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

Daniel 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	Cornell University
M.S.	2003	Pennsylvania State University
B.S.	1999	Ohio University

Professional Record:

2012 - present	Assistant Professor, Department of Ecology and Evolutionary Biology,
	University of Michigan
2012 - present	Assistant Curator of Herpetology, Museum of Zoology, University of
-	Michigan
2009 - 2012	Miller Post-doctoral Fellow, University of California, Berkeley

### Summary of Evaluation:

<u>Teaching</u> – Professor Rabosky is an outstanding educator in the classroom, field, and lab. He has taught three courses: Vertebrate Evolution and Diversity (BIO 252), Scientific Programming for Ecology and Evolution (EEB 401), and Principles of Evolution (EEB 391/516). His courses have a substantial active-learning component; for example, he took students in his BIO 252 class on a field trip to the Toledo Zoo, where they engaged in a "phylogenetic scavenger hunt." He currently mentors or co-mentors five Ph.D. students, and he recently mentored an M.S. student who graduated in 2015. He has supervised seven post-doctoral fellows in his lab. Professor Rabosky has also excelled in the role of research mentor to undergraduate students and has supervised eighteen undergraduate research students during his five years at Michigan. This is a high rate for his rank and is evidence of his commitment to offering research experiences for undergraduate students. In the last three years, Professor Rabosky also taught fourteen workshops on computational macroevolution and/or phylogenetic analysis of diversification in four countries (U.S., U.K., Switzerland, and Australia).

<u>Research</u> – Professor Rabosky has excelled in research accomplishments during his years as an assistant professor at Michigan. His work is distinctive and impressive. He integrates morphological, molecular, and ecological data in service of testing hypotheses about macro-evolutionary patterns and processes, which are critical to understanding the major features of diversity among clades (groups of organisms believed to have evolved from a common ancestor) and geographic regions. His academic peers clearly value all aspects of this work. His citation record is already on par with some researchers at the rank of professor in the natural sciences. Professor Rabosky has developed new quantitative methods for analyzing phylogenetic data, providing tools for his own studies and for other practitioners. His papers (and presentations) have a masterful command of evolution, biogeography, and quantitative analysis that most scholars achieve at a later stage in their career. Three scientific societies have recognized

Professor Rabosky's work with prestigious awards—the Young Investigator Prize from the American Society of Naturalists (2010), the Theodosius Dobzhansky Award from the Society for the Study of Evolution (2012), and the MacArthur and Wilson Award from the International Biogeography Society (2014). He is also the recipient of a Packard Fellowship for Science and Engineering and at Michigan a Henry Russel Award. The trajectory of his work gives every indication that his research will continue to be substantive, innovative, and widely valued.

#### Recent and Significant Publications:

- "Genetic diversity is largely unpredictable but scales with museum occurrences in a species-rich clade of Australian lizards," with S. Singhal, et al., *Proceedings of the Royal Society Series B*, 284, 2017, p. 20162588.
- "Species richness at continental scales is dominated by ecological limits," with A. H. Hurlbert, *American Naturalist*, 185, 2015, pp. 572-583.
- "Sex-linked genomic variation and its relationship to avian plumage dichromatism and sexual selection," with H. Huang, *BMC Evolutionary Biology*, 15, 2015, p. 199.
- "Macroevolutionary speciation rates are decoupled from the evolution of intrinsic reproductive isolation in *Drosophila* and birds," with D. R. Matute, *Proceedings of the National Academy of Sciences of the U.S.A*, 110, 2013, pp. 15354-15359.

<u>Service</u> – Professor Rabosky's service to the department and the external community has been exemplary. At the departmental level, he has served on the Prelim Committee (2012-2013), the Executive Committee (2013-2015), the Graduate Affairs Committee (2015-2017), and he is currently serving on the Diversity Committee. Within the university, he has served as a faculty content reviewer for redesign of the new Museum of Natural History (UMMNH) (2015-2016) and he is currently serving on their Science Advisory Committee (2016-present). He also is a member of the university's Council for Disability Concerns (2015-present). Service to his profession includes associate editorships for three journals: *Systematic Biology* (2010-special issue), *Proceedings of the Royal Society B* (2011-2014), and *Evolution* (2015-2018). Most impressively, he has served as a peer reviewer for manuscripts and/or books for 36 distinct journals and three presses. He also has provided reviews for granting institutions including Cornell University, the European Research Council, Leverhulme Trust, Neotropical Grasslands Conservancy, and the National Science Foundation. The latter includes both ad hoc and panel service.

#### External Reviews:

#### Reviewer (A)

"In terms of comparative measures, I would say Dan is in the world's top-ten of innovators in the broad field of 'methods in comparative evolutionary biology,' which is remarkable for someone in his cohort – the others...are all much older."

#### Reviewer (B)

"The start and conclusion of my evaluation is that in hiring Dr. Rabosky, you have hired a star. ...from his Miller postdoc at Berkeley, he had made a mark and was being recognized for his important contributions to the formulation of methods and algorithms for phylogenetic inference and, more importantly, testing evolutionary hypotheses using phylogenetic data."

## Reviewer (C)

"Dan is one of the leading evolutionary ecologists in the world. His publication record is out of this world. ... Dan is one of those rare individuals who is both at the front 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)

"...the point is that Dan is both fearless and rigorous in tackling the big questions in macroevolution and his work is having substantial global impact. ... In my opinion Dan ticks all the boxes and is among the top 3 in the world in his field"

# Reviewer (E)

"I characterize Dr. Rabosky's field of expertise as the placement of macro-ecology in a historical context. He would perhaps be the first person that comes to mind in this area despite it being a topic that has attracted some of the finest minds, and this includes senior professors."

# Reviewer (F)

"Dan's very special talents focus on understanding factors that influence diversification rates in evolutionary clades. In my estimation, he has done more to advance this area of investigation than any other researcher in recent times. His contributions are on a level with other, more senior investigators..."

## Reviewer (G)

"...Dan Rabosky is a gem and you are fortunate to have him as a colleague. I give him my unreserved endorsement for promotion to a tenured position in your university."

### Summary of Recommendation:

Professor Rabosky is a world-renowned scholar who has made significant contributions to the study of evolutionary ecology. His teaching and service contributions have been excellent. The Executive Committee and the College of Literature, Science, and the Arts and I recommend that Assistant Professor Daniel Rabosky be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

Andrew D. Martin, Dean Professor of Political Science and Statistics College of Literature, Science, and the Arts

May 2018