



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 36 Number 5

May 2025

HHS Monthly Meeting

Guest Speaker – Dr. Jason Hoverman

Topic: *“Exploring the implication of Forever Chemical Exposure for Amphibians and Aquatic Communities.”*

Dr. Jason Hoverman is a professor in the Department of Forestry and Natural Resources. Jason received his BS and PhD in ecology and evolution from the University of Pittsburgh. Before coming to Purdue, he conducted post-doctoral research at the Pennsylvania State University, University of Tennessee, and University of Colorado. Jason has authored 105 peer-reviewed papers and 3 book chapters and has delivered over 100 presentations and posters. He has received over \$13 million in funding from state agencies, federal sponsors, and private foundations for his research. Jason has mentored 32 undergraduate students, 16 graduate students, 5 post-doctoral scholars, and 9 research technicians, and has served on advisory committees for an additional 23 students. In 2013, he received the George Mercer Award from the Ecological Society of America. He was named a University Faculty Scholar by Purdue in 2019.

Wednesday, May 21st, 7:00PM
Holliday Park Nature Center

2025 Hoosier Herpout – Soggy but Fun!

Jim Horton



Our largest field outing was almost cancelled due to inclement weather conditions. Fortunately, some of the rain held off and we were able to get in a solid day of field herping.

Our group met at the shelter two parking lot and were all eager to get in the field. I was happy to see the many new faces in the group.

We had a few unfortunate situations. The lack of sunlight and warm temperatures combined with missing coverboards at our sites, kept our destinations at a minimum. But we pressed on and headed to one of our better sites. Upon arrival, we donned our boots and readied ourselves for a wet hike to the coverboards.

Among the first finds were two adult black racers. They were resting comfortably under a car hood. We admired them, took photos, and released them at the point of capture.

More reptilian finds at the site were ground skinks, eastern box turtles, and ringneck snakes. The amphibians included a red eft, several longtail salamanders, and three slimy salamanders. We had a well-seasoned birder among us and she helped us identify some of the many warblers. I learned a great deal about their calls.

The wildflowers were, as usual, amazing. The scarlet hues of Firepink and the purple/lavender Spiderwort captured the eyes and camera lenses of our group.

After this trip, we headed back to the shelter for the cookout. Roger Carter manned the grills with hamburgers, turkey burgers, and hotdogs. After lunch and some deep herp discussion among the group, we headed to our next and final destination.

This area is known for the eastern hognose finds. We walked the roadside searching the riprap rocks as we typically do but the clouds must have kept the snakes at bay. Up on the hillside, members turned cover boards but didn't come up with much. A

handsome eastern box turtle crossed our path. It was active (even in the hand) which allowed for some great photos. Yusnaviel Garcia pulled a young eastern snapping turtle from a ditch and soon it was surrounded by photographers.

Rick Marrs led us to a familiar pond in the area where he provided dipnets for the group. Several (presumed) green frogs jumped in as we traversed the edge. Plenty of frog and salamander larvae were revealed when the dipnets were checked. Spotted salamander larvae were about 2 inches in length and well on their way to metamorphosis. Yusnaviel provided clear containers for photographing the young aquatic amphibians.

Ticks weren't scarce that day. In fact, a few of us knelt down to get close photos of herps and found that tiny 'seed ticks' were everywhere. Our pants were covered with them! Luckily, one of our members had bug spray and we coated our legs.

The rain that we'd evaded all afternoon had started and we all called it quits for the day.

Some of us hardcore herpers camped for the weekend. One of our traditions is a night hike to the campground bathrooms. Here, we scan the outside perimeter for insects and arachnids. A large centipede, some moths, and two black-widow spiders were photographed.

The night hikes to the campground ponds are always a treat. This year we easily found bull and green frogs around the perimeter. Katie Kulcon stepped in the pond and caught one of several midland water snakes. We admired them and released them at the point of capture. Redbacked salamanders were active on the roadway as we walked back to our camp, heavy rain forced us back to the tents early. In all, another great event with wonderful people!

Until next year!

HERP QUIZ

Created by Kimberly Scott

1. What does the term Unken Reflex mean and what herp does it pertain to?

- It is when snake species release a deterrent from their vent, commonly known as 'musking'
- It is when certain lizard species spray blood from their eyes as a defense mechanism
- It is a defensive posture used by several amphibians where the head and limbs (and tail if applicable) are arched up and backward to display flash coloration.
- It is the scientific term when a box turtle withdraws fully into its shell

2. What is the main way Indiana's frogs and toads avoid cross breeding?

- Temporal isolation- they call at different times and therefore mate at different times, making it less likely a male and female from different species will meet up
- Geographical isolation- some frogs and toads breed high up in foliage and some bury eggs in the dirt and some spawn in water. This makes it less likely breeding males and females of different species will meet up
- Mechanical isolation - frogs and toads of different species have different methods of fertilization. Some spawn in water and some fertilize eggs internally, so frogs and toads of other species won't fertilize each others eggs
- Zygotic mortality- they do cross breed but the egg will never be fertilized by other species because it is incompatible.

3. True or false? When a snake sheds, the shed skin comes off inside out.

4. Which of the following Indiana herps have 'temperature dependant sex determination', meaning the temperature of the environment determines the sex of the individuals that are born?

- Red eared sliders
- Ring-necked snakes
- Copperheads
- Fox Snake

5. What activity is the HHS not involved in?

- Ecological 'Bioblitz' events
- Herping and camping trips
- Live educational animal displays
- Kayaking trips

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!

Renewals

Mark Phillibaum
Jennifer Jones

New Members

Kayla Boscia
Lori Checkley
Josh Copeland
Chuck Perkins
Grace Rodriguez
Ryan Shreve
Patricia Stutz

The Black and Blue Racers of Indiana: Fast, Fascinating, and Misunderstood

Jim Horton



Blue racer



Juvenile racer



Black racer

It's May in Indiana. This month brings to mind flowers, beautiful weather, and racing. The Indianapolis 500 is a tradition here like no other - a party, a month-long event, and a spectacle. So with that excitement with the month of May, I'm featuring a different kind of racer. Our native, reptilian racers.

Indiana is home to a wide array of wildlife, but among its most striking and swift reptiles are the black racer (*Coluber constrictor*) and the elusive blue racer (*Coluber constrictor foxii*). These nonvenomous snakes are often mistaken for more dangerous species due to their size and speed, but they play a vital role in the state's ecosystem and are largely harmless to humans.

Black Racers are sleek, glossy snakes commonly found throughout southern Indiana. They are usually solid black with a white chin and can grow up to 5 feet long. Agile and alert, these diurnal snakes are known for their speed, which helps them evade predators and catch prey. They inhabit abandoned fields and forest edges.

Blue Racers, a subspecies of the black racer, are primarily found in the northern parts of the state. They frequent open prairies, dunes, and grassy fields from the central Indiana area to Lake Michigan. As their name suggests, blue racers exhibit a beautiful bluish-gray coloration with lighter underbellies and are often tinged with green hues. Their eyes are large and expressive, giving them a sharp, intelligent appearance.

Racers are diurnal, meaning they are active during the day, especially in warm weather. These snakes emerge earlier in the spring than many other species. Despite the name, they do not always flee when approached. If cornered, they may vibrate their tails rapidly in leaves, mimicking a rattlesnake, and may even strike—but only in self-defense.

Their diet consists mostly of rodents, insects, frogs, and small birds, making them incredibly beneficial to farmers and gardeners. They will consume other snakes as part of their diet. By controlling pest populations naturally, racers help maintain a healthy balance in local ecosystems.

The black racer is generally considered secure in Indiana, but the blue racer is becoming less common due to habitat loss and fragmentation. As prairie and dune environments are developed or converted for agriculture, the blue racer's natural range shrinks. Conservationists and wildlife agencies are monitoring populations and are working to protect key habitats.

Additionally, both species suffer from human misconceptions. Their quick movements and size often lead to mistaken identities, and they are sometimes killed out of fear. Some people share stories of racers chasing them. This may be a case where the snake is spooked and travels in the same direction. Education is key to changing some of these perceptions.

If you spot a black or blue racer in the wild, consider yourself lucky. These snakes are indicators of a healthy environment. Observing from a distance is the best way to enjoy their presence. Avoid trying to handle them—they are not aggressive but can become stressed if cornered and won't hesitate to bite.

To support their conservation, we need to protect natural grasslands and prairies. Educate others about the ecological benefits of races and all snakes

Indiana's black and blue racers are more than just fast-moving shadows in the grass. They are essential predators, fascinating to observe, and deserving of our respect and protection. As we continue to learn more about the wildlife in our backyards, let's ensure these speedy serpents have the space and safety they need to thrive.

President's message

Jim Horton

May is one of our most beautiful months here in Indiana. Herps are out and being encountered regularly. The social media nature pages, and our own HHS page are abound with pics and requests for herp identification.

Big thanks to Katie Kulcon for her presentation featuring the herps of northwest Washington State. We learned so much about those western herps. I can't wait to get out there and see some myself.

Our annual trip to Red River Gorge, Kentucky for Herpetology Weekend was a great time. Our group enjoyed the presentations, book signings, and of course, field outings. Kimberly Scott will feature this event in the next issue of the Monitor.

We have some great guest speakers coming up. I hope you're able to attend some of them. This month, Dr. Jason Hoverman (Purdue University) will feature a talk on chemicals and their effect on amphibians.

See you at the meeting! Jim

Look for the HHS
on social media



The Monitor is printed
courtesy of
Harding Poorman

Quiz answers

1. The Unken Reflex is a defensive posture used by several amphibians where the head and limbs (and tail if applicable) are arched up and backward to display flash coloration.
2. Indiana's frogs and toads mainly utilize Temporal isolation- they call at different times and therefore mate at different times, making it less likely a male and female from different species will meet up.
3. True! It comes off inside out, kind of like a sock.
4. Red eared sliders. The temperature of the environment can actually play a role in sex determination in a lot of different reptiles, but a snake's sex is determined genetically.
5. Trick question! The HHS does all of these activities and more! Keep an eye on our newsletter and social media pages- we make announcements about upcoming events and herpetology-related activities that our members can participate in. Join us and see what it's like first hand!



www.hoosierherpsociety.org

HHS Board of Directors - 2025

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2025 HERPETOLOGICAL EVENTS

May 21st, 2025 – HHS Monthly Meeting, Guest Speaker – Dr. Jason Hoverman (Purdue University) Topic – Exploring the Implications of Forever Chemical Exposure for Amphibian and Aquatic Communities.

June 18, 2025 – Monthly meeting, Topic - TBD

July 12, 2025 - Reptile Fest – Brown County State Park. Live reptiles and programs.

August 20, 2025 – HHS monthly meeting. Special guest speaker – Yusnaviel Garcia, Topic – TBD

September 17, 2025 – HHS monthly meeting. Special guest speaker – Nate Engbrecht (Indiana DNR State Herpetologist). Topic – TBD

Membership Form

☐ new member

☐ renewal

Name _____ Date _____

Address _____ City _____

State _____ Zip Code _____ Email Address _____

Individual/Family Membership \$25.00

Herpetological Interests

Hoosier Herpetological Society
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Dated Material Enclosed

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☐ If this box is checked, it's time to renew your membership