

LEEPfrog



The Newsletter of the
Lutherlyn Environmental Education Program

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Pennsylvania Anteaters by Todd Garcia-Bish



Photo by National Park Service

“What made this rectangular hole in the tree?” I asked the 5th graders as we approached a dead black cherry tree. My question was met by many puzzled looks. Finally, one brave student suggested, “a woodpecker?” She was correct, but the fact that the hole was rectangular and about four inches long indicated that a **Pileated** woodpecker (*Dryocopus pileatus*) had visited that tree.



For me, pileated woodpeckers are one of those birds that seem very primitive. Their movements are sometimes jerky and appear much less graceful than those of a chickadee, owl, or duck. However, it is their size that really makes people notice pileated woodpeckers. These birds are up to 17 inches long with a wingspan of over two feet, just about the size of an adult crow.

Woodpeckers of all sizes excavate holes in trees. They are wonderfully adapted with a chisel-shaped beak, strong neck muscles, a stiff tail for balance, and spongy, shock-absorbing tissue between their beak and skull. However, it is their tongues that are the secret to their success. Pileated woodpecker tongues are rounded with a pointed tip that is both flexible, to feel for prey, and barbed, to impale it. (continued on page 2)



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Notes from the Naturalists by Todd Garcia-Bish



Photo by Brian S. (CC BY-SA 2.0)

Many times we are asked about the lichens growing on the rocks or trees at Lutherlyn, like the **Common Greenshield** (*Flavoparmelia caperata*) lichen pictured here. Lichens are often used as a great example of symbiosis – a mutualistic relationship between two different species that benefits both individuals. In lichens a fungus provides the main structure for an alga or cyanobacteria that, in turn, provides food for the fungus through photosynthesis. However, recent research from the University of Montana has found

that a type of yeast (which is also a fungus) is a third partner in the success of lichens.

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The LEEPfrog is published annually by the staff of the Lutherlyn Environmental Education Program.

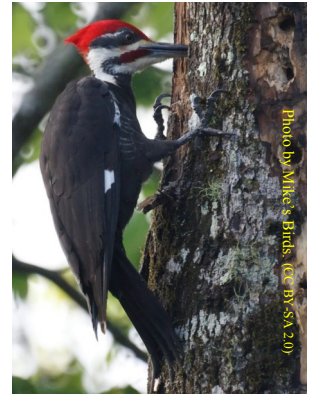
Pennsylvania Anteaters (continued from page 1)

It also comes coated in very sticky saliva. The length of tongue needed to reach deep into tree cavities is several times longer than the beak. To house this type of tongue, woodpeckers have channels that run from the back of their mouth onto the top of their skull and up to their nostrils!

Pileated woodpeckers use all of these adaptations to eat some beetles, wasps, and woodborers, but mostly they eat carpenter ants. During the late summer, they also augment their diet with dogwood berries, black gum berries, and grapes.

Since pileated woodpeckers are looking for insects, they tap on trees and listen for hollow chambers where insects are living. Healthy trees don't have insects living in them, so woodpeckers rarely excavate healthy trees. In fact, pileated and other woodpeckers are responsible for keeping carpenter ant populations in check – a very important benefit to those of us living or working in wooden buildings near the forest.

Pileated woodpeckers have made a slow comeback as eastern forests have returned over the last 100 years. It is now common to have several mated pairs at Lutherlyn. We often hear their laughing call echo through our forests. I love to ask students what they think is making that sound. To me it sounds like a laughing monkey. They are often surprised to learn that it is a really big woodpecker with a really long tongue!



Current Project: Universal Access Trail by Todd Garcia-Bish

Thousands of people come to Lutherlyn each year to experience God's creation through our forests, streams, wetlands, and trails. Unfortunately, some of these people have mobility issues that keep



them from enjoying the hilly terrain that characterizes Lutherlyn. The level areas that Lutherlyn does have are often fairly wet and muddy. In order to improve everyone's experience, we have begun a multi-year project to construct a Universal Access Trail through the forest to the marsh at the top of the Upper Lake.

A Universal Access Trail is "usable by all people to the greatest extent possible," as defined by the US Forest Service. Any grades in the trail will be very slight and the surface will be packed limestone. In many places boardwalks will be constructed over wet areas.

The design process for the trail was completed in the spring and the first section was constructed in the fall. We thank Glenn Hawbaker, Inc. for their donation of limestone for the trail and Penn Trails, LLC for designing the trail and working many hours with us to construct the first section.

Future sections will be constructed as we receive donations to purchase materials and volunteer crews to help with construction. The materials for each boardwalk section cost \$425 and are great projects for Thrivent Action Teams.

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Terra Dei Homestead: Pawpaw Trees by Holly Schubert

What is the largest fruit native to North America? Some hints: it is related to tropical fruits like the papaya, grows on small trees with broad oval leaves, and is a sweet Appalachian treat with a texture soft and creamy like custard and a flavor like a cross between banana and mango. It is the pawpaw!

The natural range of the pawpaw stretches throughout several midwest and southeastern states, from Arkansas and Missouri almost to the east coast, and northward to southern Michigan and Pennsylvania. In the wild, pawpaws often grow in the understory of the forest along riverbanks but can survive in a variety of conditions.

The small clusters of light green oval-shaped and lumpy fruit are unfamiliar to many people, because they are not found in grocery stores – the soft fruit does not keep well once picked and should be eaten within a day or two. The flowers are a striking dark burgundy color, and emerge before the leaves form on the trees in the spring.



Terra Dei has two pawpaw trees - one planted in the late 1990's, another added around 2011. The older tree has been bearing fruit for about 4 years now and was prolific this year with 30 or more fruits on the small tree. The newer tree has just started bearing in the last year or two, and produced about 5 fruits this year. Pawpaws need to be cross-pollinated by the flowers of a neighboring tree in order to bear fruit, so the original tree began to bear fruit when the second tree was mature enough to produce flowers. The fruits ripen in September - October, becoming slightly softer and falling from the tree. The easiest way to eat pawpaws is to slice the fruit in half, scoop out the soft pulp with a spoon and eat it directly. Pawpaw is also delicious in breakfast smoothies, ice cream and sweet breads .

It is a pleasure to have these native fruits at Terra Dei, and to enjoy and celebrate the abundance that the earth naturally provides!

Would you like to receive this newsletter electronically? Simply email the LEEP staff (leep@lutherlyn.com) and your next newsletter will be an electronic one instead of a paper one.

Notes from the Naturalists (continued from page 1)



This year we have seen a lot of a plant that many people think is a fungus: *Conopholis americana*, sometimes known as **Bear Corn or American Cancer-Root**. No part of this plant is green, because it doesn't photosynthesize its own food; it is parasitic, taking nutrients from the roots of oak and beech trees. It uses specialized roots called *haustoria* to connect to the tree roots. It is eaten by bears, as well as deer. The cancer-root name may come from the fact that this plant spends four years forming a gall (or "cancer"-looking growth) on the roots of oak trees before it sends up its flowers. Native Americans used the plant for its astringent and estrogen-like properties.

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LEEP Public Programs

Saturday Safaris

Lutherlyn Saturday Safaris are a great way to spend part of a Saturday! They are designed for groups and families of all sizes and shapes. Safaris are \$7.00 per person and all of the programs involve outdoor adventures! Please check LEEP's website (www.lutherlyn.com/EE) or contact the LEEP office for more information or to register for a program.



- **February 2, 2019** - Night Hike & Stars, 6:00-8:00
- **March 2, 2019**- Maple Sugaring, 9:30-12:00 or 1:00-3:30
- **September 14, 2019** - Amphibians! 9:30-12:00
- **November 2, 2019** - Archaeology & the Venango Trail, 9:30-12:00

Year in Review: 2018

Last year in this section we suggested that 2018 may be even bigger than the record breaking year of 2017. We were right! We added three new overnight schools in 2018 and eleven new day schools. LEEP continues to grow and reach more people each year. It is more important than ever that we teach people how to care for the amazing world around them.

Special Offer for New Schools

20% off Day Trips
15% off Overnight Trips

What is it Wednesday?
brought to you by LEEP



Like and follow Camp Lutherlyn on Facebook to take part in LEEP's weekly **What is it Wednesday** posts! Each Wednesday morning LEEP will post a photo, and you'll have all day to make your best guess about what the photo is. Around 6 pm LEEP will provide the answer and a brief explanation.



Saturday, May 11, 2019
Join us for a day of FUN that highlights all that Lutherlyn has to offer.
The best part.... **EVERYTHING IS FREE!**