




BOB WEEK

Curriculum Vitae

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EDUCATION

- 2020 **PhD Bioinformatics & Computational Biology** S.L. Nuismer Lab, IBEST, University of Idaho
Dissertation focused on modeling eco-evolutionary processes and developing statistical methods
- 2015 **BS Mathematics** University of Idaho
Traditional math degree with electives in electrical engineering

PEER-REVIEWED PUBLICATIONS

- 2023 **Host-Parasite Coevolution in Continuous Space Leads to Variation in Local Adaptation Across Spatial Scales** The American Naturalist
Week, B.; Bradburd, G.S. doi:10.1086/727470
- 2022 **Uncovering Cryptic Coevolution** The American Naturalist
Nuismer, S.L.; Week, B.; Harmon, L.J. doi:10.1086/717436
- 2021 **A White Noise Approach to Evolutionary Ecology** Journal of Theoretical Biology
Week, B.; Nuismer, S.L.; Harmon, L.J.; Krone, S.M. doi:10.1016/j.jtbi.2021.110660
- 2021 **Coevolutionary Arms Races and the Conditions for the Maintenance of Mutualism** The American Naturalist
Week, B.; Nuismer, S.L. doi:10.1086/714274
- 2021 **A Unified Model of Species Abundance, Genetic Diversity, and Functional Diversity Reveals the Mechanisms Structuring Ecological Communities** Molecular Ecology Resources
Overcast, I.; Ruffley, M.; Rosindell, J.; Harmon, L.; Borges, P.; Emerson, B.; Etienne, R.S.; Gillespie, R.; Krehenwinkel, H.; Mahler, L.; Massol, F.; Parent, K.; Patiño, J.; Peter, B.; Week, B.; Wagner, C.; Hickerson, M.J.; Rominger, A. doi:10.1111/1755-0998.13514
- 2019 **Identifying Models of Trait-Mediated Community Assembly using Random Forests and Approximate Bayesian Computation** Ecology and Evolution
Ruffley, M.; Peterson, K.; Week, B.; Tank, D.; Harmon, L.J. doi:10.1002/ece3.5773
- 2019 **Approximate Bayesian Estimation of Coevolutionary Arms Races** PLOS Computational Biology
Nuismer, S.L.; Week, B. doi:10.1371/journal.pcbi.1006988
- 2019 **The Measurement of Coevolution in the Wild** Ecology Letters
Week, B.; Nuismer, S.L. doi:10.1111/ele.13231
- 2018 **Coevolution Slows the Disassembly of Mutualistic Communities** The American Naturalist
Nuismer, S.L.; Week, B.; Aizen, M. doi:10.1086/699218

PREPRINTS

- 2024 **The Evolution of Microbiome-Mediated Traits** bioRxiv
Week, B.; Morris, A.H.; Bohannan, J.M. doi:10.1101/2024.03.29.587374

AWARDS

- 2018 – 2019 **Bioinformatics & Computational Biology Fellowship** IBEST, University of Idaho
Project aimed to model the duration of coevolutionary associations
- 2017-2018 **Bioinformatics & Computational Biology Fellowship** IBEST, University of Idaho
Project aimed to develop a statistical method to measure coevolution in continuous space
- 2017 **Paul Joyce Memorial BCB Fellowship Endowment** IBEST, University of Idaho
Nominated by Professor Scott Nuismer because of my "love for mathematics and helping others to appreciate how it can be used to understand biological processes"
- 2013-2015 **Undergraduate Research in Biology & Mathematics** IBEST, University of Idaho
Efforts focused on developing a statistical method to measure coevolution in metapopulations

PROFESSIONAL EXPERIENCE

2022 – Current	Postdoctoral Research Fellow Extending evolutionary theory for traits jointly determined by host genotype and host microbiome	B.J.M. Bohannan Lab, University of Oregon
2020 – 2022	Postdoctoral Researcher Developed mathematical and computational approaches to understand coevolution in continuous space	G.S. Bradburd Lab, Michigan State University
2018	Visiting Scientist Field ecology training on estimating floral abundance and phenology, recording plant-pollinator interactions and estimating percent cover	P.J. CaraDonna Lab, Rocky Mountain Biological Laboratory

TEACHING EXPERIENCE

2017	Teaching Assistant Taught the lab portion of a 300-level ecology and population biology course	University of Idaho, Department of Biological Sciences
2012 – 2014	Mathematics Tutor Part-time work at tutoring center supporting students taking a wide-range of coursework	Clark Community College, Mathematics Department

PRESENTATIONS

2024	Host-Parasite Coevolution & Microbiome-Mediated Adaptation - Seminar	TransEvo Core Seminar - Kiel, Germany
2023	The Evolution of Microbiome-Mediated Traits - Talk	Symbiosis Theory Workshop - Eugene, Oregon
2023	Modeling Adaptation of Microbiome-Mediated Traits - Talk	EvoWibo - Port Townsend, Washington
2022	Host-Parasite Coevolution in Continuous Space - Poster	PEQG2022 - Pacific Grove, California
2021	Coevolutionary Arms Races and The Conditions for The Maintenance of Mutualism - Talk	AmNat2021 - Virtual
2020	A Bayesian Methodology for Estimating the Distribution of Coevolution within Ecological Communities - Talk	AmNat2020 - Pacific Grove, California
2018	The Measurement of Coevolution in Nature - Poster	EvoWibo - Port Townsend, Washington
2017	The Measurement of Coevolution in Mutualisms - Talk	Evolution - Portland, Oregon

SERVICE & LEADERSHIP

2022	Code Contributor Developed a nucleotide-based model of coevolution for SLiM. See §19.7 <i>here</i> .	SLiM 4.0 doi:10.1086/723601
2018-2019	Graduate Student Representative Represented graduate students in the Bioinformatics & Computational Biology program at institutional meetings	IBEST, University of Idaho
—	Manuscript Reviewer The American Naturalist, Ecology, Evolution, PCI Evol Biol, Population Ecology, Proceedings of The Royal Society B, Theoretical Population Biology	

SOCIETIES

2021-Present	The International Society of Nonbinary Scientists	isnbs.org
2020-Present	The American Society of Naturalists	amnat.org

INTERESTS

I am broadly interested in collaborating on any scientific topic where my skills are useful. I am particularly interested in developing and formalizing models to clarify conceptual issues in population biology and community ecology.

SKILLS

Software:	\LaTeX , Python, R, Linux, Julia, Mathematica, SLURM, SLiM, C/C++
Statistics:	Modeling, Analysis, Inference, Methods Development
Math:	Linear Algebra, Dynamical Systems, Functional Analysis, Stochastic Processes