

Jared J. Beck

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EDUCATION

- 2016 – 2020 **Ph.D. Botany – University of Wisconsin-Madison.** Quantitative Methods minor. Dissertation:
Factors shaping the distribution, abundance, and diversity of temperate forest plants.
- 2010 - 2014 **B.A. Biology – Carleton College.** Graduated *magna cum laude* with Distinction in major.

PROFESSIONAL EXPERIENCE

- 2020 - present **Postdoctoral Research Associate,** Chicago Botanic Garden
- 2017 – 2020 **National Science Foundation Graduate Research Fellow,** University of Wisconsin-Madison.
- 2016 - 2017 **Teaching Assistant,** University of Wisconsin-Madison. Laboratory Instructor for Zoology 151.
- 2016 **Off-campus Studies Instructor,** Carleton College. Evolutionary Ecology in Australia/New Zealand.
- 2015 - 2016 **Educational Associate,** Carleton College. Lab manager for Hernández/McKone research group.
- 2014 - 2015 **Research Intern,** Chicago Botanic Garden. Lab manager for Echinacea Project research group.

PUBLICATIONS

1. **Beck, J.** and J. Richards. Trait-mediated ecological sorting and mass effects jointly influence local plant distributions and diversity in a quartzite glade. *In review.*
2. **Beck, J.**, A. Salvi, R. Henderson, and D. Waller. Trait differences predict the ecologically nested distribution of *Hylodesmum* congeners. *In review.*
3. **Beck, J.**, D. Rogers, D. Li, S. Johnson, K. Cameron, K. Sytsma, T. Givnish, and D. Waller. Functional traits mediate individualistic species-environment distributions across the landscape while fine-scale species' associations remain unpredictable. *In review.*
4. McKone, M., E. Williams, and **J. Beck.** 2021 Changes in a planted prairie community across a chronosequence sampled over 16 years. *Journal of Vegetation Science* 32:e13065.
5. **Beck, J.** 2021. Variation in plant-soil feedbacks among temperate forest herbs. *Plant Ecology* 222:1225-1238.
6. **Beck, J.** and T. Givnish. 2021. Fine-scale environmental heterogeneity and spatial niche partitioning among spring-flowering forest herbs. *American Journal of Botany* 108:63-73.
7. Wagenius, S., **J. Beck** & G. Kiefer. 2020. Fire synchronizes flowering and boosts reproduction in a widespread but declining prairie species. *Proceedings of the National Academy of Sciences* 117:3000-3005.
8. **Beck, J.**, B. Larget, and D. Waller. 2018. Phantom species: Adjusting colonization and extinction rates for pseudo-turnover. *Oikos* 127:1605-1618.
9. **Beck, J.**, M. McKone, & O. McMurtrey. 2016. Edge effects and avian community structure in a restored tallgrass prairie. *Natural Areas Journal* 36:328-333.
10. **Beck, J.**, D. Hernández, J. Pasari, & E. Zavaleta. 2015. Grazing maintains native plant diversity and promotes community stability in an annual grassland. *Ecological Applications* 25:1259-1270.

Manuscripts in preparation:

11. **Beck, J.**, M. McKone, and S. Wagenius. Masting and fire-stimulated flowering: Twin flames in the study of synchronized reproduction. *In preparation.*

Manuscripts in preparation (continued):

12. Richardson, L., **J. Beck**, D. Eck, S. Wagenius. Spring fires improve summer mating opportunities and influence multiple components of reproductive fitness. *In preparation*.
13. **Beck, J.**, A. Waananen, and S. Wagenius. Evaluating spatial, temporal, and genetic constraints on effective population density. *In preparation*.
14. Paulson, A., **J. Beck**, J. Richards, R. Toczydlowski, S. Johnson, D. Li, D. Rogers, B. Alverson, K. Camerson, K. Sysma, T. Givnish, and D. Waller. Dimensions of biodiversity change in temperate forests. *In preparation*.

POSTERS AND PRESENTATIONS

1. **Beck, J.**, S. Wagenius & G. Kiefer. *Fire synchronizes flowering and boosts reproduction in a widespread but declining prairie species*. The Prairie Enthusiasts Conference, February 25, 2021.
2. **Beck, J.** and B. Bowser*. *Contagious trees? Exploring patterns in the distribution of temperate forest trees*. UW-Madison Arboretum Research Symposium. February 14, 2019.
3. **Beck, J.** and D. Waller. *The phantom species problem: Accounting for pseudo-turnover in analyses of long-term ecological change*. Riveredge Nature Center Research Symposium, November 4, 2017. *Awarded Best Graduate Student Presentation*.
4. **Beck, J.**, S. Wagenius & G. Kiefer. *Fire promotes reproduction in the fragmented mating scene of Echinacea angustifolia*. Ecological Society of America Conference, August 14, 2015.
5. **Beck, J.**, S. Wagenius & G. Kiefer. *Turning up the heat: Prescribed fire and the reproduction of Echinacea angustifolia*. Society for Ecological Restoration, Midwest-Great Lakes Conference, March 28, 2015.

Other posters and presentations:

1. Richardson, L., D. Eck, **J. Beck**, S. Wagenius. *Spring fires improve summer mating opportunities and influence multiple components of reproductive fitness*. Botany Conference, July 21, 2021
2. Waller, D., **J. Beck**, B. Larget. *Phantom species: Can we estimate pseudo-turnover?* American Society of Naturalists Meeting, January 7, 2018.
3. Hernández, D., **J. Beck** & M. McKone. *Experimental community assembly with and without dominant grasses in tallgrass prairie. II. Ecosystem consequences*. Ecological Society of America, August 10, 2016.
4. McKone, M., **J. Beck** & D. Hernández. *Experimental community assembly with and without dominant grasses in tallgrass prairie. I. Effect on plant community structure at multiple scales*. Ecological Society of America Conference, August 10, 2016.
5. Wagenius, S., **J. Beck** & G. Kiefer. *Good years and good days: Mating synchrony at multiple temporal scales in a long-lived organism*. Ecological Society of America Conference, August 14, 2015.

* denotes mentored undergraduate student

INVITED TALKS

1. **Beck, J.** *Environmental factors shaping plant distributions and diversity: Lessons from a bedrock glade*. Plant Biology and Conservation Seminar, Northwestern University and Chicago Botanic Garden. January 29, 2021.
2. **Beck, J.** *Six decades of forest change in Noe Woods*. University of Wisconsin-Madison Arboretum. February 13, 2020.
3. **Beck, J.** *Plant-soil interactions and the diversity of temperate forest herbs*. UW-Madison Department of Plant Pathology Seminar. January 31, 2020.
4. **Beck, J.** *Using functional traits and phylogenetic relationships to explore the scale-dependent processes driving plant community assembly*. Presentation for UW-Madison Department of Botany. December 14, 2018.
5. **Beck, J.** *Plant biodiversity*. Environmental School, Wisconsin Garden Club Federation. September 21, 2018.
6. **Beck, J.** *What grassland birds can teach us about restoring prairie ecosystems*. Hosted by Northfield, MN chapter of The WildOnes and the Carleton College Cowling Arboretum. January 11, 2012.

AWARDS, HONORS, AND FELLOWSHIPS

Awards, honors, and fellowships for national and state competitions

2019	John Thomson Research Award, Wisconsin Botanical Club
2018	Graduate Student Research Award, Botanical Society of America
2016-2020	National Science Foundation Graduate Research Fellowship

Institutional award, honors, and fellowships

2019	Graduate Student Research Award, University of Wisconsin-Madison Graduate School
2019	Arboretum Research Fellowship, University of Wisconsin-Madison Arboretum
2019	Davis Research Award, University of Wisconsin-Madison Department of Botany
2019	Demeter Summer Research Award, University of Wisconsin-Madison Department of Botany
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2018	Demeter Summer Research Award, University of Wisconsin-Madison Department of Botany
2018	Kenneth Raper Travel Support Award, UW-Madison Department of Botany
2016	Graduate Student Support Grant, Wisconsin Alumni Research Foundation
2014	Scott Tyler Bergner Prize, Carleton College
2013	Great Lakes STEM Scholarship
2013	William Muir Fellowship, Carleton College
2012	Exceptional Writing Portfolio, Carleton College
2012	Dean's List, Carleton College
2010 - 2014	Mead Witter Foundation Scholarship
2010 - 2014	Frederick J. Hilgen Scholarship
2010	Richard Cass Art of Writing Scholarship

TEACHING EXPERIENCE

2016 - 2017	Lab Instructor, Introductory Biology, University of Wisconsin-Madison
2016	Off-campus Studies Instructor, Ecology & Evolution in Australia/New Zealand, Carleton College
2015	Lab Instructor, Ecosystems Ecology, Carleton College
2013	Teaching Assistant, Natural History of Minnesota, Carleton College

UNDERGRADUATE MENTORING EXPERIENCE

2022: W. Mosiman (Northwestern University); S. Chen (Lake Forest College)
2021: A. Radin (Binghamton College); W. Mosiman (Northwestern University); M. Barbera, C. Keast, M. Strong, & A. Velazquez (Lake Forest College); C. McWilliams, C. Cunniff, & W. Na (Carleton College)
2020: B. Bowser (UW-Madison)
2020: B. Bowser (UW-Madison)
2019: B. Bowser, C. Kestel, R. Nelson, K. Hobbins (UW-Madison)
2018: B. Bowser, G. Quirk (UW-Madison)
2016: A. Braeidy, R. Faust & G. Schmitt (Carleton College)
2015: D. Vail, J. Pruszenski, C. Shorb, L. Pflughoeft, M. Vought, & J. Krumholz (Carleton College)
2014: I. Lin, T. Kuhn & A. Petersons (Lake Forest College); J. York & E. Velis (Carleton College)

PROFESSIONAL TRAINING

2016	Diversity and Equity Training, University of Wisconsin-Madison
2017	Software Carpentry Workshop, University of Wisconsin-Madison
2018	S-130/S-190 Wildland Fire Certification (experience on 70+ prescribed burns)

PROFESSIONAL SERVICE

2017: National Science Foundation Graduate Research Fellowship Panelist, UW-Madison

2017: Student Panelist for Departmental Review, UW-Madison Department of Botany

2018 – 2019: Awards Committee, UW-Madison Department of Botany

2019: Space and Facilities Committee, UW-Madison Department of Botany

Ad-hoc reviewer: Ecosphere, Plant and Soil