

# Midwest Partners in Amphibian and Reptile Conservation (MWPARC) Student Travel Grant Report

**Awardee:** Caley Johnson

**Professional association:** Grand Valley State University (fieldwork in Wisconsin)

## **In one or two paragraphs, describe the work you participated in that was facilitated by this award.**

Over the summer, I conducted research for my graduate thesis on spotted turtle spatial ecology in collaboration with the U.S. Forest Service and Grand Valley State University. The focus of my thesis is home range size, habitat selection, and nest site selection among a population of spotted turtles in Northern Michigan. The study commenced in April as the turtles emerged from hibernation, and VHF telemetry was employed to track their movements continuously until November. To expand the sample size, we strategically placed and monitored nearly 30 modified minnow traps throughout May and part of June, aiming to identify and include new turtles in our study.

In June, an additional dimension was added to the research as thread-tracking was implemented specifically for female turtles. This initiative aimed to unveil the mysterious locations of their nest sites. Despite the challenges, we successfully verified the location of one spotted turtle nest during the 2023 season. Although this constitutes a small sample size, it holds significant value as it marks the first confirmed nest location within the Huron-Manistee National Forests. The discovery underscores the cryptic nature of these turtles in terms of their reproductive behavior and nesting habits. Looking ahead, the goal is to refine and repeat this process in the upcoming summer, building on the insights gained and hopefully uncovering more nesting sites.

## **How has this work aided you in achieving your career goals?**

This summer's fieldwork has provided me with invaluable experiential learning that will significantly contribute to my journey as a graduate student and to my career beyond graduate school. Through my fieldwork, I've gained hands-on experience in tracking and monitoring elusive species, as well as designing and leading a research project, honing skills that are fundamental to effective wildlife management and conservation practices. The insights derived from studying the home range sizes and habitat preferences of spotted turtles are crucial for implementing targeted conservation strategies, especially within the specific context of the Huron-Manistee National Forests. The confirmation of a spotted turtle nest within this region, previously uncharted, not only adds a novel dimension to scientific knowledge but also underscores the practical challenges of studying and conserving cryptic species. As I continue my career in conservation biology, this research provides a strong foundation, equipping me with the skills and firsthand experiences necessary for making informed decisions and implementing conservation initiatives that contribute to the protection of some of our most imperiled creatures.

