

ALISON R. DAVIS RABOSKY

Ecology and Evolutionary Biology and Museum of Zoology
University of Michigan

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APPOINTMENTS	ASSOCIATE PROFESSOR AND ASSOCIATE CURATOR Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ) University of Michigan	2023-present
	ASSISTANT PROFESSOR AND ASSISTANT CURATOR Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ) University of Michigan	2016-2023
	ASSISTANT RESEARCH SCIENTIST Department of Ecology and Evolutionary Biology & Museum of Zoology (UMMZ) University of Michigan	2012-2016
	POSTDOCTORAL RESEARCH ASSOCIATE University of California, Berkeley NSF Postdoctoral Research Fellow in Biology (Bioinformatics) Advisor: Jimmy A. 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)	1998-2002
MODIFIED DUTIES	First child, Born in December 2013 One year Assistant Research Scientist position extension, 2014 Second child, Born in February 2017 One semester nurturance leave; One year tenure clock extension, 2017 Visiting Scholar, Smithsonian Tropical Research Institute (Panama), January-June 2020	
PUBLICATIONS	Authorship indicators: †UM graduate student; *UM undergraduate student; ∞UM postdoc; ^other student	

MANUSCRIPTS IN REVIEW/PRESS

45. Crowell HL[†], JD Curlist[†], HI Weller[^], **AR Davis Rabosky**. *in review*, *Nature Communications*. Predators drive the evolution of ultraviolet coloration in snakes.
44. Sealey BA[†], JG Larson[†], EP Westeen^{*}, CM Sánchez-Paredes[^], TY Moore[∞], **AR Davis Rabosky**. *in review*, *Ethology*. Body size and predator cues structure variation in defensive displays of Neotropical calico snakes (*Oxyrhopus* spp.).
43. Martínez-Fonseca JG[^], IA Holmes[†], J Sunyer[^], PA Cerdà[†], M Fernández[^], J Loza[^], MR Grundler^{*}, EP Westeen^{*}, IV Monagan Jr.[†], DT Nondorf^{*}, GG Pandelis^{*}, **AR Davis Rabosky**. *in review*, *Checklist*. An expeditionary collection and analysis of amphibians and reptiles from Nicaragua.
42. Blackburn DC... **AR Davis Rabosky**..., the oVert Project Team, EL Stanley (many authors). *in review*, *BioScience*. Increasing the impact of vertebrate scientific collections through 3D-imaging: the openVertebrate (oVert) Thematic Collections Network.

PUBLICATIONS MANUSCRIPTS IN PRINT

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.
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 Holmest†, 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 Grundlert†, 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 Brudert†, **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.

PUBLICATIONS

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 Holmest[†], 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](#)
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 Holmest[†], 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 Holmest[†], 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.

PUBLICATIONS

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.
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.

PERSPECTIVE ARTICLES, BOOK REVIEWS, AND NATURAL HISTORY NOTES

- 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**. *in press*. A Herpetologist's Guide to Interior Australia...with Kids. In *Herpetologists' Tales from the Field*, ed. Martha Crump, Cornell University Press.

PUBLICATIONS

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: *Bromeliohylla 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

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

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)

- AWARDS**
- 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**
- 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**
- 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

SEMINARS

- 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."

2022 college-level wording revision: Q1883 = "Overall, Alison Davis Rabosky was an effective teacher."

- Evolution (EEB 390)
 - Winter 2024: 120 students, TBD
 - 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, Q2 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
- Seminar: Quantitative Data Visualization (EEB 800/401); Fall 2017, Fall 2024
- 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: 13 courses, 22 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 (6):

Andressa Viol, 2022-present: Dissertation topic TBD

Natasha Stepanova, 2020-present: Morphological and ecological diversification of limb-reduced squamates (co-advised with Dan Rabosky)

Hayley Crowell, 2019-present: Ecological tradeoffs in the evolution of snake coloration

John David Curlis, 2018-present: 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

Undergraduate Thesis/Postgraduate Research Students (10):

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

MENTORING

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 20 Undergraduate Research Opportunity Program (UROP) students, 2016-2023

SERVICE

EXTERNAL

2023-present: Program Director, Society of Systematic Biologists (Executive Council)
2021-present: Associate Editor, [Journal of Animal Ecology](#)
2021-2022: [Special Feature Guest Editor](#), *Journal of Animal Ecology*
2021-present: Member, [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

INTERNAL: EEB DEPARTMENT/MUSEUM OF ZOOLOGY (UMMZ)

2023-present: 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)

SERVICE

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.

INTERNAL: UNIVERSITY

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 *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*, *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).