

## Midwest PARC Quarterly Newsletter - November 2025

Compiled by members of the Outreach and Communications Task Team (OCTT) (Interested in joining the OCTT? Contact Jesse Sockman sockman.15@osu.edu and Danielle Galvin dgalvin2@utk.edu)

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> **Herp Highlight: Spotted Turtle**

The Great Lakes region stands as one of the most biodiverse and ecologically significant areas in the Midwest. Shaped by the advance and retreat of glaciers during the last Ice Age, the landscape today is defined by its five vast lakes, pristine bogs, fens, and marshes, and the remarkable wildlife that calls it home—including this newsletter's herp highlight: the Spotted Turtle (*Clemmys guttata*).

With a carapace length of just 3.5 to 5.4 inches, the Spotted Turtle is among the smallest and most strikingly beautiful turtle species in the Midwest (Virginia Department of Wildlife Resources, 2023). Its smooth, blue-black shell is dotted with numerous bright yellow spots that often continue onto the head and limbs, giving the species its unmistakable speckled appearance. Although males and females are similar in size, they can be distinguished by subtle features: males typically have a tan chin, brown eyes, and a slightly concave plastron, while females sport yellow chins, orange eyes, and a flat plastron (Virginia Herpetological Society).

While the heart of the species' range lies east of the Blue Ridge Mountains, a separate and highly fragmented collection of populations persists in the eastern Midwest. Here, Spotted Turtles rely on clear, shallow wetlands, flooded fields, bogs, fens, and forested swamps, scattered throughout the Great Lakes basin. They bask frequently, especially early in the season, taking advantage of sunny openings in their cool, wet habitats (Michigan State University). Breeding typically occurs from March through May, and soon after mating, females deposit a clutch of two to seven eggs. These eggs incubate for roughly 45 to 90 days before hatching.

Though widely admired, Spotted Turtles remain among the Midwest's most vulnerable wildlife species. The same rich, fertile soils that support their wetlands also make the region highly desirable for agriculture, resulting in extensive habitat loss and fragmentation. Their striking appearance has additionally made



them a target in the international pet trade, placing further pressure on already fragile populations (U.S Fish and Wildlife Service). Together, these forces have contributed to the species' threatened status in the Midwestern states it inhabits and highlight the importance of protecting the remaining habitats where it still persists.

#### **Works Cited**

Virginia Department of Wildlife Resources. (2023, November 11). Spotted turtle (Clemmys guttata).

https://dwr.virginia.gov/wildlife/information/spotted-turtle/ Virginia Wildlife Resources

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https://www.virginiaherpetologicalsociety.com/reptiles/turtles/spotted-turtle/index.php

Michigan Natural Features Inventory. (n.d.). Clemmys guttata (Spotted turtle). Michigan State University.

https://mnfi.anr.msu.edu/species/description/11488/Clemmys-guttata

Munroe-Hultman, L. (n.d.). Returning turtles to the wild. U.S. Fish & Wildlife Service. Retrieved November 17, 2025, from https://www.fws.gov/story/returning-turtles-wild

**Image Description:** An adult Spotted Turtle (*Clemmys guttata*) rests alongside a forested bog. It is identified by the characteristic yellow/orange spots, and blue-black/black shell. Photo courtesy of Nathan Oberdier.

## 2025 Ohio/Pennsylvania Herpetology Symposium

This year's Ohio/Pennsylvania Herpetology
Symposium was proudly hosted at the University of
Dayton, bringing together students, faculty, and
herpetologists for a full day of engaging research and
discussion. The event opened with a captivating plenary
seminar by Dr. Todd W. Pierson, Associate Professor of
Biology at Kennesaw State University, who shared his
work on the reticulate evolution and alternative
reproductive tactics of *Eurycea* salamanders. Following



his talk, undergraduate and graduate students, along with faculty, presented a series of contributed talks covering a wide range of topics in the physiology, ecology, and evolution of reptiles and amphibians from around the world. The symposium concluded with an interactive poster session and a group photo to commemorate a successful and inspiring day.

**Image description:** Attendees of the 2025 Ohio/Pennsylvania Herpetology Symposium take a group photo on the stairs of the science center at the University of Dayton. Photo courtesy of Maggie Hantak.

## **Announcing Newly Elected MWPARC Board Members!**

Congratulations to the two, new co-chairs of Midwest PARC, Callie Klatt-Golba and Michael Rohde! Callie is a research scientist at the Peggy Notebaert Nature Museum of the Chicago Academy of Sciences. Her work focuses on the conservation and management of turtles in the Midwest. Michael is a Ph.D. Student of wildlife ecology at Iowa State University. His research focuses on how conservation practices in farm landscapes impact both water quality and habitat use by amphibians and reptiles. We warmly welcome you both! Jen Lamb, the outgoing chair, will transition to an ex-officio member of the board for one year to help new folks settle into their roles.

Congratulations also to the incoming Advisory Board members, listed below in no particular order:

- Drew Davis (South Dakota)
- Jacob Schaefer (Kansas)
- Kevin Green (Indiana)
- Matthew Klein (Nebraska)
- Emma Buckardt (Missouri)
- Tayler MacDonald (Missouri)
- Anna Slocum (Michigan)

Drew is a returning member of the Board, but the remaining folks are new to MWPARC leadership. **Thank you all** for stepping forward to help guide MWPARC in the years that come.

Finally, a huge, **heartfelt thank you** to the Board members who are leaving us this year: Travis Kurtz (Michigan), Andy Kuhns (Illinois), Shelby Timm (Missouri), Dexter Mardis (Kansas), Dreux Watermolen (Wisconsin), and Melissa Youngquist (Illinois). The time, effort, and enthusiasm you have each contributed to MWPARC has been appreciated, and you will be missed!

## MWPARC and KHS Annual Meeting

Written by Jennifer Y. Lamb

This year marked the first collaboration between the Kansas Herpetological Society (KHS) and Midwest PARC for the 52nd annual KHS Meeting. It was a success! The event kicked off Friday with two dynamic workshops hosted by MWPARC: one on education and outreach, led by Dr. Nicole Palenske-Ladner and Dreux Watermolen, and another on ecological niche modeling with Dr. Mona Papes.



Poster sessions filled the evenings with conversation and featured topics from box turtle brumation and ring-necked snake ecology to salamander habitat use. KHS President Kelly Kluthe and MWPARC Chair Dr. Jen Lamb opened Saturday's sessions, followed by updates on national PARC's initiatives from Dr. Melissa Youngquist. Talks on Saturday and Sunday covered an impressive range of research topics. These included surprising insights. For example, did you know that some species of maggots will

grow inside lizard mouths (Richard E. Glor, University of Kansas)? And that aggressive behavior may be helping Green Tree Frogs expand into new counties (Owen M. Edwards, University of Oklahoma)? The meeting's keynote speaker was Dr. Lisa N. Barrow (Museum of Southwestern Biology, Albuquerque), who spotlighted the surprising lack of genomic datasets across frog species and her team's ambitious efforts to bridge that gap.

The meeting was a great opportunity to showcase student research. Not only did KHS have multiple award categories, but Midwest PARC also presented the one-time Brodman Student Travel Award to Matthew Klein. Matthew traveled to KHS to present his work on Eastern Massasaga (*Sistrurus catenatus*) population viability analyses.

All-in-all, it was great to have folks from MWPARC and KHS exchanging information and working together to fundraise for both of our organizations. A huge thank you to the local KHS committee leads, Kelly Kluthe and Dexter Mardis, for working with us to make this collaboration happen!

**Image description:** Attendees at the outreach workshop hosted by Dr. Nicole Palenske-Ladner and Dreux Watermolen at the 2025 MWPARC/KHS Annual Meeting. Photo courtesy of Jen Lamb.

### Secret Lives of Wisconsin Salamanders

**Often found underground**, salamanders are known to be quite secretive. While a successful strategy to avoid desiccation, it makes monitoring their populations quite challenging. While call surveys work for monitoring frog populations, salamander population monitoring requires counting

egg masses in and around ponds. This is the focus of the Wisconsin Salamander Survey (WSS)! Thanks to support from the Wisconsin Amphibian and Reptile Conservation Fund (WARCF), the Wisconsin Department of Natural Resources launched the WSS in 2024.

This community-based science project is led by conservation biologists, professors, and volunteers. The funding provided by WARCF allowed for the production of training resources including a Salamander Monitoring Manual, field data collection sheet, and the WSS Guide to Species ID



at Ephemeral Ponds. Through in person and virtual training, volunteers developed the skills necessary to assist with data collection.

An upcoming collaboration with Michigan, New York, and other neighboring states will establish the Great Lakes Vernal Pool Collaborative. This project will provide a platform for partners to submit and store data, house training resources for participants, and introduce data collection standards. This project will support amphibian conservation through the power of citizen science!

**Image Description:** Volunteer survey crew at Woodland Dunes Nature Center looking for salamanders in an ephemeral pond. Photo by Nancy Nabek, Courtesy of <u>Emma Schatz</u>.

#### Photo Call!

**Attention all photographers!** Are your friends and family bored of seeing your field photos? We would love to see them! MWPARC is seeking photograph submissions of midwestern amphibians and reptiles for use in our outreach materials.



You can submit photos using the QR code or by visiting the <u>Google form</u>. This one-stop-shop makes it easy to give us permission to use your images and to bulk upload photographs. Your submission will be directly

linked to the images you upload so we can include all image credits for the photographs you provide when published.

**Image Description:** A black and white QR code that links to the google form to submit your images of midwestern amphibians and reptiles: <a href="https://forms.gle/d4kQzEmLv3Z2kiG29">https://forms.gle/d4kQzEmLv3Z2kiG29</a>.

## **Advisory Board: Get to Know Them!**

Monica Macoubrie is a Wildlife Education Specialist for Nebraska Game and Parks, where she leads education efforts across the state. Her work includes facilitating Project WILD workshops, organizing large-scale wildlife events, coordinating and editing the agency's Trail Tales magazine, and establishing Nebraska Reptile Month, an annual event held every October. As a newer member to the MWPARC advisory board, she is excited to represent Nebraska and to contribute to advancing herpetological education in the state and the Midwest!



**Image description**: Monica Macoubrie, MWPARC Advisory Board Member, smiling while showing a hognose snake (*Heterodon sp.*) to children at an educational event. Image courtesy of Monica Macoubrie.

### Stories From the Field

**Do you have some great pics from the 2025 field season?** Or pictures of you or your team presenting, working in the lab, or leading educational events in herpetology? We want to see them! Please <u>submit your stories and your photos</u> to be featured in a future Stories From the Field!

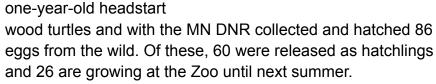
Stories From the Field Submission: Do you have a story to share? Submit your story here!

## State of Herpetology: 2025 Recap

A recap of some of the herpetological happenings in MWPARC! Interested in learning more about what's happening in your state? Take a look on our website!

#### Minnesota

- Non-game biologists discover den of Timber Rattlesnakes in Southern Minnesota coinciding with a project to monitor and accurately describe their distribution in the state.
- This past year the Minnesota Zoo released 24



• The MN Dept. of Transportation contracted with researchers at the University of Illinois Urbana-Champaign to study eDNA detection of Blanding's and wood turtles in water samples. Assays were developed to be rapid, reliable, and relatively inexpensive, however, detection was somewhat limited. Late summer and early fall had the best detection rates and Blanding's were easier to detect than wood turtles. Project report now available.



## Nebraska

- We are continuing to work on updating our Species Conservation Assessments (SCAs) for the Nebraska Natural Legacy Project. In 2022, the <u>Timber Rattlesnake SCA</u> was published and in 2023, the <u>Blanding's Turtle SCA</u> was published. The Western Massasauga SCA is set for publication by the end of the year.
- Camera trapping efforts using the adapted-Hunt drift fence technique (AHDriFT) are being tested for efficacy in sampling herps and small mammals in different habitat types and environmental conditions. Results will be presented at the 86<sup>th</sup> Midwest Fish & Wildlife Conference in Ft. Wayne, Indiana in January 2026.
- Sampling protocols have recently been revised for Snake Fungal Disease testing in Nebraska and will be





- implemented during spring herp surveys to help detect the presence and distribution of SFD in Nebraska in 2026.
- Nebraska also celebrated five years of Nebraska Reptile Awareness Month in 2025. Since 2020, Nebraska has proudly recognized October as Nebraska Reptile Awareness Month a statewide celebration dedicated to educating the public about the state's nearly 50 species of native reptiles. This year Nebraska hosted eight reptile-focused outreach events throughout the state reaching an estimated 2,500 participants. We conducted herp hikes, continued the annual Reptile Art Contest, hosted "Read to a Reptile" events, and various family library night events.

#### Ohio

- The Cleveland Metroparks and partners kicked off World Turtle Day by repatriating confiscated Spotted Turtles in NE Ohio! The task of taking wildlife from confiscation back to the wild is a massive collaborative undertaking from establishing care and housing prior to release, disease screening and genetic assignment, and finally monitoring released individuals. This couldn't have been possible without the many partners including Cleveland Metroparks Zoo, Akron Zoo, USDA, Tennessee Aquarium, Cleveland Aquarium, Dalton State University, West Liberty University, Turtle Conservancy, and Ohio Department of Natural Resources.
- Ohio Hellbender Partnership releases <u>116 hellbender headstarts</u> reared at the Columbus Zoo and the Wilds into Ohio and West Virginia waterways. Ohio has now released more than 2,000 hellbenders releases since 2012.
- OHPARC has a camera trap load program for AHDriFT traps. Over the past three years 70 organizations have participated in the loan program. For the 2025/2026 season, 18 traps will be loaned out (of these 16 are new sites). In the 2024/2025 season there were a total of 511 snake observations (10 species), 153 frogs (7 species), and 13 turtle/salamander observations (3 species) and one lizard (Five-lined skink). Participants in the project are required to submit their findings to OHPARC and provide a short summary of their site/species found during the Ohio Amphibian and Reptile Conference.

**Image descriptions**: (Top) The Region Tab of MWPARC's website displaying an outline of each of the twelve states in our region as a selectable link to each state's resource page. (Middle) Wood Turtle (*Glyptemys insculpta*) hatchlings to be released by the Minnesota Zoo. Photo courtesy of Tricia Markle. (Bottom) Image from a camera trap of a skink (*Plestiodon* sp.) captured using AHDriFT. Photo courtesy of Monica Macoubrie.

## 2026 Meetings and Conferences Mark your calendars!

86th Midwest Fish & Wildlife Conference January 25-28, 2026 in Fort Wayne, IN.

<u>SEPARC Annual Meeting</u> - January 30-February 1 in Black Mountain, NC. This year's theme is Resilience: Recovery after Disturbance.

Wisconsin Wetland Science Conference - February 24-26, 2026 in Baraboo, WI. Symposia proposals are currently being accepted, oral and poster abstracts will be solicited in September 2025.

Third Global Amphibian and Reptile Disease (GARD) Meeting - June 8-12 in Knoxville, TN.

**Ecological Society of America** - July 26-31 in Salt Lake City, UT.

# Hot Off the Presses! - Recent Publications and Other News Scientific Journal Articles Featuring Herps in the Midwest

A multifaceted approach to identify disease response genes in the endangered massasauga rattlesnake. Bolton et al. investigated the connection between genetic expression and Snake Fungal Disease (SFD) in Eastern Massasaugas (Sistrurus catenatus). They found 218 candidate genes that expressed differentially in response to disease that contain functional variation relevant to disease resistance or defense. It is also suggested that genetic drift complicates the detection of functional variation in species that have smaller populations and may be experiencing inbreeding. Further research is directed at validating for SFD directly.

Bolton, Peri E., Mathur, Samarth, Gibbs, H Lisle. A multifaceted approach to identify disease response genes in the endangered massasauga rattlesnake. Journal of Heredity. 2025.

**Projected contemporary habitat distribution and quality for wood turtles in the midwestern United States.** This paper marks the first known habitat suitability model published for the midwestern portion of the Wood Turtle (Glyptems insculpa) range. This undertaking covers lowa, Michigan, Minnesota, and Wisconsin including occurrence records from 2000 - 2024 and 1,833 stream segments with occurrence records to train the model. Nearly 70% of the >0.8 probability of occurrence stream segments, lack records highlighting priority sites for future surveys.

Spaid, S.M., D.J. Brown, J.L. Mota, A.F. Badje, G.E. Crozier, C.N. Lapin, Y.M. Lee, R.A. Moen, and J.W. Tamplin. 2025. Projected contemporary habitat distribution and quality for wood turtles in the midwestern United States. The Journal of Wildlife Management 89:e70108. DOI: <a href="https://doi.org/10.1002/jwmg.70108">https://doi.org/10.1002/jwmg.70108</a>
<a href="Projected contemporary habitat distribution and quality for wood turtles in the midwestern United States - Spaid - 2025 - The Journal of Wildlife Management - Wiley Online Library</a>

Want to see your research highlighted? Have you recently published on populations of amphibians or reptiles in the Midwest? We want to hear about it! Please reach out to Liam Feeney (<a href="mailto:ohioherping@gmail.com">ohioherping@gmail.com</a>) and Danielle Galvin (<a href="mailto:dgalvin2@utk.edu">dgalvin2@utk.edu</a>) if you would like to highlight your research.

**Header photo description:** A Spotted Turtle (*Clemmys guttata*) sitting on a bed of leaves, showcasing the spots for which it was named. Photo courtesy of Jesse Sockman.

**We want your feedback:** What would you like to see in future volumes of our newsletter? Give us more information by filling out this survey: <a href="https://forms.gle/Hz9ZkznEFfiTE8a48">https://forms.gle/Hz9ZkznEFfiTE8a48</a>

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