

LEEPfrog

**The Newsletter of the
Lutherlyn Environmental
Education Program**



A Long Time Ago. . .Right Here by Todd Garcia-Bish

In 1999, we opened an archaeology site above Miller Lake, close to the Historic Venango Trail. We now call it the Heckert Site after the last family that lived there. We had no idea what we would find, if anything. Twenty-six years later, students and campers are still digging and continue to find artifacts. In fact, they find thousands of individual artifacts every year!

Formal archaeology began at the rock shelter along Shawnee Run (aka Indian Cave) in 2008. Trained staff members excavate this site, but it has only yielded a few artifacts. However, the artifacts that have been found demonstrate that the rock shelter was used by native people for thousands of years.

This year was extremely exciting as school field trip participants have found two significant Native American artifacts. In May, a parent with Economy Elementary found a very large spear point in Shawnee Run, not far below the rock shelter. Experts believe it to be a Big Sandy Side Notch point, which dates to the Early Archaic cultural period, 8,000-10,000 years ago! Similar points are found throughout the Ohio and Tennessee river valleys, but few points of this kind are found this far north. Amazingly, it is 8 cm (3¼ in.) long and 5.7 cm (2¼ in.) wide.



Another Early Archaic artifact was found at the Heckert Site by a student from The Ellis School. It has been identified as a Kirk Corner Notched point, which connects it to similar artifacts that have been found from the eastern seaboard to the Ohio and Tennessee river valleys. This point is 4 cm long and 2.5 cm wide (1⅝ in. by ⅞ in.)

The Early Archaic people represented by these artifacts were nomadic hunter-gatherers. They lived in ecosystems similar to what we have today, following the melting of glaciers that ended the last ice age. It is fascinating to imagine these people hunting and gathering around Lutherlyn so many years ago!

Our archaeology work continues! If you know a teacher who would be interested in bringing a class to Lutherlyn to dig into the past, please have them contact the Eberly Environmental Education Center. If you know a camper who would like to learn more about archaeology next summer, register them for “Dig It” in Life in the Wild.

Notes from the Naturalists by Todd Garcia-Bish



Since 2017, red-headed woodpeckers have been successfully nesting at Lutherlyn. What started as one pair nesting near the dining hall seems to have expanded to three pairs in 2025. This is exciting because this bird has been declining in numbers for many years, possibly because of competition for nest sites from the (invasive) European Starling.

What began as summer nesting has moved to year-round occupation as we see and hear these woodpeckers throughout the winter. The bright red head and white wing patches easily confirm a sighting, while their shrill cackles and chirps demand your attention. Red-headed woodpeckers are omnivores, with some ornithologists believing that up to 67% of their diet may consist of fruit and nuts (especially acorns). They prefer open woodlands with lots of oak trees and plenty of hollow snags for nesting. That kind of habitat is exactly what we have around the dining hall at Lutherlyn – large acorn-producing oak trees spread amongst dying maple trees. This summer, representatives of the PA Breeding Bird Atlas hope to confirm the number of nesting pairs Lutherlyn is supporting.



Terra Dei Homestead: Let Winter Do the Work - Starting Native Seeds the Easy Way *by Erica Miller*

Winter sowing is one of the simplest and most reliable ways to grow native plants from seed in Western Pennsylvania. Many native plants require a period of cold, moist conditions (called cold stratification) before they will germinate. Rather than trying to recreate this indoors, winter sowing lets nature handle the process by placing seeds outside during the winter and allowing our freeze-thaw cycles to trigger germination at the right time.

The method is easy and inexpensive. Recycled milk jugs or clear plastic containers act as miniature greenhouses, protecting seeds from heavy rain, animals, and snow while still exposing them to the elements. To winter sow, cut a jug nearly in half, add drainage holes, fill it with a few inches of moist potting mix (not seed starting mix), and press the seeds onto the surface without burying them deeply. Tape the container closed, remove the cap for airflow, and place it outside in a sunny, protected spot – ideally in late December or January. Different plant species require different amounts of cold stratification, but most require 30-60 days of temperatures below 40 degrees to germinate.

As temperatures begin to warm in late winter and early spring, seeds sprout naturally without the need for grow lights, daily watering, or indoor space. Native species such as black-eyed Susan, wild bergamot, milkweeds, asters, little bluestem, pawpaw, and goldenrods all respond especially well. By April or May, sturdy seedlings will fill the containers. Once they develop at least 2 sets of true leaves, they can be transplanted into the garden or potted up to grow larger. Because they have grown outdoors from the start, these seedlings are already hardened off and often establish more successfully than plants started indoors.

Winter sowing is a low-effort way to grow our native plants while working with our climate rather than against it. On a gray winter day, sowing a few containers of seeds can be a hopeful reminder that spring is already quietly on its way!



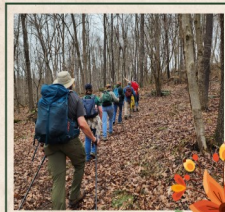
Lutherlyn Environmental Education Nature Nerds 2026

An adult-only (18+) weekend retreat for those who crave the great outdoors and seek a deeper connection with nature.

Your Experience Includes:

- Guided hikes
- Hands-on workshops
- Nature crafts
- Critter catching
- Stargazing sessions
- SCIENCE!

March 27-29



For More Information
(724) 865-9079
LEEP@Lutherlyn.com
www.lutherlyn.com/nerds



Discovery Room Update *by Erica Miller*

The Discovery Room at Lutherlyn's Eberly Environmental Education Center just got even more exciting! Visitors can now explore a new woolly mammoth display, complete with a real mammoth tooth and a giant footprint on the floor that lets kids (and adults!) compare their own feet. Bird enthusiasts will enjoy the new nest exhibit, featuring real nests alongside photos and names of the birds that built them.

Additionally, for a hands-on learning experience, the indoor classroom now features the "Amphibians of Lutherlyn" matching game, where players test their species identification skills by pairing amphibian photos with detailed descriptions. Get it right, and a light will illuminate! These updates keep the Discovery Room fresh, exciting, and full of new ways to explore nature - building on the fun and wonder it has always offered.



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Program Update: STEELS Standards *by Todd Garcia-Bish*

This school year marks the full implementation of Pennsylvania's new academic standards for Science, Technology and Engineering, Environmental Literacy and Sustainability (STEELS). These standards were developed using current educational research and best practices. They mark a departure from fact memorization and encourage hands-on scientific investigation and reasoning.

The activities offered through LEEP easily dovetail with the STEELS standards. For 36 years, LEEP has been using hands-on activities to teach environmental literacy to all ages. This makes Lutherlyn uniquely positioned to support schools in accomplishing these new standards.

With the help of doctoral student

Becky Franklin, we have created

spreadsheets that correlate LEEP activities to STEELS standards. These spreadsheets will enable collaboration between teachers, administrators, and the LEEP staff as we design educational experiences that enhance the school curriculum and inspire student investigation. The Life Science and Environmental Literacy standards necessitate outdoor field experiences that provide students with opportunities for observation and exploration.

Please contact the LEEP office to learn more about program offerings available to schools and districts.



Earthcare Corner: The Environmental Consequences of AI *by Todd Garcia-Bish*

We appear to be in a technological revolution as Artificial Intelligence (AI) emerges in more places each day. While there are certainly benefits to society, the consequences to our planet may be significant. Caring for our world will require judicious use of this new technology.

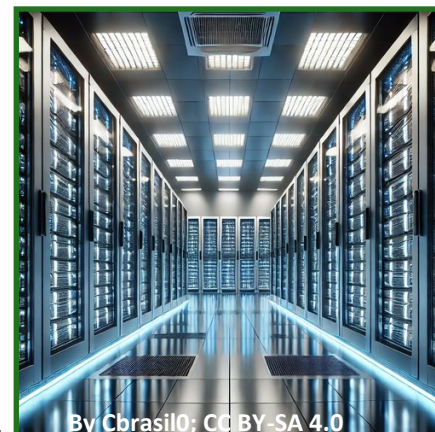
Two notable consequences of AI are common with other modern technologies: they require rare earth minerals that are often mined unsustainably, and they produce electronic waste that contains mercury and lead. More significantly, the data centers needed to power AI require large amounts of water for cooling. By 2027, it is estimated that 1.5 trillion gallons of fresh water annually will be needed for AI use across the globe, which is more than Finland or Denmark use in a year. However, that is not nearly as staggering as the amount of electricity that will be needed. By the end of this year data centers are expected to use 1,050 terawatt-hours (that's over a billion kilowatt-hours) of electricity. There are only 4 countries in the world that use more electricity than that. Unfortunately, most of that electricity will come from fossil fuels and have a huge carbon footprint.

Optimistically, AI may enable people to better monitor our environment and lead to more careful decision-making and more sustainable choices. For example, it is currently being used to detect methane leaks from oil and gas installations, which should reduce the amount of that greenhouse gas entering our atmosphere.

What can individuals do about the adverse consequences of AI? Only use AI when it is really needed. It has been estimated that using AI instead of a simple web search uses 5-10 times more electricity. Choose a browser like Ecosia that doesn't automatically generate an AI response. That browser has an optional AI assistant, but it is

ECOSIA

powered by renewable energy and the profits that Ecosia makes are used to fund tree planting and climate action. Like many other technologies, judicious use of AI can be a benefit, but foolish utilization will harm our fragile planet.



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Contact us: Lutherlyn Environmental Education Program, Box 355, Prospect, PA 16052

Lutherlyn Environmental Education Program

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Do you need to unsubscribe someone?
Simply email the LEEP staff
(leep@lutherlyn.com) and we will make
the necessary change.

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Page 4

LEEF 2026 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 9:30 AM to 12:00 PM:

- **February 28:** Maple Syrup Time
- **September 12:** Life Skills of the Woodland Tribes
- **November 7:** Geology and the Rocks of Lutherlyn

For more information or to register, please go to www.lutherlyn.com/EE or contact the LEEP office.

LEEF Homeschool Program Series

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

- **February 12:** Orienteering
- **February 23:** Maple Sugaring
- **March 23:** Abandoned Mine Investigation
- **April 9:** Frontier Life
- **April 13:** Stream and Pond Explorations
- **April 27:** Insect Investigation



You Are Invited
CampBlast



Saturday, May 9, 2026

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

The best part.... EVERYTHING IS FREE!