

Permit 2018-007

Name:

Scott Thomas

Department or Organization:

Biology

Email Address:

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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:

Consumptive and nonconsumptive effects of central mudminnows and Jefferson salamanders on spotted salamander larvae

Date/Dates requested:

04/15/2018 - 09/01/2018

Number of people in group:

1

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?

Steiner's Woods

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

I will search for spotted salamander (*Ambystoma maculatum*) egg masses in Windhover Bog between mid-April and mid-May of 2018. I will collect approximately 12 egg masses, totaling about 1000

embryos, by hand.

I will also capture and collect 20 central mudminnows (*Umbra limi*) from Windhover Pond via funnel traps.

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

I am conducting mesocosm experiments in Steiner Woods. I will raise spotted salamanders in wading pool mesocosms. During the embryonic, hatchling, and late-term larval stages, I will conduct short (<72 hour) trials with three treatments: no predator, large Jefferson salamander larvae, and central mudminnows. During these trials I will measure survival and behaviors pertaining to foraging, boldness, and refuge use. These activities take place within 200 meters of their home ponds, so I will release animals that were collected from Steiner Woods.

My goals are to identify 1) impacts of central mudminnows on survival of aquatic life stages of spotted salamanders; 2) impacts of central mudminnows on spotted salamander behaviors related to future growth (e.g. foraging rates) and survival (e.g. refuge use); and 3) compare the demographic impacts of mudminnows, a novel predator, to Jefferson salamanders, a known predator and competitor.

This work will have no negative environmental impacts on Steiner Woods or Bath Nature Preserve. The site from which I am collecting spotted salamanders hosts substantial breeding activity but dries each year before larvae can reach metamorphosis and survive on land. The pond from which I am collecting a small number of mudminnows hosts a large and persistent population of this species.

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