, [leep@lutherlyn.com](mailto:leep@lutherlyn.com), [www.lutherlyn.com](http://www.lutherlyn.com)

# Lutherlyn Environmental Education Program

P.O. Box 355  
Prospect, PA 16052

Non-Profit  
Org.  
U.S. Postage  
PAID  
Butler, PA  
Permit #132

Would you like to receive this newsletter electronically? Do you need to unsubscribe someone? Simply email the LEEP staff ([leep@lutherlyn.com](mailto:leep@lutherlyn.com)) and we will make the necessary change.

LEEFrog

Page 4

## LEEP 2025 Public Programs



### Saturday Safaris

Lutherlyn Saturday Safaris are a great way to spend a bit of your weekend on an outdoor adventure! Safaris are \$12 per person and run from 9:30AM to 12:00PM:

- **February 1:** Geology and the Rocks of Lutherlyn
- **March 1:** Maple Syrup Time
- **September 13:** Stream and Pond Creatures
- **November 1:** Archaeology & the Venango Trail

### LEEP Homeschool Program Series

These immersive field trips provide homeschooling families with insights into science and regional history, offering unique opportunities for experiential learning.

- **February 13:** Maple Sugaring
- **March 20:** Sustainable Living
- **March 31:** All About Animals
- **April 17:** Everything Ecosystems
- **April 28:** The Wonderful World of Water

For more information or to register, please go to [www.lutherlyn.com/EE](http://www.lutherlyn.com/EE) or contact the LEEP office.



You Are Invited:  
**CampBlast**



**Saturday, May 10, 2025**

Join us for a day of FUN that highlights all that Lutherlyn has to offer.

The best part.... **EVERYTHING IS FREE!**