

Midwest PARC Quarterly Newsletter - December 2024

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

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Herp Highlight: Eastern Fence Lizard

The midwestern region of the United States is home to very few species of lizards when compared to the western and southern parts of the country. But one lizard you'll be bound to see if you stay up north long enough is the Eastern Fence Lizard (*Sceloporus undulatus*). Fence lizards belong to the Phrynosomatid family, commonly referred to as the spiny lizards. This diverse family is found throughout many parts of North and Central America and is characterized by their rough keeled scales that give them their unique spiny appearance (Largett J. 2003). It's this trait that allows you to differentiate them from other lizards like skinks, which are also found around the midwest. Adult Eastern Fence Lizards reach a maximum length of 18 cm, which is about average for midwest lizards. Their dorsal coloration is typically dull with variations of browns, grays, and shades of bronze (NC Wildlife n.d.). Sexual dimorphism can sometimes be subtle in reptiles, but this isn't the case for many lizards. For the Eastern Fence Lizard, sex can be determined by looking at the coloration of the ventral scales. Males of this species have patches of vibrant iridescent blue scales, while females and juveniles have either faint markings or none at all (NC Wildlife n.d.).



The name "fence lizard" comes from this species' behavior of climbing and sitting on fences or other man-made structures. This allows them to bask in open areas with available sunlight while also watching for various predators and prey in the area. In a natural setting however, fence lizards can often be found in a variety of habitats including woodlands, grasslands, and shrublands where they can use the foliage to hide, hunt, and sun themselves (National Wildlife Federation n.d.). The Eastern Fence Lizard primarily feeds on small invertebrates found on or just above the

forest floor and uses its fast reflexes, strong jaws, and sharp teeth to capture its prey. Reproduction begins in early spring and goes to late summer. Young females may lay one clutch of eggs per breeding season whereas older females can lay up to four (National Wildlife Federation n.d.).

The distribution of species of fence lizards within the midwest region is influenced by average temperatures. States that have higher average temperatures typically have a representative species in this group. This is mainly due to lizards being ectotherms and reliant on warm temperatures to help maintain a steady metabolic rate. The southern portions of Illinois, Indiana, and Ohio have populations of Eastern Fence Lizards. Whereas the southern edge of South Dakota, along with large portions of Nebraska and Missouri have a related species, the Northern Prairie Lizard (*S. consobrinus*). Fence lizards are absent from more northern states like North Dakota, Minnesota, lowa, Wisconsin, and Michigan.. Nevertheless, Eastern Fence Lizards are considered secure throughout the midwest (NatureServe, n.d.). Next time you're in the southeastern states of the midwest, keep your eyes peeled and see if you can find this beautiful species of lizard.

Works Cited

Eastern Fence Lizard. National Wildlife Federation. (n.d.). https://www.nwf.org/Educational-Resources/Wildlife-Guide/Reptiles/Eastern-Fence-Lizard *Eastern Fence Lizard*. Eastern Fence Lizard | NC Wildlife. (n.d.). https://www.ncwildlife.org/species/eastern-fence-lizard *Eastern Fence Lizard*. NatureServe Explorer. (n.d.) https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.893135/Sceloporus_undulatus Largett, J. (2008). *Sceloporus undulatus (fence lizard)*. Animal Diversity Web. https://animaldiversity.org/accounts/Sceloporus undulatus/

Image Description: A small Eastern fence lizard (*Sceloporus undulatus*) sitting on top of a researcher's thumb, facing toward the left side of the image. Photo by Melissa Youngquist.

MWPARC Advisory Board - Welcome and Thank You!

This year we welcomed three new members to the MWPARC advisory board! Please welcome Monica Macoubrie (Nebraska), Tricia Markle (Minnesota), and Ashley Taylor (Wisconsin). We also re-elected Nicole Palenske-Ladner (Iowa), Daren Riedle (Kansas), and Joey Cannizzaro (Wisconsin).

Joey Cannizzaro was also elected to be our Treasurer!

In addition to welcoming our new leadership team, we would like to **thank our outgoing members** for all of their time and dedication to MWPARC. To Jen Moore (Michigan), Michela Coury (Michigan), and Justin Elden (Montana/Illinois), thank you! And to our **outgoing co-chair**, Travis Kurtz (Michigan), we are grateful for the time and energy you've invested into MWPARC!

Stay tuned for future newsletters and social media posts highlighting the roles, responsibilities, interests, and work of our advisory board members!

Holiday Shop - Open Now!

Are you looking for the perfect gift for the herpetologist in your life? Or perhaps you're a new MWPARC member who missed out on the swag from previous annual meetings? Or, maybe, you're just really excited to give back to your favorite herp conservation group while conducting your holiday shopping? Whatever the reason, be sure to take a look at our holiday fundraiser shop now!

With a range of items to choose from, including **t-shirts, mugs, blankets, stickers, notebooks, and more,** there is sure to be something for every person on your gift list this year!

Shop now until January 15!



Image Description: A Blanding's Turtle (*Emydoidea blandingii*) facing left with the text "Sticking our necks out for herp conservation" and "MWPARC" encircling the turtle. Design by Trish Brockman.

PARC's Upcoming Search for a JNSC National Co-chair

PARC's Joint National Steering Committee (JNSC) will soon be **considering nominations for a National Co-chair**!

The duration of newly elected Co-Chair would ideally be from **Spring 2025 through Spring 2027**, with additional opportunities to contribute after that period in an ex-officio capacity.

Desired experience within PARC may include:

- Previous service as a Regional Working Group Co-chair; or
- served on the JNSC; or
- has been an active PARC member at the regional level; or
- been nominated or volunteered via a request for interest. Persons nominated via this route should have demonstrated leadership skills; or
- served (or be currently serving) as a board member of a non-profit organization and have expertise in the field of conservation.

Although we are not yet in an official nominating period, interested parties are **encouraged to reach out** to current co-chairs, **Brad O'Hanlon** (Bradley.OHanlon@MyFWC.com) or **Melissa Youngquist** (MYoungquist@SheddAquarium.org) for more information.

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</u> <u>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: <u>https://forms.gle/d4kQzEmLv3Z2kiG29</u>.

Stories From the Field - 2024 Recap

This year, MWPARC funded research and travel expenses for 6 students! Take a look at what these students have been working on!

Kayla Coggins: Coggins' work focused on capturing garter snakes, red bellies, and fox snakes to continue their research with Dr. Julie Ray on snake ecology. During summer 2024 they captured over 250 snakes!

Kevin Green: Green's work conducting surveillance of the invasive Common Wall Lizard (*Podarcis muralis*) along the Ohio River documented the presence of this species at two new sites!



Alyssa Roberts: Roberts used eDNA methods to detect Four-Toed Salamanders (*Hemidactylum scutatum*) in Northeastern Minnesota. Their research indicates that during the nesting season, eDNA methods result in a lower detection probability compared to other surveillance methods.

Grace Allen: Allen's team conducted biweekly surveys using radio telemetry to track the spatial ecology of Blanding's Turtles (*Emydoidea blandingii*). This work required developing custom build GPS transmitters that they are now testing.

Luke Tonsfeldt: Tonsfeldt's research used eDNA sampling to evaluate the presence of invasive American Bullfrogs (*Lithobates catesbeianus*) and Red-eared Sliders (*Trachemys scripta elegans*) in southern Minnesota.



Kerri Beers: Beers sampled 6 locations in central and northern Minnesota to evaluate the prevalence of *Batrachochytrium dendrobatidis* (Bd) in Ranid anurans. Beers collected over 250 samples and is now awaiting processing by partners at the USGS Wildlife Health Center.

<u>The funding for this grant</u> is made possible through donations. If you are interested in supporting student led research, please consider making a <u>donation</u> or purchasing some MWPARC branded merch from our <u>holiday fundraiser shop</u>!

Image description: 1. Common Wall Lizard (Podarcis muralis) being held by a researcher with green vegetation in the background. Photo courtesy of Kevin Green. 2. Image of four researchers collecting skin swabs from anurans. The researchers are working in pairs of two to collect the swab sample while the second researcher handles the animal. Photo courtesy of Kerri Beers.

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

2025 Meetings and Conferences Mark your calendars!

Midwest Fish and Wildlife Conference - January 19-22 in St. Louis, MO.

MWPARC is hosting a symposium titled "<u>Conservation of Crawfish Frogs and Other Amphibians and</u> <u>Reptiles of the Midwest</u>" at this meeting! This symposium is open to anyone with relevant research. MWPARC will also have a booth, so feel free to stop by and chat with current members and pick up some swag!

Wisconsin Wetland Association's Wetland Science Conference - February 25-27 in La Crosse, WI.

MWPARC is hosting a table where you can stop by to learn more about how to get involved and collect some swag! If you are interested in participating, please contact Gary Casper at *garycasper@gmail.com*.

Joint Meeting of Ichthyologists and Herpetologists - July 9-13 in St. Paul, MN.

Students in need of financial assistance to attend this meeting can apply to the <u>Clark Hubb's Student</u> <u>Travel Award</u>, due **May 15, 2025**.

Hot Off the Presses! - Recent Publications Scientific Journal Articles Featuring Herps in the Midwest

Where are the wood turtles found? Using data from 2016-2022, Staggs et al. built models to assess the influence of aquatic and terrestrial factors on wood turtle abundance in Wisconsin and

Minnesota. The results of their research indicate that stream velocity, stream width, mean return height, and vertical coefficient of variation of height were the most important predictors. Wood turtle abundance was high at sites with narrow streams of moderate velocity.

Staggs, J.M., Brown, D.J., Badje, A.F., Anderson, J.T., Carlson, L.V., Lapin, C.N., Cochrane, M.M., and Moen, R.A. 2024. Influences of aquatic and terrestrial habitat characteristics on abundance patterns of adult wood turtles. Journal of Wildlife Management 88(5)(2024). Accessible at: <u>https://doi.org/10.1002/jwmg.22589</u>

Efforts to combat illegal turtle trade. The Collaborative to Combat the Illegal Trade in Turtles

(CCITT) formed in response to the urgent conservation challenge posed by the illegal turtle trade. Through the use of a socioeconomic approach, the CCITT has identified key areas for research and regulations that can address this cause for conservation concern. Key steps taken by this team include building a network of partners, defining their strategy, and leveraging their partnerships to implement these strategies in an adaptive and iterative way.

Christman, M., Wixted, K., Buchanan, S.W., Boratto, R.,Karraker, N., Ravesi, M., Slacum, J., Dulay, N., Horton, E.Y., Rettinger, C., Kisonak, L., Loring, T., Macdonald, B., Martiak, S., Collins, D. 2024. The collaborative to combat the illegal trade in turtles: addressing illegal wildlife trade with an adaptive socio-ecological approach. Chelonian Conservation Biology: Celebrating 25 Years as the World's Turtle and Tortoise Journal (2024). Accessible at: <u>https://doi.org/10.2744/CCB-1634</u>

Wood turtles in Wisconsin and where to find them. Badje et al. conducted 6 years of wood turtle surveys in Wisconsin from 2018-2023 to estimate adult abundance and population demographic parameters. These surveys yielded 250 unique individuals across 29 of the 50 sites surveyed, with an average of 5 adults per site. The results of this study provide a necessary baseline for future habitat management and conservation efforts for wood turtle populations in Wisconsin.

Badje, A.F., Brown, D.J., Staggs, J.M., Carlson, L.V., and Lapin, C.N. 2024. Baseline abundances and population demographics at wood turtle (*Glyptemys insculpta*) monitoring sites in wisconsin. Northeastern Naturalist 31(Special Issue 12): G28-46 (2024). Accessible at: <u>https://doi.org/10.1656/045.031.s1211</u>

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 (<u>ohioherping@gmail.com</u>) and Danielle Galvin (<u>dgalvin2@utk.edu</u>) if you would like to highlight your research.

Header photo description: An Eastern Fence Lizard (*Sceloporus undulatus*) sitting on a bed of dead leaves and twigs. Photo by Melissa Youngquist.

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: <u>https://forms.gle/Hz9ZkznEFfiTE8a48</u>

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