

MARJORIE G. WEBER

CURRICULUM VITAE (August 2024)

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Lab website: www.theweberlab.com

See also: www.projectbiodiversify.org

APPOINTMENTS

Associate Professor, Ecology & Evolutionary Biology University of Michigan	2024 - present
Associate Chair for Graduate Studies, Ecology & Evolutionary Biology University of Michigan	2024 - present
Assistant Professor, Ecology & Evolutionary Biology University of Michigan	2022 - 2024
Assistant Professor, Department of Plant Biology <i>Ecology, Evolutionary Biology, & Behavior Program</i> Michigan State University	2016 - 2022
Center for Population Biology Postdoctoral Fellow University of California at Davis	September, 2014-August, 2016

EDUCATION

PhD: Ecology & Evolutionary Biology, Cornell University, Ithaca, NY	August, 2009 – August, 2014
Bachelor of Arts: Biology Major, <i>with honors</i> Lewis & Clark College, Portland, OR	September, 2003 - May, 2007

LEAVES & MODIFIED DUTIES

Second Child Leave Born in Aug. 2020 12 weeks parental leave, modified duties Fall Semester 2020, one-year tenure clock extension
First Child Leave Born in Nov. 2016 12 weeks parental leave, modified duties Fall Semester 2016, one-year tenure clock extension

PUBLICATIONS

**Mentees (e.g., students/postbachs/postdocs)*

Submitted or In Review

[09] *Graham, C., and M.G. Weber. *In Review*. *Evolutionary trajectories of multiple defense traits across phylogenetic and geographic scales in Vitis*.

[08] *Soule, A., and M.G. Weber. *In Review*. *Direct and indirect defense investment support the Latitudinal Biotic Interactions Hypothesis but track divergent climate variables in a foundation*

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temperate tree species.

- [07] *Martin, B., and M.G. Weber. **In Revision**. *Stochastic Character Mapping of Continuous Traits on Phylogenies*. <https://www.biorxiv.org/content/10.1101/2024.08.12.607655v1>.
- [06] *Glos, R.A.E., and M.G. Weber. **In Revision**. Multiple metrics of trichome diversity support independent evolutionary hypotheses in blazingstars (Mentzelia: Loasaceae).
- [05] Jaeger, S., Freedman, M.G., Alexander, C.M., Hilpman, E.T., Weber, M.G., and *E.F., LoPresti, **In Review**. Increased reliance on diurnal pollination in a geographically and morphologically atypical sand verbena.
- [04] *S.A. Martin-Eberhardt, M.G. Weber, and K. J. Gilbert. **In Revision**. *Anthocyanin impacts multiple plant-insect interactions in a carnivorous plant*.
- [03] E.H. Schultheis, *A.T. Zemenick, R.M. Youngblood, R.A. Costello, E.P. Driessen, *M.K. Kjelvik, M.G. Weber†, and C. J. Ballen. **In Revision**. "Scientists are people too": Biology students relate more to scientists when they are humanized in course materials.
- [02] *R.A. Costello, E.P. Driessen, *M.K. Kjelvik, E.H. Schultheis, R.M. Youngblood, *A.T. Zemenick, M.G. Weber†, and C. J. Ballen. **In Review**. *More than a token photo: humanizing scientists enhances student engagement* (<https://doi.org/10.1101/2024.01.29.577791>)
- [01] *LoPresti, E.F., Mickle, J.G., *Edwards, C.L., and M.G. Weber. **In Review**. An increase in atypical petal numbers during a shift to autogamy in a coastal sand verbena and potential evolutionary mechanisms. (<https://doi.org/10.1101/2021.01.03.425117>)

Published or In Press:

- 46 *Ritter, E., Neiderhuth, C., and M.G. Weber. **In Press**. *Small, but mitey: Investigating the molecular genetic basis for domatia development and intraspecific variation in Vitis riparia using transcriptomics*. <https://www.biorxiv.org/content/10.1101/2024.03.04.583436v1>.
- 45 *Myers, A., *Martin, B., *Yonenaga, J., Agrawal, A., and M.G. Weber. **In Press**. *Convergent evolution of leaf domatia: A global assessment of plant-mite mutualism and its ecological drivers*.
44. G. Chomicki, N. Walker-Hale, J. P. Etchells, *E. Ritter, and Weber, M.G. **2024**. *Development of domatia: symbiotic plant structures to host mutualistic ants or mites*. *Current Opinion in Plant Biology*.
43. Robinson, M.L., P.G. Hahn, B.D. Inouye, N. Underwood, S.R. Whitehead, K.C. Abbott, E.M. Bruna, N.I. Cacho, L.A. Dyer, L. Abdala-Roberts, W.J. Allen, J.F. Andrade, D.F. Angulo, D. Anjos, *D.N. Anstett, R. Bagchi, S. Bagchi, M. Barbosa, S. Barrett, *C.A. Baskett, E. Ben-Simchon, K.J. Bloodworth, J.L. Bronstein, Y.M. Buckley, K.T. Burghardt, C. Bustos-Segura, E.S. Calixto, R.L. Carvalho, B. Castagnayrol, M.C. Chiuffo, D. Cinoğlu, E. Cinto Mejía, M.C. Cock, R. Cogni, O.L. Cope, T. Cornelissen, D.R. Cortez, D.W. Crowder, C. Dallstream, W. Dáttilo, J.K. Davis, R.D. Dimarco, H.E. Dole, I.N. Egbon, M. Eisenring, A. Ejomah, B.D. Elder, M.-J. Endara, M.D. Eubanks, S.E. Everingham, K.N. Farah, R.P. Farias, A.P. Fernandes, G.W. Fernandes, M. Ferrante, A. Finn, G.A. Florjancic, M.L. Forister, Q.N. Fox, E. Frago, F.M. França, A.S. Getman-Pickering, Z. Getman-Pickering, E. Gianoli, B. Gooden, M.M. Gossner, K.A. Greig, S. Gripenberg, R. Groenteman, P. Grof-Tisza, N. Haack, L. Hahn, S.M. Haq, A.M. Helms, J. Hennecke, S.L. Hermann, L.M. Holeski, S. Holm, M.C. Hutchinson, E.E. Jackson, S. Kagiya, A. Kalske, M. Kalwajtys, R. Karban, R. Kariyat, T. Keasar, M.F. Kersch-Becker, H.M. Kharouba, T.N. Kim, D.M. Kimuyu, J. Kluse, S.E. Koerner, K.J. Komatsu, S. Krishnan, M. Laihonen, L. Lamelas-López, M.C. LaScaleia, N. Lecomte, C.R. Lehn, X. Li, R.L. Lindroth, *E.F. LoPresti, M. Losada, A.M. Louthan, V.J. Luizzi, J.S. Lynn, N.J. Lyon, L.F. Maia, R.A.

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- Maia, T.L. Mannall, *B.S. Martin, T.J. Massad, A.C. McCall, K. McGurrin, A.C. Merwin, Z. Mijango-Ramos, C.H. Mills, A.T. Moles, C.M. Moore, X. Moreira, C.R. Morrison, M.C. Moshobane, A. Muola, R. Nakadai, K. Nakajima, S. Novais, C.O. Ogbemor, H. Ohsaki, V.S. Pan, N.A. Pardikes, M. Pareja, N. Parthasarathy, R.R. Pawar, Q. Paynter, I.S. Pearse, R.M. Penczykowski, A.A. Pepi, C.C. Pereira, S.S. Phartyal, F.I. Piper, K. Poveda, E.G. Pringle, J. Puy, T. Quijano, C. Quintero, S. Rasmann, C. Rosche, L.Y. Rosenheim, J.A. Rosenheim, J.B. Runyon, A. Sadeh, Y. Sakata, D.M. Salcido, C. Salgado-Luarte, B.A. Santos, Y. Sapir, Y. Sasal, Y. Sato, M. Sawant, H. Schroeder, I. Schumann, M. Segoli, H. Segre, O. Shelef, N. Shinohara, R.P. Singh, D.S. Smith, M. Sobral, G.C. Stotz, A.J.M. Tack, M. Tayal, J.F. Tooker, D. Torrico-Bazoberry, K. Tougeron, A.M. Trowbridge, S. Utsumi, O. Uyi, J.L. Vaca-Uribe, A. Valtonen, L.J.A. van Dijk, V. Vandvik, J. Villellas, L.P. Waller, M.G. Weber, A. Yamawo, S. Yim, P.L. Zarnetske, L.N. Zehr, Z. Zhong, and W.C. Wetzel. **2023**. Plant size, latitude, and phylogeny explain variability in global herbivory. *Science*.
42. M.B. Fleming*, L. Stanley, R. Zallen, M. Chansler, L.A. Brudvig, D.B. Lowry, M.G. Weber, F.W. Telewski. **2023**. The 141-year period for Dr. Beal's seed viability experiment: adding genetic analyses to the story. *American Journal of Botany*
41. *Graham, C.D.K., Forrestel, E.J., Schillmiller, A.L., *Zemenick, A.T., and M.G. Weber. **2023**. Evolutionary signatures of a trade-off in direct and indirect defenses across the wild grape genus *Vitis*. *Evolution*.
40. Robinson, M., Weber, M.G., Freedman, M., *Yonenaga, J., and S.Y. Strauss. **2023**. Broadscale evolution of coloration in caterpillars reflects their interactions with plants. *Proceedings of the Royal Society B*. 290(1991): 20222293.
39. *B.S. Martin, G.S. Bradburd, L.J. Harmon, and M.G. Weber. **2022**. Modeling the Evolution of Rates of Continuous Trait Evolution. *Systematic Biology*. 2022-03.
38. *Graham, F., Warneke, C., Weber, M.G., and L. Brudvig. **2022**. The Impact of habitat fragmentation on domatia-dwelling mites and a mite-plant-fungus tritrophic interaction. *Landscape Ecology*. 37(12): 3029-3041.
37. *Zemenick, A. T., S. C. Jones, M. G. Weber, A. J. Webster, E. Raymond, K. Sandelin, T. Kowalczyk, N. Hessami, C. Lund. Dahlburg. **2022**. Diversifying and humanizing biologist role models through constructing slide deck on researchers' research and life experiences. *CourseSource*. 9.
36. *Zemenick, A. T., Turney, S., S. C. Jones, Webster, A.J., and M. G. Weber. **2022**. Six principles for embracing gender and sexual diversity in post-secondary biology classrooms. *BioScience*. 72(5): 481-492.
- Response to a comment on this article:* *Zemenick, A. T., Turney, S., S. C. Jones, Webster, A.J., and M. G. Weber. **2023** A response to Fagundes and Coyne's "Strategies for promoting effective and inclusive biology education" *BioScience*. 73(5), 322-323.
- Editorial about comments on article:* Fenster, C., Verdier, J.M., and S.L., Collins. **2023**. Moral fallacies and moral obligations. *BioScience*. 73(5), 319.
35. Chomicki, G., Beinart, R., Prada, C., Ritchie, K.B., and M.G. Weber. **2022**. Symbiotic Relationships as Shapers of Biodiversity. *Frontiers in Ecology and Evolution*. 10.
34. *LaPlante, E.R., *Fleming, M., Migicovsky, Z., and Weber, M.G. **2021**. Genome-wide association study reveals genomic regions associated with mite recruitment phenotypes in the domesticated grapevine (*Vitis vinifera*). *Genes*. 12, 1013.

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33. Pan, V.S. McMunn, M., Karban, R., Goidell, J., Weber, M.G., *E.F. LoPresti. **2021**. Mucilage-binding to ground protects seeds of many plants from harvester ants: a functional investigation. *Functional Ecology*. 35(11), 24448-2460.
32. *Coltharp, E., Knowd, C., Abelli-Amen, E., Abounayan, A., Alcaraz, S., Auer, R., Beilman, S., Breit, E., Brennan, J., Brown, H., Cancroft, O., Carlson, J., Carpenter, M., Carriero, N., Couser, R., Diaz, S., Gonzalez, S., Field, C., Fields, L., Fowler, M., Goldston, B., Griego, E., Hale, D., Hunter, R., Inman, J., Krumi, B., Mattern, E., McCollum, M., McNeill, E., Miller, K., Mistry, M., Plastina, G., Rarig, K., Roge, A., Selfridge, H., Staats, T., Tran, E., Trinh, B., Waitkus, S., Walsh, P., Weiss, A., Willcox, A., Young, O., Zervas, J., Grossenbacher, D., & M. Weber. **2020**. Leaf hair tufts function as domatia for mites in *Quercus agrifolia*. *Madrono*. 67,165-169 *This paper includes 32 undergraduate authors
31. Hembry, D. H. and Weber, M.G. **2020**. Ecological Interactions and macroevolution: a new field with old roots. *Annual Review of Ecology, Evolution, and Systematics*. 51.
30. Wood, S., McKibbe, T., Chen, L., Henning, J.A., Smith, M.L., Weber, M.G., *Zemenick, A., and C.J. Ballen. **2020**. A scientist like me: demographic analysis of biology textbooks reveals both progress and long-term lags. *Proceedings of the Royal Society B*. 287 (1929), 20200877.
29. Pearse, I.S., Ali, J.G., Bronstein, J.L., Eubanks, M. D., *LoPresti, E., Mooney, K.A., Ode, P.J., Schaeffer, R.N., Weber, M.G., Wetzels, W.C. **2020**. Generalizing indirect defense and resistance of plants. *Ecology Letters*. 23(7).
28. *Baskett, C., *Schroeder, L., Weber, M.G., and D. Schemske. **2020**. Multiple metrics of latitudinal patterns in insect pollination and herbivory for a tropical-temperate congener pair. *Ecological Monographs*. 90 (1), e01397.
27. *LoPresti, E.F., Goidell, J., Mola, J., Page, M., Stuligross, C., Specht, C., Weber, M.G., Williams, N., and R. Karban. **2019**. A lever action hypothesis for pendulous hummingbird flowers: experimental evidence from a columbine. *Annals of Botany*. 125 (1), 59-65.
26. *LoPresti, E.F., Pan, V., Goidell, J., Weber, M.G., and R. Karban. **2019**. Mucilage-bound sand reduces seed predation but not by reducing apparency; a field test of 53 plant species. *Ecology*. 100 (4), 1-2.
25. *Foisly, M.R., Albert, L.P., *Hughes, D.W.W., and M.G. Weber. **2019**. Do latex and resin spur diversification? Reexamining an early hypothesis of escape and radiate coevolution. *Journal of Ecology*. 107(4) 1606-1619.
24. Chomicki, G., Weber, M.G., Antonelli, A., Bascompte, J., and T. Kiers. **2019**. The Impact of Mutualisms on species richness. *Trends in Ecology and Evolution*. 34(8) 698-711.
23. Harmon, L., C., Andreazzi, C., Drury, J.P., Goldberg, E., Martins, A., Melián, C., Narwani, A., Pennell, M., Rudman, S., Seehausen, O., Silvestro, D., Weber, M.G. and B. Matthews. **2019**. Detecting the Macroevolutionary Signal of Species Interactions. *Journal of Evolutionary Biology*. 32(8) 769-782.
22. Agrawal, A.A.; Ali, A.; Johnson, M.D.; Hastings, A.; Burge, D.; and M.G. Weber. **2018**. Toxicity of the spiny thick-foot *Pachypodium* (Apocynaceae). *New Phytologist*. 105(4), 677-686.
21. Weber, M.G., N.I. Cacho, M.J.Q. Phan, C. Disbrow, S.R. Ramirez, S.Y. Strauss. **2018**. The evolution of floral signals in relation to range overlap in a clade of California Jewelflowers (*Streptanthus* s.l.). *Evolution*. 72(4), 798-807.
20. Afkhami, M., Mahler, L., Burns, J., Weber, M.G., Wojciechowski, M., Sprent, J., and S. Strauss. **2018**.

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- Symbioses with nitrogen-fixing bacteria: Nodulation and phylogenetic data across legume genera. *Ecology*. 99(2), 502-502.
19. Mahler, L., Weber, M.G., Wagner, C. E., and T. Ingram. **2017**. Pattern and process in the comparative study of convergent evolution. *American Naturalist*. 190 (S1): S13-S28.
 18. Weber, M.G., Wagner, C. E., Best, R.J., Harmon, L.J., and B. Matthews. **2017**. Evolution in a community context: on integrating ecological interactions into macroevolution. *Trends in Ecology and Evolution*. 32(4): 291-304.
 17. Weber, M.G., Mitko, L., Eltz, T., and S.R. Ramírez. **2016**. Macroevolution of perfume signaling in orchid bees. *Ecology Letters*. 19 (11), 1314-1323.
 16. Weber, M.G., and S.Y. Strauss. **2016**. Coexistence in close relatives: Beyond competition and reproductive isolation in sister taxa. *Annual Review of Ecology, Evolution, and Systematics*. 47 (1). 359-381.
 15. Weber, M.G., Porturas, L.D., and S.A. Taylor. **2016**. Foliar nectar enhances plant-mite mutualisms: The effect of leaf sugar on the control of powdery mildew by domatia-inhabiting mites. *Annals of Botany*. 118(3), 459-466.
 14. LoPresti, E. and Weber M.G. **2016**. Breaking barriers in evolutionary biology: A pioneering woman in science and her early theory of plant chemical macroevolution. *The American Naturalist*. 188(2), ii-iv.
 13. Mitko, L., Weber M.G., Ramírez ,S.R., Hendenström, E., Wcislo, W.T., and T. Eltz. **2016**. Olfactory specialization for perfume collection in male orchid bees. *Journal of Experimental Biology*. 219: 1467-1475.
 12. Pokorny, T., Ramírez ,S.R, Weber M.G., and T. Eltz. **2015**. Cuticular hydrocarbons as potential close range recognition cues in orchid bees. *Journal of Chemical Ecology*. 41(12), 1080-1094.
 11. Agrawal, A.A. and M.G. Weber, **2015**. On the study of plant defense and herbivory using comparative approaches: how important are secondary plant compounds? *Ecology Letters*. 18(10),985-991.
 10. Weber, M.G. and A. A. Agrawal, **2014**. Defense mutualisms enhance lineage diversification in plants. *Proceedings of the National Academy of Science*. 111(46), 16442-16447.
 9. Weber, M.G., and K.H. Keeler. **2013**. The phylogenetic distribution of extrafloral nectaries in plants. *Annals of Botany*. 111 (6): 1251-1261.
 8. Weber, M.G., Clement, W.L., Donoghue, M.J., and A.A. Agrawal. **2012**. Phylogenetic and experimental tests of interactions among mutualistic plant defense traits in *Viburnum* (Adoxaceae). *The American Naturalist* 180: 450-463.
 7. Weber, M.G., and A.A. Agrawal. **2012**. Phylogeny, ecology, and the coupling of comparative and experimental approaches. *Trends in Ecology and Evolution* 27: 394-403.
 6. Agrawal, A.A., Petschenka, G., Bingham, R.A., Weber, M.G., and S. Rasmann. **2012**. Toxic cardenolides: chemical ecology and coevolution of specialized plant-herbivore interactions. *New Phytologist* 194: 28-45.
 5. Dalton, C.M., Mokiao-Lee, A., Weber, M.G., Roco, C.A., Han, Z., Dudley, B., MacKenzie, R.A., and N.G. Hairston Jr. **2012**. Anthropogenic disturbance of top-down and bottom-up controls in a highly

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endemic tropical aquatic food web. *Oikos*. 122(5): 790-800.

4. Kennedy, P.G., Higgins, L.M., Rogers, R.H., and M.G. Weber. **2011**. Colonization-competition tradeoffs as a mechanism driving successional dynamics in ectomycorrhizal fungal communities. *PLoS ONE* 6: e25126.
3. Kennedy, P.G., Weber, M.G., and A.A. Bluhm. **2010**. *Frankia* bacteria in *Alnus rubra* forests: genetic diversity and determinants of assemblage structure. *Plant and Soil* 335: 479-492.
2. Kennedy, P.G., Schouboe, J.L, Rogers, R.H., Weber, M.G., Nadkarni, N.M. **2010**. *Frankia* and *Alnus rubra* canopy roots: An assessment of genetic diversity, propagule availability, and effects on soil nitrogen. *Microbial Ecology* 59: 214-220.
1. Kursar, T.A., Dexter, K.G., Lokvam, J, Pennington, R.T., Richardson, J.E., Weber, M.G., Murakami, E., Drake, C., McGregor, R., and P.D. Coley. **2009**. The evolution of anti-herbivore defenses and their contribution to species coexistence in the tropical tree genus *Inga*. *Proceedings of the National Academy of Science* 106: 18073-18078.

GRANTS & FELLOWSHIPS

NSF DEB-2236747: CAREER Grant (\$1,040,113, Single PI)	2023-2028
CAREER: Cooperation on the tree of life: Understanding the drivers of mite-plant defense mutualisms via the integration of phylogenetics, ecology, and education. <i>National Science Foundation</i> .	
ADVANCE Elizabeth Caroline Crosby Faculty Grant (\$3,450)	2022-2023
<i>University of Michigan ADVANCE</i> .	
NSF IUSE-2012014: DUE - IUSE- Engaged Student Learning Grant (\$1,001,102 total, \$480,255 to Weber, Lead PI)	2020-2024
Diversifying and Humanizing Scientist Role Models to Increase the Impact of Data Literacy Instruction on Student Interest and Retention in STEM. <i>National Science Foundation</i>	
<i>Supplement 2024, NSF-2438263 (\$93,532)</i>	
NSF DEB-1831164: Dimensions in Biodiversity Grant (\$1,103,146, Single PI)	2018-2023
Dimensions: The causes and consequences of leaf trait evolution for hidden life on the phyllosphere. <i>National Science Foundation</i> .	
<i>Supplement 2020, NSF-2028570 - Career Life Balance Award (\$23,921)</i>	
Initiation (STINT) grant IB 2018-8066 (10,000 SEK = \$10,785, 3PI), Swedish Foundation	2019-2020
<i>For International Cooperation in Research</i>	
Center for Population Biology Postdoctoral Fellowship (\$96,000); University of California, Davis	2014-2016
ASN Student Research Award (\$2,000); American Society of Naturalists	2013
NSF Doctoral Dissertation Improvement Grant (\$15,000); National Science Foundation	2012
NSF Graduate Research Fellowship (\$90,000); National Science Foundation	2010-2013
Kieckhefer Adirondack Fellowship (\$4,000); Cornell Graduate School	2010
Sigma Xi National Grant in Aid of Research (\$620); Sigma Xi Assoc., National	2010
Sigma Xi Research Grant (\$776); Sigma Xi Assoc., Cornell Chapter	2010

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Orenstein Endowment Grant (\$1,500); Orenstein endowment fund, Cornell University	2009 & 2012
Ecological Society of America Grant (\$700); Fungal Env. Sampling & Informatics Network	2008

HONORS & AWARDS

Leading for Equity and Advancing Diversity (LEAD) Fellow- University of Michigan	2024
<i>Awarded to recently tenured faculty at the University of Michigan with demonstrated commitments to diversity, equity, and inclusion, through National Center for Institutional Diversity (NCID)</i>	-
Top 10 Scientists to Watch List– Science News	2023
<i>Annual list of 10 early and mid-career scientists who are making extraordinary contributions to their field” which recognizes 10 young researchers “for their potential to shape the science of the future”</i>	
Teacher-Scholar Award - Michigan State University	2022
<i>Top University-Level Teaching Award - Awarded to an “assistant professor and associate professor who early in their careers have earned the respect of students and colleagues for their <u>devotion to and skill in teaching</u>. The essential purpose of the award is to provide recognition to the <u>best teachers who have served at MSU for seven years or less.</u>”</i>	
Teacher-Scholar Award –College of Natural Sciences, Michigan State University	2021
<i>Top College-Level Teaching Award – “The essential purpose of the award is to provide recognition to the <u>best teachers who have served at MSU for seven years or less, taking into consideration that the most effective teachers will have their instruction intricately linked to and informed by their research and creative activities.</u>”</i>	
Excellence in Diversity Award –Michigan State University	2020
<i>University-Level DEI Award - Awarded specifically for my efforts in equitable undergraduate biology education through Project Biodiversify (www.projectbiodiversify.org.) Awarded to those that are “outstanding, exceptional, extraordinary, and innovative in areas such as teaching, research, programs, services, and community outreach”.</i>	
Early Career Fellow, Ecology Society of America	2018-2023
Jasper Loftus-Hills Young Investigator Award, The American Society of Naturalists	2015
Ed Ricketts Seminar Award, American Society of Naturalists Conference, Asilomar, CA	2014
LaMont C. Cole Award; Departmental award for best student paper, Cornell Dept. of EEB	2012
Rosemary Grant Award; Society for the Study of Evolution	2010
Book Award; Departmental award for best talk by an incoming student, Cornell EEB	2010
Best Student Talk; American Arachnology Society	2008
Biology Prize; (Top dept. student honor); Dept. of Biology, Lewis & Clark College, OR	2007

INVITED PRESENTATIONS & INVITED SEMINARS

**International meetings*

Saul Award Speaker, Department of Biology, Middlebury College	2024
Department of Biology, Indiana University	2023
Department of Ecology & Evolution, University of Minnesota	2022
*Plenary speaker, Symposium on “Determinants of Rates of Origination, Extinction, and	2022

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Evolution ", Norwegian Academy - *Invited but declined due to move to U-M	
*Keynote speaker, Symposium on the Evolution of Complex Plant-Insect traits, European Society for Evolutionary Biology Meeting - *Invited but declined due to move to U-M	2022
Biology Dept. Seminar, Western Michigan University	2022
*Keynote speaker, Special Symposium on Species Interactions and Plant Chemistry	2022
<i>European Society for Evolutionary Biologists (declined due to move to U-M)</i>	
Department of Ecology and Evolutionary Biology Seminar, University of Michigan	2021
*Special Symposium on Herbivory Through Time & Space, Entomology Society of America Annual Conference	2021
*Session Keynote, Phyllosphere Fortnight Conference	2021
*Colloquium Invited Speaker, Phytochemistry Colloquium, Botany Conference	2021
Biology Department, University of Massachusetts, Boston	2021
Plant Biology Department, University of California, Riverside	2021
Biological Sciences Department, Clemson University	2021
Graduate Student Invited Speaker, Dept. of Biological Sciences, University of Arkansas	2021
Ecology, Evolution, and the Environment Seminar Series, Durham University	2021
Graduate Student Invited Speaker, Department of Biology, Central Vermont University	2021
Department of Biology, University of Connecticut	2020
Department of Biology, Louisiana State University	2020
Department of Evolutionary Ecology, Lund University, Sweden	2019
*Special symposium on Macroevolution and Species Interactions, Society for the Study of Evolution Meeting, Providence, RI	2019
Gordon Conference on Speciation, Ventura, CA	2019
Ecology Seminar, Duke University	2019
Ecology & Evolutionary Biology Department Seminar, University of Michigan	2019
Entomology Department Seminar, Penn. State University	2018
Biodiversity Center Seminar, University of British Columbia	2018
Ecology and Evolutionary Biology Department, University of Toronto	2018
150 years of the American Naturalist, ASN meeting, Asilomar, CA	2018
Department of Biology, University of Toronto, Mississauga	2017
Department of Ecology & Evolutionary Biology Seminar, University of Arizona, Tucson AZ	2017
*Symposium on Indirect Defense, Entomological Society Meeting, Denver, Colorado	2017
Department of Biology Seminar - University of Idaho	2017
EvMorph Seminar Series, University of Chicago & The Field Museum	2017
Horticulture/Plant, Soil, and Microbial Sciences Seminar Series, Michigan State University	2017
Kellogg Biological Station, Michigan State University	2017
Distinguished Speaker Department of Plant Biology Seminar Series, University of Wyoming	2016
Ecology and Evolution 'Eco-Lunch', Stanford University	2016

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American Society of Naturalists Young Investigator Symposium, <i>Evolution Meeting, Brazil</i>	2015
Ecology, Evolutionary Biology & Behavior Seminar Series, <i>Michigan State University</i>	2015
Biodiversity Research Center (BLISS) Seminar Series, <i>University of British Columbia</i>	2014
Department of Botany and Plant Pathology Seminar Series, <i>Oregon State University</i>	2014
Department of Organismic & Evolutionary Biology Seminar Series, <i>Harvard University</i>	2014
Center for Population Biology Seminar Series, <i>University of California, Davis</i>	2014
Department of Biology Seminar Series, <i>Ithaca College, Ithaca, NY</i>	2013
Department of Limnology Seminar Series, <i>EAWAG Zurich, Switzerland</i>	2013
Novel Traits and Rapid Evolution Conference, <i>Cornell University</i>	2013
<i>Viburnum</i> Research Summit, <i>Yale University</i>	2012

CONTRIBUTED PRESENTATIONS AT PROFESSIONAL MEETINGS

American Society of Naturalists: 2014, 2016
(poster), 2018, 2020

Ecology Society of America: 2010, 2012, 2017,
2018

Society for the Study of Evolution: 2012,
2013, 2015, 2017, 2019

Gordon Conference on Plant Insect
Interactions: 2009 (poster)

American Arachnology Society: 2006, 2008,
2018

TEACHING AND MENTORSHIP



Co-founder & Co-director of Project Biodiversity, 2018-present
DEI-focused initiative aimed at making biology classrooms more inclusive. The mission of Project Biodiversify is to develop, test, and distribute research-supported teaching materials for inclusive biology education website: projectbiodiversify.org; twitter: [@biodiversifying](https://twitter.com/biodiversifying)

*Awarded University-Level Excellence in Diversity Award, MSU 2020

Workshops by Project Biodiversify Team (I helped organize these as director; workshops given by other team members): Clayton County, GA Science Teacher Training (2022); Loyola University (2022); University of Minnesota (2022); University of Wisconsin (2022); Holden Forests & Gardens (2022); University of California, Berkeley (2021); CSU Longview (2021); University of California, Davis (2021); University of Minnesota (2021); Michigan Tech (2021); Living Earth Collaborative Seminar (2021); University of Massachusetts (2021); Susquehanna University (2021); Michigan State University Department of Entomology (2021); University of Connecticut (2021); California Polytechnic University Department of Biology (2021) Macmillan Publishing (2020); Cornell University (2020); Auburn University (2020); Oklahoma State (2021); Duke University (2020); University of California, Davis (2020); University of Washington, Tacoma (2019); Western Washington University (2019); University of Idaho (2019); Northern Kentucky University (2019); Association for the

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Sciences of Limnology and Oceanography (2019); Michigan State University Kellogg Biological Station k-12 Teaching workshop (2018); Society for Freshwater Science Meeting (2018), Ecology Society of America Meeting (2018)

Mentorship:

Graduate Mentees:

<i>Emma Dawson-Glass, PhD Student (co-advised w/ Nate Sanders, 2023-present)</i>	<i>Bruce Martin, PhD Student (2018-2024)</i>
<i>Abriana Soule, PhD Student (2021-present)</i>	<i>Michael Foisy, Master's Student (2018-2020)</i>
<i>Rosemary Glos, PhD Student (2021-present)</i>	<i>Erika LaPlante, Master's Student (2017-2020)</i>
<i>Sylvie Martin-Eberhardt, PhD Student (co-advised w/ Kadeem Gilbert 2021-present)</i>	<i>Carina Baskett, PhD Student (co-advised w/ Doug Schemske, 2016-2018)</i>
<i>Carolyn Graham, PhD Student (2020-present)</i>	

Postdoctoral Mentees:

<i>Julia Boyle (2024-present)</i>	<i>Margaret Fleming (2019-2022 – now an Assistant Professor, Michigan State University)</i>
<i>Marianne Azevedo Silva (2024-present)</i>	
<i>Bruce Martin (2024-2024, now NSF Postdoctoral Fellow, University of Georgia)</i>	<i>Eric LoPresti (2017-2020 – now an Assistant Professor, University of South Carolina)</i>
<i>Melissa Kjelvik (2020-2024 – now research scientist, Michigan State University)</i>	<i>Ash Zemenick (2017-2021; 2023-2024)</i>
<i>Andrew Meyers (2019-2022, now Conservation Scientist, Michigan Nature Association)</i>	

Undergraduate and Postgraduate Mentees:

24. James Latiff (UM Undergraduate Researcher, 2024-present); 23. Joseph Robinson (Research Technician, 2024-2024), 22. Daniel Molitor (UM Undergraduate Researcher, 2023-2023), 21. Charlie Zhang (UM Undergraduate Researcher, 2022-present); 20. Bela Fischer (UM Undergraduate Researcher, 2023-2024); 19. Azreal Vollmar (UM undergraduate Researcher, 2023); 18. Ryan Cheney (UM undergraduate Researcher, 2022-2024); 17. Chris Talbot (UM undergraduate Researcher, 2022-present); 16. Samantha Molino (UM Undergraduate Researcher, 2022-present); 15. Paige Trevillian (UM Undergraduate Researcher, 2022-2023); 14. Morgaine Olsen (MSU Undergraduate Researcher 2021-2022); 13. Riley Scanlon (MSU Undergraduate Researcher 2019-2021); 12. Carolyn Graham (MSU Undergraduate Researcher 2016-2020); 11. Caroline Edwards (Research Technician 2018-2020); 10. Thomas Zambiasi (MSU Undergraduate Researcher 2018-2019); 9. Keegan Mackin (MSU Undergraduate Researcher 2018); 8. Daniel Hughes (Research Technician 2017-2019); 7. Ashley Peer (MSU Undergraduate Researcher 2017-2018); 6. Lucy Schroeder (MSU Undergraduate Researcher 2016-2018); 5. Abby Sulesky (MSU Undergraduate Researcher 2016-2018); 4. Susan Gordon (Research Technician 2016-2017); 3. Martin Phan (University of California, Davis Undergraduate Researcher 2015-2016); 2. Jenna Yonenaga (University of California, Davis Undergraduate Researcher 2014-2017); 1. Karen Bitan, Cornell University (Undergraduate Researcher 2013-2014)

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Graduate Committees:

34. John Paul Soriano, UM Biopsych (2024-present); 33. Tristan Schramer, PhD UM EEB (2024-present); 32. Charlotte Probst, PhD UM SEAS (2023-present); 31. Ashley Schuler, Masters UM EEB (2023-present); 30. Anah Soble, Masters UM EEB (2023-2024); 29. Juan Albornoz Garzón, PhD UM EEB (2023-present); 28. Matt Hack, PhD UM EEB (2022-present); 27. Diana Medellín-Zabala, PhD UM EEB (2022-present); 26. Simone Oliphant, PhD UM EEB (2022-present); 25. Grace Zhang, PhD UM EEB (2022-present); 24. Caroline Edwards, PhD Indiana University (2022-present); 23. Stephanie Harwick Clark, PhD MSU-IBIO (2021-present); 22. Abby Bryson, PhD MSU-Genetics (2020-2024); 21. Katherine Dupree, PhD U. of Arkansas (2020-2023); 20. Jennifer Zavalnitskaya, Masters MSU-ENT (2019-2021); 19. Kara Dobson, PhD MSU-IBIO (2020-2024); 18. Riley Pizza, PhD MSU-PLB (2020-present); 17. Abby Sulesky-Grieb, PhD MSU-MMG (2020-2024); 16. Kota Nakasato, Masters MSU-PLB (2020-2023); 15. Julian Liber, Masters MSU-PSMB (2020-2021); 14. Alice Puchalsky, PhD MSU-IBIO (2019-2022); 13. Brandon Latorre, PhD MSU-PLB (2019-present); 12. Lauren Koenig, PhD MSU-IBIO (2018-2021); 11. Devin Lake, Masters MSU-IBIO (2019-2022); 10. Elizeth Cinto Mejia, MSU-ENT PhD (2018-2023); 9. Kayleigh Courard, Masters MSU-ENT (2018-2021); 8. Malia Santos, PhD U. of Wyoming (2018-Present); 7. Michael Ryskamp, PhD MSU-PLB (2016-present); 6. Nicole Wonderlin, PhD MSU-ENT (2016-2023); 5. Caitlyn Bryon, Masters MSU-PLB (2016 – 2018); 4. Christopher Werneke, PhD MSU-PLB (2016-2021), 3. Klara Scharnagl, PhD MSU-PLB (2016-2019); 2. Susan Magnoli, PhD MSU-PLB/KBS (2016-2018); 1. Damian Popovic, Masters MSU-PLB (2016-2018).

Courses Taught:

UM EEB 405 – Insights from Trees: Science, Art, and Observation in a Noisy World University of Michigan <i>Place-based CURE style course at Biological Station - ~7 undergraduates</i>	SU24
UM EEB 410 – Capstone Course in Ecology and Evolutionary Biology University of Michigan <i>Senior-level required majors discussion course - ~16 undergraduates</i>	WN23
UM BIO 171 – Introductory Biology University of Michigan <i>Introductory biology course with ~600 undergraduates each year</i>	FA22, FA23
MSU IBIO/PLB/ENT 830: <i>Quantitative Methods in Ecology and Evolutionary Biology I</i> Michigan State University <i>Graduate level course (~40-60 students/yr) introduction to coding and statistics in R</i>	FA18, FA19, FA21
MSU IBIO/PLB 355: <i>General Ecology</i> Michigan State University <i>Undergraduate level course (~200 students/yr) introduction to Ecology</i>	FA18, FA19
MSU ENT 812: <i>The Ecology and Evolution of Plant-Arthropod Interactions</i> Michigan State University <i>Graduate Seminar: (~20 students/yr)</i>	FA18

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MSU IBIO/PLB 851: *Quantitative Methods in Ecology and Evolutionary Biology* SP17
Michigan State University
Graduate level course (~30 student) introduction to coding and statistics in R

Additional teaching:

Guest Lecturer: UM EEB 548 – Principles of Ecology (2024), MSU-Plant Genomics REU (2018, 2019), Eastern Michigan University Field Arachnology Course (2018), MSU PLB 203 (2017, 2018), MSU IBIO/PLB 355 honors (2017), MSU PLB801 (2017), MSUPLB801 (2021)

Instructor, *Exploration Through the Liberal Arts Course, Intend-to Attend (I2A) program for 8th-12th graders (University of Michigan)* SU 2024

Teaching Assistant: *Evolutionary biology and diversity (Cornell University, BioG1780)* SP 2011

Teaching Assistant: *Evolution for non-majors (Cornell University, BioEE2070)* FA 2010

Science Teaching Intern: *Elementary Science Partnership- Portland, OR* 2007

Teaching Assistant: *Biology 100: Intro Biology, Lewis & Clark College* SP 2005

Teaching, mentoring, DEI, and community development workshops attended:

Disability in Teaching Workshop, CRLT, University of Michigan 2024

Microaggressions Workshop , LSA DEI office, University of Michigan 2024

The Stories our Systems Tell Workshop, CRLT Players, University of Michigan 2024

Bystander Intervention Training, LSA, University of Michigan 2024

Trans Inclusive Mentoring Workshop, EEB, University of Michigan 2024

Holistic Admissions Workshop, Rackham Graduate School, University of Michigan 2023

Allies at Work, LSA University of Michigan 2023

Bystander Intervention Training, Michigan State University 2021

Mentorship Workshop for Faculty, Kellogg Biological Station, Michigan State 2020

Cultural Competency Training, Michigan State University 2019

STEM Teaching Essentials Workshop on Backward Design, Michigan State University 2018

QuILL: Queer Inclusive Learning and Leadership, Michigan State University 2017

Effective Teaching and Learning Workshop, Michigan State University 2016

Teaching Workshop: Cornell Center for Teaching Excellence, Cornell University 2009

PROFESSIONAL SERVICE

National/International Service:

Associate Editor, *The American Naturalist* 2021-Present

Scientific Committee, *Society for the Study of Evolution* 2022-2024

Symposium Committee Chair, *American Society of Naturalists* 2019-2022

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- Special Symposium co-organizer: "Integrating ecological interactions into macroevolution"** 2019
Society for the Study of Evolution meeting, Providence, RI.
- National Science Foundation Panel Member** 2014, 2017, 2018
- Special Symposium Organizer: "The evolution of mutualism and their evolutionary impact on biodiversity."** 2018
Society for the Study of Evolution meeting, Montpellier, France.
- American Society of Naturalist Society Symposium Committee** 2018-2020
- ASN Young Investigators Special Symposium Organizer, Evolution meeting, Austin, TX** 2016
- Reviewer (example journals):** Including *Science, Nature, PNAS, Ecology Letters, Evolution Letters, American Naturalist, Evolution, Ecology, Plant Ecology, Oecologia, American Journal of Botany, Proceedings of the Royal Society B, Journal of Chemical Ecology, Biotropica, New Phytologist, International Journal of Plant Sciences, Botany, PLOS Computational Biology*

Institutional Service:

- Associate Chair for Graduate Studies, EEB Dept., UM** 2024-present
- Biodiversity Exploration Fund Review Committee, Ad hoc, EEB Dept., UM** 2023-present
- Graduate Admissions Committee, EEB Dept., UM** 2023-2024
- Field Ecology Neighborhood Representative, EEB Dept., UM** 2023-present
- Advisory Board, University of Michigan Biological Station** 2023-present
- Frontiers Master's Program Admissions Committee, EEB Dept., UM** 2022-2023
- Chair, Early Career Scientist Symposium Committee, EEB Dept., UM** 2022-2023
- Chair, Faculty Advisory Committee (DAC), Department of Plant Biology, MSU** 2021-2022
- Hiring Committee, MSU PLB Plant Ecologist search** 2021-2022
- Co-Chair, Postdoctoral Fellowship Committee, EEB Program, MSU** 2020
- Space Committee, Department of Plant Biology, MSU** 2019-2022
- Diversity, Equity, and Inclusion Committee, Department of Plant Biology, MSU** 2019
- Rodman Speaker Committee, Department of Plant Biology, MSU** 2018-2022
- Faculty Advisory Committee (DAC), Department of Plant Biology, MSU** 2018-2019
- Seminar Committee Ecology, Evolutionary Biology, and Behavior Program, MSU** 2018-2020
- Long Range Planning Faculty Hiring Committee, Department of Plant Biology, MSU** 2018-2019
- Workload Balance Committee, Department of Plant Biology, MSU** 2018
- Hiring Committee, MSU PLB/PRI Eco-physiologist search** 2017-2018
- Hiring Committee, UC Davis Center for Population Biology Postdoctoral Fellowship** 2016
- Seminar Series Organizer, Center for Population Biology Seminar Series, UC, Davis** 2015-2016

PUBLIC OUTREACH

- "Many flowers and ferns lure in ants as bodyguards"** Science News Explores, 2024
<https://www.snexplores.org/article/flowers-ferns-lure-ants-bodyguards>
- "One of the World's Longest-Running Experiments Sends up Sprouts"** New York Times 2021

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- <https://www.nytimes.com/2021/05/11/science/seeds-germinated-michigan-state.html> 2021
- "Buried Treasure: Weeds, Seeds and Zombies"** *Gastropod Podcast* 2021
- "Digging up 142-Year-Old Seeds in the Latest Installment in the World's Oldest Experiment"** 2021
Quirks & Quarks, Canadian Broadcasting System
- "A Seedy, Late-Night Adventure"** *Science Vs Podcast* 2021
- "142-Year-Old MSU Experiment Continues on with New Generation of Scientists"** *WKAR* 2021
Public Media. <https://www.wkar.org/news/2021-04-26/142-year-old-msu-experiment-continues-on-with-new-generation-of-scientists>
- "A 142-Year-Old Science Seed Caper"** *NPR* 2021
<https://www.npr.org/transcripts/990183146>
- "The Secret Mission to Unearth Part of a 142-Year-Old Experiment"** *NPR* 2021
<https://www.npr.org/2021/04/21/989333092/the-secret-mission-to-unearth-part-of-a-142-year-old-experiment>
- "One of the World's Oldest Science Experiments Comes Up From the Dirt"**, *New York Times* 2021
<https://www.nytimes.com/2021/04/21/science/beal-seeds-experiment.html>
- "Picture a Scientist"** *Women in Science Panel, Princeton University Press* 2020
- Bug Talk Podcast**, *Michigan State Entomology Graduate Student Podcast* 2020
- Blog Post: "Help us to diversify and humanize biology courses!"**, *Small Pond Science*, co-authored with Ash Zemenick 2020
- Keynote Speaker**, *Girls Math and Science Day, Michigan State University* 2019
- Implicit Bias Workshop**, *MSU BEACON summit* (Co-Organizer) 2017
- Workshop on "How to Cope with Failure in Science"**, *UC Davis* (Organizer) 2016
- Women in Science Group (WiSci)**, *UC Davis* (Co-founder and Organizer) 2014-2016
- Expanding Your Horizons: STEM program for middle school girls**, *Cornell University* (Organizational Chair) Annually, 2011-2014
- Diversity of insects K-12 course**: *Cassavant Elementary School, 1st grade* (Organizer & teacher), Annually, 2012-2014
- Media Outreach Organizer**: *Frontiers symposium for women in the life sciences* 2012
- STEM mentor to middle school girls**, *Expand Your Horizons, Cornell University* 2010 - 2011
- Scientific American Podcast: "Arachnophilia!"** 2008