

Anjum Kaur Gujral

Curriculum vitae

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EDUCATION

University of California, Davis 2022 - present
Ph.D. Student, Population Biology
Advisor: Dr. Jennifer L. Funk

San Francisco State University 2020 - 2022
M.Sc. Integrative Biology (GPA: 4.00)
Advisor: Dr. Kevin A. Simonin
Thesis Committee: Dr. Adam B. Roddy, Dr. Jason T. Cantley, Dr. Benjamin E. Carter

San José State University 2014 - 2019
B.Sc. Biological Sciences: Ecology and Evolution (GPA: 3.79)
Minor: Environmental Studies

FUNDING

UC Davis Dean's Distinguished Graduate Fellowship, 2022
College of Biological Sciences: \$27,000

UC Davis Dean's Distinguished Graduate Fellowship, 2022
College of Agricultural and Environmental Sciences: \$82,000 (declined)

UC Berkeley Chancellor's Fellowship: \$34,000 (declined) 2022

National Science Foundation – Graduate Research Fellowship: \$138,000 2021

James Duncan BioLuminary Graduate Research Award: \$6,400 2021

Robert William Maxwell Scholarship: \$4,000 2021

Northern California Botany Research Scholarship: \$1,000 2021

Achievement Rewards for College Scientists (ARCS) Scholarship: \$10,000 2020

CSU Program for Education and Research in Biotechnology: \$1,500 2019

PUBLICATIONS

Gujral, A., Misiewicz, T., Hauser, C., Carter, B., 2021, "Natural History and Demography of the Imperiled Redwood Forest Specialist *Pedicularis dudleyi* (Dudley's Lousewort, Orobanchaceae)," *Madroño* (In press)

Lambrecht, S., **Gujral, A.**, Renshaw, L., Rosengreen, L. 2019, "Evolutionary and plastic changes in a native annual plant after a historic drought," *Ecology and Evolution*. 10(11): 4570–4582.
doi: 10.1002/ece3.6156

RESEARCH EXPERIENCE

Graduate Student Researcher, San Francisco State University 2020- Present
Simonin Lab
Project: The Role of Climatic Water Balance in Explaining Coordination in Leaf Hydraulic Traits
Determining the degree of coordination in leaf traits related to plant carbon and water-

use strategies across global climatic gradients through greenhouse experimentation, plant physiological measurements, and ecological niche modeling.

Field Biologist, Save the Redwoods League

2019 – 2021

Project: Population Genetics, Ecology, and Reproductive Biology of a Rare Redwood Forest Specialist.

Collected pollination and dispersal observations, designed experiments to assess seedling recruitment, classified the vulnerability of life history stages, conducted a population census, and built the foundation for long-term demographic monitoring through space and time in one of two remaining populations.

Primary investigator: Dr. Benjamin Carter; *Co-investigator:* Dr. Tracy Misiewicz

Research Affiliate, UC Berkeley

2020

Dawson and Firestone Labs

Project: Assessing the Influence of Topography and Soil Water Potential on Mycorrhizae Colonization of Coast Live Oak.

Maintained a greenhouse study, extracted and quantified DNA from roots and rhizosphere of coast live oak growing along a moisture gradient, in order to determine mycorrhizal colonization.

Postdoctoral Researcher: Dr. Suzanne Pierre

Undergraduate Researcher, San José State University

2017- 2019

Lambrecht Lab

Project: Evolutionary and Plastic Changes in a Native Annual Plant After Historic Drought

Designed and executed a greenhouse study to test for evolution in physiological, morphological, and phenological traits in response to long-term drought in California.

Carter Lab

Project: Evolutionary Ecology of *Scleropodium*

2017 - 2018

Assisted in data collection for determining morphological differences in moss species, participated in a reciprocal transplant field experiment for aquatic and terrestrial species, developed and executed a dry down experiment to investigate responses to water stress.

Volunteer Surveyor, Global Observation Research Initiative in Alpine Environments (GLORIA)

2018 - Present

Project: Conducted downslope surveys on alpine plants to assess how alpine species distribution ranges are changing with climate change.

Intern, San Bruno Mountain Watch

2016

Project: Assisted in the process of restoring the native vegetative habitats of San Bruno Mountain by collecting seed, propagating individuals in a nursery, and replanting native species on the mountain. Maintained a catalog for native plant seed inventory.

PRESENTATIONS

2021. *Poster presentation.* Ecological Society of America. Virtual conference

2021. *Poster presentation.* Botanical Society of America. Virtual conference

2021. *Lightning talk.* California Botanical Society. Virtual conference.

2020. *Poster presentation.* Northern California Botanists Symposium. Chico, CA.

2019. *Poster presentation.* Botanical Society of America Annual Conference. Tucson, AZ.

2019. *Poster presentation.* SJSU College of Science Student Research Day. San José, CA.

AWARDS & HONORS

Graduate Opportunities to Learn Data Science Certificate (in progress)	2020- Present
National Science Foundation Graduate Research Fellowship Honorable Mention	2020
2 nd Place Poster Award at the Northern California Botanists Symposium	2020
Magna Cum Laude	2019
Phi Kappa Phi Honor Society	2018, 2019
Tri Beta Biological Honor Society	2019
Dean's Scholar, San José State University	2014-2019

MENTORSHIP EXPERIENCE

Invited speaker, ESA SEEDS Chapter SJSU	October 2021
Participated on a graduate student panel at the monthly chapter meeting to guide undergraduates through the process of applying to graduate school.	
Undergraduate Mentor, SACNAS Chapter SFSU	January 2021 - Present
Mentored and supported students through the processes of developing their research interests, applying for scholarships and research opportunities.	

SCIENCE EDUCATION

Research Associate, Critical Ecology Lab	2020-Present
<i>Project:</i> Hubbard Brook Experimental Forest (NSF-LTER) Field Course	
Developing a lasting curriculum for reframing science education to center the unique identities, experiences, and knowledge bases of BIPOC students in ecological field studies and subsequently, expand the breadth of ecological inquiry and the perspectives involved in the process of testing ecological hypotheses.	

CITIZEN SCIENCE

Plant Collections Volunteer, California Academy of Sciences	2020- Present
Transcribed herbarium specimen labels from digital images made widely accessible to researchers across the globe.	
Citizen Science Volunteer, Notes From Nature	2020- Present
<i>Project:</i> Capturing California's Flowers	
Transcribed herbarium specimen labels from digital images in order to contribute to the investigation of phenological changes in California native plants.	
Citizen Science Volunteer, BioBlitz	2017- Present
Led groups of families local to San Jose through nature hikes and taught people how to document species observations on the iNaturalist data crowdsourcing platform.	
Student Volunteer, SJSU Community Garden	2016 - 2018
Worked with a group of undergraduate students on practicing sustainable gardening techniques to grow food for the student body.	

SKILLS

Plant identification, taxonomic keying, soil texture analysis, preparing and cataloging herbarium specimens, conducting vegetation surveys, performing DNA extractions, greenhouse experimentation, plant water potential measurements, plant anatomy measurements,

backpacking, Mesquite, Geneious, PAUP, R, Maxent, phylogenetically independent contrasts, species distribution modeling, climate modeling, and ecological niche modeling