Andrew J. Rominger

CONTACT INFORMATION

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EDUCATION

University of California, Berkeley — 2016
Ph.D. Environmental Science, Policy & Management
Committee: Rosemary Gillespie, John Harte & Charles Marshall
Dissertation: The statistical mechanics of biodiversity

Stanford University — 2009
B.S. in Biological Sciences
Advisors: Elizabeth Hadly & Rodolfo Dirzo
Honors thesis: Both neutral and deterministic processes drive community structure

APPOINTMENTS

Postdoctoral Fellow, National Institute of Mathematical and Biological Synthesis, University of Tennessee — starting 2017

Postdoctoral Fellow, Berkeley Initiative in Global Change Biology, UC Berkeley — 2016

Fulbright Scholar, Pontificia Universidad Católica de Chile — 2010

PEER-REVIEWED PUBLICATIONS

Rominger AJ, Merow C. (2016) `meteR`: An `R` package for testing the Maximum Entropy Theory of Ecology. In press at *Methods in Ecology and Evolution*. — in press

Sardinas HS, Tom K, **Rominger AJ**, Kremen C. (2016). Patterns of native bee crop pollination within agricultural fields are limited by nest site location. In press at *Ecological Applications*.

Rominger AJ, *et al.*. (2016). Community assembly on isolated islands: Macroecology meets evolution. *Global Ecology and Biogeography* 25: 769–780. — 2016

Rominger AJ Rominger, A.J. (2016) Ecological Theories in Biogeography. In: Kliman, R.M. (ed.), *Encyclopedia of Evolutionary Biology* 1: 145-148. Oxford: Academic Press.

Harte J, **Rominger AJ**, Zhang W. (2015). Integrating macroecological metrics and community taxonomic structure. *Ecology Letters* 18: 1068–1077. — 2015

Harte J, Kitzes J, Newman E & **Rominger AJ**. (2013). Taxon categories and the universal species-area relationship: A comment on Sizling et al. *The American Naturalist* 181: 282–287. — 2013

Maurer BA, Kembel SW, **Rominger AJ** & McGill BJ. (2012). Estimating metacommunity extent using data on species abundances, environmental variation, and phylogenetic relationships across geographic space. *Ecological Informatics* 13: 114–122. — 2012

Karp DS, **Rominger AJ**, Zook J, Ranganathan J, Ehrlich PR & Daily GC. (2012). Intensive agriculture erodes β-diversity at large scales. *Ecology Letters* 15: 963–970.

	Rominger AJ, Miller TEX & Collins SL. (2009). Relative contributions of neutral and niche-based processes to the structure of a desert grassland grasshopper community. *Oecologia* 161: 791–800.	2009
	Rominger AJ, Fuentes MA, Marquet PA. (submitted). Punctuated non-equilibrium in the volatility of macroevolution drives complex trajectories of Phanerozoic diversity. Submitted to *Nature Ecology and Evolution*.	submitted
Authored Software	**Rominger AJ**, `pika`: An `R` package for testing and visualization macroecology. `https://github.com/ajrominger/pika`	2016
	Rominger AJ, Merow C. (2015). `meteR`: Testing the Maximum Entropy Theory of Ecology. R package version 1.0. `http://CRAN.R-project.org/package=meteR`	2015
Grants	**NSF Biocollections Postdoc,** University of Florida (declined). $137,000	2016
	Philomathia Graduate Student Fellowship, UC Berkeley. $20,000	2015
	Berkeley Initiative in Global Change Biology Workshop Grant, UC Berkeley. $10,000	2014
	National Science Foundation Grant DEB 1241253: Dimensions of Biodiversity—Community level approach to understanding speciation in Hawaiian lineages. I contributed to the design and writing of grant sections dealing with sampling strategy, statistical analysis and ecological theory testing and development.	2012–2017
	Graduate Research Fellowship, National Science Foundation. $121,000	2011–2015
	Walker Fund for Entomology, Essig Museum of Entomology. $4,200	
Awards & Honors	**Outstanding GSI Award,** University of California, Berkeley	2015
	Usinger Award in Entomology, University of California, Berkeley	
	Kennedy Prize for Outstanding Honors Thesis, Stanford University. Given to one thesis in the Natural Sciences	2009
	Firestone Medal for Excellence in Undergraduate Research, Stanford University. Given to ten finishing students in the Department of Biology	
	Award for Excellence in Teaching, Stanford University	
Organized workshops	**Big ecological questions, diverse data, new methods**. I organized and secured funding from the Berkeley Initiative in Global Change Biology for a workshop bringing together leaders in ecological theory, statistics and data digitization efforts to help map future directions for ecoinformatics.	2014
	Global change biogeography. Created and lead a Berkeley Initiative in Global Change Biology working group.	2012–2013

Invited Talks

Rominger AJ. (2016). Isolated islands untangle universal patterns at the nexus of macroevolution and macroecology. *Island Biology 2016*. Terceira Island, Azores, Portugal. 2016

Rominger AJ. (2015). Community assembly on isolated islands: Macroecology meets evolution. *Evolution 2015*. Sao Palo, Brazil. 2015

Rominger AJ. (2014). Theory based perspectives on global change biology. Berkeley Initiative in Global Change Biology site visit by the Moore Foundation. 2014

Rominger AJ. (2013). Evolutionary constraints and information entropy in ecology. 98^{th} *Ecological Society of America Annual Meeting*. Minneapolis, MN, USA. 2013

Rominger AJ. (2012). Specimen-based biogeography: Imperfect detection and biased sampling. 6^{th} *Biannual Meeting of the International Biogeography Society*. Miami, FL, USA. 2012

Rominger AJ, Gruner D, Harte J & Gillespie RG. (2011). Making and breaking a new ecological theory. *Evolution of the Pacific*. Honolulu, HI, USA. 2011

Selected Conference Presentations

Rominger AJ. How to be happy when your data are SAD. 101^{st} *Ecological Society of America Annual Meeting*. Ft. Lauderdale, FL, USA. 2016

Rominger AJ, Gillespie R. (2015). Macroevolutionary signals of insular adaptive radiations: Synthesizing across island systems with a novel statistical method. 7^{th} *Biannual Meeting of the International Biogeography Society*. Bayreuth, Germany. 2015

Rominger AJ, M'Gonigle L, Maher SP, Iknayan KJ, Chang L, Rapacciuolo G, Holroyd P. (2014). Estimating community change from sporadic data: A novel statistical technique sheds light on continental-scale ecology of the Pleistocene-Holocene transition. 99^{th} *Ecological Society of America Annual Meeting*. Sacramento, CA, USA. 2014

Rominger AJ, Gruner D, Harte J & Gillespie RG. (2012). Making and breaking a new ecological theory. 97^{th} *Ecological Society of America Annual Meeting*. Portland, OR, USA. 2012

Rominger AJ, Fuentes MA & Marquet PA. (2011). Volatility of clade-specific random walks evolves across lineages and drives complex diversification patterns through geologic time. 96^{th} *Ecological Society of America Annual Meeting*. Austin, TX, USA. 2011

Rominger AJ & Hadly EA. (2009). Geographic diffusion of New World bird species: Energetics, inter-continental dispersal, vicariance and diversification. 4^{th} *Biannual Meeting of the International Biogeography Society*. Merida, Yucatan, Mexico. 2009

Rominger AJ, Miller TEX & Collins SL. (2007). Dispersal, determinism and the structure of a local grasshopper community. 92^{nd} *Ecological Society of America Annual Meeting*. San Jose, CA, USA. 2007

Teaching Experience

Graduate Student Instructor, UC Berkeley 2014
ESPM 174: Design and Analysis of Ecological Studies
Instructor: Perry de Valpine
Graduate Student Instructor, UC Berkeley
INTEGRATIVE BIOLOGY 166: Evolutionary Biogeography
Instructor: Anthony Barnosky

	R Tutorials, Stanford University and UC Berkeley R and phylogenetics. Evo Lab group, UC Berkeley *December 2013* General R. Evo Lab group, UC Berkeley *December 2012* Advanced R plotting. Hadly Lab group, Stanford University *March 2010* General R. Hadly Lab group, Stanford University *December 2011*	2010–2013
	Teaching Assistant, Stanford University BIOLOGY 121: Biogeography *Instructor:* Elizabeth Hadly	2009

Mentoring Experience

Karen Gallardo: Soundscape evolution across the Hawaiian chronosequence.	current
Edward Huang: Scientific computing and biocollections database management with R.	
Brittany Mathat: Phylogeny and biogeography of native Hawaiian *Nabis*.	2016
Kelley Henning: Microbiome of native Hawaiian arthropods Crispin Herrick: Populations genetics of native Hawaiian spiders Terisa Yiin: Phylogeography, population genomics and speciation mechanisms of the spider genus *Ariamnes*	2015
Victoria Knorr: Integrating the Red Queen hypothesis with biogeography using fossil mammals	2014
Addien Wray: Analysis of island β-diversity patterns and land-use change.	2013

Outreach

Board Member Talking Talons Youth Leadership Community Fund, an organization that funds environmental education projects.	2013–present
Community presentation speaker Present at youth and environmental group meetings including Central New Mexico Audubon Society and Pacific Internship Programs for Exploring Science about science, conservation and environmental education.	2009–present
Splash instructor Thought an interactive course about global change biology to K-12 students as part of Stanford University's Educational Studies Splash Program.	2009
Natural history docent Lead classroom and community tours of Jasper Ridge Biological Preserve (Stanford University) focusing on local conservation issues, ecology, evolution and geology.	2006–present

Professional Service

Referee for:
Ecology Letters
Proceedings of the Royal Society B
The American Naturalist
Ecology
Journal of Theoretical Biology
Oecologia
PLoS ONE