



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 27 Number 9

September 2016

www.hoosierherpsoc.org

HHS monthly meeting September 21, 7:00PM Holliday Park Nature Center

Guest Speaker:

Patrick Ruhl (Purdue University)

Topic:

Can Salamanders Become Canaries?

***The Utility of Red-backed Salamanders (*Plethodon cinereus*)
as Bioindicators for Forest Ecosystem Health.***

Patrick Ruhl is a Ph.D. student in the Department of Forestry and Natural Resources at Purdue University. He received his B.S. in Biology at Harding University in 2012, his M.S. in Wildlife Science at Purdue University in 2014, and is expecting his Ph.D. in Wildlife Science from Purdue University in 2018.



His research interests include biology and wildlife conservation with a more specific focus on the impacts of environmental pollution on wildlife ecology. He recently studied plethodontid (lungless) salamanders and is currently studying various bird species and their responses to active forest management practices in southern Indiana.

WELCOME NEW MEMBERS!

NEW MEMBERS

Jake Alliss, Joseph Devereaux, Art Laker, Joe Quigley

RENEWALS

Anita Carter, Ed Ferrer, Paul Hofsommer, Nancy Kloskowski, Katie A. Kolcun,
Richard E. Nohr, William Philip, Carl Schwartz DVM

President's message

Jim Horton

Great news! Our new T-shirts are in! Ed will be selling them at the next meeting. They will also be available at the Midwest Reptile Show in October. The shirt features an Eastern box turtle.

Last month, HHS board members were given a tour of the Hellbender Research facility in West Lafayette by Dr. Rod Williams, Associate Professor in the Department of Forestry and Natural Resources at Purdue University. The HHS is partnering with Rod to help in his endeavor to revive the Endangered Hellbender salamander here in Indiana. We will provide public outreach and finance some of the educational materials with this project. Read more about it from an article by Heather White in this issue.

The HHS is looking for live herp exhibitors at the annual Holliday Park Fall Festival on August 28. If you are interested in displaying your herps, please see or contact Ed Ferrer.

Thank you to Ed Ferrer and Heather White for their contributions in this issue of the Monitor.

I'd like to welcome our newest members and thank our current members for their support!

Queen Snake (*Regina septemvittata*)

Article and photos by Jim Horton

The Queen snake is an interesting species that may behave or even look similar to other species but it has its own unique characteristics that set it apart.

The species name (*septemvittata*) for the queen snake sounds fitting for the current month. However, *septemvittata* has nothing to do with the month of September. The genus name *Regina* means *queen* in Latin and *septemvittata* means *seven stripes*.

The queen snake is found throughout most of Indiana but is absent in the northwestern sand prairie region and southwest lowlands.

To many, this is considered a water snake, and with good reason. This species is semi-aquatic and almost always occurs at riparian corridors, basking heavily in shrubs and small trees – like water snakes (*Nerodia*). They favor rocky streams and are usually

less common in sluggish or muddy streams. I've found many on snags (log jams) in creeks and rivers. As an adolescent, I would find them basking on the ground or under large flat stones at the edge of Brandywine Creek in Hancock County. As my interest grew in all things nature, I learned to look for them up in the trees.

Queen snakes are medium size snakes (17-25 inches) that feed chiefly on fresh molted crayfish (crawdads). They may also consume fish and aquatic insects. Natural enemies are humans, raccoons, mink, larger snakes, larger birds (herons and hawks), large fish, and even amphibians such as bullfrogs.

The overall color is a drab brown on sides and top. A cream or light yellow colored stripe starts just below the tip of the snout extending to the tail. Ventral scales are cream to yellow with four brown stripes running down the center lengthwise. Young may have three dark bands running dorsally. Adding these stripes together, you get seven, as the nomenclature *septemvittata* states in Latin.



Some may mistake these snakes for the venomous cottonmouth. Despite the brown color, keeled scales, and the fact that they're found near water like the cottonmouth, these aren't venomous or even found in the range of the rare Indiana cottonmouth.

The head of the queen snake is small and slender as compared to the rest of the body.



Queen snakes rarely attempt to bite at all. However, if one decides to grab a snake from its perch, it will quickly twist and squirm, emitting a foul smelling musk on the hands of its captor.

This species gives birth to live young (viviparous) similar to the *Nerodia* genus of water snakes. September is 'baby season' for most reptiles and you may find neonate queen snakes under rocks close to the water at this time. Crawfish burrows and small mammal dens are utilized for hibernation. These underground hideaways are also used during inclement weather or as a quick retreat for safety.

From local herpetology circles, I've heard that they are commonly found along Sugar Creek. As mentioned above, they are easily spotted on Brandywine Creek as well. I've found adults entwined in mating courtships here. I've also found them to regurgitate their prey if alarmed. Many animals will do this as a deterrent. Once I captured one for photos and it quickly threw up a pungent large crawfish claw.

The queen snake is one of the semi-aquatic species that share our natural world with us. Go out and find one before the cold weather drives them deep beneath the surface for the season.



HELLBENDER LAB TOUR

By Heather White

Eastern Hellbenders are the largest salamander in North America, typically reaching 11-24 inches long, and sometimes up to 29 inches. They spend most of their day hiding under large flat rocks and foraging for crayfish at night. They are long-lived amphibians reaching 30 plus years of age, but it's likely that human influences are causing decline in their populations from their range of Missouri to New York. Their populations have decreased 77% since the 1980's



Dr. Rod Williams and HHS members.

This past August I set up a tour to help facilitate the partnership between the HHS and hellbender conservation. The HHS board members were led by Rod Williams through the hellbender research facility which is part of the Purdue University Aquaculture Facility, Department of Agriculture. Rod began hellbender research nine years ago at Purdue and has continued its development to date. He is the Associate Professor of Wildlife Science for Forestry and Natural

Resources, and at present, his lab is involved with projects that include an investigation of population size, movement, and habitat use of endangered hellbenders in Indiana; examining the food habits, genetic diversity and population structure of eastern hellbenders.



Young hellbenders

It is suspected that poor water quality and sedimentation from dams, dredging, and deforestation from eroded banks and fields are the most likely causes of hellbender decline and they currently inhabit only one area of the Blue River in Indiana. This sediment settles between the larger rocks, filling in the spaces where hellbenders reside. The vast majority of wild hellbenders are larger adults which means the younger ones are not thriving.

Adult females lay 200-400 eggs, most of which do not reach adulthood. Eggs were collected from the adults of Blue River from 2012 to 2015 and have been reared into

juveniles in the lab area called the Rearing Room. Once they are 2-3 year old juveniles, they are transferred to the Acclimation Room where they are placed in a high current tank which simulates their natural habitat, then later released into the Blue River. They do not reach sexual maturity until around 5-8 years of age, so it's important to have these younger hellbenders in the wild to start reproducing.



Hellbender rearing tanks.

The HHS board has decided to donate \$220.00 for "Help the Hellbender" posters which are handed out by the Purdue hellbender research and education group. In addition we will be asking Rod to speak at one of our monthly meetings so that all of our members will hear the latest details and findings of his research.

Visit the websites below to find out more about hellbenders!

2016 HERPETOLOGICAL EVENTS

September 21, 2016 – HHS meeting, Guest Speaker – Patrick Ruhl (Purdue University), Subject: Redback Salamanders.

September 30/Oct 2, 2016 – Midwest Herpetological Symposium. Hosted by the Chicago Herpetological Society. Location - Hilton Lisle/Naperville, 3003 Corporate West Drive, Lisle IL 60532, (630) 505-0900

October 30, 2016 - 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

October 15/16, 2016 – North American Reptile Breeders Conference, Tinley Park, IL.

October 30, 2016 – HHS live herp exhibit, Holliday Park Nature Center. All HHS members welcome. More info. to come.

August meeting

By Jim Horton

Dr. Bob Brodman presented *The Lake Erie Water Snake Recovery Project* last month at Holliday Park Nature Center.

This particular project has been in the works for years and is ongoing. Dr. Broadman took us through some of the history of the Lake Erie water snake (*Nerodia sipedon insularum*) and the interaction with humans through this time.

His map depicted the early names of the islands on Lake Erie such as, Serpent Island and Rattlesnake Island. Humans in the last century were not kind to snakes and many were killed on site. In the 1820's, pigs were released on some islands to eradicate the snakes. In 1977, Canada added this species to their Endangered Species list. In 1999, the U.S. Fish and Wildlife Service listed this species status as Threatened. It is listed as Endangered in Ohio.

Due to persecution from humans, this water snake was almost wiped out from the area. Researchers studied this serpent and found the numbers to be alarming. As a USFW listing, this species was under a plan for recovery. This plan required three points: Habitat protection, human education of the species, and population persistence.

Under the direction of Rich King, Kristan Stanford took the job to bring this snake back. Using mark/recapture methods, habitat protection, and educating local residents, this snake has made a recovery.

Dr. Brodman presented several still shots and videos of his students at work. Many were close ups of bloody hands and arms. Of course these are harmless bites that bleed and soon stop. His students were almost proud of their daily bites from the upset snakes.

A familiar video piece was shown from the TV show, *Dirty Jobs* where Kristen directed Mike Rowe on the techniques of capturing snakes for study. This had HHS members laughing out loud.

Thanks to the efforts of biologists and researchers, the Lake Erie water snake numbers are going strong, hovering around the 10,000 mark.

Thanks for an informal and quite comical presentation Mr. Brodman!

H.H.S. T-Shirts are IN!

The new t-shirts are finally here! The shirts are in two vibrant colors and feature a beautiful photo of an Eastern Box Turtle. They have sold very well at both the recent Midwest Reptile Show and the Noblesville Reptile Expo the past two Sundays. In an effort to give our herp members first pick, they will be on sale at the September HHS meeting for \$15.00.

Be sure to plan on getting yours while we have all the sizes available!

Your HHS Board of Directors for 2016

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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 Meetings.**

Need Rodents?

As a service to our members, HHS member Barbara Filtri is offering to pickup and deliver your order from Hoosier Mouse Supply.

Barbara will deliver frozen rodents to our general meetings. Call Hoosier Mouse Supply (317.831.1219) one to two days before the meeting to make your order. Please give your name and tell them that you are a member and Barbara will pick up your order. Have check or cash ready.

ADOPTIONS:

Red-ear slider, adult. Comes with cage and supplies. **Green iguana**, adult

Please contact Jim Horton for information at stardali84@hotmail.com or 317.443.4845

Midwest Herpetological Conference

September 30 – October 2, 2016

The Chicago Herpetological Society is proud to host the Midwest Herpetological Conference for the fourth time. We are especially proud because this year also marks the 50th anniversary of the founding of the CHS.

Speakers will include:

Dr. Jonathan Campbell, chair of the Biology Department at the University of Texas at Arlington; **Dr. Dale Denardo**, environmental physiologist at Arizona State University; **Andrew & Sarah Gilpin**, world travelers and passionate herp photographers; **Dr. Bree Putman**, postdoctoral research fellow at UCLA; **Roger Repp**, independent researcher and columnist for the *CHS Bulletin*; **Dr. David Steen**, wildlife ecologist at Auburn University.

Registration:

The registration fee will include the Friday evening ice-breaker and the Saturday evening banquet / auction. Find the online registration at www.chicagoherp.org.

Location:

Hilton Lisle/Naperville, 3003 Corporate West Drive, Lisle IL 60532, (630) 505-0900. We have arranged for a special group rate of \$111 per night. **To receive this rate please mention the group code: CCHS.** Reserve by calling 630-505-0900 or online at www.hiltonlisenaperville.com.

Banquet and auction:

The banquet will take place on Saturday evening, followed by a speaker and an auction of herp-related items (inanimate items only). Attendees are urged to donate items to be auctioned.

***If you have any questions, email Mike Dloogatch: mdloogatch@chicagoherp.org

MEMBERSHIP FORM

New Member

Renewal

Name _____

Date _____

Address _____

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Individual/Family Membership \$20.00

Sustaining Membership \$25.00 or more

Herpetological Interest(s) _____

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



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