

Justine C. Rojas, PhD

Postdoctoral Scholar
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EDUCATION

- 2025 **University of Georgia:** PhD Plant Biology
Advisor: Dr. Daniel Johnson
Thesis: Under (Negative) Pressure: A Comparative Study of Water Transport Strategies in Conifer Trees
- 2019 **California State Polytechnic University, Pomona:** Master of Science Plant Biology
Advisor: Dr. Edward Bobich
Thesis: Biomechanics and Anatomy of Stems of Typical Inland and Coastal Pygmy Forms of *Quercus agrifolia* in Relation to Exposure to Wind
- 2016 **University of California, Riverside:** Bachelor of Science Biology

PROFESSIONAL APPOINTMENTS

- 2025-Present **Oregon State University,** Postdoctoral Scholar
Advisor: Dr. German Vargas Guterrez
- 2019-2025 **University of Georgia,** PhD Candidate
Advisor: Dr. Daniel Johnson

PUBLICATIONS

**Undergraduate student*

Rojas, J., *Carlsrud, K., Gremler, V., Johnson, D. Contrasting seasonal water use strategies for co-occurring species: a field case study for mature *Pseudotsuga menziesii* and *Juniperus scopulorum* in a complex native habitat. *Tree Physiology* (submitted, in review)

Tucker, L., Reinhardt, K., Johnson, D., Emanuel, R., Minick, K., Bahramian, J., Love, D., and **Rojas, J.** Coordination of whole-tree water transport and storage is more synchronized in mesic than semi-arid species. *Plant, Cell, and Environment* (submitted, in review)

Gremler, V., **Rojas, J.**, Carlsrud, K.*, Johnson, D. Comparative Analysis of Hydroscares and Leaf Hydraulic Parameters of Conifers in a Snowpack-Dependent Ecosystem. *Plant, Cell, and Environment* (submitted, in review)

Projected submission date: Fall 2025

Journal: *Plant, Cell, and Environment*

Rojas, J., *Carlsrud, K., Johnson, D. Thirsty Trees: A Meta-Analysis of Water Strategies in Pinaceae and Cupressaceae

GRANTS AND FELLOWSHIPS

2024	Carl Storm Underrepresented Minority Fellowship	\$1,000
2023	Plant Center Doctoral Dissertation Improvement Grant	\$5,000
2023	Future Faculty Fellowship	\$600
2022	American Association for Hispanics in Higher Education Fellowship	
2022	Palfrey Student Research Grant	\$1,250
2022	Carl Storm Underrepresented Minority Fellowship	\$600
2019	Osborne Fellowship	\$26,000
2018	MENTORES	\$3,500

AWARDS

2023	Outstanding Teaching Assistant Award
2022	Outstanding Commitment to Diversity Award

PRESENTATIONS

CONFERENCE ORAL PRESENTATIONS

- 2023 “Sapwood water storage and transpiration in two tree species with contrasting water management strategies”
Oral presentation, Ecological Society of America Annual Meeting, Portland, Oregon: August 2023
- 2019 “Biomechanics and Anatomy of Stems of Typical Inland and Pygmy Coastal Forms of *Quercus agrifolia* in Relation to Exposure to Wind”
Oral presentation, 27th Annual California Botanical Society’s Graduate Student Symposium, San Luis Obispo, California: April 2019

CONFERENCE POSTER PRESENTATIONS

- 2024 “Thirsty Trees: A Meta-Analysis of Water Strategies in Pinaceae and Cupressaceae”
Poster presentation, American Geophysical Union, Washington, D.C., Maryland: December 2024
- 2022 “Wood Water Storage in Contrasting Water Management Species – Longleaf Pine (*Pinus palustris*) and Sand Post Oak (*Quercus margaretta*)”
Poster presentation, Gordon Research Conference Multiscale Vascular Biology, Newry, ME: June 2022

- 2021 “Contrasting Functional Significance of Wood Water Storage in Longleaf Pine (*Pinus palustris*) and Sand Post Oak (*Quercus margaretta*)”
Poster presentation, American Geophysical Union, New Orleans, LA: December 2021
- 2019 “Biomechanics and Anatomy of Stems of Typical Inland and Coastal Pygmy Forms of *Quercus agrifolia* in Relation to Exposure to Wind”
Poster presentation, Plant Center Fall Retreat University of Georgia, Helen, GA: October 2019
- 2016 “Functional Leaf Anatomy of Neotropical Orchids with Contrasting Photosynthetic Pathways”
Poster presentation, 53rd Annual Association for Tropical Biology and Conservation Conference, Montpellier, France: June 2016.

TEACHING AND MENTORING

RESEARCH MENTORSHIP

- 2025 Cooper Parkins – REU Intern; effects of heat stress on growth of *Pseudotsuga menziesii*
- 2024 Lee Sabovich – sapling water potential and gas exchange
- 2024 Aniyah Parris – REEU Fellow; sapling water potential under various VPD conditions
- 2024 Lara Meersschaert – sapling biomass and drought response
- 2022 Katherine Carlsrud – water storage traits of coniferous tree species
- 2020 Kentrell Richardson – xylem anatomical traits of several tree species
- 2019 Thomas Mildon – anatomy and biomechanics of *Quercus agrifolia*

TEACHING EMPLOYMENT

- 2022-2025 **Instructor of Record**, University of Georgia
Graduate Teaching Seminar (Spring 2025)
Plant taxonomy **Lecture & Lab** (Spring 2022, Spring 2023)
- 2021-2024 **Teaching Assistant**, University of Georgia
Principles of Plant Biology (Fall 2024)
Plant Ecology Lab (Fall 2021)
- 2017-2019 **Teaching Assistant**, California State Polytechnic University, Pomona
Plant Form and Function Lab (Fall 2017, Spring 2018, Fall 2018, Spring 2019)
Foundations of Biology: Biodiversity Lab (Winter 2018)

GUEST INSTRUCTOR

- 2024 University of Georgia (Athens, GA): Guest lecturer in Dr. Kathrin Stanger-Hall’s Teaching Seminar for Life Science Graduate Teaching Assistants
Lecture: Diversity in the Classroom
- 2023 University of Georgia (Athens, GA): Guest lecturer in Dr. Dan Johnson’s Advanced Tree Physiology course
Lecture: Woody Plant Physiology – Anatomy and Growth

EMPLOYMENT

- 2016-2017 **Career Counselor**, Jurupa Valley Adult School
Assisted students with continuing their higher education, career choices, and life skills. Organized, maintained, and updated college and training opportunities, as well as communicated and organized workshops and career fairs for students and faculty.
- 2015-2016 **Student Research Assistant**, University of California Riverside
Performed skilled technical work in various areas, including laboratory chemistry, RNA and DNA isolation, photosynthesis, leaf morphology and anatomy, conducted independent research project.

PUBLIC SERVICE AND OUTREACH

SERVICE TO DEPARTMENT

- 2024 Crop Genetics and Genomics II (CGGv2) REEU mentorship program – served as a Junior Mentor to an REEU Fellow (Aniyah Parris)
- 2024 Committee member of the Integrated Plant Sciences recruitment weekend for prospective graduate students
- 2023-2024 President of the Plant Biology Graduate Student Association
- 2022-2023 Vice President of the Plant Biology Graduate Student Association
- 2021-2023 Plant Biology department representative for the Graduate Student Association
- 2020-2023 Committee member for the Plant Biology Diversity, Equality, and Inclusion (DEI) committee at the University of Georgia

SERVICE TO COMMUNITY

- 2024 Panelist on Graduate Student Panel “Out in STEM x Grad Pride”
- 2020 Volunteered for the Rivers Alive Athens Waterway Cleanup; removed invasive species along the Athens Georgia water resources

SPECIALIZED TRAINING

- 2024 Li-Cor Photosynthesis Certification – Lincoln, NE
- 2023 USDA Tree Climbing Certification – Dorena Genetic Resource Center, Cottage Grove, Oregon

SOCIETY MEMBERSHIPS

- 2023-2024 Ecological Society of America
- 2022-2023 American Association for Hispanics in Higher Education
- 2021-2022 American Geophysical Union
- 2018-2023 Botanical Society of America

PROFESSIONAL SKILLS

- Proficiency in R, ImageJ, SigmaPlot, QGIS, Microsoft Office

- Instrumentation: Li-Cor 6800, Pressure chamber instrument 600 and 1000, East30 Heat Pulse Sap Flow sensors, Thermocouple Screen Cage Psychrometer 83 series, CS655 Water Content Reflectometer, Hansatech Handy PEA+ Flourimeter