CURRICULUM VITAE

Name: **Jacqueline J. Peña, PhD**
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EDUCATION

2018 – May 2025 **PhD**, University of Georgia, Plant Biology, “Into the woods: The phylogeography and species distribution of wild yeast from forests."

2016 – 2018 **MS,** Utah State University, Ecology, “Plant evolutionary response to climate change”

2011 – 2016 **BS,** Boise State University, Biology, emphasis in ecology

COMPUTATIONAL SKILLS AND PROFESSIONAL TRAINING

Programming: Unix, R, sed, and Python

Bioinformatics: ADMIXTURE, IQ-TREE, RAxML, MEGA-CC, and developing genomic pipelines

2018, 2019 Python Basics and Linux Training, Georgia Advance Computing Research Center, University of Georgia.

2016 SLURM Training and Introduction to Linux, The Center for High Performance Computing, University of Utah.

RESEARCH EXPERIENCE

2025 – present **Postdoctoral Research Scholar, Stanford University. Advisor: Barnabas Daru.** Investigating how climate change alters seagrass-fungal endophyte interactions using herbarium specimens and field surveys.

2018 – 2025 **PhD research. University of Georgia, Plant Biology Department. Advisor: Douda Bensasson.** Discovered that wild *Saccharomyces cerevisiae* populations have footprints of human migration since the last ice age and discovered the southern range limit of wild *Saccharomyces* sp. and *Lachancea* sp. from forests.

2016 – 2018 **MS research. Utah State University, Department of Wildland Resources. Advisors: Peter B. Adler & Zachariah Gompert.** Ecological models should consider population genetics (F_{st} and heterozygosity) to understand how climate change affects natural populations.

2013 – 2016 **BS research. Boise State University, Department of Biological Sciences. Advisor: Jennifer S. Forbey.** Exploring plant-herbivore interactions between the Greater Sage-grouse and sagebrush to understand how herbivores digest plant secondary metabolites to manage wildlife in Idaho's public lands better.

2013 **BS research. Boise State University, Department of Biological Sciences. Advisor: Jesse Barber.** Investigating the evolutionary arms race between months and echolocating bats to understand predator-prey interactions.

PUBLICATIONS

In prep **Peña, J. J.**, Ward, A. K., McKibben, Ambrocio, D. R., M., Habersham, L., Won, D., Owusu-Ansah, F., Nemeth, O., & Bensasson, D. Climate can predict the species ranges of sympatric yeasts from forests.

In prep Ward, A. K., **Peña, J. J.**, McKibben, M., Celia-Sanchez, B. N., Ambrocio, D. R., & Bensasson, D. Population structure in the yeast *Lachancea thermotolerans.*

2025 **Peña, J. J.**, Scopel, E. F., Ward, A. K., & Bensasson, D. (2025). Footprints of Human Migration in the Population Structure of Wild Baker's Yeast. *Molecular Ecology*, e17669.

2022 Liti, G.i, Boynton, P., Mozzachiodi, S. ... **Peña, J. J.,** et al. (2022). Yeast from Temperate Forests. *Yeast*, *39*(1-2), 4-24.

2020 Fremgen-Tarantino, M. R., **Peña, J. J.**, Connelly, J. W., & Forbey, J. S. (2020). Winter foraging ecology of Greater Sage-Grouse in a post-fire landscape. *Journal of Arid Environments, 178*, 104154.

2016 **Peña, J. J**., Fremgen, M. R., and Forbey, J. S. (2016). Is Diet Selection by Greater Sage-Grouse Influenced by Biomass Availability or Toxins? *McNair Scholars Research Journal.*

FUNDED GRANTS AND AWARDS

2025 **Outstanding Teaching Assistant Award,** recognizes teaching assistants who demonstrate superior instructional skills in the classroom or laboratory.

2025 **Wilbur Duncan Award for Outstanding Graduate Student ($1,000)**, the Highest recognition for graduate student excellence in research, teaching, and service to the Plant Biology Department.

2024 **Palfrey Student Research Grant ($1,250)**, Graduate student research supplemental grant.

2020 – 2023 **Howard Hughes Medical Institute through the James H. Gilliam Fellowships for Advanced Study program ($150,000)**, Doctoral Fellowship for student-adviser pairs committed to advancing equity and inclusion in science.

2019 **E. Lucy Braun Award ($1,000),** Ecological Society of America's most outstanding poster presentation by a graduate student at an Annual Meeting.

2018 – 2020 **Peach State LSAMP Bridges to the Doctorate Fellowship ($64,000),** a Graduate Fellowship for entering graduate students who are LSAMP alumni from undergraduate institutions.

2011 – 2016 **Keith Stein Blue Thunder Marching Band Scholarship ($4,900)**, Boise State University athletic undergraduate scholarship.

2015 **McNair Scholar's Program Summer Research Experience ($2,800)**, undergraduate research assistantship.

2015 **Management of Idaho's Landscapes for Ecosystem Services ($3,500)**, National Science Foundation undergraduate research assistantship grant.

2013 – 2014 **Idaho STEP Grant – Distinguished Mentor Award Researcher ($2,263)**, undergraduate research assistantship grant.

2013 **Best Upcoming Researcher Award**, Poster presentation award at LSAMP Pacific Northwest Regional Conference.

2012 – 2014 **Summer Research Experience for Undergraduates ($7,500)**, undergraduate research assistantship.

CONTRIBUTED TALKS AND POSTERS

2025 **Peña, J. J.**, Scopel, E. F., Ward, A. K., & Bensasson, D. “Footprints of Human Migration in the Population Structure of Wild Baker's Yeast,” Evolution, Georgia, USA – (Talk).

2023 **Peña, J. J.,** Scopel, E., and Bensasson, D. “Woodland population genomics shows the wild side of *Saccharomyces cerevisiae*," Gordon Research Conference on Ecological and Evolutionary Genomics, Rhode Island, USA – (Poster).

2023 **Peña, J. J.,** Scopel, E., and Bensasson, D. “Using genomes to resolve the wild side of Saccharomyces cerevisiae from woodlands," Gilliam Fellows Annual Meeting, Virginia, USA – (Poster).

2022 **Peña, J. J.,** Scopel, E., and Bensasson, D. "The story behind the strains: using genomes to define wild yeast lineages from woodlands," Evolution, Ohio, USA – (Talk), GSA Fungal Genetics, Asilomar, California, USA – (Poster), GSA Population, Evolution, and Quantitative Genetics Conference, Asilomar, California, USA – (Poster).

2021 **Peña, J. J.,** Scopel, E., and Bensasson, D. "The story behind the strains: Looking at the phylogeography of Saccharomyces cerevisiae from woodlands," Ohio, USA – Virtual (Talk), Population Genetics Conference (Pop Group), UK – Virtual (Talk).

2020 **Peña, J. J.,** Hamlin, J., and Bensasson, D. "The story behind the strains: Looking at the phylogeography of Saccharomyces cerevisiae from woodlands," EMBL Conference, Molecular Mechanisms in Evolution and Ecology – UK Virtual (Poster), Gilliam Fellows Annual Meeting, Virginia, USA – Virtual (Poster).

2019 **Peña, J. J.,** Hamlin, J., and Bensasson, D. "The wine yeast, Saccharomyces cerevisiae, lives in genetically distinct woodland populations within Europe," GSA Fungal Genetics, Asilomar, California, USA – (Poster).

2018 **Peña, J. J.,** Adler, B. P., and Gompert, Z. “Plant Evolutionary Response to Climate Change: Detecting Adaptation Across Experimental and Natural Precipitation Gradients," Ecological Society of America (ESA) Annual Meeting, Louisiana, USA – (Winner of E. Lucy Braun Poster Award).

2016 **Peña, J. J.,** Fremgen, M. R., and Forbey, J. S. "Is Diet Selection by Greater Sage Grouse Influenced by Biomass Availability or Toxins?" The Wildlife Society Conference, Idaho, USA. (Poster).

2015 **Peña, J. J.,** Fremgen, M. R., and Forbey, J. S. "Is Diet Selection by Greater Sage Grouse Influenced by Biomass Availability or Toxins?" McNair Scholar’s Program Research Conference, New Mexico, USA. (Talk), McNair Scholar’s Program Conference, Washington, USA. (Poster).

2015 **Peña, J. J.,** Fremgen, M. R., and Forbey, J. S. "Is Habitat Use by Greater Sage grouse Proportional to Availability of Plant Morphotypes?", Washington, USA, (Talk).

2013 **Peña, J. J.,** and Forbey, J. S. "Are Pygmy Rabbits Influencing their Habitat?" Pacific Northwest LSAMP Conference, Idaho, USA. (Poster presentation winner for the best upcoming researcher award).

TEACHING EXPERIENCE

2022 – 2024 **Teaching Assistant. Principles of Plant Biology Laboratory (PBIO1210L).** Students learned the value of plants in science and society through observations of traits, evolution by natural selection simulations, and visits to greenhouse and herbarium facilities. **Implemented Course-based Undergraduate Research Experience (CURE) developed by Dr. Paola Barriga:** Students used publicly available data from herbaria to examine how the range expansion of invasive species changed over time. Students developed hypotheses to answer scientific questions and created species distribution maps in QGIS.

2021 **Guest Lecture – Plant Taxonomy (PBIO4650).** Guest lecture to give students "real-world" uses for the plant family, Fagaceae, in life, research, and society. I illustrated how I used lessons from my undergraduate education in plant taxonomy and transferred this knowledge to research microbial ecology for dissertation research.

2021 **Lecture Teaching Assistant. Plant Ecology (PBIO3650).** I assisted the instructor with student learning by grading quizzes and helping students understand course material through student hours and study sessions. **Guest Lecture—Ecological Consequences of Climate Change:** Guest lecture with case studies to discuss the ecological consequences of climate change.

2018 **Teaching Assistant. Biology II Laboratory (BIOL1625).** Students learned the basic concepts of organismal biology, animal behavior, evolution, and ecology. **Hypothesis-driven research project:** Students investigated the mating behavior of seed beetles using manipulative experiments.

2017 **Teaching Assistant. Biology I Laboratory (BIOL1615).** Students learned the basic concepts of genetics and cell and molecular biology. **Discovery-based research project:** Students explored fungal endophyte diversity by culturing and isolating fungal endophytes from plant tissue, extracted DNA, performed PCR, analyzed sequence results using BLAST to identify fungal species, and explored phylogenetic relationships.

Pedagogy Courses and Workshops:

2023 **Seminar in Teaching Biology (PBIO8010). Department of Plant Biology.** Course to learn how to effectively teach biology in their courses and for future courses as an instructor. **Teaching demonstration – Fungus among us: The importance of fungi on human health:** I developed a lecture that can be implemented for an introductory biology course for students to explore the significance of fungal diseases and human health.

2023 **Active Learning Summit. Part of UGA's Active Learning Quality Enhancement Plan.** A one-day workshop to implement active learning strategies in the classroom.

2021	**Pedagogy of Writing in Disciplines (WIPP7001). The Franklin College of Arts and Sciences Writing Intensive Program.** Course to teach graduate teaching assistants pedagogical strategies to help students improve writing skills and assess desired learning outcomes from writing assignments.
2020	**Graduate Teaching Seminar (GRSC7770).** Course to prepare graduate teaching assistants to become an effective instructor. I learned and developed strategies from evidence-based teaching practices to enhance student learning.
2020	**Effective Teaching Presentations. (Virtual) TA Café. Center for Teaching and Learning.** I learned how to implement an effective teaching presentation to enhance student learning and how to use media effectively.
2020	**Effective and Efficient Grading Strategies. (Virtual). TA Café. Center for Teaching and Learning.** A peer-support group from TAs across UGA to discuss and share strategies for efficient and consistent grading.

MENTORSHIP

2024	**Mentoring and Belonging in Science Series.** Workshop for REU students to mentor underrepresented students who may face STEM challenges (University of Georgia).
2020 – 2022	**Advocates for Anti-Racism in Life Sciences (AARLS).** Co-led a grassroots advocacy organization in solidarity with the Black Lives Matter movement to address and eradicate racism against BIPOC within academia**—a co-led mentoring initiative to facilitate mentor-mentee relationships** between graduate and STEM-focused undergraduate students from underrepresented groups (University of Georgia).
2019, 2023	**Graduate Student Rotation Project Mentor** for Miranda McKibben, Yibing Zeng, and Sydney McCall during their six-week rotation in the Bensasson lab (University of Georgia).
2019 – 2022	**LSAMP Mentor** for Melat Mekonnen and Lindia Habersham from the Peach State LSAMP students (University of Georgia).
2019	**Science Project Mentor** for middle school students from Rockdale County in Georgia (University of Georgia).

ACADEMIC SERVICE AND LEADERSHIP

2023	**Field safety guide committee.** Co-organized a field safety guide to promote field safety for graduate students who conduct fieldwork.
2021	**Plant Biology Graduate Student Association (PBGSA) Interim President.** I represented the Plant Biology Department graduate students at department meetings and graduate student recruitment events.
2020	**Plant Biology Graduate Student Association (PBGSA) Vice President.** Assist the PBGSA President and lead fundraising events such as the Herb Sale.

2020 – 2021 **Mycology Graduate Student Organization (MGSO) Public Relations Officer.** Promote Fungal Group and graduate students on social media. I maintained social media accounts and attracted a global audience to attend Fungal Group via Zoom.

2014 – 2017 **Graduate School & College Recruiter** at Future Scholar's Network Reception (University of Georgia), for Integrated Life Sciences (University of Georgia), for Integrated Plant Sciences (University of Georgia), for SACNAS (Utah State University), and for McNair Scholar's Program (Boise State University).

2014 **Student representative for LSAMP Coordinator hiring committee** at Boise State University.

2011 – 2016 **LSAMP Student Advisory Board Committee Member** at Boise State University.

COMMUNITY SERVICE & OUTREACH

2020 – 2025 **Diversify STEM Coffee Hours**. Co-organize monthly coffee hours to create an inclusive space for people from underrepresented groups in STEM. **Co-lead icebreaker "Culture Box" activities** to help others gain a deep understanding of objects or aspects that represent essential parts of one's life story as it relates to one's social identity.

2018 – 2024 **PBGSA Herb Sale Fundraising.** Assisted PBGSA with logistics, planting herb seeds, marketing to the public, and filling out orders.

2023 **Plant Biology & Plant Center Graduate Retention Broader Impact Seminar Series**. Co-organized a seminar series featuring early-career scientists (post-doctoral scholars and assistant professors) from underrepresented groups.

2019 – 2021 **Poster Session Judge** for the Oconee Science Fair, Oconee County High School, Peach State LSAMP STEM Innovators Conference, University of Georgia, and the Plant Biology Department Undergraduate Research Symposium.

2014 – 2021 **Invited Panelist and Guest Speaker** at Society for the Study of Evolution Undergraduate Career Development Workshop, the Science Technology and Research Symposium (STaRS) at Georgia Gwinnett College – (Panelist), Georgia Junior Science & Humanities Symposium – (Panelist), Post-Baccalaureate Research Education Program (Guest speaker), Peach State LSAMP Semester Closing Ceremony – (Guest speaker), LSAMP and McNair Scholar's Research Symposium (Keynote speaker), TRIO College Recruitment day (Panelist), STEM Research and Internship Workshop (Panelist), and Women in STEM Big Dream Film Screening (Panelist).

PROFESSIONAL SOCIETY MEMBERSHIPS

- Society for the Study of Evolution (SSE)
- Women of Color in Ecology and Evolutionary Biology (WOC EEB)
- Ecological Society of America (ESA)
- Ronald E. McNair Scholar's Program
- Louis Stokes Alliance for Minority Participation (LSAMP)