Easton R. White

Research Associate

Department of Biology & Gund Institute for Environment

University of Vermont

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Education

2018	Ph.D. in Population Biology	University of California, Davis
2013	B.S. in Biology, Minor Mathematics	Arizona State University
2010	Associate of Science	Scottsdale Community College

Research Interests

Quantitative ecology, coupled natural-human systems, ecosystem management, conservation science, marine ecology, fisheries, protected areas, decision theory, species monitoring, biology education, active learning

Major Awards and Grants

2020	PI: Effects of a human pandemic on fisheries. Gund Institute for Environment COVID-19 Rapid Research Fund ($7,100)
2019-2024	(CO-PIs) Baker-Medard Merrill, **White Easton R.**, and Elizabeth Fairchild. Socio-Ecological Feedbacks of Marine Protected Areas: Dynamics of Small-Scale Fishing Communities and Inshore Marine Ecosystems. *National Science Foundation CNH2*: Dynamics of Integrated Socio-Environmental Systems. $602,320
2018	Graduate Teaching Award, University of California, Davis
2017-2018	Professor for the Future fellow
2014-2017	National Science Foundation Graduate Research Fellow
2013-2014	Canada Fulbright Awardee

Publications

Google Scholar link ResearchGate link

*Indicates undergraduate or graduate student mentee, †Indicates equal co-authorship

In the pipeline (preprint and/or in review)

9 Emily Beasley*, Natalia Aristizabal*, Erika Bueno*, **Easton R. White**. The spore of the beans: Spatially explicit models predict coffee rust spread in fragmented landscapes. bioRxiv. (link)

8 Joshua S. Stoll, Hannah L. Harrison, Emily De Sousa, Debra Callaway, Melissa Collier, Kelly Harrell, Buck Jones, Jordyn Kastlunger, Emma Kramer, Steve Kurian, M. Alan Lovewell, Sonia Strobel, Tracy Sylvester, Brett Tolley, Andrea Tomlinson, **Easton R. White**, Talia Young and Philip A. Loring. Alternative seafood networks during COVID-19: Implications for resilience and sustainability. EcoEvoRxiv preprints. In review at Frontiers in Sustainable Food Systems. (link)

7 Christine A. Ward-Paige, **Easton R. White**, Elizabeth MP Madin, and 25 others. A framework for mapping and monitoring human-ocean interactions in near real-time during COVID-19 and beyond. OSF Preprints. In review at Marine Policy. (link)

6 Benjamin M. Althouse, Brendan Wallace, Brendan Case, Samuel V. Scarpino, Andrew M. Berdahl, **Easton R. White**, and Laurent Hebert-Dufresne. The unintended consequences of inconsistent pandemic control policies. medRxiv (link)

5 Christie A. Bahlai, **Easton R. White**, Julia D. Perrone, Sarah Cusser, and Kaitlin Stack Whitney. An algorithm for quantifying and characterizing misleading trajectories in ecological processes. bioRxiv. In review at Ecology. (link)

4 Froehlich Halley E., Rebecca Gentry, Sarah E. Lester, Richard S. Cottrell, Gavin Fay, Trevor A. Branch, Jessica A. Gephart, **Easton R. White**, Julia K. Baum. Securing a sustainable future for US seafood in the wake of a global crisis. OSF Preprints. In review at Marine Policy. (link)

3 Osgood, Geoffrey J., **Easton R. White**, Julia K. Baum. Effects of climate-change driven gradual and acute temperature changes on shark and ray species. In review at Journal of Animal Ecology.

2 **White, Easton R.**, Marissa L. Baskett, and Alan Hastings. Catastrophes, connectivity, and Allee effects in the design of marine reserve networks. bioRxiv. In revision at Oikos. (link)

1 **White, Easton R.**, Kalle Parvinen, and Ulf Dieckmann. Environmental variability and phenology evolution: impacts of climate change and spring onset on reproductive timing in a small mammal. PeerJ Preprints 6:e27435v1. (link)

Published

16 **White, Easton R.**, Halley Froehlich, Jessica A. Gephart, Richard S. Cottrell, Trevor Branch, Rahul Agrawal Bejarano, Julia Baum. 2020. Early effects of the COVID-19 pandemic on US fisheries and seafood. Accepted at *Fish and Fisheries*. (link)

15 †Bruel, Rosalie and †**Easton R. White**. Sampling requirements and approaches to detect ecosystem shifts. bioRxiv. Accepted at *Ecological Indicators*. (link)

14 **White, Easton R.** and Christie A. Bahlai. Experimenting with the Past to Improve Environmental Monitoring Programs. EcoEvoRxiv. Accepted at *Frontiers in Ecology and Evolution*. (link)

13 **White, Easton R.** and Laurent Hebert-Dufresne. State-level variation for initial COVID-19 dynamics in the United States. medRxiv. In press at *PLoSOne*. (link)

12 **White, Easton R.** and Alan Hastings. Seasonality in ecology: Progress and prospects in theory. In press at *Ecological Complexity*. (link)

11 **White, Easton R.**,*Kyle Cox, Brett Melbourne, and Alan Hastings. 2019. Ecological management depends strongly on stochasticity: an experimental test. *Proceedings of the National Academy of Sciences*. (link)

10 Rodriguez-Caro, Roberto C., Thorsten Wiegand, **Easton R. White**, Ana Sanz-Aguilar, Andres Gimenez, Eva Gracia, and Jose D. Anadon. 2019. A low cost approach to estimate demographic rates using inverse modelling. *Biological Conservation*. (link)

9 Fournier, Auriel, **Easton R. White**, and Stephen Heard. 2019. Site-selection bias can drive apparent population declines in long-term studies. *Conservation Biology*. (link)

8 **White, Easton R.** 2019. Minimum time required to detect population trends: the need for long-term monitoring programs. *BioScience*. **Editors' Choice article** (link)

7 **White, Easton R.** and Andrew T. Smith. 2018. The role of spatial structure in the collapse of regional metapopulations. *Ecology* 99(2): 2815-2822. (link)

6 **White, Easton R.** Mark C. Myers, Joanna Mills Flemming, and Julia K. Baum. 2015. Shifting elasmobranch community assemblage at Cocos Island - an isolated marine protected area. *Conservation Biology* 29(4): 1186-1197. (link)

5 **White, Easton R.** John D. Nagy, and Samuel H. Gruber. 2014. Modeling the population dynamics of lemon sharks. *Biology Direct* 9(1): 1-23. (link)

4 Kessel S. T., Chapman D. D., Franks B. R., Gedamke T., Gruber S. H., Newman J. M., **White E. R.** and Perkins R. G. 2014. Predictable temperature regulated residency, movement and migration in a large, highly-mobile marine predator. *Marine Ecology Progress Series* 514. (link)

3 Robinson, James P.W., **Easton R. White**, Logan D. Wiwchar, Danielle C. Claar, Justin P. Suraci, Julia K. Baum. 2014. The limitations of diversity metrics in directing marine global marine conservation. *Marine Policy* 48:123-125. (link)

2 Gerber, Leah R. and **Easton R. White**. 2014. Two-sex matrix models in assessing population viability: when do male dynamics matter? *Journal of Applied Ecology* 51(1): 270-278. (link)

1 Senko, Jesse, **Easton R. White**, Sellina S. Heppell, and Leah R. Gerber. 2014. A comparison of fishery management strategies for mitigating bycatch of vulnerable marine megafauna species. *Animal Conservation* 17(1): 5-18. (link)

Teaching Experience

University of Vermont

2019-2020 Instructor, Foundations of Quantitative Reasoning (BIO381, PhD-level).

University of California, Davis

2017-2018 Instructor, Introductory Biology: Ecology and Evolution, Biology Undergraduate Scholars Program (Summer bridge program)

2018 Instructor, Science Education and Outreach.

2018 Instructor, Building your personal baloney detection kit, First Year Seminar program

2017 Guest Lecturer, Mathematical methods in population biology (graduate-level PBG231)

2016 Teaching Assistant, Population Ecology (ESP121)

2015 Teaching Assistant, Introduction to Biology (BIS2B)

Software Carpentry

2014-2019 Instructor for nine two-day workshops in North America (R, shell, and version control)

University of Victoria

2014 Teaching Assistant, Advanced Ecology (BIO470)

Research Experience

2019-2024 PI on coupled socio-ecological systems project focused on Madagascar coral reef fisheries

2014-2018 Graduate Research and Teaching Assistant, University of California, Davis, Advisor: Alan Hastings

2016 Intern, Young Scientist Summer Program, Institute for Applied Systems Analysis, Vienna, Austria

2013-2014 Canada Fulbright Awardee, University of Victoria, Canada, Advisor: Julia Baum

2012-2013 Researcher, Gerber Lab: Marine Population Biology, Arizona State University, Advisor: Leah Gerber

2009-2013 Researcher, SCC/ASU Evolutionary Dynamics Laboratory, Advisor: John Nagy

2011-2012 Intern, Bimini Biological Field Station, Bimini, Bahamas, Supervisor: Samuel Gruber

Selected Presentations

*Indicates undergraduate mentee

2020	Shifting elasmobranch community assemblage within the Cocos Island marine protected area. Middlebury College, Middlebury, VT.
2019	Managing populations in a changing world. Middlebury College, Middlebury, VT.
2019	Ecology and conservation in an uncertain world. Stony Brook University, Stony Brook, NY.
2019	Site-selection bias and species monitoring programs. Carleton University, Ottawa, Canada.
2019	Experimenting with the past to improve species monitoring programs. CSEE Meeting, Fredericton, NB, Canada.
2019	Teaching case study: Socio-ecological modeling of coral reef fisheries. National Socio-Environmental Synthesis Center, Annapolis, MD.
2019	Interdisciplinary summer bridge programs to improve student outcomes. Biology Education Gordon Conference, Bates College, Lewiston, ME.
2019	Managing populations in a changing world. Biology Department Seminar Series, University of Vermont, Burlington, VT.
2019	*Rappel, Charlotte and **Easton R. White**. Spatial dynamics and extinction risk of a small mammal population. University of California Undergraduate Research Conference.
2019	*Kono, Erica, Schweibold, Reece, and **Easton R. White**. Sex-biased dispersal in a model invasive species. University of California Undergraduate Research Conference.
2018	Designing marine protected areas for catastrophic events. Canadian Society for Ecology and Evolution, University of Guelph, Guelph, ON.
2018	Minimum time required to detect populations trends. Ecological Society of America Annual Meeting, New Orleans, LA.
2016	Metapopulation dynamics and extinction in the American pika. Mathematics of Planet Earth group, Society for Industrial and Applied Math, Philadelphia, PA.
2016	Evolution of reproductive timing in variable environments. Young Scientist Summer Program. International Institute for Applied Systems Analysis, Vienna, Austria.
2016	The inevitable partial collapse of an American pika metapopulation. Ecological Society of America. Baltimore, Maryland.

Mentoring

Middlebury College (in collaboration with Dr. Merrill Baker-Médard)

Spring 2020 - Present	Valeriia Vakhitova, Independent Research Project
Spring 2020 - Present	Courtney Gantt, Independent Research Project

University of Vermont

Summer 2020 - Present	Rose Pfeiffer, Contributed to research project
Summer 2020 - Present	Caroline Guilfoyle, Contributed to research project
Fall 2019 - Summer 2020	Amanda Jones, Independent Research Project

University of California, Davis

Summer 2018 - Spring 2019	Erica Kono, Independent Research Project
Summer 2018 - Spring 2019	Reece Schweibold, Independent Research Project
Summer 2018 - Spring 2019	Charlotte Rappel, Independent Research Project
Spring 2018 - Summer 2018	Ivan Beas, Honors Thesis
Spring 2017 - Summer 2018	Kyle Cox, Contributed to research project and publication
Winter 2016 - Summer 2016	Jeni Boyer, Independent Research Project
Winter 2016 - Summer 2016	Annie Maliguine, Independent Research Project

University of Victoria

Fall 2013 - Winter 2014	Mitra Nikoo, Contributed to research project
Winter 2014	Jessica Holden, Contributed to research project
Winter 2014	Michael Sullivan, Contributed to research project

Scottsdale Community College

Spring 2012 - Spring 2013	Andrew Nemecek, Independent Research Project
Spring 2012 - Spring 2013	Sabrina Jones, Independent Research Project

Service

2018-	Leadership Team, National Science Foundation PhD traineeship, University of Vermont
2018-	Instructor, computational skills workshops, Software Carpentry
2019	Organizer, Research Derby Event, University of Vermont
2016-2018	Founder, Population Biology Diversity Committee, University of California, Davis
2017-2018	Instructor, Skype a Scientist program, University of California, Davis
2015	Volunteer tutor, STEM Cafe , University of California, Davis
2012-2014	Cofounder and educator, Mathematics without Boundaries, Arizona State University

Additional Academic Training

2020	Teaching Effectively Online Course, University of Vermont
2017-2018	Professors for the Future Program, University of California, Davis
2018	University Ethics and Professionalism
2017	Seminar on College Teaching
2017	Center for Educational Excellence Workshop Series
2015-2018	Graduate Teaching Community Workshop Series
2014	Software Carpentry Instructor Course
2014	Mathematics Teaching Workshop, University of Victoria

Other Funding and Awards

2014-2019	Various Software Carpentry travel awards
2019	Canadian Institute for Ecology and Evolution honorarium ($1,200)
2018	UC Davis Graduate Teaching Award ($500)
2018	UC Davis Graduate Studies Travel Grant ($1,000)
2016	SIAM Travel Grant ($650)
2016	Population Biology Research Grant ($1,666)
2016	National Academy of Science Travel Grant ($4,400)
2015	Mathematical Biosciences Institute traval grant ($750)
2014	NSF Travel Award ($1,700)

Reviewer

Bulletin of Mathematical Biology, Biological Conservation, Communications Biology, Conservation Biology, Ecography, Ecological Complexity, Ecological Modelling, Ecology, Ecology Letters, Environmental Monitoring and Assessment, Journal of Applied Ecology, PeerJ, PLoSONE, Proceedings of the National Academy of Sciences, NOAA Grant Review, Science, Theoretical Ecology, Trends in Ecology and Evolution

Professional Memberships

American Association for the Advancement of Science (AAAS)
Canadian Society for Ecology and Evolution (CSEE)
Ecological Society of America (ESA)
Society for Industrial and Applied Mathematics (SIAM)
Society for Mathematical Biology (SMB)
Society for the Advancement of Biology Education Research (SABER)