

Moria L. Robinson

Department of Biology | 5305 Old Main Hill Utah State University | Logan, UT 84322 moria.robinson@usu.edu

Education

2023 – present Assistant Professor, Department of Biology, Utah State University
2021 – 2022 Postdoctoral Fellow, Georgia Institute of Technology (advisor: Dr. Lin Jiang)
2020 – 2021 Research Associate, Michigan State U. (advisor: Dr. William C. Wetzel)
2018 – 2020 USDA NIFA Postdoctoral Scholar, Michigan State U. (advisor: Dr. William C. Wetzel)
2017 PhD, Population Biology Graduate Group, UC Davis (advisor: Dr. Sharon Y. Strauss)
2011 B.S., Biology with High Honors, Middlebury College (advisor: Dr. Helen J. Young)

Research Grants

- 2018 USDA NIFA Postdoctoral Fellowship (\$155,000)
- 2017 Graduate Student Association Travel Grant (\$500)
- 2016 National Science Foundation Doctoral Dissertation Improvement Grant (DDIG) (\$19,198)
- 2015 UC Davis Natural Reserves Student Research Grant (\$2,400)
- 2015 Northern California Botanists Award (\$1,000)
- 2015 Center for Population Biology Research Award (\$1,600)
- 2014 Center for Population Biology Research Award (\$1,000)
- 2014 UC Davis Natural Reserves Student Research Grant (\$955)
- 2014 Davis Botanical Society Student Research Grant (\$1,500)
- 2013 Center for Population Biology Research Award (\$1,200)
- 2012 National Science Foundation Graduate Research Fellowship (GRFP) (\$100,000)
- 2011 Middlebury College, Priscilla K. Beck Fellowship Award (\$400)
- 2010 Middlebury College, Deixler Swain Fund (\$1,900)
- 2008 Middlebury College, Palen Fund (\$1,500)

Awards and Honors

- 2017 Award for Outstanding Graduate Student Teaching (\$500)
- 2016 Achievement Rewards for College Scholars Award (\$10,000)
- 2015 Student 10-minute talks competition winner, Entomological Society of America

- 2015 UC Davis Dean's Mentorship award (\$5000)
- 2012 Elbert C. Cole Memorial Prize for Outstanding Achievement in Biology, Middlebury College
- 2008 Middlebury College, Paul Ward '25 Prize in Writing
- 2006 North American Nature Photography Association Student Scholarship Recipient
- 2006 Earthwatch Institute Student Challenge Awards Program Scholarship Recipient

Peer-Reviewed Publications

- Robinson, M.L., M. G. Weber, M. G. Freedman, E. Jordan, S. Ashlock, J. Yonenaga, and S.Y. Strauss. (2023). Macroevolution of protective coloration across caterpillars reflects relationships with host plants. *Proceedings* of the Royal Society, B, 290(1991)
- Robinson, M.L., T. Schilmiller, and W.C. Wetzel. (2022). A domestic plant differs from its wild relative along multiple axes of within-plant trait variability and diversity. *Ecology and Evolution*, 12(1), e8545
- Robinson, M. L. and S.Y. Strauss. (2020). Low-resource soils promote stable topology in plant-herbivore ecological networks. *Proceedings of the National Academy of Sciences, 117*(4), 2043-2048.
- Wetzel, W., Kharouba, H., Robinson, M. L., Holyoak, M., & Karban, R. (2019). Plant trait covariance and nonlinear averaging: a reply to Koussoroplis et al. *Rethinking Ecology*, 4(115).
- Robinson, M. L., & Strauss, S. Y. (2018). Cascading effects of soil type on assemblage size and structure in a diverse herbivore community. *Ecology*, 99(8), 1866-1877.
- LoPresti, E. F., *Robinson, M. L.*, Krimmel, B. A., & Charles, G. K. (2018). The sticky fruit of manzanita: potential functions beyond epizoochory. *Ecology*, *99*(9), 2128-2130.
- Lopresti, E. F., Grof-Tisza, P. A., Robinson, M. L., Godfrey, J., & Karban, R. (2018). Entrapped sand as a plant defence: effects on herbivore performance and preference. *Ecological Entomology*, 43(2), 154-161.
- Wetzel, W. C., Kharouba, H. M., Robinson, M. L., Holyoak, M., & Karban, R. (2016). Variability in plant nutrients reduces insect herbivore performance. Nature, 539(7629), 425.
- LoPresti, E. F., Karban, R., Robinson, M. L., Grof-Tisza, P., & Wetzel, W. (2016). The natural history supplement: furthering natural history amongst ecologists and evolutionary biologists. The Bulletin of the Ecological Society of America, 97(3), 305-310.
- Dyer, L. A., Wagner, D. L., Greeney, H. F., Smilanich, A. M., Massad, T. J., *Robinson, M. L.*, ... & Fredrickson, K. B. (2012). Novel Insights into Tritrophic Interaction Diversity and Chemical Ecology Using 16 Years of Volunteer-Supported Research. *American Entomologist*, 58(1), 15-19.

In Review and Preparation:

- **Robinson, M.L.,** N. Underwood, P. G. Hahn, L. A. Dyer, S. R. Whitehead, B. D. Inouye, L. N. Zehr, W.C. Wetzel, and the Herbivory Variability Collaborative Network (190 co-authors). Latitude, traits, and phylogeny predict herbivore attack variability (In prep)
- *Robinson, M.L.* and S.Y. Strauss. Landscape-scale soil variation and herbivore diet breadth affect top-down control of caterpillars by parasitoids and birds (In prep)

Presentations

indicates invited seminar speaker
 indicates session organizer

2022 Georgia State University STEM Week (GSU Perimeter College, Atlanta, GA)*

To warn or to hide: The ecology and evolution of bright coloration in animals

- 2021 Entomological Society of America Annual Meeting (Denver, CO; virtual) * Plant apparency shapes the distribution of herbivory within and among plant individuals: Data from the Herbivory Variability Network
- 2021 University of Georgia, EDGE Seminar * From landscapes to individuals: How plant trait variation shapes species interactions across spatial scales
- 2021 Florida State University, Ecology and Evolution Seminar Series (virtual)* From landscapes to individuals: How plant trait variation shapes species interactions across spatial scales
- **2021** American Society of Naturalists Annual Meeting (Asilomar, CA; virtual) Domestication has altered within-plant trait variability and diversity in a crop plant
- **2020** Ecological Society of America Annual Meeting (virtual) ****** Domestication selection and shifts in trait within-plant trait variability (Organized Oral Session 067)
- 2020 Women in Science Ecology Virtual Conference * *The butterfly girl: how childhood role models and contemporary peers have shaped me as an ecologist*
- **2020** Institution of Science and Technology Austria, IST (Vienna, Austria) * Domestication selection and shifts in trait variability at the within-plant scale
- 2020 Czech Academy of Sciences, Entomology Department Seminar Series (Ceske Budejovice, Czech Republic) *Within-plant variability: An under-explored trait mediating biotic interactions*
- **2018** Joint Conference on Evolutionary Biology (Montpelier, France) Host plant architecture and evolution of aposematism in larval Lepidoptera (poster)
- **2018** Czech Academy of Sciences, Entomology Department Seminar Series (Ceske Budejovice, Czech Republic) *When soils cascade: Effects of abiotic resources on interactions between plants, herbivores, and natural enemies*
- 2017 Gordon Research Conference on Plant-Herbivore Interactions (Ventura, CA) Effects of soil heterogeneity on herbivore communities and ecological networks (poster)
- **2017** Ecological Society of America Annual Meeting (Portland, OR) Soil variation shapes herbivore-enemy interactions
- **2016** Ecological Society of America Annual Meeting (Ft. Lauderdale, FL) From soils to webs: Effects of environmental heterogeneity on herbivore communities and ecological networks
- 2015 Entomological Society of America Annual Meeting (Minneapolis, MN) Effects of environmental heterogeneity on trophic communities and structure of ecological networks (student 10-minute talks award)
- 2011 Senior Honors Thesis Presentation, Middlebury College (Middlebury, VT) Species as mosaic: Patterns of plant use by two gossamer-winged butterfly populations
- **2009** Spring Student Symposium, Middlebury College, VT Discovering the faces of diversity: Conservation and photography on the front lines of the new species search
- 2007 Washington Butterfly Association monthly meeting, University of Washington (Seattle, WA) Caterpillar diversity and defenses in La Selva, Costa Rica

Teaching

- 2022 Guest Lecturer, Physics of Living Systems (BIOL4814), Georgia Institute of Technology
- 2016 Instructor of Record, Ecology and Evolution of Plant-Animal Interactions (EVE181), UC Davis

- 2013 14 Teaching Assistant, Evolution and Ecology (Biological Sciences 2B), UC Davis
- 2010 Teaching and Para-education Assistant, Middlebury Union Middle School
- 2008 10 Teaching Assistant, Introductory Biology lab, Middlebury College
- 2008 10 Writing Tutor, Introductory Writing Courses, Middlebury College

Training and efficacy in pedagogy:

2016 Participant: "Redefining Teaching: Student-Centered Strategies for Success" (6-week intensive workshop; Center for Educational Effectiveness [CEE], UC Davis)

Student Mentorship

- 2020 Research mentor to Kalin Bayes, Michigan State University Effects of leaf physical traits on the distribution of herbivory within plants
- **2016** Research co-mentor to Anika Hamilton, EEGAP Program (UC Davis) *The study of host plant choice and adaptation in monarch butterfly larvae* (oral presentation; UC Davis-HBCU Summer Research Symposium)
- 2016 Research mentor to Lillie Oravetz (UC Davis) Plant traits mediate community assembly of caterpillars and their predators after fire
- 2015 Graduate Student Mentor, UC Davis ESA SEEDS Undergraduate Club
- **2014** Research mentor to Esther Haile (CA State University Monterey Bay) *The effects of nectar resources on overwintering monarch behavior* (poster; Sanctuary Currents Symposium, CA State University Monterey Bay)

2013 - 17 Mentorship of undergraduate student research assistants Stepney Racy, Angel of Love Corniel, Angela Yuen, Ann Le, Cameran McCoppin, Lillie Oravetz, Xueqin Gao, Yixue Zhu, Christopher Jason, Anna Erway, Lauren Mitchell, Samantha Ledbetter

Service

Manuscript reviewer: American Naturalist, Ecology, New Phytologist, Functional Ecology, Proceedings of the Royal Society B., Methods in Ecology and Evolution, Biotropica, Trends in Plant Science, Ecological Entomology, Journal of Ecology, Oecologia (Publons Researcher ID: N-5951-2019)

- **2020** Session organizer, Ecological Society of America Annual Meeting. OOS 067 "Plants as Mosaics: How Trait Variability Within Plants Shapes the Ecology and Evolution of Plant-Animal Interactions"
- 2019 Grant Review Panelist, USDA NIFA Alfalfa Seed and Alfalfa Forage System (ASAFS) Program
- 2015 Organizer: UC Davis Center for Population Biology Student-led Mini-Conference: "Questions and Methods in Ecological Genetics". 2-day conference/workshop featuring seminars, a panel discussion, and graduate student research chalk-talks with invited speakers Jill Anderson (UGA), David Lowry (MSU), Neil Tsutsui (UC Berkeley)
- 2014 present Invited contributor, Moth Photographer's Group (mothphotographersgroup.msstate.edu)

Society Memberships

2017 - present Member, American Society of Naturalists

2015 - present Member, Ecological Society of America

2011 - present Member, Entomological Society of America

Non-refereed Publications and Technical Reports

Robinson, M. 2013. Monarch Monitoring Report: Summary of Population Trends in Northern California Overwintering Sites. A report to The Pacific Grove Museum of Natural History, Pacific Grove, CA.

Robinson, M. Selected natural history photographs in: Wagner, D. L., D. F. Schweitzer, J. B. Sullivan, and R. C. Reardon. (2011). Owlet Caterpillars of Eastern North America. Princeton University Press.

Outreach

2016 - present Student Application Reviewer, Earthwatch Institute IGNITE LA Science Awards Program

- 2014 present Contributor: Bugguide (bugguide.net), Moth Photographer's Group (https://mothphotographersgroup.msstate.edu/)
- 2013 14 Scientific Advisor: Pacific Grove Museum of Natural History monarch monitoring project
- 2014 17 Earthwatch Institute Project Facilitator, IGNITE program, *Caterpillars and Climate Change*
- 2008 2017 Member of Board of Directors, Discover Life in America
- 2013 Earthwatch Institute Project Facilitator, *Snorkeling to Protect Reefs in the Bahamas*
- 2011 Earthwatch Institute Project Facilitator, *Caterpillars and Climate Change*
- 2009 2011 Co-founder, JUNTOS Migrant Farm Worker Outreach Program