

MARJORIE G. WEBER

CURRICULUM VITAE (January 2019)

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CURRENT APPOINTMENT

Assistant Professor, Department of Plant Biology
Ecology, Evolutionary Biology, & Behavior Program
Michigan State University

2016 - present

EDUCATION

Center for Population Biology Postdoctoral Fellow

University of California at Davis

September, 2014-August, 2016

PhD: Ecology & Evolutionary Biology,
Cornell University, Ithaca, NY

August, 2009 – August, 2014

Bachelor of Arts: Biology Major, *with honors*
Lewis & Clark College, Portland, OR

September, 2003 - May, 2007

PUBLICATIONS

LoPresti, E.F., Goidell, J., Mola, J., Page, M., Stuligross, C., Specht, C., Weber, M.G., Williams, N., and R. Karban. *In Review*. A lever action hypothesis for pendulous hummingbird flowers: experimental evidence from a columbine. *Annals of Botany*.

LoPresti, E.F., Toll, K. and M.G. Weber. *In Review*. Field dispersal and allocation to different fruit morphs in the heterocarpic *Abronia pogonantha*. *American Journal of Botany*.

Foisy, M.R., Albert, L.P., Hughes, D.W.W., and M.G. Weber. *In Revision*. Do latex and resin spur diversification? Reexamining an early hypothesis of escape and radiate coevolution. *Journal of Ecology*.

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. *In Revision*. Detecting the Macroevolutionary Signal of Species Interactions. *Journal of Evolutionary Biology*.

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.

Weber, M.G., N.I. Cacho, M.J.Q. Phan, C. Disbrow, S.R. Ramírez, 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.

Afkhami, M., Mahler, L., Burns, J., Weber, M.G., Wojciechowski, M., Sprent, J., and S. Strauss. **2018**. Symbioses with nitrogen-fixing bacteria: Nodulation and phylogenetic data across legume genera. *Ecology*. 99(2), 502-502.

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.

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- 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.
- 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.
- 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).
- 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*.
- 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.
- 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.
- 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.
- 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.
- 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.
- Weber, M.G., and K.H. Keeler. **2013**. The phylogenetic distribution of extrafloral nectaries in plants. *Annals of Botany*. 111 (6): 1251-1261.
- 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.
- 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.
- 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.
- 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 endemic tropical aquatic food web. *Oikos*. 122(5): 790-800.
- 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.
- 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.

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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.

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

Initiation (STINT) grant IB 2018-8066 (10,000 SEK = \$10,785), Swedish Foundation for International Cooperation in Research	2019-2020
NSF DEB-1831164: Dimensions in Biodiversity Grant (\$1,103,146) National Science Foundation	2018-2022
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
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

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 Ecology & Evolutionary Biology	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

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INVITED PRESENTATIONS & SEMINARS

Entomology Department Seminar, <i>Penn. State University</i>	2018
Biodiversity Center Seminar, <i>University of British Columbia</i>	2018
Ecology and Evolutionary Biology Department, <i>University of Toronto</i>	2018
150 years of the American Naturalist, <i>ASN meeting, Asilomar, CA</i>	2018
Department of Biology, <i>University of Toronto, Missassagga</i>	2017
Department of Ecology & Evolutionary Biology Seminar, <i>University of Arizona, Tucson AZ</i>	2017
Symposium on Indirect Defense, <i>Entomological Society Meeting, Denver, Colorado</i>	2017
Department of Biology Seminar - <i>University of Idaho</i>	2017
EvMorph Seminar Series, <i>University of Chicago & The Field Museum</i>	2017
Horticulture/Plant, Soil, and Microbial Sciences Seminar Series, <i>Michigan State University</i>	2017
Kellogg Biological Station, <i>Michigan State University</i>	2017
Distinguished Speaker Department of Plant Biology Seminar Series, <i>University of Wyoming</i>	2016
Ecology and Evolution 'Eco-Lunch', <i>Stanford University</i>	2016
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	Gordon Conference on Plant Insect Interactions: 2009 (poster)
Ecology Society of America: 2010, 2012, 2017, 2018	American Arachnology Society: 2006, 2008, 2018
Society for the Study of Evolution: 2012, 2013, 2015, 2017	Murdock Charitable Trust Conference: 2006

TEACHING & MENTORSHIP

Graduate Mentees: *Michael Foisy*, PhD Student (2018-present); *Bruce Martin*, PhD Student (2018-present); *Erika LaPlante*, Masters Student (2017-present); *Carina Baskett*, PhD Student (co-advised with Doug Schemske, 2016-2018)

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Postdoctoral Mentees: *Ash Zemenick* (2017-present); *Eric LoPresti* (2017-present)

Undergraduate and Postgraduate Mentees: *Thomas Zambiasi* (MSU 2018-present); *Keegan Mackin* (MSU 2018); *Daniel Hughes*, MSU (2017-present); *Ashley Peer*, MSU (2017-2018); *Lucy Schroeder* MSU (2016-2018); *Abby Sulesky*, MSU (2016-2018); *Susan Gordon*, MSU (2016-2017); *Martin Phan*, University of California, Davis (2015-2016); *Jenna Yonenaga*, University of California, Davis (2014-2017); *Karen Bitan*, Cornell University (2013-2014);

Graduate Committees: *Lauren Koenig* MSU-IBIO (2018-present); *Devin Lake* MSU-IBIO (2019-present); *Kayleigh Courard*, MSU-ENT (2018-Present); *Malia Santos* U. of Idaho (2018-Present); *Michael Ryskamp*, MSU-PLB (2016-present); *Nicole Wonderlin* MSU-ENT (2016-present); *Caitlyn Bryon*, MSU-PLB (2016 – present); *Christopher Werneke*, MSU-PLB (2016-present), *Klara Scharnagl* MSU-PLB (2016-present); *Susan Magnoli*, MSU-PLB/KBS (2016-2018); *Damian Popovic*, MSU-PLB (2016-2018).

Courses Taught:

MSU ENT 812: *Graduate Seminar: The Ecology and Evolution of Plant-Arthropod Interactions* co-taught, Fall 2018

MSU IBIO/PLB/ENT 831: *Quantitative Methods in Ecology and Evolutionary Biology I* co-taught, Fall 2018

MSU IBIO/PLB 355: *General Ecology* co-taught, Fall 2018

MSU IBIO/PLB 851: *Quantitative Methods in Ecology and Evolutionary Biology* co-taught, Spring 2017

Additional teaching:

Guest Lecturer: MSU PLB 203 (2017), MSU IBIO/PLB 355 honors (2017), MSU PLB801 (2017), MSU PLB 203 (2018)

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

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

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

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

Teaching development workshops attended:

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:

Reviewer: Including *Nature*, *PNAS*, *Ecology 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*.

Special Symposium co-organizer, "Integrating ecological interactions into macroevolution." *Society for the Study of Evolution meeting*, Providence, RI. 2019

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National Science Foundation Panel Member	2014, 2017, 2018
Special Symposium Organizer, "The evolution of mutualism and their evolutionary impact on biodiversity." <i>Society for the Study of Evolution meeting, Montpellier, France.</i>	2018
American Society of Naturalist Society Symposium Committee	2018-2019
ASN Young Investigators Special Symposium Organizer, <i>Evolution meeting, Austin, TX</i>	2016

Institutional Service:

Faculty Advisory Committee (DAC), <i>Department of Plant Biology, MSU</i>	2018-present
Long Range Planning Faculty Hiring Committee, <i>Department of Plant Biology, MSU</i>	2018-present
Work Load Balance Committee, <i>Department of Plant Biology, MSU</i>	2018-present
Diversity, Equity, and Inclusion Committee, <i>Department of Plant Biology, MSU</i>	2019-present
Seminar Committee <i>Ecology, Evolutionary Biology, and Behavior Program, MSU</i>	2018-present
Hiring Committee, <i>MSU PLB/PRI Eco-physiologist search</i>	2017-2018
Hiring Committee, <i>UC Davis Center for Population Biology Postdoctoral Fellowship</i>	2016
Seminar Series Organizer, <i>Center for Population Biology Seminar Series, UC, Davis</i>	2015-2016

COMMUNITY & PUBLIC OUTREACH

Project Biodiversity, <i>An online repository of teaching materials to highlight role-models from underrepresented groups in STEM (website:projectbiodiversify.org; twitter:@biodiversifying)</i>	(Co-founder) 2018-present
Workshops on "Contribute to Project Biodiversify: A Repository of Teaching Materials to Diversify and Humanize Introductory Biology Courses" <i>Ecology Society of American Meeting, New Orleans</i>	2018
Implicit Bias Workshop, <i>MSU BEACON summit</i>	(Co-Organizer) 2017
Workshop on "How to Cope with Failure in Science", <i>UC Davis</i>	(Organizer) 2016
Women in Science Group (WiSci), <i>UC Davis</i>	(Co-founder and Organizer) 2014-2016
Expanding Your Horizons: STEM program for middle school girls, <i>Cornell University</i>	(Organizational Chair) Annually, 2011-2014
Diversity of insects K-12 course: <i>Cassavant Elementary School, 1st grade</i>	(Organizer & teacher) Annually, 2012-2014
Media Outreach Organizer: <i>Frontiers symposium for women in the life sciences</i>	2012
STEM mentor to middle school girls, <i>Expand Your Horizons, Cornell University</i>	2010 - 2011
Scientific American Podcast: "Arachnophilia!" <i>AAAS Annual Meeting, Boston, MA</i>	2008