

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

Catherine E. Badgley, assistant professor of ecology and evolutionary biology, and assistant professor in the Residential College, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of ecology and evolutionary biology, with tenure, and associate professor in the Residential College, without tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	1982	Yale University
M.F.S.	1974	Yale University
B.S.	1972	Harvard University

Professional Record:

2007 – present	Assistant Professor, Department of Ecology and Evolutionary Biology and the Residential College, University of Michigan
2004 – present	Research Scientist, Museum of Paleontology and Department of Earth and Environmental Sciences, University of Michigan
1992 – 2004	Associate Research Scientist, Museum of Paleontology and Department of Geological Sciences, University of Michigan
1987 – 2007	Lecturer, Residential College, University of Michigan
1985 – 1992	Assistant Research Scientist, Museum of Paleontology, University of Michigan
1982 – 1987	Visiting Assistant Professor, Department of Geological Sciences, University of Michigan
1982 – 1985	Post-doctoral Fellow, Michigan Society of Fellows, University of Michigan

Summary of Evaluation:

Teaching – Professor Badgley is a very effective teacher and has focused her style around interdisciplinarity, experiential learning, writing, and student responsibility in terms of designing and carrying out projects as well as learning from others. She is also an excellent research mentor; since 2010 she has mentored two Ph.D. and four M.S. students as well as four undergraduate students in her lab. Two of the M.S. students were in the “Frontiers Masters” program designed to prepare underrepresented, underprepared students to move into academia. Finally, she is a member of the doctoral committees of eleven other students, an impressive number due in part because her breadth of knowledge causes students outside of her department to request her as a committee member.

Research – Professor Badgley has established and maintained an internationally recognized research program that focuses on how the Earth’s history of climate and environmental change has shaped the evolution of mammals. She has been instrumental in establishing a new sub-field in paleobiology which has investigated how geologic and climatic shifts over time have influenced the diversity and community structure of mammals. Professor Badgley publishes her

findings in high-profile, high-impact scientific journals that attract world-wide attention from the scientific community and public media. Her grant productivity is strong and consistent, and includes two NSF research grants awarded during her tenure-track appointment and an NSF REU site grant (as co-PI), among others.

Recent and Significant Publications:

“Tectonics, topography, and mammalian diversity,” *Ecography*, 33, 2010, pp. 220-231.

“Ecological changes in Miocene mammalian record show impact of prolonged climatic forcing,” with J. C. Barry, et al., *Proceedings of the U.S. National Academy of Sciences*, 105(34), 2008, pp. 12145-12149 (selected for *Faculty of 1000 Biology*, October 2008).

“Numerical methods for bonebed analysis,” with R. W. Blob in Bonebeds: Genesis, Analysis, and Paleobiological Significance, R. Rogers, et al. (eds.), University of Chicago Press, 2007, pp. 333-396.

“Organic agriculture and the global food supply,” with J. Moghtader, et al., *Renewable Agriculture and Food Systems*, 22(2), 2007, pp. 86-108.

Service – Professor Badgley has served on important committees in Ecology and Evolutionary Biology, the Biological Station, and the Residential College. She is co-director of EDQUE<sup>2</sup>ST, a National Science Foundation (NSF)-funded research experience for undergraduates that focuses on increasing diversity in the area of ecology and evolution. Professor Badgley’s international reputation is evident in the leadership roles that she has assumed, including president for the Society of Vertebrate Paleontology. She is a member of the editorial board of the *Journal of Sustainable Agriculture* and is involved in outreach to the broader community in the area of sustainable agriculture and world food issues.

External Reviewers:

Reviewer (A)

“Prof. Badgley’s more recent work has been on the cutting edge of understanding the impacts of long-term physiographic changes on evolutionary processes ... The recent papers she has published in this area have been well received and I regard them as highly significant contributions. She is also making important contributions in the arena of using the fossil record to clarify the potential role of ongoing environmental changes—particularly climate change—in managing biodiversity as we go into the future.”

Reviewer (B)

“...Catherine has earned recognition as one of the ‘major players’ whose research has led the way in both development of new techniques and provided significant results. ...[her] record of accomplishments in research, teaching, and service certainly would warrant her promotion at this university.”

Reviewer (C)

“Catherine Badgley’s research is always of the highest caliber. ...she is internationally renowned for her pioneering work ... [she] is a leader in the fields of vertebrate taphonomy and mammalian paleoecology. She has made, and should continue to make, fundamentally important and lasting research contributions in these, and related, fields.”

Reviewer (D)

“...Catherine Badgley is a leading scholar in the field, her work is of the highest caliber, and it has been steadily influential over the course of three decades. The standards for tenure are clearly met.”

Reviewer (E)

“Dr. Badgley’s publication record confirms that her roles [sic] in these groups and networks has been an important one, but it also reveals a capacity to take the lead on theoretically significant contributions, especially in macroevolution and macroecology.”

Reviewer (F)

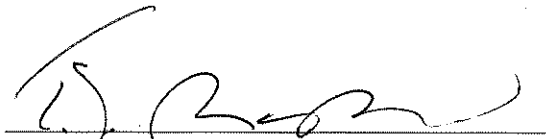
“Along with her collaborators, Dr. Badgley established one of the finest examples of a ‘long-term study’ in the world by the research in the Siwaliks of Pakistan. This extraordinary record of ecological and evolutionary response of mammals to tectonic and climate change spans five million years and is unparalleled in all of Asia for its detail.”

Reviewer (G)

“Dr. Badgley was one of the founding members of the cohort of people...who, in the late 1970s, basically created a new area of vertebrate paleoecology --- that of mammalian faunal change in the context of climatic and environmental change. ... More recently Dr. Badgley has made substantial contributions, through publications, teaching and public outreach, to issues concerning agriculture and the global food supply.”

Summary of Recommendation:

Professor Badgley is regarded as one of the top researchers in the paleobiology of mammals. She is an excellent teacher and mentor of undergraduate and graduate students, and an exemplary citizen of the department and her professional community. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Catherine E. Badgley be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, and associate professor in the Residential College, without tenure, College of Literature, Science, and the Arts.



Terrence J. McDonald  
Arthur F. Thurnau Professor,  
Professor of History and Dean  
College of Literature, Science, and the Arts

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