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.

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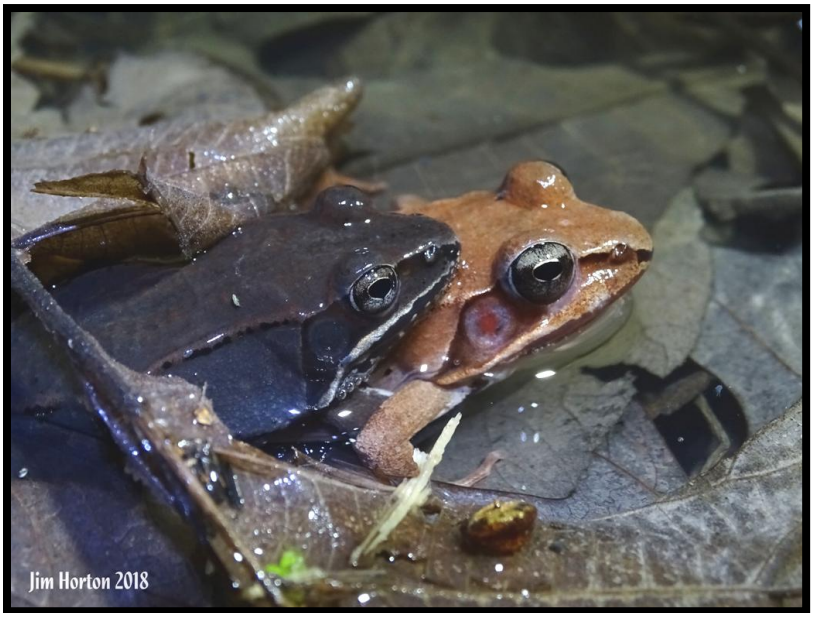


Wood frogs (Lithobates sylvaticus) in amplexus.
These species are among the first amphibians to become active in early spring.

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!

RENEWAL MEMBERS

Robert Wendling

NEW MEMBERS

Colin Platt/Jessica Darlington/Jason Darlington

Mary Bresnihan

President's message

Jim Horton

Happy New Year and welcome to 2021! Hope this year is better than the last. Thanks for supporting the HHS through a challenging year. Our indoor and outdoor activities, like many others, were cancelled. We hope that things will pick up this year but events are still on the backburner for the moment.

We still aren't sure how things are going to turn out with club activities and the current pandemic. We will keep you posted. Please check out our website, Facebook, and Instagram pages for updates.

Our annual photo contest typically takes place during the January meeting. We don't think this is going to work out during this time. Keep your fantastic photos at the ready though! We'll get to it.

We have a guest speaker lined up for February but we need to see what happens with Indy Parks, and the situation regarding our meetings. This may be an online meeting.

I'd like to thank Ed Ferrer and Roger Carter for their continued contributions to the Monitor. These two gentlemen keep us going with informative, original articles for this publication.

Folks, If you haven't already, you might want to become active with FrogWatchUSA. This is a citizen science program where **you** monitor frog/toad breeding activity near your home. I've been involved with it for several years and I couldn't be happier to be a part of helping our anuran friends.

Feeding Your Snake "Live or Dead?"

by Ed Ferrer

When I did educational snake programs, I was often asked questions about feeding their snake. One of the most asked questions is "Should I feed my snake live or dead prey items?" I have heard many viewpoints on this question. I must admit that when I started my hobby, I fed my snakes live prey. I was told that feeding live was a way of insuring the best nutrition. But after some experiences, I decided to convert to offering pre-killed prey to my snakes.

I had several reasons for changing my feeding procedure.

(1.) Live mice or rats, etc. often bite in self-defense when struck by the snake. These animals all have chisel-like teeth that that inflict puncture wounds that can easily lead to infection. This happened to my first snake, a small boa constrictor. So, I washed the wound and then applied Neosporin ointment in the morning and evening until I was satisfied that there was no infection.

(2.) Captive snakes are often not the skilled predators often depicted on television programs. Sometimes they strike hind quarters or other areas making it easy for the prey to bite back.

(3.) Occasionally the prey animal jumps avoiding the snake's strike and the snake may hit the side of the enclosure or other object that might injure the snake's jaws.

(4.) If the snake isn't hungry then you have the problem of removing the prey item which is risky because both the rodent and snake in a very agitated state. This makes recapturing the prey difficult and the owner may get stuck by the snake. (Sometimes the snake will strike anything that moves in this situation.)

(5.) It is also important to remember never to leave the room if offering a live prey item. If the snake isn't hungry, it will just lay there. Meanwhile, the rodent will continue to gnaw. I have seen cases when the owner returns to the room to be horrified when he finds his snake has suffered many serious wounds! (This is often happened to ball pythons.)

For the above listed reasons, I usually recommend feeding pre-killed prey items. Some say that their snakes won't strike a nonmoving object. Also, don't hold the pre-killed prey by the tail. When I first started my hobby that is the way I offered my prey animals (I saw a television program that showed a staff member feeding by hand. (you know "Monkey see, monkey do"!) I found out that snakes are just like lions and tigers who normally miss 50% of the time. And when snakes miss, they normally miss above the target. I found that out when one of my large Burmese pythons struck my hand! I also found out that when striking prey, it is not like a defensive strike. During a typical defensive strike, the snakes strike and then quickly releases. During a feeding strike the snake is programmed to kill the item, so it tends to hold on. So now I use a hemostat to hold the prey and move it which normally gets the snake to strike. The only time I offer my snakes live prey is when I feed small neonate snakes. Then I offer pinky or fuzzy mice that cannot harm the young snake.

I have tried to offer advice based on over thirty-five years of working with snakes in the hopes that beginning hobbyists can learn from my experience and my mistakes.

FROGWATCH USA

The 2021 amphibian breeding season is approaching

You do not have to be a frog or toad expert to be a FrogWatch USA volunteer! All you need is:

- An interest in frogs and toads;
- A willingness to become a trained volunteer and join a local FrogWatch USA Chapter if one is in your area.
- A commitment to follow the standardized protocol to monitor a wetland site over multiple evenings throughout the breeding season (February - August)

Volunteer training opportunities are available in-person and online.

https://www.aza.org/become-a-frogwatch-volunteer/

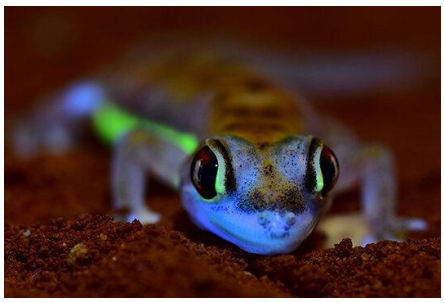
Due to Covid 19 restrictions, we will not hold an in person meeting for the month of January.

A possible online meeting may be offered.
Please check the HHS facebook page for more information.

Green glowing gecko under UV-light

by Ludwig Maximilian University of Munich

Researchers at the LMU, the Bavarian State Collection of Zoology and Hochschule München have discovered a new mechanism for fluorescence in a terrestrial vertebrate



Biofluorescence is known from many aquatic organisms, but has recently been increasingly discovered in terrestrial vertebrates as well. So far, two fluorescence mechanisms have been described from reptiles and amphibians: bone-based fluorescence (all bone is naturally fluorescent under UV light), and fluorescence of a chemical in secreted and circulated in lymph fluid. Researchers at the Bavarian State Collection of Zoology, the Ludwig-Maximilians University and Hochschule München have now discovered a new mechanism for fluorescence in a terrestrial vertebrate. "As soon as we saw this fluorescence, we realized that the web-footed geckos must use a new mechanism: the bright, neon-green fluorescence patterns were clearly produced in the skin of the lizards," explains David Prötzel, first author of the study.

Histological study of the web-footed gecko Pachydactylus rangei revealed, that the fluorescent areas of the skin are full of special pigment cells, the iridophores, which are absent in the non-fluorescent areas of the skin. Iridophores reflect light, and play an important role in the colouration of geckos and other lizards. For the first time, this study revealed that some iridophores can also fluoresce. "This effect is much stronger than the bone-based fluorescence that we discovered in chameleons three years ago and one of the brightest known cases of fluorescence ever found in terrestrial vertebrates," says Frank Glaw, curator of Reptiles and Amphibians at the Bavarian State Collection of Zoology.

The moon is the only source of light during the nightly forages of these geckos in the deserts of Namibia. The blue component of the moonlight is absorbed by the geckos' skin and emitted again as a brighter-looking, neon-green light. As though someone has taken a highlighter to these flanks, these geckos have a brightly visible signaling stripe.

Why so many animals fluoresce under blue or UV light is largely unclear. "In many vertebrates, it seems that fluorescence is purely coincidental. In the case of the web-footed gecko, however, the brightness of the fluorescence, and its placement on the body, strongly suggests that the fluorescence is a signal visible to other geckos, perhaps even over substantial distances in the open desert," explains Dr. Mark Scherz, evolutionary biologist at the University of Potsdam.

Source: phys.org

ON THE LENGTHS OF BIG SNAKES

By Sherman A. Minton

(A reprint of an original article written/submitted May 26, 1997)

My herpetologist's colleagues who have seen the movie Anaconda uniformly react with ridicule and annoyance at the way Eunectes murinus is treated (see Ed Ferrer's article in the Monitor). However, the snake's 40-foot length has at least a marginal basis in fact. I'd like to think whoever wrote the script for the movie did a little research on the accepted length of the anaconda by reading a book like Pope's The Giant Snakes, Oliver's Snakes in Fact and Fiction, or even Minton and Minton Giant Reptiles. In all, there is widely accepted length of 37.5 feet. This comes from a report by Emmett Reid Dun (1894-1956), one of America's leading herpetologists who did a great deal of field work in the American tropics. Dunn did not see the giant anaconda but relied on an account by Robert Lanon, a geologist Dunn considered wholly reliable. Lamon was leading an oil exploration party that encountered the snake in the wetland along the upper Orinoco River in Columbia. They shot the snake, dragged it out of the water, and measured it with a surveyor's tape. They decided to eat lunch. When they came back to skin the snake, it was gone. It evidently revived enough to squirm back into the water, but it probably didn't survive. I can't pin a date on this episode, but it must have been about 1941.

There are two other reports of anacondas in this size range based on actual measurements. About 1915, Col. Candido Rondon, a Brazilian explorer and scientific collector, measured a Brazilian specimen of 38 feet but had no way to preserve it.

Rodlofo von Rhring, another Brazilian, reported a specimen 11.28 meters (almost exactly 37 feet) long. The down side of this is that no anaconda within 10 feet of this length has been taken alive or preserved in any fashion.

The anaconda's closest rival in the size contest is the reticulated python for which a maximum length of 33 feet is widely accepted. This seems to be based on a snake killed in Celebes (now Sulwesi) about 1920 and again measured with surveyor's tape. There is (or was) a poor photo showing only that it was a python and a big one. However, there are several reliable reports of reticulated pythons around the 30 foot mark including a 28.5 foot zoo specimen. There is a report of a 9.8 meter (32 foot) African python killed at Bingerville, Ivory Coast in 1932, but the next largest reliable records for this species are about 24 feet. All these records are more than 50 years old. Being something of a romantic, I'd like to believe there are giants in those days.

One size record that definitely has fallen is the 18.5 foot record for the boa constrictor. This was based on a report by an English biologist, Colin Pittendrigh. During World War II, like many entomologists, he was engaged in malaria control work. On the island of Trinidad he encountered, killed, and measured a very large snake he reported as a boa constrictor. However, in a letter written about 1991, he says he is quite sure the snake was an anaconda. At the time, he apparently didn't know the anaconda was found on Trinidad and assumed any huge snake found there had to be a boa constrictor. Today the maximum length of the boa constrictor is often given as 15-feet on the basis of statements in Raymond Ditmars' well known books. I've heard Ditmars tended to be generous in his estimates of snake size, but Janis Roze in his 1966 book on snakes of Venezuela mentions a boa of 420 centimeters or almost 14 feet. Indecently he mentions an anaconda of 8.75 meters (almost 29 feet) minus the head.

Another troublesome length record is the one of 18 feet 4 inches for the king cobra. It was reported in 1924 by C.J. Aagaard who evidently was a professional animal collector. The snake was killed at Nakon Sritamarat in Thailand by one of his hunters. The man had lost his way, it was getting dark, and he measured the snake against his gun, so the measurements weren't taken under ideal conditions. However, there are several reliable records of king cobras in the 15 to 16 foot range.

For those interested in maximum lengths of familiar North American snake, the June 1995 number of Bulletin of the Chicago Herpetological Society summarizes dozens of documented records. The longest snake is a 9 foot bull snake from Texas with an 8.5 foot indigo second. For the biggest rattlesnake, the record seems to be 8 feet 3 inches for an eastern diamondback cited by Ditmars but not closely approached by any snake taken in recent times. The late Ross Allen for many years offered a reward of $1,000 for a rattlesnake of 8 feet or more. It was never collected. The biggest eastern diamondback taken in the last half century seems to be about 7.5 feet. The biggest western diamondbacks are a bit smaller. When I was living in west Texas in 1955, a rancher advertised in a local paper he would pay $25 for each inch over 6 feet of any rattlesnakes brought to him. He'd paid off twice, once for a 74-inch snake and once for an 82-inch snake.

The cover of the Chicago Herp Society Bulletin shows the photo of a 50-inch Louisiana copperhead. About 20 years ago I got a call that a 5-foot copperhead had been killed on the grounds of Fort Harrison. I promptly drove out to find a 5-foot black rat snake. The people who killed it had no idea what a copperhead looked like but believed that a snake defended itself as boldly as this one did had to be dangerous. But once in a while people underestimate the size of a big snake. In 1973 a man called to ask if I wanted a rattlesnake he'd caught near Mahalasville in Morgan County. Since he was short on cage space for large venomous snakes, I asked, "How big is it?" "About four feet." He replied. I mentally subtracted about a foot and decided I could house it. When I picked it up, it was one of the biggest timber rattlesnakes I'd ever seen – close to five feet. It lived in cramped quarters for a while and was eventually released back into the wild.

Editor's note: Information on this article is from 1997 and records may have changed.
Dr. Sherman Minton was a world renowned herpetologist and he was a member of the HHS.

www.hoosierherpsoc.org

2020/2021 HERPETOLOGICAL EVENTS

January 20 – No meeting

January 17, 2021 - 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

February 17, 2021 – Meeting TBA

February 20/21, 2020 - Indianapolis Reptile and Exotic Animal Expo – La Quinta Inn, 5120 Victory Drive, Indps. (317) 779-9851, Sat.-10-5, Sun 10-3

HHS Board of Directors - 2021

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Don't forget to check out the HHS on Social Media!

MEMBERSHIP FORM

____New Member ____Renewal

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__ Individual/Family Membership $20.00
__ Sustaining Membership $25.00 or more

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