



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 24 Number 5

May 2013

Welcome back members!

RENEWALS

Paul Gessner

Jim Horton

NEW MEMBERS

Hollyn Anderson

William Schmict

Steve and Valerie Bedel

May HHS General Meeting

Wednesday May 15th, 7:00 p.m.

Guest Speaker: Dr. Bob Brodman, Saint Joseph's College

Topic: "Impact of Climate Change on Amphibians"

Holliday Park Auditorium

The Hoosier Herpetological Society is proud to welcome Dr. Bob Brodman as this month's guest speaker. Dr. Brodman is a Professor of Biology and Environmental Science and Chair of the Biology Department at Saint Joseph's College in Indiana where he teaches a variety of biology, zoology and ecology classes. He commands an army of undergraduate students monitoring amphibian population research. His presentation is a product of more than two decade field research of pond breeding salamanders and frogs. "Dr. Bob" is also a member of many advisory boards of herpetological research and is an associate editor of the journal Herpetological Conservation & Biology. "Dr. Bob's" presentations are always informative and entertaining. Be sure to plan on attending this interesting meeting!

April HHS Meeting

Mike Pingleton

"Amazon Adventures: A Field Herper in Peru"

By Jim Horton

Mike Pingleton is a well seasoned field herper with many years under his belt. We could easily tell that from his presentation last month. His trip to the Peruvian jungle was titled, "Amazon Adventures: A Field Herper In Peru".

This PowerPoint was filled with colorful pics of the many species of amphibians and reptiles that occur in the region.

His description of 100 degree humid days and 16 hour boat rides didn't give it a rosy picture. But shortly into his talk the audience could see why a Midwesterner would do such a thing.

The many species of treefrogs in his photos would be worth a trip alone. Mike's mention of "Bob", the giant monkey frog was entertaining. This frog produces a "bob" sounding call. Whenever he saw it he heard this call and called the 4.5 inch frog Bob.

He and his crew stayed at a biological station. Young kids from the area would show up with live herps to trade for shirts and other items brought from Mike and his crew.

He and his expedition crew found about 28 species of snakes including such iconic species as green anacondas, boa constrictors, and a bushmaster.

Lizards were found in abundance on this trip. Mike was running short on time so we weren't able to see them all. One species, the Giant Amphisbaenid was the *find* of his second trip. This is an odd, blind, wormlike legless lizard.

His talk also included a few turtles of the Amazon region, a caiman, and some really interesting insects.

His plans are to take another trip to South America this year. If you were unable to make this meeting, hopefully you see his next presentation.

Field Herping Ethics

Jim Horton

When you are out in the field checking logs, rocks or other cover, please return them to their original position. More and more we are seeing stones, and logs turned up and not returned back.

Over the past few years I've had reports from individuals on the HHS message board, other message boards, and in person.

If you see someone doing this, please tell them that these are micro-habitats for many life forms (not just herps). It might be good to inform our younger herpers the same.

Just a thought,

President's message

Jim Horton

Our annual *Hoosier Herpout* is Saturday, June 1st at Hardin Ridge Recreation Area in Bloomington. If you are into field herping and camping, this is the weekend for you! See the website message board for up-to-date information. Hope to see you there!

Thanks to Mr. Mike Pingleton for his colorful presentation of an expedition to the Amazon! His talk had everyone wanting to take a trip to the tropics!

I'd like to welcome our new members to the HHS.

The HHS will be involved in a BioBlitz at Connor Prairie June 8th and 9. Volunteers are needed to herp at our information booth on both days. If you would like to help, contact Ed Ferrer.

This month we have Mr. Bob Brodman from St. Joseph College as our guest speaker. He is always one of our favorite speakers. Hope to see you at the meeting,

Jim

"Speak With Forked Tongue"

by Ed Ferrer

I remember in many Western movies the Indian (or Native American in today's politically correct usage) would say the "white man speaks with forked tongue". This of course meant that they were often lied to or misled regarding treaties, etc. The serpent's forked tongue has often been a symbol of deceit and mistrust throughout the ages. Images of forked tongues appear in ancient pictographic scripts of Mesopotamia and China, and petroglyphs of East Africa. They also appear throughout religious cultures of the Aztecs, the Siberian Altai and the Sumerians of Babylonia. Snakes and their forked tongue have been so ingrained in human culture that the obvious question of "Why is the tongue forked" has not been fully answered.

Perhaps the first recorded scientific inquiry into this question was proposed by Aristotle. He reasoned that the forked tongue provided the snake with twice the sensation of taste. Seventeenth century Italian naturalist, Hodierna, thought that snakes used their forked tongues to pick dirt out of their noses. Many were convinced that the forked tongue was a stinger, particularly in venomous species. Others have claimed to witness snakes capturing flies with their forked tongues. During the first part of this century the accepted scientific view that flicking the forked tongue served as part of a tactile mechanism, providing the snake a fine sense of touch. But further scientific observations have found these above mentioned theories to be untrue. Regarding the taste theory, it was discovered that snakes' tongues lack taste buds. The other theories were also disproved.

A series of elegant experiments conducted in Germany and the United States during the 1920's and 1930's provide the first scientific clues of the snake's tongue flicking. These experiments led directly to the new interpretations of the forked tongue. These experiments showed two tiny organs that lay side by side in the snake's snout just above the roof of the mouth. These were named Jacobson's organ after their discoverer. They are now usually referred to as the vomeronasal organs or VNO for short. These small, bulb-shaped structures developed as offshoot of the nasal cavity. They become isolated from it and form separate connections to the mouth through openings in the palate.

Each VNO contains its own small patch of sensory cells. These cells have nerves that connect to the olfactory bulb in the brain. They are not the same part of the bulb that is connected to the sensory cells of the snake's nose. The tests showed that the tongue flicks send chemical particles into the mouth and eventually finding their way into the VNO and stimulating the sensory cells. This gives the snakes and their close lizard cousins a chemical sense similar to smell but distinctly different. It was widely accepted that the forked tongues delivered the chemical particles directly into the openings of the VNO. But this theory has been disproved by further studies that showed that these chemical particles were still delivered when the tongue tips had been surgically removed.

Further film and X-ray studies have provided further evidence showing that the tongue tips are not inserted into the VNO. It is reasoned that pads on the floor probably deliver the particles to the openings in the palate. As the tongue is retracted into its sheath, its tips brush along the pads in the floor of the mouth. These pads are then elevated and pushed against the palate and the VNO openings.

Since the studies have found that chemical particles can be delivered with blunt ends of the tongue and tongues that have their forked ends removed then we are still left with the question "Why do all snakes have forked tongues?" After further study and scientific observations it was reasoned that the real advantage to the snake having a forked tongue

is that it gives the snake a kind of "stereo smell" that not only gives it the presence of a chemical but also its location! This works like the pair of eyes or ears that help to locate the direction of a vision or sound. Repeated scientific trials have shown consistent supporting results. The forked tongue serves a great advantage in following the direction of pheromone trails in searching for a mate or locating the presence of other animals that might mean prey or danger. Therefore the chief function of the snake having a forked tongue is that it serves as a directional tool as the serpent travels helping it to interpret the numerous chemical clues of its environment.

Reference: Natural History, "The Serpent's Tongue", Terrence D. Fitzgerald Vol. 104, No. 4, April 1995

GOING PAPERLESS?

HHS members have now the option of receiving *The Monitor* newsletter directly on their own computer. In this case we will send you the link to a PDF file by e-mail, instead of the printed copy. Besides saving paper and postage, this will allow you to enjoy great pictures in color and high definition. To select the *paperless* option please send an e-mail to the [Webmaster](#), with "HHS PAPERLESS" in the subject line.

13th Annual Hoosier Herpout

Saturday, June 1st - 9:30 A.M.

Hardin Ridge Recreation Area (Hoosier National Forest),
Monroe Reservoir, Bloomington, IN

HERPING CAMPING PICNICING HIKING



The Herpout is our largest field gathering of the year!

Join fellow HHS members for a day or weekend (your choice) of outdoor fun.

This event offers a chance for field identification, photography, camping, hiking, and a cookout!

Meet at the shelter house near the boat ramp.

Rain or shine (herping is always good, even in rain)

Schedule: we will leave to herp the area shortly after 9:30 a.m. and we will return before 12:00 p.m. for the cookout.

Several members will be camping at Southern Point campground. We will also herp on Sunday. The herpout is a chance for our members to get out and field herp the hills of beautiful Southern Indiana. We should see a variety of herps with the possibility of venomous species. We will also be taking counts on our finds in the wild. Wear the proper gear and herp at your own risk. The H.H.S. assumes no responsibility for accidents or injuries. Please be careful and have fun!!

The cookout

The H.H.S. will provide the burgers and dogs. Please bring a covered dish and your own beverages. Hardin Ridge offers class "A" camping (showers, electrical hookup) and class "B" (showers) camping.

The HHS will present a live and PowerPoint presentation at the amphitheater at 8:30pm

For more information, call or email Jim Horton (317) 865.0464 cell-317.443.4845 email stardali84@hotmail.com

KNIVES AND HERP ART (Part 27)

Photos & text by Roger Carter

This is a very cool fantasy knife with twin cobras. It is fifteen and a half inches long from the point of the knife to where the body curves down. The blade is ten and one half inches long, stainless steel with a black finish, made in China, has some kind of decorative pattern etched into the blade and its edge is not sharp. The dragon-like tail is three inches long and the cobra images are six and three-quarter inches long from head to head. The handle is black plastic with silver rings and the cobras and the end of the tail are silver. The entire knife is heavy.



2013 EVENTS

May 10-12, 2013 – Herpetology Weekend, Natural Bridge State Resort Park, Slade, KY. A weekend filled with field trips, presentations, and free admission to the Kentucky Reptile Zoo

June 1, 2013 – Hoosier Herpout, Hardin Ridge Recreation Area, Monroe Reservoir, Bloomington, IN
An HHS event featuring field herping, cookout, camping and more.

June 2nd, 2013 - Midwest Reptile Show, 10:00 a.m. - 4:00 p.m. Southwest Pavilion, 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 Other dates: August 25, October 20, December 8

June 2nd, 2013 - Indiana Reptile Expo, Hamilton County Fairgrounds, 10am-4pm, \$6.00 admission

www.indianareptileexpo.com HHS has a booth at this event!

July 31-August 3 - International Herpetological Symposium will be held in New Orleans, LA

<http://www.internationalherpetologicalsymposium.com>

August 31-September 3 – Midwest Herpetological Symposium, Peoria, Illinois. A four day event featuring guest speakers, field trips, dinner, auction, and live animal sale. Register now at - <http://centralillinoisherp.com/>.

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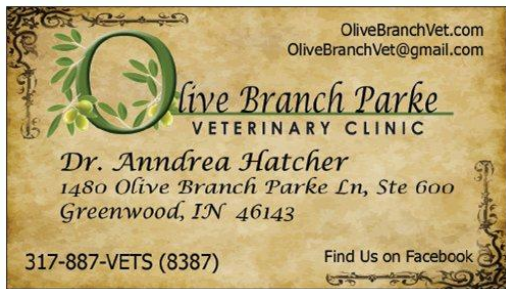
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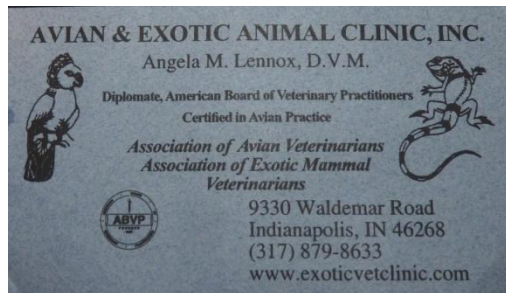
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Parking at Holliday Park

7:00pm to 9:00pm is our new meeting time at **Holliday Park**.

Holiday Park entrance gates close automatically when it gets dark. **After darkness hours, drive your car up to the gates and they will open.** Also, we need to park behind the hill or knoll. Parking is allowed closer to the center on the other side of the knoll only if the vehicle has a handicap sticker. Park rangers do patrol the lot and will tow vehicles that are parked in the wrong lot.

The Hoosier Herpetological Society is a non-profit organization dedicated to the education of its membership and the conservation of all reptiles and amphibians. General monthly meetings are held on the third Wednesday of each month at 7:00 p.m. at Holliday Park Nature Center. Membership is open to all interested individuals. **No venomous animals are allowed at the General Meeting**

The Monitor is printed courtesy of:

The Harding Poorman



Herp of the Month

Grey Treefrog (*Hyla versicolor*)

Text and photos by Jim Horton

Late April and May rains bring out Indiana's treefrogs. Gray and Cope's Gray Treefrogs are active at this time.

Gray treefrogs call alongside Fowler's toads in fields, roadsides, and other temporary water sources. Both species look identical but calls are slightly different. The only other way to tell the two apart is by analyzing DNA of this species. Male gray treefrogs produce a low musical trill while the Cope's calls in a higher pitch trill.

These treefrogs aren't always gray as the name refers. Sometimes they will have a green or brown color to them. Others may appear almost white. I've had countless conversations from local folks about green treefrogs found around their homes here in central Indiana. When told that the true green treefrog (*Hyla cinerea*) doesn't occur this far north, they are surprised. Some still won't believe that the frogs sticking to their windows are gray treefrogs.

Gray treefrogs have a dark mottled pattern on the legs and backside which is quite beautiful. A yellow or orange flashing occurs on the undersides of the back and front limbs. This acts as a warning for its toxicity.

Young grays will take on a green coloration and most will turn a uniform gray as adults.

Their skin has a warty texture unlike most treefrogs. Another field marking is a light patch under each eye. *Hyla v.* is a well camouflaged species. Without good eyesight and hearing, you might just miss them calling from a low lying branch.

Large suction-like discs on the end of each digit enable this arboreal anuran to take to the trees and other higher ground. *Hyla v.* prefers to be high in the trees and rarely come to ground unless to breed. During the warm rainy or humid nights of late spring, gray's can be found at ground level. A simple drive into the countryside or near a woodland area will produce positive results for calling treefrogs.

These handsome frogs are found in the upper Midwest and into the Northeast. Indiana range consists of most of the central and upper sections of the state. Cope's gray's are more of a southern species occurring mostly in the southern portions of Indiana and typically throughout much of the East and Southeast.

Both Cope's and Gray treefrogs are active throughout the summer months in search of insects



MEMBERSHIP FORM

New Member

Renewal

Name _____ **Date** _____

Address _____

City _____ **State** _____ **Zip Code** _____ **Phone** _____

Email Address _____

Individual/Family Membership \$15.00

Sustaining Membership \$25.00 or more

Herpetological Interest(s)

**Hoosier Herpetological Society
P.O. Box 40544
Indianapolis, Indiana, 46240-0544**



Dated Material Enclosed

Address Correction Requested

****Special meeting date – April 24****

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