

Kaleigh Russell

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EDUCATION

2021(Expected) **Ph.D., Entomology, University of California, Riverside**
(Quinn S. McFrederick, advisor)

2014 **M.S., Tropical Ecology and Conservation**, James Cook University,
Queensland, Australia. Herpetology lab
(Lin Schwarzkopf and David Pike, advisors)

2012 **B.S.**, Entomology with a minor in Botany, University of California, Riverside.

PUBLICATIONS (Peer-Reviewed)

Rothman, J.A., **Russell, K.A.**, Leger, L., McFrederick, Q.S., and Graystock, P., (2020). The direct and indirect effects of environmental toxicants on the health of bumble bees and their microbiomes. *Proceedings of the Royal Society B*.

Ngor, L., Palmer-Young, E.C., Nevarez, R.B., **Russell, K.A.**, Leger, L. Giacomini, S.J., Pinilla-Gallego, M.S., Irwin, R.E., McFrederick, Q.S., (2020). Cross-infectivity of honey and bumble bee-associated parasites across three bee families. *Parasitology*, 1-62.

Rothman, J.A., Leger, L., Graystock, P., **Russell, K.A.**, and McFrederick, Q.S. (2019). The bumble bee microbiome increases survival of bees exposed to selenate toxicity. *Environmental Microbiology* 21, 3417–3429. *Featured on the cover of Environmental Microbiology*

Rubanov, A., **Russell, K.A.**, Rothman, J.A., Nieh, J.C., and McFrederick, Q.S. (2019). Intensity of *Nosema ceranae* infection is associated with specific honey bee gut bacteria and weakly associated with overall gut microbiome structure. *Scientific Reports*, 3820(9), 1-8.

McFrederick, Q. S., Thomas, J. M., Neff, J. L., Vuong, H. Q., **Russell, K. A.**, Hale, A. R., & Mueller, U. G. (2017). Flowers and Wild Megachilid Bees Share Microbes. *Microbial Ecology*, 73(1), 188-200.

Russell, K., & Weirauch, C. (2016). ‘Toothbrush’ plant bugs and allies: *Protimiris* gen. nov., a new genus and five new species of Proteaceae-associated Australian Phylinae (Hemiptera: Miridae). *Austral Entomology*. 56(1), 75-93.

Weirauch, C., **Russell, K.**, & Hwang, W. S. (2014). *Reduvius frommeri*, a new species of Reduviidae from the Western United States (Hemiptera: Reduviidae), with a synopsis of the Nearctic species of *Reduvius* Fabricius. *Zootaxa*, 3972(2), 267-279.

Manuscripts in Review

Cohen, H., Ponisio, L., **Russell, K.A.**, Philpott, S., McFrederick, Q.S., Floral resources shape parasite and pathogen dynamics in bees facing urbanization. *Submitted to Molecular Ecology*.

Awards

2020 Mayhew Graduate Research Award **\$1,300**
2020 Bloom-Hays Research Grant- Sea and Sage Audubon Society **\$1,500**
2019 USDA NIFA AFRI Pre-Doctoral Fellowship **\$119,083**
2019 Bee Course Scholarship, American Museum of Natural History **\$1,200**
2018 Charles W. Coggins, Jr. Endowed Scholarship **\$4,642**

- 2018 Environmental Dynamics and GeoEcology Graduate Student Award **\$800**
 2018 Outstanding Entomology Graduate Student Association Member **\$100**

Symposia

- 2019 **Working out the Bugs: Multidisciplinary Approaches to Unraveling Insect-Microbe Symbioses.** 103th Annual Pacific Branch Meeting of the Entomological Society of America, San Diego, California. Co-Organizer.
- 2016 **Bringing natural history back in to focus: Utilizing modern resources for high throughput observational data.** 100th Annual Pacific Branch Meeting of the Entomological Society of America, Honolulu, Hawaii. Co-Organizer.

Conference Presentations

- 2020 Ecological society of America, Annual Meeting. Virtual meeting.
- 2019 26th Annual Student Seminar Day. Department of Entomology, University of California Riverside. Poster.
Kaleigh A Russell and Quinn McFrederick.
- 2019 International Pollinator Conference, UC Davis, California. Poster.
Kaleigh A Russell and Quinn McFrederick
- 2019 Pacific Branch Entomological Society of America regional meeting, San Diego, California. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2018 Entomological Society of America national meeting, Vancouver, British Columbia. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2018 25th Annual Student Seminar Day. Department of Entomology, University of California Riverside. Talk.
Kaleigh A Russell and Quinn McFrederick.
Awarded 2nd place prize in Graduate Student Talk Competition.
- 2018 Environmental Dynamics Geo-Ecology (EDGE) graduate student symposium. University of California, Riverside. Poster.
Kaleigh A Russell, Sara Sanchez Barajas*, and Quinn McFrederick.
- 2018 8th Annual Yosemite Symbiosis Workshop, Yosemite, California. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2017 Entomological Society of America national meeting, Denver, Colorado. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2017 24rd Annual Student Seminar Day. Department of Entomology, University of California Riverside. Poster.
Kaleigh A Russell and Quinn McFrederick.

- 2017 Pacific Branch Entomological Society of America regional meeting, Portland, Oregon. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2017 7th Annual Yosemite Symbiosis Workshop, Yosemite, California. Talk.
Kaleigh A Russell and Quinn McFrederick.
- 2016 23rd Annual Student Seminar Day. Department of Entomology, University of California Riverside. Talk.
Kaleigh A Russell and Quinn McFrederick.
Awarded 1st place prize in Graduate Student Talk Competition.
- 2016 100th Annual Pacific Branch Meeting of the Entomological Society of America, Honolulu, Hawaii. Graduate Student Competition. Poster.
Kaleigh A Russell, Hoang Vuong, Jason Rothman and Quinn McFrederick.
- 2012 19th Annual Student Seminar Day. Department of Entomology, University of California Riverside. Poster.
Kaleigh A Russell, Sarah Frankenberg, Tina Kim, Eric Gordon, Christiane Weirauch.
Awarded 1st prize in Undergraduate Poster Competition

*Indicates undergraduate student mentored.

Invited Seminars

- 2018 Universidade Federal do Rio Grande do Sul, Department of Biology Seminar Series. Pollinators and their microbial symbionts.

Teaching Experience

University of California, Riverside

Honey bees and Beekeeping (ENTM 020)

Natural History of Entomology (ENTM 010)

James Cook University, Townsville

Wildlife Ecology and Management (BZ3740)

Ecology and Conservation (BZ2440)

Outreach/ Volunteer work

- 2015-2019 Participated in the organization and development of educational material for the 1st - 5th Annual Riverside Insect Fair ~16,000 in attendance, with the city officials of Riverside.
- 2018-2019 100 + hours of scientific outreach as part of UCR Entomology outreach
- 2017-2018 100 + hours of scientific outreach as part of UCR Entomology outreach
- 2016-2017 100 + hours of scientific outreach as part of UCR Entomology outreach
- 2015-2016 150 + hours of scientific outreach as part of UCR Entomology outreach

- 2015 Conservation Team Leader at San Diego Audubon Society – habitat restoration of the California Least Tern
- 2015 Developed honey bee and beekeeping curriculum for high school science class

Professional Services

- 2019-2020 President of Entomology Graduate Student Association, UCR.
Duties: Lead EGSA meetings and overseeing all the committees within EGSA. Write formal letters of request from students to the department. Organize large-scale departmental events. Execute officer elections, budgetary ballots, Outstanding Awards, and any other voting procedures.
- 2015-2019 Chair of Fundraising Committee, UCR Entomology Graduate Student Association. Organizing the Annual Riverside Insect Fair as contact person with the Riverside Metropolitan Museum and City of Riverside employees.
- 2017-2018 Instruction and Student Affairs Committee (ISAC) student representative.
Duties: Representing the graduate and undergraduates of the Entomology Department in monthly faculty meetings discussing course requirements, construction of graduate level core classes, and associated student affairs.

Reviewer for the following journals: FEMS Microbial Ecology, Molecular Ecology, Journal of Chemical Ecology, Science of the Total Environment

Additional Training

- 2019-2020 R-Ladies workshops: R programming workshops (ongoing) developed by post-doctoral fellows and graduate students to bring together and safe an inclusive community designed to develop skills and knowledge of R through social, collaborative learning and sharing, University of California, Riverside.
- 2019 The Bee Course: AMNH's Southwestern Research Station. The course consists of lectures, field collection, and hands-on identification of native bees.
- 2019 Geospatial/GIS workshop, University of California, Riverside

Professional Experience

- 2014-2015 **Staff Research Associate**, Department of Entomology University of California, Riverside. Advisor: Quinn McFrederick
- 2011-2012 **Laboratory Assistant**, Department of Entomology University of California, Riverside. Advisor: Christiane Weirauch

Mentoring Experiences

As a graduate student at UCR I have mentored 8 undergraduate students in STEM: Sara Miller, Sara Sanchez-Barajas[¥], Pearl Le, Cindy Chen, Sara Marquez[‡], Miriam Martinez[‡], Lyna Ngor, and Noah Kim

[‡]Indicates student has been accepted into graduate school.

[¥]Indicates student has presented work completed in the lab.