



Education Goes Outside... Or Does It?

The BFEC hosts school field trips for hundreds of children every year, but state budget cuts and unsuccessful school levies are presenting new challenges for the program.

Pictured left: Kenyon student volunteer Kelsey Dillon '14 points out a green frog basking in the spring sunshine to 4th grade students.

Pairing young children with the magic of exploring the outdoors, from holding tadpoles to discovering the skittering creatures living under logs, is a natural fit.

Outdoor education meets children's innate inquisitiveness and need for physical, hands-on activity, and countless studies have shown that it improves learning, social skills, and physical health.

Hosting field trips for Knox County school children was one of the first programs offered by the BFEC (then the Kenyon Center for Environmental Studies) when it opened in 1996. Since then, 13,000 children have visited the center.

But recent state budget cuts and failed levies in many Knox County school districts are presenting challenges, despite the relatively mini-

mal expense of taking a field trip. The BFEC is in the process of adapting to this new financial climate.

Why Outdoor Education?

As we alluded to above, most children are like fish in water when it comes to nature. Any parent will tell you that children need to be active and are full of curiosity; the out-of-doors fits these needs perfectly.

Unlike the built environment, the outdoors are unscripted and unbound. Lacking right angles and walls, children's imaginations are free to take them in countless directions, and there are always new mysteries and treasures to uncover.

As children grow they are also dealing with new emotions, and being outside can help them blow off steam. Research indicates that chil-

dren (and adults) who spend time outdoors are more cooperative, attentive, and less likely to be anxious or depressed.

Adults and children also benefit from the physical activity of being outdoors, especially in light of growing obesity rates. One in every five children in the U.S. is now overweight, and the prevalence of childhood obesity has doubled since 1980.

The health benefits of getting outdoors are so great that some doctors are writing "nature prescriptions" for obese children. A pilot project is underway in 11 states with the help of the U.S. Fish & Wildlife Refuge system, the National Environmental Education Foundation, and health care providers.

Not all children, in particular older ones, are drawn to nature, especially

Continued page 2

INSIDE...

On the Ground: Successional Success....page 3
Weaseling Around.....page 5

Nature Photography Contest.....page 3
Changes at the BFEC.....page 5

if they had limited access at younger ages. This project helps get kids outside without the stigma of labeling it as “exercise” or “school.” The study has reported that so far many children are turning over a new leaf.

“This is my favorite field trip ever.”

These words came (unbribed!) from a 2nd grader while hiking a BFEC trail on her class field trip. We had just encountered a large moth, fern fronds uncoiling in the spring sunshine, and a woodpecker hole with wood shavings piling up beneath it worthy of a carpentry shop.

Kids are spending more time watching TV, and with the availability of educational channels like Animal Planet they may surprise you with their knowledge of tropical rain forests or African savannahs. But what many are missing is experience with what lives in their home state or backyards.

This gap leads children to somewhat comically respond during field trips that their favorite Ohio animals are tigers and kangaroos.

Understandable for a kindergartener, but by second grade Ohio Academic Standards (the focus of rigorous testing) require students to know habitats, plants and animals that are actually found in Ohio. The BFEC, with ponds, prairie, and forest, is uniquely equipped to allow students to experience these first-hand.

It does not take a teaching degree to understand the difference between viewing pictures of an animal in a book and actually seeing one with your own eyes. Or better yet, pulling it out of a pond with your own net, as students are able to do with tadpoles and dragonfly larvae at the BFEC.

This type of learning, accompanied by the sensory experiences of smelling the water or hearing a woodpecker drum on a tree, is described as “sticky,” and retained at much



Pairing young children with the magic of exploring the outdoors, from holding tadpoles to discovering the skittering creatures living under logs, is a natural fit.

higher rates. In addition, it gives children an opportunity to develop personal connections with nature that can last a life time. Long after glossary definitions fade, affinity remains.

Funding Woes

In the fifteen years that the BFEC has been hosting field trips, school budgets have accommodated bus transportation to our site and the \$1-\$2 field fee per child (which is much lower than that charged by comparable facilities, thanks to the financial commitment of Kenyon College and our membership).

But the reality of school budgets have changed. Federal and state funding has decreased, and three of the five school districts that the BFEC serves have failed to pass tax levies in the last year.

In addition to painful cuts like losing teachers, most districts have dramatically cut or completely eliminated field trip funding.

Anticipating this loss, the BFEC has created a small Field Trip Scholar-

ship Fund to which schools may apply for transportation and entrance fee expenses. The BFEC was able to create the programs thanks to the Melissa Kravetz Memorial Fund.

In its first season this spring, the BFEC used it to bring 180 children to the center who otherwise would have been stuck inside.

You Can Help!

As the demand for the BFEC scholarship program increases, so will funding needs. You can get involved by making a contribution to the scholarship fund that will be used directly to bring children here or purchase equipment. As little as \$2 pays the way for a child to attend, and \$100 pays for a class’s transportation.

Please use the enclosed form to make a special contribution and note “field trip scholarship fund,” or feel free to contact Program Manager Heather Doherty at 427-5052.

In addition to creating our own grant fund, the BFEC is partnering on a grant application to the Ohio Dept. of Health, Child & Family Health Services with the Knox County Health

On the Ground

by Facility Manager David Heithaus

As the animals begin to disembark from their spring tour on the Kokosing Ark and the flood waters subside to reveal solid ground, the summer lays before us as full of potential as it is of mosquito larvae in lingering pools.

Hopefully you've made it out for a hike or two this spring. If so, I'm crossing my fingers that the new bridges on the Observatory Loop and Bishop's Backbone have distracted you from the system of tractor-tire-width mini-canals littering the landscape... the best intentions for trail maintenance gone awry I'm afraid. The hydrofoil with mowing attachment has been in the shop... in my imagination.

If you haven't made it out, don't delay! It's the perfect time to enjoy a walk in the shade of any of our wooded trails.

In facilities news, the big plans for summer are going to be taking place down in the **Given's Grove** area. Gearing up for our October dedication to honor former director of the Philander Chase Corporation, Doug Givens, we're taking advantage of some semi-dry conditions to install a boardwalk, a viewing platform, several benches and short loop trail.

What started as a long-term, low-effort partnership with the US Fish and Wildlife Service to restore hardwood habitat and protect a seasonal drainage is fast becoming one of our premier restoration areas. Once we complete construction and remove some persistent invasive shrubs, Given's Grove will be a vibrant oasis at the heart of our northern trail system (accessible via the Corridor / Wetland Trail).

The grove is an excellent example of a habitat type we have in great supply and variety in most parts of the Midwest- **successional habitat**.

Despite *Word's* spellchecking insistence, successional habitats do exist and are amongst the most interesting from a land management point of view. But I'm jumping ahead of the point...

In fact, *all* habitats are successional to some degree; that is to say, in some state of flux. From a freshly shelled crater in a desert gunnery range to the oldest growth forest in the Malaysian highlands, habitats are continuously changing, building, growing; being disturbed and re-establishing themselves. What we're flush with and interested in here at the BFEC is *early* and *middle* successional habitat. The bread and butter of immediate gratification for land managers with limited budgets... and life spans.



Given's Grove features a short loop trail through successional habitat in the midst of transitioning from a meadow into a forest.

Left to its own devices here in the midwest, natural progression (succession) moves an area from disturbed bare soil through grass and forb prairie, to shrubby field, shrubs and saplings, pole timber and finally

to mature, or climax, forest. The cycle can repeat itself many times, especially with human intervention. Abandoned farm fields represent a large portion of the successional habitats found in Ohio, including the BFEC. Based on their time of abandonment, these fields exist across the entire spectrum between grassland and mature woodlot.

At each stage of succession, a host of different animal and plant species discovers their Elysium. Cottontail rabbits and bobolinks thrive amongst warm-season grasses; towhees like the next woody half-step; woodcock, grouse, and white-tailed deer make their way through young woodlots and give way to wild turkey as the forest matures.

To provide for the maximum diversity of native plants and wildlife, ensuring a diversity of successional habitats is generally a good priority for regional land management. Whether that means burning warm-season grass prairies to perpetuate early successional habitat or planting oaks and hickories to move towards woodlots and climax forests... however slowly.

At one time nature itself was more than capable of handling its own comings and goings over successional time; a gently shifting balance point that ensured the survival of a number of the fittest locals was established.

But with ever-increasing human habitation, new challenges have been introduced to this scheme as natural processes are disturbed by pollution, human development or the introduction of exotic, invasive species. All three can be detrimental to succession but the latter has the ability to persist as a challenge even in large areas that have been set aside for conservation or preservation. And when it persists, species diversity

...Education, continued from page 2

Department (KCHD). KCHD has proposed to bring an "Eat Smart, Play Hard" curriculum into local elementary schools, which will include field trips to the BFEC for physical activity.

The BFEC also applauds efforts by local schools to bring nature to the schoolyard. Fredericktown Elementary, for example, has converted portions of their property to outdoor learning centers with butterfly gardens and bird nesting boxes. In the long term, increasing access in any form will help make a difference.



Knox County Nature Photography Contest

Submission Deadline: Monday, October 10

All community members are invited to enter this contest in celebration of our scenic Knox County.

People's choice voting and winners announced at the Oct. 15 Fall Harvest Festival. **Prizes awarded in Children's (ages 5-15) & Adult Divisions.**

Contest Rules

- Photos must be delivered by October 10 to the BFEC Resource Center at 9781 Laymon Road, Gambier. Entry forms will be available and photos may be dropped-off anytime in the building breeze-way. Participants may also request forms and mail submissions.
- A \$5 entry fee is required for each participant.
- Please restrict entries to those depicting Knox County nature. Photos may include rural landscapes as long as natural elements are focal points. Participants need not be Knox County residents.
- Photos must be matted or mounted on mat board or foam core. No framed entries will be accepted.
- There is no minimum photo size, although 8x10" is suggested. Maximum photo size is 14" in any dimension, and 16" for mats.
- No more than 3 photos per entry. No composite digital photos, please.



Adopt-a-Bench! Check the box below to have a bench placed at a BFEC trail location of your choice with a plaque honoring your special contribution.

Support the BFEC

Membership is based on the calendar year - now is the time to become a member or renew!

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 popular workshops, a hard copy of our newsletters, and 10% discount on bird seed. Please use the form below or payment envelope to send your contribution today, and thanks!

Membership level: Student ___ \$20 Individual ___ \$35
 Family ___ \$50 Friend ___ \$100 Patron ___ \$250
 Benefactor ___ \$1000 +

Amount enclosed: _____

My check, payable to Kenyon College, is enclosed

Please bill my ___ Visa or ___ MasterCard

Card number _____ Exp. date _____

Yes! I've enclosed a special gift of \$250 to have a bench placed along a BFEC trail of my choice, along with a plaque recognizing my contribution.

Name _____

Address _____

City _____

State, zip code _____

Telephone _____

Email _____

Your donation is tax deductible as allowed by law. The Brown Family Environmental Center at Kenyon College is a 501c(3) nonprofit organization.

Mail to: BFEC, P.O. Box 508, Gambier, Ohio 43022



NEWS from the BROWN

WEASELING AROUND

Believe it or not, weasels and their kin are good for much more than coniving or collecting in masse to function as impractical winter garments. Here in Knox County, we're lucky enough to have as many as five different representatives from the weasel family- though you'd be extremely lucky to see even three.

Weasels and their relatives the mink, river otter and badger all hail from the largest group of carnivorous mammals on earth: the Mustelidae. Many are playful and curious by nature and all have a fondness for sharing their scent via large musk glands under their tails. Mustelids use their musk to attract mates, mark territories and to deter predators.

They also use this ability to identify food caches. Their torpedo-like bodies are extremely efficient for movement through a variety of habitats but do not store heat well. Weasels, minks, and otters often collect and store more food than they need in case prey become scarce. As they are active year-round, this habit is essential during long, lean winter months. Most of them aren't too picky about what they call dinner: insects, amphibians, birds, shellfish and even smaller mammals are all on the menu.

The next time you're out on the gap trail or down by the river, keep your eyes peeled for minks (pictured above). Often in the shadow of their showboating cousins, the river otters (see *Field Notes*, Spring 2011), minks are a smaller, darker water-loving weasel that can be spotted sitting upright, scouting for prey.



GARDEN CATERPILLAR CROWD

If you've read many BFEC publications, you've probably heard us mention the importance of native plants. Our Wildlife Garden is stacking with them because many butterflies require specific native plant species on which to lay their eggs. This is a great time of year to look on our milkweed plants for monarch caterpillars or Queen Ann's Lace for tiger swallowtail caterpillars.

But the most obvious caterpillar crowd in the garden is on our Dutchman's Pipe plant, which can be found vining up a trellis in the garden near the cob shed. In early August it often harbors dozens of Pipevine Swallowtail caterpillars. The caterpillars are black, with small black spikes topped with orange spots. While they usually reside on the underside of leaves, they give away their presence by leaving conspicuously defoliated patches. Plant chemicals make the caterpillars and adult butterflies poisonous, and predators learn to avoid them. Several other swallowtail butterflies mimic the pipevine swallowtail (which is black with iridescent blue wings) hoping for free predator protection.

BFEC WELCOMES NEW BABIES & STAFF

If you guessed that this baby is a young Heithaus, you're correct! Facility Manager Dave Heithaus and his wife Emily welcomed Calvin on Thursday, June 16th at eight pounds, three ounces. Not one to be left out, Heather Doherty, Program Manager, is expecting her second child at the end of August. (That's right, we're a prolific bunch.) With the arrival of Heather's second child, she will be reducing her hours to part time until next June. In the interim, the BFEC will be hiring a part time Program Assistant to staff public programs and school field trips. We look forward to introducing you to our new staff member in the next *Field Notes* edition.



Calendar of Events

All events are free, open to the public, and start from the BFEC Resource Center at 9781 Laymon Road unless stated otherwise. For additional information, contact us at 740-427-5050, dohertyh@kenyon.edu, or visit <http://bfec.kenyon.edu>

Wildlife Garden Tour

Sunday, July 17th, 2pm. Experience peak bloom of native flowers and the many butterflies that they attract, like the tiger swallowtail butterfly pictured here. Learn tips on establishing your own wildlife garden.



Summer Sky Astronomy

Friday, July 29th, 9:30pm. Explore the summer sky with Kenyon Professor of Humanities Tim Shutt. Bring a blanket or chair and admire the season's constellations as you listen to mythological stories about the stars. Call the BFEC in the event of inclement weather for event status.

Dog Days Trail Running Festival

Saturday, August 6. If you like to run or you just need to tire out the kids, this is for you! The BFEC and KenyonFit will host a series of races to challenge everyone from the most hyperactive toddler to accomplished runners. A picnic and awards ceremony will follow. Please contact us to receive registration information, or pick up a form anytime at the BFEC Resource Center.

Glacial Geology of Knox County

Sunday, September 18, 2pm. Learn about the origins of our low-profile landscapes, lakebed soils, and gravel deposits from Kenyon Professor of Physics Eric Holdener. Hear tales of rivers that reversed flow direction!

Knox County Nature Photography Contest

Deadline: October 10. Photographs of our natural world remind us of the beauty to be found when we take the time to look. All community members are invited to enter this contest in celebration of our scenic Knox County. Photos must be submitted by Monday, October 10th. See page 4 for contest rules.

Fall Sky Astronomy

Friday, October 14, 8pm. See event description for July 29th, above.

Fall Harvest Festival

Saturday, October 15, 2-5pm. Celebrate the season with this FREE family event. Activities include wagon rides, live music, kids harvest races, farm animals and produce, wool spinning demo, bonfire, cider press, pumpkin decorating with OSU Extension Master Gardeners, and the Knox County Nature Photography Contest Show.

Woolly Bear Wisdom

November 6, 2pm. Take a hike to explore for hungry caterpillars busy searching for food and shelter before winter comes. We'll also look for less common butterflies who still fly on cooler fall days.

Miller Observatory Open House

Last Fridays. Paula Turner, Kenyon Professor of Physics, hosts an open house on last Fridays of the month starting at 9pm. Please dress warmly, and note that the open house will be cancelled in cloudy weather. There will be NO JULY open house due to installation of new equipment. Contact Paula with questions at turnerp@kenyon.edu. *Directions:* From Mt. Vernon, follow S.R. 229/Gambier St. east 4 miles. About ¼ mile before reaching the S.R. 308 / Laymon Road junction, turn left at observatory sign onto access drive.

Thank You to...

Our Members *April - June 2011*

BENEFACTOR

Betsy Heer

PATRON

Philip & Sheila Jordan
Sally Mills

FRIEND

Janet & Thomas Hoffmann
Judy & Eric Holdener
Megan & Maureen McLeod

FAMILY

Michael & Margaret Blackledge
Kami & Eric Diehl
Barry & Brenda George
John & Kristin Hofferberth
Jennie Jacobson & Jim Huang
Thomas Hawks & Irene Lopez
William & Patricia McCulloh
Dan & Kaye Ranke
Michelle Mood & Steve Van Holde

INDIVIDUAL

Kathleen Carpenter
Dale Glass
Nancy Ingling
Ann Laudeman
Helen Umphryes

DONOR

Timothy Shutt

Our Volunteers

In the office, classroom, gardens and on the trails: Jane Cosby, Chirs Gillen, and the Kenyon College Land Lord Club.

Earth Day Festival: Buffy Hallinan, Keith Kitchen, Dulce Montoya, Sarah Goslee Reed, Jen Smith, Edith Willey, MVHS High School Environmental Club, and Kenyon College

Chapter of Theta Delta Phi.

Earth Day Challenge Marathon: Our sincere thanks to the 250+ volunteers whose contributions made the event possible!

Bluebird Monitors: Keith Kitchen, Jan Ellis, and Sarah Goslee-Reed.

Field Trip Leaders: Thank you to the 40 Kenyon student and community and volunteers who helped us bring over 500 elementary students to the BFEC this spring.

Our Donors

Adopt-a-bench sponsors

Jay & Sonya Corrigan
Ivonne Garcia

Geoff & Marilyn Stokes and Richard & Susan Murray, *in memory of* Robert & Dorothy Hextall



Ground, continued from page 3

and habitat quality will almost certainly suffer.

Unfortunately, our habit of being followed home by every cute and cuddly plant and animal we meet on vacation or business overseas hasn't always played well with nature's time frame for background checks. When new invasive species comes home with us, they can move in fast, staking their claim and out-competing native species. Successional areas are especially vulnerable to colonization by invasive species.

Shame too, because what works in Europe or central Asia sometimes works a bit TOO well here in the Midwest. Don't get me wrong, I'm all for sharing culture. As sentient beings we can generally choose what to give and take. We waited for years for an Indian restaurant in Knox

County.

Plants and animals aren't so lucky, however. When the shiny new shrub with the deluxe rhizome package and hyper-prolific and delicious berries moves in next door, native plants don't get the choice (or the time) to grow differently or faster or earlier in the year. Nor are the youthful critters inclined to turn up their noses at the latest imported berries because they aren't traditional local fare... they can hardly be blamed for following what natural selection considers common sense: more + food = good.

That's where more focused management comes into play. To avoid a loss of species diversity (which often equates to habitat quality) in successional areas, it is imperative to minimize the impacts of invasive species during natural development.

In our prairie, that is as simple as burning every year or so to keep invasive shrubs in check. In Given's Grove, an area we hope to see restored to climax forest and wet meadow, it will take a bit more hands-on management. Fire does about the same damage to woody plants regardless of whether they're from around the block or around the world and that big white oak tree is too darn old and majestic to see charred. It's also too darn old and majestic to see overgrown with rose and privet.

So cross your fingers that we'll be able to roll down our sleeves and get the job done the old-fashioned, dirt and sweat and steel way. Or, better yet, keep your eyes peeled for volunteer 'dirt and sweat and steel' days on future event calendars...

Brown Family Environmental Center at Kenyon College

9781 Laymon Road, Gambier, Ohio 43022 ~ (740) 427-5050 ~ <http://bfec.kenyon.edu>



Our Mission

The BFEC at Kenyon College exists to engage Central Ohioans of all ages with nature, and to support the goals of Kenyon College by conserving the natural diversity of the Kokosing River valley and providing opportunities for education and research.

Co - Executive Directors

E. Raymond Heithaus, *Jordan Professor of Environmental Studies & Biology*
Siobhan Fennessy, *Associate Professor of Biology*

Facility Manager

David Heithaus

Program Manager

Heather Doherty

Facility & Program Assistant

Jill Kerkhoff

Upcoming Events

Saturday	July 17th	Wildlife Garden Tour
Friday	July 29th	Summer Sky Astronomy
Saturday	August 6th	Dog Days Trail Running Festival
Sunday	Sept. 18th	Glacial Geology of Ohio
Friday	Oct. 14th	Fall Sky Astronomy
Saturday	Oct. 15th	Fall Harvest Festival

Knox County Nature Photography Contest

Deadline: Monday, October 10th

Prizes awarded!
Adult & Children's Divisions



Details inside & at <http://bfec.kenyon.edu>

DATE MAILED: July, 2011
CONTAINS DATED MATERIAL

**Brown Family Environmental Center
at Kenyon College**
P.O. Box 508, Gambier, Ohio 43022



