Carl Boettiger

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Employment	**University of California, Santa Cruz**	Santa Cruz, CA 95064
		15/10/2012
	CSTAR Postdoctoral Researcher,	
	Mentors: Marc Mangel & Stephen Munch	
Education	**University of California, Davis**	Davis, CA 95616
		12/14/2012
	Ph.D Population Biology,	
	Mentor: Alan Hastings	
	Princeton University	Princeton, NJ 08544
		6/2007
	A.B in Physics with Honors	
	Certificate in Biophysics, Certificate in Applied and Computational Mathematics	
	Mentor: Stephen Pacala	

Publications

Boettiger, C., Hastings, A. (2013) "Tipping points: From patterns to predictions." *Nature*. 493, 157-158. doi:10.1038/493157a

Boettiger, C., Hastings, A. (2012) "Early Warning Signals and the Prosecutor's Fallacy." *Proceedings of the Royal Society B*. 279(1748) 4734-4739. doi: 10.1098/rspb.2012.2085

Boettiger, C., Temple-Lang, D., Wainwright, P.C. (2012) "rfishbase: exploring, manipulating and visualizing FishBase data from R" *Journal of Fish Biology*. 81(6) 2030-2039. doi: 10.1111/j.1095-8649.2012.03464.x

Boettiger, C., Temple-Lang, D. (2012) "Programmatic access to TreeBASE phylogenies in R." *Methods in Ecology and Evolution* doi: 10.1111/j.2041-210X.2012.00247.x

Boettiger, C. Hastings, A (2012) "Quantifying limits to detection of early warning for critical transitions." *Journal of The Royal Society Interface*, 9(75), 2527-2539. doi: 10.1098/rsif.2012.0125.

Beaulieu, J.M., Jhwueng, D., Boettiger, C., O'Meara, B. (2012) "Modeling Stabilizing Selection: Expanding the Ornstein-Uhlenbeck Model of Adaptive Evolution," *Evolution*. 66(8) 2369-2383. doi: 10.1111/j.1558-5646.2012.01619.x)

Boettiger, C., Coop, G., Ralph, P. (2012) "Is your phylogeny informative? Measuring the power of comparative methods." *Evolution*. 66(7) 2240-51. doi: 10.1111/j.1558-5646.2012.01574.x

Boettiger, C., Dushoff, J., Weitz, J. S. (2010) "Variation in the phenotypic dynamics of evolving populations," *Theoretical Population Biology* 77, 6-13. doi: 10.1016/j.tpb.2009.10.003

Wray, J., Bahcall, N., Bode, P., Boettiger, C., Hopkins, P. (2006) "The Shape, Multiplicity, and Evolution of Superclusters in Λ CDM Cosmology." *Astrophysical Journal* 652, 907. doi: 10.1086/508600

Submitted

Samantha A. Price, Lars Schmitz, Philip S. L. Anderson, Carl Boettiger, Peter C. Wainwright. Comparing disparity between traits using the Ornstein-Uhlenbeck model: a test of functional constraint on the eyes of labrid fishes.

Presentations

2012	*ESA* Portland, Oregon.
	Evolution; Ottawa, CAN. SSB Symposium **invited speaker**.

iEvoBio; Ottawa, CAN.
Computational Science; Washington DC.

2011	*Ecological Society of America*; Austin, TX.
	Evolution; Norman, OK.
	iEvoBio; Norman, OK.
	Science Online; Durham, NC.
	Society for Integrative and Comparative Biology. Salt Lake City, UT.

2010/2009	*iEvoBio*; Portland, OR. 2010
	Evolution; Portland OR. 2010
	University of Tennessee, Knoxville, TN. 2009
	IIASA, Vienna; Austria. 2009

Grants	*Short-term visitor grant to NIMBioS* For research in optimal control	2012
	PI on DoE Grant No. DE-AC02-05CH11231 50,000 hr supercomputing on NERSC machines	2011,2012
	IIASA YSSP fellowship National Academy of Sciences, NSF Grant No. OISE-0738129, $8,000	2009
	Computational Science Graduate Fellowship Department of Energy, Grant No: DE-FG02-97ER25308, 4 yrs $\times$ $36,000/yr	2008-2012

Honors & Awards	*Mendeley & PLoS software award*, $1,000	2011
	Volterra Award (Best student talk, ESA Theory)	2011
	Elected to Membership in the Society of *Sigma Xi*	2007
	Allen G. Shenstone Prize in Physics, Princeton	2007
	The Class of 1870 Old English Prize, Princeton	2007
	Kusaka Memorial Prize in Physics, Princeton	2006
	Plasma Physics Fellow, PPPL	2006

Authored Software (selected)

`wrightscape`: Infer adaptive landscapes from phylogenetic trees (2012)
`knitcitations`: Dynamic citation manager for R. (2012)
`pmc`: Phylogenetic Monte Carlo tools to quantify uncertainty in comparative methods. (2011)
`treeBASE`: An R interface to the TreeBASE API (2011)
`rfishbase`: An R interface to the fishbase database (2011)
`BranchingTime`: Individual based simulations for adaptive dynamics. (2011)
`populationdynamics`: Gillespie algorithms for exact simulation of common ecological models (2011)
More software at http://github.com/cboettig

Service

Reviewer for: *Theoretical Ecology*, *Journal of Mathematical Biology*, *Ecological Modelling*, *Evolution*, *Methods in Ecology and Evolution*, *Ecosphere*, *Proceedings of the Royal Society B*, *Journal of Theoretical Biology*, *PLoS ONE*, *Ecology*, *Conservation Letters*, *Ecology Letters*

Teaching Experience	ESA Workshop Instructor	Aug 2012
	Mentor for Google Summer of Code, R-Project	Summer 2012
	Instructor, Bodega Phylogenetics Workshop	Winter 2011
	Student Mentor, CLIMB program	Spring, Summer 2008
	Teaching Assistant: Introductory Zoology	Winter 2008

References

Alan Hastings, Dept of Env Sci & Policy, UC Davis amhastings@ucdavis.edu
Sebastian Schreiber, Dept of Evolution & Ecology, UC Davis sschreiber@ucdavis.edu
Peter Wainwright, Dept of Evolution & Ecology, UC Davis pcwainwright@ucdavis.edu
Simon Levin, Dept of Ecology & Evolution, Princeton slevin@princeton.edu