

CATHERINE E. BADGLEY  
Curriculum Vitae

PERSONAL INFORMATION

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Address Department of Ecology and Evolutionary Biology, University of Michigan,  
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Lab website <http://sites.lsa.umich.edu/badgley-lab/>  
Orcid ID [orcid.org/0000-0002-2851-1908](http://orcid.org/0000-0002-2851-1908)

EDUCATION

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1982 Ph.D., Biology Department, Yale University  
1974 Master of Forest Science, Yale School of Forestry and Environmental Studies  
1972 B.A., magna cum laude, Geology Department, Radcliffe College  
(Harvard University)

EMPLOYMENT

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2017-present Associate Professor (dry appointment), Department of Earth and  
Environmental Sciences  
2013-present Associate Professor, Department of Ecology and Evolutionary Biology, and  
Residential College, University of Michigan  
2007-2013 Assistant Professor, Department of Ecology and Evolutionary Biology, and  
Residential College, University of Michigan  
2004-present Research Scientist, Museum of Paleontology, 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  
1985-87 Visiting Assistant Professor, Department of Geological Sciences, University of  
Michigan  
1982-1985 Postdoctoral fellow, Michigan Society of Fellows and Visiting Assistant  
Professor, Department of Geological Sciences, University of Michigan

RESEARCH INTERESTS

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Biogeography, vertebrate paleontology, paleoecology, taphonomy, sustainable agriculture

MEMBERSHIP IN PROFESSIONAL SOCIETIES

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American Quaternary Association  
Ecological Society of America  
International Biogeography Society  
The Paleontological Society  
Society of Vertebrate Paleontology

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HONORS AND AWARDS

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- 2014 Joseph T. Gregory Award for service to the Society of Vertebrate Paleontology
- 2012 Fellow of the Paleontological Society

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FUNDING FOR RESEARCH AND TRAINING: EXTERNAL GRANTS

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- 2017-2022 National Science Foundation, RCN: Mammal diversification in relation to dynamic landscapes, \$495,276. PI C. Badgley and lead institution UM, co-PIs, Edward Davis, Brett Riddle
- 2012-2013 National Evolutionary Synthesis Center (NESCent). Diversification of North American rodents: Integrating phylogeography with the fossil record (catalysis meeting; PI C. Badgley, co-PI Brett Riddle)
- 2010-2013 National Science Foundation, REU Site: EDQUE2ST, Enhancing diversity, quality, and understanding of the ecological/evolutionary sciences for tomorrow, \$227,000. (co-PI with John Vandermeer (PI), Josephine Kurdziel)
- 2010-2014 National Science Foundation, Collaborative Research: Climatic and biotic transformations of Neogene mammalian faunas of Pakistan (PI C. Badgley and lead institution UM, co-PI A.K. Behrensmeyer), \$200,000. (with collaborators John Barry, David Pilbeam, Thure Cerling)
- 2002-08 National Science Foundation, Ecological diversity of Miocene Mammals of Pakistan (PI C. Badgley, co-PIs John Barry, A. K. Behrensmeyer, Thure Cerling), \$390,000; supplement, \$24,510
- 1994-96 National Science Foundation, Ecological structure of mammalian faunas in relation to climate, \$50,000; REU Supplement, \$4832
- 1990-92 National Science Foundation, Mammalian community organization and paleoenvironmental inference, \$74,135
- 1983-86 National Science Foundation, Dynamics of faunal turnover: Taphonomy and paleoecology in the early Cenozoic history of mammals, \$65,300

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FUNDING FOR RESEARCH, TRAINING, AND TEACHING: INTERNAL GRANTS AND AWARDS

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- 2014-2017 Associate Professor Support Fund
- 2014-2017 Evolving Earth Foundation (for graduate student, K.M. Loughney)
- 2014-2015 Third Century Initiative (TLTC) Grant, with Ivette Perfecto  
Center for Global and Intercultural Study, Global Course Connections Grant, with Ivette Perfecto
- 2013-2014 Literature, Science, and the Arts, Instructional Technology Faculty Grant
- 2011 Office of the Vice President for Research and College of Literature, Science and Arts Faculty Grants and Awards
- 2011 Rackham Graduate School, Spring/summer research partnership
- 2011 Research grant, ADVANCE Program
- 2010 Research grant, ADVANCE Program
- 2010 Office of International Programs, Integrating Study Abroad into the Curriculum, with Ivette Perfecto
- 2009 Public Goods Council, with Kate Mendeloff and Amy Harris
- 2008 Office of International Programs, Integrating Study Abroad into the

	Curriculum, with Ivette Perfecto
2006	Public Goods Council, with Kate Mendeloff and Amy Harris
2004	Office of International Programs, Integrating Study Abroad into the Curriculum, with Ivette Perfecto
2003	Office of the Provost, Global Intercultural Experience for Undergraduates, with Ivette Perfecto
1999	Undergraduate Research Opportunity Grant
1999	Center for Learning and Teaching, Interdisciplinary Faculty Associates Grant
1999	Center for Learning through Community Service, Kellogg Civic Engagement Grant
1998	Office of Vice President for Research, Lecturer Professional Development
1995	Office of Vice President for Research, Travel to Pakistan
1995	Research funds, University of Michigan Global Change Program
1993	Research funds, University of Michigan Global Change Program
1991	Research funds, University of Michigan Global Change Program

#### NATIONAL AND INTERNATIONAL SERVICE

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2017	Organizer for Research Coordination Network: Mammal diversification in relation to dynamic landscapes (research network of 18 geologists, paleontologists, and phylogeographers)
2016-2017	Senior Editor, Paleobiology
2015-present	Associate Editor, Paleobiology Scientific Advisory Committee, Museo Nacional de Ciencias Naturales, Madrid, Spain Board member, Wild Farm Alliance
2014-present	Paleontological Society Medal Award Committee and Committee on Fellows, The Paleontological Society The Organic Center, Science Advisory Board
2013-present	Editorial Board, Organic Farming (new journal) Member, Less=More coalition (farmers and environmentalists in Michigan)
2012-present	Nominating Committee and Financial Oversight Committee, Society of Vertebrate Paleontology
2012-2014	Wallace Prize Committee, International Biogeography Society
2011-present	Board of Editors, Journal of Sustainable Agriculture Financial Oversight Committee, Society of Vertebrate Paleontology
2010-present	Development Committee, Society of Vertebrate Paleontology
2010-2012	Deep-Earth Time Life Observatory Network (DETELON), Executive Committee
2009-2011	Paleontological Society Medal Award Committee, Paleontological Society
2008-2009	Organizing Committee, 9 <sup>th</sup> North American Paleontological Convention
2008-2010	Executive Committee (as Past President), Society of Vertebrate Paleontology
2006-2008	President, Society of Vertebrate Paleontology
2004-2006	Vice-President, Society of Vertebrate Paleontology
2005	National Science Foundation, Review panel, Tree of life Program
2002	Co-organizer with Cynthia Beall, Biodiversity Survival in Modern Habitats, Symposium, American Association for the Advancement of Science annual meeting, Boston

2001-2005	Advisory Board, Wild Farm Alliance
2000	Co-organizer with Ivette Perfecto, Seeds in the Winds of Change: A Forum on Genetically Engineered Foods, Ann Arbor, Michigan
1998-2002	U.S. National Committee, International Union of Biological Sciences
1998-2002	Scientific Advisory Board, The Land Institute, Salina, Kansas
1996-2001	Secretary, Society of Vertebrate Paleontology
1995	Co-editor with A. K. Behrensmeyer, Long Records of Continental Ecosystems: Paleogene of Wyoming-Montana and Neogene of Pakistan-special issue of Paleogeography, Paleoclimatology, Paleoecology
1994-96	Co-chair, Membership Committee, Society of Vertebrate Paleontology
1992	Co-organizer with A. K. Behrensmeyer, Long Records of Land Biotas: A Comparison of Wyoming-Montana Paleogene and Siwalik Neogene Sequences, Symposium, 5th North American Paleontological Convention
1986-1989	Associate Editor, Journal of Human Evolution
1984-1986	Co-editor with Robert O. Whyte, East Asian Tertiary/Quaternary Newsletter, Centre of Asian Studies, University of Hong Kong
1984	Co-organizer with Philip Gingerich, Short Course on Mammals, Paleontological Society, Geological Society of America Annual Meeting

#### ACADEMIC SERVICE AT THE UNIVERSITY OF MICHIGAN

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2015-2018	Associate Chair for the Undergraduate Program, Department of Ecology and Evolutionary Biology
2013-present	Advisory Board, Sustainable Food Systems Initiative
2012-2014	Chair, Diversity Committee, Department of Ecology and Evolutionary Biology
2012-present	Advisory Committee, Matthaei Botanical Gardens and Nichols Arboretum
2010-2014	Faculty advisor, academic minor in Science, Technology, and Society (home unit, Residential College); also from 2003-2008
2013-2014	Faculty search committees, Department of Ecology and Evolutionary Biology
2010-2013	Co-director, EDQUE2ST, Enhancing Diversity, Quality, and Understanding of the Ecological and Evolutionary Sciences for Tomorrow (NSF-funded Research Experience for Undergraduates), with John Vandermeer and Josephine Kurdziel
2010-2012	Executive Committee, Department of Ecology and Evolutionary Biology
2008-2010	Graduate Affairs Committee, Department of Ecology and Evolutionary Biology
2003-2010	Program Head, Residential College Science, Technology, and Society
2006	Moderator, Summit on Scientific Integrity, UM Biological Station
2005-2006	Steering Committee, Evolution Theme Semester
2003-2006	Executive Committee, Residential College
2003-2004	Presidential Environmental Steering Committee
2001-2004	Advisory Committee, Matthaei Botanical Gardens and Nichols Arboretum
2001-2004	Advisory Committee, Program in the Environment
2000-2001	Environmental Science/Studies (design of concentration) Committee
1998-2002	Director, LS&A Environmental Studies Program
1998-2001	Chair, Steering Committee for Environmental Issues and Research on Campus, Office of the Vice President for Research
1996-98	Steering Committee, Environmental Theme Semester
1994-96	Director, Natural History Writer's Project at UM Biological Station

## FIELD RESEARCH EXPERIENCE

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2012-present	Miocene of Mojave Desert region (Barstow and Cajon Valley), California
2010-present	Amboseli Bone Survey Research Project and related isotope ecology, Kenya
1997	Tibetan uplift, Lanzhou University-University of Michigan, Gansu and Qinghai provinces, China
1990	Paleoecology and stratigraphy, Nihewan Basin, Hebei Province, China
1987-1990	Paleoecology and geochronology, Snake River Plain (Neogene), Idaho
1982-1985	Paleoecology and faunal change, University of Michigan Museum of Paleontology Clarks Fork Basin Research (Paleogene), Wyoming
1981-1983	Invited scientist, Lufeng Research Project (Miocene), Yunnan Province, Institute of Vertebrate Paleontology and Paleoanthropology, Beijing, China
1975-present	Paleoecology, taphonomy, faunal change, Harvard Peabody Museum-Geological Survey of Pakistan Siwalik Research, Pakistan
1974	Ecology and paleoecology, Koobi Fora Research Project, Kenya

## COURSES TAUGHT AT THE UNIVERSITY OF MICHIGAN (\*taught in the last three years)

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2007-present	In Department of Ecology & Evolutionary Biology Biogeography* Introduction to Global Change: the Science of Sustainability (with George Kling, James Gleason)* Topics in Biogeography (graduate seminar)* Geohistorical approaches to diversification (graduate seminar)*
1987-present	In Residential College Alternative Futures in the Michigan Food System* Apocalyptic Planet: The Science and Politics of Global Change* Food, Land, and Society (with Ivette Perfecto)* Introduction to Food Systems (with Ivette Perfecto)* World Resources and Global Change History of Life Field Ecology Culture and Environment Big Questions for a Small Planet/Introduction to Environmental Studies Sustainability and the Campus The Biodiversity of the United States (mini-course) The Global Banquet: Paradoxes in the World Food System Darwin in Performance (with Kate Mendeloff)
1990-1998	Seminars in Honors Program (DeRoy visiting scholars) Revitalizing Citizen Democracy, with Frances Moore Lappé Rethinking Agriculture in the Age of Ecology, with Wes Jackson and Donald Worster
1983-1992	In Department of Geological Sciences The Ecological Context of Human Evolution (mini-course) Paleoecology: Reconstruction of Environments and Communities Introduction to Geology

Faunal Analysis (Seminar)  
Mammals and Climate (Seminar)

INVITED LECTURES, PRESENTATIONS, and WORKING GROUPS

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- 2015 Invited talk, Academy of Nutrition and Dietetics Food & Nutrition Conference and Expo 2015, Nashville, TN; session title, Biodiversity: Achieving an abundance of wholesome foods from healthy ecosystems  
Invited talk, International Biogeography Society, annual meeting, Bayreuth, Germany; symposium title, Paleobiogeography: The importance of fossil data to species biogeography, past, present, and future
- 2014 Geobiology/Paleobiology seminar, Harvard University, Cambridge, Mass.  
Department of Ecology and Evolutionary Biology, Brown University, Providence, Rhode Island  
Keynote talk in symposium—Windows into deep time: Dynamics of faunal change in long continental successions, European Association of Vertebrate Paleontologists, 12<sup>th</sup> annual meeting, Turin, Italy.  
Keynote talk in symposium--The Cenozoic assembly of the grassland biome: pattern and process in ecosystem evolution, North American Paleontological Convention, University of Florida, Gainesville.
- 2012 Invited speaker, Great Basin mammal diversity over time (symposium), American Society of Mammalogists annual meeting, Reno, Nevada  
Department of Geology, University of Oregon, Eugene, Oregon  
Department of Urban Studies and Planning, Wayne State University, Detroit
- 2011 Geobiology Program, Dartmouth College, Hanover, New Hampshire  
Slepecky Lecture, Honors Program, Syracuse University, Syracuse, New York
- 2010 Department of Biology, University of New Mexico, Albuquerque, New Mexico  
Program in Interdisciplinary Biological and Biomedical Sciences, University of New Mexico, Albuquerque, New Mexico  
Invited presentation, International Paleontological Congress III, London, UK.  
Darwin Day Lecture, Ohio University, Athens, Ohio  
Future of Animal Agriculture (conference), Michigan State University, East Lansing, Michigan
- 2009 Department of Environmental Sciences, University of Toledo, Toledo, Ohio  
Metrics for Assessing Global Agriculture (conference), Earth Institute, Columbia University, New York
- 2008 Earth History and Paleobiology, Harvard University, Cambridge, Massachusetts  
Organic World Congress. International Federation of Organic Agriculture Movements, Modena, Italy.
- 2007 Museum of Paleontology, University of California, Berkeley  
Earth & Planetary Science Department, University of California, Santa Cruz
- 2006 Future Research Directions in Paleontology, Smithsonian Institution, Washington, D.C.
- 2005 Environmental Studies Program, Wesleyan University
- 2004 Environmental Science Program, Southern Methodist University  
Rural Development Conference, Havana, Cuba
- 2002 AAAS Annual Meeting, Biodiversity survival in modern habitats (symposium), Boston

- 2001 58th Annual Conference of Indiana Soil and Water Conservation Districts, Debate about Genetically Modified Food, Indianapolis, Indiana  
Human Biology Association, Symposium on "Human dimensions of biodiversity," Kansas City, Missouri  
National Center for Ecological Analysis and Synthesis, member of working group on mammalian community structure, Santa Barbara, California
- 2000 Conference on Farming with the Wild (agriculture and conservation), sponsored by Foundation for Deep Ecology, Marin County, California  
Walking the Talk: Sustainability as an Educational Challenge and a Campus-Wide Responsibility (Conference), Michigan State University
- 1999 National Center for Ecological Analysis and Synthesis, working group on mammalian community structure, Santa Barbara, California
- 1998 Environmental Semester Faculty Seminar, University of Michigan  
Penrose Conference (Geological Society of America), Linking spatial and temporal scales in paleoecology and ecology, Solomon's Island, Maryland  
The Land Institute, Dodge Fellows workshop, Matfield Green, Kansas  
National Center for Ecological Analysis and Synthesis, member of working group on mammalian community structure, Santa Barbara, California
- 1997 Mountain Research Center, Montana State University, Bozeman
- 1993 Department of Geophysical Sciences & Department of Anatomy, University of Chicago
- 1992 Illinois State Museum, Springfield, Illinois  
Department of Geology, University of Minnesota, Minneapolis  
Department of Geology, Southern Methodist University, Dallas
- 1991 Biology Department, Loyola University, Chicago
- 1989 Evolutionary Biology, Anthropology, and Earth and Planetary Sciences Seminar, Harvard University, Cambridge, Massachusetts
- 1988 Section of Ecology and Genetics, Brown University, Providence, Rhode Island
- 1987 Scholar-in-Residence Program, Millersville University, Millersville, Pennsylvania
- 1986 Scripps Institution of Oceanography, La Jolla, California
- 1985 New York Academy of Sciences, New York City
- 1984 Department of Anatomy, University of Chicago  
Geology Department, Grand Valley State College, Michigan  
Zoology Department, University of Wisconsin, Madison
- 1983 Conference on the Paleoenvironment of East Asia from the Mid-Tertiary, University of Hong Kong  
Department of Geological Sciences, University of Michigan  
Youth Symposium, AAAS Annual Meeting, Detroit, Michigan  
Geology Department, Boston University

#### OUTREACH (selected)

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- 2017 Elderwise course, Transforming the Food System, Ann Arbor, Michigan
- 2016 Science Café, Evolution and deep time, with Stephen Smith, hosted by University of Michigan Natural History Museum, Ann Arbor
- 2015 Food Sleuth radio interview, with Melinda Hemmelgarn,  
<http://kopn.org/drupal/archive?u=http://kopn.org/a/showrss4x.php?p=fs>  
Feeding the world with sustainable agriculture, Fast Food for Thought, University of Michigan, Ann Arbor

- Feeding a hungry planet, Fox Run Center, Novi, Michigan  
Mountains and biodiversity, University of Michigan Alumni Association, Machu Picchu to the Galapagos  
Eating our way to a sustainable food system, University Commons, Ann Arbor, Michigan
- 2014 Feeding a hungry planet, Elderwise class, Ann Arbor, Michigan.
- 2013 Feeding a hungry planet: crisis and opportunity, Mindful Eating Coalition, Unitarian Universalist Church, Ann Arbor, Michigan  
Food, health, sustainability, University of Michigan Retirees Association, Ann Arbor, Michigan
- 2012 The Future of Food: 2050, Oct. 24, 2012; panel member, forum on the future of food and agriculture organized by the Center for Science in the Public Interest, Washington, DC  
Organizing committee, Community reads program, Five Healthy Towns, Chelsea, Michigan  
How to feed the world, Adult Learners Institute, Chelsea, Michigan  
Organic agriculture, Science and skeptics club, Ann Arbor, Michigan  
Waste in the food system, Interview, WEMU (public radio), Ypsilanti, Michigan
- 2011 Food, health, and sustainability, Chelsea Area Garden Club, Chelsea, Michigan
- 2010 Organic agriculture, Interview, WEMU (public radio), Ypsilanti, Michigan  
Mass extinction, Science in 15 minutes, University of Michigan Library, Ann Arbor, Michigan  
Out of the Blue Film about my research on organic agriculture, <http://www.ootb.tv/episode.php?episode=212&part=1&video=Farm>
- 2009 Healthy food for all, Glacier Hills Retirement Center, Ann Arbor, Michigan  
The challenges of sustainable agriculture, Michigan Envirothon (program for high school students), Ann Arbor, Michigan  
Development, economics, and agriculture, Adult Learners Institute, Chelsea, Michigan  
Food Unincorporated, Local Table Program, Matthaei Botanical Garden, University of Michigan, Ann Arbor, Michigan
- 2008 Is a sustainable food system possible?, Pumpkin Festival, Wesleyan University, Middletown, Connecticut
- 2007-2011 Board member, The Agrarian Adventure (local non-profit sponsoring gardens in K-12 schools and associated educational programs), Ann Arbor, Michigan
- 2006 Three revolutions in food and agriculture, Ann Arbor Public Library, Ann Arbor, Michigan
- 2004 Biodiversity symposium, University of Michigan Exhibit Museum
- 2003 Living lightly (Sustainability workshop), Michigan Friends Center, Chelsea, Michigan  
Paradoxes in the global food system, Learning in Retirement Program, University of Michigan, Ann Arbor, Michigan
- 2002 The Land Institute, Prairie Festival, Salina, Kansas
- 2001 Northeast Organic Farming Association, Workshop on agriculture and biodiversity, Randolph, Vermont
- 2000 Living lightly (Sustainability Workshop), Michigan Friends Center,



1999 Chelsea, Michigan  
Michigan Summit on Hazards of Genetically Engineered Foods, Troy,  
Michigan

## PUBLICATIONS

## Articles and book chapters in peer-reviewed publications

- 2017 Badgley, C., T.M. Smiley, and R. Cable. Mountains, climate, and mammals (book chapter for Mountains, Climate, and Biodiversity, C. Hoorn and A. Antonelli, eds). Wiley, in press.
- Badgley, C., T.M. Smiley, E.B. Davis, L.R.G. DeSantis, D.L. Fox, S.B. Hopkins, T. Jezkova, M.D. Matocq, N. Matzke, J.L. McGuire, A. Mulch, B.R. Riddle, V.L. Roth, J.X. Samuels, C.A.E. Strömberg, R. Terry, B.J. Yanites. Biodiversity and topographic complexity: modern and geohistorical perspectives. *Trends in Ecology and Evolution* 32 (3): 211-226.
- 2016 Domingo, S.M., L. Domingo, J. Abuela, A. Valenciano, C. Badgley, J. Morales. Feeding ecology and habitat preferences of top predators from two Miocene carnivore guilds. *Paleobiology* 42 (3). doi: 10.1017/pab.2015.50.
- 2015 Badgley, C., Domingo, S.M., J.C. Barry, M.E. Morgan, L.J. Flynn, and D. Pilbeam. Continental gateways and the dynamics of mammalian faunas. *Comptes Rendus Palevol* 15: 763-779.  
<http://dx.doi.org/10.1016/j.crpv.2015.09.004>
- Smiley, T.M., J.M. Cotton, C. Badgley, and T.E. Cerling. Small-mammal isotope ecology tracks climate and vegetation gradients across western North America. *Oikos*, doi: 10.1111/oik.02722.
- Badgley, C., T.M. Smiley, and K. Loughney. Miocene mammal diversity of the Mojave region in the context of Great Basin mammal history. Pp. 34-43 in R.E. Reynolds (ed.), *Mojave Miocene, The 2015 Desert Symposium Field Guide and Proceedings*, California State University Desert Studies Consortium.
- Hyland, E.G., N.D. Sheldon, R. Van der Voo, C. Badgley, and A. Abrajevitch. A new paleoprecipitation proxy based on soil magnetic properties: Implications for expanding paleoclimate reconstruction. *Geological Society of America Bulletin*. doi: 10.1130/B31207.1.
- 2014 Badgley, C., T.M. Smiley and J.A. Finarelli. Great Basin mammal diversity in relation to landscape history. *Journal of Mammalogy* 96(6): 1090-1106.
- Domingo, S.M., C. Badgley, B. Azanza, D. DeMiguel, M.T. Alberdi. Diversification of mammals from the Miocene of Spain. *Paleobiology* 40(2), 196-220.
- 2013 Barry, J.C., A.K. Behrensmeyer, C. Badgley, L.J. Flynn, H. Peltonen, I.U.

Cheema, D. Pilbeam, E. Lindsay, S.M. Raza, A.R. Rajpar, M.E. Morgan. The Neogene Siwaliks of the Potwar Plateau and other regions of Pakistan. Pp. 373-399. In X. Wang, L.J. Flynn, M. Fortelius (eds.), Neogene Terrestrial Mammalian Biostratigraphy and Chronology of Asia. Columbia University Press.

Flynn, L.J., E.H. Lindsay, D. Pilbeam, S.M. Raza, M.E. Morgan, J.C. Barry, C. Badgley, A.K. Behrensmeyer, I.U. Cheema, A.R. Rajpar, and N.D. Opdyke. The Siwaliks and Neogene evolutionary biology in South Asia. Pp. 353-372. In X. Wang, L.J. Flynn, M. Fortelius (eds.), Neogene Terrestrial Mammalian Biostratigraphy and Chronology of Asia. Columbia University Press.

Badgley, C. and J.A. Finarelli. Diversity dynamics of mammals in relation to tectonic and climatic history: Comparison of three Neogene records from North America. *Paleobiology* 39(3): 373-399.

Badgley, C. Modern biodiversity crisis. Pp. 617-634. In MacLeod, N. (ed.), *Grzimek's Animal Life Encyclopedia, Extinction* (2 vols). Gale.

Domingo, M.S., L. Domingo, C. Badgley, O. Sanisidro, and J. Morales. Resource partitioning among top predators in a Miocene food web. *Proceedings of the Royal Society B* 280: 20122138.  
doi:10.1098/rsbp.2012.2138.

2012 Mates, S.G., I. Perfecto, and C. Badgley. Parasitoid wasp diversity in apple orchards along a pest-management gradient. *Agriculture, Ecosystems and Environment* 156: 82-88.

2011 Rose, P.J., D.L. Fox, J. Marcot, and C. Badgley. Flat mammalian latitudinal diversity gradient following the end-Cretaceous mass extinction in western North America. *Geology* 39: 163-166.

2010 Finarelli, J.A. and C. Badgley. Diversity dynamics of Miocene mammals in relation to the history of tectonism and climate. *Proceedings of the Royal Society B* 277: 2721-2726.

Badgley, C. Tectonics, topography, and mammalian diversity. *Ecography* 33: 220-231.

Smith, G.R., C. Badgley, T.P. Eiting, and P. Larson. Geologic history and species diversity gradients in North American freshwater fishes. *Evolutionary Ecology Research* 12: 693-726.

2009 Bennington, J.B., W.A. DiMichele, C. Badgley, R.K. Bambach, P.M. Barrett, A.K. Behrensmeyer, and 26 others. Critical issues of scale in paleoecology. *Palaios* 24: 1-4.

Morgan, M.E., A.K. Behrensmeyer, C. Badgley, J.C. Barry, S. Nelson, and D.R. Pilbeam. Lateral variation in carbon isotope ratios as evidence for

- Miocene habitat gradients in the Siwalik sequence of Pakistan. *Geology* 37: 103-106.
- Qian, H., C. Badgley, and D.L. Fox. The latitudinal gradient of beta diversity for mammals in North America. *Global Ecology and Biogeography* 18: 111-122.
- 2008 Badgley, C., J.C. Barry, M.E. Morgan, S.V. Nelson, A.K. Behrensmeyer, T.E. Cerling, and D. Pilbeam. Ecological changes in Miocene mammalian record show impact of prolonged climatic forcing. *Proceedings of the U.S. National Academy of Sciences* 105 (34): 12145-12149. (Selected for Faculty of 1000 Biology, October 2008)
- 2007 Badgley, C., J. Moghtader, E. Quintero, E. Zakem, M.J. Chappell, K. Aviles-Vazquez, A. Samulon, and I. Perfecto. Organic agriculture and the global food supply. *Renewable Agriculture and Food Systems* 22(2): 86-108.
- Blob, R.W. and C. Badgley. Numerical methods for bonebed analysis. Pp. 333-396. In R. Rogers, D. Eberth, and A. Fiorillo, eds., Bonebeds: Genesis, Analysis, and Paleobiological Significance. University of Chicago Press, Chicago.
- 2005 Nelson, S., C. Badgley, and E. Zakem. 2005. Microwear in modern squirrels in relation to diet. *Palaeontologia Electronica* vol. 8 (1) 14A: 15 p, 401 KB; [http://palaeo-electronica.org/2005\\_1/nelson14/issue1\\_05.htm](http://palaeo-electronica.org/2005_1/nelson14/issue1_05.htm).
- Badgley, C., S.V. Nelson, J.C. Barry, A.K. Behrensmeyer, and T.E. Cerling. Testing models of faunal turnover with Neogene mammals from Pakistan. Pp. 29-46. In D.E. Lieberman, R.J. Smith, and J. Kelley, eds., Interpreting the Past: Essays on Human, Primate, and Mammal Evolution in Honor of David Pilbeam. American School of Prehistoric Research Monographs. Brill Academic Publishers, Inc., Boston.
- Behrensmeyer, A.K., C. Badgley, J.C. Barry, M. Morgan, and S.M. Raza. The paleoenvironmental context of Siwalik Miocene vertebrate localities. Pp. 47-62. In D.E. Lieberman, R.J. Smith, and J. Kelley, eds., Interpreting the Past: Essays on Human, Primate, and Mammal Evolution in Honor of David Pilbeam. American School of Prehistoric Research Monographs. Brill Academic Publishers, Inc., Boston.
- 2003 Badgley, C. The multiple scales of biological diversity. *Paleobiology* 29: 11-13.
- Badgley, C. The farmer as conservationist. *American Journal of Alternative Agriculture* 18: 206-212.
- 2002 Barry, J.C., M.E. Morgan, L.J. Flynn, D. Pilbeam, A.K. Behrensmeyer, S.M. Raza, I.A. Khan, C. Badgley, J. Hicks, and J. Kelley. Faunal and environmental change in the Late Miocene Siwaliks of northern Pakistan.

- Paleobiology Memoir 3: p. 1-71.
- 2001 Little, M., C. Badgley, C. Beall, M. Balick, L. Munstermann, K. Weiss, T. Bert, and B. Chernoff. 2001. A framework for a program on the human dimensions of biodiversity. *Biology International* 42: 3-15.
- 2000 Badgley, C. and D. Fox. Ecological biogeography of North American mammals: Species density and ecological structure in relation to environmental gradients. *Journal of Biogeography* 27(6): 1437-1468.
- 1998 Badgley, C. Can agriculture and biodiversity coexist? *Wild Earth*, 8 (Fall): 39-47.
- Badgley, C., W.R. Downs, III, and L.J. Flynn. Taphonomy of small-mammal fossil assemblages from the Middle Miocene Chinji Formation, Siwalik Group, Pakistan. Pp. 145-166 In Y. Tomida, L.J. Flynn, L.L. Jacobs, eds., Advances in Vertebrate Paleontology and Geochronology, National Science Museum of Japan Monographs, No. 14, Tokyo, Japan.
- 1995 Badgley, C. and A.K. Behrensmeyer. Preservational, paleoecological, and evolutionary patterns in the Paleogene of Wyoming-Montana and the Neogene of Pakistan. *Paleogeography, Paleoclimatology, Paleoecology* 115: 319-340.
- Badgley, C. and A.K. Behrensmeyer. Two long geological records of continental ecosystems. *Paleogeography, Paleoclimatology, Paleoecology* 115: 1-11.
- Badgley, C., W.S. Bartels, M.E. Morgan, A.K. Behrensmeyer, and S.M. Raza. Taphonomy of vertebrate assemblages from the Paleogene of northwest Wyoming and the Neogene of northern Pakistan. *Paleogeography, Paleoclimatology, Paleoecology* 115: 157-180.
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- Badgley, C., T.M. Smiley, W.E. Holt, and E.T. Rasbury. Great Basin mammal diversity and tectonic history. Society of Vertebrate Paleontology, annual meeting, Salt Lake City, Utah.
- Fox, D.L., T.S. Cicak, and C. Badgley. Ecological biogeography of modern North American rodents in relation to climate and physiography. Society of Vertebrate Paleontology, annual meeting, Salt Lake City, Utah. In review.
- Moroz, M., T.M. Smiley, and C. Badgley. Ecological response of small-mammal assemblages to warming and environmental change over the Miocene Climatic Optimum in southern California. Society of Vertebrate Paleontology, annual meeting, Salt Lake City, Utah. In review.
- Badgley, C. and J. Damuth. Ecological structure of modern mammalian faunas in relation to climate and landscape. American Society of Mammalogists, annual meeting, Minneapolis, Minnesota, Program, p. 154.
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- Moroz, M., T.M. Smiley, and C. Badgley. Variation in dental morphology among heteromyid rodents in present-day and fossil communities. American Society of Mammalogists, annual meeting, Minneapolis, Minnesota, Program, p. 172.
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- Badgley, C. Historical baselines of diversity and turnover from the mammalian fossil record. Society of Vertebrate Paleontology, annual meeting, Dallas, Texas.
- Badgley, C. Continental gateways and the dynamics of mammalian faunal change. International Biogeography Society, 7<sup>th</sup> meeting, Bayreuth, Germany. *Frontiers in Biogeography* 6, suppl. 1, Conference program and abstracts, p. 20.
- 2014
- Badgley, C. Faunal assemblages as products and indicators of environmental context. Invited talk in Contrasting faunal communities of ancient terrestrial ecosystems (workshop). International Paleontological Congress, Mendoza, Argentina. IPC Abstract Boo.
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- Badgley, C., M.S. Domingo, J.C. Barry, L.J. Flynn, and M. Morgan. Dynamics of faunal and ecosystem change from the Siwalik record of Pakistan. European Association of Vertebrate Paleontology, 12<sup>th</sup> Annual meeting, Turin,

Italy. EAVP Abstract Book and Field Trip Guide, p. 8.

Badgley, C., A.K. Behrensmeyer, T.E. Cerling, M.E. Morgan, J.C. Barry, and D. Pilbeam. (keynote presentation) Neogene grasslands of the Indian subcontinent: dynamics of the transition from C3 to C4 ecosystems. North American Paleontological Convention, Gainesville, Florida. Abstract volume, Paleontological Society Special Publication Vol 13, p. 112.

2013

Badgley, C., S. Domingo, J. Barry, L. Flynn, and M. Morgan. Three biogeographic modes of change in Miocene mammal diversity from the Siwalik sequence of the Indian subcontinent. Society of Vertebrate Paleontology Annual Meeting, Los Angeles, CA. Online supplement to Journal of Vertebrate Paleontology, p. 81.

Smiley, T.M., C. Badgley, and J.A. Finarelli. Miocene mammal diversity in relation to tectonic and climatic history of the Basin and Range Province. Society of Vertebrate Paleontology Annual Meeting, Los Angeles, CA. Online supplement to Journal of Vertebrate Paleontology, p. 213.

Morgan, M.E., J.C. Barry, L.J. Flynn, D. Pilbeam, C. Badgley, M.S. Domingo, A.K. Behrensmeyer. Mammalian faunal stability and change in the Middle and Late Miocene Siwaliks of Pakistan: Time-slice analysis. Regional Committee on Mediterranean Neogene Stratigraphy: Neogene to Quaternary Geological Evolution of Mediterranean, Paratethys and Black Sea, Istanbul, Turkey.

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Badgley, C., T.M. Smiley, and J.A. Finarelli. Great Basin mammalian diversity in the context of landscape evolution. Program and Abstracts, American Society of Mammalogists, Annual meeting, Reno, NV, Supplement to Journal of Mammalogy, p. 112-113.

Badgley, C. and J.A. Finarelli. Diversity dynamics of mammals in relation to landscape history for three Neogene records from North America. Program and Abstracts, Society of Vertebrate Paleontology, Annual meeting, Raleigh, NC, Online supplement to Journal of Vertebrate Paleontology, p. 58.

Balisi, M. and C. Badgley. Dietary behavior and resource partitioning among large carnivores of Late Pleistocene Rancho La Brea. Program and Abstracts, Society of Vertebrate Paleontology, Annual meeting, Raleigh, NC, Online supplement to Journal of Vertebrate Paleontology, p. 59.

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Badgley, C., T.M. Smiley, and J.A. Finarelli. Great Basin mammalian diversity in the context of landscape evolution. American Society of Mammalogists, annual meeting, Reno, Nevada. Invited presentation.

Behrensmeyer, A.K., D. Western, C. Badgley, and J. Miller. The impact of attritional mortality versus mass death events on the skeletal record of East African mammals. Paleoanthropology Society, Annual meeting, Memphis, Tennessee.

2011 Ochiaga, C., D.L. Fox, and C. Badgley. Ecological biogeography of African mammals in relation to climate and topography. Geological Society of America, Annual Meeting, Minneapolis, MN. Geological Society of America Abstracts with Programs, Vol. 43, No. 5, p. 334.

Blois, J., R.W. Graham, C. Badgley, and J.W. Williams. Biome shifts with paleoclimate change: Reconstructing past biomes using mammals. Society of Vertebrate Paleontology annual meeting, November 2011, Las Vegas, Nevada. Journal of Vertebrate Paleontology online supplement, Program and Abstracts, p. 73. Invited presentation.

Domingo, M.S., L. Domingo, C. Badgley, and J. Morales. Diet of three Miocene hypercarnivores from the Madrid Basin (Spain) based on carbon-isotope composition of tooth enamel. Society of Vertebrate Paleontology annual Meeting, November 2011, Las Vegas, Nevada. Journal of Vertebrate Paleontology online supplement, Program and Abstracts, p. 100.

2010 Badgley, C. and J.A. Finarelli. Diversity dynamics of Miocene rodents in relation to tectonic and climatic history. International Paleontological Congress III, London, UK. Invited presentation.

2010 Finarelli, J.A. and C. Badgley. Diversification of Miocene mammals in North America, with respect to tectonic and climatic history. Society of Vertebrate Paleontology annual meeting, Pittsburgh, Pennsylvania. Journal of Vertebrate Paleontology supplement, Abstracts of Program, p. 88A-89A.

2009 Badgley, C. Ecological and evolutionary processes in the assembly of mammalian faunas. International Biogeography Society, bi-annual meeting. January 2009, Merida, Mexico.

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- Abrajevitch, A., K. Kodama, A.K. Behrensmeyer, and C. Badgley. Magnetic signature of moisture availability in ancient subtropical soils: a plot rock magnetic study of Neogene paleosols in Pakistan. American Geophysical Union, Annual Meeting, San Francisco.
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- 2007
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- Belmaker, Miriam, S.V. Nelson, M.E. Morgan, L.J. Flynn, J.C. Barry, D. Pilbeam, and C. Badgley. Dietary reconstructions of the Middle and Late Miocene ungulate communities in the Siwaliks, Pakistan. Abstracts of papers, PaleoAnthropology Society annual meeting, March 2007, Philadelphia, Pennsylvania. *PaleoAnthropology 2007*: A2-A3.
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- 2004 Badgley, C., S.V. Nelson, J.C. Barry, A.K. Behrensmeyer, and T.E. Cerling. Testing models of faunal turnover with Neogene mammals from Pakistan. Abstracts of Papers, Society of Vertebrate Paleontology meeting, November, 2004, Denver. *Journal of Vertebrate Paleontology* 24, Supplement to No. 3: 35A-36A.
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