



COPPERHEADS

Fact & Fiction



The Northern Water Snake (left) is sometimes misidentified as a Copperhead (right). The chances of seeing an actual Copperhead in Knox County are extremely slim - a verified sighting has not occurred since the 1970's.

Knox County was once home to vast tracts of old growth forest and many animals that no longer roam the countryside, like wolves, mountain lions, bison, elk, and the Northern Copperhead.

The Northern Copperhead (*Agkistrodon contortrix mokasen*) once inhabited 26 counties in southern and eastern Ohio, but due to habitat loss now inhabits just 8. Though sightings are still rumored in Knox County, the last verified sighting occurred in mid-1970's.

Copperheads are consistently misidentified for several reasons, firstly because they are relatively uncommon throughout much of their range. Where they are common, they are quite secretive, and therefore are not

widely encountered like Rat Snakes or Garter Snakes. Any unusually patterned or aggressive snake often becomes a suspected Copperhead.

This snake requires large tracts of wooded, south facing hillsides with large rocks and crevices for hiding and hibernating. Feeding mostly on small mammals such as deer mice, chipmunks, and voles, as well as amphibians and other snakes, Copperheads are, for the most part, "lie-and-wait" predators that ambushes prey.

Copperheads belong to a group of snakes known as pit vipers, which have special heat sensitive pits in the front of their face. These pits are able to form a "picture" of prey using the animal's body heat, much like an infrared camera. This also allows

them to determine an animal's size, so they can avoid large predators or shovel-wielding humans.

Once a Copperhead bites an animal, it lets go of it immediately and waits for the carefully regulated amount of venom to take effect. After an animal is incapacitated, the Copperhead can use its heat-sensitive pits to follow a heat trail left by the animal, as well as its ribbon-like, forked tongue to "taste" where the animal has been.

CUCUMBERS & HELICOPTERS

No snake is more shrouded in folklore, mystery, and misinformation than the Copperhead. Appalachian folklore tells us that a Copperhead smells like cucumbers when unknowingly approached, or just before it bites.

Black Rat Snakes are also sometimes referred to as "Pilot" Snakes, based on the notion that they lead Copperheads to safety, and if a Rat Snake is spotted, you can be sure that there is a Copperhead lurking behind it.

Shake, Rattle & Role: **Venomous Snakes of Ohio**

Sunday, Jan. 29th, 2pm

Renowned Ohio snake expert and researcher Doug Wynn will share LIVE examples of Ohio's venomous snakes!
See details on page 6.

Continued page 2

Another perplexing, yet interesting myth involves black helicopters, covert operations, and turkeys. Starting in the late 1980's, stories began circulating that the state government was reintroducing Copperheads and Timber Rattlesnakes into the wild by flying over large woodlands at night and dropping snakes attached to tiny parachutes to facilitate a safe landing. The reason for this: the snakes would eat the eggs and young of Ohio's growing Turkey population, therefore keeping it in check.

Some of these stories do contain a microscopic bit of truth. Copperheads, like most snakes, release a scent, or "musk", when threatened, although it doesn't smell very much like cucumber.

Copperheads, Rattlesnakes, and Black Rat Snakes all hibernate in similar areas, often a deep rocky crevice on a sunny slope. During Ohio's settlement in the early 19th century, settlers often found these and other snakes seemingly "living" together in these areas, and somewhere the myth of the "Pilot Snake" was born.

As far as helicopters and parachuting snakes, this is a classic urban legend that plays on our fear of snakes and social or political anxiety, and will resurface when, like most urban legends, it is needed.

MISUNDERSTOOD

Copperheads are commonly thought to be aggressive, but just the opposite is true. Unlike their close cousin, the Timber Rattlesnake, Copperheads lack the auditory warning system a rattle provides. They instead rely on cryptic coloration, not aggression, to avoid interaction with humans and predators. They prefer to hide in leafy debris and go unnoticed.

If a Copperhead bites, often it is because it was unnecessarily handled or stepped on accidentally. In almost ALL cases of venomous snake bite,

human error is to blame much more than the snake.

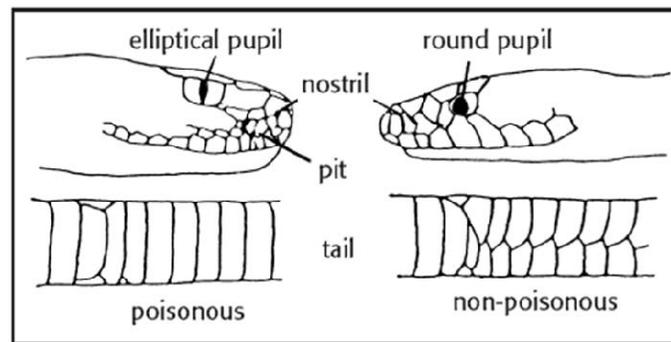
Consider these statistics:

- ◆ Most venomous snake bites involve consumption of alcohol.
- ◆ Men between the ages of 16 and 25 account for about 95% of all venomous snake bites in the US, and are typically bitten on the hands and fingers - in other words, while provoking a snake.
- ◆ Women of all ages account for just 5% of snake bites and are often bitten on the ankles and feet - likely accidental bites to sandal wearers.
- ◆ The American Association of Poison Control Centers has not reported a Copperhead fatality since 1983.

Copperhead bites cause sickness, but they are lethal only to the very young, old, or ill.

Because knowledge can help conquer fear, and because old western movies are a persistent, errant form of snakebite first aid knowledge, we thought we'd include some tips in the event that you are bitten by a venomous snake.

Here's what not to do: apply a tourniquet, cut the wound open, attempt to suck out the venom, or drink alcohol, coffee, or soda. While once accepted forms of treatment, they were often



Venomous snakes can generally be distinguished from non-venomous snakes by their distinctly triangular-shaped head, elliptical pupil, heat-sensing pits below the nostril, and overlapping scales near the tail.

worse than the injury, and lead to infection, loss of a limb, or aid the delivery of venom by accelerating the heart or thinning the blood.

If bitten by a venomous snake, the first and best rule is to stay calm and seek medical attention. Then position yourself so the bitten arm or leg is below heart level, gently cleanse the wound with soap and water, and apply a loose sterile bandage.

To help prevent snakebite in the wild, always remember to watch where you put your hands and feet, wear sturdy hiking boots or shoes (not sandals or flipflops), never pick up a snake, and have a healthy respect for all of the natural world.

MISIDENTIFIED

Because of their limited range and secretive nature, Copperheads are not commonly seen. If you did happen across one, you would notice these traits:

- ◆ Triangular, copper-colored head
- ◆ Dark brown hour-glass shaped pattern along back
- ◆ Vertical "cat-like" pupils
- ◆ Heat sensitive pit between eye and nostril
- ◆ Short, stocky body

Two other Ohio snakes have patterning that could, at first glance, appear similar: the Milk Snake (*Lampropeltis triangulum*) and North-

On the Ground

by Facility Manager David Heithaus

Regardless of what any astrological paradigms might assert, the prevailing theme of 2011 has been one of water. Lots of water. Generally, the fall and early winter is a great time to get things done without all the muss and muddy fuss of spring. The ground is dry and/or frozen; getting around is a piece of cake. Not so in 2011...

WETTEST YEAR ON RECORD

While a hiccup in our data collection does not allow us to confirm or deny this with absolute certainty, data from surrounding areas suggests that we have surpassed the previous record for wettest year ever with rainfall totals likely above 55 inches.

With the standard laundry list of fall and winter projects getting compressed into a shorter and shorter chunk of soggy-looking time before the holidays, this particular record began to cause a certain amount of discomfort around the office.

I started getting nervous in November when the Kokosing, traditionally a no-show after June, began creeping back into bottomland for the second time since spring. Things became even more unsettling when the Mudman races actually involved mud that wasn't man-made. Something wasn't right. Yet on poured the rain... and on... and on. The final straw arrived mid-December when animals began showing up in pairs and marching two-by-two with more purpose than I am comfortable with. It was time to get to work or join them on the boat...

GIVENS' GROVE COMPLETE...

...we mean it this time! If you've braved our swamp in the vicinity of Givens' Grove, you may have noted a few tall newcomers to the hillside above the boardwalk.

Thanks to some unexpected project contributions, we've been able to take the Grove one giant step beyond what we had imagined possible last year. Over 35 trees ranging in height from 7-10 feet were planted the week before Christmas. These include American persimmons, sasafra, black gum and four new varieties of oak.

It is no secret that I rather enjoy planting trees and watching them grow... terribly inconvenient as I am *a)* generally planting very small trees and *b)* extremely impatient. So the Grove's Holiday Surprise was a great personal treat for me as well. While there is no doubt that both the Land Lords (a Kenyon student volunteer group) and BFEC staff will find more tweaks and fixes (read: mangling invasive plants that persist), the hillside is now officially full and I believe we can finally say that Givens' Grove is ready to grow.

The wettest year on record did not allow our fall planting to go off without a hitch. You see, in order to get the trees in the ground, they first had to make the trek across a pasture normally frozen in late December. While history certainly contains journeys more epic and at least two with more mud, that pasture claimed more than any piece of land its size has a right to. Lost for some period of time in that muck and grass were six men, three trucks, one tractor, a

skid loader, all 35 trees, 250 feet of snow fence, a cellular phone, a plastic culvert, 4 goats, 6 cows, a garden hoe and one rubber boot. Most are now safely where they belong.

MOUNTAIN BROOK WHATS?

Speaking of things that actually belong in mud and water, the presence of the state-endangered mountain brook lamprey was recently confirmed in the Kokosing River right here at the BFEC.

The mountain brook lamprey is found in only two river systems in the state (the West Branch of the Mahoning, between Akron and Youngstown, being the other). In the lower Kokosing these peculiar fish are not entirely uncommon in areas of soft, sandy sediment. Even so, you could spend a lifetime splashing from the headwaters to the confluence without ever seeing one.

The tricky thing about finding a mountain brook lamprey largely boils down to their unusual life history. On a superficial level, they have more in common with certain aquatic invertebrates than with what you'd think of as a typical fish. Much of the lamprey's life is spent in a larval form. In this state, the lamprey burrows into the substrate and kicks back for some old-school filter feeding: the good life as I see it. After a period of time that can stretch into years, the larva emerges, grows

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The Kokosing River is one of only two rivers in Ohio where the state-endangered Mountain Brook Lamprey is found. Photo courtesy of Brian Zimmerman.



...On The Ground, continued from page 3

enough eyes and fins to find a mate, swaps some genetic material and goes about its merry way to the grave. This happens pretty quickly, so unless you look for just the right thing at just the right time in just the right place, the lampreys are easy to miss.

In over twenty years futzing about near the river, I had never seen one. I had heard that they might be around and my nephews once claimed to have captured a slimy, eel-like creature near the Laymon Road Bridge but... people also maintain that Grassman ("Bigfoot" for the uninitiated) hangs out near the boat ramp at Salt Fork State Park and my

nephews have been known to... exaggerate from time to time.

At the end of the day, it took electrofishing gear and a person who knows things about fish that fish themselves need to be reminded of to actually verify their existence in our neck of the woods. And you know the first place we scared one up? Right there at the Laymon Road Bridge. So sorry guys, I shouldn't have doubted. We'll go look for Grassman in March.

Getting to something that resembles a point, the mountain brook lamprey is a good example of two important things: 1) mystery and wonder can still lurk directly beneath our noses ... even in Knox County; and 2) con-

sidering that, a cautious approach to land/water use and management may just make some sense. If spotting an animal requires either lottery-winning good fortune or a device that delivers a hefty shock, that animal is not likely to be seen very frequently and things that aren't seen very frequently are easy to forget about (except for Grassman of course). Failing good reasons to do otherwise, protecting open spaces, wildlands and waterways is a great way to ensure we don't lose things before we have the time or good fortune to find them.

Happy, prosperous and outdoorsy new year to all!



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 join or renew for 2012!

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 _____

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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

DANCERS ON THE WATER

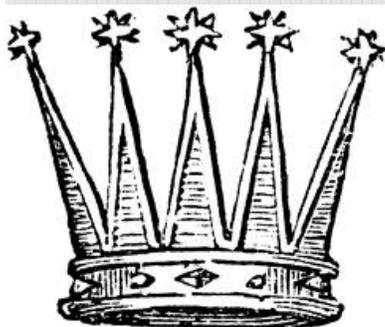
Like the liberal arts college to which we belong, the BFEC strives to provide different, yet connected, vantage points for experiencing our world. Our programs often take the form of nature hikes, but also photography contests, poetry readings, or discussions of Greek mythology during star gazing. We were delighted to add another vantage point in October, as the College's Department of Art, Drama, and Film presented a site-specific dance performance.

Twenty-five Kenyon students and two faculty performed seven vignettes for over two-hundred people. The performers utilized the historic Kokosing Gap Trail bridge spanning the Kokosing River and BFEC trails below. The event was titled "Awakening the Familiar," referring to the goal of site-specific dance of allowing audience members to re-experience a familiar space. Dressed in hues of red and plum, the performers used movement and sound in and out of the river, at times emulating falling, spiraling leaves, the unfurling of the season, and the transient nature of vibrant fall colors.



Photo courtesy of Ally Schmaling

AND THE WINNERS ARE...



We're pleased to share the results of two BFEC contests held in October:

Nearly 140 runners braved the **Mudman Triple Trail Race Series**, which featured three races full of maniacal mud, hills, darkness, and/or obstacles. Congratulations to the Mudman King & Queen, who held the highest rankings over all three races: Matthew Davis and Elizabeth Poore.

Harvest Festival goers enjoyed viewing and voting on over 100 photographs entered in the BFEC's **14th Annual Knox County Nature Photography Contest**. Thank you for all participants for sharing what you appreciate about our beautiful landscape. In first through third place order, winners were Jennifer

Kamalson, Logan Wade, Olivia LaBenne in the Children's Division, and Michelle Covert, Jeff Kusner, Duane Hurbert in the Adult Division.

WINTER ROBINS?

The BFEC is home to an amazingly diverse variety of birds, and one of the easiest to identify is the harbinger of spring, the American Robin. Robins belong to a group of songbirds called Thrushes, which also includes Bluebirds. They are common lawn and city birds, but are also at home in woodlands and wild areas.

Some Knox County residents are surprised to spot Robins in winter. Most of them do migrate south and time their spring return with warm, rainy weather and the emergence of earthworms. However, a few Robins will remain in their breeding range all winter if their favorite winter food - berries and fruit - are available. In winter they are spotted far less frequently because much of their time is spent roosting in trees instead of on lawns where they forage during spring. Their winter foods include berries and fruits of Poison Ivy, Barberry, and Honeysuckle. (Robins that feed exclusively on Honeysuckle may in fact become intoxicated because of the fermenting berries.) During unusually warm and wet winters, they will still invade yards *en masse* to feed on earthworms, a treat during drab and dreary days.



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>

Family Adventure Days - First Saturdays, 1-5pm.

Join us for a different adventure on every first Saturday! Check out a display, chat with a naturalist, go on a scavenger hunt, and try your hand at a craft. Visitors are also free to just explore the center, use our extensive library of field guides, or borrow equipment like nets and binoculars.

- January 7** **Animal Signs & Tracks:** Look for signs and tracks of animals on the trails, and check out our live animals and animal furs & skulls collection.
- February 4** **Winter Birds:** See some of Ohio's year-around residents and winter migrants from inside the center, or grab a pair of binoculars to hit the trails.
- March 3** **Amazing Amphibians:** Explore amphibian habitat, see tadpoles, listen for spring peepers, and check out the very first flower to bloom in the spring.

Shake, Rattle & Role: Venomous Snakes of Ohio - Sunday, January 29, 2pm.

One of Ohio's foremost snake experts, Doug Wynn, will present slides describing Ohio's three venomous snakes – the copperhead, the massasauga rattlesnake, and the timber rattlesnake. See LIVE examples of all three, including a timber rattlesnake placed partially in a clear tube so that participants can safely touch it. Two of these snake species are on the Ohio Endangered Species list - hear tales of Doug's expeditions to find and study them. Cosponsored by the Knox County Park District.

Owl Prowl - Thursday, February 23, 7:00pm.

Join our night adventure to explore for two species of owls that can be seen and heard in the Kokosing valley. We'll begin inside with images, legends and lore, and then we'll hit the trail for a short hike with stops to use recorded calls and entice owls to call or come our way. Cosponsored by the Knox County Park District.



Behold the Bogsucker - Saturday March 24, 7:00 p.m.

Honey Run Highlands Park, 10816 Millersburg Rd. Former Metro Park Chief Naturalist Gary Moore will lead a foray to the courtship grounds of a truly unusual creature known as the Timberdoodle, Bogsucker or American Woodcock. Their courtship flights are fascinating as they wing skyward to impress the fairer gender to propagate and nest on the highland fields. Join us for more "Doodle" lore and a short sunset hike to catch a performance Aldo Leopold called "Dancers in the sky." Meet at the park entrance at 10816 Millersburg Road (US 62), just south of Millwood (near Caves Rd). Cosponsored by the Knox County Park District (knoxcountyparks.org).

Earth Day Festival & Earth Day Challenge Marathon - Sunday, April 22, 11am-3pm, Kenyon Athletic Center.

The Festival is a FREE family event that focuses on keeping ourselves and our world healthy - two goals that go hand-in-hand! Features will include exhibitors of green and healthy products and resources, farmers market and petting zoo, door prizes, music, and hands-on activities for people of all ages. Help cheer on marathon runners as they finish! Race registration available at premierraces.com.

Miller Observatory Open House - Last Fridays.

Kenyon Professor of Physics Paula Turner hosts an open house on last Fridays of the month. The open house will start at 8pm in January and February and at 9pm in March through September. Open houses are cancelled in cloudy weather. Please dress warmly. 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 an access road.

Thank You to...

Our Members *October - December 2011*

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Our Volunteers

In the office, classroom, gardens and on the trails: Liz Keeney, Kenyon College Land Lord Club

Harvest Festival: Keith Kitchen, Kerkhoff Family, Kenyon College Chapter of Phi Kappa Sigma

Mudman Triple Trail Run: Ron Dukes, Chris Gillan, Maureen Tobin, Chuck Shabat, and Pam Mountain

Christmas Bird Count: Thank you to the 30+ volunteers who woke up early to help the BFEC continue this tradition! The BFEC

count was one of 2,000 counts held across the nation to collect important data about the state of the birds.

Our Donors

After Kenyon Society
Class of '91 in honor of Ray & Pat Heithaus

Adopt-a-bench sponsors: Scott & Allyson Williams, in honor of Henry & Geoffrey Enck



Copperheads, continued from page 2

ern Watersnake (*Nerodia sipedon*). Luckily there are some easy ways to distinguish them.

Milk Snakes have richly colored rectangular splotches along their back, and vary in color from red-brown to a deep gray. They can be easily differentiated from Cooperheads by a series of "checkerboard" splotches along their belly. Reaching a length of up to 36", they are harmless to humans, but may "rattle", or vibrate the very tip of their tail in order to scare predators and humans when

encountered.

The Northern Watersnake has a diamond-like pattern which is wide along the back and narrow on the sides, which can initially appear similar to a Copperhead. But the Copperhead's pattern is, in fact, the reverse: its dark brown hour-glass pattern is narrow along the back and wide at the sides.

Northern Watersnakes also have a brown drab head, while Copperheads have distinctly copper-colored, triangular heads. And as the name im-

plies, Northern Watersnakes do not stray far from water. They have an overall foul temper and can be quite aggressive when they are provoked. That feisty snake you encountered at the edge of pond? Probably not a Copperhead.

Although Copperheads are dangerous, the chances of encountering one in the wild as you hike around Knox County are slim to none. If you happen across a snake you do not recognize, admire it at a distance and leave with a good photograph, not an injured or dead snake.

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

Sunday	Jan. 29	Venomous Snakes of Ohio
Saturday	Feb. 4	Winter Birds <i>Family Adventure Day</i>
Thursday	Feb. 23	Owl Prowl
Saturday	March 3	Amazing Amphibians <i>Family Adv. Day</i>
Saturday	March 24	Behold the Bogsucker
Sunday	April 22	Earth Day Festival & Earth Day Challenge Marathon

Shake, Rattle & Role: **Venomous Snakes of Ohio**

Sunday, January 29th, 2pm

See LIVE examples of Ohio's venomous snakes with renowned Ohio snake expert and researcher Doug Wynn.

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

DATE MAILED: January, 2012
CONTAINS DATED MATERIAL

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



