

Jessica Mullins

www.jessmullins.com

Education

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| University of California, San Diego | Expected 2026 |
| Ph.D. in Ecology, Behavior, and Evolution, <i>Advisor: Dr. David Holway</i> | |
| University of Colorado, Boulder | |
| M.S. in Museum and Field Studies, <i>Advisor: Dr. M. Deane Bowers</i> | 2021 |
| B.A. in Ecology and Evolutionary Biology & German Studies | 2015 |

Publications

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- Mullins, J.L.**, Strange, J.P., Tripodi, A.D. 2020. Why Are Queens Broodless? Failed nest initiation not linked to parasites, mating Status, or ovary development. *Econ. Entomol.*
- Mullins, J.L.**, Carper, A.L., Scott, V.L., Bowers, M. D. Wild bee community response to an extreme flood. *In preparation.*

Presentations

Invited

- 2023** Extinction risk of native bees in fragmented habitat islands in southern California Scrub habitat. *California Native Plant Society, San Diego Chapter.*
- 2020** Wild bee community response to an extreme flood. *Colorado Pollinator Summit.*

Contributed

- 2021** Wild bee community response to an extreme flood. *Annual Entomological Society of America Meeting, Denver, CO **
- 2021** Impacts and recovery status of wild bee communities following a catastrophic flood. *Denver Audubon Lois Webster Fund Committee Meeting.*

Posters

- 2022** Range-restricted bee species are more vulnerable to extirpation in fragmented habitats. *Annual Entomological Society of America Meeting, Vancouver, BC **
- 2017** Why don't queens get broody? Parasites, mating status, and ovary development in *Bombus huntii*. *Annual Entomological Society of America Meeting, Denver, CO **

* Presentations with (*) won First Place President's Prize at the conference.

Funding

Cumulative: \$139,174

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| 2022 | NIH T-32 Pathways in Biological Science Graduate Training Program <i>To fund tuition, stipend, and conference travel</i> | \$122,212 |
| 2022 | Jeanne Marie Messier Fellowship | \$2,000 |
| 2022 | Sea & Sage Audubon Society: Bloom Hays Research Grant | \$1,500 |
| 2020 | Denver Audubon Society's Lois Webster Fund | \$4,853 |
| 2020 | City of Longmont, Colorado Research Award | \$4,942 |
| 2020 | University of CO Museum of Natural History Research Grant | \$1,131 |
| 2020 | University of CO Museum of Natural History Collie Fund | \$534 |

Research Experience

Graduate Student Researcher **2021- Present**

University of California San Diego, Holway Lab

Investigate differences in ecological communities of native bees in San Diego County scrub habitat reserves and fragments to understand life history patterns (range size, body size, sociality, diet) associated with extinction risk.

Museum Collections Assistant **2019-2021**

University of Colorado Museum of Natural History Entomology Collection Boulder, CO

Assistant to the collections manager to maintain collection of over 1 million arthropod specimens through curation, pest management, and writing policies and procedures. Educated the public on native bees through designing outreach specimen drawers for school, family, and adult audiences and write monthly entomology-themed blog posts.

Bee Biology Technician **Jan – Jun 2018**

Utah State University Insect Collection Logan, UT

Tested and wrote non-dichotomous keys for 40+ native and introduced bee genera and edited factsheets about native bee genera for the Exotic Bee ID website.

Biological Aid **2017-2018**

USDA-ARS Pollinating Insects Research Unit, Bombus Lab Logan, UT

Dissected 600+ bumble bee queens who failed to initiate a nest in lab-reared conditions to and diagnose parasites using microscopic and molecular methods.

Teaching Experience

University of California San Diego Instructional Assistantships

Head TA, Organismic and Evolutionary Biology (BILD 3) **Fall 2021**

Head TA, Insect Diversity (BIEB 128) **Winter 2022**

Education and Outreach

Biology Undergraduate and Master's Mentorship Program (BUMMP) **2022 – Present**

Mentor two undergraduate students from under-represented backgrounds to find research opportunities and provide early career advice.

Cabrillo National Monument Biodiversity Internship Assistant **2021 - Present**

Co-organized pollinator collection and curation courses to teach community college students how to conduct pollinator biodiversity surveys. Identify all specimens.

Classrooms for Climate Action **2020 & 2021**

Designed pollinator-focused activity for Colorado 2nd grade classrooms.

Bee Boulder Pollinator Festival **2019 & 2020**

Prepared outreach video about the evolution of bees

Specialized Training

2023 Wasp ID Course. Virtual.

2022 Introduction to Biodiversity Specimen Digitization. iDigBio, Virtual.

2019 The Bee Course. Southwestern Research Station, Portal, Arizona.

Professional Affiliations

2017 – Present Entomological Society of America

2019 – Present Entomology Collections Network

2021 – Present International Society of Hymenopterists