



## Ohio's Owls

Through the centuries and across the globe, owls have in turns been the subject of our reverence and our fear. They have been considered "omens of good luck, bad fortune, impending doom, wisdom, foolishness, evil and witchcraft, and even predictors of weather" (ODNR Division of Wildlife). Clearly, their appearance and habits provide plenty to fuel the imagination.

Owls are in their element at night, at a time when humans generally feel more vulnerable. Their calls ring through the darkness, their vision enhanced with those enormous, staring eyes. They hone in on sights and sounds even further by swiveling their heads almost 360 degrees.

In human terms, this would signal the moment to call in the exorcist. Eerie? Yes. But these traits are examples of incredible adaptations that make owls very good at what they do – hunt.

Their neck flexibility, for example, is a function of thirteen neck vertebrae, compared with human's mere seven.

Those enormous eyes can encompass up to five percent of the bird's overall mass, and allows them to more efficiently collect and process light in dim conditions. If our eyes were proportionately as large, they would be the size of softballs.

*Owls have in turns been the subject of our reverence and our fear.*



*Great Horned Owl*

### THE "FLYING MOUSE TRAP"

With the exceptional tools of a predator, owls make great neighbors for anyone with an unwelcomed mouse population. Of the twelve owl species that have been re-recorded in Ohio, the barn owl has one of the best reputations as a "mouser."

Barn owls have probably done much to perpetuate superstition due to their stark, white face and almost completely nocturnal habits, flying well after dusk (see photo, page 2). They are also very adaptable to people and their structures, indeed preferring to nest in barns or vacant houses.

Barn owls primarily eat mice and voles that populate "old field" habitat, or fallow farm fields that have grown up in grasses and flowering plants. Their pre-settlement population in Ohio was probably fairly small given that forests dominated the landscape. But as forests gave way to farms, the barn owl population grew.

Their fate again took a turn, however, as farm practices changed and large tracts of old field habitat shrank. Near 1990 barn owl populations hit a low point, with only a dozen or so nesting pairs estimated statewide.

Programs that encourage the placement of nesting boxes in barns have been credited in part with a modest recovery. There are now estimated to be 50 nesting pairs in the state, two of which have been confirmed in Knox County.

### OWL PROWL TIPS

Owls may seem elusive, but you can increase your chances by learning a little bit about their habits, and thus when

and where to look. As with many animals, it's helpful to look for clues before finding the animals themselves.

Evidence may come, for example, in the form of an incessantly cawing murder (or flock) of crows. Sometimes crows seem to get together and make a lot of noise just for the heck of it, but at other times they are more purposeful and take to "mobbing" owls. Crows are well known for this behavior, but song birds will also mob smaller birds of prey. The next time you hear an cacophonous band of crows, look up to see if they are busy harassing an owl.

The ground is another place to look for a not so glamorous animal sign - scat. Owls leave a somewhat different marker when they regurgitate "pellets," or balls of indigestible fur and bones, after a meal. A collection of pellets under a tree may indicate a favorite roosting (or day

time resting) site of an owl, such as a dense stand of pine or spruce.

Many species of owls start nesting in late winter, which is a good time to listen for their nocturnal calls. The convenient lack of leaves in this season also makes them easier to spot, especially considering the hours they spend sitting in a predictable location and flying back and forth to feed mates or young.

Great horned owls are one of Ohio's largest and earliest nesting birds, starting in January or February. They usually use old nests of other animals such as hawk or squirrels. Look for their large, tufted ears sticking out above the edge. Keeping an eye on tree cavities may also lead to an owl spotting, especially of the smaller screech and barred owls.

## OHIO OWLS IN BRIEF

*Of the 12 owl species recorded in Ohio, the 4 with breeding populations are shown below.*

### *Great Horned Owl*



Ohio's largest resident owl, two feet tall with five foot wingspan. Ear tuft "horns" are not related to hearing, but rather for visual affect.

**Habitat:** Very adaptable; farmland with small wood lots, suburban parks. Nests very early, in late January.

**Diet:** Great variety of muskrats, skunks, squirrels, etc.

### *Eastern Screech Owl*



Distinguished by its 8 inch stature, prominent ear tufts and large yellow eyes. Named for its song, an eerie, trembling wail and soft trill.

**Habitat:** Towns, orchards and small woodlots. Nests in natural cavities (like hollow trees), without any nesting material. **Diet:** Mice, large insects, frogs, snakes.

### *Barred Owl*



Named for horizontal bars of white and brown on neck and chest. Eyes are brown. Distinctive call that sounds like the phrase "who cooks for you?" **Habitat:** River bottoms, large tracts of forest. **Diet:** Small rodents are preferred, but will eat other mammals and insects.

### *Barn Owl*



Once common, now on the Ohio threatened species list. Stands a little over a foot tall with a wingspan of up to four feet. Notably long legs. **Habitat:** old field and grasslands; nests in barns and vacant building in March through May, usual clutch size of five. **Diet:** Mice and voles.

# OWL FACTS

**Hearing** In some species, **asymmetrical ear placement** helps owls hone in on sound. The brains of these species can process a 30 millionths of a second difference between a sound's arrival at each ear.

**Hunting** While humans must keep their muscles contracted when holding an object, owls have what is essentially a **mechanical locking device** that allows them to grasp an object with full force without continuous, conscious muscle contractions.

**Feeding Young** Most owls lay 3 to 5 eggs, though not at the same time - they are laid, and hatch, a day or two apart. Older, larger owlets may get more food from parents, and **younger owlets often do not survive** unless food is very plentiful. This strategy ensures that some will survive even when food is scarce, rather than all owlets starving.

As they near maturity **young barn owls will eat the equivalent of a dozen mice per night**. The Owl Rehabilitation Research Foundation, Ontario, Canada, reports that barn owls consume twice as much food for their weight as other owls.



**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

Now is the time to become a member or renew your annual membership! There are many reasons to give, perhaps foremost for the satisfaction of knowing you're a part of critical environmental education and conservation programs. Your membership entitles you to be the first to know of our offerings, receive a hard copy of newsletters, a 10% discount on high quality bird seed, and preferential RSVP status on workshops. Please use the form below or payment envelope to send your contribution today, and thanks!

**Membership level:** Student \_\_\_ \$20    Individual \_\_\_ \$35    Name \_\_\_\_\_  
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**Amount enclosed:** \_\_\_\_\_    State, zip code \_\_\_\_\_  
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 Please bill my \_\_\_ Visa or \_\_\_ MasterCard    Email \_\_\_\_\_  
 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.

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



# On the Ground

by Facility Manager David Heithaus

The day winter arrived in Gambier the sun rose to draw out whatever was left of the final colors of fall. The grass was rich and damp and green; scattered leaves gave one last flash as clouds drifted above the long, lazy shadows of naked trees gently touched by morning light. If you happened to be out and about at the time, you could have witnessed a season in noble passing. It was 53 degrees as I drove to work that day.

By 3pm, as I trudged across the quad to the annual holiday bash, it was around 25. The winds were described as “near hurricane force”. “Wintery mix” was present...

With every passing day, I am increasingly moved by the sea of things I do not know. That being said, one thing that life has branded on my oh-so-short list of certainties is this: winter in central Ohio is the worst season on the planet.

Here’s what’s been happening before the big duck and cover and here’s what I’m planning to do once the grey season has been mercifully extinguished by spring...

Working to better integrate our dirt with the Gap Trail’s pavement, **a set of steps has been constructed** just west of the Gambier area trestle bridge. The traditional and potentially tragic scramble down the abutment will no longer be necessary thanks to this new approach.

Once safely off the path, check out the new short loop that’s been constructed in the riparian corridor between the farm field and the trestle. It affords some lovely views of the river as well as a successional area where tightly spaced sycamores give the impression of giant bamboo.

Over the next few years, we’re hoping to develop this area further with interpretive signage and improved river access.

As we draw inside for much of the winter, we also begin drawing up plans for spring. To conclude our reforestation project west of the observatory, the order has been placed for another thousand oaks, hickories and walnuts for March delivery.



*View of the prairie from the farm house*

Joining these hardwoods will be the embattled **American Beech**. Increasingly rare in our upland forests, we’ll be spreading our seedlings across several areas and caging each one to protect them from deer. With a bit of luck, we’ll be able to ensure that future generations won’t miss out on these smooth, silver-grey giants; inspiration to woodland lovers and their impassioned graffiti since primitive man first took a partner in one hand and a sharpened stone in the other.

One of the first habitat restoration projects undertaken by the BFEC (then the KCES) was the creation of our seven acre prairie. Well, this spring it’s facelift time!

After the March burn, we’ll disk and reseed about an acre that has been increasingly dominated by goldenrod. With the hope of **introducing more**

**prairie-appropriate forbes** (think flowering plants) to the area, we’ll be planting large clumps of coneflower, compass plant and prairie doc amongst traditional prairie grasses like big bluestem and indiagrass. As the latter tend to be more vigorous than the former following a disturbance (fire qualifies), it takes a relatively large patch of flowering plants to stave off encroachment from their slender prairie pals.

Last year we championed drip irrigation in your fruit and veggie patches and this year we’re jumping up and down about yet another type of water-friendly gardening technique: **rain gardens**. Increasingly popular in urban and suburban areas, rain gardens are appropriate in most places where impervious surfaces like roofs, driveways or parking lots accelerate runoff.

A rain garden acts like a miniature waste water treatment plant, trapping and holding runoff and filtering, slowing or degrading any pollutants being transported downstream. Not only that, but rain gardens can double as productive native wildlife gardens! Keep an eye out for our progress this spring and join us for our second “learn while we learn (we hope)” water conservation workshop on March 28th (see calendar page 6).

One last tidbit for the industrious winter carpenter: our website has been updated with revamped instructions for the famous “Bolt Box” bluebird housing system, thanks to bluebird czars Mel Bolt and Dale Glass.

Well, that’s enough for now; off to see what winter’s dropped on the trails... never a dull moment... on the ground.

# NEWS from the BROWN

## BALD EAGLES FLY HIGH

Knox Countians can count among their blessings a healthy population of bald eagles. According to ODNR volunteer monitor Jon Minard, and many of our Christmas Bird Counters, the winter population this year is up, especially among juveniles. While they lack white heads and tails, they do have white patches on the under side of their wings near the body. Also setting them apart are their orange feet and distinctive size, with a wingspan of up the 7 feet!

Ohio's bald eagle population has now probably surpassed its historic (pre-DDT) size due to more open water in the form of quarries and man made lakes, supplying eagles with their favorite food of fish. Bald eagles migrate short distances in the winter if cold water causes their fishing holes to ice over. They nest earlier than song birds, making late winter and early spring a good time to see them at nests un-obscured by leaves. Six bald eagle nests were thought to exist in the Kokosing River watershed last year. Tours of bald eagle hot spots will be offered by the Mohican Valley Inn: call 419-994-1200.



## THE BFEC "LIVING CLASSROOM"



Sedentary, nature-uninitiated children with low science scores? No problem! The BFEC elementary field trip program takes a bite out of both issues. This year, 900 students visited the Center to learn about adaptations, ecosystems, and food webs. These could sound like so many words on a page to kids, but in our "living classroom" they take on new meaning as students experience the soft wriggling of tadpoles in their own hands.

With reduced budgets and heavy emphasis on testing, demand for many such programs have declined. The BFEC has escaped this fate thus far, perhaps due to our revised curriculum now aligned with Ohio academic standards, giving teachers maximum bang for their buck. In addition to teaching science, we also aspire to give children a positive experience connecting with nature, which just might precipitate a sense of stewardship in adulthood. We owe a debt of gratitude to our cadre of committed student and community volunteers, as well as the Knox County Educational Service Center, which for the last three years has facilitated trips for all 5th graders of the county's rural school districts.

## MUDMAN TRIPLE TOPS 100

October 24<sup>th</sup> & 25<sup>th</sup>, 2009 have officially been recorded as the dirtiest two days in BFEC history. A record number of runners (over 100) assembled to be covered with a record volume of muddy debris all while uttering a record number of alarmed curses at gleefully maniacal race directors. And at the end of the day everyone had a blast... except for that one guy... it all washed off or healed (eventually). The three races took place on three improved courses and saw some of our fastest, filthiest finishes yet. Aaron Maglott was the undisputed Mudman, finishing first in the men's division while Jeanne Bascuk retained her 2008 Mudwoman crown, also finishing first across the board. This year's *Gauntlet* (pictured here), the most fabled creature in BFEC trail-running lore, was popularly described as "amazing and appalling". We are very proud.



# Calendar of Events

*All events start from the BFEC Resource Center at 9781 Laymon Road unless stated otherwise.  
Please contact 740-427-5050 or doherthyh@kenyon.edu for additional information.*

<http://bfec.kenyon.edu>

## **Owls of Ohio – Tuesday, January 19<sup>th</sup>, 6:30pm**

Guest speaker Gary Moore, formerly of The Nature Conservancy, will share a slide show and his great depth of knowledge about Ohio's "ghosts of the forest." We'll then take a short hike near the Kokosing River, where Gary will play his barred owl recording in hopes that one will reply! Co-sponsored by the Knox County Park District.

## **Hibernation Fascination: Reptiles & Amphibians**

**Wednesday, February 17<sup>th</sup>, 6:30pm.** Reptiles and amphibians may slumber through winter, but those in the BFEC's live animal collection promise to keep us awake! Naturalist Al Helser will present the basics of these animals, including some fascinating tricks for making it through a cold winter. Al will also show us a few live examples, like our resident box turtle pictured here.



## **8<sup>th</sup> Annual Bluebird Workshop – Sunday,**

**March 7<sup>th</sup>, 1:00pm.** Once imperiled, bluebirds are now gracing our meadows in greater numbers. Learn about these brilliant birds and how you can help them by setting up nesting boxes. Dale Glass, Knox County coordinator of the Ohio Bluebird Society, will give a chock-full presentation, including how to attract bluebirds and proper siting of nesting boxes. BFEC staff will also share news of our extensive bluebird trail and research. A limited supply of high quality bluebird housing systems designed by Dale Glass and Mel Bolt will be available for purchase following the program at 2:00pm.

## **Rain Gardens 101 - Sunday, March 28<sup>th</sup>, 1:00pm**

Transform that perennial wet spot in your yard into a rain garden with native plants that attract birds and butterflies. Rain gardens are designed to help water percolate through the soil, instead of forming a pond in your yard or running off to deliver pollutants to local waterways. The Knox Soil & Water Conservation District will present what they've learned from local installations, and we'll also take a look at the BFEC's rain garden-in-progress.

## **Full Moon Hike – Sunday, March 28<sup>th</sup>, 7:30pm**

Take a brisk 1.5 mile hike on steep terrain, and be rewarded (should the skies cooperate) with a fantastic view of the full moon rising over the Kokosing River valley. Please wear sturdy hiking shoes. Rain date (in the event of cloudy or rainy weather) will be the following evening, March 29<sup>th</sup>. Call 427-5052 for program status.

## **Wild Edibles & Medicinals - Saturday, April 3<sup>rd</sup>, 1:00pm**

Take in the bright green of spring while discovering common wild plants and "weeds" that offer a surprising array for the salad plate or medicine cabinet.

## **Earth Day Challenge Marathon & Health Expo - Sunday, April 25<sup>th</sup> - Kenyon Athletic Center.**

The Expo is a FREE event that focuses on keeping ourselves and our world healthy - two goals that go hand-in-hand! Features will include exhibitors and vendors of green and healthy products and resources, farmers market and petting zoo, door prizes, music, and hands-on activities for people of all ages. The marathon will start and conclude at the same location - help cheer on runners as they finish! **Marathon registration** is available at our website: <http://bfec.kenyon.edu>.

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## Our Volunteers

*In the office, classroom, gardens and on the trails:* Mike Dailey, Jane Cosby, James Gyenes

*Harvest Festival Volunteers:* MVHS Environmental Club; Circle K members Kevin Gerstle, Jennifer Garbett, Anne Severe, Savannah Guernsey, Jackie Shirreffs

*Mudman Triple Volunteers,* including Ron Dukes and Chris & Cathy Gillen

*Christmas Bird Counters,* including Liz Keeney for a donation of cookies!

*Kenyon College Archon Society,* for another great

trail day

*Fall Kenyon service day volunteers,* for work in the garden

# THE 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*

January 19th	Owls of Ohio
February 17th	Hibernation Fascination: Reptiles & Amphibians
March 7th	8th Annual Bluebird Workshop
March 28th	Rain Gardens 101
March 28th	Full Moon Hike
April 3rd	Wild Edibles & Medicinals
April 25th	Earth Day Challenge Marathon & Expo

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CONTAINS DATED MATERIAL

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



