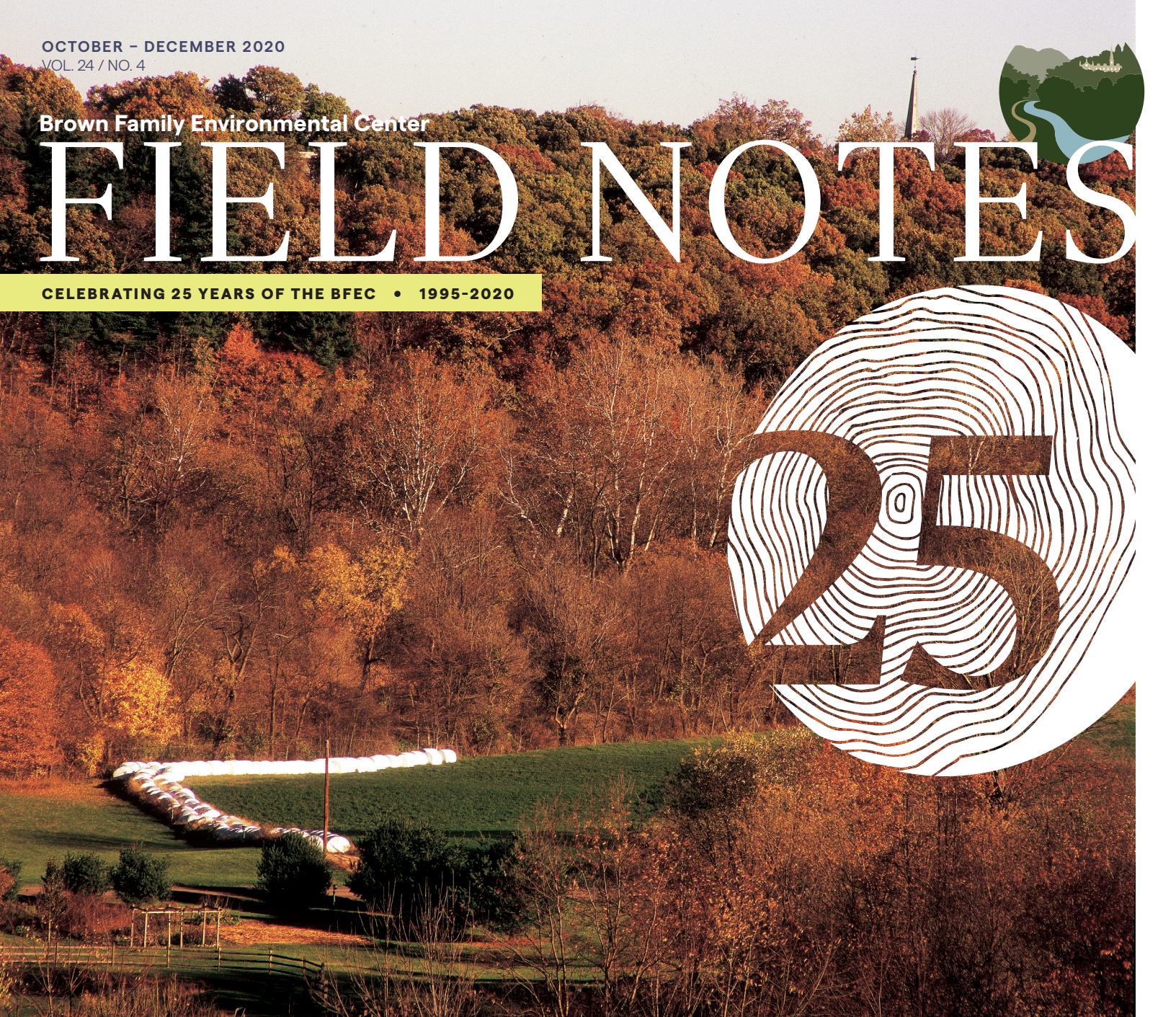


OCTOBER – DECEMBER 2020  
VOL. 24 / NO. 4

Brown Family Environmental Center

# FIELD NOTES

CELEBRATING 25 YEARS OF THE BFEC • 1995-2020



## The Next 25 Years at the Brown Family Environmental Center

BY NOELLE JORDAN, MANAGER OF THE BFEC

**This year, as we celebrate the 25th anniversary** of the Brown Family Environmental Center, people have been asking me what's next for the BFEC? Well, I've been accused of dreaming big. You know the saying: "Go big or go home."

We have lots of plans for the next 25 years, and but we need your help to bring them to fruition. The next two pages list a few highlights on our wish list, along with suggestions for how you can help.

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Photo: Learning Landscapes Design LLC

### LOG SCRAMBLE

#### To finish, we will need:

- \$500 to purchase a few more logs for the log scramble.
- Volunteers to help us collect limbs and build the fort and the human-sized bird nest.



### CORRIDOR TRAIL BOARDWALK

#### To get started, we will need:

- \$20,000 for all materials and for a contractor to drive in the initial pilings.
- Volunteers to help us hammer nails and drive in screws.



Photo: Jeremy D. Appgar, NV/NJ Appalachian Trail Conference

### ACCESSIBLE LOOP TRAIL

We take inspiration from many other successful accessible trail projects, including this accessible section of the Appalachian Trail in New York.

#### To get started, we estimate we will need:

- \$20,000 for a design
- \$100,000 for construction

# Building the Next 25 Years: A Wishlist

## THIS YEAR

We're building a **new, vibrant nature play trail** on Laymon Road, tucked between the Kokosing River and the Kokosing Gap Trail. There will be a large sign — big enough to be seen from both Laymon Road and the bike path — welcoming families to explore this new area. The nature play trail will include several rooms adjacent to a central trail. Each room will have a different feature — a log scramble, a fort to play in, a human-sized bird nest and much more. The plans are complete, a sign is underway thanks to funding from Doug Givens, and the log scramble is partially built. But we still have some work to do before it is finished.

This year, we are experimenting with different ways to deliver quality programming to elementary and middle school students. One of the new resources we will provide to teachers includes **virtual instruction** for a nature art project for all of their students, with all materials and supplies provided. We would also like to create and provide interdisciplinary activity kits that teachers can use in their classrooms. These kits include all materials and supplies that teachers and students will need to study things like owl pellets, a virtual reality experience of the different habitats at the BFEC, and more.

## THE NEXT TWO TO FIVE YEARS

Thanks to many generous donors, we've been able to build boardwalks along two of the muddier parts of our trails, but the longest and widest section still needs to be built. The BFEC's Corridor Trail connects all of the trails in the northern trail system. As our springs and early summers become wetter, the Corridor Trail remains muddy most of the year. The **final stretch of boardwalk** will alleviate this and make our trails passable (and more pleasant) year-round.

I've been dreaming of an **ADA-accessible loop trail** that would create connectivity between the main parking lot, the Resource Center, a lovely nearby stream, a pollinator plot, the ponds, a section of prairie and our wildlife garden. We've been building partnerships with the Ohio Eastern Star Home and elementary teachers who work with students with disabilities. Currently, these guests are not able to access any of our outdoor spaces safely.

## Bucolic Beauty

We're dreaming big about a new resource center. Because the Brown Family Environmental Center was a working farm for many years, we're looking to those agricultural roots for design inspiration for a new building. This California home, designed by Carney Logan Burke Architects, takes its inspiration from an old barn — one possible direction for a new BFEC building.





### THE NEXT 5 TO 10 YEARS

We've outgrown the Resource Center. Prior to COVID-19, we were bursting at the seams. More Kenyon faculty want access to the Resource Center, our programs are attracting more and more participants, and we're building partnerships with so many organizations that we are turning groups away. The plans for an **upgraded facility** include:

- A larger lab with state-of-the-art technology to make teaching environmental science easier and more engaging,
- A conference room with fully functioning technology that can double as a seminar room for faculty and students,
- A much larger multi-purpose room that will accommodate groups of 120 or more,
- A full bank of restrooms for elementary groups and other large crowds (last year, our Fall Harvest Festival attracted more than 2,100 guests),
- A greenhouse on the second floor for starting trees and garden plants. Each year we plant 200 – 1,000 trees that we currently purchase. If we can harvest seeds from the property, we can grow our own plants, not only for the BFEC but for campus as well,

### VIRTUAL INSTRUCTION

**To finish, we will need:**

- \$72 per classroom to provide art supplies for nature art classes.
  - 12 smart phones, wi-fi enabled for an amazing virtual reality experience. If you have an old one sitting around, send it our way.
- A building that is constructed using the most up-to-date environmental techniques, so the building itself will be a teaching opportunity,
  - Greater functionality for staff, including laundry facilities, showers, and more efficient storage spaces. Many of our programs include pond and river studies; hence, lots of towels to dry off. It's hot and humid in Ohio, and a lot of our work involves getting in the dirt. Because so many of our programs are hands-on, we have lots of equipment, materials and supplies that we need to store.



Photo: Carney Logan Burke Architects



# The Stinging Saddleback

BY NOELLE JORDAN, BFEC MANAGER

**I had my first experience with a stinging caterpillar** on August 23 this year. Wow! They are definitely worth avoiding.

After feeling a fairly intense burning sensation on the tip of one of my fingers, I looked around for the potential culprit. A small wasp, perhaps? A yellow jacket? No wasps or yellow jackets were buzzing around. I looked into the wheelbarrow where I was throwing leaves, and was I surprised to see a crazy-looking caterpillar.



I couldn't decide if I was more preoccupied with the pain or with how incredibly cool this little guy looks.

This is a saddleback caterpillar (*Acharia stimulea*) and it's one of several stinging caterpillars in Ohio. All of those pokey bristles are called urticating hairs (from the Latin *urtica* which means "nettle," as in stinging nettle). Stinging caterpillars can have two types of urticating hairs: long and flexible, or stout and bristly, like the saddleback. Some of these urticating hairs can puncture the skin and break off, simply causing mechanical injury, but some puncture the skin and inject venom. What?! Totally crazy.

Our brightly colored saddleback uses both of these defenses — mechanical and venom. The stout bristles can break off and become embedded in their assailant (sure enough, I had a few hairs stuck in the tip of my finger), and some of the bristles release venom. This darling little caterpillar has two types of venom: vesicating, which causes blistering, and hemolytic, which breaks down red blood cells.

While I can vouch for the fact that these stings are painful, I must've gotten only a small dose. The tip of my finger burned for about 20 minutes, and it became slightly swollen and red — a minor reaction, compared to what some people experience. If someone were to really cuddle with a saddleback, the pain may last for a long time and spread over a large area. If someone is particularly sensitive, they could suffer a rash, head-

aches, and nausea for up to 12 hours. And worse yet, some people could experience anaphylactic shock and hemorrhaging. Thank goodness I didn't know all this at the time.

Okay, enough of the dire. Let's just marvel at how cool the saddleback caterpillar looks. That bright green is considered warning coloration — an indicator that something unpleasant could happen to a human or animal if they were to touch it or eat it. The cream colored spots on the back side (or the posterior end, if you're a biologist) might make potential predators think that the backside is the head, similar to the eye spots found on the rear wings of some butterflies.

Speaking of butterflies, the saddleback caterpillar grows up to be a cute and fuzzy saddleback moth.

Both the caterpillar and the moth are less than an inch long — small but mighty, some might say. They can be found in the eastern half of the United States.

Saddleback caterpillars eat a lot of different plants — many species within 40 different plant families, including trees, corn, and ornamental landscaping plants, which is where I found this one — on a beautiful limelight hydrangea, while my friend and I were making a wreath.

Other stinging caterpillars that can be found in Ohio include the smaller parasa (*Parasa chloris*), crowned slug (*Isa textula*), skiff moth (*Prolimacodes badia*), hag moth (a.k.a. monkey slug — what a name!), (*Phobetreron pitheciun*), io moth (*Automeris io*), white flannel moth (*Norape ovina*) and the black-waved flannel moth (*Lagoa crispata*). Stinging caterpillars are generally found in late summer and early fall.



Noelle and a friend found a saddleback caterpillar while making this wreath from limelight hydrangea — the type of ornamental plants that are a staple of the caterpillar's diet.



The saddleback caterpillar trades its stinging hairs for fuzz after it becomes the saddleback moth.



# Strangling Vines or Fragrant Flower?

BY LUKE HESTER '20, BFEC POST-BACCALAUREATE FELLOW

**In June, a few days before arriving at the BFEC's farmhouse** — my new home — I was up to something that my BFEC co-workers would have been appalled by. Granted, it was at the behest of my mother, so naturally I felt inclined. After she had spent a long spring toiling to plant new bushes and other plants on our small slice of land in Lancaster, Ohio, my mum decided that the ornamental and fragrant honeysuckle should accompany them. Only later — after my arrival at the BFEC — did I learn that this sweet-smelling vine is quite the pest.

Honeysuckle, or more specifically Japanese honeysuckle (*Lonicera japonica*), is a highly invasive plant due to its ability to quickly grow over large areas. Its fast growth allows for a successful competition against native plants that also vie for sunlight and nutrients. When this occurs in a forest, the honeysuckle vines take over the undergrowth and significantly reduce the germination of native plants while simultaneously preventing new trees from sprouting. Despite all of this, Japanese honeysuckle continues to be cultivated and planted for ornamentation, but for understandable reason: the flowers are genuinely super cool.

While growing up, I distinctly remember visits to my grandparents' farm during which we would locate and taste the sweet nectar found in the flower. Of course, being greedy children, we tasted every flower we could get our hands on, leaving the aesthetic value of the plant rather diminished. Ah ... memories that seem insignificant until they become longed-for in later years. Slow and unplugged experiences when days were long and the entire day could be dedicated to adventure and exploration.

My past experiences with honeysuckle - along with sublime joys like stumbling upon a flower that is illuminated with just the right light, or catching a captivating scent on the wind — bring to mind a possibility. Is it possible to find silver linings in the midst of a widespread dilemma? Can we rediscover the childlike, innocent joy of slow and unplugged experiences during this pandemic?

I would certainly argue a resounding yes. Although this crisis may make us feel like we are being strangled by twisting vines, I have to believe there is some good afoot; we need only find the right path to them. As one of my predecessors and good friends, Maddie Morgan '18, described in an article two years ago, "It is only through traversing a system of experiences that our right trail can be spotted and illumined."

Perhaps this right path can be found by slowing down to enjoy a cup of coffee on the porch reading your

favorite book. Or perhaps it requires a more dedicated pursuit, like learning how to identify birds with a family member, or to reconnect with an old friend via the wondrous technology that is Google Meets. Although these are just my experiences, certainly other paths are out there.

Now that my backyard is the very property of the BFEC, getting lost and found in nature (although I haven't been lost on the property since sophomore year, thank goodness) has revealed itself again. When this pandemic started, I felt the pressures of becoming who I thought I was supposed to be (as quickly as possible) come into stark conflict with the forced slowdown of available opportunities. For my sanity, I've had to embrace that slowing down. Going out to hike for the sole purpose of hiking, or enjoying the native plant garden for the sole purpose of appreciating its beauty, or watching the sunset over the prairie — these things have impacted my daily view of the world around me and buoyed my spirit and sanity.

In short, I have discovered that it is possible to view our world in two different ways — all doom and gloom, or as an opportunity to slow down and smell the flowers. Just like we can view Japanese honeysuckle in two different ways — as a terrible invasive plant, or as a highly fragrant, tasty and beautiful flower. I hope that during these uncertain times you are able to find paths to explore, long days to unplug, and many flowers to smell.



Photo: J.F. Gaffard, Chèvrefeuille du Japon, June 2004, from Wikimedia Commons. Released under the GNU Free Documentation License.



# Switch It Up for Improved Soil Health

EMMA RENEE COFFMAN '22, BFEC STUDENT MANAGER

**If you live in the country**, perhaps you've noticed something very strange: every year, the same field seems to have a different crop. Maybe there was corn as far as the eye can see last year, but now all you can see is soybeans. What's going on here?

The changing crops aren't the result of a wishy-washy farmer, but rather a clever farming technique. This cycling of different crops from year to year is called crop rotation, and it is one of the simplest and most effective ways to improve soil health and get more out of the harvest. A simple two- or three-crop rotation is common in Ohio, but some rotations can include over a dozen different crops.

To understand why crop rotations are good for the soil, we need to consider the needs of plants. Each crop requires different nutrients from the soil in order to grow. While some require a lot of nitrogen, others might use a lot of phosphorus. If the same crop is planted in the same soil for years on end, over time the soil will become depleted of that key nutrient and the crop will struggle to survive.

In contrast, crop rotation allows different nutrients to be drawn out of the soil each year, and some crops will replenish the nutrients depleted by others. For example, corn requires a lot of nitrogen, so it would make sense to plant something that fixes nitrogen back into the soil — like soybeans — the following year. To make it even more appealing, this way of naturally restoring

the nutrients in the ground will decrease the need for additional chemicals and fertilizers, which have the potential to disrupt the ecosystem.

Besides maintaining soil health, crop rotation has a number of other benefits, both for plants and other organisms. When crops are switched up from year to year, pests and patterns of disease have more difficulty establishing themselves in the area. With fewer of these issues, there is less need for additional chemical pesticides and treatments. Beneficial bugs love the variation, too. The diversity from year to year attracts pollinators and helps organisms in soil thrive as well.

Not a farmer? This technique works well for home-grown fruits and vegetables, as well as annual flower gardens. Consider researching a few of the simple rotations you could use in your own flowerbeds. Gardening websites, journals, and books are a great place to start, including these links:

[offbf.org/2011/03/08/crop-rotation-a-square-dance-for-your-plants/](https://offbf.org/2011/03/08/crop-rotation-a-square-dance-for-your-plants/)

[extension.psu.edu/plant-rotation-in-the-garden-based-on-plant-families](https://extension.psu.edu/plant-rotation-in-the-garden-based-on-plant-families)

[extension.umn.edu/yard-and-garden-news/rotate-crops-your-small-garden](https://extension.umn.edu/yard-and-garden-news/rotate-crops-your-small-garden)

## VOLUNTEERS AND DONORS

SUMMER 2020

**Our volunteer crew this summer was tireless. We have been able to accomplish more than ever with their help. Collectively, they endured over 400 hours of heat and humidity while tackling invasives, monitoring bluebirds, building a new nature play trail, and so much more. Thanks to each of you!**

Mia Craig	Susan Guttormsen
Owen Decatur	Judith Crouse
Veronica de	Laurie Thompson
Pascuale	Sue Hagan
Wendy Feters	Miriam Dean-
Greg Gillen	Otting
Drew Kerkhoff	Brian Miller
Riker Sweazey	Bev Morse
Jhanati Rajesh	Sarah Goslee Reed
Adam Daugherty	
Janet Chandler	

**With humble appreciation, we thank the extremely generous donors who support the BFEC even in these financially uncertain times.**

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Laura Whalen

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John Hammond  
Maddie Morgan

### STUDENT

Greg Wurster

### DONOR

Richard Marinos and Cari Ficken



# UPCOMING PROGRAMS AND EVENTS

## PROGRAMS FOR ALL

### Paint Outside

EVERY TUESDAY THROUGH OCTOBER 20,  
4 P.M. – DUSK

Paint, draw or sketch at the BFEC. Bring your supplies, including a chair and/or easel, and spend the evening hours painting in a peaceful setting. This is a self-guided activity with like-minded artists. The Resource Center is closed, but we have a portable restroom behind the building for your convenience. *Check the door of the Resource Center for each evening's painting location.*

### Solstice Stroll: Labyrinth Walk

DECEMBER 21, 7 A.M.

Celebrate the sunrise on the shortest day of the year. BFEC Manager Noelle Jordan will provide a brief overview of labyrinths and directions to the entrance of the BFEC labyrinth, then you will enjoy some solitude and a moving meditation at your own pace. Individuals, family groups and friend groups will be able to remain socially distant. Please use a mask if you cannot maintain appropriate distance. The total walk in and out of the labyrinth is approximately one mile; plan for about 90 minutes. *Meet at the Kokosing Gap Trail gravel lot on Laymon Road.*

## FAMILY PROGRAMS

### Family Nature Quest: Birds of a Feather

OCTOBER 3, 10 – 11 A.M.  
OR 11:30 A.M. – 12:30 P.M.

Learn everything flight, feathers and fun as we observe fall birds while walking the paths around the BFEC. Get up close with beautiful feathers and explore why and how birds migrate. Then, step into a bird's wings and make your own journey down to warmer temperatures for the winter. Limited space available; each session will have no more than nine guests. Pre-registration required. Call 740-427-5052 now to reserve your spot. In the event of inclement weather, program will be canceled. *Meet at the BFEC Picnic Pavilion.*

### Family Nature Quest: Falling Leaves

OCTOBER 10, 10 – 11 A.M.  
OR 11:30 A.M. – 12:30 P.M.

It's finally autumn! The leaves have begun to change color to create a beautiful Ohio fall landscape. Come collect a variety of leaves, and learn about their trees and seasonal cycles. Complete leaf rubbings and paint leaf collages to create your own autumn masterpiece. Limited space available; each session will have no more than nine guests. Pre-registration required. Call 740-427-5052 now to reserve your spot. In the event of inclement weather, program will be canceled. *Meet at the BFEC Picnic Pavilion.*

### Family Nature Quest: Nature's Palette

OCTOBER 24, 10 – 11 A.M.  
OR 11:30 A.M. – 12:30 P.M.

Learn how a wide range of natural resources found during the fall can be made into usable inks. Let the kids test a wide range of natural objects such as leaves, flowers and berries that they want to try to use for color. They will also have the opportunity to try using prepared inks using the same recipe to make autumn-inspired art. Limited space available; each session will have no more than nine guests. Pre-registration required. Call 740-427-5052 now to reserve your spot. In the event of inclement weather, program will be canceled. *Meet at the BFEC Picnic Pavilion.*

### Family Nature Quest: Trick-or-Tree(t)

OCTOBER 31, 10 – 11 A.M.  
OR 11:30 A.M. – 12:30 P.M.

Don your costume early and come out for some spooky fun. We'll take an eerie Halloween hike through the trees and then warm up near the campfire. Limited space available; each session will have no more than nine guests. Pre-registration required. Call 740-427-5052 now to reserve your spot. In the event of inclement weather, program will be canceled. *Meet at the BFEC Picnic Pavilion.*





Brown Family  
Environmental Center  
Kenyon

bfec.kenyon.edu | 740-427-5050



BROWN FAMILY ENVIRONMENTAL CENTER | 9781 LAYMON ROAD | GAMBIER, OH 43022-9623

OUR MISSION

The Brown Family Environmental Center exists to support the academic goals of Kenyon College, to provide opportunities for education and research, to engage Central Ohioans of all ages with nature, and to conserve the natural diversity of the Kokosing River valley.

OUR STAFF

Luke Hester '20, *Post Baccalaureate Fellow*  
Jill Kerkhoff, *Facilities Coordinator and Office Administrator*  
Shane McGuire, *Land Manager Naturalist*  
Noelle Jordan, *Manager*

# Invest in another 25 years

TO MAKE A GIFT, PLEASE FILL OUT THE INFORMATION BELOW, DETACH THE SHEET AND SEE MAILING INSTRUCTIONS.

There are many reasons to give, including the satisfaction of knowing you're a part of critical environmental education and conservation programs. Receive preferred access to workshops, a hard copy of our newsletters, and a discount on bird seed. **Use the form below to send your contribution today.**

name (first, middle, last)

address

city

state

zip/postal code

country

phone

email address

Membership level:

- ☐ Student \$20   ☐ Individual \$35   ☐ Family \$50  
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Amount enclosed: \_\_\_\_\_

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☐ Please bill my \_\_\_\_ Visa or \_\_\_\_ Mastercard  
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Mail to: BFEC, P.O. Box 508, Gambier, Ohio 43022