

SERGIO REDONDO

Department of Biology
371 Serra Mall, Herrin T222 | Stanford, CA 94305
(928) 502-1949 | sredondo@stanford.edu

EDUCATION:

Stanford University, 2015 - Stanford, CA
Ph.D. in Biology: Ecology and Evolutionary Biology
Advisor: Elizabeth A. Hadly

University of Michigan, 2013 - 2015 Ann Arbor, MI
M. Sc. in Ecology and Evolutionary Biology
Advisor: Liliana Cortés Ortiz

University of Arizona, 2009 - 2013 Tucson, AZ
B. Sc. in Biology
Advisor: Melanie Culver

PUBLICATION:

Ochoa A, Wells SA, West G, Al-Smadi M, **Redondo S**, Sexton SR and Culver M. 2016. Can captive populations function as sources of genetic variation for reintroductions into the wild? A case study of the Arabian oryx (*Oryx leucoryx*) from the Phoenix Zoo and the Shaumari Wildlife Reserve, Jordan. *Conservation Genetics*. DOI:10.1007/s10592-016-0850-5

MANUSCRIPT IN PREP:

Redondo S, Marchán-Rivadeneira MR, Cornejo F, Pacheco V and Cortés-Ortiz L. A new understanding of the diversity and evolutionary history of Peruvian red howler monkeys. [In preparation].

RESEARCH EXPERIENCE:

Mercury (Hg) Analyses: 2015 - Stanford, CA

- Assessing the movement and impact of Hg pollution in terrestrial ecosystems
- Fieldwork in Bay Area, California
- Quantifying Hg in animal, lichen, plant, and environmental samples

Genomics: 2017 - Stanford, CA

- Determine parentage, population diversity statistics, and evaluate the effect of management actions (e.g. dehornings, translocations) on reproductive success and breeding patterns
- Whole genome sequencing of black rhinos

Phylogenetics: 2013 - 2015 Ann Arbor, MI

- Phylogenetic analyses of Peruvian red howler monkeys using mtDNA markers
- Fieldwork in Peru (sites: Puerto Maldonado, Carpish, Tumbes & Huancabamba)

Behavioral Ecology: Summer 2013 Pellston, MI

- Analyzed natural dispersion patterns of *Macromia illinoiensis* (dragonfly larvae) in Douglas Lake, MI
- Conducted experimental blocking of larvae protuberance to measure effect on dispersion patterns in controlled setting
- Sponsored by Ola Fincke, PhD from the University of Oklahoma, Department of Biology
Conservation Genetics: 2012 - 2013 Tucson, AZ
- Measured the utility of SNP marker set from *Puma concolor* in related felids using low quantity/quality DNA from scat
- Population genetic study of Arabian oryx using microsatellites

PRESENTATIONS:

- Plant & Animal Genome Conference XXVI: 2018* San Diego, CA
- Low-Coverage Genome Sequencing of Black Rhinoceros to Inform Conservation Management
- Invited: Stanford Academy for Excellence in Biology Teaching: 2017* Stanford, CA
- Characterizing the movement and impact of mercury in terrestrial ecosystems of California
- University of Michigan Thesis Defense: 2015* Ann Arbor, MI
- A new understanding of the diversity and evolutionary history of Peruvian red howler monkeys
- Midwest Primate Interest Group Meeting: 2014* Madison, WI
- Assessing the genetic identity and distribution of red howler monkeys in Peru
- University of Michigan Biological Station Seminar: 2013* Pellston, MI
- *Macromia illinoiensis*: protuberance blocking does not affect dispersion pattern
- Ronald E. McNair California Scholars' Symposium: 2012* Berkeley, CA
- Utility of SNP Markers Across Species and Tissue Types for Wildlife Conservation

TEACHING:

- I, Biologist: Diversity Improves the Science of Biology* Stanford University
- Co-Instructor Spring 2017
- Plant Biology, Ecology, & Evolution Core Lab* Stanford University
- Teaching Assistant Spring 2016
- Biology for Nonscientists* University of Michigan
- Graduate Student Instructor Fall 2014
- Introductory Biology Lab/Lecture: Ecology, Genetics and Evolution* University of Michigan
- Graduate Student Instructor Fall 2013 & Winter 2014
- Higher Education: Success in Transition* University of Arizona
- Student Instructor Summers 2010, 2011

MENTORSHIP:

- VPUE Biology Research Program Mentor 2017-* Stanford University
- Undergraduate Student: Stephanie Sila
 - Project: "The impacts of environmental Hg contamination on ticks and disease dynamics at JRBP"

Hg Fieldwork and Laboratory Training Summer 2017 Stanford University

- Post-bac Student: Andy Kobak
- High School Students: Ben Grassman, Isabel Hadly, and Naomi Lubkin
- Project: “Characterizing the movement and impact of mercury in terrestrial ecosystems of California”

Genomics Laboratory Training Spring 2017 Stanford University

- Undergraduate Students: Lucy Arnold, Duncan Coleman, and Emma Fowler
- Project: “Low-Coverage Genome Sequencing of Black Rhinoceros to Inform Conservation Management”

VPUE Biology Research Program Mentor 2016 - Stanford University

- Undergraduate Student: Xóchitl Longstaff
- Project: “Characterization of DNA Methylation in Neotropical Bats”

AWARDS, HONORS & MEMBERSHIPS:

Jasper Ridge Biological Preserve Mellon Grant: \$6,000

Sigma Xi Scientific Research Society, Associate Member 2016 -

Ford Foundation Pre-doctoral Fellowship Recipient 2016

Sigma Xi Grant-in-Aid of Research Award 2016: \$1,000

Society for the Study of Evolution Member: 2015 -

University of Michigan Rackham International Research Award 2014: \$9,000

University of Michigan Rackham Research Grant 2014: \$1,500

University of Michigan EEB Block Grant Recipient 2014: \$1,000

Society for Conservation Biology Member: 2014 -

Taylor Farms Scholarship: 2013 – 2017 \$25,000

Society for the Advancement of Chicanos and Native Americans in Science Member: 2012 -

New Start Outstanding Peer Advisor of the Summer: 2011

University of Arizona Honors Program: 2009 - 2013

University of Arizona Hispanic Alumni Scholarship: 2009 - 2013

EMPLOYMENT & VOLUNTEER EXPERIENCE:

Biomedical Association for the Interest of Minority Students: Outreach 2016 - Stanford, CA

- Develop and lead outreach, diversity, inclusion, and social justice programming for bioscience graduate students
- Bring local URM high school and community college students to Stanford and provide them with relevant resources, lab tours, mentorship, and support to pursue higher education

Future Advancers of Science and Technology Mentor 2016 - 2017 San Jose, CA

- Mentoring 5 high school students on science fair projects (e.g. project development, writing, experimental set-up, analyses, poster presentations)

Biology Mentorship Program Committee Member 2016 - 2017 Stanford, CA

- Support/mentor incoming graduate students into the degree program and department

ADVANCE 2: Outreach Staff 2015 - Stanford, CA

- Develop outreach events for Bioscience students focused on diversity and inclusion

FLI Community Mentoring Program 2015 - Stanford, CA

- Mentor first-generation & low-income undergraduate students on campus

Science Penpal Program Volunteer 2015 - 2016

Stanford, CA

- Corresponding with middle school students to expose them to science education/careers

Big Sib, Lil Sib Program Mentor 2014 - 2015

Ann Arbor, MI

- Support first-generation, low-income, minority graduate students in their transition into the degree program and department

New Start & MERITS Programs

Tucson, AZ

- Peer Advisor and Student Instructor: Summers 2010, 2011 & Aug 2010-May 2011

- Develop effective teaching objectives & foster a positive learning environment

- Connect students with appropriate resources to succeed in higher education

Chicano/Hispano Student Affairs at University of Arizona

Tucson, AZ

- Programming Board Student Coordinator Jan 2010 – May 2011

- Educational and social justice programming

- Integrate students into community and campus

- Lead board meetings & train/guide new board members