

PROMOTION RECOMMENDATION  
The University of Michigan  
College of Literature, Science, and the Arts

Alison R. Davis Rabosky, assistant professor of ecology and evolutionary biology, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D. 2009 University of California, Santa Cruz

B.A. 2002 Pomona College, Claremont

Professional Record:

2016-present Assistant Professor, Ecology and Evolutionary Biology, University of Michigan

2016-present Assistant Curator, Museum of Zoology, University of Michigan

2012-2016 Research Scientist, Museum of Zoology, University of Michigan

2009-2011 Post-doctoral Research Associate, University of California, Berkeley

Summary of Evaluation:

Teaching: Professor Davis Rabosky teaches a course including both lecture and lab sections that gives students a deep understanding of herpetology, Biology of Reptiles and Amphibians. She wholly redesigned the lectures and labs of this course during the pandemic to maintain a sense of community and to promote inclusion and engagement while teaching the class remotely. These efforts were recognized with the 2021 Meritorious Teaching Award in Herpetology. She also teaches a core course for most biology majors, Evolution, for which student and peer evaluations are outstanding. Professor Davis Rabosky has advised two post-doctoral fellows, six doctoral students, seven master's students, and twenty-seven undergraduate trainees, ten of whom wrote honors theses. Many received prestigious fellowships, including seven NSF Graduate Research Fellowships and one Ford Foundation Fellowship.

Research: Professor Davis Rabosky has developed a highly integrative research program on the evolution of mimicry in New World snakes, centered on coral snakes and their Batesian mimics. This work has significantly expanded our understanding of mimicry in natural populations as a complex, multifaceted evolutionary process. She has published more than twenty papers as an assistant professor, including co-authored works with eleven graduate students and eleven undergraduate students. Professor Davis Rabosky's research accomplishments and future plans have been recognized with an NSF Career Award, which is among the most prestigious awards given to evolutionary biologists at her career stage. She has also been invited to present her work at leading institutions and conferences in her field.

Recent and Significant Publications:

Davis Rabosky, A. R., Moore, T. Y., Sánchez-Paredes, C. M., Westeen, E. P., Larson, J. G., Sealey, B. A., & Balinski, B. A. (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.

- Westeen, E. P., Durso, A. M., Grundler, M. C., Rabosky, D. L., & Davis Rabosky, A. R. (2020). What makes a fang? Phylogenetic and ecological controls on tooth evolution in rear-fanged snakes. *BMC Evolutionary Biology*, 20(80), 1-15.
- Holmes, I. A., Grundler, M.R., & Davis Rabosky, A. R. (2017). Predator perspective drives geographic variation in frequency-dependent polymorphism. *The American Naturalist*, 190(4), E78-E93.
- Davis Rabosky A. R., Cox, C. L., Rabosky, D. L., Title, P. O., Holmes, I.A., Feldman, A., & McGuire, J. A. (2016). Coral snakes predict the evolution of mimicry across New World snakes. *Nature Communications*, 7(11484), 1-9.

Service: Professor Davis Rabosky has contributed significant service to her department, the University of Michigan Museum of Zoology (UMMZ), and the larger scientific community. Professor Davis Rabosky is serving on the departmental Executive Committee and Graduate Affairs Committee, the UMMZ/Herbarium Museums Education Committee, and has served on several search committees including a broad EEB faculty search committee that evaluated 480 applications, as well as the UMMZ Collection Manager search committee for both the Insect and Fish divisions. Professor Davis Rabosky has a strong commitment to improving public outreach of research museum collections. Contributing well beyond her curatorial responsibilities, she created a UM Museum of Natural History project and served as a UMMNH Science Communication Fellow and as a member of the UMMNH faculty advisory committee. She also served as a member and chair of the UMMZ/Herbarium Education Committee. In the broader academic community, she has served as an associate editor of the *Journal of Animal Ecology* and as a reviewer for leading broadly read (*PNAS*, *Biology Letters*) and field specific (e.g. *Evolution*, *American Naturalist*, *Nature Ecology & Evolution*) journals.

External Reviewers:

Reviewer (A): “Davis-Rabosky [sic] has established a strong record of taxonomically focused research that includes work that has broad conceptual impact in the field of general evolution, as well as work one might classify as more curatorial—developing and describing methodologies and protocols to increase value of collections and specimens....she has made some foundational contributions to a problem that dates back to Wallace in the late 1800s and even more impressively has staked out novel questions and directions in a fairly well-explored niche.”

Reviewer (B): “[Professor Davis Rabosky’s] tenure package makes clear she also is an exemplary teacher, mentor, curator, colleague, and public intellectual—the overall breadth and impact of her accomplishments are not only admirable but highly unusual...I was especially taken by her personal descriptions of just how and why she does things in particular ways. Overall, I’m not sure I’ve ever read a more impressive case for promotion to associate professor.”

Reviewer (C): “The research record is remarkably strong. Dr. Davis Rabosky has leaned in on the most ‘non-model’ of systems and used this to address exciting, open questions in evolution and genetics. Her specific research questions are related to diversification, convergence, behavior, mimicry, morphology and sensory biology. Her approach is highly integrative and leverages the tools of genomics, phylogenetics, morphological analysis, and behavioral ecology. This is an exciting and modern research program.”

Reviewer (D): “The high quality of Dr. Rabosky’s research is also evidenced by her strong record of publication in a wide array of prestigious and broad-thinking journals. It is unusual to find an early-career scientist in our field publishing in so many different, high-quality journals.”

Reviewer (E): “Dr. Alison Davis Rabosky is without question one of the top young evolutionary ecologists and herpetologists in the world. She excels in all aspects of the position—research, teaching, and service.”

Reviewer (F): “Dr. Davis Rabosky’s research is an interesting blend of animal behavior, descriptive morphology, and comparative biology, often focused on snakes, and often undertaken in a natural history museum context...What’s unique is the combination—these are disparate fields of study, and very few people combine them as effectively as she does. And that includes past and current leaders in these disciplines.”

Summary of Recommendation:

Professor Davis Rabosky is a world-class integrative biologist, combining theory and approaches from evolution, ecology, behavior, and biodiversity science to advance our understanding of mimicry and how traits evolve. She is a passionate and innovative teacher in the classroom, and a skilled and supportive mentor to trainees in her research lab. Her vision for next-generation natural history collections has elevated the international status of the Herpetology division she curates. Professor Davis Rabosky has provided exemplary service to the EEB museums, department, university, and extramural professional societies. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Alison R. Davis Rabosky be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.



Anne Curzan, Dean  
Geneva Smitherman Collegiate Professor of  
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and Education  
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College of Literature, Science, and the Arts

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