

# Midwest Partners in Amphibian and Reptile Conservation (MWPARC) Student Travel Grant Report 2025

**Awardee:** Tayci Sullivan

**Professional association:** Southern Illinois University

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

During the spring of 2025, I conducted field surveys in St. Louis across an urbanized gradient under the guidance of Dr. Tom Anderson. I assessed 89 ponds in a presence/absence study of *Ambystoma annulatum* in the larval form, as it is a species of concern in this area. I used a combination of visual surveys and the dipnetting sweeping technique, tailored to the total area of the pond. Additionally, I collected other data at these sites, including habitat characteristics, water depth and clarity, and observations of various species, to analyze the correlation between these variables and the presence or absence of the ringed salamander.



In the spring of 2026, I plan to replicate this study by adding 84 ponds to assess the potential adverse effects from urban sprawl at a farther distance. At the end of the study, I plan on incorporating this information into a landscape cover study, looking at the connection between the ringed salamander presence (along with amphibians as a whole) and land cover characteristics, like fragmentation, proximity to roads, human population index, and percent shade cover, and compiling it into comprehensible maps.

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

This work has helped me achieve my career goals by enabling me to apply the scientific method to solve real-world problems and develop analytical thinking skills. Learning how to manage a project, conduct practical fieldwork, use various software, and write scientific literature will help me in the future when working with the public and other collaborators in my career. I hope to work for a state or federal agency conducting numerous research projects, especially in wetland and aquatic ecology, with a focus on species such as amphibians, sea turtles, and fish. My hope in my research endeavors is that they will create policies that benefit wildlife and the environment.

**Image description:** Tayci smiling and holding a newt crouches by a wetland study site.