



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 35 Number 2

February 2024

HHS Monthly Meeting

February 21st, 7:00PM, Holliday Park Nature Center

Guest Speaker – Jim Horton (HHS)

Topic – *FrogWatchUSA Training and Salamander Review*

FrogWatchUSA is a citizen science program to provide individuals, groups, and families with opportunities to learn about wetlands in their communities by reporting on the calls of local frogs and toads.

This presentation will cover the data collection protocols, weather conditions, Identifying wetland sites, and the frogs and toads of Indiana, their calls, and biology.

You will also learn about the salamanders of Indiana.



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

Austin Broadwatter
Nathaniel Karn
Carl McDougal
Nan Schultz
Carl Schwartz DVM
Jordan Sirosky

New Members

Arron Barrick
Emmett D. Collins
Drew Heinold
Steve Hose
Laura Pierce
Jackson Schoettle

Amphibians... on the move soon!

Jim Horton



Salamanders and frogs will soon be moving to wetlands for breeding.

Warm nights with rainfall triggers amphibian movement. Indiana residents should soon see and hear frogs in fields and woodlands. Mid to late February is typically the starting timeline for these first warm rains to occur. Many salamanders and frogs will be traversing roadways in search of breeding ponds.

Indiana frogs and toads, 17 species in all, will breed at different intervals throughout the spring season. Wood frogs, spring peepers, and chorus frogs get the first choruses going. Leopard frogs and the crawfish frog are usually next in line followed by American toads. Later in spring, grey treefrogs and Fowler's toads start to call in temporary pools and agricultural fields.

Please look out for them during rainy nights on the roads and spread the word to others. Education is key. You'd be surprised at how many drivers don't notice critters in the road.

You can do more by joining a citizen science project such as FrogWatchUSA. Training will take place at our next (February) meeting.

Other opportunities include joining forces with groups such as The Nature Conservancy, Indiana Land Trust, Indiana Wildlife Federation, and other nature conservation organizations. These organizations purchase land with optimum habitat to preserve it for wildlife.

Of course, the Indiana nongame wildlife fund also aids in the conservation and habitat restoration for salamanders, frogs, and other nongame species. Indiana residents can opt to give a few dollars to this cause on our Indiana tax forms. Indiana Fish and Wildlife will also accept donations anytime for this ongoing effort.

Snakes Through the Ages-Part Two

Mary A. Hylton

Snakes' bodies are designed to lie close to the ground. They also routinely shed their skins. The combination of these two attributes have thus characterized them as symbols of both the Underworld—the dwelling place of the dead (because they spend so much time in pits and below the earth, or hiding under rocks) *and* of Rebirth, Rejuvenation, Immortality, and to that end, Wisdom.

Of Biblical Proportions!

Perhaps the most well-known—and notorious—serpent appears in the very familiar Biblical account of The Garden of Eden. Although the serpent that appears in the story is most often associated with Satan (translate—Evil), it's not really all of the story. (What! What's *that* you say?!?!?)

Anyone familiar with the story of Adam and Eve in the Garden of Eden considers the serpent, who speaks to Eve and tempts her to eat the forbidden fruit from the Tree of Knowledge, of Good and Evil, to be Satan in disguise. Actually, the Bible never directly makes this connection but rather refers to the snake as only 'the serpent'.

There's also a strong suggestion that it may have had legs, like a lizard; at least, initially. So, then, how/why is it that we automatically conclude that the serpent is a snake? Because, owing to its role in leading Adam and Eve astray, God punishes it, according to **Genesis 3:14**, by declaring: "Because thou hast done this, thou art cursed above all cattle, and above every beast of the field; upon thy belly shalt thou go, and dust shalt thou eat all the days of thy life".

This implies that the serpent, prior to this, did *not* crawl about on its belly as a rule but apparently had limbs. You may also recall a similar description of the serpent repeated in the January newsletter article titled, "Snake in a Church Program", by Ed Ferrer. In this light, the fate of the serpent acts as a kind of "Just-So Story" explaining how the snake came to be without arms and legs.

(FYI: *Just-So Stories* by Rudyard Kipling, is a collection of stories about animals, insects, and other subjects that include tales about the "origins" of animals and such—i.e., How the Camel Got His Hump, The Butterfly That Stamped, and How the Alphabet Was Made, among others).

Serpents also play symbolic roles in other ancient stories beyond the Bible. One is the Epic of Gilgamesh, a 4,000-year-old story which also features a Flood narrative, where Gilgamesh attempts to seize a plant that is thought to confer immortality, only for a snake to turn up and steal that plant away. (Curses! There goes that maddening snake again!) The symbolism in this story is similar to that found in Genesis whereas the serpent, while elsewhere representing immortality (Ouroboros etc.), acts as the agent causing man to realize that, alas, he is *not* meant to live forever.

There are as many as eighteen Hebrew words for "snake" in the Old Testament, as well as five Greek words for serpents. Many of these words are onomatopoeic. English words 'snake' and 'serpent' in Hebrew are:

Nachash or **Nakhash** ("The first serpent in the Bible is the most famous one... the cunning snake who confused the humans with words" <https://hebrewwordlessons.com/2021/03/07/nakhash-seraph-tannin-snakes-seraphim-and-sea-serpents/>)

(**Ophis** ("with the ancients, the serpent was an emblem of cunning and wisdom. The serpent who deceived Eve was regarded by the Jews as the devil".) (<https://www.biblestudytools.com/lexicons/greek/nas/ophis.html>))

Aspis

Strong's Concordance

aspis: an asp

Original Word: ἀσπίς, ἴδος, ἥ

Transliteration: aspis

Phonetic Spelling: (as-pece')

Definition: an asp

Usage: an asp (hooded-snake, cobra).

STRONGS NT 785: ἄσπίς

ἄσπίς, ἀσπίδος, ἡ, an asp, a small and most venomous serpent, the bite of which is fatal unless the part bitten be immediately cut away: ([Romans 3:13](#). [Deuteronomy 32:33](#); [Isaiah 30:6](#))

The serpent's fangs and its hiss, and (in many cases) its venomous bite all mean that it is often viewed as sinister and untrustworthy.

However, this doesn't tell the full story.

Positive Serpent Symbolism

Even in the Bible, snakes are far more ambiguous symbols than the Genesis story suggests. The brass serpent which Moses erected upon a pole (**Numbers 21:8-9**--"And the Lord said to Moses, "Make a poisonous serpent and set it on a pole; and everyone who is bitten shall look at it and live.") is often interpreted by Christians as a prototype of Christ's crucifixion (**John 3:14-15**--"And just as Moses lifted up the serpent in the wilderness, so must the Son of Man be lifted up, that whoever believes in him may have eternal life.")

As Hans Biedermann notes in *The Wordsworth Dictionary of Symbolism: Cultural Icons and the Meanings Behind Them (Wordsworth Reference)*, alongside these moments there is also Aaron's rod which turned into a serpent capable of devouring the snakes conjured by Pharaoh's sorcerers (**Exodus 7:9-12**--"When Pharaoh says to you, "Perform a wonder", then you shall say to Aaron, 'Take your staff and throw it down before Pharaoh, and it will become a snake'.")

It's Greek to Me! The Rod of Asclepius and Caduceus

Elsewhere in classical culture, snakes were often associated with more positive symbolism, chiefly healing properties and medicine. The staff of **Asclepius** represents pharmacy, but originally symbolized the Greek god of healing of that name. The staff has a serpent wrapped around it, symbolizing healing. Again, this symbolism is grounded in the snake's ability to shed its own skin, representing renewal and rejuvenation.

Also in classical Greek myth, there was the **Caduceus**: a staff with two intertwined serpents. This staff was carried by Hermes (or his Roman counterpart, Mercury): the messenger of the gods. The two staffs are often confused, but the herald's staff borne by Hermes/Mercury had two serpents, rather than one, with their heads facing each other. The caduceus came to symbolize trade and transportation because Hermes was often flying around from one god to another to deliver messages. That point clarified, might it not still be possible for such messages, regardless of their origins, to contain an element of healing within? Regardless of their origins? Just a thought.

So why a snake or snakes used for these staffs? As argued in the book, *The Meaning of Myth* (Neel Burton), snake venom is both a deadly poison and an antidote, and also has many other medicinal properties—having been used, for example, to control pain or stem hemorrhage. According to the Book of Numbers, (**Numbers 21:8-9**--"And the Lord said to Moses, 'Make a poisonous serpent and set it on a pole; and everyone who is bitten shall look at it and live' ") Moses erected a bronze serpent onto a pole to protect the Israelites from the bites of the "fiery serpents" sent by God in punishment.

That same archetype recurs in the two symbols discussed above pertaining to healing. The rod or staff represents control over the dual nature of the snake, or the Moses-like harnessing of the powers of the snake.

Leviathan from the Book of Job

There's also debate over whether the passages in Job about Leviathan and another giant Biblical creature, Behemoth, describe mythological beasts—or actual animals that existed at the time but later may have gone

extinct. It's been suggested that Behemoth could have been a hippopotamus, an elephant, or even a dinosaur, while Leviathan may be been an ancient species of crocodile.

Either way, the Book of Job employed both Leviathan and Behemoth to demonstrate to Job God's power of creation and the futility of questioning Him. Later, the "leviathan" would be applied more generally to mean a giant whale (most memorably the great white whale in Moby Dick) or other massive sea creature.

Our Takeaway

We may conclude from the discussion above that snakes/serpents are highly complex creatures that are imbued with a great deal of symbolism—totally unbeknownst to them. Regardless of one's personal feelings towards them, they continue to hold humans spellbound by their very nature—whether that spell be one of terror or of endless fascination. I'll bet if they could talk, they would share that all they really want to do is to be left alone in peace, to find a sunny spot on a road, in the grass, or on a rock to catch some rays and get warm. Maybe, if the timing is right and their luck is good, even snag a mouse (or something bigger) for a snack or a meal. Snakes, indeed, are creatures of paradox --- complexity and simplicity—woven powerfully together into one magnificent creature.

President's message

Jim Horton

Nate Engbrecht, our Indiana DNR herpetologist, gave us an outstanding presentation last month. We were treated to see the work with herps by he and his field technicians. Afterwards, he was bombarded by friendly audience members with questions and photos.

We're happy to announce the continuance of the Student Presentation Award. Now under a new name - **The Sherman A. Minton Jr. Student Presentation Award**. If you know any students working on projects/papers related to herpetology, feel free to share this information with them.

This year, we remember the 25 years since the passing of Dr. Sherman Minton. In honor of Dr. Minton, this award will acknowledge his legacy and contributions to herpetology here in Indiana and worldwide.

Thanks to Mary Hylton for her second informative article on snake myths. Much appreciated Mary!

We've started off with a great lineup already this year. This month is our FrogWatchUSA training, in March we have Mr. Yusnaviel Garica-Padron will discuss the Herpetology of Cuba, and Katie Kolcun will have a presentation on Interpreting Herpetology!

2024 Sherman A. Minton Jr. Student Presentation Award

The Hoosier Herpetological Society is offering an educational award of \$300 for outstanding herpetological research projects. The Sherman A. Minton Jr. Student Presentation Award is being offered to students from academic organizations within Indiana. The awarded applicant will present the research topic at one of our upcoming meetings in 2024. Meetings are held every third Wednesday at Holliday Park @ 7:00pm in Indianapolis, IN. To be considered, please provide a description of the research topic and provide contact information by April 1st, 2024. Email application materials to (treasurer@hoosierherpsoc.org)

Past Recipients:

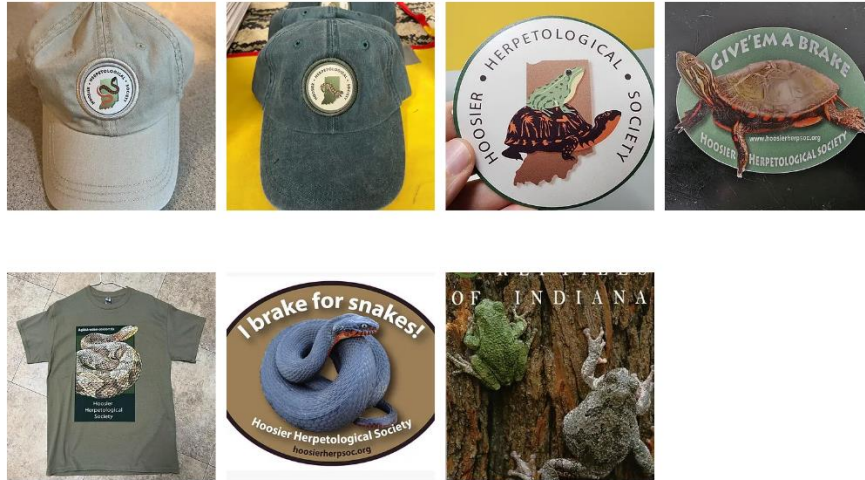
2021, Jacob Pressler, Marian University – The bite force awakens: Sexual dimorphism in head morphology and bite force in Sceloporus lizards

2022, Shelby Royal, Purdue University – Experimental approaches to advancing hellbender head-starting

2023, Sarah Simmons, Indiana State University – The Impact of lowhead dams on turtles.

**Our new website features swag for sale!
You can find shirts, hats, stickers, and more.**

www.hoosierherpsociety.org



2024 HERPETOLOGICAL EVENTS

February 17, 2024 – HHS live animal exhibit at Garfield Park Conservatory. 10 – 2 PM

February 17, 2024 – HHS at Marsh Madness event. Linton IN

February 21, 2024 – HHS meeting, Topic – FrogWatchUSA training and salamander review.

February 25, 2024 - 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

March 20, 2024 – HHS meeting, guest speaker - Yusnaviel Garica-Padron, topic – Herpetology of Cuba

April 17, 2024 – HHS meeting, guest Speaker – Katie Kolcun (HHS), Title: “Interpreting Herpetology: Sparking Fascination for Reptiles and Amphibians.”

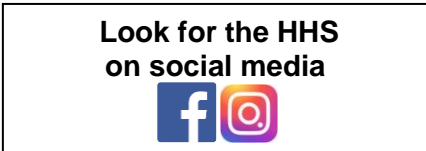
May 3-4, 2024 – Herpetology Weekend, Natural Bridge State Park, Slade, KY. A weekend of presentations, hikes, and herpetological fun!

www.hoosierherpsociety.org

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| VICE-PRESIDENT | Katie Kolcun | | k.a.kolcun@gmail.com |
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| | Kimberly Scott | (317) 306-1597 | silverskydragon@att.net |
| | Dale Schoentrup | | eyelashviper@hotmail.com |



HHS board meetings

Board meetings are always the second Wednesday of the month, 7:00pm
All members are welcome to attend. Contact any board member for the current locations.

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

Address Correction Requested

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