

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 31 Number 11

November 2020

Hoosier Herpetological Society meeting

H.H.S. Monthly Meeting

Wednesday November 18th, 7:00p.m.

Holliday Park Nature Center Auditorium

Guest Speaker: Mike Pingleton

Topic: "Herping Trip in Throughout Cuba"

The Hoosier Herpetological is proud to announce that Mike Pingleton is the guest speaker for our November meeting. Many of our veteran members have seen enjoyed Mike's past presentations for our group. Mike is an expert field "herper" and breeder. He is the author of a book on red-footed tortoises and an excellent field guide of "herping" and numerous articles in magazines such as Reptiles. He has taken field trips throughout the U.S.A. such as Snake Road in Illinois, Arizona, and many other "herping " hot spots. He has presented programs from Asia, South America, Australia, among others. He has documented his various adventures that have been both highly informative, enjoyable plus some humor. He will bring copies of his "The Field Herping Guide" available for purchase for \$20.00. Be sure to attend this excellent program!

Indy Parks has given the OK on meetings and activities for the indoor venue. However, they are limited to 18 people in our meeting room. Please stay at least 6 feet apart if possible and wear masks as needed.

Please check our social media and website for updated information.

We will live stream this event online

Please check the HHS facebook page for more information.

The Monitor is printed on post-Consumer recycled paper.



WELCOME NEW MEMBERS!

Thank you and welcome to the Hoosier Herpetological Society! Thank you to our returning members!
Without all of you, we wouldn't be the organization that we've grown to be today!

RENEWAL MEMBERS

Roger & Holly Carter
Jet Kaiser
Carl Schwartz
Doug Stemke

NEW MEMBERS

Tony Collison
Nicole Dreyfus
Steve Garvin
Tim Rice/Scarlet's Primitive Pets
Dan Rowe

Peaceful Pond-ering

By Mary Hylton

Last April I wrote an article titled, Pond-ering, about all the amphibians calling out noisily from their ponds per seasonal ritual. It's now November and mild Spring-like temperatures invite amphibians to call again as if it IS Spring. Are they confused? Possibly!

After all, who among us isn't a bit confused these days as we go about our lives still trying to recall which day it is, astonished to realize that here we are already in the midst of November, nearing the end of the year! How on earth did that happen? But given this past year, it's not terribly surprising. When I last wrote, many people were spending most of their time at home-- fear of the unknown dictated daily activities—or lack thereof. Since then, many have left home and have either returned to work, are still looking for work or may have simply given up. COVID-19 continues to knock on our doors with positivity numbers increasing -- especially in the Indy area.

I, personally, have returned to work and, with the exception of jaunts into Nature, have sticking close to home trying to ward off the big C. The past 7-8 months have proven to be, to remain, very stressful for so many for whatever reason.

When stress knocks on my door I, like many of you I suspect seek out the healing balm, the soothing salve that only Nature can provide. Recently, my husband and I visited a refuge that delivered some much needed peace and healing for world weary spirits. To where did we escape? To Muscatatuck National Wildlife Refuge-- located in southeastern Indiana, 3 miles east of Seymour --about an hour's drive from Indy. I have long desired to visit this beautiful place and finally did!

Unfamiliar with Muscatatuck? Please read on to learn more about this beautiful space.

"Muscatatuck National Wildlife Refuge was established in 1966 as a refuge to provide resting and feeding areas for waterfowl during their annual migrations. The refuge includes 7,724 acres near Seymour, and a 78-acre parcel, known as the Restle Unit, near Bloomington. The refuge mission is to restore, preserve, and manage a mix of forest, wetland, and grassland habitat for fish, wildlife, and people. More than 280 species of birds have been seen at Muscatatuck, and the refuge is recognized as a "Continentially Important" bird area. Check out our refuge Bird list for current records. The wetlands of Muscatatuck also provide homes for uncommon reptiles and amphibians including northern copperbelly water snakes, four-toed salamanders, and Kirtlands snakes.

Other wildlife documented on the refuge include 24 species of mussels, 33 species of dragonflies, 60 species of butterflies, 43 species of mammals, and 92 species of fish.

Before Muscatatuck was a refuge it was the hunting and fishing grounds of Native Americans. Later inhabitants were farmers who attempted, often unsuccessfully, to raise crops in flood-prone land. There were sawmills, a canning factory, schools, and cemeteries. In the 1950's an idea was started to establish a national wildlife refuge in Indiana. Eventually Muscatatuck was the result of that idea.

In 2016 Muscatatuck celebrated its 50th anniversary and Refuge Volunteer Jane Hays compiled a History Book that was printed by the Muscatatuck Wildlife Society. The book is a fascinating story of the people who were here before, and those who made the refuge what it is today.”

[Source:<https://www.fws.gov/refuge/muscatatuck>]

As a herper, I naturally harbor the hope of spotting some herps along the way. I honestly didn't expect to see much given the time of our visit— mid-afternoon in November. So while gazing at a still pond I spotted not one but two turtles! (Common Map to the best of my faraway ID ability) basking on a log-- Needless to say I was elated! (It's the little things)

So if you're looking for a peaceful oasis to escape to during these challenging times, I highly recommend planning a visit this to Muscatatuck which provides precisely what its name describes—a Refuge.

Thank you for your attention and please join me in expressing gratitude during this month of Thanksgiving for the many Blessings and Gifts that Mother Nature bestows upon us.

Happy Thanksgiving and celebrate the season with some “turkey spotting” of your own.

Blessings upon you all! Be well in Body, Mind and Spirit!



President's message

Jim Horton

Our good friend Mike Pingleton will be our guest speaker this month. Mike is always a hit with our members and for good reason. He's an excellent speaker and photographer. Mike will bring copies of "The Field Herping Guide" available for purchase for \$20.00.

I apologize for the last 'online' meeting. Our reception was very poor to say the least. This led to our guest speaker's voice cutting in and out during the meeting. The manager at Holliday Park informed me that the Auditorium will soon get an overhaul on the wiring and internet. This will be a much welcome improvement.

Our Christmas party is still up in the air as of press time. With the pandemic and numbers rising in Indiana, we may cancel this year. HHS member Kimberly Scott suggested a winter hike in place of our party. I like the idea and we'll get one (or two) scheduled. Keep your eyes on the HHS facebook or Instagram page or for updates.

Thanks to our renewing members and welcome new HHS members! Hope to see you at our next meeting!

HAND HELD HERPS

Article and photos by Roger Carter

The Prairie kingsnake, *Lampropeltis calligaster calligaster*, measures thirty inches to forty-two inches long. They can be tan or grayish brown in color with blotches that can be brown with a black border. They are found in a band from western Indiana through south central Illinois, Missouri, southern Iowa, eastern Nebraska, eastern Oklahoma, eastern Texas, western Louisiana, western Arkansas, northeast Mississippi, eastern Tennessee, and parts of Kentucky in grasslands, lightly wooded areas and fields and orchards. Like other kingsnakes they will eat rodents and other small mammals, birds, frogs, lizards, and other snakes.

Figure one shows an adult prairie kingsnake that we found in Johnson County in southeastern Illinois in September 2006 hiding under some old roofing tin. Figure two shows a close up of an adult prairie kingsnake and figure three shows a young adult prairie kingsnake. The two snakes shown figures two and three were found on one afternoon on June 2011 in Sullivan County, Indiana. If I remember right, I think both of these were found under some old roofing tin. I once saw one in southern Illinois that was so dark that, at first, I wasn't sure what it was, but I knew it wasn't dangerous. I identified it after I picked it up and had a good look at it. That one was found under an old board. This species seems to be common and I don't remember ever being bitten by any specimens.



The Monitor is printed courtesy of



Don't forget to check out the HHS on Social Media!



www.hoosierherpsoc.org

Snake Myths: Facts vs Fiction

by Ed Ferrer

While I am doing my snake programs, I am always asked about the numerous myths and legends about snakes. Here are some of the most common myths that I have encountered.

(1.) Snakes are slimy: That belief probably comes from the snake's scales reflecting light making it shine. The scales of snakes are dry. In fact, they are essentially waterproof. This helps the snake retain moisture. The scales are made of keratin, just like are fingernails.

(2.) There are hoop snakes. No species of snakes can grab its tail and roll along as way to escape. Many snakes do coil their bodies so their head is hidden and hopefully the predator will strike its tail instead.

(3.) You can tell how old a rattlesnake is by counting the number of rattles it has. This is not true. Most adult snakes will shed their skin about once every three months, young snake more frequently because they are growing at a faster rate. Plus, as a rattlesnake moves throughout the rocks, fallen branches and other obstacles, rattles often break off. So, the number of rattles is not a good way to figure out its age.

(4.) Milk snakes drink milk. Many milk snakes are often found in or around barns. Apparently, some farmers who have found that their cows did not produce their normal amount of milk and notice the snake. They must have thought that the snake was the reason for the shortage. Actually, the snake was in the area looking for mice or rats not milk.

(5.) Snakes have blue eyes. The snake in question was getting ready to shed its skin. During this time there is a layer of liquid between the old skin and new skin. This liquid makes the eyes appear a blueish grey color. This goes away as soon as the snake sheds its skin. However, there are some albino and leucistic snakes that lack color pigments. These snakes may have white or blue eyes.

(6.) Snakes only eat live food. It is true that all snakes are carnivorous but that doesn't have to eat live prey. I have had some people tell me that their snakes only eat live prey. I always suggest that if done correctly most snakes will adjust to eating frozen-thawed prey items. If the frozen prey item is given time to thaw out and then I put them in hot water, so they feel warm and move them around with hemostats, most often the snake will take them. If I have neonate snakes, I will often start them out with live pinkies but soon convert them to dead items as the prey size gets larger. This protects the snakes from getting scratched or bitten by the defensive prey.

(7.) Snakes don't have skeletons. Actually, they have as many or more bones than we have! At the end of my educational snake programs, I always invite everyone to touch one of my big albino Burmese pythons. They are amazed when they feel the rib bones and then realize how strong these snakes are.

(8.) I saw a water moccasin! If the person was in Indiana, the chances of seeing a water moccasin or cottonmouth is extremely unlikely., almost impossible. There has not been a documented sighting of one in about thirty plus years. Since all snakes are naturally good swimmer, any snake that is seen is assumed to be a water moccasin. (It makes for a more exciting story!) It was probably some species of nonvenomous water snakes, or black rat snake or any other dark colored snakes that are found in Indian. I always suggest that if they want to see a real water snake, take a trip to Snake Road in Souther Illinois. Water moccasins are the most common snake there.

(9.) Boa constrictors and pythons don't bite. They just squeeze their prey. I always explain to them that snakes have capture their prey before they constrict and since they do not have claws or legs they must strike their prey to get hold of their prey. (Think like a wrestler. He must first grab his opponent before he pins him.)

I am sure that there are other myths or legends that I haven't mentioned, but these the ones that I have most often heard.

Lizard skull fossil is new and 'perplexing' extinct species

University of Texas at Austin, November 2, 2020

In 2017, while browsing the fossil collections of Yale's Peabody Museum of Natural History, University of Texas at Austin graduate student Simon Scarpetta came across a small lizard skull, just under an inch long.

The skull was beautifully preserved, with a mouth full of sharp teeth -- including some with a distinctive curve.

Much to Scarpetta's surprise, no one had studied it. Since being discovered in 1971 on a museum fossil hunting trip to Wyoming, the 52 million-year-old skull had sat in the specimen drawer.

"Lizards are small and prone to breaking apart, so you mostly get these individual, isolated fragmented bones," said Scarpetta, who is studying paleontology at the UT Jackson School of Geosciences. "Anytime you find a skull, especially when you're trying to figure out how things are related to each other, it's always an exciting find."

Scarpetta decided to bring the skull back to the Jackson School for a closer look. And on September 2020, the journal *Scientific Reports* published a study authored by Scarpetta describing the lizard as a new species, which he named *Kopidosaurus perplexus*.

The first part of the name references the lizard's distinct teeth; a "kopis" is a curved blade used in ancient Greece. But the second part is a nod to the "perplexing" matter of just where the extinct lizard should be placed on the tree of life. According to an analysis conducted by Scarpetta, the evidence points to a number of plausible spots.

The spots can be divided into two groups of lizards, representing two general hypotheses of where the new species belongs. But adding to the uncertainty is that how those two groups relate to one another can shift depending on the particular evolutionary tree that's examined. Scarpetta examined three of these trees -- each one built by other researchers studying the evolutionary connections of different reptile groups using DNA -- and suggests that there could be a forest of possibilities where the ancient lizard could fit.

The case of where exactly to put the perplexing lizard highlights an important lesson for paleontologists: just because a specimen fits in one place doesn't mean that it won't fit equally well into another.

"The hypothesis that you have about how different lizards are related to each other is going to influence what you think this one is," Scarpetta said.

Paleontologists use anatomical details present in bones to discern the evolutionary relationships of long-dead animals. To get a close look at the lizard skull, Scarpetta created a digital scan of it in the Jackson School's High-Resolution X-Ray CT Lab. However, while certain details helped identify the lizard as a new species, other details overlapped with features from a number of different evolutionary groups.

All of these groups belonged to a larger category known as Iguania, which includes a number of diverse species, including chameleons, anoles and iguanas. To get a better idea of where the new species might fit into the larger Iguania tree, Scarpetta compared the skull data to evolutionary trees for Iguania that were compiled by other researchers based on DNA evidence from living reptiles.

On each tree, the fossil fit equally well into two general spots. What's more, the lizard groupings in each spot varied from tree to tree. If Scarpetta had just stopped at one spot or one tree, he would have missed alternative explanations that appear just as plausible as the others.

Scarpetta said that *Kopidosaurus perplexus* is far from the only fossil that could easily fit onto multiple branches on the tree of life. Paleontologist Joshua Lively, a curator at the Utah State University Eastern Prehistoric Museum, agrees and said that this study epitomizes why embracing uncertainty can lead to better, more accurate science.

"Something that I think the broader scientific community should pull from this is that you have to be realistic about your data and acknowledge what we can actually pull from our results and conclude and where there are still uncertainties," Lively said. "Simon's approach is the high bar, taking the high road. It's acknowledging what we don't know and really embracing that."

The research was funded by the Jackson School of Geosciences and the Geological Society of America.

2020 HERPETOLOGICAL EVENTS

October 17/18, 2020 - Indianapolis Reptile Expo and Exotic Animal Expo – La Quinta Inn, 5120 Victory Drive, Indps. (317) 779-9851, Sat.-10-5, Sun 10-3

November 21/22, 2020 – Indianapolis Reptile and More Expo, LaQuinta Inn, 5120 Victory Dr. Indianapolis, IN Saturday – 10-5, Sunday – 10-3, show info. (269) 779-9851

December – No meeting

January 17, 2021 - Midwest Reptile Show, 10:00 a.m.- 4:00 p.m. 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

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