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

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

### Academic Degrees:

Ph.D.	2009	Cornell University, Ecology and Evolutionary Biology
M.S.	2003	Pennsylvania State University, Biology
B.S.	1999	Ohio University, Biological Sciences

## Professional Record:

2020	Visiting Scholar, Smithsonian Tropical Research Institute, Panama
2018-present	Associate Professor, Department of Ecology and Evolutionary Biology,
	University of Michigan
2018-present	Associate Curator of Herpetology, Museum of Zoology, University of
	Michigan
2012-2018	Assistant Professor, Department of Ecology and Evolutionary Biology,
	University of Michigan
2012-2018	Assistant Curator of Herpetology, Museum of Zoology, University of
	Michigan
2009–2012	Miller Research Fellow, University of California, Berkeley

# Summary of Evaluation:

<u>Teaching</u>: Professor Rabosky's teaching contributions include a graduate-level course in evolution required for EEB Ph.D. students as well as an undergraduate lab course in vertebrate evolution and diversity and a departmental capstone course required by all undergraduate EEB majors. He has made significant changes to update the vertebrate diversity lab course and developed a much-requested upper-level computer programming course (Scientific Programming for Ecology and Evolution). Professor Rabosky has mentored more than twenty-five undergraduate students, most from UM's Undergraduate Research Opportunity Program (UROP); several of these students published first-author papers based on their research in the Rabosky lab. Since his promotion to associate professor, Professor Rabosky has mentored four doctoral students to the completion of their Ph.D.s and is currently mentoring one Ph.D. student in the EEB graduate program. He has also mentored three post-doctoral fellows, two of whom have already moved on to independent positions.

<u>Research</u>: Professor Rabosky runs a multi-faceted research program that includes development of mathematical and computational tools to facilitate studies of macroevolutionary processes in the context of phylogenetic trees, examines patterns of biodiversity across the globe, and investigates how macroevolutionary processes generate these patterns. He also conducts field and lab studies focused on trait evolution in lizards and reptiles that also enrich the herpetology collections at the University of Michigan Museum of Zoology (UMMZ), where he is a faculty curator. Professor Rabosky has a stellar publication record with more than 100 publications, many in prominent journals. These publications are exceptionally well-cited: he was one of twenty-seven UM faculty identified by Web of Science as a Highly Cited Researcher in 2021. At the university level, Professor Rabosky has been recognized with an inaugural MBioFAR Faculty Achievement Recognition award from the Presidential Biosciences Initiative and a Henry Russel Award. Since becoming an associate professor, his work has been supported by two grants from the National Science Foundation and a prestigious Packard award.

## Recent and Significant Publications:

- Grundler, M. G. & Rabosky, D. L. 2021. Rapid increase in snake dietary diversity and complexity following the end-Cretaceous mass extinction. *PLoS Biology*, 19(10), e3001414.
- Benson, R. B. J., Butler, R., Close, R. A., Saupe, E., & Rabosky, D. L. 2021. Biodiversity across space and time in the fossil record. *Current Biology*, *31*(19), R1225-R1236.
- Rabosky, D. L. & Benson, R. B. J. 2021. Ecological and biogeographic drivers of biodiversity cannot be resolved using clade age-richness data. *Nature Communications*, *12*(1), 1-10.
- Grundler, M. G. & Rabosky, D. L. 2020. Complex ecological phenotypes on phylogenetic trees: a hidden Markov model for comparative analysis of multivariate count data. *Systematic Biology*, 69(6), 1200-1211.

<u>Service</u>: Professor Rabosky has contributed significant service to EEB, the UMMZ, and his discipline. This work includes effective advocacy for academics with various disabilities to the department, Program in Biology, LSA, and professional societies, including through service on the Executive Council of American Society of Naturalists. Professor Rabosky's advocacy work took on a new sense of urgency during the COVID-19 pandemic, when the need to change meeting formats and wear masks affected accessibility for many people. Professor Rabosky also chaired EEB's most recent Early Career Scientists Symposium, which focused on research museums and collections-based research; he has served on the EEB undergraduate affairs committee, where he has also been an advocate for inclusivity; and he has contributed to committees advancing diversity, equity, and inclusion (NextProf: Diversifying Science and the EEB Diversity Committee). He also has a track record of organizing practical workshops for scientists in his field of research.

### External Reviewers:

Reviewer (A): "[Professor Rabosky] is in the world's top-ten of innovators in the broad field of 'comparative evolutionary biology,' which is remarkable for someone [at his career stage]—the others, such as Jonathan Losos, Joe Felsenstein, Mark Pagel...are all much [more senior]."

Reviewer (B): "Rabosky is a world leader in the analysis of the evolution of biological diversity, as studied via phylogenetic analyses. He is among the very few who both develop the analytical methods for inference from phylogenies...and are expert in the biological and historical inferences that can be drawn from them..."

Reviewer (C): "[Professor Rabosky] is one of those rare individuals who is both at the forefront of the field in developing methods and conceptual frameworks for asking important questions, while also doing first-rate empirical work in evolutionary ecology and systematics."

Reviewer (D): "My sense is that he is a stimulating colleague who makes a valuable addition to the fields of ecology and evolutionary biology, and to your department."

Reviewer (E): "Rabosky's creativity has on occasion placed him so far ahead of the field, that some of his papers have not been as widely appreciated as I feel they should, adding to the many that have been."

Reviewer (F): "Dr. Rabosky is a well-known researcher and prolific author with a high international standing in the field of evolutionary biology. He is a versatile researcher who has contributed to empirical and conceptual developments in evolutionary biology, phylogenetic systematics, biogeography, and herpetology."

### Summary of Recommendation:

Professor Rabosky is a world leader in macroevolution working to understand how the distribution of life on earth came to be through processes such as speciation, extinction, and trait divergence, and an expert in the natural history of reptiles. He teaches key undergraduate and graduate courses in the EEB curriculum, and mentors graduate, undergraduate, and post-doctoral researchers in his laboratory. Professor Rabosky has provided outstanding 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 Associate professor Daniel Rabosky be promoted to the rank of professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

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Anne Curzan, Dean Geneva Smitherman Collegiate Professor of English Language and Literature, Linguistics, and Education Arthur F. Thurnau Professor College of Literature, Science, and the Arts

May 2022