# Meredith A. Zettlemoyer

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#### ACADEMIC APPOINTMENTS

2023-present	Assistant Professor Division of Biological Sciences, University of Montana, Missoula, MT
2020-2023	<b>Postdoctoral Research Associate</b> Department of Plant Biology, University of Georgia, Athens, GA
Spring 2020	<b>Adjunct Faculty</b> Math & Science Department, Kellogg Community College, Battle Creek, MI

2018-2019 Science Education & Outreach Fellow W.K. Kellogg Biological Station, Michigan State University, Hickory Corners, MI

#### **EDUCATION**

2020	<b>Ph.D., Plant Biology &amp; Ecology, Evolutionary Biology and Behavior</b> <i>Michigan State University, East Lansing, MI</i> Advisor: Dr. Jennifer Lau University Distinguished Fellow, Hensley Endowed Fellow in Science
2015	<b>Bachelor of Arts in Biology &amp; English Literature</b> University of Virginia, Charlottesville, VA Advisor: Dr. Laura Galloway Echols Scholar, Distinction in the College, Highest Honors in Biology
<i>Certifications:</i> 2020	<b>Environmental Educator Certification</b> North American Association for Environmental Education & Michigan Alliance for Outdoor & Environmental Education
2019	<b>Certification in Community Engagement (Teaching &amp; Learning)</b> <i>Michigan State University, East Lansing, MI</i>

**PUBLICATIONS** 

\*undergraduate coauthor; §equal contribution

Scientific publications:

- (20) Zettlemoyer, M.A., Conner, R.J., Seaver, M.M., Waddle, E., DeMarche, M.L. 2024. A long-lived alpine perennial advances flowering under warmer conditions but not enough to maintain reproductive success. *American Naturalist*, accepted.
- (19) Zettlemoyer, M.A. 2024. Adding edaphic nuance to species distribution models complicates predictions of range shifts (commentary). *New Phytologist* 241, 5-6. https://doi.org/10.1111/nph.19326
- (18) Zettlemoyer, M.A. 2023. A continuum of selection on life history traits under differential environmental heterogeneity. A commentary on "Chasing the fitness optimum: temporal variation in genetic and environmental expression of life-history traits for a perennial plant." Annals of Botany mcad176. https://doi.org/10.1093/aob/mcad176
- (17) Rutkoski, C., Scamehorn, T., Waterman, R., Klotz, M., **Zettlemoyer, M.A.** 2023. Nature Journaling: sharing perspectives between art and science. *Plant Science Bulletin* 69(3), 219-220.

- (16) Zettlemoyer, M.A. 2023. A demographic approach for predicting population responses to multifactorial stressors. *AoB Plants* 15, 1-9. https://doi.org/10.1093/aobpla/plad023
- (15) Zettlemoyer, M.A, Cortijo-Robles, K.M.\*<sup>§</sup> 2023. Extant species are more responsive than extirpated species to warming effects on soil communities. *Plant and Soil* 485, 117-131. https://doi.org/10.1007/s11104-022-05792-9
- (14) Zettlemoyer, M.A., Wilson, J.\*, DeMarche, M.L. 2022. Estimating phenological sensitivity in contemporary vs. historical data sets: effects of climate resolution and spatial scale. *American Journal of Botany* 109(12), 1981-1990. https://doi.org/10.1002/ajb2.16087
- (13) Zettlemoyer, M.A., Cortijo-Robles, K.M.\*, Srodes, N.\*, Johnson, S.E.\* 2022. What're we reading? Hot topics and authorship in ecology literature across decades. *Bulletin of the Ecological Society of America* 104(1): e02025. https://doi.org/10.1002/bes2.2025
- (12) Zettlemoyer, M.A., Ellis, S.L., Hale, C.W., Horne, E.C., Thoen, R.D., DeMarche, M.L. 2022. Limited evidence for phenological differences between nonnative and native species. *Frontiers in Ecology and Evolution* 10, 983172. https://doi.org/10.3389/fevo.2022.983172
- (11) Zettlemoyer, M.A. 2022. Monitoring demography of resurrected populations of locally extinct and extant species to investigate drivers of species loss. *American Naturalist* 200(2), e36e51. https://doi.org/10.1086/720206
  <sup>†</sup>Student Paper Award, American Society of Naturalists
- (10) Zettlemoyer, M.A. 2022. Leaf traits mediate herbivory across a nitrogen gradient differently in extirpated vs. extant prairie species. *Oecologia* 198, 711-720. https://doi.org/10.1007/s00442-022-05130-x
- (9) Johnson, S.E.\*, Zettlemoyer, M.A.<sup>§</sup> 2022. Seed predator preferences are associated with seed traits but an unlikely mechanism of local extinction. *Restoration Ecology* 30(7), e13637. https://doi.org/10.1111/rec.13627
- (8) Zettlemoyer, M.A., DeMarche, M.L. 2021. Dissecting impacts of phenological shifts for performance across biological scales. *Trends in Ecology and Evolution* 37(2), 147-157. https://doi.org/10.1016/j.tree.2021.10.004
- (7) Zettlemoyer, M.A., Lau, J.A. 2021. Maternal warming delays offspring germination in native and nonnative species. *Oikos* 130(11), 1880-1891. https://doi.org/10.1111/oik.08345
- (6) Zettlemoyer, M.A., Peterson, M.L. 2021. Does phenological plasticity help or hinder range shifts under climate change? *Frontiers in Ecology and Evolution* 9, 689192. https://doi.org/10.3389/fevo.2021.689192
- (5) Zettlemoyer, M.A., Renaldi, K.\*, Muzyka, M.D, Lau, J.A. 2021. Extirpated prairie species demonstrate more variable phenological responses to warming than extant congeners. *American Journal of Botany* 108(6), 958-970. https://doi.org/10.1002/ajb2.1684
- (4) Zettlemoyer, M.A., Schultheis, E.H., Lau, J.A. 2019. Phenology in a warming world: differences between native and non-native plant species. *Ecology Letters* 22(8), 1253-1263. https://doi.org/10.1111/ele.13290

<sup>†</sup>Outstanding Student Research in Ecology, Ecological Society of America

- (3) Zettlemoyer, M.A., McKenna, D.D., Lau, J.A. 2019. Species characteristics affect local extinctions. *American Journal of Botany* 106(4), 547-559. https://doi.org/10.1002/ajb2.1266
- (2) Zettlemoyer, M.A. 2019. Invasion Meltdown: a lesson meltdown saved by invasion-wise elementary students. *Michigan Science Teachers Association Journal* 64(2), 45-48.
- Zettlemoyer, M.A., Prendeville, H.R., Galloway, L.F. 2017. The effect of a latitudinal temperature gradient on germination patterns. *International Journal of Plant Sciences* 178(9), 673-679. https://doi.org/10.1086/694185

# *In review or in preparation (available upon request):* **Zettlemoyer, M.A.,** Doak, D.F., Morris, W.F., DeMarche, M.L. Local adaptation to minimum

temperatures and climate variability shape thermal performance across an alpine species' range. In prep.

Zettlemoyer, M.A., Munck, S.<sup>§</sup>, Poschlod, P., Rosbakh, S. No changes in plant diversity in montane grasslands over the past eight decades. In prep.

#### **Other publications:**

- Zettlemoyer, M.A. 2020. Phenological and demographic plant responses to global change. *Michigan State University ProQuest Dissertations* 28030011.
- Zettlemoyer, M.A., Rutkoski, C. 2020. The journey of noticing: nature journaling as a record of wonder and change. *Kellogg Biological Station Blogs & News*.
- Zettlemoyer, M.A., Srodes, N.\* 2019. To Bloom Again: Can prairie restoration overcome habitat loss? USDA NRCS Conservation Notes, Nov-Dec 2019.
- Zettlemoyer, M.A. 2019. Natural history documents loss of plant species in Kalamazoo County. USDA NRCS Conservation Notes, May-June 2019.
- Zettlemoyer, M.A. 2019. Improving access to K-12 STEM education in rural southwestern Michigan communities. *Certification in Community Engagement*, Office for Public Engagement & Scholarship, Michigan State University.
- Zettlemoyer, M.A., Griffin, S., Haas, K. 2019. Michigan's Endangered Tallgrass Prairies. W.K. Kellogg Bird Sanctuary, Hickory Corners, MI (interpretive signs).
- Zettlemoyer, M.A. 2019. Venus fly traps and watermelons: Skype a Scientist encourages a generation of scientists. *Kellogg Biological Station Blogs & News*.
- Zettlemoyer, M.A. 2017. Dead but not gone? Resurveying historical prairie sites in Kalamazoo County. *Austin Lake Association Newsletter*.

#### **FELLOWSHIPS & AWARDS**

2023	Best Student Paper Award, American Society of Naturalists, \$500
2023	Postdoctoral Scholars Travel Award, University of Georgia, \$1310
2022	Jim F. Crow Institute for the Study of Evolution Early Career Scientist Seminars Award,
	University of Wisconsin Madison
2022	Travel Award, Botanical Society of America, \$500
2021	Travel Award, Plant Biology, UGA <sup>1</sup> , \$1075
2015-2020	University Distinguished Fellowship, MSU <sup>2</sup> , \$104400
2019-2020	Dr. Martin Hensley Endowed Fellowship, MSU, \$8000
2020	Bessey Outstanding Graduate Student Research Award, Plant Biology, MSU, \$750
2019	Outstanding Student Research in Ecology, Ecological Society of America, \$300
2018-2019	Science Education & Outreach Fellowship, MSU KBS <sup>3</sup> , \$25000
2018-2020	K-12 Partnership Summer Fellowships, MSU KBS, total \$7048
2017-2020	Research Mentor Awards, MSU KBS, total \$7000
2017-2018	AgBio Research Fellowship, MSU, \$35000
2016-2020	EEBB <sup>4</sup> Travel Grants, MSU, total \$4500
2016-2020	Paul Taylor Travel Awards, Plant Biology, MSU, total \$4955
2016-2017	Plant Sciences Fellowship, MSU, \$41729
2015	College of Natural Science Fellowship, MSU, \$60500

#### **RESEARCH GRANTS & WORKING GROUPS**

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<sup>&</sup>lt;sup>1</sup> UGA: University of Georgia, Athens, GA

 <sup>&</sup>lt;sup>2</sup> MSU: Michigan State University, East Lansing, MI
<sup>3</sup> KBS: W.K. Kellogg Biological Station, Hickory Corners, MI

<sup>&</sup>lt;sup>4</sup> EEBB: Ecology, Evolutionary Biology and Behavior Program, East Lansing, MI

2022	Senior Personnel, NSF DEB 2211721, "Integrating phenology and demography to
	understand the consequences of phenological shifts for plant population dynamics" (PI:
	A. Iler), \$639059 awarded
2021	Working Group, "Terrestrial Responses to Emerging Environments through Time,
	Integrated from Moments to Eons" (TREETIME) Biology Integration Institute
2019	NSF LTER Small Grant, 'Effect of climate warming and seed limitation on local species
	declines', PI, \$2000
2019	Michigan Botanical Foundation Research Grant, 'The significance of seeds: effects of
	seed limitation and predation on local species loss', PI, \$1500
2019	Lauff & Porter Maxey Research Scholarship, \$3000
2018	Hanes Foundation, 'The role of anthropogenic changes and species traits in population
	declines,' PI, \$3325
2018	MSU Graduate School Research Fellowship, \$2200
2017	Lauff Research Scholars Award, \$1500
2017	Wayne & Porter Scholarship Award, \$1000
2017	MSU Graduate School Research Fellowship, \$1500
2016	Lauff Research Scholars Award, \$1000
2016	Wayne & Porter Scholarship Award, \$500

\*undergraduate coauthor

#### SCIENTIFIC PRESENTATIONS

**Invited Seminars:** 

2022	XX7.1 101	• • •	CN4.1.	East Lansing, MI
2023	Wildflower	$\Delta ssociation$	of Michigan	Hast Lansing MI
2025	willuno wer	100001011011	or minemgan,	Last Lansing, Mi

2023 Early Career Scientists Symposium, University of Michigan, MI

- 2023 Division of Biological Sciences, University of Montana, MT
- 2023 Land Resources and Environmental Sciences, Montana State University, MT
- 2023 Department of Biological Sciences, Kent State University, OH
- 2023 Department of Botany, University of Wisconsin Madison, WI
- 2023 New York Botanical Garden, The Bronx, NY
- 2023 Department of Biological Sciences, Binghamton University, NY
- 2023 School of Biological Sciences, Illinois State University, IL
- 2023 Master Gardener Volunteer Association of Northwest Michigan, Traverse City, MI
- 2022 Evolution Seminar Series, University of Wisconsin Madison, WI
- 2022 Department of Ecology & Evolution, University of Chicago, IL
- 2022 Department of Biology, University of Kentucky, KY
- 2022 Department of Biology, University of Nebraska Omaha, NE
- 2022 Department of Plant Biology, UGA
- 2022 Plant It Wild, Benzie, MI
- 2021 NSF LTER Data Nuggets Workshop, KBS & Harvard Forest LTER
- 2020 Ecology/Diversity/Genetics/Evolution Seminar, UGA
- 2020 ArtBreak, Kalamazoo Institute of Arts, Kalamazoo, MI
- 2019 Department of Biology, Butler University, IN
- 2019 Michigan Botanical Club, Kalamazoo, MI
- 2019 Audubon Society, Battle Creek, MI
- 2018 Wild Ones, Grand Rapids, MI
- 2018 Conservation Stewards, Kalamazoo Nature Center & MI DNR, Kalamazoo, MI

*Contributed presentations*<sup>5</sup>:

<sup>5</sup> Talk unless otherwise indicated; first author is presenting author

**Zettlemoyer, M.A.,** Doak, D.F., Morris, W.F., DeMarche, M.L. 2023. Local adaptation to minimum temperatures shapes thermal performance across an alpine species' range. Evolution, Albuquerque, NM.

DeMarche, M.L., **Zettlemoyer**, **M.A.** 2023. Consequences of earlier flowering in a warming world (invited talk). Botany, Boise, ID.

Hale, C., **Zettlemoyer, M.A.**, DeMarche, M.L. 2023. Earlier flowering in understory spring ephemerals lags behind forest leaf-out. Ecological Society of America, Portland, OR.

**Zettlemoyer, M.A.,** Conner, R., Seaver, M., Waddle, E., DeMarche, M.L. 2022. Advancing phenology is adaptive but insufficient to maintain fitness under warmer climates. Botanical Society of America, Anchorage, AK.

Wilson, J.\*, DeMarche, M.L., **Zettlemoyer, M.A**. Comparing phenological shifts under climate change using historical and observational datasets (poster). (1) 2022, Botanical Society of America, Anchorage, AK; (2) 2021, Georgia Undergraduate Research Collective, GA; (3) 2021, Center for Undergraduate Research Opportunities, UGA, GA.

**Zettlemoyer, M.A.** Nitrogen influences prairie plant population declines and local extinction. (1) 2021, American Society of Naturalists; (2) 2020, Ecological Society of America.

Johnson, S.E.\*, **Zettlemoyer, M.A**. Granivore preferences for local prairie plant species (poster). (1) 2020, Midwest Ecology & Evolution Conference, Western IL University, IL; (2) 2019, Ecological Society of America, Louisville, KY; (3) 2018, Summer Research Symposium, MSU KBS, MI.

Cortijo-Robles, K.M.\*, **Zettlemoyer**, M.A. 2020. Plant performance is affected by soil communities and temperature. Ecological Society of America.

**Zettlemoyer, M.A**, Renaldi, K.\* Failure to shift phenology may be associated with local extinction. (1) 2020, American Society of Naturalists, Pacific Grove, CA; (2) 2020, Midwest Ecology & Evolution Conference, Western IL University, IL; (3) 2019, Ecological Society of America, Louisville, KY; (4) 2019, Digital Data in Biodiversity Research Conference, New Haven, CT.

Cortijo-Robles, K.M.\*, **Zettlemoyer, M.A.** Climate change may affect extinctions via altered plant-soil feedbacks (poster). (1) 2020, Midwest Ecology & Evolution Conference, Western IL University, IL; (2) 2019, Summer Research Symposium, MSU KBS, MI.

**Zettlemoyer, M.A**. 2019. Effects of anthropogenic changes on native prairie plant population declines. Graduate Seminar Series, MSU KBS, MI.

**Zettlemoyer, M.A.** 2019. Extinction, invasion, and climate change: forces of change in our natural communities. The Stewardship Network, East Lansing, MI.

Srodes, N.\*, **Zettlemoyer**, M.A. 2019. Quantitative assessment of the species-area relationship in prairies of Kalamazoo County, MI (poster). Summer Research Symposium, MSU KBS, MI.

Srodes, N.\*, **Zettlemoyer, M.A.** 2019. Effects of nitrogen and deer herbivory on prairie diversity and productivity (poster). Summer Research Symposium, MSU KBS, MI.

Canavan, B.\*, **Zettlemoyer, M.A.** 2019. Insect herbivory as a driver for local prairie plant extinctions (poster). Summer Research Symposium, MSU KBS, MI.

**Zettlemoyer, M.A.**, McKenna, D.M., Lau, J.A. 2018. Prairie habitat specialists are at high risk of local extinction. Ecological Society of America, New Orleans, LA.

**Zettlemoyer, M.A.**, Schultheis, E.H., Lau, J.A. Temperature-mediated shifts in phenology may contribute to invasive species' success. (1) 2018, EEBB Symposium, MSU, MI; (2) 2017, Ecological Society of America, Portland, OR.

Andrews, C.\*, **Zettlemoyer**, M.A. 2018. Characterization of landscape context and plant diversity in two restored prairies (poster). Summer Research Symposium, MSU KBS, MI.

Renaldi, K.\*, **Zettlemoyer, M.A.** 2018. Temperature-mediated differences in phenology may influence local species declines (poster). Midwest Ecology & Evolution Conference, MSU KBS, MI.

**Zettlemoyer, M.A.** 2017. The role of anthropogenic changes and species traits in local species declines. Graduate Seminar Series, MSU KBS, MI.

**Zettlemoyer, M.A.** 2017. Functional groups help predict regional species loss. (1) Society for Restoration Ecology, Grand Rapids, MI; (2) EEBB Symposium, MSU, MI.

**Zettlemoyer, M.A.**, Lau, J.A. Effects of habitat variation and functional groups on local extinction rates. (1) 2017, Midwest Ecology and Evolution Conference, University of Illinois Urbana-Champaign, IL; (2) 2016, Ecological Society of America, Fort Lauderdale, FL; (3) 2016, Plant Biology Student Lecture Series, MSU, MI.

Renaldi, K.\*, **Zettlemoyer**, M.A. 2017. Effects of experimental warming on population dynamics of locally extinct and extant prairie species (poster). Summer Research Symposium, MSU KBS, MI.

**Zettlemoyer, M.A**. 2016. Is local diversity loss predicted by anthropogenic disturbance and functional groups? (1) North American Congress for Conservation Biology, Madison, WI; (2) Graduate Seminar Series, MSU KBS, MI; (3) EEBB Colloquium, MSU, MI.

**Zettlemoyer, M.A,** Lau, J.A. 2016. The effect of habitat variation and disturbance on local plant extinctions (poster). (1) Environmental Science & Policy Symposium, MSU, MI; (2) Plant Science Graduate Student Research Symposium, MSU, MI.

**Zettlemoyer, M.A.**, Galloway, L.F. 2015. The influence of local environmental conditions on the phenological development of *Campanulastrum americanum*. Richard D. Katz Research Symposium, University of Virginia, VA. <sup>†</sup>3<sup>rd</sup> place presentation.

#### TEACHING

Instructor of Record:			
S2024	Introductory Ecology (BIOE 172), University of Montana, Missoula, MT		
S2020	Biology Laboratory (BIO 101), Kellogg Community College, Battle Creek, MI		
Teaching Assi	stantships and Guest Lectures:		
2023	Guest Lecture: 'The role of phenology in invasion and extinction', Intro Botany, UM		
2022	Guest Speaker, Undergraduate Evolution Seminar, University of Wisconsin Madison		
2021	<i>Guest Lecture:</i> 'Using Penstemon spp. (Plantaginaceae) to investigate phenological responses to global change', Plant Taxonomy, UGA		
2021	<i>Guest Lecture:</i> 'Nitrogen effects on plant population dynamics and species interactions,'		
2021	Honors Biology, UGA		
2021	Guest Lecture: 'Community Ecology', Nature Journaling: Blending Art and Science,		
	W.K. Kellogg Bird Sanctuary, MI		
2018-2020	Teaching Assistant, Eminent Ecologist Series PLB891, MSU KBS		
2019	Teaching Assistant, Field Botany, W.K. Kellogg Bird Sanctuary, MI		
2018-2019	Instructor, Undergraduate R Workshop, MSU KBS		

2017-2018	Guest Lecture: 'Anthropogenic change, species traits and biodiversity loss', Ecology,	
	Dept. Integrative Biology, MSU	
2016	Teaching Assistant, Ecology Lab, Dept. Integrative Biology, MSU	
2013	Naturalist, AmeriCorps and Mason Neck State Park, Lorton, VA	
K-12 Educati	ion:	
2019	Stream Leaf Packs: Habitat Selection & Macroinvertebrate Diversity, Biology, Gull Lake HS, Richland, MI	
2019	Macroinvertebrates, Comstock STEM Academy, Kalamazoo, MI	
2019	Schoolyard BioBlitz, Godwin Middle School, Grand Rapids, MI	
2019	Water Quality & Macroinvertebrate Diversity, AP Environmental Science, Kalamazoo	
	Math & Science Center, Kalamazoo, MI	
2019	Water Movement in Agricultural Landscapes & Dairy Management, Environmental	
	Science, Gull Lake HS, MI	
2018	Stream Leaf Packs: Habitat Selection & Macroinvertebrate Diversity, Environmental	
	Science, Parchment HS, Parchment, MI	
2018	Be a Botanist: creating a classroom herbarium, Botany, Parchment HS, MI	
2018	Ecosystem Services, AP Environmental Science, Kalamazoo Math & Science Center,	
	Kalamazoo, MI	
2018	Macroinvertebrates, Gull Lake Gateway HS, Richland, MI	
2018	Owl Pellets, St. Rose-Hastings Elementary Schools, MI	
2018	Bird Adaptations, Galesburg-Augusta Elementary Schools, MI	
2017-2018	TechGYRLS (robotics & social justice in STEM), Young Women's Christian Association	
	(YWCA), Kalamazoo, MI	

#### **Published K-12 Lesson Plans:**

Zettlemoyer, M., Johnson, S.\* 2019. Sensational seeds: adaptations, dispersal & predation.

Zettlemoyer, M., Logan, R. 2019. Population Booms and Busts: modeling population dynamics in the classroom.

- Zettlemoyer, M., Griffin, S. 2019. Schoolyard BioBlitz.
- Zettlemoyer, M., Griffin, S. 2018. Stream Leaf Packs: Macroinvertebrate Diversity.
- Griffin, S., Zettlemoyer, M. 2018. Ecosystem Services at the KBS Bird Sanctuary.
- Griffin, S., Zettlemoyer, M. 2018. What's an owl's favorite food?
- Zettlemoyer, M. 2018. Invasion Meltdown!
- Zettlemoyer, M. 2017. Be a Botanist: creating a classroom herbarium.

# MENTORING

2023-present	Christopher Cardella (University of Montana <sup>6</sup> ), Mentored Research (BIOB390)
2023-present	Audrey Gustafson (UM), Mentored Research (BIOB390)
2023-present	McKenna Hill (UM), Mentored Research (BIOB390)
2023-present	Elizabeth Kent (UM), Mentored Research (BIOB390)
2023-present	August Lawson (UM), Mentored Research (BIOB390)
2023-present	Fouad Joe Mikati (UM), Mentored Research (BIOB390)
2023-present	Delia Schmidt (UM), Mentored Research (BIOB390)
2023-present	Madi Talley (UM), Wildlife Biology Senior Thesis
2021-2022	Jillian Wilson (UGA), Mentored Research
2019-2022	Karina Cortijo-Robles (University of Puerto Rico), Ecological Society of America SEEDS SPUR Fellowship, NSF Research Experience for Undergraduates (REU)

<sup>6</sup> UM: University of Montana, Missoula, MT

2019	Nicholas Srodes (MSU)	, Undergraduate Resear	ch Apprentice (URA)

- 2019 Brendan Canavan (MSU), URA
- 2018-2022 Sarah Johnson (MSU), URA, Independent Research
- 2018 Cameron Andrews (MSU), URA
- 2017-2018 Katarina Renaldi (MSU), NSF REU, URA
- 2017-2019 Volunteers managed: William Bennett, Emma Carey (Northern Michigan University), John Etzcorn, Zoe Folsom (Michigan Technological University), Stefany Tule (Western Michigan University)

#### ACADEMIC SERVICE

2023-present	Member, Graduate Admissions Committee, Ecology & Evolution Program, UM		
2022-present	Member, Workshop & Regional Meeting Committee, American Society of Naturalists		
2022-present	Mentor, Promoting Geoscience Research, Education & Success (PROGRESS)		
2021-present	Mentor, Científico Latino Graduate School Mentorship Initiative		
2021	Search Committee, Biology Labs Instructor, Plant Biology, UGA		
2020-2023	Diversity, Equity & Inclusion (DEI) Committee, Plant Biology, UGA		
2019-2020	Grad Representative, Faculty Advisory Committee, MSU KBS		
2018-2020	Academic Programming Committee, EEBB, MSU		
2018-2019	Mentor, Diversify EEB Mentor Match Program		
2018-2019	Seminar Committee, MSU KBS		
2018-2019	Outreach Committee, MSU KBS		
2017-2018	Conference Committee Co-Chair, Midwest Ecology & Evolution Conference		
2017-2018	Webmaster, Plant Biology Graduate Student Organization, MSU		
2016-2018	Graduate Affairs Committee, MSU KBS		
2016-2018	Secretary, Plant Biology Graduate Student Organization, MSU		
2017-2018	Moderator/Panelist, 'Getting Into & Succeeding in Graduate School', Midwest Ecology		
	& Evolution Conferences		
2016-2017	Graduate Representative, University Committee for the Library, MSU		
2016	Webmaster/Advertising Committee, Plant Sciences Graduate Student Research		
	Symposium, MSU		
2015-2017	Secretary, Society for Conservation Biology, MSU		
2014-2015	Secretary, Biology Society, University of Virginia		

# **PROFESSIONAL OUTREACH & EDUCATION PRESENTATIONS**

**Zettlemoyer, M.A.,** Rutkoski, C.E., Mendoza, O., Klotz, M. 2020. Nature Journaling: Blending Art & Science. (1) W.K. Kellogg Bird Sanctuary, Hickory Corners, MI; (2) Graduate Seminar Series, MSU KBS, MI

**Zettlemoyer, M.A.**, Rochow, E., et al. 2020. Kalamazoo County Citizen Science Panel. USDA NRCS & Kalamazoo Conservation District, Kalamazoo, MI.

**Zettlemoyer, M.A.** 2020. Environmental Education Certification: Facilitating K-12 STEM education professional development in rural Michigan. Michigan Science Teachers' Association Conference, East Lansing, MI.

Klotz, M., **Zettlemoyer, M.A.** 2020. Nature Journaling: Blending Art and Science. Michigan Science Teachers' Association Conference, East Lansing, MI.

**Zettlemoyer, M.A.**, Griffin, S. 2019. Community engagement with the K-12 Partnership: improving access to K-12 STEM education in rural communities. Certification in Community Engagement, Office for Public Engagement & Scholarship, MSU, MI.

**Zettlemoyer, M.A.** 2019. Invasion Meltdown: teaching about invasive species in K-4 classrooms. Michigan Alliance for Environmental & Outdoor Education Conference, Tustin, MI.

Griffin, S., **Zettlemoyer, M.A.** 2019. Plants for Pollinators. Pollinator Workshop, W.K. Kellogg Bird Sanctuary, Hickory Corners, MI.

**Zettlemoyer, M.A.**, Johnson, S.E. 2019. Sensational seeds: adaptations, dispersal, and predation. K-12 Partnership Summer Institute, MSU KBS, MI.

Hach, C., **Zettlemoyer, M.A.** 2019. What's Your Q? Determining the Water Quality Index (WQI) of local streams. K-12 Partnership Summer Institute, MSU KBS, MI.

Zettlemoyer, M.A., Logan, J.R. 2019. Population Booms & Busts: modeling population dynamics in the classroom. K-12 Partnership Spring Workshop, MSU KBS, MI.

Zettlemoyer, M.A. 2018. Invasion Meltdown: modeling invasive species effects. K-12 Fall Workshop, MSU KBS, MI.

**Zettlemoyer, M.A.** 2018. Be a Botanist: creating a classroom herbarium. K-12 Summer Institute, MSU KBS, MI.

#### **PUBLIC OUTREACH & VOLUNTEERING**

2020-2021	Course Developer, Nature Drawing: Blending Art & Science, W.K. Kellogg Bird		
	Sanctuary & Kalamazoo Institute of Art, Kalamazoo, MI		
2020	Coordinator, Kalamazoo County Citizen Science Panel, Kalamazoo Conservation		
	District, Kalamazoo, MI		
2019-present	Presenter, Skype a Scientist (ca. 2 classrooms/semester)		
2019-2020	Volunteer, USDA NRCS & Kalamazoo Conservation District, Kalamazoo, MI		
2019	Organizing Committee, K-12 Partnership Summer Institute: 'Biodiversity Bonanza',		
	MSU KBS		
2019	Presenter, 'Macroinvertebrate Madness', Conservorama, Kalamazoo Conservation		
	District & W.K. Kellogg Bird Sanctuary		
2019	Organizing Committee, K-12 Partnership Spring Workshop: 'Data, Data, Everywhere',		
	MSU KBS		
2019	Coordinator, Night at the Museum (MSU Museum, Air Zoo Aerospace & Science		
	Museum, Impression 5 Science Center), MSU Science Festival, MI		
2019	Presenter, 'Historical Collections', Darwin Day, MSU Museum, MSU, MI		
2019	Exhibitor, Battle Creek HS Career Fair & MI Career Quest, MI		
2018	Instructor, 'Invasion Meltdown!', Girls STEM Day, MSU		
2018	Organizing Committee, K-12 Partnership Fall Workshop: 'Science Isn't Spooky', MSU		
	KBS		
2018	Organizing Committee, K-12 Partnership Summer Institute: 'The Natural History of		
	Now', MSU KBS		
2018	Tour Guide, W.K. Kellogg Bird Sanctuary, Hickory Corners, MI		
2018	Volunteer, Southwest Michigan Land Conservancy, MI		
2017-2018	Instructor, TechGYRLS, Young Women's Christian Association, Kalamazoo, MI		
2016	Volunteer, MSU Science Festival, MI		
2016-2017	Volunteer, Girls Math & Science Day, MSU		
2015	Coach, Science Olympiad Invasive Species Team, East Lansing HS, MI		
2014-2015	Secretary, Biology Society, University of Virginia		
2009-2010	Science Counselor, Camp Crossroads, Oakton, VA		

# **RELEVANT WORK EXPERIENCE**

2014-2015	Research Assistant, Department of Biology, University of Virginia
2014-2015	Intern, Southern Environmental Law Center, Charlottesville, Virginia
2014	Research Technician, Mountain Lake Biological Station, University of Virginia
2013	AmeriCorps & Naturalist, Mason Neck State Park, Lorton, VA

# **PROFESSIONAL DEVELOPMENT & TRAININGS**

#### Quantitative methods:

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2018	Demographic Models for Ecology & Evolution, MSU KBS
2018	Bayesian Modeling, MSU KBS
2017	Structural Equation Modeling, MSU KBS
2016	QGIS Training Workshop, MSU KBS
2015	Maximum Likelihood Statistics, MSU KBS
2015	Generalized Linear Modeling, MSU KBS

# Teaching & Mentoring:

2022	Promoting Geoscience Research, Education & Success (PROGRESS) Mentor Training
2020	Environmental Education Certification, North American Association for Environmental

- Education & Michigan Alliance for Environmental & Outdoor Education
- 2019 Certification in College Teaching Institute, MSU
- 2019 Michigan Environmental Education Curriculum, MSU
- 2019 Healthy Watersheds, Healthy Communities Vernal Pool Education Training, Michigan Natural Features Inventory
- 2018 Early Childhood STEM Integration Workshop, MSU
- 2017-2018 Mentoring Career Pathways Seminar, MSU KBS
- 2013 Interpretive Training, Dept. of Conservation and Recreation, VA

# Diversity, Equity & Inclusion:

- 2023 Indian Education for All, Montana University System
- 2023 Field Futures Workshop, NSF LTER
- 2021 Understanding Diversity, Equity and Inclusion Series, UGA
- 2021 Inclusive SciComm Strategies for the Classroom, ISCS Foundations
- 2021 Bystander Intervention Training, Hollaback
- 2020 Faculty Search Committee Training, UGA
- 2020 Cultural Intelligence Training, MSU KBS
- 2019 Implicit Bias Training, MSU KBS

Other:

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2023	Grant Writing, UGA
2021	Data Governance & Open Science, American Geophysical Union
2017	Scientific Writing Seminar, MSU KBS
2016	Plant Systematics, MSU KBS
2016	Broader Impacts for Graduate and Professional Students, National Alliance for Broader
	Impacts, MSU
2015	Responsible Conduct of Research Series, MSU
2013	Leave No Trace Trainer Certification, Mason Neck State Park, Lorton, VA
2013	FOCUS Customer Service Training, Dept. of Conservation and Recreation, VA
2013	Volunteer Management Training Dept. of Conservation and Recreation VA

2013 Volunteer Management Training, Dept. of Conservation and Recreation, VA

# **MEDIA COVERAGE**

2023	'Scientists at the Mountain Research Station investigate changing behavior of an alpine
2022	plant', Institute of Arctic and Alpine Research
2022	Science Spotlight, Budburst Newsletter
2022	'From summer program to published paper: sowing the seeds of research', <i>Kellogg</i>
0001	Biological Station News
2021	'Can flowering time act as an alert system for species at risk of extirpation?', <i>American Journal of Botany Highlights</i>
2020	'Resurrecting prairie plants and mentoring the future', MSU Plant Biology Newsletter
2019	'Invasive species like it hot,' Nature Plants 5:645
2019	'The animals that will survive climate change', BBC Future
2019	'Earlier spring favors invasive plants', Forbes Magazine
2019	'Native plant species may be at greater risk from climate change than non-natives', NSF
	Research News; Science & Technology News at IU Bloomington, Science Daily, MSU
	Today
2019	'Before our very eyes: Species rarity and extinction in Michigan's Kalamazoo County',
	MSU Today
2019	'Researcher looks to the past to gauge the future of plant species diversity', Kellogg
	Biological E-Station to Station
2019	'Can we predict species extinctions?', American Journal of Botany Highlights
2019	'Work experiences and writing tips', Podcast #17, Science in Progress
2019	'KBS educational, professional development efforts fueled by outreach fellows', KBS
	Blogs & News
2019	'Area educators can register now for the 2019 K-12 Partnership Summer Institute,
	Kellogg Biological E-Station to Station
2018	'Science Education Fellows for 2018-2019', KBS Blogs & News
2018	'Native plants and our changing planet', Wild Ones River City Chapter Blog

# REVIEWER

Journals:	
2023	Am. J. Bot. (3), Biol. Inv., GISci. Remote Sens.; J. Ecol. (3); Nature Eco. Evol., New.
	Phytol., PLOS ONE, PNAS
2022	Am. J. Bot. (2), Ann. Bot., Comm. Biol., J. Ecol., Glob. Ecol. Biogeogr., J. Ecol., New
	Phytol., Plant Biol., Proc. B. (2), Trends Ecol. Evol.
2021	Am. J. Bot. (2), Ann. Bot. (2), Biol. Inv., Biol. Rev., Clim. Chang. Ecol., Ecology, Glob.
	Chang. Biol., Glob. Ecol. Biogeogr., J. Anim. Ecol., J. Appl. Ecol., J. Ecol., PNAS
2020	Am. Nat., Ann. Bot., Clim. Chang. Ecol., Ecol. Appl., Ecol. Evol., Plant Ecol., Plant
	Ecol. Div., Rest. Ecol.
2019	Ann. Bot., Ecosphere, J. Rad. Biol., New Phytol., Plant Biol., Plant Ecol., Molec. Biol.
Grants:	
2024	NSERC Evolution & Ecology (ad-hoc)
2023	NSF LTREB (ad-hoc)
2022	Minnesota Invasive Terrestrial Plants and Pests Center (ad-hoc)

# **PROFESSIONAL SOCIETIES & AFFILIATIONS**

American Society of Naturalists; Ecological Society of America (Plant Population Ecology Section); Botanical Society of America; Society for Conservation Biology; Society of Ecological Restoration; Long-Term Ecological Research (LTER) Network; SACNAS

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