

Felisa A. Smith

Professor of Biology

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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

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

II. Professional Experience

Vice President, American Society of Mammalogists (2016-2018)

Guest Editor, *Ecography* (2015)

Associate Editor and Member, Editorial Committee, Royal Society Proceedings B (2014 to 2016, 2016 to present)

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 present); 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 to 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)

III. Grants

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. Newsome, co-PIs. (05.2016 to 04. 2019) \$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 *PiBs: 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*. FA 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; J.H. Brown, mentor (08.1993 to 07.1996). \$105,000 total costs.

IV. 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 woodrat body size tracks 20,000 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** 77:609-613.
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** 77:614-629.
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.
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** 50:1-11.
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** 152:160-161.
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** 21:140-148; 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** 3:145-156.
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** 27:483-500; 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** 3:157-160.

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** 2: 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** 5:449-461.
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** 59:160-171.
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. (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** 84:3402.
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** 6:990-995; 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** 6:339-358.
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** 163:672-691.
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** 6:783-797.
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** 7:859-868; 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** 436:913-914.
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** 9:853-869; 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** 33:2061-2076; 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** 168:660-681.
39. Smith, F.A. 2006. On the lack of women in academic science. **Science** 314:592. (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. Frontiers in Quaternary paleobiogeographic research. **Progress in Physical Geography** 32:139-172.
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** 32:115-138.
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** 65:122-133.
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** 106:24-27.
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** 52:632-642.
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** 12:403-412.
47. †Smith, F.A., S.M. Elliott and S.K. Lyons. 2010. Methane emissions from extinct megafauna. **Nature Geosciences** 3:374-375 + 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. Pages 1-26 In J. Alroy and G. Hunt (eds.), **Quantitative methods for studying paleobiology**. Paleontological Society Papers volume 16.
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** 330:1216-1219 + 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**

107:37-57 (Advance online publication September 2010; DOI: 10.1007/s11120-010-9593-1).

52. Smith, F.A. 2011. Here be biogeographers. **Bioscience** 61:76-77.
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** 26:251-255.
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** 4:1-2.
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. Dragoo, 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** 71:176-194.
57. Pardi, M.I. and F.A. Smith. 2012. Paleoecology 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** 335:924-925.
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** 109:4187-4190.
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** 90:1171-1180.

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** 61:1349-1354.
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** 182:524-531.
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. Rates and limits of body size evolution: the effects of allometry, production, and lifestyle. **Proceedings of the Royal Society B** 280(1764):20131007; DOI:10.1098/rspb.2013.1007.
71. Smith, F.A., I.W. Murray, L.E. Harding, H.M. Lease and J. Martin. 2014. Life in an extreme environment: a historical perspective on the influence of temperature on the ecology and evolution of woodrats. **Journal of Mammalogy** 95:1128-1143.
72. Smith, F.A., J.L. Gittleman and J.H. Brown. 2014. The macro of macroecology. Pages 1-4 in **Foundations of Macroecology** (F.A. Smith, J.L. Gittleman and J.H. Brown, editors), University of Chicago Press, Chicago.
73. Evans, A., D.P. Costa, K. Niklas, R.M. Sibly and F.A. Smith. 2014. Dimensions of macroecology: allometry and body size. Pages 150-153 in **Foundations of Macroecology** (F.A. Smith, J.L. Gittleman and J.H. Brown, editors), University of Chicago Press, Chicago.

74. Smith, F.A. 2014. Commentary on Brown and Nicoletto. Pages 245-246 in **Foundations of Macroecology** (F.A. Smith, J.L. Gittleman and J.H. Brown, editors), University of Chicago Press, Chicago.
75. †Grady, J.M., B.J. Enquist, E. Dettweiler-Robinson, N.A. Wright and F.A. Smith. 2014. Evidence for mesothermy in dinosaurs. **Science** 344:1268-1272; DOI: 10.1126/science.1253143.
76. Saarinen, J. J., A.G. Boyer, J.H. Brown, D.P. Costa, S.K.M. Ernest, A.R. Evans, M. Fortelius, J.L. Gittleman, M.J. Hamilton, L.E. Harding, K. Lintulaakso, S.K. Lyons, J.G. Okie, R.M. Sibly, P.R. Stephens, J. Theodor, M.D. Uhen and F.A. Smith. 2014. Patterns of maximum body size evolution in Cenozoic land mammals: eco-evolutionary processes and abiotic forcing. **Proceedings of the Royal Society B** 281 (1784): 20132049; DOI: 10.1098/rspb.2013.2049.
77. †Grady, J.M., B.J. Enquist, E. Dettweiler-Robinson, N.A. Wright and F.A. Smith. 2015. Response to Comments on “Evidence for Mesothermy in Dinosaurs”. **Science** 348:982-984; DOI: 10.1126/science.1260299.
78. †Smith, F.A., S.M. Elliott, S.K. Lyons and P. Wagner. 2015. The importance of considering animal body mass in IPCC greenhouse inventories and the underappreciated role of wild herbivores. **Global Change Biology** 21:3880-3888; DOI: 10.1111/gcb.12973.
79. Pardi, M.I. and F.A. Smith. 2015 (online); 2016. The response of canids to the terminal Pleistocene megafauna extinction. **Ecography** 39:141-151 (Advance online publication September 2015; DOI: 10.1111/ecog.01596).
80. †Smith, F.A., J.I. Hammond, M.A. Balk, S.M. Elliott, S.K. Lyons, M.I. Pardi, C.P. Tomé, P.J. Wagner and M.L. Westover. 2015 (online); 2016. Exploring the influence of ancient and historic megaherbivore extirpations on the global methane budget. **Proceedings of the National Academy of Science USA** 113:874-879. (Advance online publication September 2015; DOI: 10.1073/pnas.1502547112).
81. Smith, F.A., C.P. Tomé, E.A. Elliott Smith, S.K. Lyons, S.D. Newsome and T.W. Stafford. 2015 (online); 2016. Unraveling the consequences of the terminal Pleistocene megafauna extinction on mammal community assembly. **Ecography** 39:223-239 (Advance online publication September 2015; DOI: 10.1111/ecog.01779).
82. †Smith, F.A., C. Doughty, Y. Malhi, Y., C. Doughty, J-C Svenning and J. Terborgh. 2015 (online); 2016. Megafauna in the Earth System. **Ecography** 39:99-108 (Advance online publication September 2015; DOI: 10.1111/ecog.02156).
83. †Malhi, Y., C. Doughty, M. Galetti, F.A. Smith, J-C. Svenning and J. Terborgh. 2016. Megafauna and ecosystem function: from the Pleistocene to the Anthropocene. **Proceedings of the National Academy of Science USA** 113:838-846.

84. Smith, F.A., J.L. Payne, M. Balk, S. Finnegan, N.A. Heim, M. Kowalewski, S.K. Lyons, C.R. McClain, D.W. McShea, P.M. Novack-Gottshall, P.A. Spaeth Anich and S.C. Wang. 2016. Body size evolution across the Geozoic. **Annual Review of Earth and Planetary Sciences** 44:523-553 (DOI: 10.1146/annurev-earth-060115-012147).
85. †Plotnick, R., F.A. Smith and S.K. Lyons. 2016. The fossil record of the sixth extinction. **Ecology Letters** 19:546-553 (Advance online publication March 2016; DOI:10.1111/ecog.02156).
86. Lyons, S.K., J.H. Miller, D. Fraser, F.A. Smith, A. Boyer, E. Lindsey and A.M. Mychajliw. 2016. The changing role of mammal life histories in late Quaternary extinction vulnerability on continents and islands. **Biology Letters** 12(6):20160342 (DOI: 10.1098/rsbl.2016.0342. Published 21 June 2016).
87. Beever, E.A, L.E. Hall, J. Varner, A.E. Loosen, J.B. Dunham, M.K. Gahl, F.A. Smith, and J.J. Lawler 2017. Behavior as a mechanism for coping with climate change. *Frontiers in Ecology and the Environment*. **Frontiers in Ecology and the Environment**, *in press*.
88. Harding, L.E., F.A. Smith, I.W. Murray, H.M. Lease and J.T. Martin. 2016. 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. (<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. (<http://press.uchicago.edu/ucp/books/book/chicago/F/ bo17312836.html>)

Writings in review or revision (*not inclusive*)

- a. McClain, C.R., P.M. Novack-Gottshall, S. Wang, C. Francis, J. Brown, A.G. Boyer, S. Finnegan, Z. V. Finkel, J. H. Knouft, M. Kowalewski, R.A. Krause, Jr., S.K. Lyons, D.W. McShea, J. Nekola, S.I. Passy, J.L. Payne, F.A. Smith, P.A. Spaeth, J.A. Stempien and P. Watkins. Extreme natural variability in local body size distributions, in revision.
- b. Finnegan, S., A.G. Boyer, J.H. Brown, M.E. Clapham, Z.V. Finkel, M.A. Kosnik, M. Kowalewski, R.A. Krause, Jr., S.K. Lyons, C.R. McClain, D.W. McShea, P.M. Novack-Gottshall, R. Lockwood, J.L. Payne, F.A. Smith, P.A. Spaeth, J.A. Stempien and S.C.

Wang. Life and death in the sea: body size does not predict extinction risk in the Phanerozoic marine fossil record, in revision.

- c. Uhen, M.D., A.G. Boyer, J.H. Brown, D.P. Costa, S.K.M. Ernest, A.R. Evans, 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 and J. Theodor. The trajectory of marine mammal body mass over the Cenozoic, in review.
- d. Balk, M.A., J.L. Betancourt and F.A. Smith. Adaptation *in situ*: an underappreciated response to climate change. *Global Change Biology*, in review.
- e. Heim, N.A., J.L. Payne, S. Finnegan, M.L. Knope, M. Kowalewski, S.K. Lyons, D.W. McShea, P.M. Novack-Gottshall, F.A. Smith, and S.C. Wang. Hierarchical complexity and the size limits of life, in review.

Popular writing

1. Smith, F.A. 2011. Scientific Perspiration (<http://unm-bioblog.blogspot.com/2011/10/scientific-perspiration.html>)
2. Smith, F.A. 2011. What's in a Name? (http://unm-bioblog.blogspot.com/2011/05/whats-in-name_6508.html)
3. Smith, F.A. 2011. Visions in the Mist (<http://unm-bioblog.blogspot.com/2012/06/visions-in-mist.html>)
4. Smith, F.A. 2012. The Night of the Living Squid (<http://unm-bioblog.blogspot.com/2012/02/night-of-living-squid.html>)
5. Smith, F.A. 2012. Politics, Science and Thomas Jefferson (<http://unm-bioblog.blogspot.com/2012/09/politics-science-and-thomas-jefferson.html>)
6. Smith, F.A. 2013. The Bone Wars (<http://unm-bioblog.blogspot.com/2013/02/the-bone-wars.html>)
7. Smith, F.A. 2013. Mary Sells Seashells (<http://unm-bioblog.blogspot.com/2013/09/mary-sells-sea-shells.html>)
8. 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>)
9. BioBlog Group. 2014. Reindeer: more rapid than eagles (<http://unm-bioblog.blogspot.com/2014/12/reindeer-more-rapid-than-eagles.html>)
10. 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>)

11. Smith, F.A. et al. 2016. I voted, did you? (<http://unm-bioblog.blogspot.com/2016/11/i-voted-have-you.html>).
12. 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>).

Writings in preparation (*not inclusive*)

- a. 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. Mammoth v1.0: mammalian mass over time and hierarchical scales. Ecology, in prep.
- b. Smith, F.A. *Mammalian Paleoecology: a historic perspective on the relationship between animals and their environment*. Johns Hopkins University Press, in prep. (contract signed, delivery date Fall 2019).
- c. Martin, J.T., H.M. Lease, I.W. Murray, M.D. Dearing, J. Varner, L.E. Harding, and F.A. Smith. Living on the edge: mesquite spines mediate the survivorship of desert woodrats (*Neotoma lepida*) in Death Valley, California.
- d. Grady, J.M., A. Winter, B. Maitner, J.H. Brown, K. Kaschner, D. Tittensor, A. Dell and F.A. Smith. Metabolic asymmetry drives the distribution of marine predators.
- e. Smith, F.A., R.E. Elliott Smith, S.K. Lyons and J.L. Payne. The increasing role of humans on mammalian macroecological patterns over the late Quaternary.

V. Instruction

Current Courses:

- Ecology of the Past (Biology 419/519); Fall semester, even years
- Topics in Integrative Biological and Biomedical Sciences (TiBBs; Biology 520); Fall semester, episodically
- Seminar in Integrative Biological and Biomedical Sciences (SiBBs; Biology 503); Spring semester, episodically
- Collaborative Interdisciplinary Teaching (CiT; Biology 525); episodically
- Graduate Ecology Core (Biology 516); Fall semester, most years
- 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
- Ecology and Evolution (Biology 203); episodically
- General Research Problems, Masters and Ph.D. Dissertation Hours (Biology 400, Biology 499, Biology 551, Biology 599); all semesters

Courses Taught in the Past:

- Graduate Evolution Core (Biology 517)
- Of mice, mastodons and men (Arts and Sciences 198)
- Biology (Natural Sciences 262 - Biology/Science Methodology course for elementary school teachers)
- Ecology & Evolution Core (Biology 122)
- Environmental Problems of New Mexico (Earth and Planetary Science 305)

VI. Student and Postdoctoral Associates

Postdoctoral Associates:

Completed (and current position)

S. Kathleen Lyons (2001-2003), Assistant Professor, Department of Biology, University of Nebraska, Lincoln.

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), Postdoctoral Fellow, Santa Fe Institute, Santa Fe, NM.

John Hammond (2011-2016), Assistant Professor, Marian University, WI

Current

N/A

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*. Assistant Professor, Asland 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*. Zookeeper, Albuquerque BioPark Zoo, Albuquerque, NM.

Marie Westover (M.S. Plan B 2015) PhD Student at UNM

Catalina Tomé (M.S. Plan B 2015) PhD Student at UNM.

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*. Postdoc, Bryn Mawr University, Bryn Mawr, PA.

Melissa I. Pardi (Ph.D. 2016) *A multidimensional investigation of the niche: late Quaternary canids and humans in North America*. Postdoc, University of New Hampshire, Durham, NH

Meghan A. Balk (Ph.D. 2017) *Where the wild things are: investigating body size as a mechanism for persistence*. Postdoc, Smithsonian National Museum of Natural History.

Current

Catalina Tomé (Ph.D. student)

Marie Westover (Ph.D. student)

Kat Schroeder (Ph.D. student)

Graduate Committees:

Completed

S.K. Morgan Ernest (Ph.D. 2000, major advisor J.H. Brown)

Ethan White (Ph.D. 2005; major advisor J.H. Brown)

Alison Boyer (Ph.D. 2008, major advisor J.H. Brown)

Andrew Edelman (Ph.D. 2010, major advisor A. Kodric-Brown)

Phred Benham (M.S. 2012, major advisor Chris Witt)

Robbie Burger (Ph.D. 2015, major advisor J.H. Brown)

Trevor Fristoe (Ph.D. 2015, major advisor J.H. Brown)

Current

Bryan McLean (Ph.D. student, major advisor Joe Cook)

Brittney Coe (Ph.D. student, major advisor Blair Wolf)

Undergraduate:

Megan Armstrong (supported by Sevilleta LTER NSF Research Experiences for Undergraduates)

James Biardi

Hillary Browning (NSF REU program)

Jonathan Cordova

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

Nikki Fronabarger (Sevilleta REU Program)

Roxanne Garcia (UNM Summer Research Opportunity program)

John Haskell (NCEAS Body Size Working Group intern)

Kelly Lizewski

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

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

Amy Monier (NSF REU program)

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

Justin Pichardo (NSF- Undergraduate Nurturing Opportunities Fellowship)

Dante Rangel

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

Adrienne Raniszewski (NSF REU program)

Melissa Saenz (UNM Minority Engineering and Mathematics program)

Michelle Thomas

Emily Thorn (NSF REU program)

Kristin Youberg (NSF REU program).

High School:

Julia Shahvar (NASA PURSUE program)

VII. 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 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. *Warme 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)

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 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 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).
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).
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 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 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).
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 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.* Felisa A. Smith, Larisa Harding and Ian W. Murray, Plenary Session on “Evolution and Society”, 9th North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Lisa Park, Catherine Badgley and Josh Trapani).
30. *Variation in local body size distributions of fossil and modern taxonomic groups may reflect habitat and life-history differences.* Philip M. Novack-Gottshall and NESCent Working Group on Body Size, Symposium on “Size matters: pursuing general laws in body-size evolution and ecology”, 9th North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Seth Finnegan, Richard A. Krause and Philip M. Novack-Gottshall; Presenter: Philip M. Novack-Gottshall)
31. *An upper limit to maximum animal body size through the Phanerozoic.* Alison

Boyer and NESCent Working Group on Body Size, Symposium on “Size matters: pursuing general laws in body-size evolution and ecology”, 9th North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Seth Finnegan, Richard A. Krause and Philip M. Novack-Gottshall; Presenter: Alison Boyer)

32. *Size invariant extinction risk in the marine fossil record.* Seth Finnegan and NESCent Working Group on Body Size, Symposium on “Size matters: pursuing general laws in body-size evolution and ecology”, 9th North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Seth Finnegan, Richard A. Krause and Philip M. Novack-Gottshall; Presenter: Seth Finnegan)
33. *Community body size distributions of mammals differ among trophic groups, but not across time.* S. Kathleen Lyons and IMPPS Working Group on Body Size, Symposium on “Pleistocene”, 9th North American Paleontological Convention (NAPC), Cincinnati, Ohio (June 2009; Chaired by Russ Graham; Presenter: S. Kathleen Lyons)
34. *What’s hidden in a midden? Packrats provide an archive of late Quaternary environments.* Felisa A. Smith, Larisa Harding and Ian W. Murray, Symposium on “The past as the key to the future: palaeo-perspectives on climate change”, 10th International Congress of Ecology, Brisbane, Australia (August 2009; Chaired by Ana Carolina Carnaval, Susan Cameron, Craig Moritz and Rauri Bowie).
35. *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).
36. *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 Jim Estes).
37. *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).
38. *What is ‘animal’?* Comparative Literature & Cultural Studies Annual Roundtable Discussion/Symposium, University of New Mexico, Albuquerque, New Mexico (October 2010).
39. *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 Robert Ricklefs and Dave Jenkins)

40. *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 Denise Dearing).
41. *Heat, death and sex: the curious story of a desert mammal*. Department of Biology, University of Utah, Salt Lake City, Utah (February 2011; host Denise Dearing).
42. *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: Feng Sheng Hu and Willy Tinner).
43. *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 Toni Lyn Morelli, Steve Beissinger and Craig Mortiz).
44. *Geography variation: form and place*. Art and Ecology Program, Museum of Southwestern Biology, Albuquerque (April 2012; co-organized by Joe Cook and Szu-Han Ho).
45. *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 Becca Rowe and Marjorie Matocq).
46. *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 James Elser and Melanie Moses).
47. *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).
48. *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).
49. *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: Felisa Smith and Kate Lyons).

50. *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 Tracey Rogers).
51. *Mammals and Climate,* Evolution and Ecology Research Centre Distinguished Visitors Program, University of New South Wales, Sydney, Australia (September 2013; host Tracey Rogers).
52. *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”, 10th North American Paleontological Convention (NAPC), Gainesville, Florida (February 2014; Chaired by Seth Finnegan).
53. *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 Yadvinder Malhi, Chris Doughty and Felisa Smith).
54. *Trophic downgrading in past history: mammalian ecosystem responses to the terminal Pleistocene extinction.* Symposium on “Conservation paleobiology: Insights into modern ecosystems from vertebrate records”, 75th Annual Society of Vertebrate Paleontology (SVP), Dallas, Texas (October 2015; Chaired by Larisa DeSantis and Josh Miller).
55. *Body size across the Geozoic.* Department of Biology, University of Utah, Salt Lake City, Utah (January 2016; host Sarah George).
56. *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 Sarah George).
57. *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 Nitant Kenkre).
58. *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 David Jablonski).
59. *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).

60. *Body size evolution over the Geozoic*. Department of Paleobiology, United States National Museum of Natural History (Smithsonian), Washington, D.C. (October 2016; host Danielle Fraser)
61. *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 Robert Colwell)
62. *TBA*. MegaPast2Future Conference, Aarhus, Denmark (May 2017; Organized by Jens-Christian Svenning).
63. *Megafauna in the past and present*. ‘Rewilding’, 21st Annual Calpe Conference, Gibraltar (September 2017; Chaired by Clive Finlayson).
64. *TBA*. Plenary talk at the VI Latin American Congress of Vertebrate Paleontology, Villa de Leyva, Columbia (February 2018; Chaired by Dirley Cortés)

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. Participant.
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. Participant.
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. Participant.
8. *Technology of Nature, Nature of Technology* Workshop (J.H. Brown and S. Forrest, Organizers). Albuquerque, New Mexico, November 2005. Participant.
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. Participant.
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, 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. Participant.
16. *Mapping NESCent's future* (Allen Rodrigo, organizer), National Evolutionary Synthesis Center, Raleigh, North Carolina, May 2012. Participant.
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. Participant.
20. MegaPast2Future Semper Ardens project (funded by Carlsberg Foundation; Jens-Christian Svenning, group leader), 2016-2020, Aarhus, Denmark; collaborator.

C. Contributed Papers and/or Published Abstracts:

American Society of Mammalogists (1988, 1989, 1991-2012, 2015, 2016); 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); International Congress of Ecology (2009); International Union for Quaternary Research (2011); International Congress for Conservation Biology (2011); Joint meetings of the American Society of Naturalists and the Society for Study of Evolution (1988, 1994, 2005); North American Paleontological Congress (2009, 2014); Paleontological Society (2002-2016); Society of Vertebrate Paleontology (2001, 2010, 2011, 2015, 2016); Southwestern Association of Biologists (1993, 1994, 1996-2001); Southwestern Population Biology Conference (1988).

D. Educational Interviews and Articles:

- *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)
- Interviews about 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 Nationwide German public radio (Deutschlandfunk) and the German BBC (www.dradio.de/dlf/sendungen/forschak/) network (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 methane emissions from extinct megafauna (June - October 2010). 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 (October 2010).
- 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 and news articles about *Science* paper on body size in Cenozoic mammals ensued beginning November 2010 (and ongoing), 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. >400 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 the *Smith Lab Death Valley* field-work published at *Flyway* (an 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>

E. Other Outreach Activities:

- UNM Research Day Judge (most years from 1998-2016); 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 200th birthday*. University of New Mexico (12 February 2009)
- Founder and Faculty Sponsor of UNM BioBlog (<http://unm-bioblog.blogspot.com>); currently >208,000 page views (2011 to present)
- Faculty sponsor, 'Women in Science' student organization, University of New Mexico (2016 to present)

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)

Advisory Board Member

- Board Member, Science Advisory Board, National Center for Ecological Analysis and Synthesis (NCEAS), (2009-2013)
- Member, Grazing Advisory Panel, United States Forest Service, Albuquerque, New Mexico (1999, 2001)

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 Phylobiogeography (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)

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)
- Associate Editor, *Royal Society Proceedings B* (2014-current; currently serving second 3-year term)
- Guest Editor, *Proceedings of the National Academy of Science* (2015)
- Guest Editor, *Ecography* (2015)

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)
- Organizer of development efforts for an official transcribed concentration in Ecology, Evolution and Organismal Biology (EEOB) within the Biology major (Approved 2014)
- Co-Director, PiBBs (2006-2010); Director (2010-present)

G. Society Membership:

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

F. 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.