

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

Awardee: Stephanie Bristow
Organization: Wichita State University

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

For my master's thesis, we implemented a lab experiment to study the effects of temperature (15, 20, 22, 24, 26, 28°C), predation risk, and resource availability on amphibian phenotypic plasticity. We collected *Lithobates blairi* (Plains Leopard Frogs) egg masses from Wichita State University Biological Field Station: Youngmeyer Ranch (YMR), and temporarily housed egg masses/tadpoles in cattle tanks at Ninnescah Biological Reserve (NBR) until the start of the experiment (04/01/2022). Throughout the extent of the study, we maintained 180 tadpoles in rainwater from NBR for 38 weeks or until individuals reached metamorphosis. Specifically, we measured growth rates and time to metamorphosis to evaluate how tadpoles respond to common environmental pressures (temperature, predation risk, & resource availability).



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

This project has not only helped solidify my experimental design and management skills, but it has also helped guide the future direction of my intended research scope. Throughout my thesis project, I was able to coordinate the work of 13 undergraduate students and 5 additional researchers. Having the opportunity to collaborate with a large dynamic group greatly supported my professional development as a researcher, and benefited the design process with numerous points of input and perspectives.

I am currently applying for NSF GRFP funding and Ph.D. programs, and the experience I have gained within this research has helped in both contexts. I now have a stronger foundational understanding of how I could apply similar research concepts in different settings and across taxonomic groups. I also have had the opportunity to present this research at recent conferences for the Kansas Herpetological Society and the Society of Integrative and Collaborative Biology. Each conference has supplied me with valuable networking opportunities and practice in presenting my research to a wider audience.