

SUZANNE H. ALONZO

CONTACT INFORMATION

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RESEARCH INTERESTS: Theoretical and empirical research on the evolution and ecology of mating systems, sexual selection and reproductive behavior.

EDUCATION

University of California Santa Barbara, Ecology, Evolution, Marine Biology PhD, 1998
University of California Berkeley, Integrative Biology, Summa cum laude BA, 1992

PROFESSIONAL EXPERIENCE

Assistant Professor, Dept. of Ecology and Evolutionary Biology, Yale University (2004-present)
Assistant Researcher, Institute of Marine Sciences, Univ. of California Santa Cruz (2001- 2004)
NSF Postdoctoral Fellow, Environmental Studies, Univ. of California Santa Cruz (1998-2001)

HONORS AND AWARDS

Plenary Speaker, Darwin Bicentennial, Association for the Study of Animal Behavior, Oxford (2009)
Plenary Speaker, International Society for Behavioral Ecology (2008)
Keynote Speaker, Ecological and Evolutionary Ethology of Fishes (2008)
Senior Visiting Research Fellow, Jesus College, Oxford University (2007)
Royal Society Short Visit Incoming Grants (with T. Pizzari, 2007)
Junior Faculty Sabbatical Fellowship, Yale University (2007-2008)
Endowed Postdoctoral Fellowship, Yale University (for a postdoctoral fellow) \$37,000 (2007-2008)
Anderson Postdoctoral Fellowship (support for K. Heckman) \$17,784 (2006-2007)
Postdoctoral Fellowship in the Biol. Sciences (for a postdoctoral fellow) \$35,568 (2005-2006)
Faculty of 1000 Contributor: Behavioral Ecology (Invited by: M Milinski, H Kokko, 2005)
National Science Foundation Post-Doctoral Fellowship in Biological Informatics (1999-2001)
National Science Foundation Doctoral Dissertation Improvement Grant (1997-1998)
American Association of University Women Dissertation Fellowship (1997-1998)
Animal Behavior Society Research Grant (1997-1998)
International Women's Fishing Association Graduate Scholarship Award (1997-1998)
National Science Foundation Pre-Doctoral Fellowship (1993-1997)
University of California Regent's Special Fellowship (1993-1998)
Sigma Xi Grant In Aid of Research (1997)
Undergraduate Departmental Citation (1993)

PUBLICATIONS

1) Henson SA (my previous name), Warner RR. 1997. Male and female alternative reproductive behaviors in fishes: A new approach using intersexual dynamics. *Annual Review of Ecology and Systematics*. 28: 571-92.

- 2) Alonzo SH, Warner RR. 1999. A tradeoff generated by sexual conflict: Mediterranean wrasse males refuse present mates to increase future success. *Behavioral Ecology* 10: 105-111.
- 3) Alonzo SH, Warner RR. 2000a. Female choice, conflict between the sexes and the evolution of male alternative reproductive behaviors. *Evolutionary Ecology Research* 2: 149-170.
- 4) Alonzo SH, Warner RR. 2000b. Dynamic games and field experiments examining intra- and inter-sexual conflict: Explaining counter-intuitive mating behavior in a Mediterranean wrasse, *Symphodus ocellatus*. *Behavioral Ecology* 11: 56-70.
- 5) Alonzo SH, Warner RR. 2000c. Allocation to mate guarding or increased sperm competition in a Mediterranean wrasse. *American Naturalist* 156: 266-275.
- 6) Alonzo SH, Taborsky M, Wirtz P. 2000. Male alternative reproductive behaviors in a Mediterranean wrasse, *Symphodus ocellatus*: Evidence from otoliths for separate life-history pathways. *Evolutionary Ecology Research* 2: 997-1007.
- 7) Alonzo SH, Mangel M. 2001. Survival strategies of krill: Avoiding predators in space, time and size. *Marine Ecology Progress Series* 209: 203-217
- 8) Alonzo SH, Sinervo B. 2001. Mate choice games, context-dependent good genes, and genetic cycles in the side-blotched lizard, *Uta stansburiana*. *Behavioral Ecology and Sociobiology* 49: 176-186.
- 9) Calsbeek R, Alonzo SH, Zamudio K, Sinervo B. 2002. Sexual selection and alternative mating behaviours generate demographic stochasticity in small populations. *Royal Proceedings of the Royal Society Series B* 269: 157-164.
- 10) Alonzo SH. 2002. State-dependent habitat selection games between predators and prey: the importance of behavioral interactions and expected lifetime reproductive success. *Evolutionary Ecology Research* 4: 759-778.
- 11) Alonzo SH, Mangel M. 2002. Effects of social behavior on survival and growth of krill: important, but how relevant? *Marine Ecology Progress Series* 244: 309-310.
- 12) Alonzo SH, Switzer P, Mangel M. 2003. Ecological games in space and time: the distribution and abundance of Antarctic krill and penguins. *Ecology* 86: 1598-1607.
- 13) Alonzo SH, Switzer P, Mangel M. 2003. An ecosystem-based approach to management: Using individual behaviour to predict the indirect effects of Antarctic krill fisheries on penguin foraging success. *Journal of Applied Ecology* 40: 692-702.
- 14) Alonzo SH, Mangel M. 2004. The effects of size-selective fisheries on the stock dynamics of and sperm limitation in sex changing fish: California sheephead (*Semicossyphus pulcher*) as an illustrative example. *Fishery Bulletin* 102: 1-13.
- 15) Alonzo SH. 2004. Uncertainty in territory quality affects the benefits of usurpation. *Behavioral Ecology* 15: 278-285.

- 16) Alonzo SH, Key M, Ish T, MacCall A. 2004. Status of the California Sheephead (*Semicossyphus pulcher*) stock. California Department of Fish and Game Report.
- 17) Alonzo SH, Mangel M. 2005. Sex change rules, stock dynamics, and the performance of spawning per recruit measures in protogynous stocks. *Fishery Bulletin* 203: 229-245.
- 18) Sinervo B, Chaine A, Clobert J, Calsbeek R, Hazard L, Lancaster L, McAdam AG, Alonzo S, Corrigan G, Hochberg ME. 2006. Self-recognition, colour signals, and genetic cycles of greenbeard mutualism and true altruism. *PNAS USA* 103:7372-7377.
- 19) Alonzo SH. 2007. Conflict between the sexes and cooperation within a sex can alter classic predictions of mating systems theory. *Evolutionary Ecology Research* 9:145-156.
- 20) Alonzo SH, Sinervo B. 2007. The effect of sexually antagonistic selection on adaptive sex ratio allocation. *Evolutionary Ecology Research* 9: 1097-1117.
- 21) Alonzo SH. 2008. Female mate choice copying affects sexual selection in wild populations of the ocellated wrasse. *Animal Behaviour* 75: 1715-1723.
- 22) Brennan BJ, Flaxman SM, Alonzo SH. 2008. Female alternative reproductive behaviors: The effect of group size on mate assessment and copying. *Journal of Theoretical Biology* 253: 561-569
- 23) Farmer M, Alonzo SH. 2008. Competition for territories does not explain allopaternal care in the tessellated darter. *Environmental Biology of Fishes*. 83:391-395.
- 24) Alonzo SH, Ish T, Key M, MacCall A, Mangel. 2008. The importance of incorporating protogynous sex change into stock assessments. *Bulletin of Marine Science*. 83:163-179
- 25) Alonzo SH. 2008. An inordinate fondness for behavioural ecology. *Trends in Ecology and Evolution*. 23: 600-601 (Invited Book Review)
- 26) Alonzo SH. 2008. Male and female alternative reproductive behaviors and conflict within and between the sexes. In: *Alternative Reproductive Tactics*. Ed. R. F. Oliveira, M Taborsky, J Brockmann. Cambridge University Press. pp 435-450 (Book Chapter)
- 27) Alonzo SH, Kindsvater HK. 2008. Life-History Patterns. In Sven Erik Jørgensen and Brian D. Fath (Editor-in-Chief), *General Ecology*. Vol. 3 of *Encyclopedia of Ecology*, 5 vols. pp. 2175-2180, Oxford: Elsevier. (Book Chapter)
- 28) Alonzo. SH. 2009. Science, Politics and Evolution. *Quarterly Review of Biology*. 84:81 (Invited Book Review)
- 29) Kazancioglu E, Alonzo SH. 2009. Costs of changing sex do not explain why sequential hermaphroditism is rare. *American Naturalist*. 173:327-336.
- 30) Kelly NB, Alonzo SH. 2009. Will male advertisement be a reliable indicator of parental care, if offspring survival depends on male care? *Proceedings of the Royal Society of London Series B*

- 31) Heckman KL, Near TJ, Alonzo SH. In Press. Phylogenetic relationships of *Boleosoma* (Percidae: Etheostoma). *Molecular Phylogenetics and Evolution*
- 32) Stiver K, Alonzo SH. In Press. Large males have a mating advantage in a species of darter with smaller, allopaternal males (*Etheostoma olmstedii*). *Current Zoology*
- 33) Alonzo S.H. In Press. Social and coevolutionary feedbacks between mating and parental investment. *Trends in Ecology and Evolution*
- 34) Alonzo SH, Sheldon BC. In Press. Population density, sex allocation and social behaviour. In: *Social Behaviour: Genes Ecology and Evolution*. Editors: T Szekely, J Komdeur, A Moore. Cambridge University Press. (Book Chapter)

RESEARCH GRANTS

National Science Foundation Grant in Evolutionary Processes (2009-2011, \$14,982, DDIG of student Holly Kindsvater) “DISSERTATION RESEARCH: Theoretical and Empirical Studies of State-Dependent Variation in Maternal Investment”

National Science Foundation Grant in Theoretical Biology (2008-2011, \$550,183)
“From Individual Interactions To Evolutionary And Ecological Dynamics”

National Science Foundation Grant in Animal Behavior (2004-2007, \$296,849)
“A coevolutionary theory of male and female alternative reproductive behaviors: Combining phenotypic and genetic approaches”

National Science Foundation Grant in Animal Behavior (2001-2003, \$83,602)
“QEIB: A Comprehensive Theory of Mating Systems: Combining Intra- and Inter-sexual Conflict, Spatial Mating Games and Environmental Variation.”

INVITED SEMINARS

University of Massachusetts, Amherst (2009)
Dartmouth College (September 2008)
University of Toronto (February 2008)
Glasgow University (November 2007)
Oxford University (October 2007)
University of Kentucky (April 2007)
Stony Brook University (September 2006)
Cornell University (April 2006)
University of Illinois (April 2006)
University of Connecticut (March 2006)
Simon Fraser University (February 2005)
Yale University (February 2005)
University of Texas Austin (March 2003)
Pennsylvania State University (February 2003)
Yale University (December 2002)
Stockholm University (March 2002)
University of California Berkeley (Fall 1999)
University of California Santa Cruz (Winter 1999)

INVITED SPECIAL LECTURES AND SYMPOSIA:

Alonzo, SH (2009) Plenary Speaker, Association for the Study of Animal Behavior (Darwin Bicentennial Meeting), Oxford

Alonzo, SH (2009) Co-organizer (with Stu West) of the Symposium “The evolution of conflict and cooperation: when theory meets data” at the European Society of Evolutionary Biology Meeting

Alonzo, SH (2008) Plenary Speaker, International Society for Behavioural Ecology Meeting. Cornell University.

Alonzo, SH (2008) Keynote Speaker, George Barlow Symposium, EEEF Meeting. Boston University.

Alonzo, SH (2007) “Mating System Evolution”, Fourth Kristineberg Symposium, Wenner-Gren Foundations (WGF), Organizers: M Andersson, S Arnold, M Thorndyke, B Tullberg.

Alonzo SH, Ish T, Key M, Mangel M, MacCall AD (2006). “Sex change, life history, and stock dynamics: assessing the status of the California sheephead, *Semicossyphus pulcher*.” Mote International Symposium in Fisheries Ecology, Florida State University.

Alonzo SH (2006) “Understanding conflict and cooperation within and between the sexes in the Mediterranean wrasse, *Symphodus ocellatus*” Organized Oral Session: The devil is in the detail: theory for empirical model systems, ESA Annual Meeting, Organizers: ON Bjornstad, P Amarasekare

INVITED WORKSHOPS AND PANELS

Biology of Prosocial Behavior, The Consulate of Switzerland (SHARE) and the University of Zurich Research Priority Program on the Foundations of Human Social Behavior (2007)

NSF Theoretical Biology Workshop, National Science Foundation (2006)

Scientific Committee for the Conservation of Antarctic Marine Living Resources, Working Group on Ecosystem Management and Monitoring (2003)

Conflict and Cooperation in Parental Care Workshop. Association for the Study of Animal Behaviour. Organizers: S Balshine-Earn, B Kempenaers, T Székely (August 2000)

NCEAS Working Group: The Evidence Project: Supporting scientific claims
Organizers: M. Taper, S. Lele, N. Lewin-Koh (1999-2000)

CONTRIBUTED PRESENTATIONS

Alonzo SH. 2006 “Sexual conflict and cooperation in the ocellated wrasse, *Symphodus ocellatus*. Evolution Annual Meeting. Stony Brook, New York

Heckman K, Alonzo SH. 2006. Phylogeography of the tessellated darter (*Etheostoma olmstedii*): Implications for post-glacial colonization. Evolution Annual Meeting. Stony Brook, New York

Alonzo SH. 2002. "A Comprehensive Theory of Mating Systems: Combining Intra- and Inter-sexual Conflict and Spatial Mating Games within a Life-History Perspective" ASAB Workshop on Sexual Conflict: A Life History Perspective. Organized by N Wedell and C Kvarnemo

Alonzo SH. Mangel M. 2002. Size-selective fisheries, sperm limitation and spawning per recruit in sex changing fish: California sheephead (*Semicossyphus pulcher*) as an illustrative example. Center for Stock Assessment Annual Meeting. Santa Cruz, California

Alonzo SH. 2002. A comprehensive theory of mating systems: Combining intra- and inter-sexual conflict and spatial mating games within a life-history perspective. Western Society of Naturalists Annual Meeting. Monterey, California

Alonzo SH. Mangel M. 1999. Modeling krill life-histories: The impact of predation on krill behavior. Second International Symposium on Krill. Santa Cruz, California

Alonzo SH. 1999. Sperm competition, mate guarding and sexual conflict. Evolution Annual Meeting. Madison, Wisconsin

Alonzo SH. Warner RR. 1998. The effect of conflict within and between the sexes on the evolution and expression of reproductive behaviors. International Society of Behavioral Ecology, Monterey, California

Alonzo SH. Warner RR. 1997. The effect of conflict within and between the sexes on reproductive behavior. International Ethological Congress. Vienna, Austria

OTHER SCIENTIFIC ACTIVITIES

Advisor, Climate Change, Krill Life Histories and Krill Fisheries, Lenfest Foundation (present)
Participant, Sexual Conflict: A new paradigm? Discussion Meeting, Royal Society of London (2005)
Leader, Stock Assessment for California Sheephead, CA Department of Fish and Game (2004).

PEER REVIEW ACTIVITIES:

Associate Editor: Proceedings of the Royal Society of London Series B (current)
Associate Editor: Evolutionary Ecology (current)
Editorial Board: Ecology Section, Encyclopedia of Life Sciences (current)
Advisory Board: Ethology (current)

Journals: American Naturalist, Animal Behavior, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biological Reviews, Bulletin of Marine Science, Canadian Journal of Fisheries and Aquatic Sciences, Ecological Society of America, Ethology, Evolution, Evolutionary Ecology Research, Ethology, Fishery Bulletin, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Heredity, Journal of Theoretical Biology, Marine Ecology Progress Series, Nature, Oecologia, Oikos, Philosophical Transactions of the Royal Society of London series B, Proceedings of the Royal Society of London series B, Quarterly Reviews of Biology, Trends in Ecology and Evolution, Theoretical Population Biology

Books: Cambridge University Press, Oxford University Press, Princeton University Press, Pearson Education.

Granting agencies: Biotechnology and Biological Sciences Research Council (UK), National Environment and Research Council (UK), Royal Society of London, National Science Foundation (USA), Swiss National Science Foundation

PROFESSIONAL MEMBERSHIPS: Society of American Naturalists, Ecological Society of America, International Society of Behavioral Ecology, North American Native Fish Association

PROFESSIONAL SERVICE:

Davenport Freshman Advising (2008-present)
External Doctoral Dissertation Examiner, Melbourne University (2008)
Examiner, Graduate Qualifying Exam Committee, EEB, Yale University (2006)
Faculty Mentor, Women Mentoring Women Program, Yale (2005-present)
Panelist, National Science Foundation Review Panel (2005, 2006)
Member, Research Scientist Promotion Review Committee, EEB Yale University (2005-2006)
Coordinator, Department of Ecology and Evolutionary Biology Seminar Series (2005-6, 2009-10)
Advisor, Ecology and Evolutionary Biology Majors (2004-present)
Member, Yale Women Faculty Forum (2004-present)

COURSES TAUGHT

Quantitative Methods in Evolution and Ecology (Yale, Spring 2007, 2009)
Principles in Ecology, Evolution and Behavior (Yale, Spring 2006)
Mathematical Models in Evolution and Ecology (Yale, Spring 2005)
Animal Behavior (Yale, Fall 2005, 2006, 2008)
Advanced Life-History Theory (UCSC, Spring 2000)
Advanced Ecological Theory (UCSC, Fall 1999)

UNDERGRADUATE ADVISING

Tse Yang Lim (Research advisor 2008-present)
Mark Fisher B.S. 2007 (Senior thesis advisor 2006-2007)
Miles Farmer B.S. 2007 (Senior thesis advisor 2006-2007)
Shannon Murtagh B.S. 2006 (Senior thesis advisor 2005-2006)
Elizabeth Mata (Sophomore advisor, self defined major 2005-2006)

GRADUATE STUDENTS

Erem Kazancioglu (Major advisor, third year, PhD)
Natasha Kelly (Major advisor, second year, PhD)
Holly Kindsvater (Major advisor, first year, PhD)

DISSERTATION COMMITTEES

Christen Bossu (advisor: Thomas Near, Yale University)
Steven Brady (advisor: David Skelly, Yale University)
Dave Kysela (advisor: Paul Turner, Yale University)
Rob LeClerc (advisor: Gunter Wagner, Yale University)
Dave Semmens, external examiner (advisors: Mark Elgar and Steve Swearer, Univ. of Melbourne)
Angela Timpanaro (advisors: University of Padua)
Brooke Weaver-Miller (advisor: Barry Sinervo, University of California Santa Cruz)
Erica Westerman (advisor: Antonia Monteiro, Yale University)

POSTDOCTORAL FELLOWS

Kellie Heckman (Yale University Postdoctoral Fellowship in Biological Sciences 2005-2007,
National Science Foundation Grant, 2007-2008)

Bernard Brennan (National Science Foundation Grant, 2005-2006)

Kelly Stiver (Yale University Postdoctoral Fellowship in Biological Sciences 2007-present,
Canadian NERC postdoctoral fellow 2008-2010)

GRADUATE ROTATION STUDENTS:

Jason Shapiro (Fall 2008)

Christen Bossu (Spring 2007)

Holly Kindsvater (Spring 2007)

Natasha Kelly (Summer 2006)

Jura Pintar (Spring 2006),

Erem Kazancioglu (Summer 2005)

PUBLIC SERVICE AND EDUCATION OUTREACH

Public lecture on “Animal Cooperation” recorded for the Teaching Company (2009)

Specialist Host for the History Channel’s “Evolve” series on evolution (2008)

Lecturer and faculty mentor, Yale Peabody Museum ‘Evolutions’ and ‘Expeditions’ education
outreach programs targeting students from ‘underrepresented groups’ (2005-present)

Lead instructor, Animal Behavior and Ecology Course, California State Summer School in
Mathematics and Science (COSMOS) at UC Santa Cruz (2002 and 2003). COSMOS is an academic
residential program for talented and motivated high school students.

COLLABORATORS

R. Calsbeek (Dartmouth), A. Chaine (UC Santa Cruz), J. Clobert (CNRS Paris), G. Corrigan
(UCSC), L. Hazard (UCSC), M.E. Hochberg (CNRS Montpellier), T. Ish (UCSC), M. Key (CA
DFG), L. Lancaster (UCSC), M. Mangel (UCSC), A. MacCall (NOAA Santa Cruz), A.G. McAdam
(UCSC), T. Pizzari (Oxford University), B. Sinervo (UCSC), P. Switzer (Eastern Illinois University),
M. Taborsky (University of Bern), P. Wirtz (Univ. da Madeira), K. Zamudio (Cornell)

ADVISORS

M. Mangel, University of California Santa Cruz (Post-doctoral advisor)

R. R. Warner, University of California Santa Barbara (Graduate advisor)

G. W. Barlow, University of California Berkeley (Undergraduate advisor)