Andrew J. Rominger

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Education	**University of California, Berkeley** Ph.D. Environmental Science, Policy & Management *Committee:* Rosemary Gillespie, John Harte & Charles Marshall *Dissertation:* The statistical mechanics of biodiversity	2016
	Stanford University B.S. in Biological Sciences *Advisors:* Elizabeth Hadly & Rodolfo Dirzo *Honors thesis:* Both neutral and deterministic processes drive community structure	2009

Appointments	**Omidyar Fellow,** Santa Fe Institute	2017
	Postdoctoral Fellow, Berkeley Initiative in Global Change Biology, UC Berkeley	2016
	Fulbright Scholar, Pontificia Universidad Católica de Chile	2010

Peer-reviewed Publications	O'Dwyer JP, **Rominger AJ**, Xiao X (2017). Reinterpreting Maximum Entropy in Ecology: a null hypothesis constrained by ecological mechanism. *Ecology Letters*. Preprint: arxiv.org/abs/1702.08543.	in press
	Harte J, Newman EA, **Rominger AJ**. (2017) Metabolic partition across individuals in ecological communities. *Global Ecology and Biogeography*. Online early: http://onlinelibrary.wiley.com/doi/10.1111/geb.12621/full	
	Rominger AJ, Overcast I, Krehenwinkel H, Gillespie RG, Harte L, Hickerson, MJ (in rev.). Linking evolutionary and ecological theory illuminates non-equilibrium biodiversity. In review at *Trends in Ecology and Evolution*. Preprint: arxiv.org/abs/1705.04725.	in review
	Rominger AJ, Fuentes MA, Marquet PA. (in rev.) Punctuated non-equilibrium and niche conservatism explain biodiversity fluctuations through the Phanerozoic. In review at *Nature Ecology Evolution*. Preprint: arxiv.org/abs/1707.09268.	
	Rominger AJ, Merow C. (2017) meteR: An R package for testing the Maximum Entropy Theory of Ecology. *Methods in Ecology and Evolution* 8: 241–247.	2017
	Stegner MA, Karp DS, **Rominger AJ**, Hadly EA (2017). Can protected areas really maintain mammalian diversity? Insights from a nestedness analysis of the Colorado Plateau. *Biological Conservation* 209: 546–553.	

Rominger AJ, *et al.*. (2016). Community assembly on isolated islands: Macroecology meets evolution. *Global Ecology and Biogeography* 25: 769–780.	2016
Rominger AJ (2016) Ecological Theories in Biogeography. In: Kliman, R.M. (ed.), *Encyclopedia of Evolutionary Biology* 1: 145-148. Oxford: Academic 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* 26: 438–447.	
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

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 Postdoctoral Fellow, University of Florida. (declined) $137,000	2016
NIMBioS Postdoctoral Fellow, University of Tennessee. (declined) $108,000	
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 **Usinger Award in Entomology,** University of California, Berkeley	2015
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 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	2014
	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 — 2009
Thought an interactive course about global change biology to K-12 students as part of Stanford University's Educational Studies Splash Program.

Natural history docent — 2006–2012
Lead classroom and community tours of Jasper Ridge Biological Preserve (Stanford University) focusing on local conservation issues, ecology, evolution and geology.

Professional Service

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