

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 3 March 2024

HHS Monthly Meeting

March 20, 7:00PM, Holliday Park Nature Center

Guest Speaker – Yusnaviel Garcia-Padron Topic – Herpetology of Cuba

The country of Cuba is rich in herpetological diversity. There are over 227 species of reptiles and amphibians on the island. Learn more about the natural regions and the work that Yusnaviel has done in one of our closest neighboring countries.

Yusnaviel was born in Cuba where he lived until 2022. He was a Speleologist since 2001, where he discovered amphibians and reptiles. In 2008 worked as a field researcher in herpetology, first in a center of research and environmental research, and later in the museum of natural history of Pinar del Rio (in his born province). In addition, in those centers worked as field technician in different fields such as Botany, Ornithology, Orchidology, invertebrates, fishes, Biospeleology, and taxidermist. He has 15 years experience as a herpetologist, has more than 40 scientific contributions, and participated in more than ten national and international scientific meetings. Yusnaviel has given lectures and conferences about Cuban herpetology, Biospeleology, and environmental conservation for high school and college students, and the community.

www.hoosierherpsociety.org

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

Anita & Paul Carter
Benjamin Grimes
Carl McDougall
Carl Schwartz
Jordan Sirosky
Gerald Zimmerman

New Members

Aaron Barrick
Logan Eberhardt
Lucas Foertsch
Drew Heinold
Steve Hose
Kashena Hottinger
Brian Lowry
Laura Pierce
Jackson Schoettle
Ashley Willis

The wonders of the Herpetology of Cuba

L. Yusnaviel Garcia-Padron yusnaviel@gmail.com

In the Caribbean region (known in science as West Indies) we have 197 species of amphibians and 539 reptiles (Henderson and Powell, 2009), which more than 95% of total are endemic to the area (Crother, 1999). Cuba is the largest island in the West Indies, with 42,426 mi²; to put under perspective, Cuba is slightly smaller in size as Ohio State (44,826 mi²) and has similar population than Michigan State (little more than 10 million people).



As on many islands, natural areas, like forested areas, are reducing their size every year, mainly due to demographic growth and contamination. Cuba has large diversity of ecosystems, from karstic mountains, inland waterbodies (ex. rivers, lakes,

ponds, vernal pools, brackish waterbodies, dams, etc.), forested (not karstic) hills, sandy and karstic plains, semideserts, and underground ecosystems (caves and caverns), and even small and important ecosystems as bromeliad plants. The soil is 60% karstic, where around 90% of the biodiversity occurs, with karstic hills (called Mogotes) in the western region, higher mountains in Central and Eastern Cuba, and karstic plains; most of it well conserved. This Caribbean Island has the largest herpetological species richness over all islands in the West Indies, with around 227 species, which represents the 2.6% of the Cuban fauna in general.



Among amphibians, only Anura (frogs and toads) is represented in Cuba, with around 71 species, where more than 95% is endemic. Tuatara is the only group that is not represented among Cuban reptiles, which comprised around 156 species, with 87% of endemism. Most amphibians and reptiles are found in mountains and forested hills (nearly 80%), but semideserts, sandy and karstic plains are also locally important ecosystems due to its higher endemism in those groups.



Throughout history, United States has become an important influence in past and current Cuban herpetological studies. Since 19th, and specially 20th Century, many great American scientists had contributed to Cuban science, not only herpetology, but in almost all biological science fields. To mention only a few, great names emerge from a long list: Emmett Reid Dunn, Edward Cope, Thomas Barbour, Albert Schwartz, Robert Powell, Robert Henderson, and a long etcetera. Among the most important contributions they made we can

mention the systematics, with the description of more than 80% of the current Cuban amphibians and reptiles; other like natural history, ecology and evolution studies, are legacies that these great scientists left to the future generations as start point; future generations, like me!

My lecture on March 2024 in the HHS Monthly Meeting will go deep on many of this and other aspects, and you will be able to know more about Cuban amphibians and reptiles at first hand. An updated Cuban herpetological science is provided: what has been done, what is left to do, and how this knowledge is, or can be, applied today in Cuban society and economy, are some of the questions you will find that night. Moreover, interactive segments will offer the audience the visual and sound diversity of amphibians and reptiles of that small and precious tropical island in the Caribbean.

Hope to see you there!



Figures

DSC05448.JPG- Broad-banded Trope (Tropidophis feicki).

IMG_0986.JPG- Blue-eyed Twig Anole (Anolis alutaceus).

IMG_5023.JPG- Saw-scaled Curlytail (Leiocephalus carinatus mogotensis).

IMGP5395.JPG- Left on the image: Cuban Giant Frog (Eleutherodactylus zeus), and Right: Western Spiny Frog (E. symingtoni)



President's message

Jim Horton

Welcome to unofficial spring!, Sandhill cranes are flying back, we've changed out clocks, ephemeral plants are up, and frogs are calling! What a wonderful time of year!

The HHS has had a great year so far. From our guest speakers to the club functions, we thank you, our members for supporting us and attending our meetings and functions. Having said that, Thank you to our resubscribing members and welcome to our new members!!

Big thanks to Ethan Estabrook for traveling in icy conditions all the way to Linton to represent the HHS at the Marsh Madness event. He brought in some great sales of HHS gear and donations as well!

You won't want to miss Mr. Yusnaviel Garica-Padron as our guest speaker this month. Mr. Padron will discuss the Herpetology of Cuba. Should be a good one! Next month, Katie Kolcun will give a presentation on Interpreting Herpetology!

Amphibian Night in Brown County

Our organization makes every effort to get our members out in the field to view herps in their natural state. Sometimes perfect weather conditions occur at the spur of the moment for early amphibian movement. Earlier this month,

such conditions were favorable.

On Friday, March 8, HHS members were treated to an impromptu event where they saw a host of wildlife at a woodland vernal pool in Brown County. Early March ushered in all-day rains combined with warm temperatures. An email was sent to the subscribing membership two days before the event and members quickly replied with an enthusiastic yes!

Article and photos by Jim Horton



The group met up in Brown County State Park on a Friday evening and walked only steps away to a woodland pond. Adults and kids aimed their flashlights and headlamps toward the water revealing multitudes of amphibians. Spotted salamanders were abundant in and around the perimeter of the pool. In fact, many were crossing a nearby road towards the pond. Several met their fate by vehicle traffic.



Spotted salamander

Female spotteds had already deposited eggs onto vegetation throughout the pool. Adult males were gathering in large groups, swirling and circling below the surface in typical breeding behavior.



Spotted salamander eggs

Red-spotted newts could be seen nearing the jelly-like salamander eggs masses.

Newts find easy meals voraciously feeding on stationary frog and salamander eggs. Some were netted for photographs and released.

A few Jefferson's salamanders were still hanging around the perimeter of the pond. Jeffs are among the first of our cold tolerant salamanders to migrate to the wetlands for breeding, often during snow and ice! Many in the group had not seen this species in the flesh. They were happy to get photos of this species before it travels back deep into the forest.



Jefferson salamander

Only a few spring peepers would call out signally during our visit. This was an odd occurrence to some of us who return to this area each season. Typically, spring peepers would call in mass, often so loud that

conversations are difficult. However, peepers were easily visually found in and around the water edge. The lack of anuran calls is still puzzling.



Spring peeper

One of our fall breeding "mole" salamanders, the Marbled salamander (Ambystoma opacum) was evident in the water. The tiny larvae, only under two inches in length, were floating in and out of leaf litter throughout. These larvae had been in the pond since last fall. This early activity gives the species a headstart in growth from other salamanders. In fact, the marbled young will actively feed on the eggs of other salamanders in the pond.

Crustaceans known as fairy shrimp (Branchiecta lynchi) made their annual appearance in the water. These tiny shrimp-like creatures lie beneath the surface of the vernal pool. The eggs hatch temporary pools fill with water in late winter. Males/females mate, lay eggs and parish. The entire life cycle is about 91 days.



Fairy shrimp

It was a great night to meet and talk with some of our members. The event was well received and we were happy to oblige. To some, driving an hour to hike in the dark with rainfall might be a bit maddening. To us, one could say it's our own level of March Madness!

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.

HHS at Garfield Conservatory, February 17













The Foundation for the Conservation of Salamanders is the only non-profit organization focused solely on salamanders! Every year, we celebrate Salamander Saturday on the first Saturday in May. It's an initiative started by us to raise awareness about salamanders, their habitats, and their role in the ecosystem.

2024 HERPETOLOGICAL EVENTS

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

March 24, 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

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!



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HHS Board of Directors - 2024

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Appointed Board Members for 2024

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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

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