Paul Excoffier

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Education

California State Polytechnic University, San Luis Obispo, California (2017-)
M.S. in Biological Sciences, (anticipated 2021) GPA: 3.96

College of the Atlantic, Bar Harbor, Maine (2010–2015)
B.A. in Human Ecology, Spring 2015 GPA: 3.57

Salesian High School, Richmond, California (2006-2010)
Graduated 3rd in class of 155. GPA: 4.0

Skills and Qualifications

Plant identification, including graminoids, composites, and mosses
Vegetation and fuel survey techniques
Proficiency in R for data management, analysis, and visualization
GIS

Research Experience

Ecology Field Crew Leader: *US Forest Service, UC Davis* (2020)

- Supervising a crew of 3 surveying post-fire biomass in shrublands in Los Padres National Forest
- Developing an imageJ macro set for rapidly classifying vegetation and groundcovers in images taken from a pole-mounted camera.

Master's Thesis—Climatic Tolerance and Seed Longevity of San Joaquin Woollythreads with Ryan O'Dell (BLM) and Dr. Nishanta Rajakaruna (Cal Poly), (2017-2020**)**

- Experimental study of the performance of a federally-endangered annual plant under drought stress conditions expected to be typical in a warmer future climate.
- Testing viability of seed collections of San Joaquin Woollythreads and close relatives to determine how long the soil seed bank can persist through adverse conditions, such as future megadroughts.
- Mentoring Rajakaruna lab undergraduates conducting their own research projects.

Ecology Field Crew Botanist: *US Forest Service, UC Davis* (2016)

- Surveying post-fire forest monitoring plots.in Eldorado and Sequoia National Forests
- Surveying red fir forest health-monitoring plots in Eldorado, Stanislaus, and Tahoe National Forests.

Ecology Field Crew Leader: *US Forest Service, UC Davis* (2015)

- Surveying forest monitoring plots pre- and post-fire in Sagehen Experimental Forest and Eldorado National Forest.
- Surveying ungrazed meadows in Lassen, Yosemite, and Sequoia National Parks to establish reference conditions for meadows on Forest Service lands.

Senior Research Project—Bryophytes of Acadia National Park Vernal Pools: *College of the Atlantic* (2014-15)

- Independent research project on patterns of bryophyte species prescence/absence and diversity within and among 6 vernal pools in ANP.

Field Assistantship in Acadia National Park: *Boston University* (2014)

- Biweekly monitoring leaf-out and flowering phenology of three shrub species transplanted into common gardens across an elevational gradient.
- Monitoring leaf-out and flowering phenology of plants *in-situ* along three elevational transects.

Field Assistantship in Eldorado National Forest: *US Forest Service, UC Davis John Muir Institute of the Environment* (2013)

- Installing Forest Service Common Stand Exams throughout the area burned by a 2004 wildfire.

Short course in Molecular Evolutionary Genetics: *College of the Atlantic, Mount Desert Island Biological Laboratory* (2012)

- Group project using DNA-barcoding to verify the labeling of supermarket seafood.
- Group project using microsatellite analysis to study the population genetics of the estuarine fish *Fundulus heteroclitus* in coastal Maine.

REU at Jornada Basin LTER*: USDA Agricultural Research Service, New Mexico State University* (2012)

- Research assistant implementing an experiment to determine the role of cross-scale interactions in shrub encroachment and grassland remediation in the Chihuahuan Desert.
- Independent project on the impact of human settlement on populations and distributions of birds at the Jornada Experimental Range Headquarters.

Short course in Ecological Developmental Biology: *College of the Atlantic, Mount Desert Island Biological Laboratory* (2011)

- Group project using qPCR to examine the effects of hypoxia on the expression of a gene associated with the development of secondary asymmetry in the embryos of the sea urchin, *Strongylocentrotus purpuratus*.

Publications

Egger, J.M. and **P. Excoffier**. 2021. *Castilleja ambigua* var. *heckardii* (Orobanchaceae): A new variety from San Luis Obispo County, California. Phytoneuron 2021-15:1-17.

Conference Presentations

Tran, K***., P. Excoffier**, N. Rajakaruna. 2019. Ecological adaptations of three California endemics to harsh environments. Paper presented at the Biological Sciences Frost Summer Research Symposium, California Polytechnic State University, San Luis Obispo, CA (August 23) ***undergraduate mentored**

Excoffier, P., R. E. O'Dell, and N. Rajakaruna. 2019. Seed longevity and climatic tolerance of San Joaquin Woollythreads (Monolopia congdonii; Asteraceae). Paper presented at the California Botanical Society's 27th Graduate Student Symposium, California Polytechnic State University, San Luis Obispo, CA 93407 (April 6)

Excoffier, P., Olday, F. C., and N. Rajakaruna. 2015. Vernal Pool Bryophytes of Acadia National Park, Maine. Poster presented at the 2015 Northeast Natural History Conference. Springfield, Massachusetts, USA. April 18-20

Other Work Experience

Graduate Teaching Associate: *BOT 121 General Botany* (F17, F18, F19, W20)*, BIO 114 Plant Diversity and Ecology* (W18, S18, W19, S19, W20) *(*2017-)

- Teaching introductory botany labs for undergraduates.

Teaching Assistant: *Calculus I & II (Fall 2012, Winter 2013) Introduction to Dynamical Systems and Chaos (Winter 2014,* online course through Santa Fe Institute*) Biology II (Spring 2014) Landforms and Vegetation (Fall 2014)*

- Assisting students with coursework
- Grading homework assignments

Museum Employee: *Dorr Museum of Natural History, (2010-2012)*

- Greeting visitors and answering their questions about Natural History
- Giving tours of the tide pool touch tank to visitors and groups of children from local elementary schools

Intern: *Bay Bioanalytical Laboratory (2009)*

- Assisting researchers doing high-performance liquid chromatography for biomedical and pharmaceutical clients
- Developing an experimental apparatus to perform hollow fiber field-flow fractionation

Awards and Honors

CNPS SLO Chapter Malcom McLeod Scholarship (2019)
US Fish and Wildlife Service Rare Plant Research Grant (2018)
David and Frieda Wertman Scholarship (2017)
Joan K. Hunt and Rachel M. Hunt Summer Scholarship in Field Botany (2014)
Maine Space Grant Consortium Fellowship (2014)