

Emily Brodie

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HIGHLIGHT OF QUALIFICATIONS

Strong skill set and experience as a researcher, educator, and naturalist ♦ Experienced in data manipulation and visualization, statistical analysis, version control, and Geographic Information Systems ♦ Highly proficient in ID of California and Pacific Northwest flora specializing in wetland and post-fire species ♦ Exceptional field skills including vegetation plot installation, wetland delineation, backcountry navigation and advanced wilderness first aid certified (NOLS) ♦ Fluent in written and spoken Spanish, with experience working in cross-cultural environments ♦ Quick, efficient, and highly adaptable in the workplace

EDUCATION AND CERTIFICATION

PH.D., Ecology , University of California, Davis, CA <i>Committee:</i> Hugh Safford, Andrew Latimer and Susan Harrison <i>Dissertation:</i> Patterns of post-fire diversity and tree regeneration in the subalpine forests of California	2017 – expected 2022
M.Sc., Ecology , University of California, Davis, CA	2017 – 2019
Bachelor of Science, Biology , <i>Magna Cum Laude</i> Bachelor of Arts, Spanish , <i>Magna Cum Laude</i> Honors Program, Western Washington University, Bellingham, WA	2009 – 2013
Program of Argentine and Latin American studies , University of Belgrano, Buenos Aires, Argentina	2011
Wildland Firefighter Type II , The Nature Conservancy, Sonoma, CA	cert: 2020
Wilderness First Responder , National Outdoor Leadership School	cert: 2013, recert: 2019
Animal Tracking Intensive Program , Wilderness Awareness School, Duvall WA	2009
Kamana Naturalist Training Program , Wilderness Awareness School, Duvall WA	2008 – 2009

RESEARCH AND FIELD EXPERIENCE

National Science Foundation Graduate Research Fellow , University of California, Davis, CA	2017 – Present
Botanical Technician , Capitol Reef National Park, Fruita, UT	2017
Botanical Technician , North Cascades National Park Inventory & Monitoring Network, Marblemount, WA	2016
Conservation and Management Intern , Chicago Botanic Garden and Stanislaus National Forest, Miwuk, CA	2015
Botanical Technician , University of California, Davis and USDA Forest Service, Lake Tahoe, CA	2014
Field Research Intern , Smithsonian Tropical Research Institute, Gamboa, Panama	2014
Research Assistant , Dr. Lynn J. Pillitteri, Western Washington University, Bellingham WA,	2012 – 2013

TEACHING EXPERIENCE

Teaching Assistant , Fire Ecology, University of California, Davis, CA	2021
Fulbright Teaching Fellow , The Fulbright Program, International Institute of Education, Madrid, Spain	2015 – 2016
Tropical Island Biodiversity and Conservation Intern and Teaching Assistant , The School for Field Studies, Bocas del Toro, Panama	2013
Herb Garden Coordinator , Western Washington University Student Farm, Bellingham, WA	2009 – 2013

PUBLICATIONS

Brodie, E., Miller, J.E.D., & Safford, H.D. (in review). Productivity modifies the effects of fire severity on understory diversity. *Ecology*.

- Valente, A. S., Tutone, M., **Brodie, E.**, Peper, H., & Pillitteri, L. J. (2018). T-DNA associated reciprocal translocation reveals differential survival of male and female gametes. *Plant Gene*, 15, 37–43.
- Thurman, T. J., **Brodie, E.**, Evans, E., & McMillan, W. O. (2018). Facultative pupal mating in *Heliconius erato*: Implications for mate choice, female preference, and speciation. *Ecology and Evolution*, 8(3), 1882–1889.

PRESENTATIONS

- Brodie, E.**, Miller, J.E.D., & Safford, H.D. 2020. *Fire severity and productivity influence diversity patterns in California's subalpine forests*, Natural Areas Association Virtual Conference. (Talk)
- Brodie, E.**, Miller, J.E.D., & Safford, H.D. 2019. *Patterns of post-fire diversity in subalpine forests of California*, Association for Fire Ecology, Tucson, AZ. (Talk)
- Brodie, E.**, Miller, J.E.D., & Safford, H.D. 2019. *Patterns of post-fire diversity in subalpine forests of California*, Davis Botanical Society, Davis, CA. (Talk)
- Brodie, E.**, Miller, J.E.D., & Safford, H.D. 2019. *How do understory plant communities respond to fire in the subalpine forests of the Sierra Nevada? or Notes from my field season*, Graduate Student Symposium in Ecology, University of California, Davis. (Talk)
- Brodie, E.**, and H. Safford. 2018. *Patterns of post-fire diversity and regeneration in subalpine forests of the Sierra Nevada*, Northern California Botanists Symposium, Chico, CA. (Poster)
- Sequoia and Kings Canyon Science Symposium, Three Rivers, CA. (Poster)
- Brodie.** 2018. *Post-fire plant diversity and tree regeneration in subalpine forests of the Sierra Nevada*, USDA Forest Service Region Five Ecology Program Annual Meeting, University of California, Davis. (Talk)
- Brodie, E.**, Thurman, T.J., Evans, E., and McMillan, W. O. 2014. *Erato erotica: pupal mating in a Heliconiid butterfly*, Gamboa Seminar, Smithsonian Tropical Research Institute, Gamboa, Panama. (Talk)
- Brodie, E.**, and Fernandez, M. 2013. *Island biogeography of a moth-pollinated flower: Hippobroma longiflora*, Directed Research Presentation, The School for Field Studies, Bocas del Toro Field Station, Panama. (Talk)
- Brodie, E.**, and Pillitteri, L. 2013. *Mutagenesis in Arabidopsis: from mutation to screening to mapping*, Scholar's Week, Western Washington University, Bellingham, WA. (Poster)

RESEARCH GRANTS (Total: \$74,436)

CALFIRE California Climate Investments Forest Health Grant (\$53,836)	2020
Sequoia Science Learning Center Research Grant (\$5,000; \$3,800)	2018, 2019
Davis Botanical Society Scholarship (\$2,000; \$1,900)	2018, 2019
Henry A. Jastro Research Fellowship (\$2,000; \$3900)	2018,2020
California Native Plant Society, Bristlecone Chapter Research Grant (\$1,000; \$1,000)	2018, 2019

FELLOWSHIPS AND AWARDS (Total: \$174,200)

1 st Place in Student Poster Awards, Northern California Botanists Symposium (\$200)	2019
Graduate Group in Ecology Fellowship (\$21,000)	2018
National Science Foundation Graduate Research Fellowship (\$138,000)	2017
Fulbright Fellowship (\$15,000)	2015
Biology Graduate of the Year nominee, Western Washington University	2013
Dean's List, Western Washington University	2010 - 2013
President's Scholarship, Western Washington University	2009, 2010
Multicultural Achievement Scholarship, Western Washington University	2010,2011
WWU Alumni Scholarship, Western Washington University	2010, 2011

SKILLS AND PROFICIENCIES

Fieldwork: Install and read vegetation plots, wetland delineation, backcountry navigation and safety, expedition planning

Project management: Grant writing and administration, hiring field crews and contractors, managing field crews to achieve project goals

Data manipulation and visualization: R

Botanical Floras: *The Jepson Manual II* (Baldwin et al), *Yosemite Flora* (Taylor), *Flora of the Pacific Northwest* (Hitchcock and Cronquist), *The Utah Flora* (Welsh)

Version control: GitHub

GIS: R (raster, sf), ArcGIS, Google Earth Engine

Dynamic documents: RMarkdown

Databases: Microsoft access

Languages: fluent in written and spoken Spanish

SERVICE

Reviewer, UC Davis Graduate Group in Ecology Admissions Committee	2019; 2020
Mentor, Girls Outdoor and Leadership in Science (GOALS)	2019 – 2020
Curriculum and Logistics Committees, Girls Outdoor and Leadership in Science (GOALS)	2018 – 2019
Chair, UC Davis Graduate Group in Ecology Student Symposium	2019; 2020
Food Committee, UC Davis Graduate Group in Ecology Student Symposium	2018
Fisheries Technician Volunteer, Grand Canyon National Park	2016
Rare Care and Conservation Program Volunteer, University of Washington Botanic Gardens	2014 – 2016
Siberian Plant ID Group Volunteer Coordinator, Western Washington University Herbarium	2014 – 2015
Nooksack Salmon Enhancement Taskforce Volunteer	2014
900-hour Conservation Volunteer, AmeriCorps – “Students in Service”	2009-2011
English Language Instructor Volunteer, Adelante Language School, Leon, Nicaragua	2010

PROFESSIONAL DEVELOPMENT AND WORKSHOPS

<i>Map Journal Figure Design Workshop.</i> Maptime Davis.	October 2020.
<i>Ecological Society of America Virtual Meeting.</i> Ecological Society of America.	August 2020.
<i>Society for Conservation Biology Virtual Meeting.</i> Society for Conservation Biology.	July 2020.
<i>Intro to Git for version control.</i> UC Davis Data Science Lab.	November 2019.
<i>Helping Science Inform Policy.</i> Ben Young Landis – Creative Externalities.	June 2019.
<i>Git workflows.</i> UC Davis Data Science Lab.	May 2019.
<i>Zero Fest: An Introduction to Zero-inflated modeling.</i> UC Davis Forest Biology Student Association.	April 2019.
<i>Improv for Scientists.</i> UC Davis GradPathways Program.	November 2018.
<i>Data Carpentry Geospatial Workshop.</i> UC Davis Data Science Initiative.	November 2018.

PROFESSIONAL SOCIETIES

Ecological Society of America, Student Member	2018 – current
California Native Plant Society, Member, Sacramento Valley Chapter	2018 – current
UC Davis Forest Biology Student Association, Member	2018 – current
Washington Native Plant Society, Member, Koma Kulshan Chapter	2014 – 2017