

CURRICULUM VITAE

S. KATHLEEN LYONS

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EDUCATION

- 1995 - 2001** Committee on Evolutionary Biology, University of Chicago. Michael Foote, Advisor. Ph.D. awarded 2001; M.S. awarded 1997.
- 1991 - 1994** Department of Biology, Texas Tech University, Michael R. Willig, Advisor. M.S. awarded 1994.
- 1987 - 1991** Wayland Baptist University. B. S. in Biology and Composite Science awarded 1991. J. Hoyt Bowers, Honors Thesis Advisor.

PROFESSIONAL EXPERIENCE

- 2022 -** *Associate Professor*, School of Biological Sciences, University of Nebraska Lincoln, NE
- 2021 -** Director of the Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers (E⁶) Research Coordination Network, University of Nebraska Lincoln, NE
- 2017 -** *Research Associate*, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution
- 2017 - 2022** *Assistant Professor*, School of Biological Sciences, University of Nebraska Lincoln, NE
- 2010 - 2020** Co-director of the Evolution of Terrestrial Ecosystems Program, National Museum of Natural History, Smithsonian Institution
- 2012 - 2016** *Adjunct Professor*, University of Maryland
- 2008 - 2016** *Research Scientist*, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution
- 2007 - 2008** *Research Associate*, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution
- 2006 - 2007** *Assistant Professor*, Biology Department and Virginia Modeling, Analysis and Simulation Center, Old Dominion University
- 2005 - 2012** *Adjunct Assistant Professor*, University of New Mexico
- 2003 - 2006** Postdoctoral Fellow, National Center for Ecological Analysis and Synthesis, University of California Santa Barbara
- 2001 - 2003** Postdoctoral Fellow, Biocomplexity Grant, University of New Mexico
- 1998 - 2001** EPA STAR Fellow, University of Chicago, Chicago, IL
- 1997 - 1998** Divisional Unendowed Fellow, University of Chicago, Chicago, IL
- 1995 - 1997** Biodiversity Training Grant Fellow, University of Chicago, Chicago IL

FUNDED GRANTS

ACTIVE GRANTS

- 2024-2027** F. A. Smith, and **S.K. Lyons**. Collaborative Research: The new normal: the continuing influence of the late Pleistocene megafauna extinction on the structure and function of mammal communities (NSF-DEB 2344776, \$1,149,499; UNL portion: \$ 351,499)
- 2021 - 2026** **S. K. Lyons**, S. A. F. Darroch, C. V. Looy, and P. J. Wagner. Research Coordination Network: Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers (E⁶). (NSF – DEB 2051255 \$500,131; UNL portion \$500,131)
- 2021 - 2024** J. Alroy, B. Brooks, and **S. K. Lyons**. Global patterns of mammalian biodiversity loss over the last 50,000 years. (Australian Research Council DP210201324 AU\$ 391,000; UNL cost share: US\$ 34,416)
- 2021 – 2024** F. A. Smith, **S. K Lyons**. Supplement to: Collaborative Research: Moving beyond causation: the ecological consequences of the terminal Pleistocene extinction of North American megafauna (NSF-DEB 2134834 UNL portion: \$30,630)
- 2016 – 2023** F. A. Smith, **S. K Lyons**, S. Newsome, Collaborative Research: Moving beyond causation: the ecological consequences of the terminal Pleistocene extinction of North American megafauna (NSF-DEB 1555535 \$720,000; 1744223 UNL portion: \$120,000)

COMPLETED GRANTS AND FELLOWSHIPS

- 2013 – 2020** **S. K. Lyons**, A. K. Behrensmeyer, N. J. Gotelli. Research Coordination Network: Synthesizing Deep Time and Recent Community Ecology (NSF – DEB – 1257625 \$400,000)
- 2010 – 2016** A. K. Behrensmeyer, **S. K. Lyons**, W. A. DiMichele. Synthesizing Deep Time and Recent Community Ecology: The Evolution of Terrestrial Ecosystems Program. (NMNH - \$420,000)
- 2006 – 2013** F. A. Smith, **S. K. Lyons**, and S. K. M. Ernest. Research Coordination Network: Integrating Macroecological Pattern and Processes across Scales (NSF – DEB - 0541625 \$490,000)
- 2003 – 2006** NCEAS Postdoctoral Fellowship
- 2001 – 2003** UNM Biocomplexity Postdoctoral Fellowship
- 2000 – 2001** American Society of Mammalogists Shadle Fellowship (\$3,790).
- 1998 – 2001** EPA STAR Fellowship: Total award (stipend, tuition, and research funds for 3 years): \$102,000

HONORS AND AWARDS

- 2023-2024** Paleontological Society Distinguished Lecturer
- 2023** Fellow of The Paleontological Society
- 2023** R.W. Brock award for best paper of 2022 from the Canadian Museum of Nature.
- 2020** Science Achievement Award for Best Paper of 2019 from National Museum of Natural History, Smithsonian Institution
- 2017** Science Achievement Award for Best Paper of 2016 from National Museum of Natural History, Smithsonian Institution
- 2000** American Society of Mammalogists Shadle Award

PUBLICATIONS

¹undergraduate student, ²graduate student, ³Postdoctoral scholar *senior author

2024

- [86] ²Shupinski, A.B., P.J. Wagner, F.A. Smith, & **S.K. Lyons***. Unique functional diversity during Early Cenozoic mammal radiation of North America. (in press *Proceedings B*)

2023

- [85] Smith, F.A., E.A. Elliott Smith³, C.P. Hedberg², **S.K. Lyons**, M.I. Pardi, and C.P. Tomé. After the mammoths: the ecological legacy of the late Pleistocene megafauna extinctions. *Cambridge Prisms: Extinction* 1:E9. doi:10.1017/ext.2023.6.
- [84] ³Rozzi, R., M. V. Lomolino, A.A.E. van der Geer, D. Silvestro, **S.K. Lyons**, P. Bover, J.A. Alcover, A. Benítez-López, C-H Tsai, M. Fujita, M.O. Kubo, J. Ochoa, M.E. Scarborough, S.T. Turvey, A. Zizka, J.M. Chase. Dwarfism and gigantism drive human-mediated extinctions on islands. *Science* 379:1054-1059. doi:10.1126/science.add8606

2022

- [83] Smith, F.A., E.A. ³Elliott Smith, A. Villaseñor, C. ³Tomé, **S.K. Lyons**, & S. Newsome. 2022. The missing pieces: changes in the ecological niche of a mammal community in North America over the late Quaternary. *Proceedings of the National Academy of Sciences*. 119: e2115015119. doi:10.1073/pnas.2115015119
- [82] Fraser³, D., A. Villaseñor³, A. B. Tóth^{2,3}, M. Balk³, J. T. Eronen, W. A. Barr³, A. K. Behrensmeyer, M. Davis³, A. Du³, J. T. Faith, G. R. Graves, N. J. Gotelli, A.

- Jukar^{2,3}, C. V. Looy, B. J. McGill, J. Miller, S. Pineda-Munoz³, R. Potts, A. B. Shupinski², L. C. Soul, and **S. K. Lyons***. 2022. Late Quaternary biotic homogenization of North American mammalian faunas, *Nature Communications* 13:3940 | <https://doi.org/10.1038/s41467-022-31595-8>.
- [81] Cooke³, R. S. C., W. Gearty³, A. S. A. Chapman, J. Dunic, G. J. Edgar, J. S. Lefcheck, G. Rilov, C. McClain, R. D. Stuart-Smith, **S. K. Lyons***, and A. E. Bates*. 2022. Anthropogenic disruptions to longstanding patterns of trophic-size structure in vertebrates *Nature Ecology and Evolution*, doi: 10.1038/s41559-022-01726-x.
- [80] Hedberg, C. P., **S. K. Lyons**, and F. A. Smith. 2022. The hidden legacy of megafaunal extinction: Loss of functional diversity and resilience over the Late Quaternary at Hall's Cave. *Global Ecology and Biogeography*, 31, 294–307. <https://doi.org/10.1111/geb.13428>
- [79] Schroeder², K., **S. K. Lyons**, and F. A. Smith. 2022. Response to comment on the influence of juvenile dinosaurs on community structure and diversity. *Science – 375*: eabj7383. doi:10.1126/science.abj7383
- [78] C. P. Tomé^{2,3}, **S. K. Lyons**, S. D. Newsome and F. A. Smith. 2022. The sensitivity of *Neotoma* to climate change and biodiversity loss over the late Quaternary *Quaternary Research*, 105:49-63. doi:10.1017/qua.2021.29.
- 2021**
- [77] Schroeder², K., **S. K. Lyons**, and F. A. Smith. 2021. The influence of juvenile dinosaurs on community structure and diversity. *Science – 371*:941-944. DOI:10.1126/science.abd9220
- [76] Fraser, D., Soul, L.C. Tóth³, A.B., Balk³, M.A., Eronen, J.T., Pineda-Munoz³, S., Shupinski², A.B., Villaseñor, A., Barr, W.A., Behrensmeyer, A.K. Du, A., Faith, J.T., Gotelli, N.J., Graves, G.R., Jukar³, A.M., Looy, C.V., Miller, J.H., Potts, R., Wing, S.L., and **Lyons***, **S.K.** 2021. Investigating biotic interactions in deep time. *Trends in Ecology and Evolution*. 36:61-75. doi.org/10.1016/j.tree.2020.09.001
- [75] Pineda-Munoz³, S. A., Y. Wang³, **S. K. Lyons**, A. B. Tóth³, and J. McGuire. 2021. Mammal species occupy different climates following the expansion of human impacts. *PNAS* 118:e1922859118. doi.org/10.1073/pnas.1922859118
- [74] Pineda-Munoz³, S., A. M. Jukar³, K. Amatangelo, M. A. Balk³, W. A. Barr³, A. K. Behrensmeyer, J. Blois, M. Davis³, A. Du³, J. T. Eronen, N. Gotelli, C. Looy, J. H. Miller, A. B. Shupinski², L. Soul³, A. B. Tóth^{2,3}, A. Villaseñor³, S. Wing, and **S. K. Lyons***. 2021. Body mass related changes in mammal community assembly patterns during the late Quaternary of North America. *Ecography* 44:56-66. <https://doi.org/10.1111/ecog.05027>
- [73] Jukar^{2,3}, A. M., **S. K. Lyons***, P. J. Wagner, and M. D. Uhen*. 2021. The megafaunal extinction in the Indian Subcontinent. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 562: 11013. doi.org/10.1016/j.palaeo.2020.110137

2020

- [72] Fraser³, D. and **S. K. Lyons***. Mammal community structure through the Paleocene-Eocene Thermal Maximum. *The American Naturalist* 196:271-290. DOI: 10.1086/709819
- [71] Tomé^{2,3}, C. P., E. A., Elliott Smith², **S. K. Lyons**, S. D. Newsome, and F. A. Smith. 2020. Changes in the diet and body size of a small herbivorous mammal (*Sigmodon hispidus*, hispid cotton rat) following the Late Pleistocene megafauna extinction. *Ecography* 43:604-619. doi:10.1111/ecog.04596

2019

- [70] Tóth², A. B., **S. K. Lyons***, W. A. Barr³, A. K. Behrensmeyer, J. L. Blois, R. Bobe, M. Davis³, A. Du³, J. T. Eronen, J. T. Faith, D. Fraser, N. J. Gotelli, G. R. Graves, A. M. Jukar³, J. H. Miller, S. Pineda-Munoz³, L. C. Soul³, A. Villaseñor³, and J. Alroy*. 2019. Reorganization of surviving mammal communities after the end-Pleistocene megafaunal extinction. *Science* 365:1305-1308. DOI: 10.1126/science.aaw1605
- [69] **Lyons, S.K.**, F.A. Smith, and S.K.M. Ernest. 2019. Macroecology of mammals across taxonomic, spatial, and temporal scales. *Journal of Mammalogy* 100:1087-1104. DOI:10.1093/jmammal/gyy171
- [68] Smith, F.A., R E. Elliott Smith¹, **S. K. Lyons**, J. L. Payne, and A. Villaseñor³. 2019. The accelerating influence of humans on mammalian macroecological patterns over the late Quaternary. *Quaternary Science Reviews* 211:1-16 doi.org/10.1016/j.quascirev.2019.02.031
- [67] Wagner, P. J., **S. K. Lyons**, and A. K. Behrensmeyer. 2019. Introduction: Paleoecology as the quintessence of earth studies. Pp. 1-4 *In: Foundations of Paleoecology* (S. K. Lyons, A. K. Behrensemeyer, and P. J. Wagner, eds.) University of Chicago Press, Chicago, IL.
- [66] **Lyons, S. K.**, C. V. Looy, and S. Punyasena. 2019. Community and Ecosystem Dynamics. Pp 5-6. *In: Foundations of Paleoecology* (S. K. Lyons, A. K. Behrensemeyer, and P. J. Wagner, eds.) University of Chicago Press, Chicago, IL.
- [65] **Lyons, S. K.**, A. K. Behrensmeyer, and P. J. Wagner. 2019. Preface. Pp. xv-xvi. *In: Foundations of Paleoecology* (S. K. Lyons, A. K. Behrensemeyer, and P. J. Wagner, eds.) University of Chicago Press, Chicago, IL.

2018

- [64] Smith, F.A., R. Elliott Smith¹, **S.K. Lyons**, J.L. Payne. 2018. Body size downgrading of mammals over the late Quaternary. *Science* 360:310-313 DOI: 10.1126/science.aao5987
- [63] Jukar², A.M., **S.K. Lyons***, M.D. Uhen*. 2018. A cranial correlate of body mass in Proboscideans. *Zoological Journal of the Linnean Society* zlx108, <https://doi.org/10.1093/zoolinnea/zlx108>

[62] Wagner, P.J., R. Plotnick and **S.K. Lyons**. 2018. Evidence for trait-based dominance in occupancy among fossil taxa and the decoupling of macroecological and macroevolutionary success. *The American Naturalist*. 192:E000-E000. DOI: 10.1086/697642

2017

[61] Fraser³, D. and **S. K. Lyons***. 2017. Biotic interchange has structured Western Hemisphere mammal communities. *Global Ecology and Biogeography* 26: 1408-1422. DOI: 10.1111/geb.12667.

[60] 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, S.C. Wang. 2017. Hierarchical complexity and the size limits of life. *Proceedings of the Royal Society B*. **1857**, DOI: 10.1098/rspb.2017.1039.

Lyons, S.K. and P.J. Wagner. 2017. Chapter 8: Using a macroecological approach to the fossil record to help inform conservation biology. pp. 147-169 IN *Conservation Paleobiology* (Dietl, G.P. and K.W. Flessa, eds). University of Chicago Press, Chicago IL. *note: second printing of a book first published in 2009 with a different press.

2016

[59] **Lyons, S. K.**, Miller³, J. H., Amatangelo, K. L, Behrensmeyer, A. K., Bercovici³, A., Blois, J. L., Davis³, M., DiMichele, W. A., Du³, A., Eronen, J. T., Faith, J. T., Graves, G. R., Jud³, N., Labandeira, C., Looy, C. V., McGill, B, Patterson³, D., Pineda-Munoz³, S. Potts, R., Riddle, B., Terry, R., Tóth², A., Ulrich, W., Villaseñor², A., Wing, S., Anderson, H., Anderson, J., and Gotelli, N. J. 2016. Reply to How foreign is the past. *Nature* **538**, doi:10.1038/nature20097.

[58] **Lyons, S. K.**, Miller, J. H., Tóth², A., Amatangelo, K. L, Behrensmeyer, A. K., Bercovici³, A., Blois, J. L., Davis³, M., DiMichele, W. A., Du³, A., Eronen, J. T., Faith, J. T., Graves, G. R., Jud³, N., Labandeira, C., Looy, C. V., McGill, B, Patterson³, D., Pineda-Munoz³, S. Potts, R., Riddle, B., Terry, R., Ulrich, W., Villaseñor², A., Wing, S., Anderson, H., Anderson, J., and Gotelli, N. J. 2016. Reply to Questioning Holocene community shifts. *Nature* **537**, <http://dx.doi.org/10.1038/nature19110>

[57] **Lyons, S. K.**, Miller, J. H., Fraser³, D., Smith, F. A., Boyer, A., Lindsey, E. and Mychajilw², A. M. 2016. The changing role of mammal life histories in late Quaternary extinction vulnerability on continents and islands. *Biology Letters* 12: 20160342. <http://dx.doi.org/10.1098/rsbl.2016.0342>

[56] Plotnik, R., Smith, F.A., **Lyons, S.K.** 2016. The fossil record of the sixth extinction. *Ecology Letters*. 19: 546–553. doi:10.1111/ele.12589.

[55] Smith, F.A., J. L. Payne, N. A. Heim, M. A. Balk², S. Finnegan, M. Kowalewski, **S. K. Lyons**, C. R. McClain, D. W. McShea, P. M. Novack-Gottshal, P. Spaeth Anich³, and S. C. Wang. 2016. Body size evolution across the Geozoic. *Annual Review of Earth and Planetary Sciences* 44:523-553.

- [54] **Lyons, S. K.**, Amatangelo³, K. L., Behrensmeyer, A. K., Bercovici³, A., Blois, J. L., Davis², M., DiMichele, W. A., Du², A., Eronen, J. T., Faith, J. T., Graves, G. R., Jud², N., Labandeira, C., Looy, C. V., McGill, B., Miller, J. H., Patterson², D., Pineda-Munoz², S. Potts, R., Riddle, B., Terry, R., Tóth¹, A., Ulrich, W., Villaseñor², A., Wing, S., Anderson, H., Anderson, J., Waller, D. and Gotelli, N. J. 2016. Holocene shifts in the assembly of plant and animal communities implicate human impacts. *Nature* 529:80-82. doi:10.1038/nature16447
- [53] Smith, F.A., Tomé², C.P., Elliott Smith², E.A., **Lyons, S.K.**, Newsome, S.D., and Stafford, T.W., 2016. Unraveling the consequences of the terminal Pleistocene megafauna extinction on mammal community assembly. *Ecography*. 39:223-239. doi: 10.1111/ecog.01779
- [52] Smith, F.A., Hammond³, J.I., Balk², M.A., Elliott, S.M., **Lyons, S.K.**, Pardi², M.I., Tomé², C.P., Wagner, P.J., and Westover², M.L. 2016. Exploring the influence of ancient and historic megaherbivore extirpations on the global methane budget. *PNAS*. 113:874-879. doi: 10.1073/pnas.1502547112

2015

- [51] Smith, F. A., **S. K. Lyons**, P. J. Wagner, S. M. Elliott. 2015. Recomputing IPCC methane inventories: the importance of body mass and under-appreciated role of wild herbivores. *Global Change Biology*. 21:3880-3888.

2014

- [50] Blois, J. L., N. J. Gotelli, A. K. Behrensmeyer, T. J. Faith, **S. K. Lyons**, J. W. Williams, K. L. Amatangelo, A. Bercovici, A. Du, J. Eronen, G. R. Graves, N. Jud, C. Labandeira, C. Looy, B. McGill, D. Patterson, R. Potts, B. Riddle, R. Terry, A. Tóth, A. Villaseñor, S. Wing. 2014. A framework for evaluating the influence of climate, dispersal limitation, and biotic interactions using fossil pollen associations across the late Quaternary. *Ecography*. 37:1095-1108. DOI: 10.1111/ecog.00779.
- [49] Tóth, A. B. **S.K. Lyons*** and A.K. Behrensmeyer*. 2014. A century of change in Kenya's mammal communities: Increased richness and decreased uniqueness in six protected area. *PLoS One* 9:e93092. doi:10.1371/journal.pone.0093092
- [48] Tóth, A. B., **S. K. Lyons***, and Anna K. Behrensmeyer* 2014. Mammals of Kenya's protected areas from 1888 to 2013. *Ecology* 95:1711–1711. <http://dx.doi.org/10.1890/13-2118.1>
- [47] 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, F.A. Smith, P. R. Stephens, J. Theodor, and M.D. Uhen. 2014. Patterns of body size evolution in Cenozoic land mammals: intrinsic biological processes and extrinsic forcing. *Proceedings of the Royal Society – B Biological Sciences*, 281(1784), 20132049.
- [46] Miller, J. H., A. K. Behrensmeyer, A. Du, **S. K. Lyons**, D. Patterson, A. Tóth, A. Villaseñor, E. Kanga, D. Reed. 2014. Ecological fidelity of functional traits based on species presence-absence in a modern mammalian bone assemblage

(Amboseli, Kenya). *Paleobiology* 40(4):560-583.

- [45] K. J. Gaston, C. M. McCain, and **S. K. Lyons**. 2014. Abundance and Distributions. Pp 400-402 *In: Foundations of Macroecology* (F. A. Smith, J. H. Brown, and J. L. Gittleman, eds.). University of Chicago Press, Chicago, IL
- [44] **Lyons, S. K.** 2014. Comments on Hanski, I. 1982. Dynamics of regional distribution: the core and satellite species hypothesis. *Oikos* 38:210-221. Pp 495-496 *In: Foundations of Macroecology* (F. A. Smith, J. H. Brown, and J. L. Gittleman, eds.). University of Chicago Press, Chicago, IL
- [43] **Lyons, S. K.** 2014. Comments on Graham R. W. 1986. Response of mammalian communities to environmental changes during the late Quaternary. Diamond, J. & Case, T. J., eds. *Community Ecology*; Pp. 300-313; Harper and Rowe, New York. Pp 345-346 *In: Foundations of Macroecology* (F. A. Smith, J. H. Brown, and J. L. Gittleman, eds.). University of Chicago Press, Chicago, IL

2013

- [42] A.D. Letten, **S. K. Lyons**, and A. T. Moles. 2013. The mid-domain effect: it's not just about space. *Journal of Biogeography* 40:2017-2019.
- [41] Okie, J. G., 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. J. Saarinen, F. A. Smith, P. R. Stephens, J. Theodor, M. D. Uhen, R. M. Sibly. 2013. Effects of allometry, production and lifestyle on rates and limits of body size evolution. *Proceedings of the Royal Society – B* 280:1-7 (<http://dx.doi.org/10.1098/rspb.2013.1007>).
- [40] **Lyons, S. K.** and F. A. Smith. 2013. Macroecological patterns in body size of mammals over space and time. Pp. 116-144 *In: Body Size: Linking pattern and process across space, time and taxonomic group* (F. A. Smith and S. K. Lyons, eds). University of Chicago Press, Chicago, IL.
- [39] F. A. Smith, **S. K. Lyons**, J. H. Brown, K. E. Jones and B. A. Maurer. 2013. The influence of flight on patterns of body size diversity and heritability. Pp. 187-205 *In: Body Size: Linking pattern and process across space, time and taxonomic group* (F. A. Smith and S. K. Lyons, eds). University of Chicago Press, Chicago, IL.
- [38] F. A. Smith, and **S. K. Lyons**. 2013. On being the right size: the importance of size to life history, ecology and evolution. Pp. 1-10 *In: Body Size: Linking pattern and process across space, time and taxonomic group* (F. A. Smith and S. K. Lyons, eds). University of Chicago Press, Chicago, IL.
- [37] F. A. Smith, and **S. K. Lyons**. 2013. The way forward. Pp. 235-246 *In: Body Size: Linking pattern and process across space, time and taxonomic group* (F. A. Smith and S. K. Lyons, eds). University of Chicago Press, Chicago, IL.

2012

- [36] A. R. Evans, 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. M. Theodor, M. D. Uhen. 2012. The maximum rate of mammal evolution. *Proceedings of the National Academy of Sciences of the USA*. PNAS 2012 : 1120774109v1-201120774

- [35] B. S. Grund, T. A. Surovell, and **S. K. Lyons**. 2012. Range sizes and shifts of North American Pleistocene mammals are not consistent with a climatic explanation for extinction. *World Archaeology*, 44:1, 43-55

2011

- [34] F. A. Smith, and **S. K. Lyons**. 2011. How big should a mammal be? A macroecological look at mammalian body size over space and time. *Philosophical Transactions of the Royal Society B*. 366:2364-2378.
- [33] F. A. Smith, S. M. Elliott, and **S. K. Lyons**. 2011. Reply to 'Methane and megafauna' *Nature Geosciences* 4:272
- [32] M. Kowalewski, 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. Boyer, S. Finnegan, **S. K. Lyons**, J. A. Stempien, J. Alroy, and P. A. Spaeth. 2011. The Geozoic Supereon. *Palaios* 26:251-255.
- [31] J. L. Payne, C. R. McClain, A. G. Boyer, J. H. Brown, S. Finnegan, M. Kowalewski, R. A. Krause, Jr., **S. K. Lyons**, 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. (published online 07 September 2010).

2010

- [30] P. J. Wagner and **S. K. Lyons**. 2010. Measuring biological diversity in the fossil record. Pp. 265-275 *In: Biological diversity: frontiers in measurement and assessment* (A. Magurran and B. McGill, eds). Oxford University Press.
- [29] **Lyons, S. K.**, P. J. Wagner, and K. M. Dzikiewicz. 2010. Ecological correlates of range shifts of late Pleistocene mammals. *Philosophical Transactions of the Royal Society B*. 365:3681-3693.
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1999

- [6] **Lyons, S. K.** and M. R. Willig. 1999. A hemispheric assessment of scale-dependence in latitudinal gradients of species richness. *Ecology*. 80(8): 2483-2491. (Special Feature)

1998

- [5] M. R. Willig and **S. K. Lyons**. 1998. An analytical model of latitudinal gradients of species richness with an empirical test for Marsupials and Bats in the New World. *Oikos* 80:93-98.

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- [3] **Lyons, S. K.** 1995. Areography of New World Bats and Marsupials. *Mastozoologia Neotropical* 2:229-231.

BOOKS AND EDITED VOLUMES

2019

- [2] **Lyons, S. K.** and A. K. Behrensmeyer, P. J. Wagner, editors. 2019. *Foundations of Paleocology*. University of Chicago Press. Chicago IL

2013

- [1] Smith, F. A. and **S. K. Lyons**, editors. 2013. *Body Size: Linking pattern and process across space, time and taxonomic group*. University of Chicago Press, Chicago IL

NON-PEER REVIEWED PUBLICATIONS

Lyons, S. K., Amatangelo, K. L., Behrensmeyer, A. K., Bercovici³, A., Blois, J. L., Davis³, M., DiMichele, W. A., Du³, A., Eronen, J. T., Faith, J. T., Graves, G. R., Jud³, N., Labandeira, C., Looy, C. V., McGill, B., Miller, J. H., Patterson³, D., Pineda-Munoz³, S. Potts, R., Riddle, B., Terry, R., Tóth², A., Ulrich, W., Villaseñor², A., Wing, S., Anderson, H., Anderson, J., Waller, D. and Gotelli, N. J. 2016. Corregium: Holocene shifts in the assembly of plant and animal communities implicate human impacts. *Nature* doi:10.1038/nature19104

Lyons, S. K. 2000. Environmental Assessment. Chapter 3 in (C. Lohrmann, ed.) Customer-owned Outside Plant Design manual: Underground and Buried. BICSI Course OSP 102. (non-peer reviewed technical manual)

IN REVIEW OR REVISION

- [87] ³Gearty, W., L.H. Uricchio, and **S.K. Lyons***. Human impacts indirectly drive mammal body size homogenization among communities. (in review – *Global Ecology and Biogeography*)
- [88] **Lyons, S.K.** Community assembly in the age of humans (submitted to *Synthesizing biological scaling: towards a universal theory* edited by B. J. Enquist, C. Kempes, and M. O'Connor)
- [89] ³Tóth, A.B., A. Allen, **S. K. Lyons**, and J. Alroy. Competitive interactions are disrupted by habitat alteration in the Neotropics. (being revised).
- [90] Shupinski, A.B., Craffey, M., Smith, F.A., and ***Lyons, S.K.** Different mammals, same structure: co-occurrence structure across the Pilo-Pleistocene transition. (in review, *Paleobiology*).
- [91] ²Craffey, M., S.A.F. Darroch, P.J. Wagner, D. Shizuka, & **S.K. Lyons***. Co-occurrence structure of late Ediacaran communities and influence of emerging ecosystem engineers. (revision requested, *Proceedings B*).

IN PREPARATION (NOT INCLUSIVE)

- [92] **Lyons, S.K.**, A. Villaseñor, & F.A. Smith. in prep. The changing importance of traits in mammalian co-occurrence across the Pleistocene-Holocene transition.
- [93] **Lyons, S.K.**, F.A. Smith, S.K.M. Ernest, A.G. Boyer, J.H. Brown, D.P. Costa, A.R. Evans, M. Fortelius, J.L. Gittleman, M.J. Hamilton, L.E. Harding, K. Lintulaakso, J.G. Okie, J.J. Saarinen, P.R. Stephens, J. Theodor, & M.D. Uhen. in prep. Mammal community structure over time and space.
- [94] ²Keller, J.S., **S.K. Lyons**, S. Newsome, & F.A. Smith. in prep. Grasshopper mice of unusual size: climate- and extinction-driven ecological shifts in *Onychomys* over 22,000 years at Hall's Cave.
- [95] Miller, J.H., S.L. Wing, A. Bercovici, R. Dunn, V. Korasidis, N.A. Jud, C.V. Looy, A. Shupinski², L.C. Soul, M.A. Balk³, A. K. Behrensmeyer, A. Barr, A. Du, J.T. Eronen, J.T. Faith, D. Fraser, N.J. Gotelli, G.R. Graves, A.M. Jukar³, B. McGill, S. Pineda-Munoz³, R. Potts, A.B. Tóth³, A. Villaseñor, and **S.K. Lyons***. Deep time responses of floral communities to periods of critical environmental change: implications for conserving biodiversity in a turbulent future (in prep for *PNAS*).

SEMINARS/OUTREACH TO THE GENERAL PUBLIC

- 2024 Jax and Phoebe Make a Planet podcast. 26 June 2024.
- 2024 Cool Thinking Forum Series with host Metta Spencer: Artic Megafauna. 8 April. 2024.
- 2021 Mind the gap: The influence of juvenile dinosaurs on community structure and diversity. Nebraska State Museum LPS K-12 workshop. August 11 2021.

- 2019 The mammoth in our closet. Science Café, sponsored by the University of Nebraska State Museum at the Happy Raven. May 2019.
- 2017 The influence of Mega mammals on the Earth's climate dynamics. Survivors: What Fossils Tell Us About the Past and Future. Evolution of Terrestrial Ecosystems 30th Anniversary Celebration. March 30, 2017.
- 2017 Our lost World: the consequences of the loss of ~1 billion large-bodied animals at the terminal Pleistocene. – Annual Darwin Day Celebration sponsored by REASON - February 7, 2017
- 2015 Our lost World: the consequences of the loss of ~200 million mammals at the terminal Pleistocene. – Paleontological Society of New York. – October 18, 2015.
- 2015 Public Discussion on “Restoring a lost ecosystem?” for the Q’rius Anthropocene discussion series with Harry Greene (Scott Wing moderator).
- 2015 Our lost World: the consequences of the loss of ~200 million mammals at the terminal Pleistocene. – Paleontological Society of Washington. – March 18, 2015.
- 2014 Our lost World: the consequences of the loss of ~200 million mammals at the terminal Pleistocene. – Paleo Training Program. – April 17, 2014.
- 2013 Florida’s Lost World: who was here, why are they gone, and what happened afterward. Natural History Festival, Museum of Arts and Sciences, Daytona Fl. 21 September 2013 – talk given to two separate audiences.

OTHER PUBLIC OUTREACH

- 2024 *Sunday with a Scientist - Extinct Bioengineers* – Morrill Hall, University of Nebraska State Museum, May 19 2024. (~150 people attended).
- 2024 Interviewed by Haley Rush of CBS and asked to serve as a climate consultant for local CBS tv news stations.
- 2023 Participated in the faculty panel for BIOS 100 Pathways to Success in the Biological Sciences – April 10, 2023
- 2022 Participated in the faculty panel for BIOS 100 Pathways to Success in the Biological Sciences – Oct. 24, 2022
- 2022-3 Interviewed by Amy Charles of the BBC for a video on Animal Sizes – Feb. 23, 2022. <https://www.bbc.com/future/article/20230123-why-prehistoric-giant-animals-got-smaller>
- 2022 Interviewed by UNL communications student, Pricilla Castaneda, about my research – Nov. 10, 2022
- 2022 Interviewed by Peter Brannen for *The Atlantic* – *A Mystery that took 13,200*

years to crack – June 22, 2022

<https://www.theatlantic.com/science/archive/2022/06/mastodon-mammoth-extinction-climate-change/661351/>

- 2022 Interviewed by Angely Mercado for *Gizmodo* about an American lion fossil – Nov. 17, 2022. <https://gizmodo.com/american-lion-jaw-fossil-mississippi-river-1849796612>

- 2022 Interviewed by Pandora Dewan for *Newsweek* about an American lion fossil <https://www.newsweek.com/newsweek-com-ancient-american-lion-tooth-discovered-dried-mississippi-river-bank-1758869>

- 2021 Led a discussion with Lincoln Public Schools teachers on my recent *Science* paper on dinosaurs to brainstorm ways to include it in public school curriculum. August 11, 2021

- 2019 Participated in the Department of Earth and Atmospheric Sciences *Dinosaurs and Disasters* held at Morrill Hall by providing copies of *Evolve or Perish* that they could hand out and play with participants.

- 2019 Talked to children from Denton ISD in their Kid-to-Kid Program about climate change and what we can do about it. 22 January 2019.

- 2018 Talked to children from Denton ISD in their Kid-to-Kid Program about my research on species responses to climate change and extinction risk. 20 September 2018.

- 2018 Participated in the Department of Earth and Atmospheric Sciences *Dinosaurs and Disasters* held at Morrill Hall by providing copies of *Evolve or Perish* that they could hand out and play with participants.

- 2017 Participated in the NE 150: Diverse Origins event sponsored by Cub Scouting. April 8, 2017. 150th Anniversary of Nebraska Celebration. Manned table of fossils and played *Evolve or Perish*, an ETE game about the history of life on Earth with participants.

- 2017 Participated in the Evolution of Terrestrial Ecosystems 30th Anniversary Celebration, *Survivors: What Fossils Tell Us About the Past and Future*, March 30, 2017. In addition to giving a talk, I also manned a table of extinct and extant recent mammals and talked to participants about the extinction of the megafauna.

- 2015 Participated in National Fossil Day October 10, 2015 at the NMNH. Manned a table of Pleistocene fossils and talked to people about extinct megafauna. Featured in *Time for Kids*, <http://www.timeforkids.com/news/bone-fossil-day/287631>

- 2014 Participated in the outreach surrounding the closure of the paleontology exhibit at the NMNH. I manned a table with fossils and talked visitors about the importance of fossils and fossil collections. April 25-26, 2014.

INVITED SEMINARS AND SYMPOSIUMS

- 2024 Schrödinger's mammoth – ecological assembly in the age of humans. Real World Challenges Seminar Series. Cambridge Prisms. 18 April 2024.
- 2024 After the mammoths: consequences of the loss of large-bodied ecosystem engineers on North American ecosystems. Invited departmental seminar, Illinois Natural History Survey. Feb. 20
- 2024 After the mammoths: consequences of the loss of large-bodied ecosystem engineers for North American ecosystems. Invited departmental seminar, Chicago State University, Apr. 3.
- 2024 Introduction: Ecosystem engineering in deep time symposium. International Biogeography society. Prague, Czech Republic, Jan. 7-11.
- 2022 Schrödinger's mammoth: ecological assembly in the age of humans. Synthesizing Biological Scaling: Towards a Universal Theory. Santa Fe Institute, Santa Fe NM. Nov. 15-17, 2022.
- 2022 Changes in small mammal relative abundance distributions and energy flow following the terminal Pleistocene extinction. Gordon Conference on Unifying Ecology Across Scales. Southern New Hampshire University, Manchester NH July 31-Aug 5 2022.
- 2022 **Lyons, S.K.**, C.P. Tomé, N. ²Freymueller, W. Gearty, J. ²Keller, M. Pardi, E. ³Elliott Smith, F.A. Smith, Q. ²Smith, and P.J. Wagner. Changes in small mammal abundance distributions following the loss of large mammal ecosystem engineers at the terminal Pleistocene. Annual meeting of the Geological Society of America. Symposium on *Ecosystem Engineers through time*. Oct. 2022. 54: 5 <https://doi.org/10.1130/abs/2022AM-381985>
- 2022 Smith, F.A., ³Elliott Smith, E.A., Villaseñor, A., Tomé, C., **Lyons, S.K.**, Newsome, S.D. The missing pieces: changes in the ecological niche of a mammal community in North America over the late Quaternary. Annual meeting of the Geological Society of America. *Ecosystem Engineers through time*. Oct. 2022. 54: 5 <https://doi.org/10.1130/abs/2022AM-379406>
- 2021 After the mammoths: quantifying the consequences of body size downgrading for North American ecosystems. School of Biological Sciences Seminar Series, University of Nebraska Lincoln, Sept. 9, 2021.
- 2021 Elephants or asteroids: The effects of human ecosystem engineering on global biotas. Biology Department, Rutgers University, March 4, 2021.
- 2021 E⁶ – Ecological and Evolutionary Effects of Ecosystem Engineers. E⁶ RCN – Workshop #1, Berkeley CA, Dec. 10-12, 2021.
- 2021 Miller, J., Bercovici, A., Dunn, R., Jud, N., Korasidis, V., Looy, C., Shupinski, A., Soul, L., Wing, S., Behrensmeyer, A., Barr, A., Du, A., Eronen, J., Faith, J., Fraser, D., Gotelli, N., Graves, G., Jukar, A., McGill, B., Pineda-Munoz, S., Potts,

- R., Tóth, A., Villaseñor, A., and ***Lyons, S.K.** Responses of floral communities to periods of critical environmental change across deep time: implications for conserving plant biodiversity in a turbulent future. Virtual Symposium and round table: The past as a lens for biodiversity conservation on a dynamically changing planet. Dec. 2-3, 2021.
- 2021 Fraser, D., Villaseñor, A., ³Tóth, A. B., ³Balk, M. A., Eronen, J. T., Barr, W. A., Behrensmeyer, A. K., Davis, M., Du, A., Faith, J. T., Graves, G. R., Gotelli, N. J., Jukar, A. M., Looy, C. V., McGill, B. J., Miller, J. H., ³Pineda-Munoz, S., Potts, R., ²Shupinski, A. B., Soul, L. C., and ***Lyons, S. K.** Late Quaternary biotic homogenization of North American mammalian faunas. 2nd Crossing the Palaeontological-Ecological Gap, Sept. 6-9 2021. Museum für Natrukunde, Berlin.
- 2021 ³Pineda-Munoz, S., **Lyons, S. K.**, ³Tóth, A. B., ³Wang, Y., and McGuire, J. Mammal species occupy different climates following the expansion of human impacts. 2nd Crossing the Palaeontological-Ecological Gap, Sept. 6-9 2021. Museum für Natrukunde, Berlin.
- 2021 ³Tóth, A. B., Allen, A. P., **Lyons, S. K.**, and Alroy, J. The changing effect of biotic interactions on communities under human disturbance. 2nd Crossing the Palaeontological-Ecological Gap, Sept. 6-9 2021. Museum für Natrukunde, Berlin.
- 2021 ²Hedberg, C., **Lyons, S. K.**, and Smith, F.A. The hidden legacy of megafaunal extinction: loss of functional diversity and resilience over the late Quaternary at Hall's Cave. 2nd Crossing the Palaeontological-Ecological Gap, Sept. 6-9 2021. Museum für Natrukunde, Berlin
- 2020 Elephants or asteroids: The effects of human ecosystem engineering on global biotas. School of Biological Sciences Seminar Series, University of Nebraska Lincoln, Oct. 22, 2020.
- 2020 **Schrödinger's mammoth: ecological assembly rules in the age of humans. Tri-Beta Theta Tau Chapter Biology Honorary Seminar Series. March 16, 2020 (*cancelled because of Covid 19)*
- 2019 Schrödinger's mammoth: ecological assembly rules in the age of humans. Complex Biosystems Seminar Series, University of Nebraska Lincoln, October 31, 2019
- 2019 Effects of the development of agriculture on Holocene plant and mammal communities. Roundtable on Agriculture and the Anthropocene, Agricultural History Society, Washington DC June 6-8, 2019 **Plenary session roundtable*
- 2019 Schrödingers mammoth: ecological assembly rules in the age of humans. Symposium on Environmental Change and the Evolution of Form and Function. North American Paleontological congress, University of California Riverside, June 23-27, 2019. **keynote talk*
- 2019 Mammalian extinctions in the age of humans. EGU Galileo Conference on mass extinctions, recovery, and resilience. Utrecht University, Netherlands, August 28-

31 *Keynote talk

- 2019 The increasing impact of human activities and environmental change on terrestrial community structure. University of Cincinnati, Department of Geology. March 2019.
- 2018 The increasing impact of human activities and environmental change on terrestrial community structure. Vanderbilt University, Department of Earth and Environmental Sciences. September 2018.
- 2018 **Lyons, S.K.**, Villaseñor, A. and Smith, F.A. The role of functional traits in mammalian community structure across the Pleistocene-Holocene transition. Annual meeting of the Geological Society of America, Indianapolis IN. Nov. 2018.
- 2018 **Lyons, S. K.** Ernest, S.K.M.E., and F.A. Smith. The role of climate in shaping mammalian body size distributions over the Cenozoic. Annual meeting of the Society of Vertebrate Paleontologists, Albuquerque, NM. Oct. 17-20.
- 2018 **Lyons, S. K.** The influence of climate and biodiversity loss on the structure and function of mammalian communities, March 2018, International Biogeography Society. *Keynote talk.
- 2018 **Lyons, S.K.** Of mice, mastodons, and men: causes and consequences of the end Pleistocene extinction. SBS graduate recruitment, February 2018
- 2017 **Lyons, S.K.**, Community structure and the importance of time. PACE workshop, Maine June 2017
- 2017 **Lyons, S. K.**, Paleobiology Database. PACE workshop, Maine June 2017
- 2017 The increasing impact of human activities and environmental change on terrestrial community structure. University of Nebraska, Department of Earth and Atmospheric Sciences. March 2017
- 2016 The increasing impact of human activities and environmental change on terrestrial community structure. University of New Mexico. May 2016
- 2016 The increasing impact of human activities and environmental change on terrestrial community structure. University of Nebraska, School of Biological Sciences. March 2016.
- 2015 Smith, F.A., Tome, C., **Lyons, S.K.**, Elliott Smith, E., Newsome, S., and Stafford, T. Community reorganization after the terminal Pleistocene Megafauna extinction. Bi-annual Meeting of the International Biogeography Society.
- 2014 **S. K. Lyons.** Megafaunal extinction and its impact on community structure. Megafauna and Ecosystem function: from the Pleistocene to the Anthropocene. Conference at the University of Oxford, St. John's College, 18-20 March, 2014.
- 2013 The influence of Mega mammals on the Earth's climate dynamics. Lightning Talks. National Museum of Natural History, Smithsonian Institution. 8 November 2013

- 2013 **S. K. Lyons**, 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, J. G. Okie, J. J. Saarinen, F. A. Smith, P. R. Stephens, J. Theodor, M. D. Uhen, R. M. Sibly. Community Body Size distributions from Deep Time to the Recent. International Mammal Congress, Queens University, Belfast Ireland 11- 16 August.
- 2013 J. Theodor, F. A. Smith, 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, P. R. Stephens, M. D. Uhen, R. M. Sibly. Herbivory and maximum size evolution in the Cenozoic: the effects of fermentation and feed style. International Mammal Congress, Queens University, Belfast Ireland 11- 16 August.
- 2013 J. Saarinen, 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, F. A. Smith, P. R. Stephens, J. Theodor, M. D. Uhen, R. M. Sibly. Patterns of body size evolution in Cenozoic land mammals: intrinsic biological processes and extrinsic forcing. International Mammal Congress, Queens University, Belfast Ireland 11- 16 August.
- 2013 Snapshots of the past: the structure and dynamics of mammal communities from Deep Time to the Recent. University of New Mexico
- 2012 **S. K. Lyons** and F. A. Smith. The macro and paleo of mammal body size distributions. Symposium in honor of the retirement of James H. Brown and Astrid Kodric-Brown. University of New Mexico, June 8-10.
- 2011 Snapshots of the past: the structure and dynamics of mammal communities from Deep Time to the Recent. University of Maryland
- 2011 Moving the Debate Forward: the consequences of the loss of ~200 million mammals at the terminal Pleistocene. University of Cincinnati.
- 2011 Going Forward: Using ecological theory to interpret patterns in the fossil record. University of Cincinnati.
- 2011 F. A. Smith and **S. K. Lyons**. The Macroecology of body size at multiple spatial and temporal scales. International Biogeography Society 5th Biannual Meeting, Crete. January.
- 2010 **S. K. Lyons** and F. A. Smith. Using a macroecological approach to study the fossil record Paleontological Society Short Course Volume 16. Analytical Paleobiology (G. Hunt and J. Alroy, eds.). Annual meeting of the Geological Society of America. Denver, CO. Oct. 30 – Nov. 4.
- 2010 **S. K. Lyons**, P. J. Wagner and K. Dzikiewicz. Ecological correlates of range shifts of Late Pleistocene mammals. Royal Society 2010 Discussion Meeting – Biological Diversity in a Changing World. Oct. 25-29.
2009. **S. K. Lyons** and P. J. Wagner. Using macroecological approach to the fossil record to help inform conservation biology. Paleontological Society Short

- Course: Conservation Paleobiology: Using the Past to Manage for the Future. Annual meeting of the Geological Society of America, Portland Oregon, October 18-21.
- 2009 **S. K. Lyons**. Body size distributions of mammalian trophic groups at multiple spatial and temporal scales. Women in Geosciences Symposium. National Museum of Natural History. Smithsonian Institution, October 2009
- 2009 **S. K. Lyons**, A. G. Boyer, J. H. Brown, D. P. Costa, T. Dayan, A. Evans, S. K. M. Ernest, M. Fortelius, L. Harding, S. K. Lyons, R. M. Sibly, F. A. Smith, J. Theodor, and M. D. Uhen. Community body size distributions of mammals differ among trophic groups, but not across time. North American Paleontological Convention, Cincinnati, Ohio. June 24-28.
- 2009 P. M. Novack-Gottshall, C. R. McClain, P. A. Spaeth, A. G. Boyer, J. H. Brown, S. Finnegan, M. Kowalewski, R. A. Krause, Jr., **S. K. Lyons**, D. W. McShea, J. C. Nekola, S. I. Passy, J. L. Payne, F. A. Smith, J. A. Stempien, and S. C. Wang. Variation in local body size distributions of fossil and modern taxonomic groups reflects habitat and life-history differences. North American Paleontological Convention, Cincinnati, Ohio. June 24-28.
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- 2009 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, J. L. Payne, F. A. Smith, J. A. Stempien, and S. C. Wang. An upper limit to maximum body size through the Phanerozoic: Phylum-scale trends in maximum body size. North American Paleontological Convention, Cincinnati, Ohio. June 24-28.
- 2009 **S. K. Lyons** and F. A. Smith. Where did all the mastodons go? Global patterns of late Pleistocene megafaunal extinction. Biannual meeting of the International Biogeography Society. Meridá, Mexico. January 7-13.
- 2009 L. Harding, F. A. Smith, K. M. Youberg, **S. K. Lyons**, and J. H. Brown. Globetrotting: patterns of similarity in mammalian body size distributions across continents. International Biogeography Society 4th Biannual Meeting, Merida, Mexico. January 7-13.
- 2008 Of mice mastodons and men: using macroecology to understand the dynamics of late Pleistocene mammals. National Museum of Natural History, Smithsonian Institution.
- 2008 Of mice mastodons and men: using macroecology to understand the dynamics of late Pleistocene mammals. Miami University of Ohio.
- 2007 **S. K. Lyons**. The relationship between environmental variables and mammalian body size distributions over the space and time. Symposium: Environmental Change, Extinction Risk, and the Maintenance of Biodiversity through Time.

- Annual meeting of the Ecological Society of America, San Jose, CA.
- 2007 P. G. Harnik and **S. K. Lyons**. Introductory remarks: Environmental change, extinction risk, and the maintenance of biodiversity through time. Symposium: Environmental Change, Extinction Risk, and the Maintenance of Biodiversity through Time. Annual meeting of the Ecological Society of America, San Jose, CA.
- 2007 **S.K. Lyons** and P.G. Harnik. Panel discussion: Environmental change, extinction risk, and the maintenance of biodiversity through time Symposium: Environmental Change, Extinction Risk, and the Maintenance of Biodiversity through Time. Annual meeting of the Ecological Society of America, San Jose, CA
- 2007 Why does body size matter? Patterns across time, space and scale. Penn State University.
- 2007 What has FAUNMAP done for me lately? NTEND workshop organized by Russell Graham and Eric Grim, Pennsylvania State University, March 18-20.
- 2007 Body size of mammalian communities over space and time. NESCent working group on body size. Duke University, NC, February 2-5.
- 2006 **S.K. Lyons** and M.R. Willig. Using MDE models to detect the effects of geologic history on latitudinal gradients of New World mammals. NCEAS working group on modeling species distributions. University of California, Santa Barbara, CA. October 5-9.
- 2006 The effects of human impacts and climate change on late Pleistocene mammals. Illinois State Museum.
- 2006 Of mice, mastodons, and men: spatial and temporal dynamics of late Pleistocene mammals. Old Dominion University.
- 2006 Of mice, mastodons and men: extinction and spatial dynamics of late Pleistocene mammals. University of California, Merced.
- 2006 Extinction, climate change, and community structure of late Pleistocene mammals. City University of New York, College of Staten Island.
- 2006 Of mice, mastodons, and men: extinction and spatial dynamics of late Pleistocene mammals. University of North Dakota.
- 2006 Species and community level dynamics of late Pleistocene mammals. Texas Tech University.
- 2006 The effects of human impacts and climate change on late Pleistocene mammals. New York State Museum.
- 2006 Spatial and temporal dimensions of the response of late Pleistocene mammals to climate change. St. Louis University.
- 2006 The past as a template for the future: spatial and temporal dimensions of late

- Pleistocene mammal communities. Purdue University.
- 2006 Of mice and mastodons: spatial and temporal dynamics of late Pleistocene mammals. University of Houston.
- 2006 Dynamics of late Pleistocene mammal communities across time and space. University of California – Irvine.
- 2005 Spatial and temporal dynamics of late Pleistocene mammals. University of Wyoming.
- 2005 **S. K. Lyons.** Body size and local community structure of mammals across time and space: Implications for global climate change. Symposium: Ecotypic Variation in the Context of Global Climate Change: Revisiting the "Rules". Society for the Study of Evolution, June 10-14, 2005.
- 2005 Climate change, extinction, and community structure of late Quaternary mammals. University of Chicago.
- 2005 Climate change, extinction, and spatial dynamics of late Pleistocene mammals. North Carolina State University.
- 2005 Using the past to understand the future: climate change, extinction, and spatial dynamics of Pleistocene mammals. University of Maryland.
- 2005 Using the past to understand the future: climate change, extinction, and spatial dynamics of Pleistocene mammals. National Center for Ecological Analysis and Synthesis.
- 2005 **S. K. Lyons.** The effects of elevation on two aspects of local community structure of late Pleistocene mammals. Life at High Elevations Symposium. Society for Integrative and Comparative Biology, January 4-8, 2005
- 2004 Extinction and spatial dynamics of Late Pleistocene mammals. University of Oxford, England.
- 2004 Macroecology of Late Pleistocene mammals: range shifts, body size, and community structure. National Center for Ecological Analysis and Synthesis.
- 2003 **S. K. Lyons,** J. H. Brown, S. K. M. Ernest, F. A. Smith. Macroecology of Late Pleistocene mammals: body size and local community structure. Symposium on Biosphere dynamics: The key to understanding the biotic effects of future environmental change. Geological Society of America, Nov. 2-5, 2003.
- 2003 Dynamics of Pleistocene mammals across space and time. University of Arizona.
- 2003 Dynamics of Late Pleistocene mammals: range shifts, body size, and community structure. University of California, Santa Barbara.
- 2002 F. A. Smith, **S. K. Lyons,** J. H. Brown, and J. P. Haskell. Body size, space and time; a macroecological view of the world. Symposium on Macroecology. Annual meeting of the American Society of Mammalogists. Lake Charles, LA.

- 2002 M. R. Willig and **S. K. Lyons**. Gradients of diversity, scale sensitivity, and null models. Symposium on Macroecology. Annual meeting of the American Society of Mammalogists. Lake Charles, LA.
- 2001 **S. K Lyons**. Community structure of Pleistocene mammals: the effects of biotic and abiotic factors on the response to climate change. Annual meeting of the American Society of Mammalogists. Missoula, MO. **Plenary Session**.
- 2001 Community structure and dynamics of Pleistocene mammals. Biocomplexity group, University of New Mexico.
- 1993 Patterns in species' range size and richness and their causes. Advanced Biodiversity class, Texas Tech University.

PUBLISHED ABSTRACTS

¹undergraduate student, ²graduate student, ³Postdoctoral scholar *senior author

- 2023 ²Smith, Q., Shizuka, D., Tomé, C., ³Gearty, W., Smith, F.A., ***Lyons, S.K.** Changes in the structure of Hall's Cave food web networks over the last 22,000 years are not associated with climate change. Annual meeting of the Geological Society of America. Oct. 2023. 55:6 doi: 10.1130/abs/2023AM-391909
- 2022 ²Smith, Q., Shizuka, D., Tomé, C., ³Gearty, W., Smith, F.A., ***Lyons, S.K.** Changes in mammalian networks across the Pleistocene-Holocene transition as a result of the megafaunal extinction. Annual meeting of the Geological Society of America. *Future Leaders of Paleontology Symposium* Oct. 2022. 54: 5 <https://doi.org/10.1130/abs/2022AM-382222>
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- 2021 ³Tomé, C.P., ¹Winter, P., Lockwood, R., ²Keller, J., Newsome, S.D., **Lyons, S.K.**, and Smith, F.A. Morphological and dietary responses in the granivorous hispid pocket mouse (*Chaetodipus hispidus*) to climate change and biodiversity loss over the late Quaternary. Annual meeting of the Geological Society of America. Oct. 2021, Portland OR.
- 2021 ²Shupinski, A. B., Smith, F.A. and ***Lyons, S.K.** Taxonomic and functional beta diversity of North American mammal paleocommunities are decoupled across the Cenozoic. Annual meeting of the Geological Society of America. Oct. 2021, Portland OR.
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- 2021 ²Craffey, M. Darroch, S., Wagner, P.J., Watkins, D. K., Shizuka, D. and ***Lyons, S.K.** The effect of ecosystem engineering on community structure in the Ediacaran Period. Annual meeting of the Ecological Society of America. Online August 2021.
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- 2020 ³Tomé, C. P., Smith, F.A., Villaseñor, A., ²Hedberg, C. P., Newsome, S.D., and ***Lyons, S.K.** Changes in mammal species associations across localities on the Edwards Plateau following the megafaunal extinction. Annual meeting of the Geological Society of America. Online. Oct. 2020.
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- 2020 ²Hedberg, C., Smith, F.A., and **Lyons, S.K.**, The legacy of megafaunal extinction: a fine-scale examination of functional diversity over the late Quaternary. Society of Vertebrate Paleontology meetings. Online Oct. 2020
- 2020 ²Keller, J.S., **Lyons, S.K.**, Newsome, S. and Smith, F.A. Grasshopper mice of unusual size: climate- and extinction-driven ecological shifts in *Onychomys* over 22,000 years at Hall's Cave. Society of Vertebrate Paleontology meetings. Online Oct. 2020
- 2020 Pineda-Munoz, S., ³Wang, Y., ³Tóth, A.B., **Lyons, S.K.**, McGuire, J.L. Humans have shaped the climate distributions of modern North American mammals. Society of Vertebrate Paleontology meetings. Online Oct. 2020
- 2020 Smith, F.A., Villaseñor, A., ³Elliott Smith, E.A., ³Tomé, C., **Lyons, S.K.**, Newsome, S. The missing piece: Late Pleistocene changes in the ecological function of a mammal community in North America. Society of Vertebrate Paleontology meetings. Online Oct. 2020
- 2019 ²Shupinski, A. and ***Lyons, S.K.**, Functional diversity of North American Cenozoic mammals. Annual meeting of the Geological Society of America, *Future Leaders of Paleontology Symposium*. Phoenix AZ Sept. 2019
- 2019 Villaseñor, A., ²Elliott Smith, E.A., ³Tomé, C.P., **Lyons, S.K.**, Stafford Jr., T.W., Newsome, S.D., and Smith, F.A. The missing piece I: Consequences of terminal Pleistocene megafaunal extinction on the isotopic and body size niche of large herbivore communities in Texas. Annual meeting of the Geological Society of America, Phoenix AZ Sept. 2019
- 2019 Smith, F.A., ²Elliott Smith, E.A., ³Tomé, C.P., **Lyons, S.K.**, Newsome, S.D., and Stafford Jr., T.W. The missing piece II: Consequences of terminal Pleistocene megafaunal extinction on ecological interactions between predators and prey. Annual meeting of the Geological Society of America, Phoenix AZ Sept. 2019
- 2019 ²Keller, J.S., Stafford Jr., T.W., **Lyons, S.K.**, Newsome, S.D., and Smith, F.A.

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- 2019 ²Hedberg, C.P., **Lyons, S.K.**, Smith, F.A. Functional diversity loss at the terminal Pleistocene: a site-specific analysis. Annual meeting of the Geological Society of America, Phoenix AZ Sept. 2019
- 2019 ²Tomé, C. P., **Lyons, S.K.**, Stafford Jr., T.W., Newsome, S.D., And Smith, F.A. The effect of climate change and biodiversity loss on *Neotoma* spp. From ~20,000 Cal BP to present. Annual meeting of the Geological Society of America, Phoenix AZ Sept. 2019
- 2019 ³Pineda-Munoz, S., **Lyons, S.K.**, ²Tóth, A. B., Wang, Y. and McGuire, J. Human landscape impacts have shaped North American Mammal Niches, Ecological Society of America, August 2019
- 2018 Behrensmeyer, A.K., and **Lyons, S.K.** The impact of taphonomy on reconstructions of terrestrial communities in time and space. Annual meeting of the Geological Society of America, Indianapolis, IN Nov. 2018
- 2018 Smith, F.A., ¹Elliott Smith, R.E., **Lyons, S.K.**, and Payne, J.L. No correlation between climate and extinction in the Cenozoic fossil record of mammals. Annual meeting of the Geological Society of America, Indianapolis, IN Nov. 2018
- 2018 ³Villaseñor, A., ²Elliot Smith, E.A., **Lyons, S.K.**, Newsome, S.D., ²Tomé, C.P., Smith, F.A. Exploring the consequences of terminal Pleistocene megafaunal extinction on the isotopic niche space of large mammals in the Edwards Plateau, TX. Annual meeting of the Society of Vertebrate Paleontologists, Albuquerque, NM. Oct. 17-20.
- 2018 ³Silvia Pineda-Munoz, **Lyons, S.K.**, ²Anikó B. Tóth and Kay Behrensmeyer. Lessons in designing databases for examining paleocommunities through geological time. Annual meeting of the Society of Vertebrate Paleontologists, Albuquerque, NM. Oct. 17-20.
- 2018 ²Anikó B. Tóth, ***S.K. Lyons**, ETE working group, John ^{*}Alroy. End-Pleistocene megafaunal extinction caused a fundamental shift in mammal species interactions. Annual meeting of the Society of Vertebrate Paleontologists, Albuquerque, NM. Oct. 17-20.
- 2018 Danielle Fraser, ³Amelia Villaseñor, ³Meghan Balk, Jussi T. Eronen, Aniko ²Toth ^{*}ETE Working Group, A. K. Behrensmeyer, **S. K. *Lyons**. Profound prehistoric biotic homogenization of North America. Annual meeting of the Society of Vertebrate Paleontologists, Albuquerque, NM. Oct. 17-20.
- 2017 ³Pineda-Munoz, S., A.M. ²Jukar, ETE working group and **S.K. *Lyons**. Human impact on North American mammal faunas from the Pleistocene. 102nd Annual meeting of the Ecological Society of America, Portland, OR, August 2017
- 2016 Pineda-Munoz, S., A.M. Jukar, ETE working group and **S.K. Lyons**. Human impact on North American Mammal faunas. 76th Annual Meeting Society of

Vertebrate Paleontology, Salt Lake City, Utah

- 2016 Fraser, D., and **S. K. Lyons**. 2016. Stasis in locality-scale mammal community structure across the PETM. Society of Vertebrate Paleontology 76th annual meeting
- 2016 **Lyons, S. K.**, Smith, F.A. and Ernest, S.K.M. The role of climate in shaping mammalian body size distributions over the Cenozoic. Abstracts with Programs - Geological Society of America, Sept. 2016, Denver, CO.
- 2016 Smith, F.A., Elliot-Smith, R., **Lyons, S.K.**, and Ernest, S.K.M. The increasing influence of humans on mammalian macroecological patterns over the late Quaternary. Abstracts with Programs - Geological Society of America, Sept. 2016, Denver, CO.
- 2015 **Lyons, S. K.**, Heim, N. A., Balk, M., Smith, F.A., Finnegan, S., Kowalewski, M., McClain, C. R., McShea, D., Novack-Gottshall, P. M., Payne, J. L., Spaeth, P.A., Wang, S.C., and Chen, M. Body-size evolution and ecological replacement in terrestrial vertebrates. Abstracts with Programs - Geological Society of America, Nov. 2015, Baltimore MD
- 2015 Smith, F. A., Tomé, C.P., Newsome, S.D., Elliott Smith, E.A., **Lyons, S.K.** and Stafford, T.W. After the mammoths: the response of a small grazer to the terminal Pleistocene megafauna extinction. Abstracts with Programs - Geological Society of America, Nov. 2015, Baltimore MD
- 2015 Plotnick, R. E., Behrensmeyer, A. K., **Lyons, S. K.** and Smith, F. A. Terrestrial landscape taphonomy and the future fossil record. Abstracts with Programs - Geological Society of America, Nov. 2015, Baltimore MD
- 2015 Heim, N. A., Payne, J. L., Balk, M., Finnegan, S., Kowalewski, M., **Lyons, S. K.**, McShea, D., Novack-Gottshall, P. M., Smith, F.A., Spaeth, P.A., and Wang, S.C., Hierarchical complexity and the limits of organism size. Abstracts with Programs - Geological Society of America, Nov. 2015, Baltimore MD
- 2015 Tóth, A. B., and **Lyons, S. K.** Using GIS to create accurate species lists based on Kenyan park attributes and range maps. Ecological Society of America meetings, Baltimore MD, Aug. 2015
- 2015 **Lyons, S. K.**, Amatangelo, K.L., Behrensmeyer, A.K., Blois, J.L., Bercovici, A., Davis, M., DiMichele, W.A., Du, A., Eronen, J.T., Faith, J.T., Graves, G.R., Jud, N., Labandeira, C., Looy, C.V., McGill, B., Miller, J.H., Patterson, D. Pineda-Munoz, S., Potts, R., Riddle, B., Terry, R. Toth, A., Ulrich, W., Villasenor, A., Williams, J.W. and Wing, S.L., Anderson, H., Anderson, J., Waller, D., and Gotelli, N.J. Changes in community assembly rules in response to human impacts: evidence from species co-occurrence patterns. Ecological Society of America meetings, Baltimore MD, Aug. 2015
- 2014 Plotnick, R.E., Smith, F.A. and **Lyons, S.K.** Threatened species in the fossil record: the invisible extinction. Abstracts with Programs – Geological Society of America. Oct. 2014, Vancouver, BC.

- 2014 Smith, F. A., **Lyons, S.K.**, Stafford Jr., T. W. and Newsome, S. Local community reorganization after the terminal Pleistocene megafaunal extinction. Abstracts with Programs – Geological Society of America. Oct. 2014, Vancouver, BC.
- 2013 **Lyons, S. K.**, Blois, Jessica, Gotelli, Nicholas J., Behrensmeyer, Anna K., Faith, J. Tyler, Amatangelo, Kathryn L., Dimichele, William A., Du, Andrew, And Eronen, Jussi T., Bobe, René, Antoine Bercovici, Graves, Gary R., Nathan Jud, Conrad C. Labandeira, Cindy V. Looy, Brian McGill, David Patterson, Richard Potts, Brett Riddle, Rebecca C. Terry, Anikó Tóth, Amelia Villaseñor, John J. Williams, Scott L. Wing. Testing patterns of co-occurrence among plant and mammal species in community assemblages from deep time to the recent. Abstracts with Programs - Geological Society of America. Oct. 2013, Denver, Co.
- 2013 Smith, F. A., **S. K. Lyons**, S. K. M. Ernest, A. G. Boyer, J. H. Brown, D. P. Costa, A. R. Evans, M. Fortelius, J. L. Gittleman, M. J. Hamilton, L. E. Harding, K. Lintulaakso, J. G. Okie, J. J. Saarinen, P. R. Stephens, J. Theodor, M. D. Uhen, and R. M. Sibly. Mammal community structure over time and space. Abstracts with Programs - Geological Society of America. Oct. 2013, Denver, Co.
- 2012 Toth, A. B., A. K. Behrensmeyer, **S. K. Lyons**. Increased diversity and decreased uniqueness in Kenyan mammal communities over the past century. Annual meeting of the Ecological Society of America, Portland, OR.
- 2011 **S. K. Lyons**, J. T. Faith, A. K. Behrensmeyer, K. L. Amatangelo, J. Blois, W. A. DiMichele, A. Du, J. T. Eronen, N. J. Gotelli, G. R. Graves, G. Hunt, C. Jaramillo, N. A. Jud, C. C. Labandeira, C. V. Looy, A. T. Moles, R. Potts, H-D. Sues, R. C. Terry, E. P. White, J. J. Williams, S. L. Wing. A comparison of plant and mammal community structure from Deep Time to the Recent. Abstracts with Programs – Geological Society of America. XX:XXX.
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- 2006 **S. K. Lyons** and F. A. Smith. Assessing biases in the mammalian fossil record using late Pleistocene mammals from North America. *Abstracts with Programs – Geological Society of America* 38:XX
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- 2005 **S. K. Lyons**. Body size and local community structure of mammals across time and space. Annual meeting of the Ecological Society of America, Montreal, Canada
- 2004 **S. K. Lyons**. The effects of elevation on two aspects of local community structure of late Pleistocene mammals. *Integrative and Comparative Biology. 44(6):595.*
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- 2001 **S. K. Lyons**. Community structure of Pleistocene mammals: the effects of biotic and abiotic factors on the response to glaciation. Abstracts with Programs – Geological Society of America. 33(7):XX.
- 2001 **S. K. Lyons**. Community structure of Pleistocene mammals: the effects of biotic and abiotic factors on the response to climate change. EPA Science to Achieve Results (STAR) graduate fellowship conference abstracts. Silver Springs, MD.
- 2000 **S. K. Lyons**. A quantitative assessment of the changes in Pleistocene mammal distributions and community composition across both space and time. Abstracts with Programs – Geological Society of America. 32(7): Abstract 51364.
- 2000 **S. K. Lyons**. Quantitative measures of change in Pleistocene mammal distributions and community composition. EPA Science to Achieve Results (STAR) graduate fellowship conference abstracts. Washington, DC.
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- 1993 **S. K. Lyons** and Michael R. Willig. Latitudinal patterns in the geographic ranges of species: facts and artifacts. Annual meeting of the Ecological Society of America, Wisconsin.

OTHER PRESENTATIONS

¹undergraduate student, ²graduate student, ³Postdoctoral scholar *senior author

- 2024 ²Keller, J. S., **Lyons, S.K.**, Newsome, S., and Smith, F.A. Climate and biodiversity loss shape micromammal community ecology over the last 22,000 years at Hall's Cave, Texas. North American Paleontological Convention, Ann Arbor MI, June 14-17.
- 2024 ³Gearty, W., Tomé, C.P., Smith, F.A., and ***Lyons, S.K.** The introduction of large mammals has not remedied the ecological impact of the Late Pleistocene extinctions. North American Paleontological Convention, Ann Arbor MI, June 14-17.
- 2024 Craffey, M., Darroch, S.A.F., and ***Lyons, S.K.** Functional diversity patterns across the Ediacaran. International Biogeography Society. Prague, Czech Republic Jan. 7-11.
- 2023 **Lyons, S.K.**, C.P. Tomé, N. ²Frey Mueller, W. ³Gearty, J. ²Keller, M. Pardi, E. ³Elliott Smith, F.A. Smith, Q. ²Smith, and P.J. Wagner. Changes in small mammal species distributions following the terminal Pleistocene megafauna extinctions. Annual meeting of the American Society of Mammalogists, July 2023, Anchorage AK.
- 2023 ²Shupinski, A.B., Smith, F.A., and **S.K. Lyons***. Changes in carnivore co-occurrence structure of North American mammal paleocommunities across the Plio-Pleistocene transition. Annual meeting of the American Society of Mammalogists, July 2023, Anchorage AK.
- 2023 Keller, J., **S.K. Lyons**, S.D. Newsome. And F.A. Smith. Micromammal niche shifts from the Pleistocene to the present at Hall's Cave, Texas. Annual meeting of the American Society of Mammalogists, July 2023, Anchorage AK.
- 2022 ²Shupinski, A.B., Smith, F.A., and **S.K. Lyons***. Spatial structure of North American paleocommunities is unique during early Cenozoic mammal radiation. Annual meeting of the American Society of Mammalogists, June 2022, Tucson AZ.
- 2022 C.P. ³Tomé, A.B. ³Tóth, A. Villaseñor, C. ²Hedberg, F.A. Smith, S.D. Newsome, **S.K. Lyons***. Impacts of late Quaternary biodiversity loss on mammal species cooccurrence at a regional scale. Annual meeting of the American Society of Mammalogists, June 2022, Tucson AZ.
- 2022 ²Hedberg, C.P., **Lyons, S.K.**, and Smith, F.A. Unpacking patterns in mammal functional and phylogenetic diversity in the Anthropocene. Annual meeting of the American Society of Mammalogists, June 2022, Tucson AZ.
- 2022 ²Hedberg, C.P., **Lyons, S.K.**, and Smith, F.A. Unpacking patterns in mammal functional and phylogenetic diversity in the Anthropocene. Bi-annual meeting of the International Biogeography Society. June 2-6 2022, Vancouver, B.C. Canada.
- 2022 **Lyons, S.K.**, C.P. Tomé, N. Frey Mueller, W. Gearty, J. Keller, M. Pardi, E. Elliott Smith, F.A. Smith, Q. Smith, and P.J. Wagner. Changes in small mammal species distributions following the terminal Pleistocene megafauna extinctions. Bi-annual meeting of the International Biogeography Society. June 2-6 2022, Vancouver, B.C. Canada.

- 2022 W. Gearty³, Cooke³, R. S. C., A. S. A. Chapman, J. Dunic, G. J. Edgar, J. S. Lefcheck, G. Rilov, C. McClain, R. D. Stuart-Smith, **S. K. Lyons***, and A. E. Bates*. Anthropogenic disruptions to longstanding patterns of trophic-size structure in vertebrates. Bi-annual meeting of the International Biogeography Society. June 2-6 2022, Vancouver, B.C. Canada.
- 2021 ²Craffey, M. Darroch, S., Wagner, P.J., Watkins, D. K., Shizuka, D. and ***Lyons, S.K.** The structure of Ediacaran and Cambrian communities. Early Career Biogeographers Conference, International Society of Biogeography, Online Oct. 22-24, 2021.
- 2021 ²Craffey, M. Darroch, S., Wagner, P.J., Watkins, D. K., Shizuka, D. and ***Lyons, S.K.** Community assembly shifts in the Ediacaran (635-541 million years ago). UNL SBS Graduate Recruitment Research Symposium
- 2021 ³Shupinski, A., Smith, F.A., and ***Lyons, S.K.** Significant shifts in taxonomic and functional beta diversity of North American mammal paleocommunities. American Society of Mammalogists online meeting, June 2021
- 2021 ³Keller, J.S., **Lyons, S.K.**, Newsome, S.D., and Smith, F.A. Climate and extinction drive ecological shifts in grasshopper mice from the Pleistocene to the present. American Society of Mammalogists online meeting, June 2021
- 2021 ³Hedberg, C., **Lyons, S.K.**, and Smith, F.A. Hidden legacy of megafaunal extinction: Functional diversity and ecosystem resilience loss over the Late Quaternary. American Society of Mammalogists online meeting, June 2021
- 2019 ³Pineda-Munoz, S., **Lyons, S.K.**, ²Tóth, A. B., ³Wang, Y. and McGuire, J. Human landscape impacts have shaped North American Mammal Niches, North American Paleontological Congress, University of California Riverside, June 2019
- 2019 ³Jukar, A. M., ***Lyons, S.K.**, Wagner, P. J., and ***Uhen, M.D.** Late Quaternary extinctions in India, North American Paleontological Congress, University of California Riverside, June 2019
- 2019 Behrensmeyer, A.K., **Lyons, S. K.**, Amatangelo, K.L., Barr, A.W., Bercovici, A., Du, A., Eronen, J.T., Faith, J.T., Fraser, D.L., Gotelli, N.J., Graves, G.R., Jud, N., Looy, C.V., McGill, B., Miller, J.H., Pineda-Munoz, S., Potts, R., Shupinski, A., Toth, A., Villasenor, A., and Wing, S.L. It's about time! Paleontological contributions to understanding terrestrial community ecology. North American Paleontological Congress, University of California Riverside, June 2019
- 2019 **Lyons, S.K.**, Villaseñor, A. and Smith, F.A. The role of functional traits in mammalian community structure across the Pleistocene-Holocene transition. Annual meeting of the International Biogeography Society, Malaga Spain, January 2019.
- 2018 **Lyons, S.K.**, Villaseñor, A. and Smith, F.A. The role of functional traits in mammalian community structure across the Pleistocene-Holocene transition. Annual meeting of the American Society of Mammalogists, Manhattan, KS. June 2018.

- 2018 Smith, F.A., ¹Elliott Smith, R.E., **Lyons, S.K.**, and J.L. Payne. Body size downgrading over the late Quaternary. Annual meeting of the American Society of Mammalogists, Manhattan, KS. June 2018.
- 2018 Smith, F.A., ¹Elliott Smith, R.E., **Lyons, S.K.**, and J.L. Payne. Body size downgrading over the late Quaternary. International Paleontological Congress, Paris France, July 2018.
- 2018 **Lyons, S.K.**, ³Villaseñor, A. and Smith, F.A. The role of functional traits in mammalian community structure across the Pleistocene-Holocene transition. International Paleontological Congress, Paris France, July 2018.
- 2017 **Lyons, S. K.**, Smith, F.A. and Ernest, S.K.M. The role of climate in shaping mammalian body size distributions over the Cenozoic. International Mammal Congress, Perth Australia.
- 2017 ²Elliott Smith, E.A., C.P. ²Tomé, T.W. Stafford Jr., **S.K. Lyons**, F.A. Smith, and S.D. Newsome (2017). *A shifting baseline: delta 15N analysis of individual amino acids to track ecosystem changes across the late Pleistocene extinction*. International Mammalogical Congress. Perth, Australia.
- 2017 ²Tomé, C.P., F.A. Smith, S.D. Newsome, E.A. ²Elliott Smith, **S.K. Lyons** and T.W. Stafford Jr. (2017). *Responses in the cotton rat to the megafauna extinction. The American Society of Mammalogists..* American Society of Mammalogist annual meeting. Moscow, Idaho.
- 2017 Felisa A. Smith, Catalina P. ²Tomé, Emma A. ²Elliott Smith, Seth D. Newsome, **S. K. Lyons** and Thomas W. Stafford. After the mammoths. Changes in the structure and function of mammal communities after the terminal Pleistocene megafauna extinction. International Mammal Congress, Perth Australia.
- 2017 Felisa A. Smith, Catalina P. ²Tomé, Emma A. ²Elliott Smith, Seth D. Newsome, **S. K. Lyons** and Thomas W. Stafford. After the mammoths. Changes in the structure and function of mammal communities after the terminal Pleistocene megafauna extinction. International Biogeography Society. Tuscon AZ.
- 2016 Fraser, D., and **S. K. Lyons**. Past dispersal, speciation, and extinction events structure North American mammal communities. Geobiology Symposium, University of Pennsylvania
- 2016 Felisa A. Smith, Catalina P. Tomé, Emma A. Elliott Smith, Seth D. Newsome, **S. K. Lyons** and Thomas W. Stafford. "After the Mammals: Unraveling the Ecosystem Consequences of the Terminal Pleistocene Megafaunal Extinction." AMQUA, June 2016, Santa Fe, NM
- 2016 Emma A. Elliott Smith, Catalina P. Tomé, Thomas W. Stafford, **S. K. Lyons**, Felisa A. Smith, and Seth D. Newsome. "A Shifting Baseline: $\delta^{15}\text{N}$ Analysis of Individual Amino Acids to Track Ecosystem Changes Across the Late Pleistocene Extinction." AMQUA, June 2016, Santa Fe, NM
- 2016 Catalina P. Tomé, Felisa A. Smith, Seth D. Newsome, Emma A. Elliott Smith, **S. K. Lyons**, and Thomas W. Stafford. "Responses in the Cotton Rat (*Sigmodon*

- hispidus*) to the Megafauna Extinction of the Terminal Pleistocene.” AMQUA, June 2016, Santa Fe, NM
- 2015 **Lyons, S. K.**, Amatangelo, K.L., Behrensmeyer, A.K., Blois, J.L., Bercovici, A., Davis, M., DiMichele, W.A., Du, A., Eronen, J.T., Faith, J.T., Graves, G.R., Jud, N., Labandeira, C., Looy, C.V., McGill, B., Miller, J.H., Patterson, D. Pineda-Munoz, S., Potts,R., Riddle, B., Terry, R. Toth, A., Ulrich, W., Villasenor, A., Williams, J.W. and Wing, S.L., Anderson, H., Anderson, J., Waller, D., and Gotelli, N.J. Changes in community assembly rules in response to human impacts: evidence from species co-occurrence patterns. American Society of Mammalogists, June 2015. Jacksonville, FL.
- 2015 Smith, F.A., Tomé, C.P., Elliott Smith, E.A., **Lyons, S.K.**, Newsome, S.D., and Stafford, T.W., Unraveling the consequences of the terminal Pleistocene megafauna extinction on mammal community assembly. American Society of Mammalogists meetings, Jacksonville FL, June 2015
- 2014 **Lyons, S. K.**, Blois, Jessica, Gotelli, Nicholas J., Behrensmeyer, Anna K., Faith, J. Tyler, Amatangelo, Kathryn L., Dimichele, William A., Du, Andrew, And Eronen, Jussi T., Antoine Bercovici, Graves, Gary R., Nathan Jud, Conrad C. Labandeira, Cindy V. Looy, Brian McGill, David Patterson, Richard Potts, Brett Riddle, Rebecca C. Terry, Anikó Tóth, Amelia Villaseñor, John J. Williams, Scott L. Wing. Patterns of co-occurrence of plant and mammal species from deep time to the Recent. IPC, Mendoza Argentina Oct. 2014.
- 2014 **Lyons, S. K.**, Blois, Jessica, Gotelli, Nicholas J., Behrensmeyer, Anna K., Faith, J. Tyler, Amatangelo, Kathryn L., Dimichele, William A., Du, Andrew, And Eronen, Jussi T., Antoine Bercovici, Graves, Gary R., Nathan Jud, Conrad C. Labandeira, Cindy V. Looy, Brian McGill, David Patterson, Richard Potts, Brett Riddle, Rebecca C. Terry, Anikó Tóth, Amelia Villaseñor, John J. Williams, Scott L. Wing. Patterns of co-occurrence of plant and mammal species across critical intervals. NAPC – Florida Feb. 2014.
- 2014 Miller, J. H., A. K. Behrensmeyer, A. Du, **S. K. Lyons**, D. Patterson, A. Tóth, A. Villaseñor, E. Kanga, Denné Reed. Ecological fidelity of functional traits based on species presence-absence in the mammalian bone assemblage of Amoseli Park, Kenya. NAPC – Florida, Feb. 2014.
- 2014 Tóth, A., A. K. Behrensmeyer, J. H. Miller, **S. K. Lyons**. Species Richness, Community Dynamics, and Time-averaging in Recent Kenyan Ecosystems. NAPC – Florida, Feb. 2014.
2013. Miller, J. H., A. K. Behrensmeyer, A. Du, **S. K. Lyons**, D. Patterson, A. Tóth, A. Villaseñor. Size-biased modern bone accumulations can accurately record whole-community ecology. Annual meeting of Society of Vertebrate Paleontologists. Los Angeles, CA. Nov. 2013.
- 2013 **Lyons, S.K.**, J. T. Faith, J. Blois, N.J. Gotelli, A. K. Behrensmeyer, K. L. Amatangelo, A. Bercovici, W. A. DiMichele, A. Du, J. T. Eronen, G. R. Graves, G. Hunt, N. A. Jud, C. C. Labandeira, C. V. Looy, R. Potts, H-D. Sues, R. C. Terry, A. Tóth, J. J. Williams, S. L. Wing. A comparison of plant and mammal community structure from deep time to the recent. The Geobiology Symposium:

February 22, 2013, NMNH – Paleobiology.

- 2012 **Lyons, S.K.** A. B. Toth, A. K. Behrensmeyer, Changes in mammal community structure in Kenya over the last 100 years. Annual meeting of the American Society of Mammalogists, Reno NV.
- 2010 Alistair R. Evans, David O. Jones, Alison G. Boyer, James H. Brown, Dan P. Costa, Tamar Dayan, S. K. Morgan Ernest, Mikael Fortelius, John L. Gittleman, Marcus J. Hamilton, Larisa E. Harding, Kari Lintulaakso, **S. K. Lyons**, Jordan G. Okie, Juha J. Saarinen, Richard M. Sibly, Felisa A. Smith, Patrick R. Stephens, Jessica Theodor and Mark D. Uhen Estimating maximum rates of macroevolution in the fossil record. Annual meeting of the Society of Vertebrate Paleontologists. Oct. 10-13
- 2010 Smith, F.A., A.G. Boyer, J.H. Brown, D. Costa, T. Dayan, 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.G. Okie, J.J. Saarinen, R.M. Sibly, P.R. Stephens, J. Theodor and M.D. Uhen. The tempo and mode of body mass evolution in Cenozoic mammals. Annual meeting of the Society of Vertebrate Paleontologists. Oct. 10-13.
- 2010 Smith, F.A., A.G. Boyer, J.H. Brown, D. Costa, T. Dayan, 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.G. Okie, J.J. Saarinen, R.M. Sibly, P.R. Stephens, J. Theodor and M.D. Uhen. The tempo and mode of body mass evolution in Cenozoic mammals. Annual meeting of the American Society of Mammalogists, Laramie WY.
- 2009 F. A. Smith, A. G. Boyer, J. H. Brown, D. P. Costa, T. Dayan, A. Evans, S. K. M. Ernest, M. Fortelius, L. Harding, K. Lintulaakso, **S. K. Lyons**, R. M. Sibly, J. Saarinen, J. Theodor, and M. D. Uhen. Size matters: examining patterns of maximum body size of mammals over time and space. International Biogeography Society 4th Biannual Meeting, Merida, Mexico
- 2007 Youberg, K. M., F. A. Smith, and **S. K. Lyons**. What drives the similarity of mammalian body size across continents? Annual meeting of the American Society of Mammalogists. Albuquerque, NM.
- 2004 **S. K. Lyons**, F. A. Smith, P. J. Wagner, E. P. White and J. H. Brown. Was a “hyperdisease” responsible for the late Pleistocene megafaunal extinction? Annual meeting of the American Society of Mammalogists. Arcata, CA.
- 2004 F. A. Smith, and **S. K. Lyons**. Heritability of body size in large mammals. Annual meeting of the American Society of Mammalogists. Arcata, CA.
- 2003 **S. K. Lyons**. A comparison of the range shifts for mammalian orders in the Pleistocene. First annual meeting of the International Biogeography Society. Mesquite, NV.
- 2003 **S. K. Lyons**. Range shifts of mammalian orders during the late Pleistocene. Annual meeting of the American Society of Mammalogists. Lubbock, TX.

- 2002 **S. K. Lyons**, F. A. Smith. and J. H. Brown. Of mice mastodons and men: human caused extinctions on four continents. Annual meeting of the American Society of Mammalogists. Lake Charles, LA.
- 2002 M. R. Willig and **S. K. Lyons**. Gradients of diversity, scale sensitivity, and null models. Symposium on Macroecology of mammals: patterns, processes and possibilities. Annual meeting of the American Society of Mammalogists. Lake Charles, LA.
- 2002 F. A. Smith, J. H. Brown, J. P. Haskell, and **S. K. Lyons**. Similarity of mammalian body size across the taxonomic hierarchy and across space and time. Symposium on Macroecology of mammals: patterns, processes and possibilities. Annual meeting of the American Society of Mammalogists. Lake Charles, LA.
- 2000 **S. K. Lyons**. Quantitative measures of change in Pleistocene mammal distributions and community composition: is community membership temporally dependent? Annual meeting of the American Society of Mammalogists, Durham, New Hampshire.
- 1999 **S. K. Lyons** and M. R. Willig. Species-Area curves and diversity-latitude relationships in the New World. Annual meeting of the American Society of Mammalogists, Seattle Washington.
- 1998 **S. K. Lyons**. A quantitative assessment of the changes in Pleistocene mammal distributions: Are range shifts independent? Annual meeting of the American Society of Mammalogists, Virginia.
- 1998 **S. K. Lyons**. A quantitative assessment of Pleistocene mammal assemblages: a model for quantifying range shifts and community composition. GSA Penrose Conference on Linking Spatial and Temporal Scales in Paleoecology and Ecology, Virginia and Maryland. (Invited)
- 1997 Bruce D. Patterson and **S. K. Lyons**. Modern mammal assemblages from the Neotropics: legacies of the Great American Biotic Interchange. A. Watson Armour Spring Systematic Symposium, Field Museum of Natural History, Chicago, Illinois. (Invited)
- 1997 **S. K. Lyons**. A quantitative assessment of disharmony among Pleistocene mammal assemblages: Are non-analogue communities the rule? Annual meeting of the American Society of Mammalogists, Oklahoma.
- 1996 **S. K. Lyons** and Bruce D. Patterson. Identifying and delimiting regions of endemism for Neotropical mammals: The native Murids. Annual meeting of the American Society of Mammalogists, North Dakota.
- 1995 **S. K. Lyons** and Michael R. Willig. The effect of scale on patterns of species richness: a model and empirical test for New World bats and marsupials. Annual meeting of the American Society of Mammalogists, Vermont.
- 1995 Michael R. Willig, **S. K. Lyons** and Richard D. Stevens. Ecological filters and biogeographic determinants of species richness: a quantitative approach and

- empirical evaluation for New World bat communities. Annual meeting of the American society of Mammalogists, Vermont.
- 1994 **S. K. Lyons** and Michael R. Willig. Latitudinal gradients in the New World: A null model and Empirical test. Annual meeting of the Southwestern Association of Naturalists, Kansas.
- 1994 Michael R. Willig and **S. K. Lyons**. Latitudinal gradients in the New World: Fact or Artifact? Annual meeting of the American Society of Mammalogists, Washington DC.
- 1994 Michael R. Willig and **S. K. Lyons**. Latitudinal gradients of New World bats: A null model and empirical test. 24th Annual North American Symposium on Bat Research, Ixtapa, Mexico
- 1993 **S. K. Lyons** and Michael R. Willig. Facts and artifacts concerning Rapoport's rule: latitudinal gradients in species range size. Annual meeting of the Southwestern Association of Naturalists, Missouri.
- 1993 **S. K. Lyons** and Michael R. Willig. Latitudinal gradients in range size: a quantitative assessment of Rapoport's rule for New World bats and marsupials. Annual meeting of the American Society of Mammalogists, Washington.

TEACHING EXPERIENCE

LECTURER

BIOS 207 – Ecology and Evolution (UNL) – spring 2018 Fall 2018, Fall 2019; Fall 2020, Spring 2021, Spring 2022, Fall 2022, Fall 2023
 BIOS 805 – Principles of Ecology (UNL) – Fall 2019, Fall 2022
 BIOS 436/836 - Macroecology (UNL) - spring 2017, Fall 2018; Fall 2020, Fall 2023
 Ecology Reading course (GWU) –Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016 (GMU, GWU);
 BEES 608K (Macroecology, UMd) – Fall 2012;
 BEES 609 (Quaternary Paleoecology, UMd) – Fall 2010;
 Biology 431/531 (Mammalogy, ODU) – Spring 2007;
 Natural Science 162 (Environmental History of Life, UNM) – Fall 2002.

GUEST LECTURER

Biology 108 – ODU, Biogeography – U of C, ODU, Population Biology (3407), Advanced Population Biology (5407) – TTU, Environmental History of the Earth – U of C, Ecology Graduate Core – Utah State University, Earth's History and Global Change Academy - Smithsonian Earth Science Academy (2010-2014), Extinction – University of New Mexico (2017, 2021)

TRAINING

Summer Institute on Scientific Teaching, May 5-10, 2017, University of Minnesota.
 Participant in Paleobiology Short Course on undergraduate teaching – Nov. 2018 at Annual meeting of the Geological Society of America, Indianapolis, IN.

Nebraska Undergraduate Stem Education Network – June 2018, August 2019
Science Communication Workshop – UNL State Museum – March 7, 2019
Summer Institute for Online Teaching Session 2 – July 2020
The Inclusive STEM Teaching Project – June 14 – August 10, 2021
Scientific Communication Advances Research Excellence (SCOARE) workshop – Sept. 14 & 16, 2021.
UNL CAS Active Learning Strategies Workshop – Nov. 3rd 2023
UNL Course & Section Coordination with Equity in Mind Workshop Dec. 1 2023
UNL CAS Inclusive and Equitable Teaching Workshop – Dec. 8 2023

UNDERGRADUATE, GRADUATE AND POSTDOCTORAL MENTORING

CURRENT POSTDOCTORAL FELLOWS

Alex Shupinski E6 Postdoctoral Fellow

FORMER POSTDOCTORAL FELLOWS

Catalina Tomé (August 2019 – August 2022)
William Gearty, Position of Excellence Population Biology Postdoctoral Fellow (September 2019 – September 2022)
Mehgan Balk (March 2017 – January 2019, with Matt Carrano)
Amelia Villasenor (August 2017 – November 2018, with Felisa Smith and Seth Newsome)
Silvia Pineda-Munoz (February 2016-August 2018, with Kay Behrensmeyer and Nick Gotelli)
Danielle Fraser (Sept 2015 – 2017)
Josh Miller (Nov 2014 - Dec 2015, with Kay Behrensmeyer and Nick Gotelli)
Christy McCain (Jan 2006 - Oct 2007, with Felisa Smith and Morgan Ernest)
Marcus Hamilton (June 2009 – 2012, with Felisa Smith and Morgan Ernest)

CURRENT GRADUATE STUDENTS

Matthew Craffey: UNL

FORMER GRADUATE STUDENTS

Quentin Smith: UNL (co-advised with Dai Shizuka) – graduated 2024
Alex Shupinski: UNL – graduated 2024
Advait Jukar: GMU student (co-advised with Mark Uhen) – graduated 2018
Anikó Tóth: Macquarie University student (co-advised with John Alroy) – graduated 2019

CURRENT GRADUATE STUDENT COMMITTEES

Tristan Murphy: UNL student (advised by Brigitte Tenhumberg)
John Mensah: UNL student (advised by Brigitte Tenhumberg)
Kat Jordan: UNL student (advised by Peter Wagner)
Willow Nguy: UNL student (advised by Peter Wagner)
Carson Hedberg: UNM student (advised by Felisa Smith)

FORMER GRADUATE STUDENT COMMITTEES

Devra Hock: UNL student (advised by Ross Secord) graduated 2023
Annie Madsen: UNL student (advised by Dai Shizuka) graduated 2023
Kat Schroeder: UNM student (advised by Felisa Smith) graduated 2022
Catalina Tomé: UNM student (advised by Felisa Smith) graduated 2019
Amelia Villasenor: GWU student (co-advised by Réne Bobé and Kay Behrensmeyer) graduated 2017
Andrew Du: GWU student (co-advised by Réne Bobé and Kay Behrensmeyer) graduated 2016
Melissa Pardi: UNM student (advised by Felisa Smith) graduated 2016
Andy Simpson: UMD BEES student (co-advised by Scott Wing and Charlie Fenster) graduated 2015.
Carlos Peredo: GMU student (advised by Mark Uhen) graduated 2015

CURRENT UNDERGRADUATE STUDENTS

Alora Schneider: UNL student

FORMER HIGH SCHOOL INTERNS

Neeraj Kadubandi – Spring 2020 – Fall 2021

FORMER UNDERGRADUATE STUDENTS

Elizabeth Millsap – Fall 2020 – Spring 2022
Himani Patel – (UNL) Spring 2021 – Fall 2021
Joelle Sanger – (UNL) Spring 2021 – Fall 2021
Qut Al Hamdani (UNL) – Fall 2018 – Spring 2019
Rebecca Kiat (UNL) – Fall 2017
Helen Watson (ODU) – Extinction risk in songbirds (Fall 2006)
Sarah Johnson (ODU) – Feeding behavior and echolocation in dolphins (Fall 2006), Life history traits and body size evolution in mammals (Spring 2007)
Kathryn Ripley (ODU)– Echolocation in dolphins and whales (Fall 2006)

FORMER NMNH INTERNS

Kate Dzikiewicz (September 2009 – July 2010 with Mathew Carrano, Summer 2014)
Anikó Tóth (May 2011-September 2011, August 2012 – June 2013) with Kay Behrensmeyer
Janet Burke (May 2013-August 2013) with Kay Behrensmeyer
Advait Jukar (Summer 2014)
Rosemary Elliott Smith (Summer 2014)
Carlos Peredo (Summer 2014)
Joseph Villari (Summer 2014)
Matt Davis (2013-2014) with Kay Behrensmeyer

PROFESSIONAL SERVICE

DEPARTMENTAL SERVICE

2023 – present	SBS Executive Committee
2021 - 2023	Curriculum Committee, UNL
2018 - present	EEB-POE Steering Committee, UNL
2017 - 2021	Special Funds Committee, UNL (chair 2018-2019, 2020-2021)
2015	Awards Committee, NMNH

RESEARCH RELATED SERVICE

2022-2023	Scientific Advising Committee for joint meeting of the International mammal Congress and the American Society of Mammalogists in Anchorage AK July 2023
2017- 2018	Scientific Committee for the International Society of Biogeography meetings in Evora, Portugal March 2018.
2018 - present	Board Member, Earth Life Consortium Foundation
2022 – present	Senior Editor: <i>Extinctions</i>
2017- present	Associate Editor: <i>Ecography</i>
2015- present	Associate Editor: <i>Global Ecology and Biogeography</i>

NSF Panels:

2021	– Cross directorate NSF panel
2018	– NSF panel for the Division of Earth Science
2015	– Cross directorate NSF panel, and on an NSF panel for the Division of Environmental Sciences
2014	– NSF panel for the Division of Environmental Sciences
2013	– NSF panel for the Division of Environmental Sciences
2009	– NSF panel for the Division of Environmental Sciences

Referee: *Nature, Nature Communications, Science, PNAS, Nature Ecology and Evolution, The American Naturalist, Global Ecology and Biogeography, Ecology, Ecological Archives, Journal of Evolutionary Biology, Ecology Letters, Evolutionary Ecology Research, Diversity and Distributions, Journal of Mammalogy, Journal of Biogeography, Journal of Ecology, Global Change Biology, Palaios, Paleobiology, Biology Letters, Oikos, Ecography, Evolution, Ecological Monographs, Philosophical Transactions of the Royal Society B, National Science Foundation, US Civilian Research and Development Foundation.*

SCIENTIFIC SOCIETY MEMBERSHIP AND SERVICE FOR SOCIETIES

American Society of Mammalogists
Human diversity committee (1998 – 2003), Mammal Slide Library committee

(1998 – present), Grants-in-aid committee (2003 – 2007; 2012 - 2016), Informatics committee (2003-2015), Program Committee (2022-present), Conservation Award committee (Chair; 2023-present), Strategic Planning Committee (2024-present)

Paleontological Society
Student council member 1999-2000 (presidential appointment)
Newell Committee member 2022-2024
Nominations committee 2024-present

Ecological Society of America
International Biogeography Society
Awards Committee (2003 - 2009)
Nominations committee 2024-present

SYNERGISTIC ACTIVITIES

Organized a symposium on Ecosystem engineering in deep time for the International Biogeography society biannual meetings. Prague, Czech Republic Jan 7-11, 2024
Invited participant, and subgroup assessor, NSF-sponsored workshop by UIDP (University Industry Demonstration Partnership) on Mitigating Climate Change, October 2021
Director of the Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers (E⁶) Research Coordination Network.
Member of the scientific committee for the International Biogeography Society meeting in Evora, Portugal, March 2018
Invited participant in the workshop, "PACE: Paleoecology and Community Ecology", organized by J. Gill, B. McGill, and J. Williams. Schoodic Institute, Arcadia National Park. Maine. May 21-26, 2017.
Co-Director, Evolution of Terrestrial Ecosystems Program, National Museum of Natural History, Washington, DC.
Supervisor for initiative to create content for the Encyclopedia of Life to compliment the new Deep Time Exhibit Halls at the Smithsonian – June – September 2014
Invited participant in the workshop, "Stranger than we can suppose: Evaluating ecological possibility – past, present, and future" organized by the Evolution of Terrestrial Ecosystem Program, Smithsonian Institution, September 12-14, 2008
Invited participant in the workshop, "Paleontological Powers of Ten: Issues of Scale in Paleobiology", organized by the Evolution of Terrestrial Ecosystem Program, Smithsonian Institution, September 13-16, 2007
Co-Organizer (with Paul Harnik) of an Ecological Society of America Symposium: "Environmental Change, Extinction Risk, and the Maintenance of Biodiversity through Time" – August 2007.
Member, FAUNMAP advisory board – 2006-2010
Member Species Distribution Modeling Working group, National Center for Ecological Analysis and Synthesis – 2006-2008
Member, Body Size Evolution Working Group, National Evolutionary Synthesis Center
Invited participant in the GSA Penrose conference on: Linking spatial and temporal scales in Ecology and Paleoecology, May 1998
Member Body Size Working group, National Center for Ecological Analysis and Synthesis – 1998-2001

REFERENCES

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