Carl Boettiger

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Davis CA 95616, USA
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Employment	**University of California, Santa Cruz**	Santa Cruz, CA 95064
		10/15/2012 - Present
	CSTAR Postdoctoral Researcher,	
	Mentors: Marc Mangel & Stephen Munch	
Education	**University of California, Davis**	Davis, CA 95616
		Ph.D. 09/18/2012
	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

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

8. 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

7. 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

6. 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

5. 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.

4. 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)

3. 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

2. 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

1. 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, renewed 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:

| 2013 | *Theoretical Ecology*, *Francis & Taylor*, *Ideas in Ecology and Evolution*, *The R Journal*, *National Science Foundation*, *Proceedings of the Royal Society B* |

| 2012 | *Theoretical Ecology*, *Evolution*, *Methods in Ecology and Evolution*, *Proceedings of the Royal Society B*, *PLoS ONE*, *Ecology*, *Conservation Letters*, *Ecology Letters* |

| 2011 | *Theoretical Ecology*, *Ecological Modelling*, *Evolution*, *Methods in Ecology and Evolution*, *Ecosphere*, |

2010 & prior   *Theoretical Ecology*, *Journal of Mathematical Biology*, *Ecological Modelling*, *Ecology*

Other Service:

Student member for the CBS Dean search.	2011
Co-chaired the student group on Open Science	2010-12
Co-chaired the Graduate Teaching Community	2009-10
Student member for the CPB program review.	2010

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	