





Faculty Member Contact Information

Name	Dr. Thomas Anderson
Contact Info	
SIUE Email	thander@siue.edu
Campus Box	1651
Department	Biological Sciences

1 Funded, 4 Unfunded URCA Assistants

	This position is ONLY open to students who have declared a major in this discipline.	M
	This project deals with social justice issues.	
	This project deals with sustainability (green) issues.	
	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
	This mentor's project is interdisciplinary in nature.	I

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

- Only similar fields

How many hours per week will your student(s) be required to work in this position?

(Minimum is 6 hours per week; typical is 9)

- 6 hours

Will it be possible for your student(s) to earn course credit?

- Yes—BIOL 493 (1 credit)

Location of research/creative activities:

- Science West, natural areas of campus

Brief description of the nature of the research/creative activity?

My research generally focuses on species interactions, such as interspecific competition and predation, and the factors that influence the outcomes of those interactions. The main focal species will be aquatic invertebrates (zooplankton, snails, insects), with more limited work with amphibians. The work will be testing hypotheses on species interactions through a combination of lab-based experiments and field experiments. Additionally, my research looks at distributional patterns of different organisms, and seeks to determine what factors influence why species are located in certain habitats and not others. Students will also participate in lab meetings, where we will discuss scientific papers and other topics related to the lab's research.

Brief description of student responsibilities?

Students will be helping with a combination of inside/lab-based work, outdoor experiments, and sampling/surveying of natural populations. Most work will focus on aquatic invertebrates, with more limited amphibian work. Inside/lab work will potentially include some experiments, microscope work to identify zooplankton, and computer-based work such as measuring body size of amphibians, sorting trail camera photographs or listening to audio recordings of amphibians. Outdoor work will include helping set up experimental units, collecting and rearing animals, and collection of data. Field surveys will include going to ponds in nearby areas to survey for aquatic taxa, including surveying for plankton in Cougar Lake from a small boat. Specific experimental projects for fall 2024 will include testing how duckweed plants impact colonization rates of aquatic habitats, and predation on amphipods.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

Students will learn how to: design and execute experimental research; sample aquatic habitats for a variety of organisms; read and communicate about scientific papers; identify amphibians and other aquatic organisms; carry out animal husbandry techniques for aquatic organisms; collect scientific data and use computer software for data entry/quality control.

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

- Schedules can be relative flexible though having at least one large block of time in the afternoon one day a week needed (preferably Thursday)

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

- Having a vehicle can be helpful to get around campus to different field sites, but wouldn't be entirely required.

Must students have taken any prerequisite classes? Please list classes and preferred grades:

- C or higher in BIOL 151 (or an equivalent Intro Biology course if a transfer student).

Other requirements or notes to applicants:

- Being comfortable working around and in the water is preferred