

Jessica Maccaro

2nd Year PhD Student

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@JessicaMaccaro

@Insects4inclus



RESEARCH/WORK EXPERIENCE

Undergraduate

- Wilson Lab – Tree Crop IPM
Staff Research Associate | June 2018 – July 1 2020
- Daane Lab- Vineyard IPM
Lab Assistant | March 2017 – May 2018
- Smithsonian Tropical Research Institute–Mangrove Ecology in Panama
Field Assistant | August 1-25, 2017
- Tsutsui Lab- Chemical Ecology, Behavior, and Evolution
Research Assistant | Jan 2017 – May 2018
- Brasheres Lab- Conservation Ecology
Research Assistant | Jan 2017 – May 2017
- Blackman Lab- Botanical Research
Research Assistant | Feb 2016 – Jan 17 2016
- International Rivers- NGO
Media Intern | Jan 2016 – May 2016
- Open Viral Load Lab - HIV research
Biochemistry Research Coordinator | May – August 2017

Graduate

- McFrederick Lab
Graduate Research Assistant | Sept 2020 – Sept 2021
- ENTM 60W -Science Communication
Teaching Assistant | Sept 2021 – Present

EDUCATION

University of California, Riverside

Entomology, PhD | McFrederick Lab
Expected Grad. 2025

University of California, Berkeley

Molecular Environmental Biology ,
B.S. | Entomology concentration
2014-2018 *magna cum laude*

AWARDS & HONORS

- 2020
- Entomological Society of America 1st Place Student Speaker Award
 - NSF Graduate Researcher Fellowship (GRFP) Honorable Mention

MENTORSHIP

2018-2020

- As a lab manager I mentored and trained 10 students in insect ID and fieldwork

2020 - 2021

- As a graduate student I mentored 6 students in phylogenetics, science communication, insect behavior, molecular biology, and microbiology

INTELLECTUAL MERIT

Peer Reviewed Publications

First/Co-First Author

- Maccaro & Whyte et al. "The Ant Who Cried Wolf? Short-Term Repeated Exposure to Alarm Pheromone Reduces Behavioral Response in Argentine Ants", *Insects* 2020
- Figueroa & Maccaro et al. "Why did the bee eat the chicken?: symbiont gain, loss, and retention in the vulture bee microbiome", *mBio* 2021, Accepted pending minor revisions.
- Maccaro. "Be Mindful of Your Metaphors about Microbes", *Commentary*, *mSphere* 2021
- Maccaro & Moreira Salgado et al. "Comparative Genomics Reveals that Metabolism Underlies Evolution of Entomopathogenicity in Bee-loving *Ascospaera* spp. Fungi", *Genome Biology and Evolution* 2021, In Revision

Co-Author

- Stahl et al. "Irrigated trap crops impact key hemipteran pests in organic pistachio orchard", *Arthropod Plant Interactions* 2021
 - Wilson et al. "Optimizing trap characteristics to monitor the leaf-footed bug *Leptoglossus zonatus* (Heteroptera: Coreidae) in orchards", *Insects* 2020
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Presentations

- Entomological Society of America - "Mating Disruption to Control *Amyelois transitella* (Lepidoptera: Pyralidae) in California Fig Orchards"
- Cold Springs Harbor Laboratory - "Comparative Genomics Reveals that Metabolism Underlies Evolution of Entomopathogenicity in Bee-loving *Ascospaera* spp. Fungi"

BROADER IMPACTS

Diversity, Equity and Inclusion

Co-Founder of Insects4Inclusion

<https://insects4inclusion.wixsite.com/stem>

June 2020 - present

- Platform to sell insect art, photography, music and natural history to fund scholarships that advance inclusivity in Entomology (\$3,237 donated this year)
- Wrote 60 social media posts about insects featuring my own macro photography.
- Created 11 story highlights of BIPOC scientists as well as 25 anti-racism education posts.
- Been interviewed for podcasts and inspired other departments to create research opportunities for BIPOC students.

Service

2020-2021

- EGSA Seminar and Special Lectures Committee
- Diversity, Equity and Inclusion Committee

Invited Talked

- Moreno Valley STEAM event
 - Insect Macro photography
- LA Library Pollinator Program
 - Insect Pollinators
- Master Gardeners
 - Incredible Insect Diversity
- Girl Scouts of America
 - Insect Diversity
- Com-Sci-Con MI 2021
 - Graduate Students Taking Action

Science Communication Projects and Publications

- Maccaro. "How Social Insect Disease: Lessons From The Colony", Natural History Magazine, Sept. 2021 issue



" Schedule a Virtual Meeting with Your Wild Bees":

<https://hchu036.wixsite.com/bee-zoom>



Personal Website of Insect Macro photography:

<https://jmacc0031.wixsite.com/mysite>

Relevant Training

UCR SciComm

Reading Group Leader

- Started a reading group that meets twice a month to discuss papers that advance our science communication skills.
- Topics include art-science collaborations, inclusive SciComm, medium as the message, newsworthiness, etc.

Young Voices of Science Program

- 8 week program to train in several media of science communication.
- Organized by the Hubbard Brooks Foundation

ComSciConLA 2021

- Workshop and conference run by graduate students