

A Summer Research Experience at Hubbard Brook Experimental Forest, Woodstock, NH

The Hubbard Brook Research Foundation, with funding from the National Science Foundation's (NSF) Long Term Ecological Research (LTER) program, has openings for students in the **Research Experience for Undergraduates (REU)** program during the summer of 2023. Applications are due **2/26/2023**.

Students will work with research teams involving other undergraduate and graduate students. Students also develop and conduct an independent research project. Many REU students continue their work as an independent study or senior honors thesis at their home institution. Some have even published in major scientific journals. In addition, through weekly presentations given by the mentors and other scientists, students are also exposed to a full spectrum of ecosystem research at Hubbard Brook.

We are currently recruiting for students for the following topics:

The Aging of a Forest in the Anthropocene

Invertebrates are an essential link in the food chain. This project aims to understand how the abundance of forest invertebrates vary as a result of forest succession and available nutrients. We aim to collect insect and gastropod samples from three locations at Hubbard Brook: 1) Watershed 1, where 45 tons of calcium silicate were added via helicopter in 1999, 2) Watershed 5, where a whole-tree harvest was carried out from 1983 to 1984, and 3) Watershed 6, the reference watershed. With these samples, we can compare invertebrate abundance and species composition in the reference forest to that in an acid-remediated forest of the same age, and a forest that is now at about the same age as the other forests were when studies began 50 years ago. **Co-mentors: Dr. Matt Ayres (matthew.p.ayres@dartmouth.edu) and Miranda Zammarelli (miranda.zammarelli.gr@dartmouth.edu), Dartmouth College.**

Forest Regeneration in a Changing World

Forest regeneration is critical to the future forest composition, health, and productivity, yet remains hard to predict in the face of novel conditions driven by a changing climate and exotic pests and pathogens. The vegetation team at Hubbard Brook is seeking an REU student to engage in a research project on forest regeneration in summer 2023. The REU will be fully integrated into the vegetation crew and be expected to contribute to long-term measures as well as work for their own project. **Mentor: Dr. Nat Cleavitt (nlc4@cornell.edu), Cornell University.**

The program runs from late May to mid-August. Students receive a \$5000 stipend for the 10-week program, as well as free housing. Limited funding is available for research supplies and travel expenses. Food costs are paid by the participants and run approximately \$42/week. Students live at Hubbard Brook Research Foundation's researcher housing adjacent to the Hubbard Brook Experimental Forest, among a community of summer field students and technicians. All residents are expected to share and cooperate with cleaning, cooking, and related chores.

Applicants should send the following to the mentor in the field they are interested in:

1. A one-page resume (including relevant coursework).
2. Contacts for two people who can provide a reference.
3. Short answers (~1 paragraph each) to the following questions:
 - There are many options for working in the environment, and research is one particular way. Why do you want to explore research?
 - Why are you interested in the research project to which you are applying?
 - How do you think that participating in the Hubbard Brook REU program could help you in your degree program and in your future pursuits?

Please submit your materials to the mentor's email address by 2/26/2023.

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