

BARNEY LUTTBEG
Curriculum vitae

Environmental Science & Policy
University of California
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ACADEMIC POSITIONS

- 2006 - *Assistant Project Scientist*, University of California, Davis
2003 - 05 *Postdoctoral Research Fellow*, University of California, Davis
2002 - 03 *Visiting Assistant Professor*, Kellogg Biological Station, Michigan State University
1999 - 02 *Postdoctoral Research Associate*, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA
1997 - 99 *Postdoctoral Research Fellow*, Yale University

EDUCATION

- 1991 -1997 Ph.D., Population Biology, University of California, Davis
1986 - 1991 B.A., Ecology, Behavior, and Evolution, University of California, San Diego

AWARDS AND GRANTS

- 2005 Presidential Award from The American Society of Naturalists (best paper published in *The American Naturalist* in 2004)
2005 NSF Research Grant (Animal Behavior), "Understanding predator-prey space use as an interactive game", co-written with Dr. Andrew Sih (\$300,000)
2005 Postdoctoral Scholars Association Travel Grant
1995 - 96 NSF GRT Traineeship (Population Biology)
1995 California Sea Grant Trainee
1994 NSF Research Training Grant Fellowship (Animal Behavior)
1994 University of California, Davis Graduate Research Award
1993 - 96 Population Biology Graduate Group Block Grant
1993 - 95 Center for Population Biology Research Grant
1991 - 92 University of California Regent's Fellowship

PUBLICATIONS

Hammond JI, **Luttbeg B**, Sih A. Predator and prey space use: dragonflies and tadpoles in an interactive game (accepted by *Ecology*)

Wojdak J, **Luttbeg B**. 2005. Relative strength of trait-mediated and density-mediated indirect effects vary with resource levels. *Oikos*, 111:592-598.

Luttbeg B, Kerby JL. 2005. Are scared prey as good as dead? *Trends in Ecology and Evolution*, 20:416-418.

Gabriel W, **Luttbeg B**, Sih A, Tollrian R. 2005. Environment tolerance, heterogeneity and the evolution of reversible plastic responses. *American Naturalist*, 166:339-353.

Luttbeg B, Sih A. 2004. Predator and prey habitat selection games: the effects of how prey balance foraging and predation risk. *Israel Journal of Zoology*, 50:233-254. (invited compendium on predation risk)

Luttbeg B. 2004. Female mate assessment and choice behavior affect the frequency of alternative male mating tactics. *Behavioral Ecology*, 15:239-247.

Luttbeg B, Langen TA. 2004. Comparing alternative models to empirical data: cognitive models of Western Scrub-jay foraging behavior. *American Naturalist*, 163:263-276. (Awarded the Presidential Award for 2005 by the *American Society of Naturalists*)

Luttbeg B, Rowe L, Mangel M. 2003. Prey state and experimental design affect relative size of trait-mediated and density-mediated indirect effects. *Ecology*, 84:1140-1150 (Special Feature).

Luttbeg B. 2002. Assessing the robustness and optimality of alternative decision rules with varying assumptions. *Animal Behaviour*, 63:805-814.

Luttbeg B, Towner MC, Wandesforde-Smith A, Mangel M, Foster SA. 2001. State dependent mate assessment and mate selection behavior in female threespine (*Gasterosteus aculeatus*, Gasterosteiformes: Gasterosteidae). *Ethology*, 107:545-558.

Luttbeg B, Schmitz OJ. 2000. Predator and prey models with flexible individual behavior and imperfect information. *American Naturalist*, 155:669-683.

Luttbeg B, Borgerhoff Mulder M, and Mangel M. 2000. To marry again or not: a dynamic model of marriage behavior and the demographic transition. In: Cronk L, Chagnon NA, and Irons W, eds. *Adaptation and Human Behavior: An Anthropological Perspective*. p. 345-368. Aldine de Gruyter, New York.

Luttbeg B, Warner RR. 1999. Reproductive decision-making by female peacock wrasses: flexible versus fixed behavioral rules in variable environments. *Behavioral Ecology*, 10:666-674.

Luttbeg B. 1996. A Comparative Bayes tactic for mate assessment and choice. *Behavioral Ecology*, 7:451-460.

Nonacs P, Smith PE, Bouskila A, **Luttbeg B**. 1994. Modeling the behavior of the northern anchovy, *Engraulis mordax*, as a schooling predator exploiting patchy prey. *Deep Sea Research II*, 41:147-169.

Manuscripts submitted or in preparation

Towner MC, **Luttbeg B**. The use of data as evidence for hypotheses in human behavioral ecology. (submitted revisions, *Evolutionary Anthropology*)

Luttbeg B, Hammond JI, Sih A. Prey and predator patch use shaped by the dangerousness of predators and intra-guild predators (in preparation)

Luttbeg B, Sih A. Are prey and predator spatial distributions shaped by uncertainty about the locations of other individuals? (in preparation)

TEACHING

Lecturer

- 2003 Michigan State University, Model Selection Approaches
- 2002 Michigan State University, Population and Community Ecology
- 1999 Pacific Institute for the Mathematical Sciences (University of British Columbia), Mathematical Biology workshop
- 1998 Yale University, Design of Biodiversity Reserves & Reserve Networks on a Landscape (co-taught with Dr. Oswald Schmitz)
- 1997 - 98 Yale University, Introduction to Conservation Biology

Guest Lecturer

- 2003 University of California, Davis, Behavioral Ecology
- 1997 Yale University, Evolution, Ecology, Behavior II

PRESENTATIONS AND WORKSHOPS

Invited Research Seminars

- 2004 University of California, Davis, Animal Behavior Seminar Series
- 2002 Michigan State University, Kellogg Biological Station
- 2001 An Interdisciplinary Workshop on Quantitative and Evolutionary Approaches to Environmental Problem Solving (sponsored by UC Santa Cruz and NSF)
- 1997 Southwest Fisheries Science Center - Tiburon Laboratory

Presentations at Professional Meetings

Ecological Society of America Annual Meeting (2004 – 2006)

3 first-authored oral presentations, 2 co-authored presentations, 1 co-authored poster

Joint Evolution and American Naturalist meeting (2005)

1 first-authored oral presentation

International Behavioral Ecology Congress (1998 – 2002)

2 first-authored oral presentations

Animal Behavior Society Meeting (1997-2001)

3 first-authored oral presentations, 1 first-authored poster

Workshops

2005 - “When, and how much, does fear matter? Quantitatively assess the impact of predator intimidation of prey on community dynamics” working group at the National Center for Ecological Analysis and Synthesis (NCEAS), Santa Barbara, CA

2002 “Inducible defenses and environmental tolerance: a model system for the evolution of phenotypic plastic responses” working group at NCEAS

1999 - 02 "The Evidence Project-Supporting Scientific Claims" working group at NCEAS

1998 - 00 "Understanding the role of individual-scale processes in community-level dynamics: What are the dynamically relevant organizational scales for predicting community dynamics?" working group at NCEAS

SERVICE

2006 Ecological Society of America Buell-Braun award judge

1994 - 95 Executive Committee, Center for Population Biology, University of California, Davis

1994 - 95 President, Population Biology Graduate Student Association, University of California, Davis

1992 - 94 Admissions Committee, Population Biology Graduate Group, University of California, Davis

REVIEWER

National Science Foundation, Natural Environment Research Council, The American Naturalist, Animal Behaviour, Behavioral Ecology, Behavioral Ecology & Sociobiology, Computers in Biology and Medicine, Ecology, Ecology Letters, Ecosystems, Functional Ecology, Naturwissenschaften, Oecologia, Oikos, Proceedings B of the Royal Society, Theoretical Population Biology, and Trends in Ecology and Evolution