

Title: Undergraduate Research Assistant in Plant Physiological Ecology

Location: Montana State University – Bozeman, MT

Duration: Academic Year 2025–2026 (August–May), with potential to extend based on performance

Hours: Part-time (≤ 20 hours/week)

Pay: Research Assistant I: \$15.93/hour; Research Assistant II: \$17.70/hour.

Apply by: August 15, 2025

About the Project

Forests play a critical role in storing carbon and sustaining life on Earth. However, more frequent and severe droughts threaten many forests. Our lab investigates how conifer trees respond to drought stress—especially how shifts in carbohydrate reserves can help predict tree mortality. Using hyperspectral remote sensing, we aim to forecast forest health and improve our ability to model and manage forest ecosystems under climate change. This position offers a unique opportunity to contribute to meaningful environmental research while developing lab and analytical skills in plant physiology and ecological data analysis.

Read more about our work: [news story on this research](#)

Your Role

As an Undergraduate Research Assistant, you'll support ongoing projects by working alongside a PhD student in the lab. You'll gain hands-on experience with the following:

- Preparing and processing plant samples for non-structural carbohydrate (NSC) analysis
- Weighing samples using a microbalance
- Grinding plant tissues (roots, stems, leaves) using a ball mill
- Analyzing leaf and canopy images in ImageJ to quantify area
- Maintaining an organized and efficient laboratory space

The ideal candidate is:

- Eager to learn
- Detail-oriented and organized
- A strong communicator and collaborator
- Comfortable working independently
- Interested in building research skills in ecology, plant physiology, or environmental science
- A current MSU student
- No prior lab experience is required—we will train motivated individuals.

About the Lab: The Ulrich Lab ([website](#)) in MSU's [Department of Ecology](#) investigates how plants interact with and respond to their environments.

How to Apply

Email Danielle Ulrich at Danielle.Ulrich@montana.edu with the subject line:

"Research Assistant Application". Include the following:

1. Cover letter (1 page): Introduce yourself, describe your academic background and research interests, and explain why you're interested in this position.
2. Curriculum vitae or resume
3. Contact information for 3 references (name, email, phone)
4. Unofficial university transcript

Have questions about the position? Feel free to reach out.