

# ERICA SARRO

PHD CANDIDATE & NSF COMPUTATIONAL ENTOMOLOGY FELLOW  
University of California Riverside | Department of Entomology | Woodard Lab  
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## EDUCATION

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University of California Riverside | Sept 2017 – June 2022 (expected)

PhD Candidate & NSF Computational Entomology Fellow  
Department of Entomology; Woodard Lab

Colorado College | May 2014

Bachelor of Arts in Biology – Organisms, Ecology & Evolution; Minor in Environmental Issues  
*cum laude*, Distinction in Biology

## PUBLICATIONS

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<sup>1</sup>shared first authorship; \*undergraduate mentee

Sarro E, A Tripodi, SH Woodard (2021) Bumble bee (*B. vosnesenskii*) queen nest searching occurs independent of ovary developmental status. Submitted.

<sup>1</sup>Fisher K, <sup>1</sup>Sarro E, \*C Miranda, \*B Guillen, SH Woodard (2021) Worker task organization in incipient bumble bee nests. Animal Behaviour. In press.

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>.

## PRESENTATIONS

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\*undergraduate mentee

### INVITED TALKS

- 2019 Sarro E, SH Woodard. Social regulation of queen reproductive physiology. BOMBUSS 2.0: Building Our Methods by Using Sound Science, Next Steps in North American Bumble Bee Monitoring and Conservation. Toronto, ON.
- 2014 Sarro E. The power of active citizenship. Keynote Speech. Pikes Peak Justice & Peace Commission's Annual Meeting. Colorado Springs, CO.

### CONTRIBUTED TALKS

- 2021 Sarro E, W Grover, SH Woodard. Leveraging radio frequency identification (RFID) technology to track foraging behavior of early spring bumble bee queens. Colorado Pollinator Summit.

- 2021 **Sarro E**, A Tripodi, SH Woodard. Ovary development and mite presence in relation to nest establishment in bumble bee (*B. vosnesenskii*) queens. Ecological Society of America, Virtual Meeting.
- 2020 **Sarro E**, SH Woodard. Ovary development is independent of nest establishment in bumble bee queens. University of California Riverside Entomology Seminar, Riverside, CA.
- 2019 \*Miranda C, **E Sarro**, K Fisher, SH Woodard. Crowdsourcing video data analysis of *Bombus impatiens* behavior in microcolonies. Pacific Branch of the Entomological Society of America, San Diego, CA.
- 2018 **Sarro E**, SH Woodard. Does the social environment confer resilience? Effects of bumble bee workers on queen nest initiation. University of California Riverside Entomology Graduate Student Seminar Day, Riverside, CA.
- 2014 **Sarro E**. The effect of housing density and proximity to water on bee community assemblages. Colorado College Annual Biology Day, Colorado Springs, CO.

## POSTERS

- 2021 \*Guillén B, **E Sarro**, SH Woodard. Survey of pathogens in relation to ovary development for bumble bee queens in Maine and Southern California. Ecological Society of America. Denver, CO.
- 2021 **Sarro E**, W Grover, SH Woodard. Leveraging radio frequency identification (RFID) technology to track foraging behavior of early spring bumble bee queens. Entomology Graduate Student Seminar Day, Riverside, CA.
- 2019 **Sarro E**, P Sun, K Mauck, N Yamanaka, SH Woodard. Social regulation of queen reproductive physiology. Entomology Graduate Student Seminar Day, Riverside, CA. **First place in poster contest.**
- 2019 \*Zhou G, **E Sarro**, K Fisher, \*A Vanecek, K Watrous, SH Woodard. Accelerated egg laying behavior in *Bombus impatiens* queens. Pacific Branch of the Entomological Society of America, San Diego, CA. **First place in poster contest.**
- 2018 **Sarro E**, SH Woodard. Does the social environment confer resilience? Effects of bumble bee workers on queen nest initiation. Ecological Society of America, Vancouver, BC.
- 2013 **Sarro E**, J Braun, J Cavender-Bares, S Hobbie, W Pearse. Test of homogenization of leaf traits across US cities. Ecological Homogenization of Urban America Meeting, Minneapolis, MN.

## AWARDS

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### FELLOWSHIPS

- 2021 **US Fish and Wildlife Service**, Directorate Fellows Program, Western Bumble Bee Monitoring for Species Status Assessment Development (11-week, full-time position)
- 2021 **Colorado Mountain Club Foundation**, Graduate Research Fellowship (\$1,000)
- 2021 **Rocky Mountain Biological Laboratory**, Graduate Research Fellowship (\$1,170)
- 2018-2021 **National Science Foundation**, Research Traineeship in Computational Entomology (\$155,000)
- 2018 **National Science Foundation**, Graduate Research Fellowship Program, Honorable Mention
- 2017 **University of California Riverside**, Chancellor's Distinguished Fellowship (\$6,000)

### GRANTS AND AWARDS

2021	<b>University of California Riverside</b> , Graduate Dean's Dissertation Research Grant (\$1,000)
2019	<b>University of California Riverside Department of Entomology</b> , Outstanding Graduate Student
2019	<b>University of California Natural Reserve System</b> , Mildred E. Mathias Graduate Student Research Grant (\$1,000)
2014	<b>Colorado College</b> , James Enderson Award in Conservation Biology
2010-2014	<b>Colorado College</b> , Presidential Scholarship (\$20,000)

## TEACHING

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### PEDAGOGICAL TRAINING

2021	<b>Mind Mapping as Teaching</b> Workshop, University of California Riverside
2021	<b>College Level: Teaching Biology</b> Course BIOL301, University of California Riverside
2020	<b>Teaching Development Day</b> Workshop, Teaching Assistant Development Program, University of California Riverside

### INSTRUCTION

2021	<b>Teaching Assistant</b> , Insect Behavior ENTM162, University of California Riverside
2021	<b>Teaching Assistant</b> , Evolution & Ecology BIOL005C, University of California Riverside
2019	<b>Guest Lecturer</b> , Adventure Risk Challenge Yosemite, Yosemite National Park, CA
2018-2019	<b>Curriculum Developer &amp; Teacher</b> , Junior Entomologists Summer Camp, Entomology Graduate Student Association, University of California Riverside
2016-2017	<b>Teacher</b> , PoshSplat Paint Studio, Boulder, CO
2015	<b>Teaching Assistant</b> , Biostatistics & Experimental Design BE220, Colorado College
2014-2015	<b>Teaching Assistant</b> , Biology of Animals BE106 (x3 iterations), Colorado College
2014-2015	<b>Teaching Assistant</b> , Ecology BE208 (x2 iterations), Colorado College
2011-2012	<b>Teacher</b> , Young Farmers Summer Camp, Muscoot Farm, Katonah, NY

## OUTREACH & SERVICE

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2021-Present	<b>Marketing Chair</b> , SciComm@UCR, University of California Riverside, <i>20 hours</i>
2020-Present	<b>Member</b> , SciComm@UCR, University of California Riverside, <i>10 hours</i>
2018-Present	<b>Founder &amp; Coordinator</b> , Junior Entomologists Summer Camp, Entomology Department, University of California Riverside, <i>100 hours</i>
2018-Present	<b>Member</b> , Outreach and Events Planning Committee, Entomology Graduate Student Association, University of California Riverside, <i>50 hours</i>
2021	<b>Manuscript Co-Reviewer</b> , Journal of Ecological Entomology
2020-2021	<b>Mentor</b> , Undergraduate Mentorship Program in Popular Science Writing, SciComm@UCR, University of California Riverside, <i>15 hours</i>

- 2019-2020      **Graduate Student Representative**, Outreach Committee, Entomology Department, University of California Riverside, *10 hours*
- 2019            **Manuscript Co-Reviewer**, Journal of Basic and Applied Ecology
- 2019            **Trip Co-Leader**, Science in the Field: Tracking Wild Bumble Bees in Sequoia, Atlas Obscura, Mineral King, CA, *50 hours*
- 2017-2018      **Outreach Coordinator**, Entomology Department, University of California Riverside, *75 hours*
- 2016            **Research Intern**, The Guppy Project, University of California Riverside, Arima Valley, Trinidad & Tobago, *12 weeks full-time*
- 2015-2016      **Zoo Interpretation Intern**, Butterfly Pavilion Invertebrate Zoo, Westminster, CO, *400 hours*
- 2015-2016      **Entomology Collections Volunteer**, University of Colorado Museum of Natural History, Boulder, CO, *150 hours*

## PROFESSIONAL DEVELOPMENT

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- 2021      **Young Voices of Science** 7-week Invited Workshop Series, Hubbard Brook Research Foundation
- 2020      **Defending Science: Managing Rhetoric in SciComm** Workshop, Dr. Annika Speer, University of California Riverside
- 2019      **Reproducible and Collaborative Data Science** Course ENTM161, University of California Riverside
- 2019      **Software Carpentry: GitHub & Python** Workshop, University of California Riverside
- 2019      **Communicating Science with a General Audience** Workshop, University of California Riverside
- 2018      **Introduction to ArcGIS** Workshop, University of California Riverside
- 2018      **Computational Entomology** Boot Camp 5-day Workshop, University of California Riverside
- 2017      **Approaches to Effective Outreach in Entomology** 2-day Workshop, The Bug Chicks