ANNA R. TATARKO

Ecology, Evolution, and Conservation Biology Program
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EDUCATION

2024 Ph.D. Ecology, Evolution, and Conservation Biology, University of Nevada, Reno
Dissertation: The impacts of multiple agricultural chemicals on the microbial ecology of pollination and implications for bee health.

2017 M.S. Biological Sciences, University of Nebraska-Lincoln

2014 B.S. Environmental Studies, University of Kansas, Graduated with Honors
B.A. Spanish, University of Kansas

PEER REVIEWED PUBLICATIONS

Tatarko, A., Leonard, A., & Mathew, D. (2023). A neonicotinoid pesticide alters Drosophila olfactory processing. Scientific Reports, 13, 10606. https://doi.org/10.1038/s41598-023-37589-w

Francis, J. S.*, **Tatarko, A.*** R., Richman, S. K., Vaudo, A. D., & Leonard, A. S. (2020). Microbes and Pollinator Behavior in the Floral Marketplace. Current Opinion in Insect Science. 44, 16-22.
*Co-first authors

Tatarko, A., Knops J., (2018). Nitrogen addition and ecosystem functioning: Both species abundances and traits alter community structure and function. Ecosphere, 9(1):e02087.

Min, K., Lehmeier, C.A., Ballantyne, F., **Tatarko, A.**, Billings, S.A. (2014). Differential effects of pH on temperature sensitivity of organic carbon and nitrogen decay. Soil Biology and Biochemistry, 78(0), 193-200.

PUBLICATIONS IN PREPARATION

Tatarko, A., & Richman, S., Leonard, A. (Target Fall 2024). Flowers containing pesticides, fungicides, and their combination alter plant-pollinator-microbe interactions. In Prep.

Tatarko, A., & Vannette, R., Leonard, A. (Target Fall 2024). Variation in sensitivity of bumble bee gut microbiome and floral microbes to multiple agricultural chemicals is site specific. In Prep.

Tatarko, A., Leonard, A. (Target spring 2025). Correlates of gut microbial diversity in solitary longhorn bees (*Melissodes sp.*). In Prep.

GRANTS AND FELLOWSHIPS

United States Department of Agriculture AFRI NIFA Predoctoral Fellowship - $175,369
The impacts of multiple agricultural chemicals on the microbial ecology of pollination and implications for wild bumblebee health.

Nevada Center for Bioinformatics Scientific Service Award - $1,440
Investigating correlates of gut microbiome variation of longhorn bees (*Melissodes sp.*).

HONORS, AWARDS, AND OTHER FUNDING

2022 Graduate Student Travel Award, University of Nevada, Reno ($500)
2021 Jerry and Betty Wilson Scholarship ($4,000)
2021 Robert E. Dickenson Scholarship ($6,495)
2021 Nevada Women's Fund Scholarship ($3,500)
2020 Outstanding Graduate Student Scholarship, Graduate Student Association, University of Nevada, Reno ($500)
2020 Balloon Races Scholarship, University of Nevada, Reno ($1,000)
2019 First Place, Student Competition for the President's Prize, Entomological Society of America Annual Meeting, St Louis ($75)
2019 Diana Hadley-Lynch Scholarship ($2,200)
2019 Graduate Student Access Grant, University of Nevada, Reno ($3,000)
2019 Graduate Student Travel Award, University of Nevada, Reno ($1,000)
2016 J. Ve. Srb Memorial Fund, School of Biological Sciences Special Funds Recipient, University of Nebraska, Lincoln ($3,000)
2015 J. Ve. Srb Memorial Fund, School of Biological Sciences Special Funds Recipient, University of Nebraska, Lincoln ($3,000)
2014 Ruben Zadigan Environmental Studies Undergraduate Research Scholarship ($1,500)
2014 University of Kansas Honors Program in Environmental Studies
2014 University of Kansas Student Employee of the Year Nominee and Finalist
2013 University of Kansas Global Awareness Program and Service-Learning Distinction

TEACHING AND OTHER APPOINTMENTS

Teaching Assistant – University of Nevada, Reno, General Microbiology [Fall 2020]
Teaching Assistant – University of Nevada, Reno, Principles of Biological Investigation [Fall 2018 - Spring 2019]
Data Manager – Drought-Net Steering Committee [Spring 2018 - Present]

Research Associate – Dr. Melinda Smith's Laboratory, Colorado State University [Fall 2017 - Fall 2018]
Teaching Evaluator – Department of Biology, Colorado State University [Fall 2017]
Teaching Assistant – University of Nebraska, Lincoln, Fundamentals of Biology I Laboratory [Fall 2015 - Summer 2017]
Teaching Assistant – University of Nebraska, Lincoln, General Biology 101 Laboratory [Fall 2014 - Spring 2015]
Research Assistant – Dr. Bryan Foster's Laboratory, University of Kansas [Summer 2013 - Spring 2014]
Laboratory Technician – Dr. Sharon Billings' Laboratory, University of Kansas [Fall 2010 - Spring 2013]
Research Assistant – Dr. Anthony Joern's Laboratory, Kansas State University [Summer 2010 - Fall 2010]

VOLUNTEERING AND OUTREACH

Volunteer – For the passage of Nevada State Assembly Bill 162 [Spring 2023]
Volunteer – STEM and Technology Day, University of Nevada, Reno [Spring 2023]
Organizer – Colloquium Logistic Committee [Fall 2022]
Representative – Graduate Student Representative to departmental Faculty [2022 – Present]
Founder and organizer – Gut Group, Microbiome reading group [Fall 2022 - Present]
Organizer – Microbes are everywhere!, Daugherty Summer Science Experience [June 2022]
Organizer – Plant-Insect Interactions In a Changing World Symposium, Pacific Branch of the Entomological Society Annual Meeting [March 2022]
Organizer – EECBeers, weekly graduate student social hour [Fall 2018 - Spring 2022]
Speaker – Math workshop for young girls, Reno Nevada [July 2020]
Founder and 'Co-boss' – Nerd Nite, Reno, Community Engagement and Lecture Series, Reno, Nevada [May 2019 - Present]
Vice President – Plant-Animal Interactions Group [Spring 2019 - Present]
Volunteer – Valentine's Day at the Museum of Natural History, University of Nevada, Reno [February 2019]
Volunteer – Day at the Museum, Universtiy of Nevada, Reno [April 2018]
Student Volunteer – Ecological Society of America Annual Meeting, Portland, Oregon [August 2017]
Professor of Practice Graduate Student Search Committee – University of Nebraska, Lincoln [Spring 2017]
Biology Graduate Student Association, Secretary – University of Nebraska, Lincoln [Fall 2015 - Spring 2016]
Darwin Day Graduate Committee Member – University of Nebraska, Lincoln [2015 - 2016]
Biology Laboratory Design Workshop – University of Nebraska, Lincoln [Spring 2015]
Plant Physiology Journal Club – University of Kansas [Fall 2013 - Spring 2014]

PRESENTATIONS

Tatarko, A., Leonard, A., 2023. Bumble bees from different sites vary in their sensitivity to multiple agricultural chemicals. Ecological Society of America Annual Meeting, Portland, Oregon. (Paper Presentation)

Tatarko, A. 2023. A BEEutiful Mind. Nerd Nite, Reno, Nevada (Lecture Series).

Tatarko, A., Richman, S., Leonard, A., 2022. Combinations of agricultural chemicals affect bee-microbe-plant interactions. International Meeting of the Entomological Society, Helsinki, Finland. (Paper Presentation)

Tatarko, A., Richman, S., Leonard, A., 2022. Combinations of agricultural chemicals affect bee-microbe-plant interactions. Pacific Branch of the Entomological Society Annual Meeting, Santa Rosa, California. (Paper Presentation)

Tatarko, A., Leonard, A., Mathew, D., 2019. Impacts of neonicotinoid pesticides on insect olfaction. Entomological Society of America Annual Meeting, St. Louis, Missouri. (Student Talk).

Tatarko, A., Leonard, A., Mathew, D., 2019. Impacts of neonicotinoid pesticides on insect olfactory processing. International Pollinator Conference, Davis, California. (Poster Presentation).

Tatarko, A., Knops J., 2017. Nitrogen addition and ecosystem functioning: Changes in species composition and functional traits alter community structure and function. Ecological Society of America Annual Meeting, Portland, Oregon. (Poster Presentation).

Tatarko, A. 2017. Nitrogen addition and ecosystem function: Changes in species composition leaf traits amplify changes in leaf area index and canopy chlorophyll. MS Thesis Defense, Department of Biological Sciences, University of Nebraska–Lincoln.

Tatarko, A. 2016. Understanding community structure through plant functional traits. Graduate Seminar-Ecology, Evolution and Behavior, University of Nebraska, Lincoln (Departmental Seminar).

Tatarko, A. 2016. Investigating the influence of environment and herbivory on functional traits in a Western Nebraska grassland. Biology Graduate Student Association Annual Symposium, Nebraska, Lincoln (Poster Presentation).

Tatarko, A. 2015. Understanding species coexistence through plant functional traits. Graduate Seminar-Ecology, Evolution and Behavior, University of Nebraska, Lincoln (Departmental Seminar).

Roccaforte, K., **Tatarko, A.**, and Foster, B.L. (2014). Investigating the effects of tallgrass prairie habitat restoration and forb diversity on the diversity and composition of pollinator communities. The Entomological Society of America Annual Meeting, Portland, OR (poster presentation).

Tatarko, A., Roccaforte, K., and Foster, B.L. (2014). Investigating the effects of tallgrass prairie restoration and plant diversity on pollinator communities in northeast Kansas. University of Kansas Undergraduate Research Symposium, Lawrence, KS (poster presentation).