
EDUCATION

Ph.D., Graduate Degree Program in Ecology and Evolutionary Biology

Sept. 2014-Present

University of California, Santa Cruz, CA

Adviser: Kathleen M. Kay

Dissertation topic: Defense mechanisms in the mustard family (Brassicaceae)

Bachelor of Sciences in Biology

June 2014

Santa Clara University, Santa Clara, CA

PUBLICATIONS

Dick, Cynthia A., [Julie A. Herman](#), Ryan E. O'Dell, Adriana Lopez-Villalobos, Chris Eckert, and Justen B. Whittall. Cryptic genetic subdivision in the San Benito evening primrose (*Camissonia benitensis*). **Conservation Genetics**. 2014.

[Herman, Julie A.](#) "Earth jurisprudence: Ecuador's constitutional protections for nature." **Conservation Science: Balancing the Needs of People and Nature**. Ed. Peter Kareiva, Ed. Michelle Marvier. 2014.

PRESENTATIONS

*Presenting author

Miscellaneous

[Julie A Herman](#)* A phylogenetic approach to plant chemical defense.

Talk. Plant Symposium, UC Santa Cruz, CA. February 2015.

Talk. Species Interactions Workshop, UC Santa Cruz, CA. December 2014.

[Julie A. Herman](#)* Debating science topics. Invited lecture. Point of Information Winter Workshop, San Jose, CA. January 2015.

[Julie A. Herman](#)* Elucidating novel roles of Kinesin-14 family members in *Arabidopsis thaliana* development.

Poster. American Society of Plant Biologists, Western Section. Santa Clara University, CA. May 2014.

California Native Plant Society

[Julie A. Herman](#),* Miranda K. Melen, Justen B. Whittall. Obligate outcrossing supersedes island-like habitat in determining the distribution of genetic diversity in a sandhill endemic, (*Erysimum teretifolium*, (Brassicaceae)). Talk. January 2014.

Ecology Meetings

[Julie A. Herman](#),* Miranda K. Melen, Justen B. Whittall. Unexpected levels of gene flow in a wallflower occupying an island-like habitat (*Erysimum teretifolium*, Brassicaceae). Poster. 2014.

Miranda K. Melen,* [Julie A. Herman](#), Ingrid M. Parker, Rachel O'Malley, Justen B. Whittall. A promiscuous wallflower: The rare sandhill endemic plant, *Erysimum teretifolium* (Brassicaceae), is self-incompatible and relies on a diversity of pollinators. Talk. 2014.

Evolution Meetings

[Julie A. Herman](#),* Khaaliq DeJan, Justen B. Whittall. Assessing genetic diversity in the sandhill endemic *Erysimum teretifolium* using microsatellites and Next-Generation Sequencing. 2013.

Khaaliq DeJan,* Cynthia A. Dick, Mohamed Abdelaziz,, Julie A. Herman, Justen B. Whittall. Geography and Habitat Divergence during the Wallflower Adaptive Radiation (*Erysimum*,*Brassicaceae*). 2013.

Miranda K. Melan,* Khaaliq DeJan, Julie A. Herman, Gavin Powell, Rachel O'Malley, Justen B. Whittall. The effects of genetic divergence and geographic distance in determining mating success in the rare sandhill endemic, *Erysimum teretifolium* (*Brassicaceae*). 2013.

West Coast Biological Sciences Undergraduate Research Conference

Julie A. Herman,* Lord of the Butterflies: The signature of an evolutionary arms race among herbivory defense genes. Talk given at Ecology session 2014.

Julie A Herman,* A Tale of Two Techniques: Assessing genetic diversity in the rare hexaploid *Erysimum teretifolium* using microsatellites and Next-Generation Sequencing. Talk given at Ecology session 2013.

Cynthia A. Dick, Julie A. Herman,* Stephanie B. Saffouri, Ryan E. O'Dell, Justen B. Whittall. Genetic diversity and population differentiation in the rare serpentine endemic, San Benito evening primrose (*Camissonia benitensis*; *Onagraceae*). Poster session 2012.

GRANTS AND FELLOWSHIPS

Rosemary Grant Award, Society for the Study of Evolution	2016
Graduate Student Research Award, Botanical Society of America	2015
Graduate Student Research Award, Ecology and Evolution Department, UCSC	2015
Chancellor's Fellowship, University of California, Santa Cruz	2014
Graduate Student Research Fellowship, National Science Foundation	2014
Undergraduate Travel Grant, Santa Clara University	2014
Undergraduate Travel Grant, Santa Clara University	2013
ALZA Corporation Scholarship for Undergraduate Research, Santa Clara University	2012
Undergraduate Travel Grant, Santa Clara University	2012

HONORS AND AWARDS

Best Talk, Ecology, West Coast Biological Sciences Undergraduate Research Conference	2014
Ryland Public Speaking Prize, Santa Clara University	2014
Senior Presidential Scholarship, Santa Clara University	2014
Ryland Public Speaking Prize, Santa Clara University	2013
Four-Year Undergraduate Scholarship, Pedrozzi Foundation, Livermore, CA	2010
National Merit Scholarship, Santa Clara University	2010
Provost's Scholarship, Santa Clara University	2010

LAB EXPERIENCE

Graduate Student Researcher
Kay Lab, independent work, University of California, Santa Cruz *Sept 2014-Present*

Undergraduate Research Assistant
Whittall Plant Evolution Lab, Santa Clara University *Jun. 2011-Sept. 2014*
Thesis: Assessing genetic diversity in the sandhill endemic Erysimum teretifolium.

- Combine greenhouse experiments and molecular work to explore questions of speciation, local adaptation, and fitness at the genetic and phenotypic level
- Perform genetic diversity analyses on endangered endemics to create conservation plans
- Employ cutting-edge bioinformatics techniques to assemble and analyze Next-Generation sequence data
- Create C++ and R scripts to process data
- Seek and apply for appropriate grants

- Investigate plant growth and morphogenesis via amiRNA knockouts and fluorescent imaging techniques

TEACHING EXPERIENCE

Teaching Assistant

BIOL 22, Biology Department, Santa Clara University

Jan. 2013-Mar. 2014

Private Tutor

Organic Chemistry & Physics, Drahmman Center, Santa Clara University
K-12 Tutoring, Above Grade Level—Saratoga, CA

Sept. 2012-Jun. 2014
Feb. 2012-Dec. 2013

Debate Coaching

Mountain View/Los Altos Speech and Debate, Head Coach—Mountain View, CA
Prospect High School Speech and Debate, Head Coach—Saratoga, CA

Aug. 2015-Present
Sept. 2012-Jun 2014

OUTREACH

Group Affiliations

Graduate Committee on Diversity Enhancement, EEB, UC Santa Cruz
Student Internship Program (SIP), UC Santa Cruz
Master Plant Science Team, PlantingScience
Women in Science and Engineering (WiSE)
Science and Engineering Mentoring Outreach (SEMO), Santa Clara University
BetterGrads, Livermore, CA

Oct 2015-Present
April 2015-Present
Sept. 2014-Present
Sept. 2014-Present
Sept. 2013-Jun. 2014
Sept. 2011-Jun. 2012

Students Supervised

Undergraduate Thesis Projects: Connor Kunihiro, Zoe Scholar
SIP High School Interns: Sayi Boddu, Lauren Jue

Student Project Support and Science Fair Judging

St. Sebastian School, Akron, OH · Oakridge Middle School, Naples, FL · Sebastian Charter Junior High, Sebastian, FL · Pacific Collegiate School, Santa Cruz, CA · Ann Soldo Elementary, Watsonville, CA · Santa Clara Unified School District, Santa Clara, CA

Science Exposure and Skills Development

Point of Information Winter Workshop · Presentation High School College Tours · Tri-Beta Student Research Panel · Willow Glen High School Science Career Panel · Santa Clara Community Action Program Science Night · Santa Clara University Pizza and Professors · California Native Plant Society Community Seed Collection

PROFESSIONAL SOCIETIES

American Society of Plant Taxonomists

2015-Present

Botanical Society of America

2014-Present

California Native Plant Society

2015-Present

Phi Beta Kappa

2014-Present

Society for the Study of Evolution

2015-Present

Sigma Xi Research Society, Associate Member

2013-Present

Beta Beta Beta Biological Honors Society

2012-Present