ALISON R. DAVIS RABOSKY

Ecology and Evolutionary Biology and Museum of Zoology
University of Michigan
2064 Biological Sciences Building, 1105 N. University Ave., Ann Arbor, MI 48109-1085
email: ardr@umich.edu; webpage: http://www-personal.umich.edu/~ardr/index.html

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APPOINTMENTS

ASSOCIATE PROFESSOR AND ASSOCIATE CURATOR — 2023-present
Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ)
University of Michigan

DIRECTOR, MUSEUM OF ZOOLOGY (UMMZ) — 2025-present
University of Michigan

ASSISTANT PROFESSOR AND ASSISTANT CURATOR — 2016-2023
Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ)
University of Michigan

ASSISTANT RESEARCH SCIENTIST — 2012-2016
Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ)
University of Michigan

POSTDOCTORAL RESEARCH ASSOCIATE — 2009-2011
University of California, Berkeley
NSF Postdoctoral Research Fellow in Biology (Bioinformatics)
Advisor: Jimmy A. McGuire

EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA CRUZ — 2002-2009
Ph.D., Ecology and Evolutionary Biology
Advisor: Barry Sinervo

POMONA COLLEGE (CLAREMONT, CA) — 1998-2002
B.A., Biology
Advisor: Steve Adolph (Harvey Mudd College)

MODIFIED DUTIES

First child, Born December 2013
Second child, Born February 2017
Visiting Scholar, Smithsonian Tropical Research Institute (Panamá), January-June 2020
Visiting Scholar, Grupo de Herpetología Patagónica (GHP), Instituto Patagónico para el Estudio de los Ecosistemas Continentales (IPEEC), Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET; Argentina), February-July 2025

PUBLICATIONS

Authorship indicators: †UM graduate student; *UM undergraduate student; ∞UM postdoc/staff; ^other student
https://scholar.google.com/citations?user=mt2pfh0AAAAJ&hl=en&oi=ao

RESEARCH MANUSCRIPTS IN PRINT

51. Stepanova†, N, HL Crowell†, DL Rabosky,, **AR Davis Rabosky**. 2026. Clade-specific drivers of rapid vertebral evolution in squamate reptiles. *Evolution* qpag104.

50. Fowler JH^, RA Rosales-García, RM Rautsaw, MP Hogan∞, EP Hofmann, AJ Mason, RS Nagesan∞, M Borja, L Herrera, G Castañeda-Gaytan, **AR Davis Rabosky**, DR Rokyta, CL Parkinson. 2026. Inter- and Intraspecific Venom Variation in the Reclusive Rear-Fanged Black-Striped Snakes (*Coniophanes*). *Toxins*, https://doi.org/10.3390/toxins1010000

PUBLICATIONS

49. Stepanova†, N, JD Boyko∞, J Lin*, **AR Davis Rabosky**, DL Rabosky. 2025. Punctuated versus gradual shifts in the multivariate evolutionary process: a test with paired radiations of scincid lizards. *Systematic Biology* 74 (3), 483-498.

48. Crowell HL†, RS Nagesan∞, **AR Davis Rabosky**, MA Kolmann∞. 2025. Differential performance of aqueous-and ethylic-Lugol's iodine stain to visualize anatomy in μCT-scanned vertebrates. *Journal of Anatomy* 00: 1-7.

47. Mautz WJ, **AR Davis Rabosky**. 2025. Escape ladders for lizard pitfalls traps *Herpetelogical Review* 56(3): 250-251.

46. Crowell HL†, JD Curlis†, HI Weller^, **AR Davis Rabosky**. 2024. Ecological drivers of ultraviolet colour evolution in snakes. *Nature Communications* 15(1): 1-9.

45. Blackburn DC, DM Boyer, JA Gray, J Winchester, JM Bates, SL Baumgart, E Braker , D Coldren, KW Conway, **AR Davis Rabosky,** N de la Sancha, CB Dillman, JL Dunnum, CM Early, BW Frable, MW Gage, J Hanken, JA Maisano, BD Marks, KP Maslenikov, JE McCormack, RS Nagesan∞, GG Pandelis*, HL Prestridge, DL Rabosky, ZS Randall, Robbins MB, Scheinberg LA, Spencer CL, Summers AP, Tapanila L, Thompson CW, L Tornabene, GJ Watkins-Colwell, LJ Welton, the oVert Project Team, EL Stanley. 2024. Increasing the impact of vertebrate scientific collections through 3D-imaging: the openVertebrate (oVert) Thematic Collections Network. *BioScience*,74(3): 169-186.

44. Nash-Hahn TJ^, N Stepanova†, **AR Davis Rabosky**, EM Sherratt. 2024. Modification of vertebral regions explains heart position in arboreal colubrids (Colubridae: Serpentes). *Zoological Journal of the Linnean Society:* zlae022

43. Sealey BA†, JG Larson†, EP Westeen*, CM Sánchez-Paredes^, TY Moore∞, **AR Davis Rabosky**. 2024. Body size and predator cues structure variation in defensive displays of Neotropical calico snakes (*Oxyrhopus spp*.). *Ethology* 130: e13439.

42. Martínez-Fonseca JG^, IA Holmes†, J Sunyer^, PA Cerda†, M Fernández^, J Loza^, MR Grundler*, EP Westeen*, IV Monagan Jr.†, DT Nondorf*, GG Pandelis*, **AR Davis Rabosky**. 2024. A collection and analysis of amphibians and reptiles from Nicaragua with new country and departmental records. *Checklist* 20(1): 58-125.

41. Srodawa K*, PA Cerda†, **AR Davis Rabosky,** JM Crowe-Riddell∞. 2023. Evolution of three-finger toxin genes in Neotropical colubrine snakes (Colubridae). *Toxins* 15(9):523.

40. Cox CL and **AR Davis Rabosky (equal authorship)**. 2023. Integrative biology of snake coloration. In *Snakes: Morphology, Function, and Ecology,* ed. DA Penning, Nova Science Publishing. Chapter 5, pg. 179-217.

39. Holmes IA†, IV Monagan Jr.†, MF Westphal, PJ Johnson, **AR Davis Rabosky**. 2023. Parsing variance by marker type: Testing biogeographic hypotheses and differential contribution of historical processes to population structure in a desert lizard. *Molecular Ecology* 32(17): 4880-4897.

38. Ahluwalia S*, I Holmes†, R von May∞, DL Rabosky, **AR Davis Rabosky**. 2022. Assembling microbial communities: a genomic analysis of a natural mesocosm experiment in neotropical bamboos. *PeerJ* 10:e13958.

37. Cerda PA†, JM Crowe-Riddell∞, DJP Gonçalves∞, DA Larson†, TF Duda Jr., **AR Davis Rabosky**. 2022. Divergent specialization of simple venom gene profiles among rear-fanged snake genera (*Helicops* and *Leptodeira*, Dipsadinae, Colubridae). *Toxins* 14:489.

36. Larson JG†, HL Crowell†, LM Walsh†, **AR Davis Rabosky**. 2022. The Batrachian Barf Bowl: An authentic research experience using ecological data from frog diets. *Ecology and Evolution* 12: e9095.

PUBLICATIONS

35. Curlis JD†, TJ Renney*, **AR Davis Rabosky**, TY Moore∞. 2022. Batch-Mask: Automated image segmentation for organisms with limbless or non-standard body forms. *Integrative and Comparative Biology* 62(4):1111–1120.

34. Callahan S*, JM Crowe-Riddell∞, RS Nagesan∞, JA Gray, **AR Davis Rabosky**. 2021. A guide for optimal iodine staining and high-throughput diceCT scanning in snakes. *Ecology and Evolution* 00:1–17.

33. Curlis JD†, **AR Davis Rabosky**, IA Holmes†, TJ Renney*, CL Cox. 2021. Genetic mechanisms and correlational selection structure trait variation in a coral snake mimic. *Proceedings of the Royal Society B* 288: 20210003.

32. Cox CL, AK Chung^, C Blackwell^, MM Davis^, M Gulsby^, H Islam^, N Miller^, C Lambert^, O Lewis^, M Walsh^, AD Yamamoto^, **AR Davis Rabosky**. 2021. Tactile stimuli induce deimatic anti-predator displays in ringneck snakes. *Ethology* 127(6): 465-474.

31. **Davis Rabosky AR**, TY Moore∞, CM Sánchez-Paredes^, EP Westeen*, JG Larson†, BA Sealey†, BA Balinski*. 2021. Convergence and divergence in snake anti-predator displays: A novel approach to quantitative behavioural comparison in snakes. *Biological Journal of the Linnean Society* 132(4): 811–828.

30. Cox CL, **AR Davis Rabosky**, DR Frost. 2020. *Sonora semiannulata*. in *Snakes of Arizona*, ed. AT Holycross & JC Mitchell, Eco Press (Rodeo, NM). Pg. 294-302.

29. Westeen EP*, AM Durso, MC Grundler†, DL Rabosky, **AR Davis Rabosky**. 2020. What makes a fang? Phylogenetic and ecological controls on tooth evolution in rear-fanged snakes. *BMC Evolutionary Biology* 20(80): 1-15.

28. Moore TY∞, SM Danforth†, JG Larson†, **AR Davis Rabosky**. 2020. A quantitative analysis of *Micrurus* coral snakes reveals unexpected variation in stereotyped anti-predator displays within a mimicry system. *Integrative Organismal Biology* 2(1): 1-15.

27. Danforth SM†, M Kohler*, D Bruder†, **AR Davis Rabosky**, R Vasudevan, TY Moore∞. 2020. Emulating duration and curvature of coral snake anti-predator thrashing behaviors using a soft robotic platform. *IEEE ICRA* 2020: 5068-5074.

26. Rabosky DL, R von May∞, MC Grundler†, **AR Davis Rabosky**. 2019. The Western Amazonian Richness Gradient for squamate reptiles: Are there really fewer snakes and lizards in southwestern Amazonian lowlands? *Diversity* 11(10), 199: 1-18.

25. Russell ID†, JG Larson†, R von May∞, IA Holmes†, TY James, **AR Davis Rabosky**. 2019. Widespread fungal infection across frogs in the Peruvian Amazon suggests critical role for low elevation in pathogen spread and persistence. *PLoS ONE* 14: e0222718.
Press coverage by: Michigan News; New Scientist, El Comercio, EurekAlert

24. Holmes IA†, IV Monagan†, DL Rabosky, **AR Davis Rabosky**. 2019. Metabolically similar cohorts of bacteria exhibit strong co-occurrence patterns with diet items and eukaryotic microbes in lizard guts. *Ecology and Evolution* 00: 1–11.

23. Myers EA^, AT Xue, M Gehara, CL Cox, **AR Davis Rabosky**, J Lemos-Espinal, JE Martínez-Gómez, and FT Burbrink. 2019. Environmental heterogeneity and not biogeographic barriers generate community-wide population structure in desert-adapted snakes. *Molecular Ecology* 28(20): 4535-4548.

22. von May R∞, E Biggi, H Cárdenas^, MI Diaz, C Alarcón^, V Herrera^, R Santa-Cruz^, F Tomasinelli, E Westeen*, CM Sánchez-Paredes^, JG Larson†, P Title†, MR Grundler*, MC Grundler†, **AR Davis Rabosky**, DL Rabosky. 2019. Ecological interactions between arthropods and small vertebrates in a lowland Amazon rainforest. *Amphibian and Reptile Conservation* 13(1): 65–77 (e169).

Press coverage by: Michigan News - **most-viewed UM press release in history** (2.79 million views); National Geographic, CBS News, Washington Post, CNN

PUBLICATIONS

21. Holmes IA† and **AR Davis Rabosky**. 2018. Natural history by-catch: a pipeline for identifying metagenomic sequences in RADseq data. *PEERJ* 6:e4662.

20. Cox CL, **AR Davis Rabosky**, IA Holmes†, J Reyes-Velasco, CE Roelke, EN Smith, O Flores-Villela, JA McGuire, JA Campbell. 2018. Synopsis and taxonomic revision of three genera in the snake tribe Sonorini. *Journal of Natural History* 52(13–16): 945–988.

19. Holmes IA†, MR Grundler*, **AR Davis Rabosky**. 2017. Predator perspective drives geographic variation in frequency-dependent polymorphism. *The American Naturalist* 190(4): E78-E93.

18. Monagan Jr. IV†, JR Morris†, **AR Davis Rabosky**, I Perfecto, J Vandermeer. 2017. *Anolis* lizards as biocontrol agents in mainland and island agroecosystems. *Ecology and Evolution* 2017: 1-11.

17. **Davis Rabosky AR**, CL Cox, DL Rabosky, PO Title†, IA Holmes†, A Feldman, JA McGuire. 2016. Coral snakes predict the evolution of mimicry across New World snakes. *Nature Communications* 7, 11484: 1-9.
Press coverage by: Global Michigan
Featured: News & Views: "To mimicry and back again" Nature 534: 184:185.

16. **Davis Rabosky AR**, CL Cox, DL Rabosky. 2016. Unlinked Mendelian inheritance of red and black pigmentation in snakes: Implications for Batesian mimicry. *Evolution*, 70(4): 944–953.

15. Holmes IA†, WJ Mautz, **AR Davis Rabosky**. 2016. Historical environment is reflected in modern population genetics and biogeography of an island endemic lizard (*Xantusia riversiana reticulata*). *PLoS ONE* 11(11): e0163738.

14. Busso JP† and **AR Davis Rabosky**. 2016. Disruptive selection on male reproductive polymorphism in a jumping spider, *Maevia inclemens*. *Animal Behaviour* 120: 1-10.

13. 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.

12. Cox CL^ and **AR Davis Rabosky (equal authorship)**. 2013. Spatial and temporal drivers of phenotypic diversity in polymorphic snakes. *The American Naturalist* 182(2): E40-E57.

11. 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.

10. 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.

9. **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.

8. Cox CL^, **AR Davis Rabosky**, J Reyes-Velasco^, P Ponce-Campos, EN Smith, O Flores-Villela, JA Campbell. 2012. Molecular systematics of the genus *Sonora* (Squamata: Colubridae) in central and western Mexico. *Systematics and Biodiversity* 10: 93–108.

PUBLICATIONS

7. **Davis AR**. 2012. Kin presence drives philopatry and social aggregation in juvenile night lizards (*Xantusia vigilis*). *Behavioral Ecology* 23(1): 18-24.
Featured: *Vertebrate Life* (textbook) by Pough, Janis, and Heiser, 9th Edition, pg. 335

6. **Davis AR**, A Corl^, Y Surget-Groba, B Sinervo. 2011. Convergent evolution of kin-based sociality in a lizard. *Proc. of the Royal Society of London-B* 278: 1507-1514.
Press coverage by: NBC News, UCSC Science Communication Program

5. 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* 107(9): 4254-4259.

4. 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.

3. 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.

2. **Davis AR** and DH Leavitt^. 2007. Candlelight *vigilis*: A noninvasive method for sexing small, sexually monomorphic lizards. *Herpetological Review* 38(4): 402-404.

1. Parris MJ, **A Davis**, and JP Collins. 2004. Single-host pathogen effects on mortality and behavioral responses to predators in salamanders (Urodela: Ambystomatidae). *Canadian Journal of Zoology* 82: 1477-1483.

PUBLICATIONS PERSPECTIVE ARTICLES, BOOK REVIEWS, AND NATURAL HISTORY NOTES

B11. Weller HI, **AR Davis Rabosky.** 2025. For sea slugs, bright colours may warn off predators—but only in the daytime. *Journal of Animal Ecology* 94 (9), 1606-1609.

B10. **Davis Rabosky, AR**. 2024. A Herpetologist's Guide to Interior Australia…with Kids. In *Herpetologists' Tales from the Field*, ed. Martha Crump, Cornell University Press.

B9. Nachman MW…**AR Davis Rabosky**…et al. (119 authors). 2023. Specimen collection is essential for modern science. *PLoS Biology* 21(11): e3002318.

B8. Sanders NJ, N Cooper, **AR Davis Rabosky**, DJ Gibson, 2023. Leveraging natural history collections to understand the impacts of global change. *Journal of Animal Ecology* 92:232–236.

B7. **Davis Rabosky, AR**, Rabosky DL. 2023. Geographic distribution note: State record (Oregon), *Rhinocheilus lecontei* (Long-nosed Snake). *Herpetological Review* 54(4): 602.

B6. **Davis Rabosky, AR**. 2021. Building a Tangled Bank: Today's Michigan Herpetology Community. In *Letters from Michigan Herpetology*, ed. Greg Schneider & Linda Trueb, University of Michigan Press.

B5. **Davis Rabosky AR**. 2019.The Book of Snakes: A life-size guide to six hundred species from around the world (Mark O'Shea). *Herpetological Review* 50(2): 415–416.

B4. Jantzi A, CL Cox, **AR Davis Rabosky**, AT Holycross. 2020. *SONORA SEMIANNULATA* (Western Groundsnake). COMBAT. *Herpetological Review*. [Deep Blue video data]

B3. JD Curlis†, P Cerda†, **AR Davis Rabosky**, M Grundler*, I Holmes†, B Sealey†, C Whitcher*, M Grundler†, E Westeen*. 2020. Geographic distribution note: *Bromeliohyla bromeliacia* (Bromeliad Treefrog). *Herpetological Review*, 51(4): 768.

B2. JD Curlis†, P Cerda†, **AR Davis Rabosky**, M Grundler*, I Holmes†, B Sealey†, C Whitcher*, M Grundler†, E Westeen*. 2020. Geographic distribution note: *Rhadinella kinkelini* (Kinkelin's Graceful Brownsnake). *Herpetological Review*, 51(4): 783.

B1. JD Curlis†, P Cerda†, **AR Davis Rabosky**, M Grundler*, I Holmes†, B Sealey†, C Whitcher*, M Grundler†, E Westeen*. 2020. Geographic distribution note: *Sibon dimidiatus* (Slender Snail Sucker). *Herpetological Review*, 51(4): 783.

GRANTS

EXTERNAL FUNDING

2022-2027: National Science Foundation CAREER: Sensory innovation and the ecological diversification of snakes (Role: PI), DEB-2141892; Award total = $987,758

2022-2025: Australian Research Council Discovery Grant; Plastic brains: Neural adaptations to changing environments in reptiles (Role: Co-PI), DP230101438; Award total = A$430,000; UM portion supports travel, in-kind CT scans, and broader impacts

2017-2022: National Science Foundation Digitization TCN: Collaborative Research: oVert: Open Exploration of Vertebrate Diversity in 3D (Role: Senior Personnel), DBI-1701713; UM award total = $207,250 (lead: DBI-1701714)

2013-2018: Research grant sub-award, U.S. Bureau of Land Management; UM award total = $30,000

2009-2011: National Science Foundation Postdoctoral Research Fellowship in Biology; The role of color pattern polymorphism in the evolution of snake mimicry: a statistical phylogeographic approach (Role: PI), DBI-0906046; Award total = $123,000

2007: Systematics Research Fund Award Winner, The Linnean Society, $3000

2002, 2003: NSF Graduate Research Fellowship Honorable Mention

INTERNAL FUNDING

2025-2028: University of Michigan Biosciences Initiative, Bridging the "micro" to "macro" of morphological evolution: an automated phenotyping framework for biodiversity collections using high-resolution micro-CT.

2019-2020: University of Michigan MCubed 3.0: Optimizing the design of soft robots to be reliably deployable in the field

2016-2017: University of Michigan MCubed 2.0: Bio-mimetic snake robots model the evolution of aposematism

2007-2009: Graduate Assistance in Areas of National Need (GAANN) recipient

2006: Science, Technology, Engineering, Policy, and Society (STEPS) Institute Environmental Research Grant Winner, UC Santa Cruz

AWARDS

2025: Elizabeth Caroline Crosby Award, University of Michigan

2024: Henry Russel Award, University of Michigan

2023: Rackham Master's Mentoring Award, University of Michigan

2023: Class of 1923 Memorial Teaching Award for outstanding teaching of undergraduates, College of Literature, Science, and the Arts, University of Michigan

2022: Nominee, Provost's Teaching Innovation Prize, University of Michigan

2021: Meritorious Teaching Award in Herpetology, awarded jointly by the U.S. National Herpetological Societies (SSAR/ASIH/HL

2020: Elizabeth Caroline Crosby Award, University of Michigan

2019: Program in Biology Teaching Excellence Award, University of Michigan

2003: American Society of Ichthyologists and Herpetologists Gaige Fund Award

2003: American Museum of Natural History Theodore Roosevelt Memorial Fund Award

CONFERENCES

Evolution, Virtual, May 21, 2026. **Invited Speaker, SSE Presidential Symposium:** *Navigating Uncertainty: Individual Resilience and Collective Action in Evolutionary Biology*; Talk title: Museums as a vehicle of hope

Society of Systematic Biologists, Baton Rouge, LA, January 9-11, 2026. **Invited Panelist:** The Future of Natural History Collections

British Ecological Society Special Issue Launch Conference, London, England, February 13-15, 2023: **Invited Keynote**: Leveraging Natural History Collections to Understand Global Change. [program]

TiBE (Trends in Biodiversity and Evolution) 2022: The Biology of Colour, Vairão, Portugal, December 5-7, 2022; Talk title: How trait correlations build mimicry systems: A macroevolutionary test across Western Hemisphere snakes

JMIH (Joint Meeting of Ichthyologists and Herpetologists), Spokane, WA, July 26-31, 2022; Talk title: Authentic Research Experience: Integrating Real Data and Student-led Experimental Design in Herpetology Courses (**Invited Symposium talk**, *Exemplary Practices in Herpetological Education*

JMIH, Snowbird, UT, July 24-28, 2019; Talk title: Building a Tangled Bank: Mimics, Models, and Michigan (**Invited Symposium talk**, *Professional Women in Herpetology: Lessons and Insights*)

JMIH, Rochester, NY, July 12-15, 2018; Talk title: Convergence or Divergence? 3-D Quantification and Characterization of Behavior in the Peruvian Amazon

JMIH, Austin, TX, July 13-16, 2017; Talk title: Color Mosaics in Frogs and Snakes: What Drives Geographic Variation in Color Polymorphism?

JMIH, New Orleans, LA July 6-10, 2016

Evolution, Austin, TX, June 17-21, 2016

SSAR (Society for the Study of Amphibians and Reptiles), 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; A test of kin selection: Kin effects on dispersal and sociality in Desert Night Lizards (*Xantusia vigilis*)

INVITED SEMINARS

06/10/2026: University of Michigan Biological Station: U-M's Biodiversity Museums: Preserved for good

04/25/2025: CENPAT, Puerto Madryn, Argentina: Patrón y proceso en la evolución convergente: ¿Qué nos dicen las serpientes sobre la innovación fenotípica?

10/21/2024: Clemson University: Pattern and process in convergent evolution: What can snakes tell us about phenotypic innovation?

09/25/2023: University of Helsinki: Pattern and process in convergent evolution: What can snakes tell us about phenotypic innovation?

03/16/2021: Michigan State University: The origin and evolution of phenotypic convergence: Insights from mimicry

01/21/2020: Smithsonian Tropical Research Institute (Behavior Group): The evolution of anti-predator traits in Neotropical snake mimicry

10/01/2019: Brown University (Graduate Student Invited Speaker): The origin and evolution of phenotypic convergence: Insights from mimicry

10/19/2018: University of California, Davis (Behavior Group - ABBG): The origin and evolution of sociality in lizards: kin, fitness, and parasites

10/18/2018: University of California, Davis (Departmental Seminar): Trait evolution in mimicry systems: A big data approach to the study of convergence in snakes
5/4/2018: University of California, Merced (Graduate Student Invited Speaker): Trait evolution in mimicry systems: A big data approach to studying convergence in snakes
11/1/2017: University of Michigan MCubed Symposium Featured Speaker: What robots can teach us about snakes: Communicating with color and motion
4/7/2017: University of Florida: The origin and evolution of phenotypic convergence: Insights from mimicry
11/2/2016: University of Pittsburgh: The origin and evolution of phenotypic convergence: Insights from mimicry
10/2/2013: Eastern Michigan: Color polymorphism and the evolution of snake mimicry
3/15/2012: University of California, Riverside: Trait evolution from multiple perspectives: Lizard social evolution and snake mimicry systems
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
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

SOCIETIES

Society for the Study of Evolution, American Society of Naturalists, Society of Systematic Biologists, American Society of Ichthyologists and Herpetologists, Society for the Study of Amphibians and Reptiles

TEACHING

Assistant/Associate Professor, University of Michigan, 2016 - present
Evaluation metrics: Q2 = "Overall, Alison Davis Rabosky was an excellent teacher."
Q1883 = "Overall, Alison Davis Rabosky was an effective teacher."

- Evolution (EEB 390)
  - Winter 2026: 126 students, Q1883 median = 4.9/5.0
  - Winter 2024: 123 students, Q1883 median = 4.8/5.0
  - Winter 2022: 88 students, Q1883 median = 4.9/5.0
  - Fall 2019: 132 students, Q2 median = 4.9/5.0
  - Winter 2018: 64 students, Q2 median = 4.75/5.0
- Biology of Amphibians and Reptiles (EEB 450)
  - Winter 2023: 34 students, Q1883 median = 5.0/5.0
  - Winter 2021: 27 students, Q2 median = 5.0/5.0
  - Winter 2019: 18 students, Q2 median = 5.0/5.0
- Quantitative Data Visualization (EEB 800/401), Fall 2017, Fall 2024
- Seminar: Biodiversity Scholars Program (BIO 201); Winter 2026
- Seminar: Biodiversity Research (EEB 335); Fall 2016

Lecturer, University of California, Berkeley, 2012
Evaluation metrics: Item 9 = "Overall Effectiveness"

- Natural History of Vertebrates (IB104)
  - Spring 2012: 65 students, Item 9 mean = 6.87/7.00

Teaching Assistant, University of California, Santa Cruz, 2002 - 2009

- 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)

Teaching Assistant, Pomona College, 2002

- Introductory Genetics (Bio 40)

Total: 14 courses, 27 academic terms

MENTORING

Postdoctoral Researchers (3):

Michael Hogan, 2023-present: Sensory innovation and ecological diversification of snakes
Jenna Crowe-Riddell, 2019-2021: Trait evolution in mimicry and sensory systems
Currently: Postdoc at La Trobe University, Australia, DECRA recipient
Talia Y. Moore, 2016-2019: Biomechanics of anti-predator displays in snakes
Currently: Assistant Professor (Engineering), University of Michigan

Ph.D. Students (8):

Riley Stanton, 2025-present: Dissertation topic TBD (co-advised with Dan Rabosky)
Kaori Chambers, 2024-present: Phenotypic innovation in miniaturized squamates
Andressa Viol, 2022-present: Complexity and color evolution in snake mimicry systems
Natasha Stepanova, 2020-2026: Morphological and ecological diversification of limb-reduced squamates (co-advised with Dan Rabosky)
Hayley Crowell, 2019-2025: Ecological tradeoffs in the evolution of snake coloration
John David Curlis, 2018-2024: Color evolution across squamate signaling systems
Peter Cerda, 2016-2023: Toxin evolution across Western Hemisphere snakes; University of Michigan Rackham Merit Fellow (co-advised with Tom Duda)
Currently: Informatics specialist with U-M Libraries
Iris Holmes, 2014-2020: Drivers of genetic and phenotypic population structure across space and time; NSF Graduate Research Fellowship Program (GRFP) recipient
Currently: Postdoc at Cornell University

Masters Students (8):

Zulay Caridad Rodríguez, 2021-2023: Empirical predictors of model-mimic mismatch in coral snake mimicry systems
Taylor West, 2019-2022: Ecomorphology and convergence in snake inner ears; NSF Graduate Research Fellowship Program (GRFP) recipient
Currently: Micro-CT Scanning Specialist, Natural History Museum, London
Brianna Mims, 2019-2021: Ecological drivers of convergent brain evolution in snakes
Currently: Ph.D. student at American Museum of Natural History, NSF GRFP recipient
Briana Sealey, 2017-2019: Predator cues and ontogenetic effects on anti-predator displays in South American calico snakes (*Oxyrhopus*)
Currently: Ph.D. student at the UT Austin, NSF GRFP recipient
Imani Russell, 2016-2018: Chytridiomycosis dynamics across ecosystems in tropical frog communities (co-advised with Tim James)
Currently: Ph.D. student at the UC Santa Barbara, NSF GRFP recipient
Adolfo Gómez Delgado, 2015-2017: coursework M.S. (co-advised with Tim James)
Ivan Monagan, 2014-2016: *Anolis* lizards as biocontrol agents in tropical coffee agriculture (co-advised with John Vandermeer)
Currently: Ph.D. student at Columbia University, Ford Foundation Fellow
Juan Pablo Busso, 2012-2013: Female preference in the polymorphic spider *Maevia inclemens* and its influence on alternative reproductive tactics
Subsequently: Ph.D. completed at the University of Zurich

MENTORING

Undergraduate Thesis/Postgraduate Research Students (14):

Alex Coulouris, 2024-present: Vertebral evolution across the global radiation of snakes
Drew Heur, 2022-2024: Venom gland evolution in vipers
Molly Rose, 2022-2024: Chemosensory system evolution across snakes
Tony DiMeglio, 2022-2024: Sea snake foraging and sex-specific ecology
Haley Martens, 2020-2021: Behavioral mimicry in Neotropical snakes
Kristy Srodawa, 2019-2022: Toxin evolution in Neotropical snakes
Currently: M.S. student, Molecular, Cell, and Developmental Biology, U-M
Daniel Nondorf, 2018-2019: Parasite transmission across lizard social strategies
Currently: Ph.D. student at the University of Virginia
Erin Westeen, 2016-2018: Evolution of tooth enlargement ("fangs") across snakes
Currently: Ph.D. student at the UC Berkeley, NSF GRFP recipient
Maggie Grundler, 2012-2015: Population genetics of frequency-dependent polymorphism
Currently: Ph.D. student at the UC Berkeley, NSF GRFP recipient
Hannah Reses, 2012-2014: Assessing the effectiveness of roadside dispersal barriers for diamondback terrapins (*Malaclemys terrapin*)
Amy Patten, 2009-2011: Climate change effects on lizard thermal biology
Reed Newman, 2007-2008: Thermal consequences of sociality 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*)

Plus 24 Undergraduate Research Opportunity Program (UROP) students, 2016-2026

SERVICE

EXTERNAL

2024-present: Associate Editor, Evolution
2024-present: Board of Governors member, American Society of Ichthyologists and Herpetologists (ASIH)
2023-2025: Program Director, Society of Systematic Biologists (Executive Council)
2021-2025: Associate Editor, *Journal of Animal Ecology*
2021-2022: Special Feature Guest Editor, *Journal of Animal Ecology*
2021-2024: Member (2024 Chair), Herpetology Education Committee, U.S. National Herpetological Societies (ASIH/SSAR/HL)
2020: Graduate Student Research Awards (GSRA) reviewer for the Society of Systematic Biologists (SSB)
2019-2024: Chair of the Society for the Study of Amphibians and Reptiles (SSAR) 2024 Conference Local Planning Committee (Covid delay from 2021)
2016-2020: Board of Governors member, American Society of Ichthyologists and Herpetologists (ASIH)
2018-2019; 2022: Stoye and Storer Student Award judge for American Society of Ichthyologists and Herpetologists (ASIH)
2018: Graduate Women in Science (GWIS) Student Award reviewer
2016-2017: Member of the 2017 iDigBio Conference Planning Committee; Co-led workshop on "Automated species range map construction through aggregated global museum records"
2015: External Ph.D. thesis examiner, Macquarie University (Australia)
2010-2013: Assistant Editor, *Amphibian and Reptile Conservation*
2006-2009: Participant in educational outreach events for Mathematics, Engineering & Science Achievement (MESA) Program
2003 - 2006: Mentor in the Science Buddies program, online mentoring for science fairs
1996-1998: Volunteer instructor, Hands on Science classes for 3rd-5th graders, Albuquerque Public Schools, New Mexico

SERVICE INTERNAL: EEB DEPARTMENT/MUSEUM OF ZOOLOGY (UMMZ)

2025-present: Director, Museum of Zoology (UMMZ)
2023-present: UMMZ/Herbarium Collections Operations Committee member
2024-2025: Departmental Action Team for Equitable Teaching (DATET)
2023-2025: Undergraduate Affairs Committee member
2023: Search Committee Chair, LSA Collegiate Fellows Program
2022-2023: M-PABI Collection Manager Search Committee member (Biorepository)
2022: EEB Executive Committee member
2021-present: UMMZ/Herbarium Museums Education Committee Chair
2020-2022: EEB Graduate Affairs Committee member
2021-2022: UMMZ Collection Manager Search Committee member (Insects)
2022: EEB Faculty Search Committee member (person-specific hire)
2021: EEB Faculty Search Committee member (open search: 480 applicants)
2020-2021: UMMZ/Herbarium Museums Education Committee member
2019-2020: UMMZ/Herbarium Museums Seminar Nominating Committee member
2019: EEB Social Committee member
2018: UMMZ Collection Manager Search Committee member (Fishes)
2017-2019: EEB Executive Committee member
2017: EEB Faculty Search Committee member (person-specific hire)
2017: UMMZ Collection Manager Search Committee member (Insects)
2016-present: Hosted seven external speakers to the EEB department
2016-present: Served on twelve graduate student committees in EEB in addition to students directly advised
2013: UMMZ Collection Manager Search Committee member (Mammals)
2006-2007: Graduate representative to the Ecology & Evolutionary Biology Department faculty, UCSC (attended faculty meetings)
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

Led many academic and outreach tours of the UMMZ collections, including for BIO 173, BIO 201, EEB 450, UC 300, and annual graduate student recruitment events.

SERVICE INTERNAL: UNIVERSITY

2024: UM Museum of Natural History exhibit content creation: “Why do we collect?" feature on the UMMZ Herpetology Division (20ft display in the *Mastodon Atrium*)
2023, 2024: LSA/ADVANCE NSF CAREER Workshop panelist
2023: UM Museum of Natural History exhibit content creation: Project: MORPH! (Undergraduate Scientist Spotlight event serving 1,000 community members)
2022: UM Museum of Natural History exhibit content creation: Focal interviewee for “Why do we collect?" feature on biodiversity museums (Displayed in the *Science Forum*)
2021: LSA Magazine Contributor: The Wow Moment, Remote
2021: UM Museum of Natural History exhibit content creation: Project: MORPH! (Displayed in the *Nature Investigate Lab* and online in *Undergraduate Showcase*)
2021: NextProf Science Mentor, University of Michigan
2019: UM Museum of Natural History Science Communication Fellow
2016-2019: UM Museum of Natural History Faculty Advisory Committee member
2019: FEMMES Spring Capstone speaker
2019: NextProf Science Mentor, University of Michigan
2018: Panel member, Genetics and Genomics Campus Connection for the Summer Bridge Scholars Program
2018: UM Museum of Natural History exhibit content creation: The Extended Specimen (Displayed in the *Collections Case* exhibit)
2016: Led Donor Advisory Group Tour at the UM Museum of Zoology (alcohol collections)

2015: NextProf Science Mentor, University of Michigan
2013: Women in Science and Engineering (WiSE) Invited Speaker, U-M
2011: Women in Science and Engineering (WiSE) Panel Member, UC Berkeley.
2011: Initiative for Maximizing Student Development Panel Member, UC Berkeley

JOURNAL AND BOOK PRESS REVIEWS

Reviewer for *PNAS*, *Evolution*, *The American Naturalist*, *Systematic Biology*, *Molecular Ecology, Ecology Letters, PLoS One*, *Biological Journal of the Linnean Society*, *Nature Ecology & Evolution*, *Functional Ecology*, *Biology Letters*, *Journal of Evolutionary Biology*, *Ecology and Evolution*, *Conservation Genetics*, *Journal of Zoology*, *Behaviour*, *Animal Behaviour*, *Journal of Herpetology*, *Herpetological Review*, *Herpetological Conservation and Biology*, *Journal of South American Herpetology*, *Austral Ecology*, and Cambridge University Press.

GOVERNMENTAL AND FUNDING AGENCY REVIEWS

Reviewer for U.S. Fish and Wildlife Service (protected species listing/de-listing), the UK Biotechnology and Biological Sciences Research Council (BBSRC), and the U.S. National Science Foundation (NSF; *ad hoc* and panel review service).