
CHARLIE C. NICHOLSON

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EDUCATION

	Postdoctoral Scholar, University of California Davis	Spring 2019-Present
Ph.D	Natural Resources, University of Vermont Dissertation committee: Taylor Ricketts, Alison Brody, Nicholas Gotelli, Jenifer Pontius	2013-2018
	Ecological Economics Graduate Certificate, University of Vermont	2013-2015
BA	Biology – Evolution, Ecology and Behavior (Cum Laude), Skidmore College	2006-2010

AWARDS AND HONORS

Graduate Research Stipend, Swedish Research Council (\$10k)	2017
Graduate Research Opportunities Worldwide, NSF (\$5k)	2017
Graduate Student Grant, USDA Northeast Sustainable Agriculture Research & Education (\$15k)	2016
Graduate Student Research Award, New England Botanical Club (\$750)	2016
Graduate Research Fellowship Program, NSF (\$120k)	2015-2018
Research Experience for Undergraduates, NSF & CA Academy of Sciences (\$6k)	2009

PUBLICATIONS

- Nicholson, C. C., *Hayes, J. J., *Connolly, S. & Ricketts, T.H. (2019). Corridors through time: does resource continuity impact pollinator communities, populations and individuals? *Journal of Applied Ecology* (in review).
- Nicholson, C. C., *Ward, K., Williams, N. M., Isaacs, R., Mason, K., Wilson, J., Brokaw, J., Gut, L., Rothwell, N., Wood, T., Rao, S., Hoffman, G., Gibbs, J., & Ricketts, T., H. (2019). Mismatched outcomes for biodiversity and ecosystem services: testing the responses of crop pollinators and wild bee biodiversity to habitat enhancement. *Ecology Letters* (in review).
- Nicholson, C. C., & Egan, P. A. (2019). Natural hazard impacts on pollinators and pollination. *Global Change Biology* (in press).
- Mastrángelo, M. E., Perez-Harguindeguy, N., Enrico, L., Bennett, E., Lavorel, S., Cumming, G. S., ...Nicholson, C. C. (2019). Key knowledge gaps prevail at the core of linkages between People and Nature. *Nature Sustainability* (in press).
- Nicholson, C. C., Koh, I., Ricketts, T. H., Smith, H. G., Lonsdorf, E. V., & Olsson, O. (2019). Flowering resources distract pollinators from crops: Model predictions from landscape simulations. *Journal of Applied Ecology*, 56(3), 618-628.
- Nicholson, C. C., & Ricketts, T.H. (2019). Wild pollinators improve production, uniformity, and timing of blueberry crops. *Agriculture, Ecosystems & Environment*, 272, 29-37.
- Sonter, L.J., Gourevitch, J., Koh, I., Nicholson, C. C., Richardson, L. L., Schwartz, A. J., Singh, N. K., Watson, K. B., Maron, M. & Ricketts, T. H., (2018). Biodiversity offsets may miss opportunities to mitigate impacts on ecosystem services. *Frontiers in Ecology and the Environment*, 16(3), pp.143-148.

- Nicholson, C. C., Koh, I., Richardson, L. L., Beauchemin, A., & Ricketts, T. H. (2017). Farm and landscape factors interact to affect the supply of pollination services. *Agriculture, Ecosystems & Environment*, 250, 113-122.
- Sonter, L. J., Johnson, J. A., Nicholson, C. C., Richardson, L. L., Watson, K. B., & Ricketts, T. H. (2017). Multi-site interactions: Understanding the offsite impacts of land use change on the use and supply of ecosystem services. *Ecosystem Services*, 23, 158-164.
- Ricketts, T. H., Watson, K. B., Koh, I., Ellis, A. M., Nicholson, C. C., Posner, S., Richardson, L. L. & Sonter, L. J. (2016). Disaggregating the evidence linking biodiversity and ecosystem services. *Nature communications*, 7.
- Nicholson, C.C., Bales, J.W., Palmer-Fortune, J.E. & Nicholson, R.G., (2008). Darwin's bee-trap: the kinetics of *Catasetum*, a new world orchid. *Plant signaling & behavior*, 3(1), pp.19-23.
- Nicholson, C. C., Emery, B. F., Niles, M. T. (2019). Fragile food systems: quantifying the stability of crop-nutrient networks. *Manuscript in preparation*
- Koh, I., Lonsdorf, E. V., Nicholson C. C., Gibbs J., Issacs R., & Ricketts, T. H. (2019). Historical trends of climate change impacts on blueberry pollination differ by regions. *Manuscript in preparation*.
- Richardson L. L., Brody, A. K., Nicholson C. C., Salminen, J., & Ricketts, T. H. (2019). Mycorrhizal fungi affect pollination mutualisms between bees and crop plants. *Manuscript in preparation*.

* Undergraduate co-authors
 = Shared first authorship

WHITE PAPERS

- Nicholson, C. C., J Duncan, A. Kosiba, J. Truong and J. Pontius (Eds.) (2018). The Forest Ecosystem Monitoring Cooperative Long-Term Monitoring Update – 2017.
- Nicholson, C. C., A. Kosiba, J. Duncan, J. Truong and J. Pontius (Eds.) (2018). The Forest Ecosystem Monitoring Cooperative Regional Monitoring Update – 2017.

RESEARCH EXPERIENCE

Postdoctoral Scholar, University of California Davis	Spring 2019-Present
Research Consultant, Swedish University of Agricultural Sciences	Fall 2018
Research Assistant, Forest Ecosystem Monitoring Cooperative	Fall 2018
Visiting Researcher, Center for Environment and Climate Research, Lund University	Fall 2017
Field Ecologist, University of Vermont	2013-2017
Herbarium Technician, Academy of Natural Sciences of Drexel University	2012-2013
Botanist, Cary Institute for Ecosystem Studies	Summer 2012
Flora of Pennsylvania Intern, Morris Arboretum of the University of Pennsylvania	2011-2012
REU Intern, California Academy of Sciences	Summer 2009
Everett Intern, New York Botanic Garden	Summer 2008

TEACHING EXPERIENCE

Instructor

- o Biodiversity: Patterns and Processes, University of Vermont Fall 2016

Teaching Assistant

- o Wildlife Behavior, University of Vermont Fall 2014
- o Applied Environmental Statistics, University of Vermont Spring 2014
- o Introduction to Natural Resources, University of Vermont Fall 2013

Guest Lecturer

- Introduction to Natural Resources. University of Vermont. Talk title: *Pollination: Everything you wanted to know about plant sex (but were afraid to ask)*.
- Landscape ecology. University of Vermont. Talk title: *Landscape ecology and ecosystem services*.

STUDENT MENTORING

NSF REU Supervisor: Olivia Honigman (Earlham College)

Rubenstein School Independent Study Supervisor: Liana Vitousek (University of Vermont)

UVM Honors College Thesis Committee Member: Jen Jean-Marie Hayes (University of Vermont)

Supervisor of University of Vermont Undergraduates: Nawar Kareem (2017), Sami Connolly (2017), Alex Frayer (2017), Cassidy Motahari (2017), Anne Clayton (2017), Olivia Honigman (2016), Kristen Switzer (2016), Melissa Moldovan (2014-2017), Liana Vitousek (2014-2017), Jen Jean-Marie Hayes (2015-2016), Zach Fayer (2015), Rose Watts (2015), Ashlin Treadway (2015), Paige Cairncross (2014), Kristian Moore (2014), Katie Burns (2014)

SEMINARS AND TALKS

Ecological Society of America Conference. 2019. *Wild pollinators improve production, uniformity, and timing of blueberry crops*

Social Insects in the Northeast Region Conference. 2018. *Wild pollinators improve production, uniformity, and timing of blueberry crops*

Vermont Natural Resources Conservation Service. 2018. *Pollinator Conservation Training Workshop*

Northeastern Naturalist Conference. 2018. *Farm and landscape factors interact to affect the supply of pollination services*

Department of Ecology, Swedish University of Agricultural Sciences. 2017. *Wild pollinators improve production, uniformity, and timing of blueberry crops*

Center for Environment and Climate Research, Lund University. 2017. *Farm and landscape factors interact to affect the supply of pollination services*

Ecological Society of America Conference. 2017. *No farm is an island: local and landscape dynamics affect pollination*

Vermont Agency of Natural Resources. 2016. *The economics of pollination, should we be paying for ecosystem services, and if so – how?*

Champlain College. 2016. *Landscape ecology and native bees*

Vermont Land Trust. 2014. *Native Bees and Apple Trees*

POSTER ABSTRACTS

Nicholson, C. C., & Ricketts, T.H. (2019). Corridors through time: does resource continuity impact pollinator communities, populations and individuals? International Pollinator Symposium, Davis, CA, July 2019

Ricketts, T.H., K.B. Watson, A.M. Ellis, I. Koh, C.C. Nicholson, S. Posner, L.L. Richardson, L.J. Sonter.

Biodiversity and ecosystem services: what is the evidence for a link? Ecological Society of America Conference, Baltimore, MD, August 2015

Nicholson, C. C. To what extent does landscape pattern determine pollinator activity. Society for Conservation Biology Conference. Missoula, MT, July 2014

WORKSHOPS AND CERTIFICATIONS

COMPASS, Science Communication Workshop

Spring 2018

American Museum of Natural History, Bee Course

Summer 2015

National Outdoor Leadership School, Leadership Training

Spring 2015

National Outdoor Leadership School, Wilderness First Aid

Spring 2015

SERVICE & SOCIETY MEMBERSHIP

Reviewer for:

Ecology, Ecological Applications, Ecological Modeling, Landscape Ecology, Journal of the Kansas Entomological Society

Volunteer with:

Letters to a Pre-scientist

Member of:

Ecological Society of America
Society for Conservation Biology
Union of Concerned Scientists

TECHNICAL SKILLS

Taxonomic expertise

- Plant identification – species level
- Bee identification – genera level
- Plant and insect specimen curation & database management

Programming languages

- R
- MatLab

Geospatial analysis

- ArcGIS
- R

Version control systems

- git
- GitHub

PROFESSIONAL REFERENCES

Taylor Ricketts, PhD

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University of Vermont
Burlington, VT 050405
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Neal Williams, PhD

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