

Jeannine H. Richards, Ph.D.

Black Earth, Wisconsin

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RESEARCH INTERESTS

Tropical plant ecology, epiphyte diversity and ecology, community ecology, functional ecology, agricultural systems and agroecology, dimensions of biodiversity, conservation planning, international conservation, ecological restoration, environmental education, interdisciplinary collaboration

EDUCATION

- 2015-2020 **Ph.D., Environment and Resources**, Nelson Institute for Environmental Studies, University of Wisconsin—Madison
Dissertation: *Botanical Conservation in Coffee Farms: An Ecological and Social Evaluation of Shade Trees as Vascular Epiphyte Habitat*
Advisor: Dr. Ellen Damschen
- 2009-2011 **M.A. Zoology**, Miami University, Global Field Program,
Capstone e-Portfolio: <http://www.dragonflyworkshops.org/eportfolios/10>
- 1998-2002 **B.A. Magna cum laude, Conservation Biology and Environmental Policy**, University Professors Program, Boston University
Senior thesis: *From 'Useful and Interesting' to 'Evil Invaders': Evolving Perceptions of Non-Native Species in the United States*

FELLOWSHIPS AND AWARDS

- 2019-20 **Dickie Family Sauk County Educational Fellowship**, \$30,914
2018-19 **Dickie Family Sauk County Educational Fellowship**, \$29,433
2018 **Garden Club of America Award in Tropical Botany**, \$5,500
2017-18 **Dickie Family Sauk County Educational Fellowship**, \$33,627
2015-16 **Potter Distinguished Graduate Fellowship**, \$38,038

RESEARCH GRANTS

- 2019 **Demeter Research Fellowship, Botany Department**, UW-Madison, \$3,000
2018 **Summer Research Mini-Grant**, Center for Integrated Agricultural Systems, UW-Madison, \$1,000
2018 **Nave Summer Research Grant**, Latin American, Caribbean, and Iberian Studies, UW-Madison, \$500
2017 **Nave Summer Research Grant**, Latin American, Caribbean, and Iberian Studies, UW-Madison, \$1,000
2016 **Summer Research Mini-Grant**, Center for Integrated Agricultural Systems, UW-Madison, \$2,000
2016 **Nave Summer Research Grant**, Latin American, Caribbean, and Iberian Studies, UW-Madison, \$2,000
2016 **Demeter Research Fellowship**, Botany Department, UW-Madison, \$1,000

PROFESSIONAL EXPERIENCE

- 2018-2019 **Program Manager**, Savanna Institute, Madison, Wisconsin
2008-2015 **Communications Coordinator**, Aldo Leopold Foundation, Baraboo, Wisconsin
2004-2008 **Projects Coordinator**, Aldo Leopold Foundation, Baraboo, Wisconsin
2006 **Evaluation Assistant**, The Forest Guild
2005 **Conference Organizer**, The Forest Guild
2005 **Research Assistant (Ecuador)**, University of Vermont
2003-2004 **Ecological Restoration Intern**, Aldo Leopold Foundation
2002 **Research Experience for Undergraduates**, Louis Calder Center, Fordham University

TEACHING EXPERIENCE

- 2017 (Spring) **Teaching Assistant**, ENVST979: Environmental Conservation Professional Practice, University of Wisconsin-Madison
- 2016 (Fall) **Teaching Assistant**, 651 Conservation Biology, University of Wisconsin-Madison
- 2012-2015 **Adjunct Instructor**, Global Field Program, Miami University, Oxford, Ohio (3 semesters)
- 2002 **Teaching Fellow**, Tropical Ecology Program (Ecuador), Boston University

PEER-REVIEWED PUBLICATIONS

- Richards, J. H.**, I.M. Torrez-Luna, and D. M. Waller. *In press*. Tree longevity drives conservation value of shade coffee farms for vascular epiphytes. *Agriculture, Ecosystems & Environment*.
- Keeley, K.O., K.J. Wolz, K.I. Adams, **J.H. Richards**, E. Hannum, S. von Tscherner Fleming and S.J. Ventura. 2019. Multi-Party Agroforestry: Emergent Approaches to Trees and Tenure on Farms in the Midwest USA. *Sustainability* 11: 2449-2460.
- Bonaccorso, F.J., J.R. Winkelmann, D. Shin, C.I. Agrawal, N. Aslami, C. Bonney, A. Hsu, P.E. Jekielek, A.K. Knox, S.J. Kopach, T.D. Jennings, J.R. Lasky, S. A. Menesale, **J.H. Richards**, J.A. Rutland, A.K. Sessa, L. Zhaurova, and T.H. Kunz. 2007. Evidence for exploitative competition: Comparative foraging behavior and roosting ecology of short-tailed fruit bats (Phyllostomidae). *Biotropica* 39(2):249-256.

PUBLICATIONS IN PREPARATION

- Richards, J.H.** *In review*. Assessing the strength of climate and land use influences on montane epiphyte communities.
- Richards, J.H.** and E.I. Damschen. *In prep*. Leaf economics in a three-dimensional environment: Testing leaf trait responses in epiphytes to land use, climate, and tree position.
- Richards, J. H.**, I.M. Torrez-Luna, and A. Vargas. *In prep*. “A very noble crop”: Financial stability, access to knowledge, and personal values support conservation in shade-grown coffee farms.
- Richards, J. H.**, J.J. Henn, Q.M. Sorenson, M. Adams, D.D. Smith, K.A. McCulloh, T.J. Givnish. *In prep*. Mistletoes and their eucalypt hosts differ in the response of leaf functional traits to climatic moisture supply.
- Paulson, A.K., J.J. Beck, **J.H. Richards**, R.H. Toczydlowski, S. E. Johnson, D. Li, D.A. Rogers, K.M. Cameron, T.J. Givnish, K.J. Sytsma, D.M. Waller. *In prep*. Dimensions of temperate forest biodiversity: Long-term shifts in taxonomic, functional, and phylogenetic diversity.
- Spalink, D., N. Karimi, **J.H. Richards**, T. Thein, E. Eifler, A. DiNicola, L. Schomaker, T.J. Givnish. *In prep*. Passive seed dispersal, strong genetic structure, and small spatial scale of gene flow associated with morphological divergence in the desert winter annual, *Eschscholtzia parishii*: potential implications for rapid small-scale speciation.

GUEST LECTURES AND INVITED PRESENTATIONS

- Spr. 2016-2020 **Coffee Production and Ecology**, for AGR 377: Cropping Systems of the Tropics, University of Wisconsin-Madison (guest lecture, 5 semesters)
- Mar. 2019 **Community Assembly and Succession of Epiphytes**, for BOT 575: Frontiers in Plant Biology, University of Wisconsin-Madison (guest lecture)
- Oct. 2018 **Integrating Conservation and Livelihoods in the Matrix**, for CHE 290: Natural Resources and Sustainability, University of Wisconsin-Baraboo/Sauk County (guest lecture)
- Fall 2016-2018 **Landscapes of Possibility: Conservation in the Matrix**, for BOT 651: Conservation Biology, University of Wisconsin-Madison (guest lecture, 3 semesters)
- Mar. 2017 **Biodiversity in Coffee: Shade Trees as Habitat for Epiphytic Plants**, for Latin American, Caribbean, & Iberian Studies Seminar, University of Wisconsin-Madison (invited presentation)
- Feb 2017 **Conservation Decision Making—History and Context**, for ENVST 979 Environmental Conservation Professional Practice, University of Wisconsin-Madison (guest lecture)
- Apr. 2016 **The Land Ethic and Education**, for F&WE 961: Aldo Leopold and the Growth of

- Apr. 2015 Conservation Thought, University of Wisconsin-Madison (guest lecture)
Earth Day Workshop for Vermont Department of Natural Resources Staff, Montpelier, Vermont (invited presentation with J. Kobylecky, and W.B. Huffaker).
- Feb. 2014 **Keynote presentation: "Leading with Values: Participating in a Thinking Community"**
 American Tree Farm System National Leadership Conference, Savannah, Georgia (invited presentation with J. Kobylecky)

PROFESSIONAL PRESENTATIONS

- Aug. 2019 **Richards, J. H.**, I.M. Torrez-Luna, and D. M. Waller. Patterns in vascular epiphyte colonization using a simulated chronosequence of tree age on shade coffee farms. Ecological Society of America National Conference (poster).
- Nov. 2018 **Richards, J.H.** Evaluating the conservation value of shade coffee farms as substitute habitat for tropical epiphytes. Riveredge Nature Center Student Research Symposium (oral presentation).

POPULAR PUBLICATIONS AND MEDIA

- Riibe, L. and **J. Richards**. 2019. OTS Course Unfurls a Passion for Tropical Ferns and Lycophytes. *Fiddlehead Forum*, April-June: 31-35.
- Richards, J.** 2014. The Backyard Almanac: Soil Ecology. *The Leopold Outlook* 15(1):26-27.
- Richards, J.** 2014. The Backyard Almanac: Endangered Species. *The Leopold Outlook* 14(1):26-27.
- Green Fire: Aldo Leopold and a Land Ethic for Our Time*. 2011 (documentary). **Richards, J.**, Associate Producer.
- Richards, J.** 2010. The Land Ethic Leaders Program. *The Leopold Outlook* 11(1):18-20.
- Richards, J.** 2009. The Yale Forest School: A Hundred Years of Aldo Leopold. *The Leopold Outlook* 9(1):24-25.
- Richards, J.** 2009. The Backyard Almanac: Lupine. *The Leopold Outlook* 9(1):26-27.
- Richards, J.** 2009. Leopold in the Southwest. *The Leopold Outlook* 8(2):20-23.

SERVICE, COMMITTEES, AND BOARDS

- 2019 **Conference Volunteer**, Ecological Society of America
- 2016-2018 **Mentor Match Program**, Nelson Institute for Environmental Studies
- 2016 & 2018 **Abstract Reviewer**, North American Congress for Conservation Biology
- 2015-present **Diversity and Inclusion Review Committee**, Aldo Leopold Foundation
- 2010-2011 **Friends of Devil's Lake Board of Directors** (Baraboo, Wisconsin)
- 2006-2009 **Presenter**, The Climate Project
- 2005-2008 **Wisconsin Prescribed Fire Council**

UNDERGRADUATE MENTORING

- 2019-present Theresa Oberhauser, Biology Major (junior/senior), research mentee
- 2018-present Tori Lopez, Life Science Communication Major (junior/senior), research mentee
- 2018 Brooke Bowser, Biology Major (freshman), research mentee
- 2018 Grace Quirk, Genetics Major (junior), research mentee
- 2017-2018 Zoe Colglazier, Geography & Env. Studies Majors (sophomore), career development mentee
- 2016-2017 Colleen Schmidt, Env. Studies and Spanish Majors (senior), career development mentee

WORKSHOPS AND PROFESSIONAL DEVELOPMENT

- 2019 Ecosphere Studies Workshop, The Land Institute
- 2019 Tropical Ferns and Lycophytes, Organization for Tropical Studies, Costa Rica (Dr. Robbin Moran and Dr. Eddie Watkins)

2018 Data Carpentry, University of Wisconsin-Madison
 2016 Canopy Access Techniques, Institute for Tropical Ecology and Conservation, Panama
 2015 Tropical Plant Taxonomy, Florida International University (Dr. Walter Judd)
 2012 Leopold Education Project Educator Workshop
 2011 Center for Whole Communities NextGen Fellow
 2011 Buddhism and Conservation (Thailand), Global Field Program, Miami University
 2010 Field Methods (Mexico), Global Field Program, Miami University
 2009 Environmental Education (Trinidad), Global Field Program, Miami University
 2007-2008 Center for Civic Reflection Facilitator & Trainer Workshops
 2006-2007 Sauk County Institute of Leadership
 2004-2006 S-130/190, S131, and S230 Wildland Firefighter Certification
 2001 Tropical Ecology Program (Ecuador), Boston University

SKILLS

Languages: English (native speaker), Spanish (advanced), French (intermediate)
Software: R Studio, Git (Bitbucket), Image J, Adobe Creative Suite, Microsoft Office, Google Earth, audio editing software, HTML, WordPress
Analytical: generalized linear models and generalized linear mixed models; ordination techniques; structural equation models; metrics of taxonomic, functional, and phylogenetic biodiversity; null models and permutation tests; analysis of qualitative data; reproducible research and version control
Field Skills: Plant taxonomy (with emphasis on tropical families); single rope (SRT) and double rope (DRT) tree climbing methods; plant tissue sample collection and preservation; field data collection; prescribed fire; invasive species management; prairie restoration (including seed collection and storage); tree ring analysis and increment boring
Additional: Grant writing, copy editing, group facilitation, photography, graphic design, nonfiction writing, budget management, event planning

DESIGN AND EDITING

2017 *My Healthy Woods: A handbook for woodland landowners in Northeast Iowa* by Steve Swenson. Published by the Aldo Leopold Foundation, the American Forest Foundation, and the Iowa DNR.
 2014 *My Healthy Wetland: A handbook for wetland landowners in Northeast Wisconsin* by Katie Beilfuss. Published by the Aldo Leopold Foundation and Wisconsin Wetlands Association.
 2013 *My Healthy Stream: A handbook for streamside landowners* by Jack Williams, Michael P. Dombeck, and Christopher Wood. Published by the Aldo Leopold Foundation and Trout Unlimited.
 2011 *My Healthy Woods: A handbook for woodland landowners in Southern Arkansas* by Steve Swenson. Published by the Aldo Leopold Foundation and the American Forest Foundation.
 2011 *My Healthy Woods: A handbook for woodland landowners in Southeast Minnesota* by Steve Swenson. Published by the Aldo Leopold Foundation and the American Forest Foundation.
 2010 *My Healthy Woods: A handbook for woodland landowners in Southwest Wisconsin* by Steve Swenson. Published by the Aldo Leopold Foundation and the American Forest Foundation.
 2008-present *The Leopold Outlook*, a biannual member magazine published by the Aldo Leopold Foundation/Land Ethic Press.

PROFESSIONAL MEMBERSHIPS

2020-present Association for Tropical Biology and Conservation
 2019-present Ecological Society of America
 2019-present American Fern Society
 2016-present Society for Conservation Biology