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 37 Number 1 January 2026

HHS Monthly Meeting

Guest Speaker – Dawn Van Deman

Topic – *"Isopods and Friends"*

"Frog Dawn" Naturalist from Eagle Creek Park will discuss the role of isopods in nature and their ability to maintain bioactive terrarium habitats.

Dawn VanDeman is the Park Manager of the Eagle Creek Earth Discovery Center. She is an Indianapolis native who started working at Eagle Creek Park as a seasonal naturalist back in 1994. She attended Mount Holyoke College in Massachusetts where she majored in biology and minored in studio art. She then moved on to complete graduate work in wildlife science with Purdue University's Department of Forestry before coming back to work full-time at Eagle Creek Park.

Wednesday, January 21st, 7:00PM

Holliday Park Nature Center

www.hoosierherpsociety.org

President's Message

Jim Horton

Greetings and Happy New Year!

If you have an interest in submitting an article for this publication, we'd love to hear from you. Its easy. Just drop me a line at president@hoosierherpsociety.org

In this new year, we plan to keep our usual field activities such as impromptu amphibian treks, the Herpout, and the river float. If you have any feedback or suggestions, we'd be more than happy to entertain any ideas you may have.

I'd like to thank Kimberly Scott for hosting the monthly board meetings this past year. She has happily agreed to host again this year.

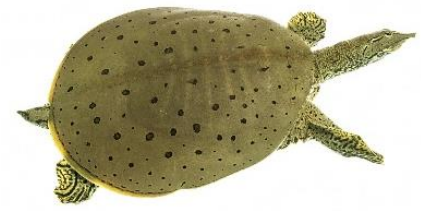
I also appreciate the folks at Harding Poorman (Krissy Knight and Emily Honey) for printing the Monitor free of charge each month.

As I stated in the last newsletter, I have agreed to continue as president for the year 2026. Vice-president, secretary, and treasurer positions will also remain the same for next year. Mr. Steve Striedinger has agreed to accept the Marketing/Outreach position for '26. Thank you, Steve, and to the rest of the board, I look forward to working with you again this year.

We have the Garfield Park exhibit coming up fast – February 7. Hope you can make it.

Spiny Softshells--Living Oxymorons

Mary A. Hylton



According to the Oxford Learner's Dictionary, "Oxymoron" is defined as "a phrase that combines two words that seem to be the opposite of each other." In the case of the "Spiny Softshell" the definition applies. Ever since I was introduced to these intriguing creatures several years ago, I was inspired to learn more.

Below is an excerpted article on the subject from the National Wildlife Federation:

"The spiny softshell turtle is one of the largest freshwater turtle species in North America. They can be distinguished from other turtle species by their carapace. Unlike most other turtles, their shell is soft, flat, and rubbery. The edges of the carapace are pliable with small spines (males have more than females). An adult female's carapace can be anywhere from 7 to 19 inches (18 to 48 centimeters) in length, while the male's is much smaller at 5 to 10 inches (13 to 25 centimeters) in length. The turtle's nose is long and piglike, and its feet are fully webbed. This helps the spiny softshell turtle swim, since it spends most of its life in the water.

The spiny softshell turtle is spread throughout most of the United States, from the central-eastern U.S. to Wisconsin and Minnesota, and as far south as Mexico. Its habitat includes rivers, ponds, streams, and lakes with a sandy or muddy bottom and relatively little vegetation.

The spiny softshell turtle will eat almost anything in the water that will fit into its mouth, which may include aquatic insects, crayfish, and the occasional fish. They will bury themselves under a layer of mud at the bottom of a lake, with only their head sticking out, and catch prey as it passes by.
The spiny softshell turtle is a diurnal species. It spends most of the day in the sun, foraging for food. When it feels threatened, it buries itself in the sand and leaves just its head visible. These reptiles are also able to breathe underwater due to the pharyngeal lining, cloacal lining, and skin.
Males nudge a female's head while swimming in an attempt to court her. With approval from the female, the male will swim above her, but will not clasp her with his claws like other turtle species. Spiny softshell turtles typically breed in May. Females lay anywhere from 4 to 38 eggs on sandbars or in loose soil. The eggs hatch sometime in August or September. They can live up to 50 years in the wild.
Although not listed as threatened in the United States, spiny softshell turtles still face some threats, including habitat destruction and chemical pollution."
Personal Encounter: Several years ago, I volunteered at Indy Parks' Holliday Park Nature Center. My "job" was to feed a variety of the animals (mostly herps) in residence, one of which was a baby Spiny Softshell Turtle—approximately 2-3 inches long. My interaction with this little critter could be described as amusing or frustrating, depending on time available in my shift to feed all of the animals and/or one's level of personal patience. Prior to this, I had zero experience in the "how and what" to feed these animals so adventure awaited!
My first task was to locate the Spiny Softshell who was often hidden somewhere on the sandy floor of its small aquarium, minding its own business. Once located, I would attempt to capture the little guy by slowly plunging my forearm down into the cold water near where I'd seen it just a second ago only to lose sight of it as it zipped past the "intruder" and hurriedly burrowed into the sand. After a few go 'rounds of this hide-and-seek, the turtle was secured and (temporarily) re-located to a smaller container on a countertop. Here it would be fed. Once feeding was completed, back into the tank it would go, both of us feeling relieved! While in theory the process was relatively simple, in practice, it could prove a bit daunting – even comical at times albeit in hindsight.
Patience and speed, on my part, were the winning combination needed to secure the turtle on the first try but in reality, it often took several. For efficiency's sake, (I presume) I had been instructed to feed this particular creature first. Sometimes, depending on the Spiny Softshell experience, it was necessary to take a break and continue with feeding the rest of the critters in the center and then return later towards my shift's end, to attempt the process again. Usually, success was achieved—having given the turtle (and me!) time to recover from the previous "trauma". Although the "thrill of the chase" could sometimes be daunting, I continued to be enchanted by the tiny Spiny Softshell –it being the most intriguing critter I'd ever encountered! Besides, what's not to love about that quirky little face?

[Sources]: [https://www.nwf.org/Educational-Resources/Wildlife-Guide/Reptiles/Spiny-Softshell-Turtle]—
Animal Diversity Web, University of Michigan Museum of Zoology
Michigan Department of Natural Resources
Nonindigenous Aquatic Species, United States Geological Survey

Photo: By U.S. Fish and Wildlife Service Headquarters - ttps://www.flickr.com/photos/usfwshq/52458824159/,

Look for the HHS on social media

The Monitor is printed courtesy of HardingPoorman

How Snakes, Lizards, and Turtles Survive Winter in Indiana

Jim Horton

In the cold winters of Indiana, with temperatures plunging well below freezing, many of the state's reptiles face a challenging time. Snakes, lizards, and turtles, all cold-blooded creatures, are unable to generate their own body heat and must rely on external temperatures to regulate their body temperature. As winter sets in, these reptiles enter a state of dormancy, seeking shelter and adapting to survive the cold months. This process, called brumation, is similar to hibernation in mammals, but it involves a lower metabolic rate and can look quite different depending on the species.

In Indiana, snakes are among the most commonly encountered reptiles that need to deal with the winter cold. Common species, like the Eastern garter snake, northern water snake, and copperhead, have adapted well to colder climates by entering brumation.

During brumation, snakes significantly reduce their metabolic rate and enter a state of dormancy. They do not sleep throughout the winter but become much less active, moving very little and eating even less, if at all. Their need for food declines as their metabolism slows down.

To survive, snakes need to find a shelter where they can avoid freezing temperatures and remain insulated. The most common hiding places for snakes in Indiana include rock crevices, animal burrows, and human made structures.

Many species of snakes will burrow underground or hide in natural rocky crevices, such as those found in limestone outcroppings or in the soil near the roots of trees.

Snakes often utilize abandoned burrows of small mammals like groundhogs, squirrels, or rabbits. These burrows are deep enough to keep the snakes from freezing, providing a stable temperature range for brumation.

Occasionally, snakes will take refuge in basements, crawl spaces, or other sheltered areas near human dwellings, where the temperature is more stable.

Snakes may group together during brumation, a behavior known as "hibernaculum aggregation," in which they share a warm space with other snakes to conserve heat.

Indiana is home to six species of lizards, such as the Eastern fence lizard and the five-lined skink. While lizards are not as prevalent as snakes, they face similar survival challenges in winter due to their cold-blooded nature.

Lizards also undergo brumation, though they tend to have less of a communal approach to it compared to snakes. During brumation, their body temperatures drop, and their activity levels become minimal. Depending on the species, some lizards may stay dormant for the entire winter, while others may become active occasionally if the weather warms up briefly.

Lizards in Indiana seek shelter in similar ways to snakes, with an emphasis on finding deep, insulated refuges where they can avoid freezing.

Some species may seek refuge in the cracks of tree bark or under logs. Natural areas such as piles of rocks or leaf litter provide important shelter. These materials help to retain heat from the sun and can offer some insulation against freezing temperatures. Human structures are often

used for winter shelter. Like snakes, lizards may seek warmth in human structures, under porches or in cracks in walls.

Turtles are perhaps the most well-known cold-weather survivors in Indiana. While many species of turtles, such as the Eastern box turtles and painted turtles, are commonly found in the state, they must find creative ways to handle winter's chill.

Turtles are ectothermic and must enter a state of dormancy during the winter. However, unlike snakes and lizards, many turtle species in Indiana take to the water, where they can survive the cold in a state of semi-dormancy. Turtles' brumation processes vary:
Aquatic turtles, like the painted turtle and snapping turtle, are able to submerge themselves in the mud at the bottom of lakes, ponds, or slow-moving streams. They enter a dormant state where their metabolism is dramatically slowed, allowing them to survive with minimal oxygen and food. Land turtles, such as the box turtle, may dig into the soil or find deep leaf piles to shelter in. They burrow into the earth or leaf litter to avoid freezing temperatures, where they remain relatively inactive for the duration of winter.

For aquatic species, the bottom of ponds, lakes, or streams is a common winter refuge. The water's temperature is more stable than air temperature, and turtles can dig into the mud to remain insulated.

The winters in Indiana can be unpredictable, with temperatures frequently dipping well below freezing. Snow, ice storms, and cold snaps pose risks to reptiles that are not adapted to such harsh conditions. The key to surviving these winters is seeking out environments where reptiles can find relatively stable, moderate temperatures.

While Indiana's harsh winters pose a significant challenge for reptiles like snakes, lizards, and turtles, these animals have evolved these strategies for survival in the wild.

Parthenogenesis in Common Water Snakes (Nerodia sipedon)

Katie Kolcun, Earth Discovery Center naturalist

Common water snakes are a familiar site along streams, ponds and lakes throughout Indiana. Often mistaken for the venomous cottonmouth (Agkistrodon piscivorus), these aquatic colubrids are harmless and prefer to avoid humans, though they may deliver a foul-smelling musk or a bite if handled. But here at the Eagle Creek Earth Discovery Center, we've witnessed one of the water snake's hidden talents: parthenogenesis.
Parthenogenesis, from the Greek words for "virgin" (parthenos) and "creation/birth" (genesis), is a form of asexual reproduction where an embryo develops from an egg without fertilization from a male. This phenomenon is not possible in mammals due to a process known as genetic imprinting (genes crucial for things like placental development are 'switched off' in the absence of genetic material from sperm), but is well-documented in many species of invertebrates, fish, reptiles, and even some birds. This offers a reproductive advantage in environments with few or no males. Some species like mourning geckos and whiptail lizards only reproduce this way, resulting in all-female species.
Many reptile species have demonstrated the ability to reproduce through parthenogenesis in human care. We witnessed this firsthand at the Earth Discovery Center with our ambassador water snake Cuddles, who has lived at the EDC for her entire life and never been exposed to a male. Water snakes have live birth instead of laying eggs, and she still occasionally gives birth to infertile ova called 'slugs'. When she passed an unusually large amount of slugs in the winter of 2025, we decided to open one of the ova and were surprised to find a stillborn baby water snake.

Facultative Parthenogenesis (virgin births in species that usually reproduce sexually) has been documented in water snakes before. In 1996, a female common water snake housed at the Milwaukee County Zoological Gardens in Wisconsin gave birth to a clutch of both male and female hatchlings in the absence of a mate. The babies were confirmed to be parthenogenic by DNA-based molecular analysis. The complete study, Facultative Parthenogenesis in a Zoo-Held Northern Water Snake, can be viewed on ResearchGate.net. Much is still unknown about the process of parthenogenesis, and places like zoos, nature centers, and even private collections provide opportunities to deepen our understanding of this extraordinary reproductive trait.

Cuddles the common water snake in her exhibit.

The stillborn parthenogenic hatchling. Partho babies are often deformed and stillborn in some species from a lack of genetic diversity.

What you missed at the November General Meeting

By Holly Carter

Guest speaker Daniel Yates, he grew up in southwest Missouri and has an AS degree in physics, a BS degree in polymer chemistry focused on medical tech where he studied targeting cancer cells, Zila, and Ebola. He is working in pharmaceutical and other labs, sometimes designing his own experiments.
He keeps a variety of herps, mostly lizards, such as; Green Basilisk, Ornate Plated Lizard, Land Mullet Skink, Zebra Skinks, Agamas, Savanna Monitors and Tegus.
He showed x-rays of several reptile brains that share a common morphology but also showing a variety of structural differences. By comparing these differences and pathways to get a better insight into how reptiles react to their environment and humans.

What you missed at the October General Meeting

By Holly Carter

The October meeting was presented by Roger Carter with the topic “Knives, Swords, and Herpetological Art.”
He began his program with slides of some of his letter-opener knives that were small enough to use as an opener, but had different depictions of herps etched on the blades or formed into the handles. They had images such as Egyptian deities with cobras or other serpents in regal poses.

He showed many types of knives; folding, daggers, and others that also had herps, snakes, frogs, turtles and crocodilians on them. Some of the artwork on these knives was put on with lasers as well as other methods.
He went on to his swords, which had carvings on them, some carvings were three-dimensional and others had painted or etched -in pictures on them.

Some of his knives were inspired by action or fantasy movies, comics, and by the artist’s own ideas.
This is one of the many ways one can enjoy herps without having to feed and care for them.

PLEASE CONSIDER GIVING TO THE INDIANA NON-GAME FUND.

Nongame species make up the vast majority of wildlife in Indiana. The study and conservation efforts concerning all amphibians and reptiles in Indiana depend on the Nongame Fund. The Nongame Fund does not receive any tax dollars. It is funded entirely through voluntary contributions.
You can help by donating a portion of your state tax returns, or by mailing a check to the DNR.
www.IN.gov.website Voluntary donations often receive a federal match.

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2026 HERPETOLOGICAL EVENTS

January 21st, 2026 – HHS monthly meeting. Guest Speaker: Dawn Van Deman (Eagle Creek Park), topic – "*Isopods and Friends*" A discussion of Isopods, their role in nature, and keeping them in terrariums.

February 7, 2026 – HHS live herp exhibit, Garfield Park Conservatory, 10am-2pm

February 18, 20026 – HHS monthly meeting. Guest speaker: 2025 Sherman Minton Award Winner, Owen Wright (Wabash College). Title – *Tracking Eastern Box Turtle Behavior Using a Shell-Mounted Accelerometer*.

February 21, 2026 – HHS live native herp exhibit, Marsh Madness festival, Linton, IN. Humphreys Park and Goose Pond Fish and Wildlife Area.

March 1, 2026 – Midwest Reptile Show – Indiana State Fairgrounds, Agriculture/Horticulture Bldg. 10:00AM-5:00PM Indiana State Fairgrounds, Indianapolis. $9.00 admission, reptiles, amphibians, books, cages, feeder animals, and other supplies. www.midwestreptile.com

July 18, 2026 - Snake Fest, Brown County State Park. Presentations and live snake displays.

November 13/14, 2026 - Midwest Herpetological Symposium, Hosted by the HHS. Guest speakers, Ice-breaker, Live and silent auctions, banquet and more.

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