

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

Awardee: Danielle Galvin

Organization: University of South Dakota

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

During summer 2022 I conducted several projects associated with my PhD work. I conducted ranavirus surveillance in South Dakota amphibian populations for the third year in a row. This is the final year of data for a project evaluating within and across-year trends in ranavirus distribution across South Dakota. For this project, I collected ventral-cloacal swabs, toe clips, tail clips, and whole deceased specimens. The greatest difficulty

experienced for this project was a lack of water resulting from the intense drought we experienced. Many of the wetland sites selected at the beginning of the season were completely dry before the end of the season.

The lab-based projects required collection of larval Boreal Chorus frogs (*Pseudacris maculata*) and Northern Leopard frogs (*Rana pipiens*). The Boreal Chorus frogs were used in a project evaluating the effects of ranavirus infection and selenium exposure on growth and development. The Northern Leopard frogs were used in a project evaluating the effects of different drought conditions on foraging behavior, growth and development. The data from these projects are still being analyzed.

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

This work allowed me to finish two chapters of my dissertation. One of which is the culmination of 3 years of sampling hundreds of amphibians across South Dakota. This work was completed with the assistance of several undergraduate research assistants, providing me with another opportunity to mentor students in field work and in conducting laboratory research. I am currently in the process of finishing the qPCR on ranavirus samples from summer 2022 and will submit the results of the multi-year sampling for publication in summer 2023. The behavior data from the drought project are almost completely analyzed and I am set to submit the results for publication in spring 2023. Unfortunately, due to issues with our laboratory facilities, the Boreal Chorus frog project was unsuccessful due to a (suspected) spike in copper in the water. Despite the setbacks, I found a lot of success in my work during 2022 and I thank the MWPARC travel grant for assisting me in my work.

