

## Felisa A. Smith, Ph.D.

Professor of Biology

Department of Biology  
University of New Mexico  
Albuquerque, NM 87131  
505.277.6725 (office); 277.0304 (FAX)  
<https://smithpaleo.org>  
<https://orcid.org/0000-0001-6262-436X>

646 East Barcelona Road  
Santa Fe, NM 87505  
505.603.1431 (cell)  
E-mail: [fasmith@unm.edu](mailto:fasmith@unm.edu)

### Research Interests

Paleoecology, macroecology and biogeography; physiological, ecological, and evolutionary effects of past and present climate change on animals; macroecological patterns of body size across spatial, temporal, and taxonomic scales; consequences of the terminal Pleistocene megafauna extinction on New World ecosystems; historical role of women in science.

### I. Education

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| 1986 to 1992 | Department of Ecology and Evolutionary Biology<br>University of California at Irvine, Dr. Richard E. Lenski, Advisor<br>Ph.D. awarded December 1991 |
| 1981 to 1982 | Graduate Program in Education, University of California at Irvine<br>Clear teaching credential in physical and life sciences awarded 1982           |
| 1976 to 1980 | Revelle College, University of California at San Diego<br>B.A. in Biology, Double minors in Literature and Visual Arts                              |

### II. Honors and Awards

- C.H. Merriam Award*, American Society of Mammalogists (June 2022)  
*Fellow*, Paleontological Society (elected Spring 2020)  
*Member*, College of Biogeographers, *Frontiers of Biogeography* (2018)

### III. Professional Experience

- President*, International Biogeography Society (2022-2024); *Co-President* (2020-2021); *President Elect*, International Biogeography Society (2018-2020)  
*Member*, Conservation Paleobiology Network Working Group Advisory Panel (2022-)  
*Board of Directors*, International Federation of Mammalogists (2022-)  
*President Elect*, American Society of Mammalogists (2021-2023)  
*Vice President*, American Society of Mammalogists (2016-2018, re-elected 2018-2021)  
*Guest Editor*, *Ecography* (2015)  
*Associate Editor and Member*, Editorial Committee, Royal Society Proceedings B (2014 to 2019)  
*Panel Member*, U.S. Student Fulbright Regional Screening Committee (2011-2013)  
*Member*, Science Advisory Board, National Center for Ecological Analysis and Synthesis (NCEAS; 2009-2012, 2012-2014).  
*Associate Editor*, *Paleobiology* (2009-2012)

*Subject Editor*, Ecology (2008-2015)

*Director*; Program in Integrative Biological & Biomedical Science (PiBBs; 2010 to 2017); *Co-Director*, (2006-2010). Integrative graduate student training program involving Biology, Anthropology, Computer Science, Engineering, Physics, and Mathematics and Statistics Departments at UNM, Los Alamos National Laboratory, and the Santa Fe Institute. Funded by UNM, the Howard Hughes Medical Institute and the National Institutes of Health.

*Professor*, Department of Biology, University of New Mexico (2011 to present)

*Associate Professor*, Department of Biology, University of New Mexico (2006-2011)

*Research Professor*, Department of Biology, University of New Mexico (2004-2006)

*Research Associate Professor*, Department of Biology, University of New Mexico (1999-2004)

*Vice President for Development and Awards*, International Biogeography Society (2003-2005)

*Ombudsperson*, American Society of Mammalogists (2002-2016)

*Elected Member*, Board of Directors, American Society of Mammalogists (1999-2010; 2012-2015)

*Member*, Grazing Panel, United States Forest Service, Albuquerque, New Mexico (1999, 2001)

*Research Assistant Professor*, Department of Biology, University of New Mexico (1998-1999)

*National Science Foundation BBS Minority Postdoctoral Research Fellow*, Department of Biology, University of New Mexico, Dr. James H. Brown, Postdoctoral Mentor (1993-1996)

*Coordinator*, PRISM program. Joint project between the Department of Energy, New Mexico State Department of Education and University of New Mexico-Los Alamos to develop a summer science institute for incoming college freshmen. (1993)

*Adjunct Assistant Professor*, Department of Biology, University of New Mexico (1992-1998)

*Part-time Instructor*, Santa Fe Community College (1992, 1996-1998)

*Part-time Biological Consultant*, Sapphos Environmental and Impact Sciences Inc., Los Angeles, California (1992-1995)

*High School Science Teacher; Junior Varsity and Head Varsity Softball Coach*, Katella and Laguna Hills High Schools, California. Courses taught included: Chemistry, Biology, Algebra, and Environmental Science. Served on district committee setting science proficiency standards for graduation (1981-1986)

#### IV. Grants

National Science Foundation, Division of Earth Sciences: *MRI: Acquisition of an X-Ray Micro-Computed Tomography Scanner for specimen-based and material science research*. T. Mackey, PI; F. Garzon, S.E. Han, C. Agee and F.A. Smith, co-PIs. (08.2022 to 07.2025) \$464,895 total costs.

National Science Foundation, Division of Environmental Biology: Supplemental request for *Beyond Causation -characterizing the local, regional and global impacts of the late Pleistocene megafaunal extinction*. F.A. Smith, PI. (07.2021 to 02. 2023) \$34,981 total costs.

National Science Foundation, Division of Environmental Biology: *Beyond Causation -characterizing the local, regional and global impacts of the late Pleistocene megafaunal extinction*. F.A. Smith, PI; S.K. Lyons, S.D. Newsome, co-PIs. (05.2016 to 12.2022, with extensions) \$720,000 total costs (\$600,000 to UNM).

National Institutes of Health, NIBIB Interfaces Initiative for Interdisciplinary Graduate Research Training (T32): *Program in Interdisciplinary Biological and Biomedical Sciences (PiBBs)* 1T32EB009414-01. F.A. Smith, PI; J.H. Brown, co-PI (03.2009 to 02.2014) \$963,225 direct costs.

National Science Foundation Research Coordination Network BIO-0541625: *Integrating macroecological pattern and processes across scales*. F.A. Smith, PI; S.K.M. Ernest and S.K. Lyons, co-PIs (06.2006 to 06.2013, with extensions) \$490,000 total costs.

National Science Foundation BIO-DEB-0344620 Supplement: *The impact of late Quaternary climate change on mammals along an elevational gradient*. F.A. Smith, PI (12.2005 to 03.2007) \$23,121 total costs.

Howard Hughes Medical Institute Interdisciplinary Biomedical Sciences *PiBBs: Applications of mathematics, physics and computer science for investigating the structure and dynamics of complex biological systems*. J.H. Brown, PI; F.A. Smith, S. Forrest, V.M. Kenkre, co-PI's (01.2006 to 12.2008). \$1,000,000 total costs.

REU Supplements to: National Science Foundation BIO-DEB-0344620: *The impact of late Quaternary climate change on mammals along an elevational gradient*. F.A. Smith, PI (2004, 2005, 2007). \$18,000 total costs.

National Science Foundation BIO-DEB-0344620: *The impact of late Quaternary climate change on mammals along an elevational gradient*. F.A. Smith, PI; E.L. Charnov, co-PI (04.2004 to 03.2008). \$285,000 total costs.

National Science Foundation BIO-DEB Proof of Concept Award: *Influence of late Quaternary climate change on the ecology of small herbivores*. F.A. Smith, PI (07.2002 to 01.2004). \$70,000 total costs.

Subcontract T00-NASDA-28506 ("The flow of materials and energy through urban ecosystems") on National Space Development Agency of Japan Grant to D.R. Blake (University of California Irvine): *Aircraft observation campaign in biomass burning and lightning experiment* (04.2000 to 03.2002). \$12,500 sub-award to F.A. Smith.

National Center for Ecological Analysis and Synthesis (NCEAS) grant for Working Group: *Body Size in Paleobiology and Ecology: linking pattern and process across spatial, temporal, and taxonomic scales*. J. Alroy, E.L. Charnov, T. Dayan, J.H. Brown, J.P. Haskell, B.J. Enquist, S.K.M. Ernest, E.A. Hadly, D. Jablonski, K.E. Jones, D.M. Kaufman, S.K. Lyons, B.A. Maurer, K.J. Niklas, W.P. Porter, K. Roy, B. Tiffney, and M.R. Willig; F.A. Smith, Project Leader (12.1998 to 12.2002). \$81,720 total costs.

Subcontract D98NCC1299 ("Ecosystem response to increased urbanization in eastern Asia") on National Aeronautics and Space Administration Grant to D.R. Blake and F.S. Rowland (University of California Irvine): *Whole air sampling from the DC-8 and P3-B aircraft during PEM-Tropics-B* (04.1998 to 03.2001). \$1,035,106 total costs; \$150,000 sub-award to F.A. Smith.

National Science Foundation BIO-DEB Research Planning Grant: *Microevolutionary response of woodrats (Neotoma) to climate change since the last glacial maximum*. F.A. Smith, PI (01.1995 to 12.1997). \$18,000 total costs.

National Science Foundation BBS Minority Postdoctoral Research Fellowship: *An evolutionary test of Bergmann's Rule using ancient woodrat middens*. F.A. Smith, PI; James H. Brown, mentor (08.1993 to 07.1996). \$105,000 total costs.

#### **V. Publications** (those with significant news coverage denoted with †)

1. Smith, F.A. December 1991. Nutritional ecology and body size in *Neotoma* populations. **Ph.D. dissertation**, University of California, Irvine.
2. Smith, F.A. 1992. Evolution of body size among woodrats from Baja California, Mexico. **Functional Ecology** 6:265-273.
3. Justice, K.E. and F.A. Smith. 1992. A model of dietary fiber utilization by small mammalian herbivores with empirical results for *Neotoma*. **American Naturalist** 139:398-416.
4. Monroe, J., W.D. Wagner, J. Carr, and F.A. Smith. 1992. Multi-species habitat conservation plan for Southwestern Riverside County, California. Riverside County Habitat Conservation Agency and Metropolitan Water District of Southern California, 275 pages. (Received a Presidential Award for Excellence.)

5. Smith, F.A., B.T. Bestelmeyer, and M. Strong. 1993. Anthropogenic extinction of an endemic woodrat from Isla Coronado, Baja California, Mexico. **Biodiversity Letters** 1:149-155.
6. †Smith, F.A., J.L. Betancourt, and J.H. Brown. 1995. Evolution of body size in the woodrat over the past 25,000 years of climate change. **Science** 270:2012-2014.
7. Smith, F.A. 1995. Scaling of digestive efficiency with body size in *Neotoma*. **Functional Ecology** 9:299-305.
8. Smith, F.A. 1996. Den characteristics and survivorship of woodrats (*Neotoma lepida*) in the eastern Mojave Desert. **Southwestern Naturalist** 41:366-372.
9. Smith, F.A. and J.H. Brown. 1996. The changing role of women in North American mammalogy. **Journal of Mammalogy** 77(3):609-613.
10. Smith, F.A. and D.M. Kaufman. 1996. Contributions of female mammalogists from 1919-1994: a quantitative analysis based on a survey of the Journal of Mammalogy. **Journal of Mammalogy** 77(3):614-629.
11. Smith, F.A., J.H. Brown, and T.J. Valone. 1997. Path analysis: a critical evaluation using long-term experimental data. **American Naturalist** 149:29-42.
12. Smith, F.A. 1997. *Neotoma cinerea*. **Mammalian Species** 564:1-8. (DOI: <https://doi.org/10.2307/3504384>).
13. Smith, F.A. and J.L. Betancourt. 1998. Response of bushy-tailed woodrats (*Neotoma cinerea*) to late Quaternary climatic change in the Colorado Plateau. **Quaternary Research** 50(1):1-11.
14. Smith, F.A., J.H. Brown, and T.J. Valone. 1998. Path modeling methods and ecological interactions: a response to Grace and Pugsek. **American Naturalist** 152(1):160-161.
15. Smith, F.A., H. Browning, and U.L. Shepherd. 1998. The influence of climatic change on the body mass of woodrats (*Neotoma albigula*) in an arid region of New Mexico, USA. **Ecography** 21(2):140-148. (DOI: 10.1111/j.1600-0587.1998.tb00668.x).
16. Elliott, S., D.R. Blake, J.E. Bossert, J.C. Chow, J.L.A. Colina, J.C. Doran, M. Dubey, R.A. Duce, S. Edgerton, J.D. Fast, J.S. Gaffrey, M. Gupta, F. Guzman, P.A. Matson, M.J. Prather, W. Riley, F.S. Rowland, M.E. Ruiz, A.G. Russell, F.A. Smith, G.E. Streit, and J.G. Watson. 2000. Mexico City and the biogeochemistry of global urbanization. **Environmental Science and Policy** 3(2):145-156.
17. Decker, E.H., S. Elliott, F.A. Smith, D.R. Blake, and F.S. Rowland. 2000. Energy and material flow through the urban ecosystem. **Annual Review of Energy and the Environment** 25:685-740.
18. Smith, F.A., M. Matocq, K. Melendez, A.M. Ditto, and P.A. Kelly. 2000. How isolated are Pleistocene refugia? Results from a study on a relict woodrat population from the Mojave Desert. **Journal of Biogeography** 27(12):483-500. (DOI: 10.1046/j.1365-2699.2000.00387.x).
19. Elliott, S., E.H. Decker, F.A. Smith, D.R. Blake, I.J. Simpson, and F.S. Rowland. 2000. Cities in the earth system. **Environmental Science and Policy** 3(2):157-160.
20. Elliott, S., D.R. Blake, J.C. Coman, M.K. Dubey, F.S. Rowland, T. Shirai, and F.A. Smith. 2000. Multivariate analysis of whole air hydrocarbon data: a principal components factor reduction applied to BIBLE B aircraft samples. **Los Alamos National Laboratory Technical Report** in the LAUR series.
21. Smith, F.A. and E.L. Charnov. 2001. Fitness tradeoffs select for semelparous reproduction in an extreme environment. **Evolutionary Ecology Research** 3:595-602.
22. Decker, E.H., S. Elliott, and F.A. Smith. 2002. Megacities and the environment. **The Scientific World Journal** 2:374-386.

23. Smith, F.A. 2002. On her own terms: Annie Montague Alexander and the rise of science in the American West. **Journal of Mammalogy** 83:626-628.
24. Damuth, J. D., M. Fortelius, P. Andrews, C. Badgley, E.A. Hadly, S. Hixon, C. Janis, R.H. Madden, K. Reed, F.A. Smith, J. Theodor, J.A. Van Dam, B. Van Valkenburgh, and L. Werdelin. 2002. Reconstructing mean annual precipitation, based on mammalian dental morphology and local species richness. In **EEDEN Plenary Workshop on Late Miocene to Early Pliocene Environments and Ecosystems** (pp. 23-24). EEDEN Programme, European Science Foundation Sabadell (Spain).
25. Smith, F.A., S. Elliott, D.R. Blake, and S.F. Rowland. 2002. Spatial and temporal variation in methane concentrations in the Valley of Mexico. **Environmental Science and Policy** 5(6):449-461.
26. Smith, F.A. and J.L. Betancourt. 2003. The effect of late Holocene temperature fluctuations on the evolution and ecology of woodrats (*Neotoma*) in Idaho and northwestern Utah. **Quaternary Research** 59(2):160-171.
27. Elliott, S., D.R. Blake, N.J. Blake, M.K. Dubey, F.S. Rowland, B.C. Sive, and F.A. Smith. 2003. BIBLE A whole-air sampling as a window on Asian biogeochemistry. **Journal of Geophysical Research – Atmospheres** 108:8407-8421. (DOI: 10.1029/2001JD000790).
28. Choi, Y., S. Elliott, I.J. Simpson, D.R. Blake, J.J. Colman, M.K. Dubey, S. Meinardi, F.S. Rowland, T. Shirai, and F.A. Smith. 2003. Survey of whole air data from the second airborne biomass burning and lightning experiment using principal component analysis. **Journal of Geophysical Research- Atmospheres** 108:4163-4183. (DOI 10.1029/2002JD00284; Editor's choice: atmospheric and space)
29. Smith, F.A., S.K. Lyons, S.K.M. Ernest, K.E. Jones, D.M. Kaufman, T. Dayan, P.A. Marquet, J.H. Brown, and J.P. Haskell. 2003. Body mass of late Quaternary mammals. **Ecology** 84(12):3402-3403.
30. Ernest, S.K.M., B.J. Enquist, J.H. Brown, E.L. Charnov, J.F. Gilloy, V. Savage, E.P. White, F.A. Smith, E.A. Hadly, J.P. Haskell, S.K. Lyons, B.A. Maurer, K. Niklas, and B. Tiffney. 2003. Thermodynamic and metabolic effects on the scaling of production and abundance. **Ecology Letters** 6(11):990-995. (DOI: 10.1046/j.1461-0248.2003.00526.x).
31. Lyons, S.K., F.A. Smith, and J.H. Brown. 2004. Of mice, mastodon, and men: human caused extinctions on four continents. **Evolutionary Ecology Research** 6(3):339-358.
32. Smith, F.A., J.H. Brown, J.P. Haskell, J. Alroy, E.L. Charnov, T. Dayan, B.J. Enquist, S.K.M. Ernest, E.A. Hadly, D. Jablonski, K.E. Jones, D.M. Kaufman, S.K. Lyons, P. Marquet, B.A. Maurer, K. Niklas, W. Porter, K. Roy, B. Tiffney, and M.R. Willig. 2004. Similarity of mammalian body size across the taxonomic hierarchy and across space and time. **American Naturalist** 163(5):672-691.
33. Maurer, B.A., J. Alroy, J.H. Brown, T. Dayan, B.J. Enquist, S.K.M. Ernest, E. Hadly, J.P. Haskell, D. Jablonski, K.E. Jones, D.M. Kaufman, S.K. Lyons, K. Niklas, W. Porter, K. Roy, F.A. Smith, B. Tiffney, and M.R. Willig. 2004. Convergence in body size distributions of small-bodied flying vertebrates. **Evolutionary Ecology Research** 6(6):783-797.
34. Lyons, S.K., F.A. Smith, E.P. White, and J.H. Brown. 2004. Was a "hyperdisease" responsible for the late Pleistocene megafaunal extinction? **Ecology Letters** 7(9):859-868. (DOI: 10.1111/j.1461-0248.2004.00643.x).
35. †Donlan, C.J., J. Berger, C.E. Bock, J.H. Bock, D.A. Burney, J.A. Estes, D. Foreman, P.S. Martin, G.W. Roemer, F.A. Smith, M.E. Soulé, and H.W. Greene. 2005. Rewilding North America. **Nature** 436(7053):913-914.
36. Millien, V., S.K. Lyons, L. Olson, F.A. Smith, T. Wilson, and Y. Yom-Tov. 2006. Ecotypic variation in the context of global climate change: revisiting the rules. **Ecology Letters** 9(7):853-869; DOI: 10.1111/j.1461-0248.2006.00928.x
37. Smith, F.A. and J.L. Betancourt. 2006. Predicting woodrat (*Neotoma*) responses to anthropogenic warming from studies of the palaeomidden record. **Journal of Biogeography** 33(12):2061-2076. (DOI: 10.1111/j.1365-2699.2006.01631.x)

38. †Donlan, C.J., J. Berger, C.E. Bock, J.H. Bock, D.A. Burney, J.A. Estes, D. Foreman, P.S. Martin, G.W. Roemer, F.A. Smith, M.E. Soulé, and H.W. Greene. 2006. Pleistocene Rewilding: an optimistic agenda for twenty-first century conservation. **American Naturalist** 168(5):660-681.
39. Smith, F.A. 2006. On the lack of women in academic science. **Science** 314(5799):592. (Letter to the editor).
40. Smith, F.A. 2008. Body size, energetics, and evolution. Pages 477-482 in **Encyclopedia of Ecology** (Sven Erik Jørgensen and Brian D. Fath, Editors-in-Chief), Volume 1, Elsevier, Oxford.
41. MacDonald, G.M., K.D. Bennett, S.T. Jackson, L. Parducci, F.A. Smith, J.P. Smol, and K.J. Willis. 2008. Impacts of climate change on species, populations, and communities: paleobiogeographical insights and frontiers. **Progress in Physical Geography** 32(2):139-172.
42. Smith, F.A., S.K. Lyons, S.K.M. Ernest, and J.H. Brown. 2008. Macroecology: more than the division of food and space among species on continents. **Progress in Physical Geography** 32(2):115-138.
43. Smith, F.A., D.L. Crawford, L.E. Harding, H.M. Lease, I.W. Murray, A. Raniszewski, and K.M. Youberg. 2009. A tale of two species: extirpation and range expansion during the late Quaternary in an extreme environment. **Global and Planetary Change** 65(3):122-133.
44. †Payne, J.L., A.G. Boyer, J.H. Brown, S. Finnegan, M. Kowalewski, R.A. Krause, Jr., S.K. Lyons, C.R. McClain, D.W. McShea, P.M. Novack-Gottshall, F.A. Smith, J.A. Stempien, and S.C. Wang. 2009. Two-phase increase in the maximum size of life over 3.5 billion years reflects biological innovation and environmental opportunity. **Proceedings of the National Academy of Science USA** 106(1):24-27.
45. Harding, L. and F.A. Smith. 2009. *Mustela* or *Neovison*? Resolution of the taxonomic status of the American Mink and the biogeography of the American *Mustela*. **Molecular Phylogenetics and Evolution** 52(3):632-642.
46. Smith, F.A., M.J. Hamilton, and J.H. Brown. 2010. On the size selectivity of late Pleistocene extinctions: a mini forum based on Polishchuk. **Evolutionary Ecology Research** 12(3):403-412.
47. †Smith, F.A., S.M. Elliott, and S.K. Lyons. 2010. Methane emissions from extinct megafauna. **Nature Geosciences** 3(6):374-375 + online supplement. (Advance online publication; DOI:10.1038/ngeo877; 23 May 2010).
48. Lyons, S.K. and F.A. Smith. 2010. Using a macroecological approach to study the fossil record. **Quantitative methods for studying paleobiology** (J. Alroy and G. Hunt, eds.) Paleontological Society Papers 16:117-141.
49. Smith, F.A. 2010. Holocene extinctions. **Quarterly Review of Biology** 85:500-501.
50. †Smith, F.A., A.G. Boyer, J.H. Brown, D.P. Costa, T. Dyan, S.K.M. Ernest, A.R. Evans, M. Fortelius, J.L. Gittleman, M.J. Hamilton, L.E. Harding, K. Lintulaakso, S.K. Lyons, C. McCain, J.K. Okie, J.J. Saarinen, R.M. Sibly, P.R. Stephens, J. Theodor, and M. Uhen. 2010. The evolution of maximum body size of terrestrial mammals. **Science** 330(6008):1216-1219 + online supplement.
51. Payne, J.L., A.G. Boyer, J.H. Brown, S. Finnegan, M. Kowalewski, R.A. Krause, Jr., S.K. Lyons, C.R. McClain, D.W. McShea, P.M. Novack-Gottshall, F.A. Smith, P. Spaeth, J.A. Stempien, and S.C. Wang. 2011. The evolutionary consequences of oxygenic photosynthesis: a body size perspective. **Photosynthesis Research** 107(1):37-57. (DOI: 10.1007/s11120-010-9593-1).
52. Smith, F.A. 2011. Here be biogeographers. **Bioscience** 61(1):76-77.
53. †Kowalewski, M., J.L. Payne, F.A. Smith, S.C. Wang, D.W. McShea, S. Xiao, P.M. Novack-Gottshall, C.R. McClain, R.A. Krause, Jr., A.G. Boyer, S. Finnegan, S.K. Lyons, J.A. Stempien, J. Alroy, and P.A. Spaeth. 2011. The Geozoic supereon. **Palaios** 26(5):251-255.
54. Smith, F.A., S.M. Elliott, and S.K. Lyons. 2011. Methane emissions from extinct megafauna: a reply to Brook and Severinghaus. **Nature Geosciences** 4(5):1-2.

55. Smith, F.A. and S.K. Lyons. 2011. How big should a mammal be? A macroecological look at mammalian body size over space and time. **Proceedings of the Royal Society B** 366:2364-2378.
56. Crawford D.L., J.W. Drago, F.A. Smith, and A.N. Chavez. Diversification within the Mexican vole (*Microtus mexicanus*) and the role of post-Pleistocene climate change. 2011. **Western Great Basin Naturalist** 71(2):176-194.
57. Pardi, M.I. and F.A. Smith. 2012. Paleocology in an era of climate change: how the past can provide insights into the future. Pages 93-116 in **Palaeontology in Ecology and Conservation** (Julien Louys, editor), Springer-Verlag, New York.
58. Smith, F.A. 2012. The pace of mammalian evolution: ecological and morphological responses of mammals to climate change at annual to millennial time scales. **Quaternary International** 279: 455.
59. Smith, F.A. 2012. Some like it hot. **Science** 335(6071):924-925.
60. †Evans, A.R., D. Jones, A.G. Boyer, J.H. Brown, D.P. Costa, S.K.M. Ernest, E.M.G. Fitzgerald, M. Fortelius, J.L. Gittleman, M.J. Hamilton, L.E. Harding, K. Lintulaakso, S.K. Lyons, J.G. Okie, J.J. Saarinen, R.M. Sibly, F.A. Smith, P.R. Stephens, J. Theodor, and M. D. Uhen. 2012. The maximum rate of mammal evolution. **Proceedings of the National Academy of Science USA** 109(11):4187-4190.
61. Smith, F.A. and A. Boyer. 2012. Losing time? Incorporating a deeper temporal perspective into modern ecology. **Frontiers in Biogeography** 4(1):25-38.
62. Anderson-Teixeira, K.J., F.A. Smith, and S.K.M. Ernest. Climate Change. 2012. Pages 280-292 in J.H. Brown, A. Kodric Brown and R.M. Sibly, editors. **Metabolic ecology: a scaling approach**, Wiley-Blackwell, Oxford. (DOI: 10.1002/9781119968535.ch23).
63. Murray, I.W. and F.A. Smith. 2012. Estimating the influence of the thermal environment on activity patterns of the desert woodrat (*Neotoma lepida*) using temperature chronologies. **Canadian Journal of Zoology** 90(9):1171-1180.
64. Payne, J.L., F.A. Smith, M. Kowalewski, R.A. Krause, Jr., A.G. Boyer, C.R. McClain, S. Finnegan, and P.M. Novack-Gottshall. 2012. A lack of attribution: the need to reform citation and indexing practices in the sciences. **Taxon** 61(6):1349–1354.
65. Smith, F.A. and S.K. Lyons. 2013. On being the right size: the importance of size in life history, ecology and evolution. Pages 1-10 in **Body size: linking pattern and process across space, time and taxonomy** (Smith, F.A. and S.K. Lyons, editors), University of Chicago Press, Chicago.
66. Lyons, S.K. and F.A. Smith. 2013. Macroecological patterns of body size in mammals across time and space. Pages 114-142 in **Body size: linking pattern and process across space, time and taxonomy** (Smith, F.A. and S.K. Lyons, editors), University of Chicago Press, Chicago.
67. Smith, F.A., S.K. Lyons, K. Jones, and B.A. Maurer. 2013. The influence of flight on patterns of body size diversity and heritability. Pages 185-203 in **Body size: linking pattern and process across space, time and taxonomy** (Smith, F.A. and S.K. Lyons, editors), University of Chicago Press, Chicago.
68. Smith, F.A. and S.K. Lyons. 2013. The way forward. Pages 233-244 in **Body size: linking pattern and process across space, time, and taxonomy** (Smith, F.A. and S.K. Lyons, editors), University of Chicago Press, Chicago.
69. †Zuo, W., F.A. Smith, and E.L. Charnov. 2013. A life history approach to the late Pleistocene megafaunal extinction. **American Naturalist** 182(4):524-531.
70. Okie, J.G., R.M. Sibly, A.G. Boyer, J.H. Brown, D.P. Costa, S.K.M. Ernest, A.R. Evans, J.L. Gittleman, M.J. Hamilton, L.E. Harding, K. Lintulaakso, S.K. Lyons, J.J. Saarinen, F.A. Smith, P.R. Stephens, J. Theodor, and M. D. Uhen. 2013. Effects of allometry, productivity, and lifestyle on rates and limits of body size evolution. **Proceedings of the Royal Society B** 280(1764):20131007. (DOI:10.1098/rspb.2013.1007).

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99. Westover, M., K. Lizewski, K. Klingler, and F.A. Smith. 2020. Isotopic niche of the American pika (*Ochotona princeps*) through space and time. **Canadian Journal of Zoology** 98:5151-526.
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111. Lessa, E.P., and F.A. Smith. 2023. The current and future role of ASM in engaging with the Nagoya Protocol. **Journal of Mammalogy**, *in press*.
112. Smith, F.A. 2023. Integrating time into modern ecology: a temporal perspective on the relationship between temperature and animal body size. In *Scaling in Biology* (C. Kempes, M. O'Connor, and B.J Enquist, editors), Santa Fe Institute Press, Santa Fe.
113. Harding, L.E., F.A. Smith, I.W. Murray, H.M. Lease, and J.T. Martin. Heat, sex and death: the curious tale of a desert mammal. Pages xx-xx in **Natural History of Death Valley and the Mojave Desert** (Steve Rowland, editor), University of California Press, Berkeley, *in press*.

### Books and Edited Volumes

1. Smith, F.A. and S.K. Lyons, editors. 2013. **Animal body size: linking pattern and process across space, time and taxonomy**. University of Chicago Press, Chicago. 280 pages. (<http://press.uchicago.edu/ucp/books/book/chicago/A/bo15233198.html>)
2. Smith, F.A., J.L. Gittleman and J.H. Brown, editors. 2014. **Foundations of Macroecology**, University of Chicago Press, Chicago. 800 pages. (<http://press.uchicago.edu/ucp/books/book/chicago/F/bo17312836.html>)

- Smith, F.A. 2021. **Mammalian paleoecology: using the past to study the present**. Johns Hopkins University Press, Baltimore. 274 pages. (<https://jhupbooks.press.jhu.edu/title/mammalian-paleoecology>)

### Popular writing

- Smith, F.A. 2011. Scientific Perspiration (<http://unm-bioblog.blogspot.com/2011/10/scientific-perspiration.html>)
- Smith, F.A. 2011. What's in a Name? ([http://unm-bioblog.blogspot.com/2011/05/whats-in-name\\_6508.html](http://unm-bioblog.blogspot.com/2011/05/whats-in-name_6508.html))
- Smith, F.A. 2011. Visions in the Mist (<http://unm-bioblog.blogspot.com/2012/06/visions-in-mist.html>)
- Smith, F.A. 2012. The Night of the Living Squid (<http://unm-bioblog.blogspot.com/2012/02/night-of-living-squid.html>)
- Smith, F.A. 2012. Politics, Science and Thomas Jefferson (<http://unm-bioblog.blogspot.com/2012/09/politics-science-and-thomas-jefferson.html>)
- Smith, F.A. 2013. The Bone Wars (<http://unm-bioblog.blogspot.com/2013/02/the-bone-wars.html>)
- Smith, F.A. 2013. Mary Sells Seashells (<http://unm-bioblog.blogspot.com/2013/09/mary-sells-sea-shells.html>)
- Smith, F.A. and M. Ryan. 2013. Jackie Robinson, Pee Wee Reese and the Pursuit of Science (<http://unm-bioblog.blogspot.com/2013/11/jackie-robinson-pee-wee-reese-and.html>)
- BioBlog Group. 2014. Reindeer: more rapid than eagles (<http://unm-bioblog.blogspot.com/2014/12/reindeer-more-rapid-than-eagles.html>)
- Smith, F.A. 2016. Leo Tolstoy or Nora Roberts: does it matter what you read? (<http://unm-bioblog.blogspot.com/2016/02/leo-tolstoy-versus-nora-roberts-does-it.html>)
- Smith, F.A. et al. 2016. I voted, did you? (<http://unm-bioblog.blogspot.com/2016/11/i-voted-have-you.html>).
- Smith, F.A. 2016. How long would it take you to fall through the Earth? (<http://unm-bioblog.blogspot.com/2016/11/how-long-would-it-take-you-to-fall.html>).
- Smith, F.A. 2017. Is Hurricane Irma the result of climate change? (<https://unm-bioblog.blogspot.com/2017/09/is-hurricane-irma-result-of-climate.html>)
- Smith, F.A. 2018. 20,000,000 (<http://unm-bioblog.blogspot.com/2018/09/20000000.html>)
- Smith, F.A. 2019. Putting the dead to work (<http://unm-bioblog.blogspot.com/2019/11/putting-dead-to-work.html>)
- Smith, F.A. 2022. Packrats: nature's furry historians (<http://unm-bioblog.blogspot.com>)

## VI. Instruction

### A. Current Courses:

- *Extinction: bad genes or bad luck?* (Biology 419/519); Fall semester, odd years
- *Ecology of the Past* (Biology 409/509); Fall semester, even years
- *Graduate Ecology Core* (Biology 516); Fall semester, episodically
- *Biogeography* (Biology 494); Spring semester, even years
- *Macroecology* (Biology 511); Spring semester, odd years
- *Topics in Paleoecology* (Biology 402/502); episodically
- *BioBlog* (Biology 402/502); Spring and Fall semesters

- General Research Problems, Masters and Ph.D. Dissertation Hours (Biology 400, Biology 499, Biology 551, Biology 599); all semesters

#### B. Courses Taught in the Past:

- *Graduate Evolution Core* (Biology 517)
- *Of mice, mastodons and men* (Arts and Sciences 198)
- *Biology* (Natural Sciences 262 – Biology methodology course for elementary school teachers)
- *Ecology and Evolution* (Biology 203); episodically
- *Environmental Problems of New Mexico* (Earth and Planetary Science 305)
- *Topics in Integrative Biological and Biomedical Sciences* (TiBBs; Biology 520)
- *Seminar in Integrative Biological and Biomedical Sciences* (SiBBs; Biology 503)
- *Collaborative Interdisciplinary Teaching* (CiT; Biology 525)

## VII. Student and Postdoctoral Associates

### A. Postdoctoral Associates

#### Completed (and current position):

- S. Kathleen Lyons (2001-2003), Assistant Professor, Department of Biology, University of Nebraska, Lincoln, NE.
- Christy McCain (2007), Associate Professor and Curator of Vertebrates, University of Colorado Natural History Museum and Department of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO.
- Larisa Harding (2008-2010), Terrestrial Research Program Manager, Arizona Game and Fish Department, Phoenix, AZ
- Marcus Hamilton (2009–2011), Associate Professor, University of Texas at San Antonio, San Antonio, TX.
- John Hammond (2011-2016), Assistant Professor, Marian University, WI
- Amelia Villaseñor (2017–2018), Assistant Professor, University of Arkansas
- Jansen Smith (2022- ), Postdoc at Friedrich Alexander University in Erlangen, Germany

### B. Graduate (major advisor)

#### Completed (and current position):

- Amy M. Ditto (Ph.D. 2006) *Ecogeographic predictors of genotypic and phenotypic variation in isolated montane mammals*. Owner and Artist, Ghostwolf Gallery and Aperture Photography, Albuquerque, NM
- Larisa E. Harding (Ph.D. 2008) *Out of the Americas: a biogeographical history of the American Mustela*. Terrestrial Research Program Manager, Arizona Game and Fish, Phoenix, AZ
- Dolly Crawford (Ph.D. 2009) *The role of spatial and genetic modeling in biogeography*. Associate Professor, Ashland University, Ashland, OH
- Ian W. Murray (Ph.D. 2012) *Linking environment to ecology in arid land consumers: two case studies*. Pima County Conservation Biologist, Tucson, AZ
- Clare Steinberg (M.S. 2014) *Establishment of *Larrea tridentata* at the northern edge of the modern Mojave Desert: Insights from *Neotoma paleomiddens**. Reptile Keeper, Arizona-Sonora Desert Museum, Tucson, AZ
- Shawn (Fred) Whiteman Jennings (M.S. 2015) *Into the tropics: a quantitative study of mammals in the Great American biotic interchange*. Instructor, Central New Mexico Community College, Albuquerque, NM
- John M. Grady (Ph.D. 2016) *Energetics across ecological scales*. Postdoctoral Research Associate, Living Earth Collaborative, Center for Biodiversity, Washington University in St. Louis, St. Louis, MO.

- Melissa I. Pardi (Ph.D. 2016) *A multidimensional investigation of the niche: late Quaternary canids and humans in North America*. Assistant Curator of Geology, Illinois State Museum, Springfield, IL
- Meghan A. Balk (Ph.D. 2017) *Where the wild things are: investigating body size as a mechanism for persistence*. Postdoctoral Research Associate, Forside Natural History Museum, University of Oslo, Oslo, Norway.
- Marie Westover (M.S. Plan B 2015; Ph.D. 2019) *Biogeographical implications of climate change for a small alpine mammal, the American Pika*. Instructor, Sacramento City College
- Catalina Tomé (M.S. Plan B 2015; Ph.D. 2019) *Ecological and morphological response of rodents to environmental change over the Late Quaternary*. Curator of Paleobiology, Indiana State Museum, Indianapolis, IN.
- Nick Freymueller (M.S. 2020) *Niche Dynamics of the Felid Guild Following the Pleistocene Megafaunal Extinction*. Joint Ph.D. program at University of Copenhagen / University of Adelaide
- Jonathan Keller (M.S. Plan B 2020) Ph.D. student at UNM
- Carson Hedberg (M.S. Plan B 2021) Ph.D. student at UNM
- Zoë Rossman (M.S. Plan B 2022) Ph.D. student at UNM
- Kat Schroeder (M.S. Plan B 2017; Ph.D. 2022) *Ontogenetic niche shift as a driver of community structure and diversity in non-avian dinosaurs*. Postdoctoral Research Associate, Yale University.

Current:

- Marina Casiano Ruiz (M.S. student)
- Lisa Garcia (M.S. student, co-advised with Scott Collins)
- Carson Hedberg (Ph.D. student)
- Jonathan Keller (Ph.D. student)
- Esteban Restrepo Cortés (Ph.D. student)
- Zoë Rossman (Ph.D. student)
- Nick Ryan (Ph.D. student)

C. Graduate Committees:

Completed:

- Phred Benham (M.S. 2012, major advisor Chris Witt)
- Alison Boyer (Ph.D. 2008, major advisor J.H. Brown)
- Robbie Burger (Ph.D. 2015, major advisor J.H. Brown)
- Andrew Edelman (Ph.D. 2010, major advisor A. Kodric-Brown)
- S.K. Morgan Ernest (Ph.D. 2000, major advisor J.H. Brown)
- Trevor Fristoe (Ph.D. 2015, major advisor J.H. Brown)
- Diana Fusco (Ph.D. 2021, major advisor Gavin Prideaux, Flinders University, Australia)
- Bryan McLean (Ph.D. 2017, major advisor Joe Cook)
- Rasmus Pedersen (Ph.D. 2017, major advisor Jens-Christian Svenning, Aarhus University, Denmark)
- Thaís Rabito Pansani (M.S. 2018, major advisor Mário André Trindade Dantas, Universidade Federal da Bahia, Brasil)
- Ethan White (Ph.D. 2005; major advisor J.H. Brown)

## Current:

Oona Takano (Ph.D., major advisor Chris Witt)

## D. Undergraduate

Completed (and funding source while in lab; volunteers generally signed up research credit):

Megan Armstrong (Sevilleta LTER NSF Research Experiences for Undergraduates)

James Biardi (volunteer)

Hillary Browning (NSF REU program)

Marina Casiano Ruiz (NSF grant)

Jonathan Cordova (NSF grant)

Robert Crannage III (volunteer)

Kathleen Esquibel (Research Opportunities program and Ron McNair Scholars program)

Nikki Fronabarger (Sevilleta LTER NSF REU Program)

Lisa Garcia (volunteer)

Roxanne Garcia (UNM Summer Research Opportunity program)

John Haskell (NCEAS Body Size Working Group intern)

Jacquelyn Kellin (volunteer)

Tiara Kimbrough (NSF grant)

Kelly Lizewski – 2019 Honors Thesis: *Resilience of American pikas to wildfire at the southern limit of their range*

Jessica Martin (NSF REU program; NSF- Undergraduate Nurturing Opportunities Fellowship) – 2013 Honors Thesis:  
*The key role of honey mesquite (Prosopis glandulosa) in promoting survival in an extreme environment*

Tyler Martin (NSF grant)

Celeste Martinez (volunteer)

Karla Melendez (UNM Minority Engineering and Mathematics program, Howard Hughes Fellowship, UNM Research Opportunity program)

Amy Monier (NSF REU program)

Samuel Montoya (volunteer)

Adeline Murthy -2014 Honors Thesis: *Homogenizing effects of cities on North American winter bird diversity*

Brigid O'Brien (volunteer)

Justin Pichardo (NSF- Undergraduate Nurturing Opportunities Fellowship)

Dante Rangel (NSF grant)

Peggy Rodriguez Moran (Howard Hughes Fellowship, UNM Minority Engineering and Mathematics program, and NASA fellowship)

Adrienne Raniszewski (NSF REU program)

Esteban Restrepo (volunteer)

Melissa Saenz (UNM Minority Engineering and Mathematics program)

Michelle Thomas (volunteer)

Emily Thorn (NSF REU program)

Lucius Toll (volunteer)

Peyton Winter (visiting student from William and Mary; 2020 Honors Thesis with my lab); *The effects of climate change and megafaunal extinction on the body size and diet of the hispid pocket mouse *Chaetodipus hispidus* over the late Quaternary*)

Kristin Youberg (NSF REU program)

#### E. High School

Julia Shahvar (NASA PURSUE program)

### VIII. Professional Activities

#### A. Invited Seminars/Symposia talks

1. *Body size variation in woodrats (*Neotoma*)*, Colorado State University at Fort Collins, Fort Collins, Colorado (1992; Host Brandon Bestelmeyer)
2. *The relationship between nutritional ecology and body size*, Tumamoc Hill Desert Research Laboratory, Tucson, Arizona (1992; Host Dr. Julio Betancourt)
3. *Evolutionary influences on body size: why aren't rats the size of cats?* Museum of Vertebrate Zoology Colloquium in Evolutionary Biology, University of California Berkeley, Berkeley, California (December 1996)
4. *Microevolutionary response of woodrats to climate change over the last 20,000 years*, Department of Organismal Biology, University of California Berkeley, Berkeley, California (December 1996)
5. *Microevolutionary response of woodrats to climate change since the last glacial maximum*, University of Colorado Boulder, Boulder, Colorado (May 1996)
6. *Response of small mammals to late Quaternary climate change*, University of Connecticut, Storrs, Connecticut (May 1996)
7. *Mammals and climate change: revelations of the paleoecological record*, Stanford University, Stanford, California (1997)
8. *Spatial and temporal variation in evolutionary responses to temperature fluctuations*, Santa Fe Institute, Santa Fe, New Mexico (1997)
9. *The response of mammalian body size to past, present, and future climatic change*, University of California Davis, Davis, California (1998)
10. *Late Quaternary climate change and its influence on mammalian evolution*, Washington State University, Pullman, Washington (1998)
11. *Evolutionary response of woodrats to climate change over the past 20,000 years*, Colorado State University at Fort Collins, Fort Collins, Colorado (1998)
12. *Warne Macht Zwerge: the influence of temperature on mammalian evolution*, Keynote address at symposium on "Women in Science" University of Alaska Fairbanks, Fairbanks, Alaska (March 1999; Host Dr. Terry Bowyer)
13. *How have mammals responded to climate change over the past 20,000 years? Case studies from the rodent genus *Neotoma**, Amherst College, Amherst, Massachusetts (2001)

14. *Woodrats as paleothermometers: body size and environmental temperature in the past, present and future*, University of Minnesota, Minneapolis, Minnesota (2001).
15. *Body size, space and time: insights from a macroecological perspective*. Symposium on "Macroecology of Mammals: Patterns, Processes, and Possibilities", American Society of Mammalogists Annual Meeting, Lake Charles, Louisiana (June 2002).
16. *Quantifying the obvious? Phylogenetic variation in body mass across diverse taxa*. Symposium on "Body size in ecology and paleoecology – linking pattern and process", Ecological Society of America. Tucson, Arizona (August 2002; Co-Chair and Organizer of Symposium along with Dr. Brian Enquist).
17. *Biogeographic responses of mammals to climate change*. Symposium on "Biogeographic responses to climate change", International Society of Biogeography. Organizer and Participant. Shepherdstown, West Virginia (January 2005; Chair and Organizer of Symposium).
18. *The past as key to the future: predicting mammalian responses to anthropogenic climate change*. Symposium on "Ecotypic Variation in the Context of Global Climate Change: Revisiting the "Rules", Jointly sponsored conference of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists, Fairbanks, Alaska (June 2005; Chaired by Dr. Link Olson).
19. *The NSF review process from the perspective of a panelist/reviewer*. Plenary Talk. Quality Education of Minorities Network Workshop, National Science Foundation Directorate for Biological Science, Albuquerque, New Mexico (March 2006).
20. *On being the right size – the influence of temperature on mammalian evolution*. Evolutionary Morphology Seminar Series, Committee on Evolutionary Biology, University of Chicago, Chicago, Illinois (May 2006; Host Dr. David Jablonski).
21. *The influence of late Quaternary climate change on mammalian evolution*. International conference on "Macroecological tools for global change research". Potsdam Institute for Climate Impact Research, Potsdam, Germany (August 2006; Host Dr. Katrin Böhning-Gaese).
22. *Life in an extreme environment: the evolutionary history of Neotoma in Death Valley, CA*. Symposium on "Biotic response to global environmental change: analogs for the future of life on Earth", Paleontological Society, Philadelphia, Pennsylvania (October 2006; Chaired by Dr. Margaret Fraiser).
23. *The program in integrative biology and biomedical science: lessons learned*. IGERT Assistance Workshop: Developing competitive integrative graduate education and research training programs at the PI and university level. Sponsored by Assistance Strategies for Center Development (ASCEND) and National Science Foundation, Washington, D.C. (February 2007).
24. *A tale of two species: extirpation, range expansion & evolution in an extreme environment during the late Quaternary*. Organized oral session on "Stepping back in time: The application of historical & fossil records to recovering ecological baselines", Ecological Society of America, San Jose, California (August 2007; Co-Chaired and Organized with Dr. Rebecca Terry).
25. *Integrating pattern and process across macroecological scales: a report from year 1*. Research Coordination Directors Meeting, National Science Foundation, Washington, D.C. (September 2007).
26. *A tale of two species: extirpation, range expansion & evolution in an extreme environment during the late Quaternary*. Museum of Vertebrate Zoology Colloquium in Evolutionary Biology, University of California Berkeley, Berkeley, California (November 2007; Host Dr. Craig Mortiz).
27. *Functional and evolutionary responses to climate change: mechanisms by which rapid climate change may affect vertebrates*. Ian W. Murray and Felisa A. Smith, 33rd Annual Symposium of the Desert Tortoise Council, Las Vegas, Nevada (February 2008; Presenter: Ian Murray).



28. *Where did all the mastodons go? Global patterns of late Pleistocene megafaunal extinction.* S. Kathleen Lyons and Felisa A. Smith, Symposium on “Extinction”, International Biogeography Society, Merida, Mexico (January 2009, Co-Chair and Organizer of Symposium along with Drs. Steve Jackson and Jack Williams; Presenter: Kate Lyons).
29. *Of mice and men: what long dead rats reveal about biotic responses to past environmental change.* Plenary Session on “Evolution and Society”, 9<sup>th</sup> North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Drs. Lisa Park, Catherine Badgley and Josh Trapani).
30. *What’s hidden in a midden? Packrats provide an archive of late Quaternary environments.* Symposium on “The past as the key to the future: palaeo-perspectives on climate change”, 10<sup>th</sup> International Congress of Ecology, Brisbane, Australia (August 2009; Chaired by Drs. Ana Carolina Carnaval, Susan Cameron, Craig Moritz and Rauri Bowie).
31. *Of mammoths, methane, and man: the unforeseen effects of the extinction of megafauna in the terminal Pleistocene.* Ecolunch seminar, National Center for Ecological Analysis and Synthesis, Santa Barbara, California (March 2010).
32. *Mammoth burps: did anthropogenic influences on the environment predate the Holocene?* Department of Ecology and Evolutionary Biology, University of California Santa Cruz, Santa Cruz, California (May 2010; Host Dr. Jim Estes).
33. *Mammoth burps: did human influences on biogeochemical processes predate the Holocene?* Department of Earth and Planetary Sciences, University of New Mexico, Albuquerque, New Mexico (September 2010; Host Dr. Nitant Kenkre).
34. *What is ‘animal’?* Comparative Literature & Cultural Studies Annual Roundtable Discussion/Symposium, University of New Mexico, Albuquerque, New Mexico (October 2010).
35. *How big should a mammal be? A macroecological look at mammalian body size over space and time.* Symposium on “Biogeography and Ecology: Two Lenses in One Telescope”, International Biogeography Society, Crete, Greece, (January 2011; Chaired by Drs. Robert Ricklefs and Dave Jenkins)
36. *On being the right size – the influence of temperature on mammalian evolution.* Center for Global Change and Ecosystems Seminar Series, University of Utah, Salt Lake City, Utah (February 2011; Host Dr. Denise Dearing).
37. *Heat, death and sex: the curious story of a desert mammal.* Department of Biology, University of Utah, Salt Lake City, Utah (February 2011; Host Dr. Denise Dearing).
38. *The pace of mammalian evolution: ecological and morphological responses to climate change at annual to millennial time scales.* Symposium on “Ecological Responses to Climatic Change at Decadal to Millennial Timescales: From Genes to Biomes”, International Union for Quaternary Research (INQUA), XXVIII Congress, Bern, Switzerland (July 2011; Chaired by Drs. Feng Sheng Hu and Willy Tinner).
39. *Investigating the response of animals to temperature shifts at a variety of temporal scales.* Symposium on "Climate Change Case Studies: Using Historic Data to Predict Future Responses", 25th International Congress for Conservation Biology, Auckland, New Zealand, (December 2011; Chaired by Drs. Toni Lyn Morelli, Steve Beissinger and Craig Mortiz).
40. *Geography variation: form and place.* Art and Ecology Program, Museum of Southwestern Biology, Albuquerque (April 2012; Organized by Drs. Joe Cook and Szu-Han Ho).
41. *Life in an extreme environment: a historical perspective on the influence of temperature on the ecology and evolution of mammals.* Symposium on "Ecology in the Great Basin", American Society of Mammalogists, Reno, Nevada, (June 2012; Chaired by Drs. Becca Rowe and Marjorie Matocq).
42. *Paleoecological perspectives on changing global metabolism.* Gordon Research Conference on “The Metabolic Basis of Ecology”, University of New England, Biddeford, Maine (July 2012; Chaired by Drs. James Elser and Melanie Moses).

43. *From small vermin of the Mesozoic to gigantic herbivores: the evolutionary history of mammal body size.* Monthly meeting of the Friends of Paleontology, New Mexico Museum of Science and History, Albuquerque, New Mexico (April 2013).
44. *Some like it hot: the influence of temperature on mammal ecology and evolution across time.* Graduate Interdisciplinary Program in Genetics and the School of Natural Resources and the Environment, University of Arizona, Tucson, Arizona (March 2013; Host Dr. Melanie Culver).
45. *The crucial role of temperature on the ecology and evolution of mammals.* Symposium on “The influence of temperature on the evolution and diversification of mammals”, 11th International Mammalogical Congress, Belfast, Ireland (August 2013; Chaired by Drs. Felisa Smith and Kate Lyons).
46. *How big should a mammal be? The role of body mass in coping with varying environmental conditions.* Evolution and Ecology Research Centre Distinguished Visitors Program, University of New South Wales, Sydney, Australia (September 2013; Host Dr. Tracey Rogers).
47. *Mammals and Climate.* Evolution and Ecology Research Centre Distinguished Visitors Program, University of New South Wales, Sydney, Australia (September 2013; Host Dr. Tracey Rogers).
48. *Using a microscope to look at patterns of mammal body size in the fossil record.* Symposium on “From macroecology to macroevolution: the ecological context of extinction and origination”, 10<sup>th</sup> North American Paleontological Convention (NAPC), Gainesville, Florida (February 2014; Chaired by Dr. Seth Finnegan).
49. *Recalibrating the Anthropocene: humans, megafauna and global biogeochemical cycles.* Conference on “Megafauna and ecosystem function: from the Pleistocene to the Anthropocene”, St. Johns College, Oxford (March 2014; Organized by Drs. Yadvinder Malhi, Chris Doughty and Felisa Smith).
50. *Trophic downgrading in past history: mammalian ecosystem responses to the terminal Pleistocene extinction.* Symposium on “Conservation paleobiology: Insights into modern ecosystems from vertebrate records”, 75<sup>th</sup> Annual Society of Vertebrate Paleontology (SVP), Dallas, Texas (October 2015; Chaired by Drs. Larisa DeSantis and Josh Miller).
51. *Body size across the Geozoic.* Department of Biology, University of Utah, Salt Lake City, Utah (January 2016; Host Dr. Sarah George).
52. *After the mammoths: the reorganization of North American mammals after the extinction of megafauna in the terminal Pleistocene.* Natural History Museum of Utah and University of Utah, Salt Lake City, Utah (January 2016; Host Dr. Sarah George).
53. *Unraveling the consequences of the late Pleistocene megafauna extinction.* Consortium of the Americas for Interdisciplinary Science, University of New Mexico, Albuquerque, New Mexico (February 2016; Host Dr. Nitant Kenkre).
54. *After the mammoths: unraveling the consequences of the terminal Pleistocene megafauna extinction on modern ecosystems.* Evolutionary Morphology Seminar, Committee on Evolutionary Biology, University of Chicago, Chicago, Illinois (February 2016; Host Dr. David Jablonski).
55. *After the mammoths: the legacy of the Late Pleistocene megafauna extinction.* Monthly meeting of the Friends of Paleontology, New Mexico Museum of Science and History, Albuquerque, New Mexico (May 2016).
56. *Body size evolution over the Geozoic.* Department of Paleobiology, United States National Museum of Natural History (Smithsonian), Washington, D.C. (October 2016; Host Dr. Danielle Fraser).
57. *Reconstructing ecological relationships among mammals in the late Quaternary.* Symposium on “Models and inference in paleo-macroecology”, International Biogeography Society, Tucson, Arizona (January 2017; Chaired by Dr. Robert Colwell).

58. *Mega no more? The increasing influence of hominids on mammalian body mass over the late Quaternary.* MegaPast2Future Conference, Aarhus, Denmark (May 2017; Organized by Dr. Jens-Christian Svenning).
59. *Megafauna in the past and present.* ‘Rewilding’, 21<sup>st</sup> Annual Calpe Conference, Gibraltar (September 2017; Chaired by Dr. Clive Finlayson).
60. *The past as prologue for the future: the morphological response of mammals to changing climates over time and space.* Plenary talk at the Climate Change Biogeography conference sponsored by the International Biogeography Society, Évora, Portugal (March 2018; Chaired by Dr. Miguel Araújo)
61. *The influence of late Quaternary megafauna extinctions at global, continental and local scales.* Plenary talk at the VI Latin American Congress of Vertebrate Paleontology, Villa de Leyva, Columbia (August 2018; Chaired by Dr. Dirley Cortés).
62. *The influence of hominins on the macroecology of mammals over the late Quaternary.* Symposium on “Big questions, big data: the future of community database efforts in vertebrate paleontology”, 78<sup>th</sup> annual meeting of the Society of Vertebrate Paleontology, Albuquerque, New Mexico (October 2018; Chaired by Drs. Richard Butler, Dani Fraser, and Graeme Lloyd).
63. *The increasing influence of hominins on mammals over time.* Ecology, Evolution, and Conservation Biology seminar series, Oregon State University, Corvallis, Oregon (February 2019; Host Dr. Becca Terry).
64. *The beginning of the Anthropocene? Late Quaternary influence of hominins on mammals.* Biology seminar series, Portland State University, Portland, Oregon (February 2019; Host Dr. Luis Ruedas).
65. *Late Quaternary isolation of mammals on islands in the Sea of Cortez.* Part of the ‘Islands of Evolution’ Public Seminar Series, Tate Geological Museum, Casper College, Casper, Wyoming (May 2019; Host Dr. Patti Wood Finkle).
66. *Directionality and Trends in Paleontology.* Plenary talk at workshop on ‘Long-Term Trends in Evolution’, Tucson, Arizona (March 2019; Organized by Drs. Lucas Mix and Joanna Masel).
67. *Mammal body size over time.* Plenary talk at workshop on ‘Long-Term Trends in Evolution’, Tucson, Arizona (March 2019; Organized by Drs. Lucas Mix and Joanna Masel).
68. *The past as prologue: the morphological response of mammals to temperature over time and space.* Keynote address at satellite meeting “From mechanisms to models: is global warming causing animals to shrink?” held in conjunction with annual meeting of the Society for Experimental Biology, Seville, Spain (July 2019; Chaired by Dr. Sjannie Lefevre).
69. *The crucial role of temperature on the ecology and evolution of mammals.* 2019-2020 R.W. Moriarty Science Seminar Series, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania (February 2020; Host Dr. Heather Hulton Van Tassel).
70. *Late Quaternary impacts of hominins on other mammals.* Department of Ecosystem Science and Management Seminar Series, Texas A&M University, College Station, Texas (March 2020; Hosts Michelle Lawing, Ajinkya Deshpande and Shishir Basant).
71. *The missing piece: how the late Pleistocene extinction of megafauna changed a mammal community in Texas.* Monthly meeting of the Friends of Paleontology, New Mexico Museum of Science and History, Albuquerque, New Mexico (May 2021).
72. *The missing piece: late Pleistocene changes in the ecological function of mammal communities in North America.* Plenary talk, International Biogeography Society Early Career Conference, Amsterdam (April 2020; postponed to October 2021 by Coronavirus pandemic).

73. *Macroevolutionary patterns in vertebrate clades over the last 200 million years: the interaction among body size, metabolism and environment*. Symposium on ‘Causal mechanisms of interspecific metabolic scaling patterns’, Society for Integrative and Comparative Biology, Tucson, Arizona (January 2022; Chaired by Drs. Jon Harrison and Meghan Duell).
74. *The missing pieces: late Pleistocene changes in North America mammal communities after catastrophic biodiversity loss*. Yukon Beringia Interpretive Centre Seminar Series, Whitehorse, Yukon, Canada (February 2022, Chaired by Dr. Grant Zazlua, virtual presentation: <https://www.facebook.com/yukonberingia/videos/907264719959073>).
75. *The missing pieces: changes in North America mammal communities after the terminal Pleistocene biodiversity loss*. Museum Research Training Program Seminar Series, University of New Mexico, Albuquerque, New Mexico (February 2022, Chaired by Dr. Chris Witt).
76. *Limits on animal body size*. Science on Tap, National Museum of Nuclear Science and History, Albuquerque, New Mexico (May 2022; C. Perfetti, host).
77. *The past as prologue: integrating time into ecology*. Keynote address at Gordon Research Conference on “Unifying Ecology Across Scales”, Southern New Hampshire University, Manchester, New Hampshire (August 2022; Chaired by Drs. Angelica Gonzalez and John DeLong).
78. *Integrating time into ecology*. Invited Speaker, Synthesizing Biological Scaling: Towards a Universal Theory. Santa Fe Institute, Santa Fe, New Mexico (November 2022; B.J. Enquist, M. O’Connor and C. Kempes, organizers).
79. *The missing pieces: lost ecological function following the terminal Pleistocene megafauna extinction*. University of Florida, Gainesville, Florida (February 2023; S.K.M. Ernest, host).
80. *Mammal body size: from mice to mammoths and back again*. C.H. Merriam Award Plenary Lecture, 102<sup>nd</sup> Annual Meeting of the American Society of Mammalogists, Anchorage, Alaska (July 2023).

#### B. Invited Workshops and Working Groups

1. National Science Foundation/National Center Ecological Analysis and Synthesis workshop on *Scaling in Biology: from organisms to ecosystems* (J.H. Brown and G. West, organizers), Santa Fe Institute, Santa Fe, New Mexico, October 1997.
2. Ecological Society of America and Geological Society of America Penrose Conference on *Linking spatial and temporal scales in paleoecology and ecology* (A.S. Cohen, J.H. Brown, D. Springer, and P. Holterhoff, organizers), Chesapeake Bay, Virginia, May 1998. Participant and Panel Member.
3. National Center Ecological Analysis and Synthesis Working Group on *Habitat and climate inference from the structure of mammalian communities* (J. Damuth, group leader), Santa Barbara, California, 1998-2001. Member.
4. National Center Ecological Analysis and Synthesis Working Group on *Body Size in Paleobiology and Ecology: linking pattern and process across spatial, temporal and taxonomic scales* (FA Smith, group leader), Santa Barbara, California, 1999-2002. Group leader and Organizer.
5. National Science Foundation/Santa Fe Institute workshop on *Hierarchies and Scales* (C. Allen and C.S. Holling, Organizers), Santa Fe Institute, Santa Fe, New Mexico, May 2001.
6. Gordon Research Conference on the *Metabolic Basis of Ecology* (J.H. Brown and J.F. Gillooly, Chairs), Bates College, Maine, July 2004. Discussion Leader.
7. *Ecological History and Conservation Workshop* (J. Dolan, H.W. Greene, and P.S. Martin, Organizers). Ladder Ranch, New Mexico, September 2004.

8. *Technology of Nature, Nature of Technology* Workshop (J.H. Brown and S. Forrest, Organizers). Albuquerque, New Mexico, November 2005.
9. *Quality Education of Minorities Network* Workshop, National Science Foundation Directorate for Biological Science, Albuquerque, New Mexico, March 2006. Invited Speaker.
10. Research Coordination Network *IMPPS: Integrating macroecological patterns and processes* (F.A. Smith, PI; S.K.M. Ernest, and S.K. Lyons, Co-PI's), Santa Fe, New Mexico, 2006 to 2012. Group leader and Organizer.
11. National Evolutionary Synthesis Center (NESCent) Working Group on *Phanerozoic body size trends in time and space* (J. Payne, J. Stempien, and M. Kowalewski, group leaders), Raleigh, North Carolina, 2007-2015. Member.
12. Gordon Research Conference on the *Metabolic Basis of Ecology* (M. Kaspari and B. Sterne, Chairs), College of New England, Biddeford, Maine, July 2008. Invited Speaker.
13. *Integrating datasets to investigate megafaunal extinction in the Late Quaternary*. National Evolutionary Synthesis Center (NESCent) Catalyst Meeting (J. Metcalf, R. Guralnick and A. Cooper, organizers), Raleigh, North Carolina, May 2010.
14. *A paleoperspective on climate change*. Visiting scholar for short course in Oklahoma Scholar-Leadership Enrichment Program (OSLEP). OSLEP is a unique intercollegiate, interdisciplinary program designed to develop the scholarship and leadership abilities of Oklahoma's outstanding college and university students, Oklahoma City, Oklahoma. February 2011.
15. NCEAS Symposium *Celebrating 15 years of ecological analysis and synthesis* (Cherie Briggs, Kathy Cottingham and Craig Osenberg, organizers), National Center for Ecological Analysis and Synthesis, Santa Barbara, California, March 2012.
16. *Mapping NESCent's future* (Allen Rodrigo, organizer), National Evolutionary Synthesis Center, Raleigh, North Carolina, May 2012.
17. Gordon Research Conference on the *Metabolic Basis of Ecology* (James Elser and Melanie Moses, Chairs), College of New England, Biddeford, Maine, July 2012. Invited Speaker.
18. Conference/workshop on *Megafauna and ecosystem function: from the Pleistocene to the Anthropocene* (Y. Malhi, C. Doughty, and F.A. Smith, organizers), St. Johns College, Oxford, March 2014. Co-organizer and speaker.
19. NEOTOMA database workshop on *Biotic response to climate change: viewing the future through the past* (A. Ashworth, R. Graham, E. Grimm, A. Smith, J. Williams and C. Ormand, organizers), Carleton College, Northfield, Minnesota, October 2015.
20. MegaPast2Future Semper Ardens project (funded by Carlsberg Foundation; Jens-Christian Svenning, group leader), 2016-2020, Aarhus, Denmark; Invited Speaker.
21. International Biogeography Society Conference on *Climate Change Biogeography* (Miguel Araújo, Chair), Évora, Portugal, March 2018. Member of Scientific Committee and Plenary Speaker.
22. International Quaternary Association (Keith Bennett, Chair). Member of scientific programme committee for 2019 meeting. Dublin, Ireland. July 2019.
23. *Long-term trends in Evolution* workshop (funded by John Templeton Foundation; Lucas Mix and Joanna Masel, organizers), Tucson, Arizona, March 2019. Invited Speaker.
24. Gordon Research Conference on "Unifying Ecology Across Scales" (Drs. Angelica Gonzalez and John DeLong, Chairs), Southern New Hampshire University, Manchester, New Hampshire, August 2022. Invited Plenary Speaker; postponed from July 2020 by Coronavirus pandemic.

25. Research Coordination Network *E<sup>6</sup>: Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers* (S.K. Lyons, S. Darroch, C. Looy and P. Wagner, Co-PI's), 2021 to 2026. RCN Steering Committee member, Ombudsperson, and participant.
26. Santa Fe Institute workshop on *Synthesizing biological scaling: towards a universal theory* (B.J. Enquist, M. O'Connor and C. Kempes, organizers), Santa Fe Institute, Santa Fe, New Mexico, November 2022.

### C. Contributed Papers and/or Published Abstracts

American Society of Mammalogists (1988, 1989, 1991-2012, 2015-2023); American Quaternary Association (1996, 2016); Ecological Society of America (1995, 1997, 2002, 2004, 2007, 2009, 2014); International Biogeography Society (2003, 2005, 2007, 2009, 2011, 2015, 2017-2024); International Congress of Ecology (2009); International Union for Quaternary Research (2011, 2019); International Congress for Conservation Biology (2011); International Mammal Congress (2013, 2017, 2023); International Paleontological Congress (2018); Joint meetings of the American Society of Naturalists and the Society for Study of Evolution (1988, 1994, 2005); North American Paleontological Congress (2009, 2014, 2019); Paleontological Society (2002-2023); Society for Experimental Biology (2019); Society of Vertebrate Paleontology (2001, 2010, 2011, 2015, 2016, 2018, 2021, 2023); Southwestern Association of Biologists (1993, 1994, 1996-2001); Southwestern Population Biology Conference (1988).

### D. Educational Interviews and Articles (selected examples)

- *What's hidden in a midden?* Scholastic Magazine (Fall 1992)
- *Revelations of rat scat*, Discover Magazine (September 1993)
- *The debate over global climate change*, Crosswinds Magazine (December 1995)
- *Woodrats drop themselves in it to be sized up*, BBC World Science Unit - Science in Progress (aired December 1995)
- *Warme macht zwerge*, Geo Magazine (April 1996; published in German).
- *Nature's furry archivists. Packrat middens hold clues to life, land, climate*, Arizona Republic Newspaper (June 1996)
- *Rodents were bigger when it was cooler*, Arizona Republic Newspaper (June 1996)
- *Packrat treasures yield gold*, Audubon Magazine (December 2000)
- *Size Matters*, Earth and Sky Science Radio Program (August 2002)
- Many radio, television and news interviews about 2005 *Nature* paper on Pleistocene rewilding proposal. Samples include: "Scientists hope for big game comeback" Los Alamos Monitor; "Beasts of both worlds: scientists propose 'rewilding'" USA Today; "Wild kingdom at a farm near you?" (CBS News); "Big game could roam plains" (BBC News); *Lions and elephants on the Great Plains?* (CNN news); "Back to the future" (The Economist); "Call of the wild US for African animals"(The Australian); (August-October 2005); This article was covered widely in the national and international print, radio, and TV media including: *New York Times*; *New York Times Magazine's 'Big Ideas of 2005'*; *Associated Press*; *USA today*; *Economist*; *CNN with Lou Dobbs*, *CNN Headline News*; *Good Morning America*, *NBC Today Show*; *NPR All Things Considered*; *US News & World Report*; *CBS Radio News*; *Newsweek*, *Los Alamos Reporter*; *NPR Talk of the Nation-Science Friday*, *BBC News*; *BBC The World*; *Daily Telegraph*; *National Geographic News*; *Christian Science Monitor*; *Fohla de San Paulo (Brazil)*; *LiveScience.Com (syndicated)*; *Telepolis Magazine (Germany)*; *Der Spiegel*; *Science & Vie (French Science Magazine)*; *PRI Radio Free Europe*; *Fohla de S. Paulo (Brazilian Newspaper)*; *Cornell Sun*; *The Pioneer*; *NY Newsday*; *Syracuse Post-Standard*; *Reuters*; *Tech Central Station (Texas)*; *The Guardian*; *Feature Story News (South Africa)*; *The World Today/Nightline B.C Radio (Canada)*; *Le Figaro (Paris Newspaper)*; *GeoTimes Magazine*; *The Times of India*; *Taipei Times*; *The Australian*; *Seattle Times*; *Discovery Channel*, *The Daily Planet*, *New Scientist*, *Progressive Farmer*; *Outside Magazine*; *Earthwatch Radio*; *Boy's Life Magazine*; *Sueddeutsche Magazine*; *Sports Afield Magazine*; *Weekly*

*Reader; Conservation in Practice Magazine; Seed Magazine. Weekly Reeder, NZ Herald; and New Scientist Magazine.*

- Live television studio interview about *Pleistocene Rewilding* on KRQE Channel 13 evening news with news anchor Deanna Saucedo; broadcast November 2005
- Tapped studio interview about global warming for KUNM radio station (Broadcast April 2007)
- *Evolve - Body size*. Filmed interviews, lab and field work for 13 part History Channel series on evolution and body size. Also served as scientific consultant to producers of series (Broadcast October 2008)
- Tapped Radio interview “*A mammoth amount of methane*” for the Canadian Broadcasting Corporation science show “*Quirks and Quarks*” (June 2010)
- Tapped Radio interview “*Vernachlässigte Blähungen: Bereits vor 13.000 Jahren bewirkten Menschen indirekt Klimaveränderungen*” for the German public radio (Deutschlandfunk) and the German BBC (www.dradio.de/dlf/sendungen/forschak/) networks (June 2010)
- Tapped Radio interview for National Public Radio’s *Wait Wait Don’t Tell Me* program (September 2010)
- Numerous interviews and news articles about 2010 and 2011 *Nature Geosciences* papers on methane emissions from extinct megafauna. Samples include: *New Scientist*, “*Mammoth extinction triggered climate cooling*” *USA Today*, “*Mammoths contributed to global warming with methane emissions*” *Daily Telegraph*, “*Mammoth gas emissions helped keep planet warm, scientists say*” *Sydney Morning Herald*, “*As mammoths died out, earth chilled*” *Discovery News*, “*Scientists explain global chill*” *France 24*, “*Tod der Mammuts führte zu Abkühlung der Erde*” *Welt Online*, “*Mammoth's decline led to global freeze: study*” *Calgary Herald*, “*Megafauna die-off may have cooled planet*” *ABC Online*, “*Mammoth gas emissions helped keep planet warm, scientists say*” *Brisbane Times*, “*Mammut-Massaker soll Kältewelle ausgelöst haben*” *Spiegel Online*, “*L’extinction des grands herbivores a-t-elle refroidi la planète?*” *Romandie News*, *National Geographic News* and other outlets.
- Filmed interviews for BBC’s *Horizon* documentary program on Pleistocene fauna and rewilding on location in Pryor Mountains of Montana (episode aired for the first time in March 2011).
- Taped Radio interviews for *EarthSky*, *CBC Radio One* show “*As it Happens*”, *BBC World Service World Today* programme, *Deutschlandfunk*, *Redaktion Forschung aktuell* (German public radio) and other venues (November-December 2010).
- Numerous interviews about 2010 *Science* paper on body size in Cenozoic mammals including live and taped radio and video broadcasts for: the National Science Foundation, National Broadcasting Radio, *Earth and Sky Radio*, the Canadian Broadcasting Corporation, the British Broadcasting Corporation (BBC), and the Nationwide German public radio (Deutschlandfunk) and the German BBC (www.dradio.de/dlf/sendungen/forschak/) network. Hundreds of print articles appeared including *New York Times*, *CBS online*, *London Daily Telegraph*, *BBC World News*, *USA Today*, *Discovery News*, *National Geographic News*; *Christian Science Monitor*; *LiveScience.Com* (syndicated); *Der Spiegel*; *GeoTimes Magazine*; *Agence Press*, *Cosmos Magazine*, *India Express*; *Conozca Más*, *NPR*, *Taipei Times*; *The Australian*; *Muy Interesante Magazine*, *Seattle Times*; *Albuquerque Journal*, *Scientific American*, *Science Daily*, *Science Live*, *Yale Daily News*, *Discovery Channel*, *Folha de S. Paulo* (Brazil’s largest circulation daily newspaper), *Västerbottens-Kuriren* (Swedish Magazine), *videnskab dk* (Danish News Magazine), *Science News*, and *New Scientist Magazine*.
- Essay by author Summer Wood on Smith Lab Death Valley field-work published at *Flyway* (online journal of writing and the environment): <http://flyway.org/nonfiction/how-to-love-this-world/>
- BBC Earth: <http://www.bbc.com/earth/story/20151021-when-animals-shrink-to-miniature-form>
- Numerous interviews about 2014, 2015, 2019, 2021a,b *Science* papers on dinosaur metabolism and community structure. With coaching, my graduate students interfaced with the press on these papers since they were the first

authors of the work. Articles appeared in many prestigious national and international journals (i.e., *New York Times*, *The Guardian and Independent*).

- Numerous interviews about 2018 *Science* paper on body size downgrading including live and taped radio broadcasts for: *NPR All Things Considered*, National Broadcasting Radio (NPR Science), CBS News Radio, Swiss Public Radio and others. Hundreds of print articles appeared including *New York Times*, *CBS online*, *Science*, *London Daily Telegraph*, *BBC World News*, *USA Today*, *NBS News*, *US News*, *Wired*, *Scientific American*, *Los Angeles Times*, *ABC news*, *Newsweek*, *Le Monde*, *Atlantic*, *Mashable*, *El Pais*, *Agence France Presse*, *Washington Post*, *The Hindu Business Line*, *World Economic Forum*, *The Conversation*, *The Guardian*, *Star Tribune*, *Salon*, *Le Figaro*, *Waterton Daily Times*, *Le Scienze*, *the Independent*, *San Diego Union Tribune*, *Tech Times*, and many public radio stations (e.g., *Oregon*, *New Hampshire*, *Kansas City Radio*, *Omaha*, etc.)
- Tapped Radio Interview for NPR All Things Considered (April 2018); <https://www.npr.org/sections/thetwo-way/2018/04/19/604031141/new-study-says-ancient-humans-hunted-big-mammals-to-extinction>
- Tapped Radio interview for BBC Radio Science Unit, *The Power of Petite* (May 2019; broadcast August 2019); <https://www.bbc.co.uk/programmes/m0007bck>
- Tapped Zoom interview for PBS NOVA digital series on *Size constraints on organisms* (November 2021; <https://www.pbs.org/wgbh/nova/video/dune-sandworm-exist/>)

#### E. Other Outreach Activities

- UNM Research Day Judge (most years from 1998-2017); co-Chair 1998 and 1999
- New Mexico Northwest Regional State Science Fair Judge (1995, 1997, 1998)
- Scientific presentations at Mountain View Academy (1996), E.J. Martinez Elementary School (1997-2001), New Mexico Horseman's Association (2010), and New Mexico Friends of Paleontology (2013, 2015, 2016).
- Panel member on "*Balancing Career and Family Obligations*", Symposium on Women in Science, University of Alaska, Fairbanks (1999); Panel member on "*Networking*", graduate student workshop, University of New South Wales (2013).
- Participant in American Society of Mammalogist's "Breakfast with a Scientist" program (1997, 1999, 2000, 2003, 2007).
- Scientific consultant to BBC Natural History Unit in England
- Various interviews on general scientific topics for local newspapers (*Albuquerque Journal*, *Los Alamos Monitor*, *Crosswinds Magazine*; 2005 to present)
- Co-organizer of *Darwin's Legacy: a symposium celebrating Charles Darwin's 200<sup>th</sup> birthday*. University of New Mexico (12 February 2009)
- Founder and Faculty Sponsor of UNM BioBlog (<http://unm-bioblog.blogspot.com>); currently >300,000 page views (2011 to present)
- Initial faculty sponsor, 'Women in Science' student organization, University of New Mexico (2016 - 2017)

#### F. Committees and Professional Service

##### Societies

- Member, Committee on Public Education, American Society of Mammalogists (1992-1996)



- Member, ad hoc committee on Women and Minority Issues, American Society of Mammalogists (1992-1996)
- Member, ad hoc Committee on Human Diversity in Mammalogy, American Society of Mammalogists (1996-1998)
- Chair, Committee on Human Diversity, American Society of Mammalogists (1998-2002)
- Member, ad hoc Strategic Planning Committee, American Society of Mammalogists (1996-1999)
- Member, Grants-in-Aid Committee, American Society of Mammalogists (2000-2007)
- Chair, Organizing committee for Southwestern Association of Biologists (SWAB) meeting in Abiquiu, New Mexico (1994 and 1999)
- Elected Member, Board of Directors, American Society of Mammalogists (1999 to present; re-elected 6 times for 3 year terms).
- Ombudsperson, American Society of Mammalogists (2002 to 2016, reappointed annually)
- Chair, Merriam Award Committee, American Society of Mammalogists (2012 to 2016)
- Vice President for Development and Awards, International Biogeography Society (2003-2005)
- Chair, Alfred Russel Wallace Award Committee, International Biogeography Society (2006-2015)
- Host and Chair of 2016 American Quaternary Association (AMQUA) biannual meeting, Santa Fe (June 2016)
- Vice President, American Society of Mammalogists (2016-2018, reelected 2018-2020)
- Local host Committee, Society of Vertebrate Paleontology 2018 meeting
- Member. Executive Scientific Programme Committee, International Quaternary Association (2017-2019)
- President Elect, International Biogeography Society (2019-2021); Co-Chair 2021
- President, International Biogeography Society (2022-2024)
- President Elect, American Society of Mammalogists (2021-2023)
- Chair, Planning and Finance Committee, American Society of Mammalogists (2021-2023)
- Member, Development Committee, Paleontological Society (2022-)

#### Advisory Board Member

- Member, Grazing Advisory Panel, United States Forest Service, Albuquerque, New Mexico (1999, 2001)
- Board Member, Science Advisory Board, National Center for Ecological Analysis and Synthesis (NCEAS), (2009-2013)
- *Working Group Panel Member*, Conservation Paleobiology Network Working Group Advisory Panel (2022-)
- Steering Committee member, and Ombudsperson, Research Coordination Network *E<sup>6</sup>: Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers* (2021 to present).
- *Board of Directors, International Federation of Mammalogists* (2022 to present)

#### Grant/Fellowship Review Panels

- Panel Member, NSF DEB Population Biology Cluster Advisory Panel (2004)
- Panel Member, NSF DEB Population Biology Cluster Advisory Panel (2005)
- Panel Member, NSF DEB Ecology/Ecosystems Advisory Panel (2006)
- Panel Member, NSF DEB Special Advisory Panel on Phylogeography (2007)
- Panel Member, NSF DEB Research Coordination Network Advisory Panel (cross-directorate; 2008)
- Panel Member, NSF DEB CAREER- Research Coordination Network Panel Joint Advisory Panel (joint panel from Population and Community Ecology/Ecosystems 2009)
- Member, Howard Hughes Medical Institute International Graduate Student Research Fellowship Review Panel (2011)
- Panel Member, U.S. Student Fulbright Regional Screening Committee (3-year term; 2011-2014)
- Panel Member, NSF Biology Postdoctoral Research Fellowship Advisory Panel (2016)
- Panel Member, NSF DEB Population and Community Ecology Full Proposal Panel (2016)
- Panel Member, NSF Postdoctoral Research Fellowships in Biology – Research Using Biological Collections (2018)

#### Editorial Service

- Board Member, University of New Mexico Press, University of New Mexico (1999-2002).
- Guest Subject Editor, *Ecology*, (Spring 2008)
- Subject Editor, *Ecology*, (2008-2015)
- Associate Editor, *Paleobiology*, (2009-2012)
- Guest Editor, *Proceedings of the National Academy of Science* (2015)
- Guest Editor, *Ecography* (2015)
- Associate Editor, *Royal Society Proceedings B* (2014-2019)

#### University Service

- Member, Joint Mathematics/Biology Faculty Search Committee (2007)
- Member, Ecology Faculty Search Committee (2011)
- Ad hoc Member, UNM Computer Science Promotion and Tenure Committee (2012-2013)
- Undergraduate Student Biology Advisor, Department of Biology (2007-2008)
- Chair, Graduate Student Selection Committee, Department of Biology (2008-2009); Member (2009-2010).
- Chair, Scholarship Committee, Department of Biology (2010-2011; 2016-2017); Member, (2012-2013, 2013-2014, 2015-2016)
- Member, Graduate Student Policy Committee (2013-2014, 2015-2016, 2016-2017)

- Member, Promotion and Tenure Committee (2016-2017, 2018, 2019-2020); Chair (2019)
- Led development of an official transcripted concentration in Ecology, Evolution and Organismal Biology (EEOB) within the UNM Biology major (Approved 2014)
- Co-Director, PiBBs (2006-2010); Director (2010-2017)
- Member, Herpetology Curator Faculty Search Committee (2019)
- Member, Arts and Sciences Senior College Promotion Committee (2017-2018, 2019-2020)
- Co-Chair, Diversity and Inclusion Committee, Department of Biology (2020 to 2022)
- Member, Annual Faculty Review Committee, Department of Biology (2021-2022, 2022-2023)
- Member, University Senate Graduate and Professional Committee (2022-2023)
- Member, University of New Mexico Honorary Degree Committee (2022-2023)

#### G. Society Membership

American Association for the Advancement of Science, American Quaternary Association, American Society of Mammalogists, Ecological Society of America, International Biogeography Society, Paleontological Society, Society for Vertebrate Paleontology

#### H. Outside Reviewer

*Animal Conservation, Arctic and Alpine Research, Biological Journal of the Linnean Society, Bioscience, Canadian Journal of Zoology, Conservation Biology, Diversity and Distributions, Ecography, Ecology, Ecology Letters, Evolution, French Research Agency -ANR (Agence Nationale de la Recherche), Global Ecology and Biogeography, Israeli Science Foundation, Journal of Biogeography, Journal of Mammalogy, Journal of Zoology, Mammalia, Mammalian Species, National Science Foundation, Nature, Occasional Papers of the Museum of Southwestern Biology, Oecologica, Paleobiology, Physiological and Biochemical Zoology, The Prairie Naturalist, Proceedings of the Royal Society, Proceedings of the National Academy of Science, Public Library of Science, Quarterly Review of Biology, Quaternary Research, Science, Southwestern Naturalist, and Western North American Naturalist.*