

FIELD NOTES



ONCE IN A BLUE MOON

BLUE MOONS IN 2018 AND OUR
ENCHANTMENT WITH THEM

by Sophia Fornwalt '20
BFEC Student Manager

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What is a Blue Moon?

THE TRUE DEFINITION of a blue moon is debatable, as common and scientific understanding tend to overlap in ways that give birth to confusion. To get it right, we must take a look at the term's usage both in modern speech and in traditional scientific understanding.

In common language, the term "blue moon" refers to the phenomenon of a second full moon occurring in a given month. This definition is the prevailing one in modern day language but is actually due to a popularized miscalculation published in *Sky and Telescope*, a popular scientific magazine in 1946.

In traditional folklore the blue moon is the third full moon in the rare four-moon season. A typical lunar season has three moons, but the occasional fourth moon occurs every 2.6 years to cap off the season with an extra moon. The *Farmers' Almanac* and scientists today have adapted this third moon phenomenon as their definition of a blue moon.

For this year's lunar events, keep the first definition in mind. This year, we will see two months (January and March) with two full moons.

Double Trouble

How can a month have an extra full moon? Let's consider what a typical lunar month looks like. The moon pays no mind to what we consider a 12-month year but follows its own lunar calendar. A full moon occurs every 29.5 days, yet with months of 30 or 31 days, a second moon squeezes its way in every 2.6 years.

Confused? Don't worry! The moon will rest peacefully above us whether or not we understand its mysterious ways.

With our eyes set on the night sky this season, we have the chance of witnessing a second full moon for two months out of our year. On Jan. 31 and March 31 of this year, the sky will hold a blue moon according to the first definition, as it is the second full moon occurring in each month.

Whether you feel the moon's draw to lunacy as it waxes to fullness or find yourself drawn to gazing back at its hushed look upon our world, you will get the chance to witness the moon's second time through its cycle.

Moonstruck

Constant in its presence and beauty, the moon has enchanted humankind since the dawn of human thought. Deities and sacred ceremonies have been attributed to it for thousands of years, the canon of music and literature have been laced with its imagery across cultures, and age exhibits no boundaries when it comes to communal awe at the moon's nature. The moon is a thing of beauty, of wonder at its massive presence in the night sky, never failing to strike us with feeling. This sense of wonder is present in our writings of it, both in lyric and poetry.

Bearing witness to the moon's charm, creating in him a sense of childlike enchantment with the embrace of the moon's gaze, Welsh poet W.H. Davies wrote in *The Moon*:

*Thy beauty haunts me heart and soul,
Oh, thou fair Moon, so close and bright;
Thy beauty makes me like the child
That cries aloud to own thy light:
The little child that lifts each arm
To press thee to her bosom warm.*

*Though there are birds that sing this night
With thy white beams across their throats,
Let my deep silence speak for me
More than for them their sweetest notes:
Who worships thee till music fails,
Is greater than thy nightingales.*

As this year brings us two blue moons, let us ponder the majesty of the moon. Let us be filled with gratitude for its light which shines in dark places, for its presence above us which we chance to forget on a day riddled with stress or worry, bringing us a moment, no matter how brief, of peaceful wonderment at the glow of its beauty.

How will you celebrate this year's blue moons? Will it be with loved ones on a back deck, or on a night time walk with an old friend, or will it be during a moment alone, finding company in its steady shine wherever you may be?



W.H. Davies,
WRITER OF THE MOON

Green Initiatives at Kenyon:

THE LATEST AT THE KENYON FARM

by Ryan Hottle
Farm Director

As the temperatures fall and the mercury creeps downward, we remain busy wrapping up all the outstanding projects and chores needed before winter really sets in. We have been winterizing the goat houses and chicken coops, taking landscape fabric out of the fields, and tending to our perennials including 3,000 odd strawberry rhizomes and 1,000 feet of garlic bulbs we put in a couple months back.

We have also been crunching the numbers. So far we've had more 350 visitors and volunteers, over 4,000 pounds of veggies grown (onions, potatoes, tomatoes, peppers, cabbage, onions, brussel sprouts, etc.), five full-time student farmers and three part-time student farmers, four elementary classrooms visited, four kids (baby goats not humans) born this year, and more groundhogs and deer than we can count. Vice presidential candidate, activist and author Winona LaDuke came to tour the farm and share a meal prior to speaking at a Kenyon event organized in part by some of the students at the farm.

Ongoing projects include installation of two 96-by 30-foot hoophouses, excavation and construction of a permanent duck pond and construction of a pergola at the front entrance. Very soon, we will be hosting a workshop on fermentation as a preservation strategy for fall vegetables open to Kenyon students, staff and faculty as well as the larger community. If anyone wishes to come out, our current volunteer workdays are Tuesday and Thursday, 4:30 to 6:30 p.m. and Saturday, 1 to 4 p.m.

Winona LaDuke sharing a meal at the Farm prior to speaking at Kenyon



OUR NEW LOOK

by Noelle Jordan

A year ago when I was cleaning out one of the storage areas in the Resource Center, I came across several boxes filled with old BFEC newsletters. What a treasure trove! These archived newsletters took me on a journey through the historical milestones of the first 21 years of the BFEC.

As I perused these annals, I noticed that the look of the newsletter had changed over the years. A few short weeks later, I was contacted by Kenyon's Office of Communications with an offer to help with the publication of our quarterly newsletter. They had a few ideas for a new look.

Visually, most of what you see in this edition is the result of their ideas and hard work—simple fonts, more white space and a format that is easy to read and draws attention to beautiful photographs.

The content of the newsletter will remain roughly the same, although I'm always looking for new voices. If you would like to write an article for us, or tell us what you think about our new look, you can contact me at 740-427-5052 or jordan2@kenyon.edu.

If you would like to enjoy our newsletter in full color, consider receiving it via email. To change your delivery method from hard copy to email, send me an email, and I'll update your profile.

HERALDING IN THE HELLBENDERS

by Erin Keleske '18

As my senior classmates and I prepare to leave the Hill next semester, end-of-the-year bucket lists are cropping up everywhere. Amid plans for late night dips in the river and various campus shenanigans sits one last dotty dream of an aspiring conservation biologist. My friends have teased me, underestimating the sheer magnitude of my headstrong determination. I absolutely refuse to leave campus until I see a hellbender salamander. From snorkeling trips down the Kokosing to tiptoeing around countless rocks, I've logged enough hours salamander scavenging to write an entire senior thesis (or at least this article). Call it an odyssey, call it stupid infatuation, but they'll have to pry my hands from the rocky riverbank before I forget the beloved devil dogs I've grown to love.

In theory, the illustrious hellbender shouldn't be hard to find — they spend their entire 30-year lives under one rock, aggressively defending it from intruders and hunting with their incredible sense of smell. This territorialism combined with their record-breaking size (hellbenders are the largest salamander in North America) should make for an easy find. My collegiate quest should have been over years ago. Unfortunately, due to their status as an Ohio endangered species, the hellbender is more enigmatic than one would hope, declining approximately eighty percent in population over the last few decades. Recent research points to declining water quality as a probable cause. After all, hellbenders are almost fully aquatic, breathing through their porous skin and using their lungs for buoyancy alone. However, before scientists learned they primarily eat crayfish, fisherman frequently killed hellbenders in fear of fish populations declining at their jaws. Fortunately, due to diligent conservation work at the BFEC and with the Ohio Department of Natural Resources, the Kokosing River is one of the best remaining habitats for the hellbender. This, paired with the breeding efforts of the Columbus Zoo, the Wilds and the Ohio Division of Wildlife, sets the perfect backdrop for a comeback story. Those following along at home may recall a large-scale release of hellbenders into our very own watershed in August 2016.

This boost in the local population has done nothing to quell my resolve. Quite the opposite, actually: I foresee a spring semester sitting along the riverside, waiting, watching. Until then, these ground puppies will be nested under their usual rock in a near hibernation. Hellbenders generally become active again in the spring when the water warms.

Adult Hellbender
PHOTO: BRIAN GRATWICKE



They spend the summer eating and protecting their territory, and then breeding season begins in August. Males do the hard work of guarding the eggs, but they have been known to indulge in an occasional snack and eat some of the eggs.

Early unflattering species descriptions claimed these salamanders to appear “bent on returning to hell,” garnering the name “hellbender” along with nearly a dozen other vernacular aliases peppered throughout this article. However, with their beady eyes and wrinkly skin, these snot otters are just oozing undeniable charisma. So when spring signals for me to rejoin my post, you'll find me carefully traversing their tromping grounds in hopes of some strange spell bringing me my last Kenyon wish. If you wish to join in the search, I encourage us all to respect their hiding holes and leave their large rocks where you find them.

Erin Keleske snorkeling in the kokosing, searching for hellbenders



VOLUNTEER SPOTLIGHT

This past fall, the BFEC was lucky to have a dedicated high school volunteer working with us.

Brice Moreland, a senior at East Knox High School, volunteered a total of 48 hours. He provided valuable assistance in the wildlife garden, on the trails and in support of our programs and events. Here's what he had to say about his time at the BFEC.

Q: WHAT DO YOU DO AS A VOLUNTEER AT THE BFEC?

I'm volunteering at the BFEC as part of the pre-professional mentorship program through the Knox County Career Center. Since I've been here, I've helped Jill in the garden, I've worked with Shane on a variety of land management tasks, I did a lot of prep work for the Harvest Festival and then I worked at that event. I also helped with a bat house program, and I'm currently writing a membership appeal for potential new members.

Q: HOW LONG WILL YOU BE AT THE BFEC?

I started at the BFEC on Oct. 9, and the mentorship was completed by mid-November. I volunteered 48 hours at the BFEC.

Q: WHY DID YOU SELECT THE BFEC AS A LOCATION FOR THE KCCC MENTORSHIP PROGRAM?

At one point, I wanted to be a biologist so I thought it would be cool to work here. I like how the BFEC is available to both Kenyon students and the community. It's a great place for everyone to come and learn. Big picture, I like that the BFEC works to connect people to nature and shows people that our actions can have a positive impact on the environment.

Q: HAVE YOU LEARNED ANY NEW SKILLS VOLUNTEERING AT THE BFEC?

I learned a lot of general information about the BFEC, like how much property you have and trail mileage. While working with Shane, I learned about invasive plants and how some of them were introduced in the U.S. During the Harvest Festival, I learned how to actively engage with the public and practiced a bit of

public speaking. I also learned how to write professional letters.

Q: DO YOU HAVE A FAVORITE BFEC STORY?

I like the staff meetings! The meetings are always productive, but I love that it is relaxed enough that someone can crack a joke and everyone will laugh. You can be serious, but ready to have fun at the same time — it's pretty hilarious.

Q: TELL US A BIT ABOUT YOUR BACKGROUND.

I'm currently a senior at East Knox High School, and I'm attending the Knox County Career Center for the pre-professional mentorship program this year. The mentorship program is a voluntary program, and I chose to do it because I thought it would be a great opportunity to expand my knowledge about potential careers, get some great hands-on experience and do some professional networking. I have a total of five letters in sports: football, track, wrestling, cross country, soccer. I'm a member of 4-H and I focus on showing pigs. Sometimes I play golf for fun. My family lives in Apple Valley, and I have two siblings, including a fraternal twin, Brant.

Q: PLANS FOR THE FUTURE?

Next semester I hope to mentor at the diagnostic imaging office at Knox County Hospital. This is the kind of career that I hope to pursue. A career in the environment is my back-up plan. I just want a career that will allow me to help people. After high school, I will go wherever opportunities take me, but I hope to someday have a great life here in Knox County.



A bat tries to cover up and keep warm.



Houses on poles help bats find shelter.

PHOTO: LONESTARWOODCRAFT.COM

HELP THE HOMELESS: GIVE BATS A HOME

by Don Comis
Guest Writer

Sophia Fornwalt, a Kenyon sophomore and a BFEC student manager, led a bat house building workshop at BFEC that attracted 22 people.

The turnout shows the interest in helping bats, which face eviction from their summer nesting homes due to human development. And white-nose syndrome makes it less likely they will emerge alive from their winter hibernation homes, especially caves where the fungus thrives.

Fornwalt explained that bats are a keystone species which many other species — both plants and animals — depend on. She explained that the name comes from the term for the top middle block of a stone arch. Just as removing the keystone block from an arch would cause the entire arch to collapse, the loss of bats would cause the ecosystems where they live to collapse.

She said bats are the sole pollinators of some nighttime plants, with tropical and desert plants particularly bat-dependent, including agave, banana, mango, and guava. Here in Ohio, bats keep flying pests under control and provide guano, a fertilizer that has the added bonus of soil-cleansing microbes.

Fornwalt stressed that less than one percent of bats carry rabies. And, they are afraid of us, with many using echolocation to avoid us.

So, here's what to do:

1. Change our perspective about bats.
2. Leave dead trees alone — bats live in them.
3. Have bats removed from homes humanely and released outdoors.
4. Provide a bat house outdoors to be sure they don't come back in.

For more information, go to Bat Conservation International at batcon.org. Also, find the bat house plan at <http://bit.ly/2AoTFI9>.

BFEC *by the numbers*

4509 **1601**

Total people actively served by
BFEC, summer and fall 2017

Guests at Autumn Fair

243

Elementary
School
Children,
Fall 2017

235

Kenyon students
and faculty at
BFEC Fall 2017,
on multiple
occasions

171

Current
members

108

Guests at the
climb-a-tree
event

63

Volunteers
served
661 hours,
July 1 -
Nov. 15,
2017

Thank you to our volunteers.

Volunteers helps us in the garden, on the land,
in the office, and with programming

IN THE GARDEN: Terri Heironimus, Hulda Geng, Besty Billiter,
Drew Kerkhoff

IN THE OFFICE: Dianne Mack, Ellen Beller, Audrey Neubauer

ON THE TRAILS: Kenyon Land Lords

PUBLIC PROGRAMS: Tim Shutt

FIELD TRIP VOLUNTEERS: 22 Kenyon students plus Estelle Parker and
Brian Miller served 136 hours in support of field trips.

A LITTLE BIT OF EVERYTHING: Brice Moreland, senior at East Knox
High School participated in the Pre-Professional Mentorship program
through the Knox County Career Center. He volunteered 48 hours in
support of programming, land management, and the wildlife garden.

BFEC MEMBERS

October and November

BENEFACTOR

Doug L. Givens
Buffy and Bob Hallinan
Burt Hanson
Margo de Camp and David M. Marietta
David and Kim Newell

PATRON

Gene Bailey
Geoffrey and Lori Brown
Kimberlee and Joe Klesner
Jennifer McMahon
Dennis and Pat Tuttle
Ian Watson
Memorial Bench In Memory of Scott Layson
*Given by the Career Development Office
at Kenyon College*

FRIEND

Tom Jegla
Noelle Jordan
Rebecca Metcalf
Tom and Joan Sant
Jim and Marcie Steen
Jay and Barbara Wilson
In Memory of Pat Fry
*Given by the Knox County Chapter of Ohio
Retired Teachers Association*

FAMILY

Jim and Elizabeth Atkinson
Christopher Bickford and Karen Bagne
Helen and Don Comis
Christopher and Rhoda Holabird
Bill and Pat McCulloh
Joe and Sally Nelson

INDIVIDUAL

Zack Weber
Jenny Sutcliffe

UPCOMING EVENTS

MILLER OBSERVATORY OPEN HOUSE

JAN. 26, 9 p.m.-11 p.m.

Enjoy telescope views of celestial sites including the moon, planets like Venus, Jupiter, and Saturn, as well as star clusters and nebulae. Weather permitting — if it's cloudy, the program will be cancelled). **Meet at Miller Observatory. FREE.**

HOWL AT THE MOON: FULL MOON HIKE

JAN. 31, 6 p.m.

The program begins inside the BFEC Resource Center with a presentation on coyotes, and continues with a hike up a hill to see if the coyotes will howl under the full moon. Fun for the whole family. **Meet at the BFEC Resource Center.**

BALD EAGLES OF KNOX COUNTY

FEB. 3, 2 p.m.

Knox County's bald eagle population is growing. Learn about mating rituals, rearing behaviors, juvenile molting stages and so much more during this indoor presentation. After the presentation and discussion, we will carpool to several nesting sites on the east side of Knox County in hopes of catching a glimpse of several mating pairs. **Meet at the BFEC Resource Center.**

MILLER OBSERVATORY OPEN HOUSE

FEB. 23, 9 p.m.-11 p.m.

Enjoy telescope views of celestial sites including the moon, planets like Venus, Jupiter, and Saturn, as well as star clusters and nebulae. Weather permitting — if it's cloudy, the program will be cancelled). **Meet at Miller Observatory. FREE.**

BALANCING YOUR HEALTH, PART 1: ENVIRONMENTAL TOXINS

MAR. 24, 2 p.m.

The human body is constantly exposed to such environmental toxins as air pollution, lead, pesticides and UV rays. This presentation explores the body's ability to handle environmental toxins as well as methods to handle overexposure to toxins and keep health in balance. **Meet at the BFEC Resource Center. RSVP requested. Call 740-427-5052 to reserve your seat.**

FAMILY FUN DAY

MAR. 28, 1-4 p.m.

Enjoy a fun afternoon at the BFEC with the whole family. Take a short nature hike, jump in on a nature investigation and create something crafty using natural materials. **Meet at the BFEC Resource Center. FREE.**

MILLER OBSERVATORY OPEN HOUSE

MAR. 30, 9 p.m.-11 p.m.

Enjoy telescope views of celestial sites including the moon, planets like Venus, Jupiter, and Saturn, as well as star clusters and nebulae. Weather permitting — if it's cloudy, the program will be cancelled). **Meet at Miller Observatory. FREE.**

KEEP IT WILD: EARTH DAY AT THE BFEC

APR. 21, Noon-4 p.m.

You don't want to miss this FREE event! We'll have live raptors, mammals, reptiles and insects for you to meet up close. Make and take bluebird boxes, bat boxes and more. Live music and a food truck will round out the afternoon.



Brown Family Environmental Center

at Kenyon College

bfec.kenyon.edu | 740-427-5050

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

Jill Kerkhoff, *Facilities Coordinator and Office Administrator*

Shane McGuire, *Land Manager Naturalist*

Noelle Jordan, *Manager*

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

CONSIDER MAKING A GIFT

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

()
MOBILE PHONE

EMAIL ADDRESS

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 _____

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

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