Carl Boettiger

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http://carlboettiger.info

Home: 2534 Bombadil Lane,
Davis CA 95616, USA
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Employment	**University of California, Santa Cruz**	Santa Cruz, CA 95064
		10/15/2012

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

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

NSF Mathematical Biology Postdoctoral Scholar   2013-15
Management for an uncertain world: robust decision theory in face of regime shifts ($138,000)

Short-term visitor grant to NIMBioS   2012
For research in optimal control

PI on DoE Grant No. DE-AC02-05CH11231   2011,2012
50,000 hr supercomputing on NERSC machines

IIASA YSSP fellowship   2009
National Academy of Sciences, NSF Grant No. OISE-0738129, ($8,000)

Computational Science Graduate Fellowship   2008-2012
Department of Energy, Grant No: DE-FG02-97ER25308, ($144,000)

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