Matthew A. McCary

Assistant Professor
Program in Ecology & Evolutionary Biology
Department of BioSciences
Rice University

EDUCATION

2010-2016	**Ph.D. Biological Sciences**, University of Illinois, Chicago, IL Field of Study: Ecology and Evolution Thesis: Evaluating the impacts of invasive plants on the forest-floor food web Advisor: David H. Wise
2006-2010	**B.A. Biology**, North Central College, Naperville, IL

PROFESSIONAL APPOINTMENTS

2021-	Assistant Professor of Global Change Biology Program in Ecology & Evolutionary Biology Department of BioSciences, Rice University, Houston, TX
2020	Ford Foundation Postdoctoral Research Fellow Yale University, New Haven, CT Advisor: Dr. Oswald Schmitz
2017-2019	National Science Foundation Research Fellow in Biology University of Wisconsin, Madison, WI Advisors: Drs. Claudio Gratton, Randall Jackson, and Anthony Ives

PUBLICATIONS

Kuebbing, S. ǂ, **M.A. McCaryǂ**, D. Lieurance, M.A. Nuñez, M.C. Chiuffo, B. Zhang, H. Seebens, D. Simberloff, and L.A. Myerson*. In press*. A self-study of editorial board diversity at *Biological Invasions*. *Biological Invasions*. ǂ co-first authors

Nuñez, M.A., M.C. Chiuffo, H. Seebens, S. Kuebbing, **M.A. McCary**, D. Lieurance, B. Zhang, D. Simberloff, and L.A. Meyerson. *In press*. Two decades of data reveal that *Biological Invasions* needs to increase participation beyond North America, Europe, and Australasia. *Biological Invasions*.

Lieurance, D., S. Kuebbing, **M.A. McCary**, and Martin A. Nuñez. *In press*. Words matter: How to increase gender and LGBTQIA+ inclusivity at *Biological Invasions*. *Biological Invasions*.

Yitbarek, S., K. Bailey, S. Tyler, J. Strickland, **M.A. McCary**, and N. Harris. 2021. Inclusive sustainability approaches in common-pool resources from the perspective of blackologists. *Bioscience* 71: 741-749.

McCary, M.A., M.D. Kasprzak, J.C. Botsch, D. Hoekman, R.D. Jackson, and C. Gratton. 2021. Aquatic insect subsidies influence microbial composition and processing of detritus in near-shore subarctic heathland. *Oikos* 130: 1523-1534.

McCary, M.A., and O.J. Schmitz. 2021. Invertebrate functional traits and terrestrial nutrient cycling: insights from a global meta-analysis. *Journal of Animal Ecology* 90: 1714-1726.

McCary, M.A., R.D. Jackson, and C. Gratton. 2021. Vegetation structure modulates ecosystem and community responses to spatial subsidies. *Ecosphere* 12: e03483.

McCary, M.A.ǂ, J.S. Phillips**ǂ**, T. Ramiadantsoa, L.A. Nell, A.R. McCormick, and J.C. Botsch. 2021. Transient top-down and bottom-up effects of resources pulsed to multiple trophic levels. *Ecology* 102: e02593. **ǂ** co-first authors

McCary, M.A., and D.H. Wise. 2019. Plant invader alters soil food web via changes to fungal resources. *Oecologia* 191: 587-599.

Hoekman, D., **M.A. McCary,** J. Dryer, and C. Gratton. 2019. Reducing allochthonous resources in a subarctic grassland alters arthropod food webs via predator diet and density. *Ecosphere* 10: e02593.

McCary, M.A., M. Zellner, and D.H. Wise. 2019. The role of plant-mycorrhizal mutualisms in deterring plant invasions: insights from an individual-based model. *Ecology and Evolution* 9: 2018-2030.

McCary, M.A., E. Minor, and D.H. Wise. 2018. Covariation between local and landscape factors influences the structure of ground-active arthropod communities in fragmented metropolitan woodlands. *Landscape Ecology* 33: 225-239.

McCary, M.A., R. Mores, M. Farfan, and D.H. Wise. 2016. Invasive plants have different effects on trophic structure of green and brown food webs in terrestrial ecosystems: a meta-analysis. *Ecology Letters* 19: 328-335.

McCary, M.A., J.C. Martinez, L. Umek, L. Heneghan, and D.H. Wise. 2015. Effects of woodland restoration and management on the community of surface-active arthropods in the metropolitan Chicago region. *Biological Conservation* 190: 154-166.

In revision:

K. Ferraro, O.J. Schmitz, and **M.A. McCary**. Effects of ungulate density and sociality on landscape heterogeneity: a mechanistic modeling approach. *Ecography*, in revision.

In review:

Yitbarek, Y., K. Chen, M. Celestine, and **M.A. McCary**. Spatiotemporal patterns of urban mosquitoes are modulated by socioeconomic status and environmental traits in the USA. *Ecological Applications*, in review.

AWARDS, HONORS, AND FELLOWSHIPS

2021	Diversity, Inclusion, Equity, and Belonging Seminar Speaker Honorarium ($750), Department of Ecology and Evolution, Rutgers University
2020	Ford Foundation Postdoctoral Research Fellowship ($50,000), Forestry and Environmental Science, Yale University (Advisor: Dr. Oswald Schmitz)
2017-2019	NSF Postdoctoral Research Fellowship in Biology ($207,000), Department of Entomology, UW
2016	Dean's Scholar Graduate Fellowship ($22,000), Graduate College, UIC
2015-2016	Graduate Research Fellowship ($10,000), Department of the Institute for Environmental Science and Policy, UIC
2016	Biological Sciences Travel Award ($800), Department of Biological Sciences, UIC
2016	LAS Graduate Travel Award ($800), College of Liberal Arts and Sciences, UIC
2014-2015	Award for Excellence in Teaching ($100), General Ecology Lab (BIOS 331), Department of Biological Sciences, UIC
2014	Elmer Hadley Graduate Research Award ($600), Department of Biological Sciences, UIC
2013-2014	Abraham Lincoln Graduate Fellowship ($25,000), Graduate College, UIC

RESEARCH PRESENTATIONS

Invited research seminars:

M.A. McCary. 2021. Department of Biology. Stanford University, Stanford, CA.

M.A. McCary. 2021. Natural Sciences Seminar series. Washington State University at Vancouver, Vancouver, WA.

M.A. McCary. 2021. Biological and Environmental Science Colloquium. University of Rhode Island, Kingston, RI.

M.A. McCary. 2021. Department of Ecology and Evolution. Rutgers University, New Brunswick, NJ.

M.A. McCary. 2021. Department of Ecology, Evolution, and Organismal Biology, Kennesaw State University, Marietta, GA.

M.A. McCary. 2021. Department of Biology and Biochemistry, University of Houston, Houston, TX.

M.A. McCary. 2020. Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara, CA.

M.A. McCary. 2020. Department of Entomology, Kansas State University, Manhattan, KS.

M.A. McCary. 2020. School of the Environment, Yale University, New Haven, CT.

M.A. McCary. 2019**.** Department of BioSciences, Rice University, Houston, TX.

M.A. McCary. 2019. Department of Botany, University of Wisconsin, Madison, WI.

M.A. McCary. 2019. Department of Biology, Pittsburgh University, Pittsburgh, PA.

M.A. McCary. 2019. Department of Biology, Lawrence University, Appleton, WI.

M.A. McCary. 2019. Center for Limnology, University of Wisconsin, Madison, WI.

M.A. McCary. 2018. Department of Entomology, Purdue University, West Lafayette, IN.

M.A. McCary. 2018. Department of Natural and Applied Sciences, University of Wisconsin, Green Bay, WI.

M.A. McCary. 2018. Department of Entomology, University of Wisconsin, Madison, WI.

M.A. McCary. 2015. Elmer Hadley Research Fund. University of Illinois, Chicago, IL.

Heneghan, L., L. Umek, **M.A. McCary**, J.C. Martinez, and D.H. Wise. 2013. DePaul University, Chicago, IL.

Wise, D.H., L. Heneghan, **M.A. McCary**, and J.C. Martinez. 2013. Chicago Wilderness Wild Things Conference, Chicago, IL.

Invited symposium presentations:

M.A. McCary. 2019. Aquatic insects alter terrestrial ecosystems: lessons from subarctic Iceland. *Recent Approaches to Studying Invertebrate Responses to Rapid Environmental Change*, Entomological Society of America Meeting, St. Louis, MO.

M.A. McCary. 2018. Emergent aquatic insects alter plant composition and litter decomposition: lessons from subarctic Iceland. *Wisconsin Ecology Fall Symposium*, University of Wisconsin, Madison, WI.

M.A. McCary. 2017. A mechanistic model to explain how plant-mycorrhizal disruptions can lead to invasion success: implications for biodiversity conservation and management. *Linking Management, Biodiversity, and Ecosystem Services Via Mechanistic Models*, Ecological Society of America Meeting, Portland, OR.

M.A. McCary. 2016. Consequences of invasion: evaluating how invasive alien plants alter the structure of food webs in woodland ecosystems. *Invaders in Food Webs: Using Trophic Structure to Predict Invasibility and Invader Impact*, Ecological Society of America Meeting, Fort Lauderdale, FL.

M.A. McCary. 2015. The cascading effects of invasive alien plants on the structure of belowground food webs in woodland ecosystems. *Invasive Plant Symposium: Biotic Interactions with Invasive Species*, Annual North Weed Science Society, Indianapolis, IN.

M.A. McCary. 2013. The Chicago Wilderness Land Management Program: a long-term evaluation of restoration management in the U.S. Midwest. *New Science in Response to Perennial Challenges: Social Ecological Research in the Chicago Wilderness Region and Its Implications for Regional Restoration*, Fifth World Conference on Ecological Restoration, Madison, WI.

TEACHING EXPERIENCE

Fall 2017	Co-Instructor, Basic and Applied Insect Ecology Lab (ENTO 451), Department of Entomology, U.W. (1 semester)
2014-2016	Teaching Assistantship, General Ecology Lab (BIOS 331), Department of Biological Sciences, UIC (4 semesters)

2012-2013	Teaching Assistantship, Biology of Populations and Communities (BIOS 101), Department of Biological Sciences, UIC (2 semesters)
2010-2011	Teaching Assistantship, Biology of Cells and Organisms (BIOS 100), Department of Biological Sciences, UIC (2 semesters)
Fall 2009	Laboratory Assistant, Botany, Department of Biology, NCC, Naperville, IL (1 semester)

GUEST LECTURER

McCary, M.A. 2020. Insects in Conservation. *Restoration Ecology*, University of Rhode Island, RI.

McCary, M.A. 2019. Insect food webs and litter decomposition. *Soil Science*, University of Wisconsin, Madison, WI.

McCary, M.A. 2017. Decomposition and ecosystem services. *Basic and Applied Insect Ecology Lecture*, University of Wisconsin, Madison, WI.

McCary, M.A. 2015. Meta-analysis of ecological studies. *Analyzing Ecological Data*, University of Illinois, Chicago, IL.

McCary, M.A. 2015. Surviving in an urban landscape: evaluating the impacts of human activity on soil invertebrates. *Soil Ecology*, Northwestern University, Evanston, IL.

McCary, M.A. 2013. How to be a successful biology student in college. *Introductory Biology*, Bremen High School, Midlothian, IL.

PROFESSIONAL SERVICE

Co-chair: Black Ecologist Section of the Ecological Society of America (September 2021 – September 2023)

Associate Editor: *Biological Invasions* (August 2020 – present)

Invited Feature Editor: Broadening the Impacts of Applied Ecology, *Ecological Applications* (August 2022 Issue)

Manuscript reviewer: *Ecology and Evolution*, *Soil Biology and Biochemistry*, *Ecosystems*, *Scientific Reports*, *Biology Letters*, *Ecological Modelling*, *Restoration Ecology*, *Landscape Ecology*, *Basic and Applied Ecology, Oikos*, *Ecology, Ecology Letters, Biological Invasions, Journal of Insect Conservation, Soil, Food Webs*

Grant reviewer: National Science Foundation – Division of Environmental Biology, Women in Science National Fellowship Program.

Member: Wisconsin Ecology Executive Committee at UW-Madison (2018-2019)