

Erol Akçay

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Education

- 2004-2008 Ph.D in Biology, Stanford University, Stanford, CA
Advisor: Joan Roughgarden
Committee members: Deborah Gordon, Shripad Tuljapurkar, Marcus Feldman
- 2000-2004 B.S., Middle East Technical University, Ankara, Turkey
Double major in Physics and Biology, with Honors

Academic Positions

- 2009-current *Postdoctoral Fellow*, NIMBioS, University of Tennessee, Knoxville, TN
- 2008-2009 *Postdoctoral Fellow*, Department of Biology, Stanford University, Stanford, CA

Grants, fellowships and awards

- 2010 European Society for Evolutionary Biology Outreach Grant
- 2009 Postdoctoral Fellowship, NIMBioS
- 2009 Funding for working group, NIMBioS
- 2008 Samuel Karlin Prize in Mathematical Biology
Stanford University, Department of Biology
- 2008 Excellence in Teaching Award
Stanford University, Department of Biology
- 2001-2004 Basic Sciences Undergraduate Fellowship in Physics
National Scientific and Technical Research Council of Turkey

Publications

Akçay, E., & Simms, E.L. (in press). Negotiation, sanctions and context dependency in the legume-rhizobium mutualism. *The American Naturalist*

Mesterton-Gibbons, M., Gavrillets, S., Gravner, J. & **Akçay, E.** (2011). Models of coalition or alliance formation. *Journal of Theoretical Biology*, in press (doi:10.1016/j.jtbi.2010.12.031)

- Akçay, E.**, & Roughgarden, J. (2011). The evolution of payoff matrices: providing incentives for cooperation. *Proceedings of the Royal Society B*, in press (doi:10.1098/rspb.2010.2105)
- Roughgarden, J. & **Akçay, E.**, (2010). Do we need a Sexual Selection 2.0? *Animal Behaviour*, 79(3):e1-e4
- Roughgarden, J. & **Akçay, E.**, (2010). Final response: sexual selection needs an alternative. *Animal Behaviour*, 79(3):e18-e23
- Akçay, E.**, Van Cleve, J., Feldman, M. W., & Roughgarden, J. (2009). A theory for the evolution of other-regard integrating ultimate and proximate perspectives. *PNAS*, 106: 19061–19066
- Akçay, E.** & Roughgarden, J. (2009). The perfect family: biparental care in animals. *PLoS One*, 4:E7345
- Akçay, E.** & Roughgarden, J. (2007). Extra-pair parentage: a new theory based on transactions in a cooperative game. *Evolutionary Ecology Research*, 9:1223–1243.
- Akçay, E.** & Roughgarden, J. (2007). Extra-pair paternity in birds: review of the genetic benefits. *Evolutionary Ecology Research*, 9:855–868.
- Akçay, E.** & Roughgarden, J. (2007). Negotiation of mutualism: Rhizobia and legumes. *Proceedings of the Royal Society B*, 274:25–32.
- Roughgarden, J., Oishi, M., & **Akçay, E.** (2006). Reproductive social behavior: Cooperative games to replace sexual selection. *Science*, 311:965–970.

Non-peer-reviewed contributions

- Akçay, E.** (2009). Symposium Report: New approaches to the evolution of social behavior. *Bulletin of the Ecological Society of America*. 90:218–221
- Akçay, E.** & Roughgarden, J. (2007). Neither should competition be assumed. *Trends in Ecology and Evolution*, 22:4.
- Roughgarden, J., **E. Akçay** and M. Oishi. (2006). in E. Kavanagh, ed., Debating sexual selection and mating strategies. *Science*. 312:689–697.

Presentations

Invited talks

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| Dec 2010 | UC Riverside |
| Nov 2010 | University of Paris VI, <i>invited speaker at Workshop on Game Theory and Biology</i> |
| Oct 2010 | UCLA (<i>Center for Behavior, Evolution and Culture Speaker Series</i>) |
| Apr 2010 | UC Berkeley (<i>Integrative Biology Departmental Seminar</i>) |
| Jan 2010 | UC Riverside (<i>Biology Colloquium</i>) |
| Dec 2009 | Istanbul Technical University, Istanbul, Turkey (<i>Public Lecture</i>) |
| Dec 2009 | California State University, San Marcos |
| Apr 2008 | University of Florida, Gainesville |
| Feb 2008 | Harvard University |
| Dec 2007 | Middle East Technical University, Ankara, Turkey |
| Oct 2006 | University of Paris VI and Ecole Normale Supérieure |

Conference presentations

- Jul 2010 Animal Behavior Society Meeting, College of William&Mary, Williamsburg, VA (poster)
 Jun 2010 Evolution Meeting, Portland, OR
 Jun 2009 Evolution Meeting, Moscow, ID
 Aug 2008 Ecological Society of America Meeting, Milwaukee, WI
 Aug 2007 Ecological Society of America Meeting, San Jose, CA
 Jun 2005 World Summit on Evolution, Galapagos Islands, Ecuador (poster, NSF-funded participant)

Teaching

Stanford University, Department of Biology

- 2008 BioSci 185: Reproductive Social Behavior
 Teaching assistant (TA) and guest lecturer – Instructor: Joan Roughgarden
 2007 BioSci 43: Plant Biology, Ecology and Evolution
 TA – Instructor: Deborah Gordon, Dimitri Petrov, Kathryn Barton and Matthew Evans
 2007 BioSci 284: Theoretical Ecology
 Guest lecturer – Instructor: Joan Roughgarden
 2006 BioSci 221: Theoretical Population Biology
 TA and guest lecturer – Instructor: Shripad Tuljapurkar
 2005 BioSci 163: Neural Systems and Behavior
 TA – Instructor: Russell Fernald

Professional participation and service

- 2010-2011 Participant, Working group: “Coalitions and alliances in primates”, NIMBioS
 Dec 2009 Co-organizer, Workshop: “Ecology and Evolutionary Biology in Turkey and Abroad”
Istanbul Technical University, Istanbul, Turkey
 2009-2011 Co-organizer, Working group: “Integrating Functional and Evolutionary Dynamics”, NIM-BioS
 May 2009 Co-organizer, Workshop: “Politics of Animal Cooperation”, *Stanford University*
 Aug 2008 Organizer, Symposium: “New approaches to the Evolution of Social Behavior”
Ecological Society of America Meeting, Milwaukee, WI
 Jan 2008 Participant, Working group: “Life History and Ant-Plant Interactions”
Santa Fe Institute
 2007 Ph.D. Admissions Committee *Department of Biology, Stanford University*
 Reviewer for:
Proceedings of the Royal Society B, Theoretical Population Biology, Behavioral Ecology, Ecology Letters, Animal Behaviour, PLoS One, The American Naturalist, Cambridge University Press

Outreach activities

- 2007-2009 Editor, evrimianlamak.org
A Turkish website on evolution based on UC Berkeley's Understanding Evolution
- Dec 2009 Public lecture on social evolution, *Istanbul Technical University, Istanbul, Turkey*
- 2010 Co-PI, *ESEB Outreach grant to distribute digital material on evolution in Turkish schools*