

# NATHAN I. WISNOSKI

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## EDUCATION

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<b>Indiana University, Bloomington</b>	2014 – Present
Ph.D in Biology – Evolution, Ecology, and Behavior	
Minor in Environmental Sciences, School of Public and Environmental Affairs	
<b>The University of Texas at Austin</b>	2009 – 2013
B.S. in Biology – Ecology, Evolution, and Behavior	
Minor in Business, McCombs School of Business	

## RESEARCH EXPERIENCE

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<b>Ph.D. Candidate</b>	August 2014 – Present
Indiana University	<i>Bloomington, IN</i>
Lennon Lab: Microbial Ecology and Evolution	
<b>Field/Lab Technician</b>	Spring 2014
University of Texas	<i>Austin, TX</i>
Hawkes Lab: Microbial Ecology and Biogeochemistry	
<b>Undergraduate Researcher</b>	June 2012 – February 2014
University of Texas	<i>Austin, TX</i>
Leibold Lab: Community and Evolutionary Ecology	

## GRANTS

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NSF LTER Network Communications Office (NCEAS). *A synthesis to identify how metacommunity dynamics mediate community responses to disturbance across the ecosystems represented in the LTER network.* PI: E.R. Sokol, co-PIs: C.M. Swan, **N.I. Wisnoski**. \$76,000. 2016–2018.

IU Sustainability Research Development Grant. \$5400. 2015.

## FELLOWSHIPS AND AWARDS

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Louise Constable Hoover Fellowship, IU Biology. \$2000	2019
Travel Award, Association for the Sciences of Limnology and Oceanography. \$606	2018
Travel Award, ESA Microbial Ecology Section. \$600	2017
George W. Brackenridge Fellowship, IU Biology. \$2000	2016
Travel Award, International Society for Microbial Ecology. €300	2016
Travel Award, Honorable Mention, ESA Microbial Ecology Section. \$150	2016
Departmental Research Recruitment Fellowship, IU Biology.	2014

## PUBLICATIONS

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**Wisnoski, N.I.**, M.A. Leibold, and J.T. Lennon. In press. *Dormancy in metacommunities*. The American Naturalist.

In review:

Voelker, N.M., P.L. Zarnetske, **N.I. Wisnoski**, J.D. Tonkin, C.M. Swan, S. Record, L. Marazzi, N. Lany, T. Lamy, A. Compagnoni, M.C.N. Castorani, R. Andrade, and E.R. Sokol. In review. *Novel insights to be gained from applying metacommunity theory to long-term biodiversity data*.

Ward, A.S., S.M. Wondzell, N.M. Schmadel, S. Herzog, J.P. Zarnetske, and 33 others. In review. *Spatial and temporal variation in river corridor exchange across a 5th order mountain stream network*.

Ward, A.S., J.P. Zarnetske, and 35 others. In review. *Co-located contemporaneous mapping of morphological, hydrological, chemical, and biological conditions in a 5th order mountain stream network, Oregon, USA*.

Mueller, E.A., **N.I. Wisnoski**, A.L. Peralta, J.T. Lennon. In review. *The microbial rescue effect*.

In preparation:

**Wisnoski, N.I.** and J.T. Lennon. In preparation. *Habitat-specific community assembly in a dendritic metacommunity*.

**Wisnoski, N.I.**, M.E. Muscarella, M.L. Larsen, A.L. Peralta, and J.T. Lennon. In preparation. *Dormancy and dispersal structure bacterial communities across ecosystem boundaries*.

**Wisnoski N.I.** and J.T. Lennon. In preparation. *The contribution of “seed banks” to bacterial community dynamics*.

Lamy, T., **N.I. Wisnoski**, R. Andrade, M.C.N. Castorani, A. Compagnoni, N. Lany, L. Marazzi, S. Record, C.M. Swan, J.D. Tonkin, N. Voelker, S. Wang, P.L. Zarnetske, and E.R. Sokol. In preparation. *The dual dimensions of metacommunity stability*.

## BOOK REVIEWS

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**Wisnoski, N.I.** and J.T. Lennon. 2016. “*Principles of Microbial Diversity*” by James W. Brown. The Quarterly Review of Biology. <https://doi.org/10.1086/685351>.

## TALKS AND POSTERS

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**Wisnoski, N.I.**, E.R. Sokol, R. Andrade, M.C.N. Castorani, C.P. Catano, A. Compagnoni, T. Lamy, N.K. Lany, L. Marazzi, S. Record, A.C. Smith, C.M. Swan, J.D. Tonkin, N.M. Voelker, P.L. Zarnetske. Accepted, 2019. *Patterns and drivers of stability in long-term metacommunity data*. Ecological Society of America Annual Meeting. Louisville, KY.

**Wisnoski, N.I.**, M.A. Leibold, J.T. Lennon. Accepted, 2019. *Dormancy in metacommunities: when can temporal dispersal maintain diversity in variable landscapes?*. Society for Freshwater Science Annual Meeting. Salt Lake City, UT.

Ward, A. S., C.J. Harman, N.M. Schmadel, M.J. Kurz, P. Blaen, S.M. Wondzell, J.D. Drummond, D.M. Hannah, J.L. Knapp, S. Krause, A. Li, E.R. Martí, M. Miller, A. Milner, K. Neil, S. Plont, K.R. Roche, A.I. Packman, N.

- Wisnoski, J.P.** Zarnetske. 2018. *How do evapotranspiration-driven discharge fluctuations alter reach-scale ecosystem function?*. American Geophysical Union, Fall Meeting. Washington, D.C..
- Ward, A. S., S. Herzog, S.M. Wondzell, N.M. Schmadel, P. Blaen, J.D. Drummond, D.M. Hannah, C.J. Harman, J.L. Knapp, S. Krause, M.J. Kurz, A. Li, E. Martí, M. Miller, A. Milner, K. Neil, S. Plont, K.R. Roche, A.I. Packman, **N. Wisnoski**, and J.P. Zarnetske. 2018. *Spatial and temporal relationships between hydrologic forcing, geologic setting, and river corridor exchange in a mountain stream network*. American Geophysical Union, Fall Meeting. Washington, D.C..
- Ward, A.S., S. Herzog, S.M. Wondzell, N. Schmadel, P. Blaen, J. Drummond, D.M. Hannah, C.J. Harman, J. Knapp, S. Krause, M.J. Kurz, A. Li, E. Marti, M. Miller, A. Milner, K. Neil, S. Plont, K. Roche, A.I. Packman, **N. Wisnoski**, and J. Zarnetske. 2018. *How do hydrologic forcing and geologic setting control river corridor exchange in a 5th order mountain stream network?*. Geological Society of America Annual Meeting. Indianapolis, IN.
- Wisnoski, N.I.** and J.T. Lennon. 2018. *Contribution of “seed banks” to bacterioplankton community dynamics*. Society for Freshwater Science Annual Meeting. Detroit, MI.
- Sokol, E.R., **N.I. Wisnoski**, and C.M. Swan. 2018. *Using long-term data to understand when metacommunities respond to disturbance*. Ecological Society of America Annual Meeting. New Orleans, LA.
- Wisnoski, N.I.**, M.E. Muscarella, and J.T. Lennon. 2018. *Dispersal and dormancy across ecosystem boundaries*. Association for the Sciences of Limnology and Oceanography. Victoria, BC, Canada.
- Wisnoski, N.I.** and J.T. Lennon. 2017. *Microbial community assembly in dendritic metacommunities*. Ecological Society of America Annual Meeting. Portland, OR.
- Sokol, E.R., **N.I. Wisnoski**, C.M. Swan, R. Andrade, H.L. Bateman, A.G. Hope, J. Kominoski, N.K. Lany, L. Marazzi, S.J. Presley, A. Rassweiler, S. Record, M.R. Willig, and P.L. Zarnetske. 2017. *The role of long-term ecological research programs for testing metacommunity theory and understanding biodiversity patterns*. Ecological Society of America Annual Meeting. Portland, OR.
- Voelker, N.M., E.R. Sokol, **N.I. Wisnoski**, C.M. Swan, T. Lamy, M.C.N. Castorani, L. Marazzi, A. Compagnoni, J.R. Blanchard, R. Andrade, and N.K. Lany. 2017. *Evaluating the link between metacommunity stability and environmental variability across trophic groups represented at LTER sites*. Ecological Society of America Annual Meeting. Portland, OR.
- Wisnoski, N.I.** and J.T. Lennon. 2016. *Community assembly processes differ between surface water and sediment-associated communities in stream networks*. Ecological Society of America Annual Meeting. Fort Lauderdale, FL.
- Wisnoski, N.I.** and J.T. Lennon. 2016. *Local and regional processes in stream microbial community assembly (poster)*. International Symposium on Microbial Ecology (ISME 16). Montreal, QC.
- Wisnoski, N.I.**, A.S. Ward, and J.T. Lennon. 2015. *Bacterial metacommunity structure across a stream network (poster)*. LTER All Scientists Meeting. Estes Park, CO.

## TEACHING

**Co-Instructor.** Quantitative Biodiversity (<https://goo.gl/y4oK7c>). *Indiana University*. Spring 2017.

**Associate Instructor.** Foundations of Biology: Diversity, Evolution, and Ecology. *Indiana University*. Spring 2016, Fall 2016, Spring 2018, Spring 2019.

**Associate Instructor.** Biology Laboratory. *Indiana University*. Fall 2014, Fall 2017, Fall 2018.

**Grader.** Microbial Ecology. *University of Texas*. Spring 2014.

**Teaching Assistant.** Biostatistics. *University of Texas*. Spring 2013, Fall 2013.

## MENTORSHIP AND SERVICE

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**Undergraduate STEM Mentor** Jan 2015 – Present

Indiana University

Undergraduate Mentees: Luke Pryke, Mollie Carrison

Summer REU Program: Jaylen Beatty, Mary Wallace, SydneyEllen Gooding

**High School STEM Mentor** Summer 2015 – Present

Jim Holland Summer Scholars Program

High School Mentees: Dakayla Calhoun, Samuel Iwu, Ian Schowe

**High School Riverwatch Sampling Coordinator** Summer 2017 – Present

Jim Holland Summer Enrichment Program

Supervised macroinvertebrate sampling activity with high school students to analyze stream quality

**EcoLunch Co-Organizer** August 2015 – May 2016

Indiana University

Led student research and professional development seminar series

**Metacommunity Reading Group Organizer** Summer 2015

Indiana University

Organized a graduate reading group on metacommunity ecology

## COMPUTATIONAL SKILLS

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**Scripting** python, bash

**Analysis** R, Mathematica

**Productivity** L<sup>A</sup>T<sub>E</sub>X, markdown, git/GitHub, Microsoft Office

## PROFESSIONAL SOCIETY MEMBERSHIP

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Ecological Society of America

Society for Freshwater Sciences

American Society of Naturalists