Lauren B. Buckley

CONTACT INFORMATION

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EDUCATION

Stanford University, Department of Biological Sciences, Stanford, CA USA

Ph.D. Biology, September 2001 - September 2005

- Dissertation: Lizards distributions on islands: community ecology and biogeography
- Committee: Joan Roughgarden (chair), Paul Ehrlich, Terry Root, and Peter Vitousek

Williams College, Williamstown, MA USA

B.A. Biology (honors), B.A. Mathematics, June 2000

- Honors thesis: The susceptibility of temperate forest fragments to non-native woody species
- Advisor: Joan Edwards

RESEARCH INTERESTS

Dynamic, bioenergetic models of species' ranges and climate-induced range shifts. Energetic and ecological constraints on the abundance, distributions, and diversity of reptiles and amphibians.

RESEARCH EXPERIENCE

Postdoctoral Fellow. The Santa Fe Institute, Santa Fe, NM — October 2005 - present

Visiting Scholar. University of California, San Diego, La Jolla, CA. — October 2005 - present
Host: Walter Jetz

Science & Policy Analyst. Big Sky Conservation Institute, Missoula, MT. — September 2000 - 2001

Research Assistant. Sierra Nevada Aquatic Research Laboratory. — June - August 2000
Impact of introduced trout on amphibian populations. Advisor: Roland Knapp.

AWARDS AND FELLOWSHIPS

Santa Fe Institute Postdoctoral Fellowship	2005-2008
NSF Predoctoral Research Fellowship	2001-2004
Stanford Excellence in Teaching Award	2002
Best Student Poster Award, Society for Conservation Biology Annual Meeting	2000
Sigma Xi Honor Society	2000
NSF REU, Rocky Mountain Biology Laboratory. Mentor: Neo Martinez	1999
NSF REU, Wellesley College. Mentor: Martina Koniger	1998

RESEARCH GRANTS

Joint NCEAS/NESCent working group (~$100,000) — 2007
Mechanistic distribution models: energetics, fitness, and population dynamics
(Co-PI with M. Angilletta, R. Holt, and J. Tewksbury)

National Geographic Society Research and Exploration Grant ($20,000) — 2004
The ecological development of spatial diversity patterns within terrestrial insular communities
(Co-author with J. Roughgarden)

Stanford University Field Studies Program Grant ($9,100)	2004
Stanford University Field Studies Program Grant ($7,900)	2003
Stanford University Center for Evolutionary Studies Grant ($4,650)	2003
Stanford University Center for Evolutionary Studies Grant ($3,980)	2002

PUBLICATIONS

Buckley L. B. *in press.* Linking traits to energetics and population dynamics to predict lizard ranges in changing environments. *American Naturalist.*

Buckley L. B., Rodda G.H., and Jetz W. *in press.* Thermal and energetic constraints on ectotherm abundance: a global test using lizards. *Ecology.*

Buckley L. B. and Jetz W. 2007. Insularity and the determinants of lizard population density. *Ecology Letters* 10:481-489.

Buckley L. B. and Jetz W. 2007. Environmental and historical constraints on global patterns of amphibian richness. *Proceedings of the Royal Society B* 274:1167-1173.

Buckley L. B. and Roughgarden J. 2006. Climate, competition, and the coexistence of island lizards. *Functional Ecology* 20: 315-322.

Buckley L. B. and Roughgarden J. 2006. A hump-shaped density-area relationship for island lizards. *Oikos* 113: 243-250.

Buckley L. B. and Roughgarden J. 2005. Effect of species interactions on landscape abundance patterns. *Journal of Animal Ecology* 74:1182-1194. (JAE highlighted article)

Buckley L. B. and Roughgarden J. 2005. Lizard habitat partitioning on islands: the interaction of local and landscape scales. *Journal of Biogeography* 32: 2113-2121. (cover article)

Buckley L. B. and Roughgarden J. 2004. Biodiversity conservation: effects of changes in climate and land use. *Nature* 430: 1 (doi:10.1038/nature02717).

Invited Workshops

NCEAS & NESCENT Working group on Mechanistic Range Models 2007-2009
NSF Workshop on Scaling in Biology, UC Davis, Davis, CA 2007
DISCCRS II, Dissertation Initiative for Climate Change Research Symposium, Asilomar, CA 2006
Spatial Ecology Workshop, Mathematical Biosciences Institute, Columbus, OH 2006

Invited Presentations

Seminar, College of Agricultural and Environmental Science, UC Davis, Davis, CA 2006
Seminar, Competitive Strategies in Complex Systems Workshop, Santa Fe Institute 2006
Biocomplexity seminar, Biology Department, U New Mexico, Albuquerque, NM 2005
Seminar, Santa Fe Institute, Santa Fe, NM 2005
Symposium presentation, Ecological Society of America Annual Meeting, Savannah, GA 2003

Conference Presentations

Metabolic Ecology Gordon Conference. Poster presentation 2006
Ecological Society of America Annual Meeting. Oral presentations 2004, 2005, 2006, 2007
International Biogeography Society Meeting. Poster presentations 2003, 2005, 2007
Bay Area Conservation Biology Symposium. Oral presentations 2003, 2004, 2005
Society for the Study of Evolution Annual Meeting. Oral presentation 2004
Society for Conservation Biology Annual Meeting. Poster presentation 2000

Academic Experience and Service

Faculty for Complex Systems Schools
Experience includes lecturing to international and interdisciplinary groups of graduate students and postdocs and advising independent research.

- Santa Fe Institute, Santa Fe, NM June 2007
- Santa Fe Institute and Institute of Mathematical Sciences, Chennai, India January 2006

Teaching Assistant
Experience includes instructing weekly discussion section and laboratory components; designing assignments, projects, and exams; and advising independent research.

- Animal Behavior, Stanford, Instructor: Deborah Gordon Spring 2003
- Ecology and Evolution, Stanford, Instructors: Dmitri Petrov & Peter Vitousek Spring 2002
- Principles of Theoretical Ecology, Stanford, Instructor: Joan Roughgarden Fall 2001

- Communities and Ecosystems, Williams College, Instructor: David Smith Spring 2000

Field Studies Program Mentor, Stanford University. 2003 & 2004
Mentor to four undergraduate students who participated in my field research. Organized biweekly meetings to introduce students to the study system and research project. Advised independent research projects.

Organizing Committee Chair, Bay Area Conservation Biology Symposium. 2005

Biology Mentoring Program, Stanford University. 2004 & 2005
Academic advisor for undergraduate biology majors.

Reviewer, Conservation Biology, Ecography, Ecological Applications, Ecology Letters, Global Change Biology, Global Ecology and Biogeography, Journal of Animal Ecology, Integrative and Comparative Biology, National Geographic Society Committee for Research and Exploration, Oikos, PLoS ONE, PNAS.

Application review committee member, DISCCRS (Dissertation Initiative for Climate Change Research Symposium) III (2007), SFI complex systems summer school (2006 & 2007), SFI postdoctoral fellowships (2006).

Member, American Association of Geographers, American Society of Naturalists, Ecological Society of America, International Biogeography Society.

Outreach
Seminar, NSF GUTS (Growing Up Thinking Scientifically) program for middle school girls. 2007
Mentor, Biology Alumni Panel, Williams College. 2007