Matthew J. Michalska-Smith

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Education

University of Chicago, Chicago, IL
Ph.D., Ecology & Evolution — *Since 2013*
Adviser: Stefano Allesina

University of Notre Dame, Notre Dame, IN
B.S., Biological Sciences and Theology — *2008-12*

Work Experience

Research

Laboratory Technician
U. Chicago, Dept. Ecology & Evolution, Allesina Lab — *2012–13*
- Theoretical ecology with an emphasis on networks

Undergraduate Researcher
U. Notre Dame, Dept. Biological Sciences, Ridenhour Lab — *2011-12*
- Ecology and evolution of infectious disease
- Independent research topic: Influenza dynamics at Notre Dame

Practicum in Field Environmental Biology
U. Notre Dame, PI: Ashley Baldridge, PhD Candidate, Lodge Lab — *Summer 2010*
- Modules on Herpetology, Ornithology/Mammalogy, Entomology, Aquatic- and Forest Ecology
- Independent research topic: Intraspecific shelter competition among crayfish

Teaching

Teaching Assistant
U. Chicago, Biological Sciences Division — *2014-2017*
- Theoretical Ecology (Winter 2017)
- Biodiversity (Spring 2016)
- Introduction to Scientific Computing (Winter 2014, 2016)
- Ecology & Evolution (Winter 2015)
- BSD-QBIO: Quantitative Biology Workshop (Summer 2015, 2016, 2017)

Undergraduate Teaching Assistant
U. Notre Dame, Dept. Biological Sciences — *Spring 2012*
- Mammalogy Laboratory course with focus on specimen identification and anatomy

Single/Group Tutor
U. Notre Dame, Academic Services for Student Athletes — *2008-11*
- Tutored Notre Dame students in Calculus through basic multivariate

Publications & Presentations

Publications

Matthew J. Michalska-Smith and Stefano Allesina. And, not or: Quality, quantity in scientific publishing. *PLOS ONE*, 12(6):1–12, 06 2017.

György Barabás*, **Matthew J. Michalska-Smith***, and Stefano Allesina. The effect of intra- and in-

terspecific competition on coexistence in multispecies communities. *The American Naturalist*, 188(1):E1–E12, 2016.

Matthew J. Smith, Elizabeth Sander, György Barabás, and Stefano Allesina. Stability and feedback levels in food web models. *Ecology Letters*, 18(6):593–595, 2015.

Phillip P. A. Staniczenko, **Matthew J. Smith**, and Stefano Allesina. Selecting food web models using normalized maximum likelihood. *Methods in Ecology and Evolution*, 5(6):551–562, 2014.

Matthew J. Smith, Cody Weinberger, Emilio M. Bruna, and Stefano Allesina. The scientific impact of nations: Journal placement and citation performance. *PLOS ONE*, 9(10):e109195, 2014.

Kimbra G. Turner, **Matthew J. Smith**, and Benjamin J. Ridenhour. Whirling disease dynamics: An analysis of intervention strategies. *Preventive Veterinary Medicine*, 113(4):457–468, 2014.

Stefano Allesina, Elizabeth Sander, **Matthew J. Smith**, and Si Tang. Superelliptical laws for complex networks. *arXiv preprint arXiv:1309.7275*, 2013.

Papers in Progress

György Barabás, **Matthew J. Michalska-Smith**, and Stefano Allesina. Self-regulation and the stability of large ecological networks. 2017. In Review (*Nature Ecology & Evolution*, second round).

Jacopo Grilli, György Barabás, **Matthew J. Michalska-Smith**, and Stefano Allesina. Higher-order interactions stabilize dynamics in competitive network models. 2017. Accepted (*Nature*).

Matthew J. Michalska-Smith*, Elizabeth L. Sander*, and Stefano Allesina. Understanding the role of parasites in food webs using the group model. 2017. In Review (*Journal of Animal Ecology*).

Posters & Presentations

NetSci International School and Conference on Network Science
Indianapolis, IN USA *20-24 July 2017*
- Presentation: Higher-order interactions stabilize dynamics in competitive network models

Ecological Society of America Annual Meetings: Species Interactions Session
Ft. Lauderdale, FL USA *9 August 2016*
- Presentation: Identifying unique species roles by characterizing differences in ecological network structure

Dissertation Proposal Hearing
Chicago, IL USA *27 August 2015*
- Presentation: Structure and Stability

Ecological Society of America Annual Meeting: Theoretical Ecology Session
Baltimore, MD USA *12 August 2015*
- Presentation: Looking locally to see globally

ACS International Center Webinar Series
https://global.acs.org/international-center-events/... *25 February 2015*
- Webinar: Global Scientific Collaboration: Key to Scientific Success

ICTP-SAIFR School on Pathogen Dynamics, Climate and Global Change
IFT-UNESP, São Paulo, Brazil *21 January 2015*
- Presentation: The Scientific Impact of Nations: Journal Placement and Citation Performance

Undergraduate Scholars Conference, College of Science Joint Annual Meeting
Notre Dame, IN USA *4 May 2012*
- Poster: Modeling Seasonal Influenza in Indiana with an Age-Stratified SEIR Model

Funding Awarded

2015-2018: Department of Education Graduate Assistance in Areas of National Need (GAANN) Fellow

Other Funding

$500: UChicagoGRAD Travel Fund

* These authors have contributed equally to this publication.

$500: BSD Recruitment Travel Award
$500: BSD Travel Award

Honors & Awards

2015: NSF Graduate Research Fellowship Program Honorable Mention

Schools & Meetings

NetSci International School and Conference on Network Science
Indianapolis, IN USA *20-24 July 2017*

Ecological Society of America Annual Meeting
Fort Lauderdale, FL USA *7-12 August 2016*

Ecological Society of America Annual Meeting
Baltimore, MD USA *9-14 August 2015*

ICTP-SAIFR School on Pathogen Dynamics, Climate and Global Change
IFT-UNESP, São Paulo, Brazil *12-23 January 2015*

Non-adaptive selection: explaining macroscopic laws in ecology and evolution
EPFL CIB, Lausanne, Switzerland *7-11 July 2014*

Peer-Reviewing

- Oikos
- Ecology
- Journal of Theoretical Biology
- PLOS Computational Biology
- BioScience
- PLOS ONE
- Scientific Reports
- Journal of Forestry Research
- Frontiers in Genetics
- Scientometrics
- Environmental Modelling & Software
- Proceedings of the Royal Society of London B