

Laura Leger

Department of Entomology, University of California, Riverside
900 University Ave, Riverside, CA 92521
llege001@ucr.edu

Education

2017-Present Ph.D. in Entomology, expected 2022
University of California, Riverside; Advisor: Quinn McFrederick
2017 B.S. in Entomology
University of California, Riverside

Publications

1. 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: Biological Sciences*.
2. Ngor, L., Palmer-Young, E.C., Nevarez, R.B., Russell, K.A., **Leger, L.**, Giacomini, S.J., Pinilla-Gallego, M.S., Irwin, R.E. and McFrederick, Q.S., (2020). Cross-infectivity of honey and bumble bee-associated parasites across three bee families. *Parasitology*.
3. **Leger, L.** and McFrederick, Q.S. (2020). "The Gut-Brain-Microbiome Axis in Bumble Bees." *Insects*.
4. Rothman, J. A., **Leger, L.**, Kirkwood, J. S., & McFrederick, Q. S. (2019). "Cadmium and selenate exposure affect the honey bee microbiome and metabolome, and bee-associated bacteria show potential for bioaccumulation." *Applied and environmental microbiology*.
5. Rothman, J. A., **Leger, L.**, Graystock, P., Russell, K., & McFrederick, Q. S. (2019). "The bumble bee microbiome increases survival of bees exposed to selenate toxicity." *Environmental microbiology*.

Fellowships

2019 National Science Foundation
Graduate Research Fellowship Program; \$134,000

Grants and Awards

2018 Entomological Society of America Joint Annual Meeting
Student Competition: 8 Minute Talk; 2nd Place
2017 National Science Foundation
Graduate Research Fellowship Program; Honorable Mention
2016 University Mini Grant for Undergraduate Students
University of California, Riverside; \$700

Science Outreach

- 2018-present Little Entomologists Summer Camp
Department of Entomology, University of California, Riverside
Curriculum development, camp counselor
- 2017-present Annual Riverside Insect Fair
Riverside, CA
Participated in and organized educational materials; ~15,000 in attendance in cooperation with the city of Riverside
- 2017-present Department of Entomology Outreach Program
University of California, Riverside
Over 300 hours of scientific outreach with the community

Involvement

- 2020-21 President
Entomology Graduate Student Association, University of California, Riverside
- 2019-20 Vice President
Entomology Graduate Student Association, University of California, Riverside
- 2017-18 Secretary
Entomology Graduate Student Association, University of California, Riverside

Teaching

- 2019-Present Teaching Assistant
Department of Entomology, University of California, Riverside
Courses taught:
- Bees and Beekeeping (ENTM 020), Prof.: Boris Baer

Student Mentoring

University of California, Riverside: Melany Melkonyan, Rita Kyurklyan, Stephanie Soklim

Research Presentations

- 2019 **Leger, L.**, Palmer-Young, E., McFrederick, Q.S. “The Effects of Copper on a Common Bumble Bee Parasite, *Crithidia bombi*”. 26th Annual Entomology Student Seminar Day. UC Riverside. Poster.
- 2019 **Leger, L.**, Palmer-Young, E., McFrederick, Q.S. “The Effects of Copper on a Common Bumble Bee Parasite, *Crithidia bombi*”. 2019 International Pollinator Conference. Davis, California. Poster.

- 2018 **Leger, L.**, McFrederick, Q.S. “Microbial Relationships with Pollinator Hosts Under Stress from Environmental Toxins”. 2018 ESA Joint Annual Meeting. Vancouver, B.C., Canada. Oral Presentation.
Awarded 2nd Prize in Student Competition: 8 Minute Talk
- 2018 **Leger, L.** “The Role of the Gut Microbiome in Bumble Bee Pesticide Resistance”. 25th Annual Entomology Student Seminar Day. UC Riverside. Oral Presentation.
- 2017 **Leger, L.**, McFrederick, Q.S. 2017. “Transferring Microbes: Pesticide Tolerance Mediated by Pollinator Gut Microbiomes”. 7th Annual Symbiosis Workshop in Yosemite. Sierra Nevada Research Station, Yosemite, CA. Poster.
- 2017 **Leger, L.**, McFrederick, Q.S. 2017. “Transferring Microbes: Pesticide Tolerance Mediated by Pollinator Gut Microbiomes”. Undergraduate Student Research Symposium. UC Riverside. Poster.
- 2016 **Leger, L.**, Graystock, P., Rothman, J.A., McFrederick, Q.S. 2016. “Metal Males: The Effects of Cadmium on the Sperm Viability of Male Bumblebees”. 23rd Annual Entomology Student Seminar Day. UC Riverside. Poster.

Professional Society Memberships

2018-Present Entomological Society of America