

ALISON R. DAVIS RABOSKY

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY
 UNIVERSITY OF MICHIGAN
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- APPOINTMENTS ASSISTANT RESEARCH SCIENTIST
 Department of Ecology and Evolutionary Biology
 Museum of Zoology (UMMZ)
 University of Michigan 2012-present
- POSTDOCTORAL RESEARCH ASSOCIATE
 University of California, Berkeley
 NSF Postdoctoral Fellow in Biology (Bioinformatics)
 Advisor: Jim McGuire 2009-2011
- EDUCATION UNIVERSITY OF CALIFORNIA, SANTA CRUZ
 Ph.D., Ecology and Evolutionary Biology
 Advisor: Barry Sinervo 2002-2009
- POMONA COLLEGE (CLAREMONT, CA)
 B.A., Biology
 Advisor: Steve Adolph (Harvey Mudd College)
Study Abroad, James Cook University, Australia 2001 1998-2002
- PUBLICATIONS †UM graduate student; *UM undergraduate student
18. **Davis Rabosky AR**, CL Cox, DL Rabosky, PO Title†, IA Holmes†, A Feldman, JA McGuire. Coral snakes predict the evolution of mimicry across New World snakes. *Nature Communications*, in press.
17. **Davis Rabosky AR**, CL Cox, DL Rabosky. Mendelian inheritance of red and black pigmentation in snakes: implications for Batesian mimicry. *Evolution*, in press.
16. Grundler MR*, IA Holmes†, **AR Davis Rabosky**. Predator perspective drives geographic variation in frequency-dependent polymorphism. *The American Naturalist*, invited revision under review.
15. Holmes IA†, WJ Mautz, **AR Davis Rabosky**. Pleistocene sea level changes are reflected in modern population genetics and historical biogeography of an island endemic lizard (*Xantusia riversiana reticulata*). *PLoS ONE*, in review.
14. Reses HE*, **AR Davis Rabosky**, RC Wood. 2015. Nesting success and barrier breaching: Assessing the effectiveness of roadway fencing in Diamondback Terrapins (*Malaclemys terrapin*). *Herpetological Conservation and Biology* 10(1): 161-179.

13. Cox CL and **AR Davis Rabosky** (**co-first authors**). 2013. Spatial and temporal drivers of phenotypic diversity in polymorphic snakes. *The American Naturalist* 182(2): E40-E57.
Featured in: *Evolutionary Analysis* (textbook) by Herron and Freeman, 4th Edition, pg. 148
12. Cox CL, **AR Davis Rabosky**, P Chippendale. 2013. Sequence variation in the *Mc1R* gene for a group of polymorphic snakes. *Gene* 513(2): 282-286.
11. Castoe TA, EL Braun, AM Bronikowski, JM Castoe, CL Cox, **AR Davis Rabosky**, APJ de Koning, J Dobry, MK Fujita, M Giorgianni, A Hargreaves, C Henkel, SP Mackessy, D O'Meally, DR Rokyta, SM Secor, JW Streicher, KP Wray, KD Yokoyama, and DD Pollock. 2012. Report from the first Snake Genomics and Integrative Biology meeting. *Standards in Genomic Science* 7:1.
10. **Davis Rabosky AR**, A Corl, HEM Liwanag, Y Surget-Groba, B Sinervo. 2012. Direct fitness correlates and thermal consequences of facultative aggregation in a desert lizard. *PLoS ONE* 7(7): e40866.
Featured in: *Comparative Social Evolution* (book, Cambridge University Press), publication in Fall 2016
9. Cox CL, **AR Davis Rabosky**, J Reyes-Velasco, P Ponce-Campos, EN Smith, O Flores-Vilella, and JA Campbell. 2012. Molecular systematics of the genus *Sonora* (Squamata: Colubridae) in central and western Mexico. *Systematics and Biodiversity* 10(1): 93–108.
8. **Davis AR**. 2012. Kin presence drives philopatry and social aggregation in juvenile night lizards (*Xantusia vigilis*). *Behavioral Ecology* 23(1): 18-24.
Featured in: *Vertebrate Life* (textbook) by Pough, Janis, and Heiser, 9th Edition, pg. 335
7. **Davis AR**, A Corl, Y Surget-Groba, and B Sinervo. 2011. Convergent evolution of kin-based sociality in a lizard. *Proceedings of the Royal Society of London-B* 278: 1507-1514.
Press coverage by: *NBC News* [[link](#)], *Discovery News* [[link](#)], *UCSC Science Communication Program* [[link](#)]
6. Corl A, **AR Davis**, SR Kuchta, LT Lancaster, and B Sinervo. 2010. Selective loss of polymorphic mating types is associated with rapid phenotypic evolution during morphic speciation. *Proceedings of the National Academy of Sciences USA* 107(9): 4254-4259.
5. Corl A, **AR Davis**, SR Kuchta, T Comendant, and B Sinervo. 2010. Alternative mating strategies and the evolution of sexual size dimorphism in the Side-Blotched lizard, *Uta stansburiana*: A population-level comparative analysis. *Evolution* 64(1): 79-96.
4. Sinervo B, B Heulin, Y Surget-Groba, J Clobert, DB Miles, A Corl, A Chaine, and **A Davis**. 2007. Models of density-dependent genic selection and a new rock-paper-scissors social system. *The American Naturalist* 170(5): 663-680.

3. **Davis AR** and DH Leavitt. 2007. Candlelight *vigilis*: A noninvasive method for sexing small, sexually monomorphic lizards. *Herpetological Review* 38(4): 402-404.
2. Parris MJ, **A Davis**, and JP Collins. 2004. Single-host pathogen effects on mortality and behavioral responses to predators in salamanders (Urodela: Ambystomatae). *Canadian Journal of Zoology* 82: 1477-1483.

BOOK CHAPTERS (PEER-REVIEWED)

1. Cox CL, **AR Davis Rabosky**, DR Frost. *Sonora semiannulata*. In press, Snakes of Arizona, ed. AT Holycross and JC Mitchell (<http://snakesofaz.com>).

GRANTS/AWARDS

- 2013-present: Research grant, Bureau of Land Management
 2009-2011: NSF Postdoctoral Research in Biology (Bioinformatics), DBI-0906046
 2007: Systematics Research Fund Award Winner, The Linnean Society
 2007-2009: Graduate Assistance in Areas of National Need (GAANN) recipient
 2006: Science, Technology, Engineering, Policy, and Society (STEPS) Institute Environmental Research Grant Winner
 2004, 2005: Science Buddies "Outstanding Service Award" recipient
 2002, 2003: NSF Graduate Research Fellowship Honorable Mention
 2003: American Society of Ichthyologists and Herpetologists Gaige Fund Award
 2003: American Museum of Natural History Theodore Roosevelt Memorial Fund

INVITED TALKS

- TBD, 2016: University of Pittsburgh
 TBD, 2016: Ohio University
 10/2/2013: Color polymorphism and the evolution of snake mimicry, Eastern Michigan University
 3/15/2012: Trait evolution from multiple perspectives: Lizard social evolution and snake mimicry systems, University of California, Riverside
 11/7/2011: Color polymorphism and the evolution of snake mimicry systems, University of California, Berkeley
 3/8/2010: The role of color polymorphism in the evolutionary dynamics of mimetic snakes (*Sonora sp.*), University of California, Berkeley
 3/4/2010: Lizard sociality: Kin dynamics, fitness benefits, and thermal consequences of aggregation, University of California, Berkeley
 10/16/2009: Lizard sociality: Kin dynamics, fitness benefits, and thermal consequences of aggregation, University of Texas, Arlington
 9/30/2009: Lizard sociality: Kin dynamics, fitness benefits, and thermal consequences of aggregation, University of California, Berkeley
 12/03/2007: Dispersal and social aggregation in Xantusiid lizards: kin effects and fitness consequences, University of California, Berkeley

CONFERENCES

- SSAR, Lawrence, KS, July 31-August 3, 2015; Talk title: The evolution of coral snake mimicry across the New World
 Evolution, Raleigh, NC, June 20-24, 2014
 Snake Genomics & Integrative Biology, Vail, CO, October 5-9, 2011; Talk title: The genomic window into the evolution of snake mimicry systems

Evolution, Norman, OK, June 17-21, 2011; Talk title: Color polymorphism and the evolution of snake mimicry systems
 Evolution, Portland, OR, June 25-29, 2010; Talk title: Group dynamics and direct fitness benefits of kin sociality in an aggregating lizard
 Physiological Ecology, Bishop, CA, June 6-8, 2008; Talk title: Thermal effects of winter aggregation in the Desert Night Lizard (*Xantusia vigilis*)
 NERE WEB2, Irvine, CA, May 25, 2008; Talk title: A test of kin selection: Kin effects on dispersal and social aggregation in juvenile Desert Night Lizards
 Relatedness, Social Structure, and Dispersal, Paris, France, April 3-5, 2003

SOCIETIES

Society for the Study of Evolution
 American Society of Naturalists
 American Society of Ichthyologists and Herpetologists

TEACHING

2012: Lecturer, University of California, Berkeley
 • Spring 2012: Natural History of Vertebrates (IB104)
 2002 - 2009: Teaching Assistant, University of California, Santa Cruz
 • Fall 2002: Introduction to Psychobiology (Bio 70)
 • Winter 2003, Spring 2005: Introduction to Cell and Molecular Biology (Bio 20A)
 • Spring 2003, Spring 2006, Fall 2008, Winter 2009: Plant and Animal Development and Physiology (Bio 20B)
 • Fall 2003: Behavioral Ecology (Bio 140)
 • Winter 2004: Herpetology (Bio 143)
 • Spring 2004: Female Physiology (Bio 80A)
 • Fall 2004, 2005, 2006: Molecular Methods in Organismal Biology (Bio 187L)
 2002: Teaching Assistant, Pomona College
 • Introductory Genetics (Bio 40)

Total courses: 15

MENTORING

Ph.D. Research (co-advised):
 Iris Holmes, 2014-present: The ecology and evolution of squamate gut microbiomes
Master's Research (co-advised):
 Adolfo Gomez Delgado, 2015-present: Anti-fungal protection and breeding system correlates to amphibian skin microbiomes
 Ivan Monagan, 2014-present: *Anolis* lizards as biocontrol agents in tropical coffee agriculture
 Juan Pablo Busso, 2012-2013: Female preference in the polymorphic spider *Maevia inclemens* and its influence on alternative reproductive tactics
Undergraduate Directed Research:
 Maggie Grundler, 2012-2015: Population genetics of negative frequency-dependent polymorphism
 Hannah Reses, 2012-2014: Assessing the effectiveness of roadside dispersal barriers for diamondback terrapins (*Malaclemys terrapin*)

Reed Newman, 2007-2008: Thermal consequences of winter aggregation in *Xantusia vigilis*.

Rob Davies, 2006-2007: Genetic analysis of breeding dynamics in *Xantusia vigilis*.

Ayush Jha, 2006-2007: Gene flow across habitats after the removal of introduced livestock in an island endemic lizard (*Xantusia riversiana*).

Postgraduate Directed Research:

Iris Holmes, 2012-2014: Conservation and management of island lizards

Amy Patten, 2009-2011: Climate change effects on lizard thermal biology and biodiversity

SERVICE

2016-2020: Board of Governors member, American Society of Ichthyologists and Herpetologists (ASIH)

2016-present: UM Museum of Natural History, exhibit content advisor

2012-present: UM Museum of Zoology ID Day and Behind the Scenes Day

2015: External Ph.D. thesis examiner, Macquarie University (Australia)

2010-2013: Assistant Editor, *Amphibian and Reptile Conservation*

2013: Women in Science and Engineering (WiSE) Invited Speaker, University of Michigan

2011: Women in Science and Engineering (WiSE) Panel Member, UC Berkeley.

2011: Initiative for Maximizing Student Development (IMSD) Panel Member, UC Berkeley.

2006-2009: Co-director of educational demonstrations exposing middle school students from underrepresented minority groups to current research in Ecology and Evolutionary Biology with the Mathematics, Engineering & Science Achievement (MESA) Program.

2006-2007: Graduate representative to the Ecology & Evolutionary Biology Department, UCSC.

2006-2007: Graduate student member, search committee for a new faculty hire in Vertebrate Physiology, UCSC.

2006: Graduate Committee for Diversity Enhancement (GCDE) Member, UCSC.

2003 - 2006: Mentor in the Science Buddies program, an online interactive program for mentoring San Francisco Bay Area middle and high school students competing in science fairs.

1996-1998: Volunteer instructor, *Hands on Science* classes for 3rd-5th graders, Albuquerque Public Schools, New Mexico.

Reviewer for: *Evolution*, *The American Naturalist*, *PLoS One*, *Biological Journal of the Linnean Society*, *Journal of Zoology*, *Animal Behaviour*, *Functional Ecology*, *Herpetological Conservation and Biology*, the U.S. Fish and Wildlife Service, Cambridge University Press, the UK Biotechnology and Biological Sciences Research Council (BBSRC), and the National Science Foundation (NSF).