

# Easton R. White

Research Associate

Department of Biology & Gund Institute for Environment

University of Vermont

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## Education

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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

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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

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In review	PI: Shocks to global fisheries and aquaculture. SNAPP Working Group (\$230,000)
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, <b>White Easton R.</b> , and Elizabeth Fairchild. Socio-Ecological Feedbacks of Marine Protected Areas: Dynamics of Small-Scale Fishing Communities and Inshore Marine Ecosystems. <i>National Science Foundation CNH2</i> : 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

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[Google Scholar link](#) [ResearchGate link](#)

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

### In the pipeline (preprint and/or in review)

- 10 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. ([link](#))
- 9 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 ([link](#))
- 8 **White, Easton R.**, Halley Froehlich, Jessica A. Gephart, Richard S. Cottrell, Trevor Branch, Julia Baum. Early effects of the COVID-19 pandemic on US fisheries and seafood. OSF Preprints ([link](#))

- 7 Osgood, Geoffrey J., **Easton R. White**, Julia K. Baum. Effects of climate-change driven  
gradual and acute temperature changes on shark and ray species.
- 6 **White, Easton R.** and Laurent Hebert-Dufresne. State-level variation for initial  
COVID-19 dynamics in the United States. ([link](#))
- 5 <sup>†</sup>Bruel, Rosalie and <sup>†</sup>**Easton R. White**. Sampling requirements and approaches to detect  
ecosystem shifts. *bioRxiv* ([link](#))
- 4 **White, Easton R.** and Christie A. Bahlai. Experimenting with the Past to Improve  
Environmental Monitoring Programs. *EcoEvoRxiv*. ([link](#))
- 3 **White, Easton R.**, Marissa L. Baskett, and Alan Hastings. Catastrophes, connectivity,  
and Allee effects in the design of marine reserve networks. *bioRxiv*. ([link](#))
- 2 **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](#))
- 1 **White, Easton R.** and Alan Hastings. 2020. Seasonality in ecology: Progress and  
prospects in theory. To appear. ([link](#))

## Published

- 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

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### University of Vermont

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

### University of California, Davis

2017-2018 Instructor, BIS2B Ecology and Evolution Bridge Program (Bootcamp), Biology Undergraduate Scholars 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)

### 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

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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

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\*Indicates undergraduate mentee

2020 Protecting sharks and rays in the face of overfishing and climate change. Online Guest Lecture, University of Vermont, Burlington, VT.

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.

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	Spatial structure and stochasticity in small mammal communities. University of Kansas, Lawrence, KS.
2016	The inevitable partial collapse of an American pika metapopulation. Ecological Society of America. Baltimore, Maryland.

## Mentoring

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### University of Vermont

Summer 2020 - Present	Rose Pfeiffer, Contributed to research project
Summer 2020 - Present	Caroline Guilfoyle, Contributed to research project
Fall 2019 - Present	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

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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

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2020	Teaching Effectively Online Course, University of Vermont
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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

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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)
2018	Population Biology Travel Grant (\$800)
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 travel grant (\$750)
2014	NSF Travel Award (\$1,700)
2014	Fulbright student mobility award (\$800)

## Reviewer

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

## Professional Memberships

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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)