




ERICA SARRO

CONSERVATION BIOLOGIST, PhD

CONTACT

 (914) 329 0551
 esarr002@ucr.edu
 erica-sarro.github.io

EDUCATION

PhD in Entomology

UNIVERSITY OF CALIFORNIA
RIVERSIDE | RIVERSIDE, CA
Sept 2017 - June 2022

Bachelor of Arts in Biology & Minor in Environmental Issues

COLORADO COLLEGE | COLORADO
SPRINGS, CO
May 2014

GRANTS & AWARDS

Research Traineeship in
Computational Entomology
NATIONAL SCIENCE FOUNDATION
(\$155,000)
2018 - 2022

Graduate Research Fellowship
COLORADO MOUNTAIN CLUB
FOUNDATION (\$1,000)
2021

Graduate Research Fellowship
ROCKY MOUNTAIN BIOLOGICAL
LABORATORY (\$1,170)
2021

Graduate Dean's Dissertation
Research Grant
UNIVERSITY OF CALIFORNIA
RIVERSIDE (\$1,000)
2021

EXPERIENCE

GRADUATE STUDENT RESEARCHER

UNIVERSITY OF CALIFORNIA RIVERSIDE | SEPT 2017 – JUNE 2022 (40 hrs/wk)

- Conducted original research on bumble bee biology and conservation
- Designed and led field research in Southern California, Yosemite National Park, and the Rocky Mountain Biological Laboratory
- Supervised and mentored undergraduates, research technicians, and research teams; Collaborated with colleagues
- Implemented reproducible data methods in R-based data analyses, such as GLMMs, K-means and NMDS analyses, ggplot2 graphing, and time-series data processing
- Led the writing of several successful grant proposals and publications
- Regularly presented findings at national and regional conferences

FOUNDER, COORDINATOR, & TEACHER

JUNIOR ENTOMOLOGISTS SUMMER CAMP | RIVERSIDE, CA | JAN 8, 2018 – JUNE 10, 2022 (up to 40 hrs/wk, seasonal)

- Founded and managed annual summer camp for children ages 10-12
- Developed and led curriculum-based activities on insect ecology, behavior, and evolution

DIRECTORATE FELLOW

US FISH AND WILDLIFE SERVICE | YREKA, CA | JUNE 21, 2021 – SEPT 3, 2021 (40 hrs/wk)

- Collaborated with conservation partners (e.g., Xerces Society, BLM, USGS, and USFS) to share data and protocols
- Utilized GIS software to identify target field sites and to visualize rare bumble bee distributions and landscape cover
- Planned and conducted remote fieldwork to characterize bumble bee and plant communities at selected field sites
- Prepared and presented government reports summarizing findings

TEACHING ASSISTANT

UNIVERSITY OF CALIFORNIA RIVERSIDE | JAN 4, 2021 – MAR 19, 2021; SEPT 27, 2021 – DEC 17, 2021 (20hrs/wk)

- Designed and led weekly discussion sections for undergraduate Ecology and Insect Behavior courses; Developed and delivered guest lectures

TRIP CO-LEADER

SCIENCE IN THE FIELD: TRACKING WILD BUMBLE BEES IN SEQUOIA NATIONAL PARK, ATLAS OBSCURA | MINERAL KING, CA | JUNE 13-16, 2019 (30 hrs total)

- Collaborated with community members to collect bumble bees for California bumble bee monitoring research
- Trained trip members on best practices and field collection methods

Graduate Student of the Year
UNIVERSITY OF CALIFORNIA
RIVERSIDE DEPARTMENT OF
ENTOMOLOGY
2019

Mildred E Mathias Graduate
Research Grant
UNIVERSITY OF CALIFORNIA NATURAL
RESERVE SYSTEM (\$1,000)
2019

Graduate Research Fellowship
Program Honorable Mention
NATIONAL SCIENCE FOUNDATION
2018

Chancellor's Distinguished
Fellowship
UNIVERSITY OF CALIFORNIA
RIVERSIDE (\$6,000)
2017

James Enderson Award in
Conservation Biology
COLORADO COLLEGE
2014

Presidential Scholarship
COLORADO COLLEGE
2010 – 2014

SKILLS

Project Management	● ● ● ●
Data Science	● ● ● ○
Grant Writing	● ● ● ○
Scientific Communication	● ● ● ●
R Programming	● ● ● ○
Experimental Design	● ● ● ●

OUTREACH COORDINATOR

UNIVERSITY OF CALIFORNIA RIVERSIDE | SEPT 18, 2017 – SEPT 21, 2018 (3 hrs/wk)

- Developed and presented guest lectures with live insects at schools and public events in Riverside County

RESEARCH INTERN

THE GUPPY PROJECT | TRINIDAD & TOBAGO & UNIVERSITY OF CALIFORNIA RIVERSIDE | APR 11, 2016 – JULY 8, 2016 (40 hrs/wk)

- Collaborated with researchers to conduct mark-recapture study on killifish in montane streams of Trinidad; Conducted fieldwork at night in remote areas

ZOO INTERPRETATION INTERN

BUTTERFLY PAVILION INVERTEBRATE ZOO | WESTMINSTER, CO | SEPT 14, 2015 – APR 8, 2016 (16 hrs/wk)

- Facilitated play-based learning to inspire curiosity in visitors of all ages

ENTOMOLOGY COLLECTIONS VOLUNTEER

COLORADO MUSEUM OF NATURAL HISTORY | BOULDER, CO | SEPT 14, 2015 – APR 8, 2016 (10 hrs/wk)

- Identified and sorted native bee collections

PARAPROFESSIONAL

COLORADO COLLEGE DEPARTMENT OF ORGANISMAL BIOLOGY & ECOLOGY | COLORADO SPRINGS, CO | AUG 18, 2014 – JUNE 26, 2015 (40 hrs/wk)

- Identified flora, fauna, and animal sign while overseeing undergraduate field research in several Colorado Front Range ecosystems
- Developed and presented guest lectures for undergraduate Biostatistics and Experimental Design, Animal Biology, and Ecology courses

PEER-REVIEWED PUBLICATIONS

Sarro E, W Grover, SH Woodard (In Prep) Leveraging Radio Frequency Identification (RFID) technology to track bumble bee queen foraging behavior.

Sarro E, K Fisher, SH Woodard (Submitted) Behavioral ontogeny of maternal care in an annually eusocial insect.

Sarro E, A Tripodi, SH Woodard (2022) Bumble bee (*B. vosnesenskii*) queen nest searching occurs independent of ovary developmental status. Integrative Organismal Biology obac007. <https://doi.org/10.1093/iob/obac007>.

¹Fisher K, ¹**Sarro E**, *C Miranda, *B Guillen, SH Woodard (2022) Worker task organization in incipient bumble bee nests. Animal Behaviour 185:143-161. <https://doi.org/10.1016/j.anbehav.2021.12.005>.

Sarro E, P Sun, K Mauck, *D Rodriguez-Arellano, N Yamanaka, SH Woodard (2021) An organizing feature of bumble bee life history: worker emergence promotes queen reproduction and survival in young nests. Conservation Physiology 9(1):coab047. <https://doi.org/10.1093/conphys/coab047>.

¹Shared first authorship; *Undergraduate mentee