**Pymatuning Lab of Ecology Summer Undergraduate Research Program**

The Pymatuning Lab of Ecology (PLE), Pitt's biological field station in Northwest Pennsylvania, is pleased to announce a new (in 2022) summer research program that is open to Pitt undergraduates (must not have graduated before June 2022) interested in pursuing research toward a career in ecology or evolutionary biology. The program provides support for students to be in residence at the field station for nine weeks over the summer (June 6 – August 5) to work with faculty on a semi-independent research project. No prior research experience is required, and applications from students for whom this would be a first experience in research are encouraged. Student participants will receive free room and board at the Pymatuning Lab of Ecology for the nine weeks of the program. At the end of the program, each participant will receive a stipend of $3,000.

Students in the program will be expected to be able to devote their full effort (i.e., 40 hours/week) to the program and their project. This means that participants must plan to be in residence at the Pymatuning Lab (aside from weekends and holidays) and should not have other conflicting time commitments (e.g., classes, other employment, volunteering, or fellowship commitments) during the nine weeks of the program.

During the first week of the program, we will run a research workshop to provide the students with an initial cohort experience and a solid footing in the process of conducting scientific research. During this first week, and each subsequent week, the students will also (1) attend a weekly "journal club" meeting, where they will discuss a paper relevant to the topic of that week's talk in the PLE's evening seminar series, and (2) meet one on one with their faculty mentor about their research project. During each of weeks 2 – 9 the students will also (3) meet twice a week as a cohort, with a program mentor. Aside from these structured times, the students will be free to carry out their projects while in residence at PLE. At the end of the nine weeks, each student will present a research talk and write a research report.

On the application, please indicate which of the following research topics/labs you would be most interested in:

**Turcotte Lab: Effects of interacting stressors on duckweed evolution**
Species in nature are routinely exposed to multiple stressors that can serve as simultaneous drivers of evolutionary change. Such drivers can interact in complex ways, yielding evolutionary outcomes that are not necessarily easily predicted by evolution that occurs in response to single stressors. In this project we will conduct experimental evolution to test these ideas using duckweed a model plant system. Selection on duckweed genotypes over multiple generations will examine the effects of competition, insect herbivory, and resource limitation singly and in all combinations to understand their interactions in driving evolutionary outcomes.

**Richards-Zawacki Lab: Amphibian resilience to an emerging fungal pathogen**
Amphibians worldwide have suffered declines and even extinctions due to the fungal disease chytridiomycosis. However, some individuals, populations, and communities of amphibians are now showing resilience in the face of this emerging infectious disease. In this project we will use field studies of native amphibians to better understand how amphibians in Northwest Pennsylvania are able to resist and/or tolerate the negative effects of this infection. The student will work as part of a field team to

detect amphibians and their pathogens in local wetlands and collect data that will help us to understand resilience at the individual, population, and species level. This project will involve nighttime field work!

The application deadline **is Friday, March 11, 2022**. To apply, complete an application form at https://form.jotform.com/220473290132042. Within the form you will be asked to upload your undergraduate transcript in high resolution PDF (saved as *lastname_firstname_transcript.pdf*)you're your resume or Curriculum vita (CV), (saved as *lastname_firstname_CV*). Two letters of recommendation from people who can comment on your science and/or research progress in college are also required. Please ask letter writers to save files as *yourlastname_letterwriterlastname_letter* and to email letters to cori.zawacki@pitt.edu by the application deadline. **Please give your recommenders notice NOW that you intend to apply!**

Please contact Dr. Cori Richards-Zawacki (cori.zawacki@pitt.edu) with any questions.