

Permit 2019-003

Name:

Rowan McGinley

Department or Organization:

University of Nebraska-Lincoln

Email Address:

rowan.mcginley@gmail.com

Web Address where the public can learn more about this proposed activity (optional):

hebetslab.unl.edu

Are you requesting renewal of a previously approved permit applicaton?

No

Type of activities at The University of Akron Field Station and Bath Nature Preserve

Research

Title of project or class name and course number:

Exploring sources of selection on the multimodal courtship displays of two sister species of wolf spiders

Date/Dates requested:

April 29th - May 2nd

Number of people in group:

2

I am requesting permission to use a Research Area.

No

I am requesting permission to use a Sensitive Area.

No

I am requesting permission to use areas outside of the designated Research or Sensitive Areas.

Yes

I would like to use the Martin Center for Field Studies and Environmental Education for this prop...

No

Will the activity involve destructive sampling/collecting?

Yes

Which areas outside of the designated Research or Sensitive Areas?

Public Access areas of Bath Nature Preserve

Please explain how the material will be collected (including equipment), and an estimate of how m...

We plan to collect approximately 100 wolf spiders (*Schizocosa crassipalata*) from grass fields. We will search visually for spiders and collect them by hand with small plastic vials.

Provide a brief description of (1) your proposed activities, (2) goals, and (3) impacts of your u...

Proposed Activities: We will collect *Schizocosa crassipalata* (wolf spiders) to transport back to our laboratory at the University of Nebraska-Lincoln where we will run behavioural experiments to examine whether the courtship displays of these spiders have evolved to match their signalling environment.

Goals: Differences between the courtship display of *S. crassipalata* and its sister species (*S. bilineata*) are thought to be a result of differences in their daily activity cycles. *S. bilineata* is thought to be more diurnal than *S. crassipalata* and seems to utilise more visual signals, while the more nocturnal *S. crassipalata* may be more dependent on signals sent as vibrations through the substrate. Behavioural experiments will involve monitoring how activity patterns change over the course of a day and staging interactions between males and females under different lighting conditions.

Impacts: This research will have a limited impact on the population of spiders and their habitat in the Bath Nature Preserve. *Schizocosa* wolf spiders live at high population densities and reproduce at high rates. Collecting *S. crassipalata* involves walking through the fields that they inhabit and scooping the spiders up from the grass as they are spotted.

By checking this box, I agree to the above terms and state that all of the above information is c...

I agree