THE MONITOR

NEWSLETTER OF THE HOOSIER HERPETOLOGICAL SOCIETY

A non-profit organization dedicated to the education of its membership and the conservation of all amphibians and reptiles

Volume 25 Number 4 April 2014

April HHS meeting

April 16th 7:00 p.m.

Holliday Park, Auditorium

Guest Speaker: Dr. Angela M. Lennox

Topic: "What's New in Reptile and Amphibian Medicine?"

The Hoosier Herpetological Society is proud to welcome Dr. Angela M. Lennox as this month's guest speaker. Angela M. Lennox a 1989 graduate of Purdue University School of Veterinary Medicine and has practiced exclusively exotic medicine since 1991. She is the owner of the Avian and Exotic Animal Clinic of Indianapolis. She is a diplomat in the American Board of Veterinary Practitioner in both Avian and Exotic Companion Mammal Medicine. Dr. Lennox an adjunct professor at Purdue University Department of Clinical Sciences and teaches various exotic animal medicine topics to both veterinary and veterinary technician students. She has written and lectured extensively throughout the US and internationally, including the International Conference on Exotics where she was awarded the Exotic DVM of the Year. At the North American Veterinary Conference she was voted Exotic speaker of the year in 2007, and again in 2010 and several other awards. She is the author of 9 book chapters and 20 scientific articles. She is the AEMV section editor of the Journal of Exotic Pet Medicine. She resides near Indianapolis with her husband of more than 20 years and her four daughters. Her topic is "What's New in Reptile and Amphibian Medicine". We are very glad that she was worked us into her very busy schedule. Hope to see you at this special meeting!

President's message

Jim Horton

The HHS will host the **Midwest Herpetological Symposium** (MHS) **October 17-19**. This event includes an auction which is the fundraiser for the HHS. We are looking for herp-related items for this auction such as artwork, books, supplies, etc. Your help is needed in order for us to host a successful conference. Please see me or any board member if you would like to help out.

Thanks to all HHS members who helped out at our booth at the North American Reptile Breeders Conference (NARBC) show at Tinley Park, Illinois last month. We thank NARBC show promoter Bob Ashley for the complementary booth as well.

Thanks to the Friends of McCormick's Creek State Park for their generous donation to the HHS. It is very much appreciated!

I would like to thank Erin Wagner for writing and submitting an article for this months Monitor.

In the event of a meeting cancelation or other interruptions, please check the HHS website, Facebook page, or don't hesitate to contact me. Stardali84@hotmail.com

Our *Herp of the Month* presenter, Jackson Rhoad, has agreed to reschedule his presentation. He will be showing his bearded dragon. As you'll recall, Jackson was to present his bearded dragon last month. His father informed me that Jackson was concerned about his beardie and the cold weather last month. Now that's a responsible herp caretaker. Nice job Jackson!

Why is that frog green?

By Erin Wagner

Animal species around the world display a stunning array of colors. Perhaps you have thought about WHY animals display the colors they do, with reasons ranging from warning signs, camouflage, or even due to selective breeding by humans to have cool looking pets. But have you ever thought about HOW animals make their colors?

The short answer is that animals have special cells in their skin that make the colors you see. The long answer is "it's complicated".

There are a lot of colorful animals and insects in this world, but since this is in a newsletter for an herpetology society, let's be specific and explore how some of the basic skin colors seen in reptiles and amphibians are made.

Most the colors you see in reptile and amphibians, including red, yellow, orange, green, blue, purple, pink, brown and white are created using four special cells in the skin of these animals. Three of these cells can produce colored pigments, while the third contains reflective structures. The four cells are called xanthophores, erythrophores, melanophores, and iridophores. Xanthophores produce a yellow pigment, erythrophores produce a red pigment, and melanophores produce a black pigment, while iridophores are the cells that contain the reflective structures. These special cells are arranged in layers so that the cells producing black pigment are on the bottom, the cells producing red and yellow are on the top, and the reflective cells are sandwiched in the middle.

One easy example of how these cells work together is in the coloration of corn snakes. A normal corn snake has red, orange and black colored skin/scales. The red and orange colors are due to the production of red or a mixture of red and yellow pigment respectively, while the black is due to the production of black pigment. In the pet trade there are many different color morphs including amelanistic, a*nerythristic* (or "anery"), and snow. Amelanistic corn

snakes do not produce black pigment, so the snake looks red, orange, and white. Anery animals do not produce red or yellow, so the snake looks black and white. And finally the snow corn snake is not able to produce red, yellow or black, so it looks white.

Considering the corn snake example, and the colors the four special cells produce, it is easy to see how reptiles and amphibians can have red, yellow and black colors on their skin, but how do they make all the other colors? The secret to the other colors is the reflective cells. The reflective cells cause the white light hitting the animal's skin to scatter into different colors of light that is then bounced back to our eyes. For example, a frog's green skin is caused when the reflective cells bounce blue light through a layer of yellow cells, blue + yellow = green. If that same frog had no yellow cells, the frog's skin would look blue.

A final example of how these cells interact is in the production of brown or dark colored animals. These animals are still able to produce colors like lighter colored animals, but they produce a large amount of black pigment, making their skin look much darker than animals that produce less black pigment. For example a lizard that looks brown is producing a mixture of red and yellow colors that makes orange, but the large amount of black color the animal produces darkens the orange to brown.

Last month's speaker

By Jim Horton

Mr. Tony Evans was scheduled to speak for us in March. Unfortunately, his daughter had become ill and he was unable to make it. Instead, he graciously contacted his colleague, Mr. James Kaiser (Copperhead Consulting) and he presented "The Herps of the Ocoee River Gorge". James had been contracted to do an assessment of the area for a proposed road project. Some time ago, the state endangered, Northern pine snake had been recorded in the area and this needed to be verified before the road was to be built.

This was a 2-year study was conducted in Poke County, Tennessee with a rocky, mountainous topography. This study area consisted of primarily grassy ridge tops and open slopes.

Artificial cover was the preferred method at this assessment. Over 800 sheets of corrugated roofing tin had been utilized at 25 sites. 15-20 sheets were placed in strategic areas for the prospect of high herp yields.

309 total animals were recorded representing 24 species. In all, 194 snakes and 115 lizards (7 species) were found. The most common snake was the black racer (83), followed by northern copperheads (29) and 25 corn snakes. James was surprised that only one timber rattlesnake was found (not under artificial cover).

115 lizards were recorded during this research. The high numbers were ground skinks (57) followed by green anoles (13) and fence lizards (12) rounding out the top three. Other species of lizards found were broadhead skinks (11), coal skinks (6), and racerunners (seen but not captured).

A few other notable facts mentioned during the talk. Two rough green snakes were found about 35 feet up a walnut tree. James also witnessed a black racer using its own body to corral fish in a small creek for consumption. Fire ants are making their way north. James found many and was surprised to see them in the area.

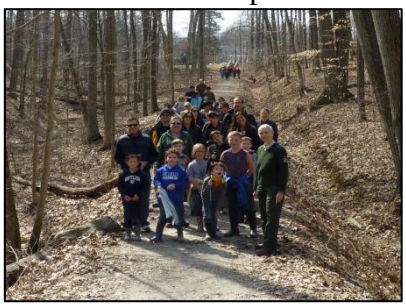
Again, thanks to Mr. Kaiser for making himself available on such short notice.

Salamander Outing at McCormick's Creek

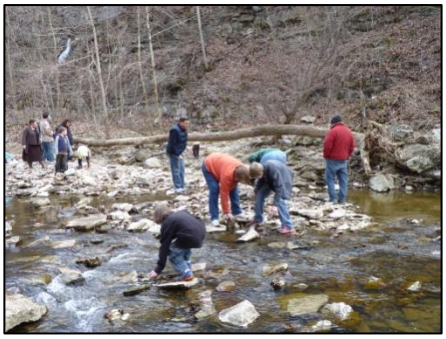
By Jim Horton

March 22 turned out to be the same weather conditions as last year for the *Amphibian Outing* at McCormick's Creek State Park in Spencer, Indiana. HHS member and park naturalist, Barbara Filtri orchestrated this event. Good numbers of attendees had shown up to take part in the many activities planned for the day. A Powerpoint presentation of The Amphibians of McCormick's Creek State Park and Surrounding Area was given by Jim Horton. This was followed by a display of live native Indiana frogs, toads, and salamanders provided by Jim and Rick Marrs.

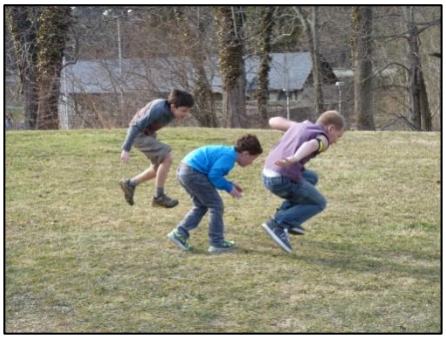
Afterwards, Barbara lead a hike to trail 3 that lead everyone to a creek in the park.



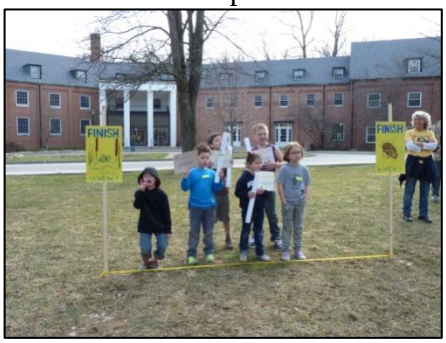
Three species of salamanders were found by carefully lifting rocks in or near the creek-side. Two-lined, redback, and zigzag salamanders thrilled young kids as some of them had just found their first salamander ever!



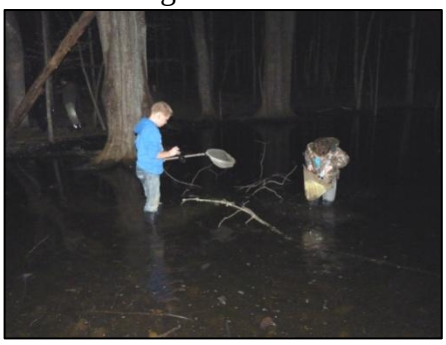
After drying off, the younger kids participated in an *amphibian triathlon*.



Again, Barbara had staked up several start/ending points where kids were to leap like a frog, hop like a toad, and crawl like a salamander. The winners were treated to a certificate and a wildlife poster.



After dinner at the park inn, it was time for the visit to the vernal pond. There was no disappointment here either. Spring peepers were calling and wood frogs were abundant!



I think next year will be even better! Thanks to Barbara and the Frinds of McCormick's Creek State Park for this wonderful event!

www.hoosierherpsoc.org

The Monitor is printed courtesy of: **Harding Poorman**

Spike-Skinned Tree Frog Discovered in Vietnam

April 7, 2014 Source: reptilesmagazine.com

Researchers who frequently explore the mountain regions of Vietnam have discovered a new species of frog on the country's Ngoc Linh Nature Reserve in Kon Tum Province and nearby mountain peaks above 5,900 feet. The frog, called the thorny tree frog (*Gracixalus lumarius*), is interesting in that it possesses sharp spikes on its skin, presumably to help the female frogs identify males.

(Photo by Jodi Rowley) A male thorny tree frog (*Gracixalus lumarius*). Only males have the spikes on their skin.

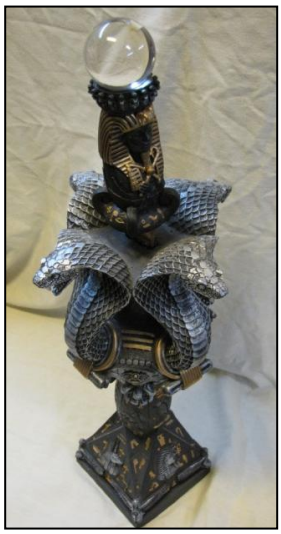
"Almost every tree we looked in had these frogs. They seem to be only from the tops of mountains in this one area in Vietnam, and this region is known to be home to a bunch of species that are found nowhere else," Rowley, a biologist at the Australian Museum Research Institute in Sydney told *National Geographic*.

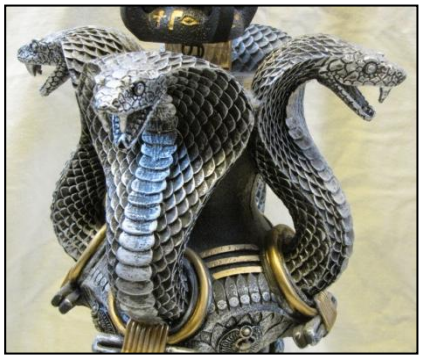
The pink and yellow frogs are just two inches in length with the spikes covering the back and head of the male frogs. The skin feels like sandpaper, according to Rowley, and the spikes grow larger during mating season. According to the paper, the frogs are found in tree hollows that are capable of holding pools of water, as there isn't much standing water on the mountains that these frogs were found.

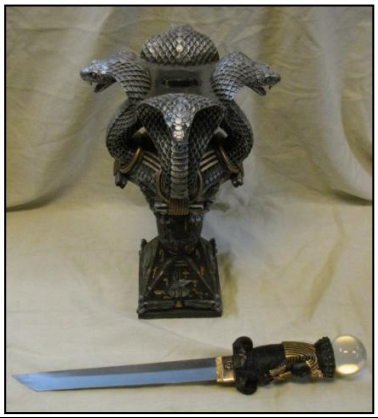
KNIVES AND HERP ART (Part 32)

Photos & text by Roger Carter

This is another ancient Egyptian style knife. There is a base shaped like a pillar with four cobras reared up and hooded near the top. The entire unit is seventeen and three/quarter inches tall. When separated, the knife is fifteen and one/quarter inches long with the blade eight and three/quarter inches long, 440 stainless steel and made in China. This blade is not sharp. Most of the base is black with some gold where the cobras rise up out of the base and the hieroglyphics. The knife's handle is mostly black with some gold color and is shaped like a Pharaoh. On the Pharaoh's head is a kind of cap with a clear sphere that appears to be plastic. The whole unit is quite heavy and is probably made of some kind of resin.







2014 HERPETOLOGICAL EVENTS

April 16, 2014 – HHS Meeting, Special Guest Speaker - Dr. Angela M. Lennox, Owner - Avian and Exotic Animal Clinic in Indianapolis. Topic - *What's New in Reptile and Amphibian Medicine.*

May 9 &10, 2014 – Herpetology Weekend, Natural Bridge State Park, KY Field trips all day Saturday. Herpetology professionals will be speaking on Friday and Saturday evening in the Woodland Center. For more information, contact Brian Gasdorf at brian.gasdorf@ky.gov or call 1-800-325-1710.

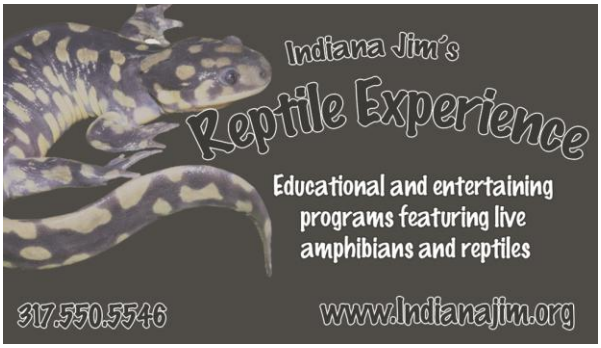
May 17, 2014 – Hoosier Herpout, Hardin Ridge Recreation Area, Hoosier National Forest, Bloomington. HHS event featuring field herping, Powerpoint presentation, a cookout, camping, and outdoor fun.

May 18, 2014 – Indiana Reptile Breeders Expo, Richmond, IN. 10:00AM-4:00PM admission-$5.00 wwwirbexpo.com

June 1, 2014 - Midwest Reptile Show, 10:00 a.m. - 4:00 p.m. Southwest Pavilion, Indiana State Fairgrounds, Indianapolis. $5.00 admission, reptiles, amphibians, books, cages, feeder animals, and other supplies. Sell your herps and dry goods free of charge at our H.H.S. information booth (HHS members only) www.midwestreptile.com (future dates Aug. 3, October 19)

June 4-7, 2014 – Biology of the Pit Vipers 2 Symposium, Tulsa, OK. biologyofthepitvipers.com

October 17-19, 2014 – Midwest Herpetological Symposium, Indianapolis, IN. Hosted by the HHS.



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Happy 25th HHS!

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The Hoosier Herpetological Society is a non-profit organization dedicated to the education of its membership and the conservation of all reptiles and amphibians. General monthly meetings are held on the third Wednesday of each month at 7:00 p.m. at Holliday Park Nature Center. Membership is open to all interested individuals. **No venomous animals are allowed at the General Meeting**

Parking at Holliday Park

7:00pm to 9:00pm is our meeting time at **Holliday Park**.
Holiday Park entrance gates close automatically when it gets dark. **After darkness hours, drive your car up to the gates and they will open.** Also, we need to park behind the hill or knoll. Parking is allowed closer to the center on the other side of the knoll only if the vehicle has a handicap sticker. Park rangers do patrol the lot and will tow vehicles that are parked in the wrong lot.

6363 Spring Mill Road, Indianapolis, IN

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