

Eli Balderas

M.Sc. candidate

California Polytechnic State University San Luis Obispo
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Contact Information:
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Research Interests:

To work on the conservation of plants and lichens by understanding the distribution and abundance of rare and threatened species. In addition to this understanding, I am interested in restoration efforts such as propagation of those species and recovery assessments.

Education:

California Polytechnic State University San Luis Obispo:

Master of Science in Biological Sciences - (expected graduation June 2022)

GPA: 3.88

University of California Santa Barbara:

Bachelor of Science in Environmental Studies - (June 2019)

Minor in Feminist Studies

GPA: 3.53

Professional Experience:

Biologist:

Althouse and Meade, Inc.

August 2020 – present

Teaching Assistant:

California Polytechnic State University

August 2020 – June 2021

Herbarium Curatorial Assistant:

Santa Barbara Botanic Garden

June 2019 - July 2020

Research Assistant:

Santa Barbara Botanic Garden

June 2018 - July 2020

Plant Collector:

Cheadle Center for Biodiversity and Ecological Restoration

April 2019 - June 2019

Field Assistant:

Cheadle Center for Biodiversity and Ecological Restoration

April 2018 - June 2018

Field Assistant:

Cheadle Center for Biodiversity and Ecological Restoration

April 2017 - June 2017

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Skills:

Plant Identification:

Used *Jepson Manual* to key plants to the species level.

Used multiple lichen identification guides to key lichens to genus and species levels.

R:

Morphometric analyses

Spatial data analyses

Field Work:

Performed avian fatality surveys.

Performed surveys for San Joaquin Kit Fox using telemetry equipment.

Performed rare plant and lichen population count surveys.

Performed wetland restoration work including invasive plant removal and transplantation of native plants.

Collected and preserved 53 CA native plants and lichen.

Collected insects for pollinator study.

Herbarium Curation:

Familiar with data entry into Symbiota.

Prepared and mounted herbarium specimens.

Imaged specimens through a National Science Foundation funded grant.

Assisted in organization and integration of National Parks Service specimens into the herbarium.

Filed specimens into the herbarium.

Teaching (undergraduate):

Graduate Teaching Assistant for the following courses:

Introduction to Biology Lab, Cal Poly SLO (Winter & Spring 2021)

Introduction to Botany Lab, Cal Poly SLO (Fall 2020)

Presentations:

Balderas, E., J. Dart, R. R. Naesborg, and N. Rajakaruna. 2021. An ecological assessment of a rare and endangered lichen from central California: *Sulcaria isidiifera*, the splitting yarn lichen. Paper presented via Zoom at the California Botanical Society's 28th Graduate Student Symposium, California Polytechnic State University, San Luis Obispo, CA 93407, May 1, 2021.

Balderas, E., C. M. Guilliams, K. E. Hasenstab-Lehman, M. E. Mabry, and M. G. Simpson. 2019. Amsinckiinae Working Group: Nutlet diversity of Amsinckiinae in western North America. Poster presented at the 45th Annual Southern California Botanist Symposium, Pomona College, Claremont, CA, October 5, 2019.

Balderas, E., K. Hasenstab-Lehman, C.M. Guilliams. 2019. Evaluating the circumscription of varieties of the seaside fiddleneck *Amsinckia spectabilis* (Boraginaceae) using morphometric analysis of fruit characters. Poster presented at the Botany 2019 conference, Tucson, AZ, July 27-31, 2019.

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Workshops & Training:

Lichen Red Listing Workshop: Jan. 18-21, 2021
Red Listing training for lichenologists in North, Central, and South America with discussions to complete lichen Red List assessments.

Online Tools for Vegetation Data Workshop: November 10, 2020
Introduction to online tools for California's vegetation classification and fine-scale mapping.

Introduction to Lichen Identification and Ecology: Feb. 8-9, 2020
Introductory course in lichen identification covering basics of lichen anatomy, terminology, and ecology.

NOLS Wilderness First Aid: March 7-8, 2020
Introduction to wilderness medicine course with hands on training in patient assessment and first aid treatment in outdoor settings. Obtained Wilderness Medicine certification.

Professional Affiliations:

American Bryological and Lichenological Society
Botanical Society of America
The California Lichen Society

Honors & Awards:

Awards:

Poster Session Co-Winner, 2019
45th Annual Southern California Botanists Symposium

Scholarships and Grants:

California Lichen Society Education Grant (\$690.00) 2021
Northern California Botanists Research Scholarship (\$1000.00) 2021
David and Frieda Wertman Scholarship (\$2500.00) 2020-2021
IUCN Species Survival Commission Internal Grant (\$2350.00) 2020

Media:

Robyn Kontra Tanner. "Ecology's Next Frontier: Student Researchers Hone in on Rare and Understudied Lichens." *Cal Poly News*, 4 August 2021.

<https://www.calpoly.edu/news/ecologys-next-frontier-student-researchers-hone-rare-and-understudied-lichens>.