

Caitlin Cooper

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Lansing, MI

Research Interests: Plant Evolutionary Biology and Ecology

The impact biomechanical and hydraulic constraints have on the evolution of plant structure and function, as well as allometric scaling relationships among vascular anatomy, morphology, and physiology vary across different taxa and growth habits.

Education

GRAND VALLEY STATE UNIVERSITY

Allendale, MI

Bachelor of Science in Writing, minors in Biology and Psychology

Apr 2025

Cumulative GPA 3.9, STEM GPA 4.0

BOSTON UNIVERSITY

Boston, MA

Courses: Biology I, Biology II. GPA 4.0

May – Aug 2024

RELATED AWARDS: GVSU Undergraduate Research Scholar, Honors College Graduate – Frederik Meijer Honors College, Dean's List: Fall 2020, Fall 2022 – Winter 2025, *Summa Cum Laude*.

APPLICABLE COURSES: Systematic Botany, Plant Morphology, Ecology, Statistics, Conservation Biology, General Biology I, General Biology II, Our Evolving World (Evolution & Humanities), Magnitude (Physics & Humanities), Introduction to Python, Research Methods in Psychology.

Research Experience

Research Assistant to Dr. Gary Greer (Retired Faculty)

Sep 2023 – Current

Biology Department at Grand Valley State University

- Responsible for field work, photographing study specimens, and recording field measurements.
- Perform data analysis, SPSS graphing, presenting, and co-writing for presentations and posters.
- Currently writing a first-author manuscript with Dr. Gary Greer.
- Supervised and trained two undergraduate students (Oct – Dec 2024) in plant identification and data collection protocol.

Herbarium Assistant to Dr. Tim Evans

Aug 2024 – Current

Biology Department at Grand Valley State University

- Contributing 22+ specimens to the university's herbarium collection.
- Mounting and repairing existing herbarium specimens.
- Assembling and troubleshooting digitization hardware and software.

Professional Aide to Dr. Mason McNair, Plant X Tech Lab

Jun – Sep 2025

Department of Horticulture at Michigan State University

- Built an object segmentation code to identify, rotate, and crop to identified objects for image analysis.
- Contributed to screening 40+ honey samples for microplastics.
- Documented vegetation and florals in the MSU Children's Garden for the purpose of public outreach and identification and location of genera planted.
- General lab upkeep and wet-lab work.

Conference Presentations

POSTER PRESENTATIONS

Botanical Society of America Annual Meeting, Grand Rapids, MI 2024

Utility assessment of handheld photography for measuring coarse elements of tree geometry. **Caitlin Cooper**, Gary Greer.

Botanical Society of America Annual Meeting, Grand Rapids, MI 2024

Does the Geometry of the Three Basal Nodes Exhibit Species-specific Scaling Patterns? Catherine Chappell, **Caitlin Cooper**, Gary Greer.

ORAL PRESENTATIONS

Student Scholars Day at Grand Valley State University, Allendale, MI 2024

Assessing the Accuracy of Tree Geometry Measurements from Photos Take with Common Handheld Cameras. **Caitlin Cooper**, Gary Greer.

Relevant Skills

SPSS: Graphing, ANOVA, ANCOVA, and linear regressions.

Data Collection: Field work and ImageJ.

Excel: Documentation, variable manipulation, graphing, and regressions.

Presenting: Projection of voice, experience troubleshooting PowerPoint on older and newer software, and fielding Q&As.

Plant Identification: Native MI plants using a dichotomous key.

Proposal Writing: Research project proposals used as examples in subsequent semesters in 2+ courses.

Professional Memberships

Botanical Society of America Feb, 2025

American Association for the Advancement of Science Feb, 2025

Torrey Botanical Society Jul, 2025

American Fern Society

Sep, 2025

HONOR SOCIETIES

Phi Kappa Phi – Chapter 217

Mar, 2024

Omicron Delta Kappa, the National Leadership Honor Society

Apr, 2024

Psi Chi, the International Honor Society in Psychology

Nov, 2024