

CURRICULUM VITAE

David Lupton Fox

Contact information

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Personal

Birth: 27 May 1969, Cambridge, MA, U.S.A.
Citizenship: U.S.A.

Education

1995-1999 Ph.D. Geological Sciences, University of Michigan
Dissertation title: Carbon and Oxygen Isotope Composition of *Gomphotherium* Tusks:
Reconstructing Diet and Climate Change in North America During the Late Miocene
Advisor: Daniel C. Fisher
1993-1995 M.S. Geological Sciences, University of Michigan
1987-1991 B.A. Biological Anthropology, Harvard University

Professional appointments

2015-present Graduate faculty, Department of Anthropology, University of Minnesota
2007-present Associate Professor, Department of Earth Sciences, University of Minnesota (Department of Geology and Geophysics until 07/2011)
2006-present Museum Associate, Bell Museum of Natural History, University of Minnesota
2006-present Graduate faculty, Department of Ecology, Evolution, and Behavior, University of Minnesota
2002-2007 Research Associate, Science Museum of Minnesota, St. Paul, MN
2001-2007 Assistant Professor, Department of Geology and Geophysics, University of Minnesota
1999-2001 National Science Foundation Earth Sciences Postdoctoral Fellow
Department of Earth Sciences, University of California, Santa Cruz
(Mentor: Paul L. Koch)

Research interests

Stable isotope geochemistry of biogenic apatites and pedogenic carbonates; relationship between species diversity and climate; mammalian community organization; reconstruction of diet from tooth morphology and geochemistry; paleoclimate reconstruction; use of stratigraphic data in phylogenetic inference; evolution and paleobiology of proboscideans

Awards

2010 Edward P. Bass Distinguished Visiting Environmental Scholar, Yale Institute for Biospheric Studies, Yale University

Grants funded

- 2013-2016 NSF EAR-Sedimentary Geology and Paleobiology: ELT Collaborative Research: Evolutionary and ecological responses of small mammal communities to habitat and climate change over the last 5 million years
Role: Lead PI with Josh Feinberg (Co-PI, Univ. of Minnesota), Kena Fox-Dobbs (PI, Univ. of Puget Sound), John Eiler (PI, CalTech), Pratigya Polissar (PI, Lamont Dougherty Earth Observatory, Columbia Univ.), Kevin Uno (Co-PI, Lamont Dougherty Earth Observatory, Columbia Univ.), Jung Eun-Lee (PI, Brown Univ.)
Total budget: \$687,000, Univ. of Minnesota budget: \$186,957
- 2013 Grant-in-Aid of Research, Artistry, and Scholarship, University of Minnesota (Category 6: New Research Direction): Testing models of community change using X-ray computed tomography images of fossils
Role: PI
Total budget: \$9,275
- 2013-2017 NSF BCS-Biological Anthropology: Collaborative Research: IPG: Research on East African Catarrhine and Hominoid Evolution.
Role: Co-PI with Kieran McNulty (Lead PI, Univ. of Minnesota), Martha Tappen (Co-PI, Univ. of Minnesota) Dan Peppe (PI, Baylor Univ.), Steve Driese (Co-PI, Baylor Univ.), Laura MacLatchy (PI, Univ. of Michigan), James Rossie (PI, Stonybrook Univ.), Al Deino (PI, Berkeley Geochronology Center).
Total budget: \$750,000, Univ. of Minnesota budget: \$454,589.
- 2010-2012 NSF BCS-Archaeology: Collaborative Research: Quaternary Archaeology and Environments of Rusinga and Mfangano Islands, Kenya.
Role: PI with Christian Tryon (Lead PI, New York Univ.) and Dan Peppe (PI, Baylor Univ.)
Total budget: \$210,000, Univ. of Minnesota budget: \$28,015.
- 2006-2009 NSF EAR-Instrumentation and Facilities: Acquisition of a new stable isotope ratio mass spectrometer system for environmental and paleoclimatic research.
Role: Co-PI with Emi Ito (Lead PI, Univ. of Minnesota) and Larry Edwards (Co-PI, Univ. of Minnesota).
Total budget: \$300,000.
- 2006-2009 NSF EAR-Sedimentary Geology and Paleobiology: Collaborative research: Paleobiology and extinction of woolly mammoths in northern Siberia and Wrangel Island.
Role: PI with Dan Fisher (Lead PI, Univ. of Michigan).
Total budget: \$510,000, Univ. of Minnesota budget: \$210,000.
- 2005-2007 NSF EAR-Sedimentary Geology and Paleobiology: Evolution of marine mammal foraging behavior based on Ca and C isotope ratios in bioapatite.
Role: Lead PI with Larry Edwards (Co-PI, Univ. of Minnesota).

Total budget: \$155,000.

2002-2004 NSF EAR-Geology and Paleontology: Collaborative research: Plio-Pleistocene Mammal Faunas and Environmental Change in the Meade Basin of Southwestern Kansas: a Combined Stratigraphic, Faunal, and Isotopic Approach
Role: PI with Bob Martin (Lead PI, Murray State University).

Total budget: \$109,686, Univ. of Minnesota budget: \$45,000.

2002 Grant-in-Aid of Research, Artistry, and Scholarship, University of Minnesota, AMS dating and stable isotope ecology of woolly mammoths from Siberia.

Role: PI

Total budget: \$26,700.

Professional society memberships

Paleontological Society (1994)

Society of Vertebrate Paleontology (1994)

Geological Society of America (1997)

American Geophysical Union (2014)

Service: Department of Earth Sciences, University of Minnesota

2011-present Liaison to the Writing Enriched Curriculum program

2010-present Director of Undergraduate Studies

2010-present Awards Committee

2009 (Spring) Director of Undergraduate Studies

2007-2008 Biogeoscience faculty search committee

2006-2007 Strategic Planning Committee

2005-2008 Executive Review Committee

2004-2005 Paleoclimate faculty search committee

2004-present Field Camp Committee

2002-2003 George and Orpha Gibson Professorship search committee

2002 Community Campaign Fund department volunteer

2001-present Undergraduate Studies Committee

2001-2002 Geolimnology faculty search committee

2001 Community Campaign Fund department volunteer

Service: College of Science and Engineering, University of Minnesota

2010-present Academic Standards and Student Affairs Committee

2010-present Curriculum Committee

Service: University of Minnesota

2010-present University Senate Library Committee

2008-2011 Board of Advisors, Institute for Advanced Study

2008-2009 Chair, University Senate Social Concerns Committee

2008-2009 President's Trademark Licensee Code of Conduct Working Group

2006-2007 Biological Anthropology search committee, Dept. of Anthropology

2005-2006 Herpetology/invertebrate curator search committee, Bell Museum of Natural History

2004-2009 University Senate Social Concerns Committee

2002-2005 Campus Club Board of Directors

Service: professional and extramural

2013-2014	Chair, Committee on Nominations, Paleontological Society
2012-2014	Committee on Nominations, Paleontological Society
2011-present	Associate Editor, <i>PALAIOS</i>
2010-present	Associate Editor, <i>Paleobiology</i>
2007-present	Program Committee, Society of Vertebrate Paleontology
2006-present	Chair, Romer Prize Committee, Society of Vertebrate Paleontology (outstanding student paper at the annual meeting)
2003-present	Treasurer and Editorial Board member, <i>Palaeotologia Electronica</i> (http://www.omnh.ou.edu/paleo/)
2002-2003	Host committee, 2003 Society of Vertebrate Paleontology annual meeting, held in St. Paul MN
1999-2000	Co-chair, Membership Committee, Society of Vertebrate Paleontology
1996-2008	Membership Committee member, Society of Vertebrate Paleontology

Service: Reviews of journal articles by year (66 total)

2015	1	<i>Oecologia</i> (1)
2014	4	<i>Earth and Planetary Sciences</i> (1), <i>Journal of Mammalogy</i> (1), <i>Nature Geoscience</i> (1), <i>Quaternary Reviews</i> (1)
2013	4	<i>Geology</i> (1), <i>Earth and Planetary Sciences</i> (2), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1)
2012	11	<i>Earth and Planetary Sciences</i> (2), <i>Geology</i> (1), <i>Journal of Mammalian Evolution</i> (1), <i>Journal of Mammalogy</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (3), <i>Proceedings of the National Academy of Science</i> (2), <i>Sedimentology</i> (1)
2011	7	<i>Earth and Planetary Sciences</i> (2), <i>Geochimica et Cosmochimica Acta</i> (1), <i>Journal of Mammalogy</i> (1), <i>Geological Society of America Bulletin</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1), <i>Proceedings of Royal Academy B</i> (1)
2010	5	<i>Geochimica et Cosmochimica Acta</i> (1), <i>Geological Society of America Bulletin</i> (1), <i>Naturwissenschaften</i> (1), <i>PALAIOS</i> (1), <i>Proceedings of the National Academy of Science</i> (1)
2009	7	<i>Earth and Planetary Science Letters</i> (3), <i>Geochimica et Cosmochimica Acta</i> (1), <i>PLoSOne</i> (1), <i>Proceedings of the National Academy of Science</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1)
2008	2	<i>Geological Society of America Bulletin</i> (2), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1)
2007	5	<i>Frontiers in Ecology and Evolution</i> (2), <i>Paleobiology</i> (1), <i>PALAIOS</i> (2),
2006	8	<i>Annals of the Carnegie Museum</i> (1), <i>Annals of Missouri Botanical Gardens</i> (1), <i>Chemical Geology</i> (1), <i>Copeia</i> (1), <i>Earth and Planetary Science Letters</i> (1), <i>Geology</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1), <i>Paleobiology</i> (1), University of Chicago Press (1)
2005	6	<i>Earth and Planetary Science Letters</i> (1), <i>Geochimica et Cosmochimica Acta</i> (1), <i>Geology</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1), <i>Paleobiology</i> (1), <i>Quaternary Reviews</i> (1)

2004	6	<i>Earth and Planetary Science Letters</i> (1), <i>Geology</i> (1), <i>Journal of Vertebrate Paleontology</i> (1), <i>Paleobiology</i> (2), <i>Proceedings of the National Academy of Science, USA</i> (1)
2003	4	<i>Evolution</i> (1), <i>Geology</i> (1), <i>The Holocene</i> (1), <i>Journal of Biogeography</i> (1)
2002	5	<i>The Holocene</i> (1), <i>Journal of Vertebrate Paleontology</i> (1), <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> (1), <i>Paleobiology</i> (2)
2001	1	<i>Geochimica et Cosmochimica Acta</i> (1)
2000	3	<i>PALAIOS</i> (1), <i>Paleobiology</i> (2)

Service: Reviews of NSF proposals by year (25)

2015	1	Earth Sciences-Sedimentary Geology and Paleobiology (1)
2012	1	Earth Sciences-Sedimentary Geology and Paleobiology (1)
2011	2	Earth Sciences-Sedimentary Geology and Paleobiology (1), Earth Sciences-Instrumentation and Facilities (1)
2010	1	Earth Sciences-Sedimentary Geology and Paleobiology (1)
2009	4	Earth Sciences-Geobiology and Low-temperature Geochemistry (1), Earth Sciences-Instrumentation and Facilities (1), Earth Sciences-Sedimentary Geology and Paleobiology (1), Environmental Biology-Systematic Biology and Biodiversity Inventories (1)
2007	4	Earth Sciences-Instrumentation and Facilities (2), Earth Sciences-Sedimentary Geology and Paleobiology (2)
2006	2	Earth Sciences-Instrumentation and Facilities (2)
2005	3	Earth Sciences-Instrumentation and Facilities (2), Ocean Sciences-Marine Geology and Geophysics (1)
2003	6	Earth Sciences-Instrumentation and Facilities (3), Earth Sciences-Geology and Paleontology (2), Atmospheric Sciences-Paleoclimate (1)
2002	2	Earth Sciences-Geology and Paleontology (2)

Service: Reviews for other funding agencies by year (1)

2014	1	Leakey Foundation (1)
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Service: reviews of book chapters and other publications (4)

2012	1	Chapter in Paleontological Society short course on paleoclimate
2006	1	Chapter in <i>The paleontology of Gran Barranca: evolution and environmental change through the Middle Cenozoic of Patagonia</i> . Editors: R. H. Madden, R.H., Vucetich, G.M., Carlini, A.A., and Kay, R.F.). Publisher: Cambridge University Press (in review).
2004	1	Chapter in <i>Primate Biogeography: Progress and Prospects</i> . Editors: Lehman, S.M. and Fleagle, J. Publisher: Springer (2006).
2002	1	Chapter in <i>Causes and of Globally Warm Climates in the Early Paleogene</i> . Geological Society of America Special Paper 369. Editors: Wing, S.L., Ginergich, P.D., Schmitz, B., and Thomas, E. Publisher: Geological Society of America (2003).

Courses taught

University of Minnesota (2001-present; number of students in parentheses)

S2015	ESCI 2202 Earth History (24)
	ESCI 4102W Vertebrate Paleontology (21)
F2014	ESCI 1007 From Microbes to Mammoths (89), taught with Jake Bailey

S2014 ESCI 2202 Earth History (29), ESci 4103W Fossil Record and Evolution of Mammals (11)

F2013 ESCI 1007 From Microbes to Mammoths (104), taught with Jake Bailey

Sm2013 ESCI 3911 Introductory Field Geology (28)

S2013 ESCI 2202 Earth History (29), ESCI 4102W Vertebrate Paleontology (13)

F2012 ESci 1007 From Microbes to Mammoths (124), taught with Jake Bailey

S2012 ESci 2202 Earth History (23)

ESci 4103W Fossil Record and Evolution of Mammals (17)

F2011 ESci 1007 From Microbes to Mammoths (108), taught with Jake Bailey

S2011 ESci 2202 Earth History (19)

ESci 4102W Vertebrate Paleontology (14)

F2010 ESci 1007 Geobiology (129), taught with Jake Bailey

Sm2010 Geo 3911 Introductory Field Geology (18)

Sm2009 Geo 3911 Introductory Field Geology (22)

S2009 Geo 3890 Field Methods Workshop (21)

Geo 4102W Vertebrate Paleontology (11)

F2008 Geo 1002/1102 Earth History (45)

Sm2007 Geo 3911 Introductory Field Geology (28)

S2007 Geo 3890 Field Methods Workshop (29)

Geo 4102 Vertebrate Paleontology (13)

Geo 8980 Matters of Time (11)

F2006 Geo 1002/1102 Earth History (65)

Geo 8990 Stable Isotopes in Terrestrial Paleocology (3)

Sm2006 Geo 3911 Introductory Field Geology (21)

S2006 Geo 3890 Field Methods Workshop (22)

Geo 4103W Fossil Record and Evolution of Mammals (15)

Sm2005 Geo 3911 Introductory Field Geology (24)

S2005 Geo 3890 Field Methods Workshop (23)

Geo 4093 Problems in Geology: Senior (3)

Geo 4094 Senior Thesis (1)

Geo 4102W Vertebrate Paleontology (9)

Geo 8990 Structure and Stratigraphy of the North American Cordillera (5)

F2004 Geo 1002 Earth History (47)

Sm2004 Geo 3911 Introductory Field Geology (24)

S2004 Geo 3890 Field Methods Workshop (12)

Geo 4103W Fossil Record and Evolution of Mammals (5)

F2003 Geo 1002 Earth History (51)

S2003 Geo 3093 Problems in Geology: Junior (1)

Geo 4102W Vertebrate Paleontology (13)

Geo 8990 Stable Isotopes in Paleocological Research (12)

F2002 Geo 1002 Earth History (77)

S2002 Geo 1002 Earth History (45)

F2001 Geo 1901 Ice Age Extinctions (15)

Invited talks (45)

2015 (1) Dept. of Human Evolutionary Biology, Harvard University

- 2014 (1) Dept. of Geology, Baylor Univ.
- 2012 (1) Geological Society of Minnesota
- 2011 (3) Archaeology Consortium, Dept. of Anthropology, Univ. of Minnesota; Dept. of Geology and Geophysics, Univ. of Minnesota; Dept. of Animal Biology, Univ. of Illinois at Urbana-Champaign
- 2010 (8) Board on Earth Sciences and Resources, National Research Council of the National Academies, Roundtable on Earth System Science Education; Dept. of Geological Sciences, Brown Univ.; Dept. of Earth and Environmental Sciences, Wesleyan Univ.; Center for the Study of Global Change, Yale Institute for Biospheric Studies, Yale Univ.; Dept. of Anthropology, Yale Univ.; Yale Institute for Biospheric Studies, Yale Univ.; Dept. of Geology, Baylor Univ.; Dept. of Geosciences, Idaho State Univ.
- 2009 (1) Dept. of Geology and Geophysics, Univ. of Utah
- 2008 (1) Dept. of Earth and Planetary Sciences, Northwestern Univ.
- 2007 (5) Dept. of Geology, Univ. of Toronto; Geological Society of Minnesota; River Connection: The University of Minnesota visits Grand Rapids, Grand Rapids Library; Dept. of Geology and Geophysics, Univ. of Wyoming; Dept. of Ecology and Evolutionary Biology, Brown Univ.
- 2006 (4) Dept. of Earth Sciences, Syracuse Univ.; Stratigraphic Research Section, Kansas Geological Survey; Geological Society of America Annual Meeting Theme Session: The Terrestrial Eocene-Oligocene Boundary Revisited (Philadelphia, PA); Geological Society of America Annual Meeting Theme Session: Paleosols, Proxies, and Paleoenvironments (Philadelphia, PA)
- 2005 (2) Dept. of Geosciences, Univ. of Nebraska; Dept. of Geological Sciences, Univ. of Colorado at Boulder
- 2004 (1) Dept. of Geological Sciences, Univ. of Minnesota, Duluth
- 2003 (9) Dept. of Geological Sciences, Florida State Univ.; Dept. of Anthropology, Univ. of Minnesota; Bell Museum of Natural History, Univ. of Minnesota; Bill Clemens Retirement Symposium, Univ. of California, Berkeley; Archaeological Institute of America (Minnesota Society) and the Science Museum of Minnesota; Geological & Atmospheric Sciences, Iowa State Univ.; Dept. of Earth Science, Rice Univ.; Dept. of Geography, Univ. of Minnesota; Dept. of Ecology, Evolution, and Behavior, Univ. of Minnesota
- 2002 (1) Geological Society of America Annual Meeting Special Session: High Resolution Holocene Climate Records
- 2001 (2) Dept. of Geology, Univ. of California, Davis; Dept. of Geology, Univ. of North Dakota
- 2000 (3) Dept. of Geoscience, Univ. of Iowa; Dept. of Geology and Geophysics, Univ. of Minnesota; Dept. of Geological Sciences, Southern Methodist University
- 1999 (2) Dept. of Earth Sciences, Univ. of California, Santa Cruz; Dept. of the Geophysical Sciences, Univ. of Chicago
- 1998 (1) Anatomical Sciences, SUNY-Stonybrook

Papers in review (* Fox graduate student author)

Peer reviewed journal papers in revision (* Fox graduate student author)

Peer reviewed journal papers accepted and in press (* Fox graduate student author)

Peer reviewed journal papers († alphabetical authorship, * Fox graduate student author, § Fox postdoc author)

38. *Vietti, L.A., Bailey, J.V., **Fox, D.L.**, and Rogers, R.R., Rapid formation of framboidal sulfides in bone surfaces from a simulated marine carcass-fall. *PALAIOS* 30: 327-334..
37. *Garret, N.D., **Fox, D.L.**, McNulty, K.P., Tryon, C.A., Faith, J.T., Peppe, D.J., and Van Plantinga, A., 2015. Stable isotope paleoecology of late Pleistocene Middle Stone Age humans from the equatorial East Africa Lake Victoria basin, Kenya. *Journal of Human Evolution*. doi:10.1016/j.jhevol.2014.10.005. Published online 21 March 2015.
36. Clementz, M.T., Fordyce, R.E., Peek, S.L., and **Fox, D.L.**, 2014. Ancient Marine Isoscapes and Isotopic Evidence of Bulk-feeding by Oligocene Cetaceans. *Palaeogeography, Palaeoclimatology, Palaeoecology* 400: 28-40.
35. *Moron, S., **Fox, D.L.**, Feinberg, J.M., Jaramillo, C., Bayona, G., Montes, C., and Bloch, J.I., 2013. Climate change during the Early Paleogene in the Bogotá Basin (Colombia) inferred from paleosol carbon isotope stratigraphy, major oxides, and environmental magnetism. *Palaeogeography, Palaeoclimatology, Palaeoecology* 388: 115-127.
34. Domingo, L., Koch, P.L., Hernández Fernández, M., **Fox, D.L.**, Domingo, M.S., and Alberdi, M.T., 2013. Late Neogene and early Quaternary paleoenvironmental and paleoclimatic conditions in southwestern Europe: isotopic analyses on mammalian taxa. *PLoS One* 8: e63739. doi:10.1371/journal.pone.0063739
33. Faith, J.T., Tryon, C., Peppe, D., **Fox, D.L.**, 2013. The fossil history of Grevy's zebra (*Equus grevyi*) in equatorial East Africa. *Journal of Biogeography* 40: 359-369. doi:10.1111/j.1365-2699.2012.02796.x
32. *Matson, S.D., Rook, L., Oms, O., **Fox, D.L.**, 2012. Carbon isotopic record of the relative roles of biotic and abiotic factors in the Late Miocene extinction of *Oreopithecus bambolii*, Baccinello Basin (Tuscany, Italy). *Journal of Human Evolution* 63: 127-139.
31. Tryon, C.A., Peppe, D.J., Faith, J.T., van Plantinga, A., Nightingale, S., Ogondo, J., and **Fox, D.L.**, 2012. Late Pleistocene artefacts and fauna from Rusinga and Mfangano islands, Lake Victoria, Kenya. *Azania: Archaeological Research in Africa* 47: 14-38.
30. **Fox, D.L.**, Martin, R.A., Honey, J.G., and Pelaez-Campomanes, P., 2012. Pedogenic carbonate stable isotope record of environmental change during the Neogene in the southern Great Plains, southwest Kansas, USA: carbon isotopes and the evolution of C₄-dominated grasslands. *GSA Bulletin* 124: 444-462. doi:10.1130/B30401.1
29. **Fox, D.L.**, Martin, R.A., Honey, J.G., and Pelaez-Campomanes, P., 2012. Pedogenic carbonate stable isotope record of environmental change during the Neogene in the southern Great Plains, southwest Kansas, USA: oxygen isotopes and paleoclimate during the evolution of C₄-dominated grasslands. *GSA Bulletin* 124: 431-443. doi:10.1130/B30402.1.
28. Faith, J.T., Choiniere, J.N., Tryon, C.A., Peppe, D.J., and **Fox, D.L.**, 2011. Taxonomic status and paleoecology of *Rusingoryx atopocranium* (Mammalia, Artiodactyla), an extinct

- Pleistocene bovid from Rusinga Island, Kenya. *Quaternary Research* 75: 697-707. doi:10.1016/j.yqres.2010.11.006.
27. *Rose, P.J., **Fox, D.L.**, Marcot, J.D., Badgley, C., 2011. Flat latitudinal gradient in Paleocene mammal richness suggests decoupling of climate and biodiversity. *Geology* 39: 163-166. doi:10.1130/G31099.1
 26. Tryon, C.A., Faith, J.T., Peppe, D.J., **Fox, D.L.**, Jenkins, K., and Dunsworth, H., 2010. The Pleistocene Archaeology and Environments of the Wasiriya Beds, Rusinga Island, Kenya. *Journal of Human Evolution* 59: 657-671. doi:10.1016/j.hevol.2010.07.020.
 25. Runkel, A.C., Mackey, T.J., Cowan, C.A., and **Fox, D.L.**, 2010. Tropical shoreline ice in the late Cambrian: Implications for Earth's climate between the Cambrian Explosion and the Great Ordovician Biodiversification Event. *GSA Today* 20(11): 4-10. doi: 10.1130/GSATG84A.1.
 24. Cerling, T.E., Levin, N.E., Quade, J., Wynn, J.G., **Fox, D.L.**, Kingston, J.D., Klein, R.G., and Brown, F.H., 2010. Comment on the paleoenvironment of *Ardipithecus ramidus*. *Science* 328: 1105-d (3 pp.). DOI: 10.1126/science.1185274
 23. Woodhead, J. Reisz, R., **Fox, D.L.**, Drysdale, R., Hellstrom, J., Maas, R., Cheng, H., and Edwards, R.L., 2010. Speleothem climate records from deep time? Exploring the potential with an example from the Permian. *Geology* 38: 455-458. DOI: 10.1130/G30354.1
 22. Edwards, E.J., Osborne, C.P., Strömberg, C.A.E., Smith, S.A., and the C₄ Grasses Consortium, 2010. The evolutionary origins of C₄ grasses. *Science* 328: 587-591. DOI: 10.1126/science.1177216 (ninth author of 19 authors listed alphabetically in the C₄ Grasses Consortium)
 21. *Matson, S.D. and **Fox, D.L.**, 2010. Stable isotopic evidence for terrestrial latitudinal climate gradients in the late Miocene of the Iberian Peninsula. *Palaeogeography, Palaeoclimatology, Palaeoecology* 287: 28-44.
 20. Qian, H., Badgley, C., and **Fox, D.L.**, 2008. The latitudinal gradient of beta diversity in relation to climate and topography for mammals in North America. *Global Ecology and Biogeography* 18: 111-122.
 19. §Marcot, J.D. and **Fox, D.L.**, 2008. StrataPhy: a new computer program for stratocladistic analysis. *Palaeontologia Electronica* 11.5.5A, 16 pp., http://palaeo-electronica.org/2008_1/142/index.html.
 18. Martin, R.A., Peláez-Campomanes, P., Honey, J.G., **Fox, D.L.**, Zakrzewski, R.J., Albright, L.B., Lindsay, E.H., Opdyke, N.D., and Goodwin, H.T., 2008. Rodent community change at the Pliocene–Pleistocene transition in southwestern Kansas and identification of the *Microtus* immigration event on the Central Great Plains. *Palaeogeography, Palaeoclimatology, Palaeoecology* 267: 196-207.
 17. *Matson, S.D. and **Fox, D.L.**, 2008. Can oxygen isotopes from turtle bone be used to reconstruct paleoclimates? *PALAIOS* 23: 24-34. DOI: 10.2110/palo.2006.p06-049r.
 16. Fox-Dobbs, K., Bump, J.K., Peterson, R.O., **Fox, D.L.**, and Koch, P.L., 2007. Carnivore-specific stable isotope variables and variation in grey wolf foraging ecology: case studies from Isle Royale, Minnesota, and La Brea. *Canadian Journal of Zoology* 85: 458-471.
 15. **Fox, D.L.**, Fisher, D.C., Vartanyan, S., Tikhonov, A.N., Mol, D., and Buigues, B., 2007. Paleoclimatic implications of oxygen isotopic variation in late Pleistocene and Holocene

- tusks of *Mammuthus primigenius* from northern Eurasia. *Quaternary International* 169-170: 154-165.
14. Rountrey, A.N., Fisher, D.C., Vartanyan, S., and **Fox, D.L.**, 2007. Carbon and Nitrogen Isotope Analyses of a Juvenile Woolly Mammoth Tusk: Evidence of Weaning. *Quaternary International* 169-170: 166-173.
 13. Angielczyk, K. and **Fox, D.L.**, 2006. Exploring new uses for measures of fit of phylogenetic hypotheses to the fossil record. *Paleobiology* 32: 147-165.
 12. †Cowan, C.A., **Fox, D.L.**, Runkel, A.C., and Saltzman, M.R., 2005. Terrestrial-marine carbon cycle coupling in ~500 million year-old phosphatic brachiopods. *Geology* 33(8): 661-664.
 11. **Fox, D.L.** and Koch, P.L., 2004. Carbon and oxygen isotopic variability in Neogene paleosol carbonates: constraints on the evolution of the C₄-dominated grasslands of the Great Plains, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology* 207: 305-329.
 10. **Fox, D.L.** and Fisher, D.C., 2004. Dietary reconstruction of *Gomphotherium* (Mammalia, Proboscidea) based on carbon isotope composition of tusk enamel. *Palaeogeography, Palaeoclimatology, Palaeoecology* 206: 311-335.
 9. **Fox, D.L.** and Koch, P.L., 2003. Tertiary history of C₄ biomass in the Great Plains, U.S.A. *Geology* 31: 809-812.
 8. Fisher, D.C., **Fox, D.L.**, and Agenbroad, L.D., 2003. Tusk growth rate and season of death of *Mammuthus columbi* from Hot Springs, South Dakota, USA. *DEINSEA* 9: 117-133.
 7. Fisher, D.C. and **Fox, D.L.**, 2003. Season of death and terminal growth histories of Hiscock mastodons. In: Laub, R.S. (ed.), *The Hiscock Site: Late Pleistocene and Holocene Paleoecology and Archaeology in Western New York State*. Bulletin of the Buffalo Society of Natural Sciences 37: 83-100.
 6. Fisher, D.C., Foote, M., **Fox, D.L.**, and Leighton, L.R., 2002. Stratigraphy in phylogeny reconstruction—Comment on Smith (2000). *Journal of Paleontology* 76(4): 585-586.
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7. **Fox, D.L.**, Fisher, D.C. and Leighton, L.R. 1997. Comparison of stratocladistics and cladistics using simulated evolutionary histories. *Journal of Vertebrate Paleontology* 17(suppl. 3): 47A.
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5. **Fox, D.L.** and Fisher, D.C. 1996. Oxygen isotope variation in proboscidean tusks: comparison of Miocene and Pleistocene material. *Journal of Vertebrate Paleontology* 16(suppl. 3): 34A.
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1. **Fox, D.L.** and Fisher, D.C. 1994. Tusk growth in *Loxodonta africana* as recorded by incremental laminae in tusk dentin. *Journal of Vertebrate Paleontology* 14(suppl. 3): 26A.

Students advised

PhD

Current: David Birlenbach (F2014-present), Dan Maxbauer (F2013-present), Rebecca Slepkov (Anthropology, F2012-present, co-advised with Mike Wilson, Dept. of Anthropology), Andrew Haveles (F2009-present), Niki Garrett (Anthropology, F2009-present; co-advised with Kieran McNulty, Dept. of Anthropology),

Laura Vietti (F2008-Sm2014; co-advised with Ray Rogers, Macalester College, St. Paul, MN): Insights into the microbial degradation of bones from the marine vertebrate fossil record: an experimental approach using interdisciplinary analyses. Currently Collections Manager, Geology Museum and Department of Geology and Geophysics, University of Wyoming

Sam Matson (F2004-S2010): Stable Isotopic Investigation of Late Neogene Terrestrial Paleoecology and Paleoclimate of the Circum-Mediterranean Region. Currently Lecturer, Department of Geosciences, Boise State University

Peter Rose (F2004-Sm2010): Paleoclimate and Mammal Paleoecology During the Paleocene of North America: Insights from Stable Isotopes. Currently Geologist, Minerals Management, Michigan Department of Natural Resources

MS

Current: Wes Rutelonis (F2014-present)

Sara Eugenia Morón (F2009-F2011): Paleosol carbon isotope stratigraphy, major oxides and rock magnetic record of climate change across the Paleocene-Eocene boundary in the Bogota Basin, Colombia

Chiji Ochiagha (F2009-F2011, Plan B): Ecological Biogeography of African Mammals in Relation to Climate and Physiography

Stacy Gohman (F2005-F2008): Vegetation change and the extinction of the woolly mammoth (*Mammuthus primigenius*) in eastern Siberia.

Rhonda Friberg (F2004-S2006): Macroecology of Mammals: An Analysis of Vegetation Composition as an Explanation for Patterns of Species Richness of Mammals in North America

Sam Matson (F2002-S2004): Evaluation of the Use of Stable Isotopes From Turtles, Crocodylians, and Fish to Understand Paleoclimates: An Example From the Paleocene-Eocene of the Clarks Fork Basin, Wyoming.

BS/BA

An An Hua (Earth Sciences, F2013-present), Joel Torgeson (Anthropology, F2013-present), Anessa DeMers (F2013-present), Jack Mitchell (Earth Sciences, F2013-S2014), Jonathan Keller (EEB, S2012-present), Jason Dally (Geology and Geophysics, 2008-2009), Andrew Thomas (EEB, S2005-F2007), Matt Sauter (Geology and Geophysics, F2004-S2005)

PhD Preliminary Examination committees (O, oral; W, written)

Geology and Geophysics

Allison Burnett (O: 2009, W: 2008), Xiaoting Sun (O: 2009, W: 2008), Melissa Berke (O: 2009, W: 2007, UMD), Dylan Blumentritt (O: 2008, W: 2007), Brooke White (W: 2007), Anna Henderson (W: 2006), Carolyn Dykoski (W: 2005), Avery Cook-Shinneman (O: 2006, W: 2005), Laura Triplett (W: 2004), Megan Kelly (W: 2003), Sushmita Ray (O: 2004, W: 2003)

Anthropology (written only)

Aaron Armstrong (2009), Sabrina Curran (2006), Alexandra Moyer (2005)

Thesis committees

Earth Sciences/Geology and Geophysics

MS: Cindy Frickle (2013-present), Eric Smith (2005), Sara Mueller (2004),

PhD: Robert Dietz (2010-present), Anna Henderson (2010), Sushmita Ray (2008), Avery Cook-Shinneman (2008), Laura Triplett (2007)

Anthropology

Sabrina Curran (2009)

Conservation Biology

Josh Egan (2012-present), Peter Hundt (2011-present), John Berini (2011-present),

Ecology, Evolution, and Behavior

Vincent Hirt (2011-present)

History

Jamie Stephenson, (2010)

Postdocs advised

Jonathan Marcot (2004-2006), currently Research Assistant Professor, Department of Animal Biology, University of Illinois