



# 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 25 Number 5

May 2014

## 14<sup>th</sup> Annual Hoosier Herpout

Saturday, May 17 - 9:00 A.M.

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

Meet at the shelter house near the amphitheater.

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

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

We will herp again after lunch. Saturday evening the HHS will present a PowerPoint presentation of *The Herps of the Hardin Ridge Area*.

Several members will be camping at one of the many campgrounds. 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 Barbeque

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.

For more information, call or email Jim Horton (317) 443.4845 email - stardali84@hotmail.com

[www.hoosierherpsoc.org](http://www.hoosierherpsoc.org)

HOOSIER HERPETOLOGICAL SOCIETY  
Celebrating 25 years!

**May HHS meeting - May 21, 7:00 p.m.**  
**Holliday Park, Auditorium**  
**Guest Speaker: Mike Pingleton**  
**Topic: "Herping the Legendary Snake Road"**

Anyone who is interested in field herping has heard about the legendary "Snake Road" in Southern Illinois. Hiking this road is like going back in time! This road is located between a large swamp and a cliff where the many species of reptiles and amphibians hibernate. In the early spring and late September this site is like the Mecca for herpers as they find many species of "herptiles" moving from one place to the other. I have been there twice and was treated to the best field herping experiences of my life!

Mike Pingleton has been involved with herptoculture and field herping for nearly forty years. Field activities have taken him to many places throughout the world. Mike documents his field trips in his web journals at [www.pingleton.com](http://www.pingleton.com). Over the years Mike has raised and bred many species of amphibians and reptiles. He is the author of a book on Redfooted Tortoises, a children's ebook about snakes and is working on a book about field herping. He has written many articles appearing in such magazines as Reptiles and Herp Nation and is an excellent wildlife photographer. Be sure to come see what Mike has found during his numerous trips to "Snake Road".

**Last month's speaker**

*By Jim Horton*

The presentation by **Dr. Angela Lennox** last month opened the eyes of HHS members. The talk titled – “What’s New in Reptile and Amphibian Medicine?” started with photos of herps with injuries showing fractures to severe wounds from rodent attacks. Neglect is one of the most common problems with animals that come through the doors of her practice, **Avian and Exotic Animal Clinic.**

Many problems occur with popular pets such as bearded dragons. Yellow fungus and adenovirus have hit beardies pretty hard. Yellow fungus is treated with antifungal drugs. Adenovirus, also known as “wasting disease” and “stargazing” is contagious and can lead to serious illness and death. There is no known cure for this disease. These devastating problems may also affect other lizards and snakes.

Dr. Lennox warned the squeamish of the next few slides. They featured a surgically opened patient with heart disease – yes, heart disease! She reported that this isn’t common but it does occur. Treatment of this condition is difficult and has a poor prognosis.

Foreign ingestion (by herps) isn’t uncommon for her clinic concerning herps. Ingested sand, rocks, and even coins posed problems for these patients and their owners. One case with (you guessed it-bearded dragon), swallowed a rubber lizard. The vets couldn’t find this item in xrays because it had no solid form. But the owner knew something was wrong with her pet and had suggested that it had eaten this toy. After exhausting all efforts, the staff was stymied. A day later the lizard passed the object in question though its digestive tract – the rubber lizard case was solved.

She showcased a relatively new method of collecting blood from herp patients. Venipuncture is utilized by entering the ventral vein or caudal tail vein in snakes. Taking blood from reptiles isn’t an easy task but Dr. Lennox reported that this method proves positive. With Chelonians, the jugular vein is located just beneath the top of the carapace at the base of the neck. Crocodilians have another spot for blood collection – the needle is inserted behind the nuchal crest or occiput on the dorsal midline.

Her talk included many other methods, treatments and husbandry techniques used by her crew at the clinic. I just can’t fit them all in this article. Hope you were able to be there to see what I missed!

# President's message

Jim Horton

The **Midwest Herpetological Symposium (MHS) October 17-19** is coming up quick! Items are needed for the fundraising auction. Help support the HHS by donating items such as artwork, books, supplies, etc. Your help is needed in order for us to host a successful conference. Please see me or any board member if you would like to help out.

A big thank you goes to Holly Carter for her efforts in displaying snakes at the Zionsville ZGreen Fest.

Don't miss the upcoming meeting with our guest, Mr. Mike Pingleton. He never disappoints.

I hope to see many of you at the 14<sup>th</sup> Annual Hoosier Herpout at Hardin Ridge Recreation Area – May 17. This is our best outing of the year and we always find a nice variety of herps!

## "Hot" Log

Story and photos by Roger Carter

On one of my exploration trips into southern Indiana in July, 2009, I came to one of my favorite trails and, after a walk of about fifteen minutes, I came to a hollow log that I discovered years before. This log is maybe eighteen inches in diameter at the widest end, fifteen to eighteen feet long and is split on top about half the length of the log allowing snakes to have protection in the log but still able to bask in the sunlight on clear days. I have seen individual Black Racers, *Coluber constrictor priapus*, Northern Copperheads, *Agkistrodon contortix mokasen*, and Timber Rattlesnakes, *Crotallus horridus*, in this log under the split enjoying the sun. On this particular trip I was very pleasantly surprised to find two Timber Rattlesnakes enjoying the comfort of the log while basking under the



split.

They stayed in the log and I stayed outside of the log trying to get pictures of both of them. It was difficult trying to get good pictures through this split and, while I did get several pictures, there was only one picture that I was even half way satisfied with which I hope shows up well in black and white in this newsletter. You can see the blurred image of one snake in the foreground and, a little

ways behind that one, you can just see the snout of the second one. These animals didn't seem alarmed because they never rattled or put up any kind of fuss. They probably took comfort from each other's company. The first time I saw a Timber Rattlesnake in this log it rattled the instant that it saw me and retreated into the log as far as it could go denying me any chance of getting any pictures of it. I could still hear it buzzing as I walked away. This one must have been very cranky because most of the Timber Rattlesnakes that I have seen have been of a fairly mild temperament and very rarely rattle. Of several that I have seen in this log that was the only to behave like that.



After several minutes the snake in the foreground moved back a little and uncovered a Northern Copperhead that it had been laying on. It must have been a relief for the Copperhead because it was an average size snake while the Timber Rattlesnake seemed to be an average size adult much bigger than the Copperhead. The few racers that I have seen immediately retreated to the back end of the log.

I have not seen any animals in this log in 2012 or 2013 and, in previous years, there weren't any animals in this log on the hottest days. The split is getting wider and I

think the log is going to fall apart soon which is going to be a big shame because it was a good place to see Timbers and Copperheads.

## EASTERN HELLBENDER

By Gordon Mitchell  
Columbus, Ohio



**Eastern Hellbender** *Cryptobranchus alleganiensis alleganiensis* Photo- PurdueUniversity

Occasionally, fishermen might catch something on their lures that aren't fish at all. Some of these catches might be large Amphibians (Class *Amphibia*) that resemble bizarre creatures from the prehistoric past. That creature might be the Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis* Daudin).

Eastern Hellbenders are members of the Order *Caudata* and of the Family *Cryptobranchidae*. This is the only species within its genus.

The generic name, *Cryptobranchus*, is Greek for "hidden gulls". *Kryptos* is "hidden", "covered" or "secret" and *branchia* or *branchion* is "gull". Both the specific epithet and the subspecies name, *alleganiensis*, is New Latin or French for "belonging to the Allegheny Mountains".

Previous scientific synonyms for this species were *Abranchus alleghaniensis* Harlan, *Cryptobranchus alleganiensis* Schmidt, *C. alleganiensis* Stejneger and Barbour, *C. alleghaniensis* Cope, *C. alleghaniensis* Van der Hoeven, *C. salamandroides* Leuckart, *C. terrasodactylus* Wellborn, *Eurycea mucronata* Rafinesque, *Menopoma fuscan* Holbrook, *Molge gigantea* Merrem, *Protonopsis horrida* Barnes, *Salamandra alleghaniensis* Daudin, *S. gigantea* Barton, *S. horrida* Barton, *S. maxima* Baront, *Salamandrops gigantea* Wagler, and *Urotropis mucronata* Rafinesque.

The origin of the common name, Hellbender, is unknown. It was once believed that they were "creatures that crawled out of hell and are bent on returning". It may have also been named for its slow, twisted motion.

At different times and places, other common names for this species were Allegheny Alligator, Allegheny Hellbender, Alligator, Alligator of the Mountains, Big Water Lizard, Devil Dog, Giant Salamander, Grampus, Ground Puppy, Hellbender Salamander, Leverian Water Newt, Little Alligator, Mollyhugger, Mud Cat, Mud Devil, Mud Dog, Old Lasagna Sides, Snot Otter, Vulga, Walking Catfish, Waterdog, and Young Alligator. Some of these names should apply to Fish, Reptiles (Class *Reptilia*), or Mammals (Class *Mammalia*).

## DESCRIPTION OF THE EASTERN HELLBENDER

**Length:** Its length is 11-30 inches. The females are slightly larger than the males. They are the largest Salamander species in the Western Hemisphere.

**Color:** Its color is usually gray but can vary from buff, brown, yellow-brown, olive brown, or black. There may be some scattered and irregular dark or light mottled spots upon its back and upon its upper sides. Its belly is gray to dark brown but is still lighter with a few markings. A few albinos and some red-orange colors have also been observed. Most of these colors make ideal camouflage.



**Body:** Its body is soft; flattened; and has many loose flaps of thick, fleshy, wrinkled, lateral folds of skin upon its lower sides and between the fore limbs and the hind limbs. Because this species breathes through its skin (even though it has lungs), these wrinkles increase the surface area for breathing.

**Head:** Its head is broad, rounded, and flattened. It is widest behind the eyes.

**Eyes:** Its eyes are tiny, dark, beady, dorsal, and lidless. They have poor eyesight.

**Nose:** Its nose consists of 2 small nostrils located above the jaw.

**Gills:** The adults have no external gills. They have small circular openings upon each side of the neck and throat. However, the juveniles have external, feathery gills.

**Legs and Feet:** Their legs are short, stout, and powerful. Their fore feet have 4 toes and their hind feet have 5 toes. Unlike other Salamander species, they cannot re-grow lost limbs.

**Tail:** Its tail is vertically flat, has a high dorsal keel or fin, and is rudder-like. It is used for swimming and for navigation. It is highly photo-sensitive.

**Habitat:** Its habitats consist of fast-moving, mid-sized, permanent streams and rivers about 1-2 feet deep and with riffles. They prefer streams and rivers with loose boulders, large flat stones, submerged logs, and other large debris upon the bottom. They only tolerate clean, clear water with high levels of dissolved oxygen. They are a totally aquatic species and are a good indicator of the health of the stream or river.

**Range:** Its main range consists of the Ohio River watersheds, including Ohio, with some smaller populations in the Susquehanna watershed and in parts of southeastern Missouri. They are not found in the Delaware River, the Potomac River, or in the Great Lakes watersheds.

#### Diet:

Eastern Hellbenders are mainly carnivores. Up to 90% of their diet consists of Crayfish (Family *Cambaridae*). They will also eat Aquatic Insects (Class *Insecta*), Earthworms (Suborder *Lumbricina*), Snails (Class *Gastropoda*), Mollusks (Phylum *Mollusca*), smaller Amphibians, small Fish, and even some small Mammals. Crayfish remains may be more prevalent within their stomachs because they take a long time to digest.

Eastern Hellbenders use their small teeth and their powerful jaws to catch their prey. They even eat dead plant and animal matter. They will eat almost anything they can fit into their mouths.

Eastern Hellbenders hide under large debris during the day and forage for food at night or on overcast days. They forage by walking upon the stream bottom and by searching through crevices. They feed when the water temperature is 45-80 degrees F.

#### Breeding:

Breeding season is late August to early September in the North and September to early November in the South. During this time, the males have a swollen ridge around its vent. They also move around during the day.

The males excavate a shallow, saucer-shaped nesting cavity at the bottom of the stream. These cavities are usually found at the downstream end of these rocks and logs. They are usually excavated during the night.

The females lay their eggs into the nesting cavity. They are laid over 2-3 days. The males externally fertilize these eggs. They may fertilize eggs of more than 1 female. This is the only American Salamander species to externally fertilize eggs.

#### Eggs:

The eggs are pale yellow, spherical, about ¼ inches in diameter, and are arranged in 2 long strings of about 100-700. They have a 2-layered, transparent gelatinous envelope. These eggs may enlarge up to 3 times when in contact with water. The males guard these eggs until they hatch. Some of the males will even eat these eggs. Depending upon the temperature of the water, these eggs hatch in 45-84 days.

#### Larvae:

The newly-hatched larvae resemble the adults and are about 1¼-1½ inches long. They still retain their yolk sacs for energy. In ½-1 year and at 2-2½ inches long, they acquire their dorsal markings. They lose their external gills after 1½-2 years and at 4-5 inches long. They reach sexual maturity in 3-8 years.

#### Threats and Predators:

Eastern Hellbenders face numerous threats. Most of them consist of habitat destruction, such as pollution, siltation, channelization, and water impoundment.

Fishermen are also a threat to these Amphibians. Fishermen often kill them because they believe that the Eastern Hellbenders are poisonous. These Salamanders are not poisonous. However, they will inflict painful bites if handled improperly

Eastern Hellbenders have very few predators. They produce a slimy skin secretion that is noxious to predators but is not toxic. Trout (Subfamily *Salmoninae*), Water Snakes (*Nerodia sipedon* L.), Common Snapping Turtles (*Chelydra serpentina* L.), Wading Birds, American Minks (*Neovison vison* Schreber), and River Otters (*Lontra canadensis* Schreber) may eat this species. Native Americans have also eaten them.

Eastern Hellbenders are susceptible to a few diseases, such as Chytridiomycosis (*Batachochytrium dendrobatidis* Longcore, Pressier, and D. K. Nichols). This disease is caused by the Chytrid fungus. They are also susceptible to the Common Water Mold (Genus *Saprolegnia*) and to the Amphibian Ranavirus.

Off-road vehicles can also be a threat to the Eastern Hellbender. These vehicles may ride over rocks in the water and may crush these creatures.

## REFERENCES

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[animaldiversity.ummz.umich.edu/accounts/Cryptobranchus\\_alleganiensis/](http://animaldiversity.ummz.umich.edu/accounts/Cryptobranchus_alleganiensis/)

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## 2014 HERPETOLOGICAL EVENTS

**May 17, 2014** – Hoosier Herpout, Hardin Ridge Recreation Area, Hoosier National Forest, Bloomington. HHS event featuring field herping, Powerpoint presentation, a cookout, camping, and outdoor fun.

**May 18, 2014** – Indiana Reptile Breeders Expo, Richmond, IN. 10:00AM-4:00PM admission-\$5.00  
[www.irbexpo.com](http://www.irbexpo.com)

**June 1, 2014** - 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](http://www.midwestreptile.com) (future dates Aug. 3, October 19)

**June 4-7, 2014** – Biology of the Pit Vipers 2 Symposium, Tulsa, OK. [biologyofthepitvipers.com](http://biologyofthepitvipers.com)

October 17-19, 2014 – Midwest Herpetological Symposium, Indianapolis, IN. Hosted by the HHS.

### Mostly Reptiles

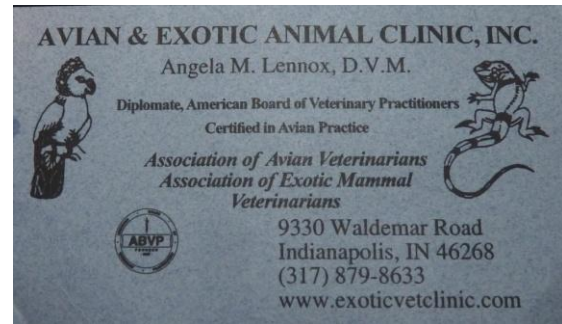
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The Hoosier Herpetological Society is a non-profit organization dedicated to the education of its membership and the conservation of all reptiles and amphibians. General monthly meetings are held on the third Wednesday of each month at 7:00 p.m. at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

**MEMBERSHIP FORM**

**New Member**

**Renewal**

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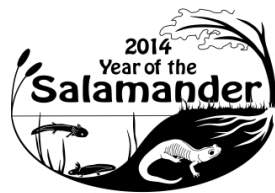
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