David M. Nelson

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EDUCATION

University of Illinois, Urbana-Champaign, Ph.D. in Ecology - December 2005

Trinity Christian College, Palos Heights, IL, B.A. with highest honors in Biology - May 2001

PROFESSIONAL APPOINTMENTS

Associate Professor, University of Maryland Center for Environmental Science, 2015-present
Foreign Visiting Research Fellow, Nagoya University, 2016-2017
Assistant Professor, University of Maryland Center for Environmental Science, 2009-2015
Postdoctoral Fellow, Institute for Genomic Biology, University of Illinois, July 2006-2009
Visiting Postdoctoral Fellow, Department of Earth and Planetary Sciences, Harvard University, July 2006-2008
Postdoctoral Associate, Departments of Plant Biology and Animal Sciences, University of Illinois, January-June 2006
Graduate Research Assistant, University of Illinois, 2002-2004

TEACHING EXPERIENCE

Lecturer

Stable Isotopes in Environmental Research (MEES 698R), University System of Maryland, 3 credits (graduate level), Fall 2011, Fall 2013, Fall 2015, Fall 2017

Environmental Impacts of Unconventional Gas-Well Drilling and Hydraulic Fracturing (MEES 608Y), University System of Maryland, 1 credit seminar (graduate level), Fall 2013

Guest Lecturer

Professional Development in Atmospheric Sciences, University of Illinois, Fall 2006
Organismal and Evolutionary Biology, University of Illinois, Spring 2006

Teaching Assistant

Ecology, University of Illinois, Fall 2004 and Fall 2005
Introduction to Plant Biology, University of Illinois, Spring 2005
Introduction to Biology, University of Illinois, Fall 2001 and Spring 2002

HONORS AND AWARDS

- Short-Term Invitation Fellowship for Research in Japan, Japan Society for the Promotion of Science, 2017
- Foreign Visiting Research Fellow, Nagoya University, 2016-2017
- Young Scientists Support Award to attend XIII IPC/XI IOPC, Tokyo, 2012
- Arnold O. Beckman Research Award for Campus Research Board proposal of distinction, University of Illinois, 2008
- Selected participant at Dissertations Initiative for the Advancement of Climate Change Research Symposium (DISCCRS III), Hawaii, September 2007
- List of Teachers Ranked Excellent by their Students, University of Illinois, Fall 2004 and Spring 2005
- NSF Paleoclimatology award for American Quaternary Association Meeting, 2004
- Program in Ecology and Evolutionary Biology Fellowship, University of Illinois, 2004
- Graduate Teacher Certificate, University of Illinois, 2002
- Biology Departmental Award, Trinity Christian College, 2001

PUBLICATIONS (# = postdoc or graduate student co-author, * = undergraduate student co-author)

Herbert RP[*], Peters SC, **Nelson DM**, Booth RK. 2019. Light variability and mixotrophy: responses of testate amoeba communities and shell $\delta^{13}C$ values to a peatland shading experiment. *European Journal of Protistology* 67: 15-26.

Vander Zanden HB, **Nelson DM**, Wunder MB, Conkling TJ, Katzner T. 2018. Application of stable isotopes to determine geographic origin of terrestrial wildlife for conservation and management. *Biological Conservation* 228: 268-280.

Craine J, Elmore AJ, Aranibar J, Bauters M, Boeckx P, Crowley BE, Dawes MA, Delzon S, Fajardo A, Fang Y, Fujiyoshi L, Gray A, Guerrieri R, Gundale MJ, Hawke DJ, Hietz P, Jonard M, Kearsley E, Kenzo T, Makarov M, Marañón-Jiménez S, McGlynn TP, McNeil BE, Mosher SG, **Nelson DM**, Peri PL, Christophe Roggy J, Sanders-DeMott R, Song M, Szpak P, Templer PH, Van der Colff D, Wang L, Werner C, Xu X, Yang Y, Yu G, Zmudczyńska-Skarbek K. 2018. Isotopic evidence for oligotrophication of terrestrial ecosystems. *Nature Ecology and Evolution* 2: 1735-1744.

Vander Zanden HB, Reid A[*], Katzner T, **Nelson DM**. 2018. Effect of heat and singeing on stable hydrogen isotope values of bird feathers and implications for their use in determining geographic origins. *Rapid Communications in Mass Spectrometry* 32: 1859-1866.

Nelson DM, Nagel J[#], Trott R, Campbell CJ[#], Pruitt L, Good RE, Iskali G, Gugger PF. 2018. Carcass age and searcher identity affect morphological assessment of sex of bats. *The Journal of Wildlife Management* 82: 1582-1587.

Nelson DM, Tsunogai U, Dong D, Ohyama T, Komatsu DD, Nakagawa F, Noguchi I, Yamaguchi T. 2018. Triple oxygen isotopes indicate urbanization affects sources of

nitrate in wet and dry atmospheric deposition. *Atmospheric Chemistry and Physics* 18: 6381-6392.

Reaves VC[#], Elmore AJ, **Nelson DM**, McNeil BE. 2018. Drivers of spatial variability in greendown within an oak-hickory forest landscape. *Remote Sensing of Environment* 210: 422-433.

Campbell CJ[#], **Nelson DM**, Ogawa NO, Chikaraishi Y, Okhouchi N. 2017. Trophic position and dietary breadth of bats revealed by nitrogen isotopic composition of amino acids. *Scientific Reports* 7: 15932.

Zhao Y[#], **Nelson DM**, Clegg BF, An C-B, Hu FS. 2017. Carbon isotopic analysis on nanogram quantities of carbon from dissolved insect cuticle: a method for paleoenvironmental inferences. *Rapid Communications in Mass Spectrometry* 31: 1825-1834.

McLauchlan KK, Gerhart LM, Battles JJ, Craine JM, Elmore AJ, Higuera PE, Mack MC, McNeil BE, **Nelson DM**, Pederson N, Perakis SS. 2017. Centennial-scale reductions in nitrogen availability in temperate forests of the United States. *Scientific Reports* 7: 7856.

Elmore AJ, Craine JM, **Nelson DM**, Guinn SM. 2017. Continental scale variability of foliar nitrogen and carbon isotopes in *Populus balsamifera* and their relationships with climate. *Scientific Reports* 7: 7759.

Katzner TE, **Nelson DM**, Braham MA, Doyle JM, Fernandez NB, Duerr AE, Bloom PH, Fitzpatrick MC, Miller TA, Culver RCE, Braswell L, DeWoody JA. 2017. Golden eagle fatalities and the continental-scale consequences of local wind-energy generation. *Conservation Biology* 31: 406-415.

Elmore AJ, **Nelson DM**, Craine JM. 2016. Earlier springs are causing reduced nitrogen availability in North American eastern deciduous forests. *Nature Plants* 2: 16133.

Sabo RD[#], Scanga SE, Lawrence GB, **Nelson DM**, Eshleman KN, Zabala G[*], Alinea A[*], Schirmer C. 2016. Watershed-scale changes in terrestrial nitrogen cycling during a period of decreased atmospheric nitrate and sulfate deposition. *Atmospheric Environment* 146: 271-279.

Nelson DM, Urban MA[#], Kershaw P, Hu FS. 2016. Late-Quaternary variation in C_3 and C_4 grass abundance in southeastern Australia as inferred from $\delta^{13}C$ analysis: Assessing the roles of climate, pCO_2, and fire. *Quaternary Science Reviews* 139: 67-76.

Sabo RD[#], **Nelson DM**, Eshleman KN. 2016. Episodic, seasonal, and annual export of atmospheric and microbial nitrate from a temperate forest. *Geophysical Research Letters* 43: 683–691.

Pylant CL[#], **Nelson DM**, Fitzpatrick MC, Gates JE, Keller SR. 2016. Geographic origins and population genetics of bats killed at wind-energy facilities. *Ecological Applications* 26: 1381–1395.

Urban MA[#], **Nelson DM**, Jiménez-Moreno G, Hu FS. 2016. Carbon isotope analyses reveal relatively high abundance of C_4 grasses during early-middle Miocene in southwestern Europe. *Palaeogeography, Palaeoclimatology, Palaeoecology* 443: 10-17.

Nelson DM, Braham M, Miller TA, Duerr AE, Cooper J, Lanzone M, Lemaître J, Katzner T. 2015. Stable hydrogen isotopes identify leapfrog migration, degree of connectivity, and summer distribution of Golden Eagles in eastern North America. *The Condor: Ornithological Applications* 117: 414-429.

Urban MA[#], **Nelson DM**, Street-Perrott FA, Verschuren D, Hu FS. 2015. A late-Quaternary perspective on atmospheric pCO_2, climate, and fire as drivers of C_4-grass abundance. *Ecology* 96: 642-653.

Pylant CL[#], **Nelson DM**, Keller SR. 2014. Stable hydrogen isotopes record the summering grounds of eastern red bats (*Lasiurus borealis*). *PeerJ* 2:e629.

Landesman WJ[#], **Nelson DM**, Fitzpatrick MC. 2014. Soil properties and tree species drive ß-diversity of soil bacterial communities. *Soil Biology and Biochemistry* 76: 201-209.

Nelson DM, Urban MA[#], Hu FS. 2014. Spatiotemporal variation in the origin of C_4 grasses: $\delta^{13}C$ analysis of grass pollen from the southeastern United States. *Palaeogeography, Palaeoclimatology, Palaeoecology* 396: 227-231.

Keller SR, Trott R, Pylant CL[#], **Nelson DM**. 2014. Genome-wide microsatellite marker development from next-generation sequencing of two non-model bat species impacted by wind turbine mortality: *Lasiurus borealis* and *L. cinereus* (Vespertilionidae). *Molecular Ecology Resources* 14: 435-436.

Urban MA[#], **Nelson DM**, Kelly R, Ibrahim T[*], Dietze M, Pearson A, Hu FS. 2013. A hierarchical Bayesian approach to the classification of C_3 and C_4 grass pollen based on SPIRAL $\delta^{13}C$ data. *Geochimica et Cosmochimica Acta* 121: 168-176.

Griener K[#], **Nelson DM**, Warny S. 2013. Declining moisture availability on the Antarctic Peninsula during the Late Eocene. *Palaeogeography, Palaeoclimatology, Palaeoecology* 383-384: 72-78.

Nelson DM, Henderson AK, Huang Y, Hu FS. 2013. Influence of terrestrial vegetation on leaf wax δD of Holocene lake sediments. *Organic Geochemistry* 56: 106-110.

Nelson DM, Verschuren D, Urban MA[#], Hu FS. 2012. Long-term variability and rainfall control of savanna fire regimes in equatorial East Africa. *Global Change Biology* 18: 3160-3170.

Nelson DM. 2012. Carbon isotopic composition of *Ambrosia* and *Artemisia* pollen: assessment of a C_3-plant paleophysiological indicator. *New Phytologist* 195: 787-793.

Tian J, **Nelson DM**, Hu FS. 2011. How well do sediment indicators record past climate? An evaluation using annually laminated sediments. *Journal of Paleolimnology* 45: 73-84.

Nelson DM, Cann IKO, Mackie RI. 2010. Response of archaeal communities in the rhizosphere of maize and soybean to elevated atmospheric CO_2 concentrations. *PLoS ONE* 5: e15897.

Henderson AK[#], **Nelson DM**, Hu FS, Huang YS, Shuman BN, Williams J. 2010. Holocene precipitation seasonality captured by a dual hydrogen and oxygen isotope approach at Steel Lake, Minnesota. *Earth and Planetary Science Letters* 30: 205-214.

Urban MA[#], **Nelson DM**, Jiménez-Moreno G, Châteauneuf J-J, Pearson A, Hu FS. 2010. Isotopic evidence of C_4 grasses in southwestern Europe during the Early Oligocene-Middle Miocene. *Geology* 38: 1091-1094.

Edwards EJ, Osborne CP, Strömberg CAE, Smith SA, C_4 Grasses Consortium (including **Nelson DM**). 2010. The origins of C_4 grasslands: merging evolutionary and ecosystem science. *Science* 328: 587-591.

Nelson DM, Cann IKO, Altermann E, Mackie RI. 2010. Phylogenetic evidence for lateral gene transfer in the intestine of marine iguanas. *PLoS ONE* 5: e10785.

Grimm EC, Maher LJ, **Nelson DM**. 2009. The magnitude of error in conventional bulk-sediment radiocarbon dates from central North America. *Quaternary Research* 72: 301-308.

Nelson DM, Glawe AJ[*], Labeda DP, Cann IKO, Mackie RI. 2009. *Paenibacillus tundrae* sp. nov. and *Paenibacillus xylanexedens* sp. nov., psychrotolerant, xylan-degrading, bacteria from Alaskan tundra. *International Journal of Systematic and Evolutionary Microbiology* 59: 1708-1714.

Mackie RI, **Nelson DM**, Wheeler E, Wikelski M, Cann IKO. 2008. Fermentative digestion in herbivorous lizards: bacterial population analysis in the intestinal tract of free-living land (*Conolophus pallidus*) and marine iguanas (*Amblyrynchus cristatus*) on the Galapágos archipelago. Pages 193-202 *in* S. Morris and A. Vosloo, eds. Molecules to Migration: The Pressures of Life. Medimond Publishing Co., Bologna, Italy.

Nelson DM, Hu FS. 2008. Patterns and drivers of Holocene vegetation change near the prairie-forest ecotone in Minnesota: revisiting McAndrews' transect. *New Phytologist* 179: 449-459.

Nelson DM, Hu FS, Scholes DR[*], Joshi N[*], Pearson A. 2008. Using SPIRAL (Single Pollen Isotope Ratio AnaLysis) to estimate C_3- and C_4-grass abundance in the paleorecord. *Earth and Planetary Science Letters* 269: 11-16.

Power MJ and 84 others (including **Nelson DM**). 2008. Changes in fire activity since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data. *Climate Dynamics* 30: 887-907.

Nelson DM, Hu FS, Mikucki J, Tian J, Pearson A. 2007. Carbon-isotopic analysis of individual pollen grains from C_3 and C_4 grasses using a spooling wire microcombustion interface. *Geochimica et Cosmochimica Acta* 71: 4005-4014.

Nelson DM, Ohene-Adjei S, Hu FS, Cann IKO, Mackie RI. 2007. Bacterial diversity and distribution in the Holocene sediments of a northern temperate lake. *Microbial Ecology* 54: 252-263.

Tian J, **Nelson DM**, Hu FS. 2006. Possible linkages of late-Holocene drought in the North American midcontinent to Pacific Decadal Oscillation and solar activity. *Geophysical Research Letters* 33: L23702.

Nelson DM, Hu FS, Grimm EC, Curry BBC, Slate J. 2006. The influence of aridity and fire on Holocene prairie communities in the eastern Prairie Peninsula. *Ecology* 87: 2523–2536.

Hu FS, **Nelson DM**, Clarke GH, Rühland K, Huang Y, Kaufman DS, Smol JP. 2006. Abrupt climatic events during the last glacial-interglacial transition in Alaska. *Geophysical Research Letters* 33: L18708.

Nelson DM, Hu FS, Michener RH. 2006. Stable-carbon isotope composition of Poaceae pollen: an assessment for reconstructing C_3 and C_4 grass abundance. *The Holocene* 16: 819-825.

Anderson LL, Hu FS, **Nelson DM**, Petit RJ, Paige KN. 2006. Ice-age endurance: DNA evidence of a white spruce refugium in Alaska. *Proceedings of the National Academy of Sciences of the United States of America* 103: 12447-12450.

Nelson DM, Hu FS, Tian J, Stefanova I, Brown TA. 2004. Response of C_3 and C_4 plants to middle-Holocene climatic variation near the prairie-forest ecotone of Minnesota. *Proceedings of the National Academy of Sciences of the United States of America* 101: 562-567.

Hu FS, Kaufman D, Yoneji S, **Nelson D**, Shemesh A, Huang Y, Tian J, Bond G, Clegg B, Brown T. 2003. Cyclic variation and solar forcing of Holocene climate in the Alaskan subarctic. *Science* 301: 1890-1893.

Hu FS, Lee BY, Kaufman DS, Yoneji S, **Nelson DM**, Henne PD. 2002. Response of tundra ecosystem in southwestern Alaska to Younger-Dryas climatic oscillations. *Global Change Biology* 8, 1-8.

GRANTS

- US Fish and Wildlife Service, *Using novel biomarkers to assess geographic scale and demographic impacts on three species of tree-roosting bats killed at wind turbines*, **co-PI** with P. Gugger (PI). 1/18-1/21. $**246,407** to UMCES (overall project: $484,552).
- NSF (Evolutionary Processes Program), *Collaborative Research: Evolutionary responses to climate change at range limits: adaptation, migration and population size at the core,*

margin, and trailing edge, **co-PI** with M. Fitzpatrick and S. Keller (PIs), 7/17-6/20. $**509,644** to UMCES (overall project: $1,179,604).

- Maryland Department of Natural Resources, *Population genomics and isotopic analysis of bats killed by wind turbines in the central Appalachians: continuation to enhance sampling*, **co-PI** with P. Gugger (PI), 7/16-6/19. $**40,000**.
- Maryland Sea Grant, *Variation in retention and export of atmospheric nitrate as a function of land use across the Chesapeake Bay watershed*, **PI**, 2/16-1/18. $**149,361**
- Maryland Department of Natural Resources, *Population genomics of bats killed by wind turbines in the central Appalachians*, **co-PI** with P. Gugger (PI), 9/15-8/18. $**40,000**.
- US Fish and Wildlife Service, *Geographic origins and population genetics and genomics of bats killed at wind-energy facilities in the Midwest*, **PI**, 9/15-8/19. $**20,786**.
- California Energy Commission, *Learning from real-world experience to understand renewable energy impacts to wildlife*, **co-PI** with T. Katzner (PI), S. Loss, T. Allison, J. Diffendorfer, and J. Yee, 8/15-12/18. $**44,942** to UMCES (overall project: $1,000,000).
- US National Park Service, *Assessment of white-nose syndrome, geographic origin, and genetic diversity of bats at five national park units in western Pennsylvania*, **PI**, 7/15-6/17. **$146,191**.
- Maryland Department of Natural Resources, *Assessing potential migration pathways and changes in effective population size of hoary bat populations in the central Appalachians*, **PI**, 10/14-6/16. **$40,000**.
- NOAA Bay Watershed Education and Training, *Watershed Research Investigations: A student-teacher-scientist partnership to support healthy streams*, **co-PI** with C.D. Stylinski (PI) and A.J. Elmore, 9/14-8/17. $**240,249**.
- Maryland Department of Natural Resources, *Sampling to support an isotopic and genetic assessment of red bats in Maryland*, **PI**, 4/1/14-12/31/15. **$25,000**.
- Maryland Department of Natural Resources, *How representative are wind-turbine killed red bats of the broader population in Maryland? An isotopic and genetic assessment*, **PI**, 7/13-6/15. **$40,000**.
- NSF (Plant Genome Research Program), *Combining genomics, remote sensing, and geospatial modeling to understand adaptation to growing season length in balsam poplar*, **co-PI** with S.R. Keller (PI), M.C. Fitzpatrick, A.J. Elmore and C.D. Stylinski, 1/13-12/16. $**1,495,713**.
- NASA (Terrestrial Ecology Program), *Assessing the influence of local phenology on the response of forest productivity to changes in growing season length*, **co-PI** with A.J. Elmore (PI), 6/12-5/16. $**653,018**.
- Maryland Department of Natural Resources, *Continuing Isotopic and Genetic Assessment of the Impacts of Wind-Turbine Mortality on Bat Populations in the Central Appalachians*, **PI**, 2/13-12/13. $**40,000**.
- Maryland Department of Natural Resources, *A Preliminary Isotopic and Genetic Investigation of the Impacts of Wind-Turbine Mortality on Bat Populations in the Central Appalachians*, **PI**, 6/11-6/13. $**40,000**.
- NSF (MRI-R^2), *Acquisition of a Shared Stable Isotope Ratio Mass Spectrometer for Ecological, Geological, Biogeochemical, and Hydrological Research, Education, and Training in the Central Appalachians*, **PI**, 12/09-11/11. $**434,273**.
- National Geospatial Intelligence Agency, *Metagenomic Analysis of Spatial and Temporal*

Variation in the Composition of Soil Microbial Communities, **PI**, 10/09-9/11 (no-cost extension until 9/30/12). $**239,651**.

- NSF (DEB-Ecology), *Fire, Atmospheric pCO_2, and Climate as Alternative Primary Controls of C_4-Grass Abundance: The Late-Quaternary Perspective*, **co-PI** with F.S. Hu (PI) and A. Pearson, 07/08-06/12. $**426,143**.
- Campus Research Board, University of Illinois, *Elucidating the Origin of C_4 Photosynthesis: Carbon Isotope Analysis of Single Pollen Grains*, 01/08-12/08. $**12,745**.
- USDA National Research Initiative Competitive Grant (Soil Processes), *Structure and Function of Archaeal Communities in the Rhizosphere of Corn and Soybean Under Current and Future Atmospheric Conditions*, **PI**, 11/07-06/10. $**125,000**.
- Environmental Council, University of Illinois, *Analysis of the $\delta^{13}C$ Composition of Fossil Grass Pollen Grains*, SURE (Special Undergraduate Research Experience) support to student Neeraj Joshi, 2006-2007. $**1,400**.
- Program in Ecology and Evolutionary Biology Summer Research Awards, University of Illinois, 2004-2005. $**2,250**.
- Philip W. Smith Memorial Fund, University of Illinois, 2003. $**1,000**.
- Francis M. and Harlie M. Clark Research Support Grants, University of Illinois, 2002-2004. $**3,500**.
- Program in Ecology and Evolutionary Biology Conference Travel Grants, University of Illinois, 2002-2004. $**900**.
- Graduate College Conference Travel Grant, University of Illinois, 2002. $**150**.
- School of Integrative Biology Enhancement Fund (for Stable Isotope Ecology course at University of Utah), University of Illinois, 2002. $**760**.
- Vander Velde Junior Scholar Research Grant, Trinity Christian College, 2000. $**1,000**.

INVITED SEMINARS OR WORKSHOPS

- Ohio Biodiversity Partnership Conference, November 2017.
- National Zoological Park, Smithsonian Institution, August 2017.
- Japanese Agency for Marine-Earth Science and Technology, Yokosuka. April 2017.
- Center for Ecological Research, Kyoto University. April 2017.
- Research Institute for Humanity and Nature, Kyoto. April 2017.
- US Fish and Wildlife Service, webinar on Advanced Topics in Conservation Genetics Webinar Series. May 2016.
- Graduate School of Environmental Sciences, Nagoya University. July 2015.
- Maryland DNR MANTA seminar series. October 2014.
- Department of Geology and Geophysics, Louisiana State University. April 2011.
- Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science. September 2010.
- Quaternary Paleoecology seminar series, University of Minnesota, Minneapolis. February 2010.
- Horn Point Laboratory, University of Maryland Center for Environmental Science. December 2009.
- Department of Biology, West Virginia University. November 2009.
- Large Lakes Observatory, University of Minnesota, Duluth. September 2009.
- NESCent, C_4 Grass Evolution and Ecology Workshop, Durham, NC. April 2009.

- Department of Biology, University of Utah. January 2009.
- Appalachian Laboratory, University of Maryland Center for Environmental Science. November 2008.
- Department of Biological Sciences, University of Alaska, Anchorage. April 2008.
- Institute for Genomic Biology, University of Illinois. April 2008.
- School of Natural Resources, University of California, Merced. March 2008.
- Department of Biological Sciences, Wright State University. January 2008.
- Illinois State Museum. April 2006.
- Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory. March 2006.
- Department of Earth and Planetary Sciences, Harvard University. February 2006.
- Climate, People, and Environment Program, University of Wisconsin, Madison. May 2005.

PRESENTATIONS AT INTERNATIONAL/NATIONAL MEETINGS

Oral

Urban MA, **Nelson DM**, Clegg B, Romero I, Zhao Y, Punyasena SW, Hu FS. 2018. SWIM-IRMS: Methods in exploring isotope composition in microfossils, and its application in paleoecology. Geological Society of America- Indianapolis, IN.

Nelson DM, Nagel J, Trott R, Campbell CJ, Pruitt L, Good RE, Iskali G, Gugger PF. 2018. Carcass age and searcher identity affect morphological assessment of sex of bats. NWCC Wind Wildlife Research Meeting- Minneapolis, MN.

Conkling TJ, Vander Zanden HB, Diffendorfer J, Duerr A, Loss S, **Nelson DM**, Yee J, Katzner TE. 2018. Demography of birds killed at wind energy facilities. NWCC Wind Wildlife Research Meeting- Minneapolis, MN.

Vander Zanden HB, **Nelson DM**, Conkling TJ, Katzner TE. 2018. A wildlife forensics approach to characterize the geographic footprint of California wind energy effects on avian populations. NWCC Wind Wildlife Research Meeting- Minneapolis, MN.

Reid A, Vander Zanden HB, **Nelson DM**, Katzner TE. 2018. Implications for using singed feathers in determining geographic origin with wildlife forensics approaches. Association of Field Ornithologists and the Wilson Ornithological Society- Chattanooga, TN. *Won AFO student presentation award.

Vander Zanden HB, **Nelson DM**, Conkling TJ, Katzner TE. 2018. The geographic extent of solar energy effects on California avian populations. IsoEcol conference- Viña del Mar, Chile.

Vander Zanden HB, **Nelson DM**, Conkling TJ, Katzner TE. 2018. The geographic footprint of California solar energy effects on bird populations. American Ornithological Society- Tuscon, AZ.

Conkling TJ, Vander Zanden HB, Diffendorfer JE, Duerr AE, Loss ST, **Nelson DM**, Katzner TE. 2018. Demography of birds killed at solar energy facilities. American Ornithological Society- Tuscon, AZ.

Campbell CJ, Fitzpatrick MC, **Nelson DM**. 2017. Range-wide migratory patterns of North American tree-roosting bats. North American Society for Bat Research- Knoxville, TN.

Nelson DM, Tsunogai U, Ohyama T, Komatsu DD, Nakagawa F, Noguchi I, Yamaguchi T. 2017. Triple oxygen isotopes indicate that urbanization causes differences in the sources of nitrate between dry and wet atmospheric deposition. Joint meeting of Japan Geophysical Union and American Geophysical Union- Chiba, Japan.

Elmore AJ, **Nelson DM**, Craine JM. 2016. Dendrophenology: Inferring the response of North American eastern deciduous forests to an earlier spring from tree rings. American Geophysical Union- San Francisco, CA.

Nelson DM, Pylant CL, Fitzpatrick MC, Gates JE, and Keller SR. 2016. Geographic origins and population genetics of bats killed at wind-energy facilities. International Bat Research Symposium- Winter Harbor, Maine. (invited)

Nelson DM, Katzner T, Braham M, Doyle J, Fernandez N, Duerr A, Bloom P, Fitzpatrick MC, Miller T, DeWoody A. 2016. Golden eagle fatalities demonstrate the continental-scale environmental consequences of local-scale renewable energy development. IsoEcol conference- Tokyo, Japan.

Scanga S, Sabo R, Lawrence G., Zabala G, Alinea A, Schirmer C, **Nelson DM**, Eshleman K. 2015. Long-term changes in ecosystem nitrogen availability and nitrate export in two neighboring watersheds in the Adirondack Mountains, New York (USA). Acid Rain 2015- Rochester, NY.

Katzner T, **Nelson DM**, Braham M, Doyle J, Fernandez N, Duerr A, Bloom P, Fitzpatrick MC, Miller T, DeWoody A. 2015. Origins of eagles killed at the Altamont Pass Wind Resource Area: Continental-scale environmental consequences of local-scale renewable energy development. Raptor Research Foundation conference- Sacramento, CA.

Zabala GA, Sabo R, Scanga SE, Lawrence GB, Alinea AA, Schirmer CD, **Nelson DM**, Eshleman KN. 2015. Long-term changes in ecosystem nitrogen availability and nitrate export in two neighboring watersheds in the Adirondack Mountains. Ecological Society of America- Baltimore, MD.

Nelson DM, Kelly R, Tian J, Chipman M, Hu FS. 2015. Extrinsic and intrinsic forcing of regime shifts: a 3,000-year record of climate and lake-productivity changes in Minnesota. Ecological Society of America- Baltimore, MD. (invited)

Sabo R, **Nelson DM**, Eshleman KN. 2015. Hydrobiogeochemical control of temporal variation in atmospheric nitrate export from a temperate forest watershed. Ecological Society of

America- Baltimore, MD.

Landesman WJ, **Nelson DM**. 2015. Temporal dynamics of soil microbial communities over hourly, daily and seasonal scales. Ecological Society of America- Baltimore, MD.

Nelson DM, Tian J, Chipman M, Hu FS. 2015. Evaluating climate controls of aquatic proxy indicators: a case study using multi-proxy analyses of sediment-trap samples and annually laminated sediments. International Union for Quaternary Research XXIV Congress- Nagoya, Japan. (invited)

Nelson DM, Urban MA, Hu FS. 2014. Spatiotemporal variation in the environmental controls of C_4-grass origin and ecology: Insights from grass-pollen $\delta^{13}C$ data. American Geophysical Union- San Francisco, CA.

Pylant CL, **Nelson DM**, Fitzpatrick MC, Gates JE, Keller SR. 2014. Geographic origin and population size and structure of bats experiencing mortality at wind energy facilities in the central Appalachians. NWCC Wind Wildlife Research Meeting X- Denver, CO.

Katzner T, **Nelson DM**, Braham M, Doyle J, DeWoody A, Bloom P, Duerr A, Miller T. 2014. Origins of eagles killed at the Altamont Pass Wind Resource Area. NWCC Wind Wildlife Research Meeting X- Denver, CO.

Gill J, Jackson S, Goring SJ, Grimm EC, Mueller P, **Nelson DM**, Williams JW. 2014. Ecological novelty in space and time: Pattern, process, and the drivers of late-glacial no-analog plant associations. Ecological Society of America- Sacramento, CA.

Nelson DM. 2014. Stable isotopes and eastern golden eagles. Eastern golden eagle working group- Davis, WV.

Katzner T, **Nelson DM**, Braham M, Doyle J, Bloom P, Miller T, Duerr A, DeWoody A. Miller T. 2014. Origins of eagles killed at the Altamont Pass Wind Resource Area. The Western Section of The Wildlife Society - Reno, NV.

Urban MA, **Nelson DM**, Hu FS. 2013. A hierarchical Bayesian approach to the classification of C_3 and C_4 grass pollen based on the $\delta^{13}C$ data of individual pollen grains. Geological Society of America- Denver, CO.

Landesman WJ, **Nelson DM**, Fitzpatrick M. 2013. Metagenomic study of soil microbial community composition in relation to tree species, soil properties and geographic distance. Soil Ecology Society- Camden, NJ.

Gill, J, Jackson S, Goring SJ, Grimm EC, Mueller P, **Nelson DM**, Williams J. 2013. Novelty in space and time: linking pattern and process to understand the drivers of late-glacial no-analog plant associations. International Biogeography Society- Miami, FL.

Griener K, Warny S, **Nelson DM**. 2012. Declining moisture availability in late Eocene

Antarctica as deduced from *Nothofagus* sporopollenin $\delta^{13}C$. American Geophysical Union- San Francisco, CA.

Nelson DM. 2012. Assessment of the carbon stable isotope composition of pollen as an ecophysiological indicator in the paleorecord. XIII IPC/XI IOPC, Tokyo. (invited)

Landesman, WJ, **Nelson DM**. 2012. Metagenomic analysis of soil microbial communities at multiple spatial scales: assessing the relative importance of soil properties and plant type. Ecological Society of America- Portland, OR.

Nelson DM. 2012. Impacts of Holocene climate variability on vegetation dynamics near the prairie-forest border in north-central Minnesota: research progress and prospects. American Quaternary Association- Duluth, MN. (invited)

Urban MA, **Nelson DM**, Verschuren D, Hu FS. 2012. The effects of fire, climate, and pCO_2 on C_4 grass abundance in equatorial East Africa: an evaluation of the C_4-fire hypothesis. Ecological Society of America- Portland, OR.

Griener K, Warny S, **Nelson DM**, Raine JI, Askin RA. 2012. Combining a new method in carbon isotopic analysis with standard palynological methods to quantify Neogene Antarctic climate change. American Association of Petroleum Geologists annual meeting.

Urban MA, **Nelson DM**, Verschuren D, Hu FS. 2011. How fire, pCO_2, and climate control C_3/C_4 variation: a late-Quaternary perspective from equatorial East Africa. Geological Society of America- Minneapolis, MN.

Griener K, Warny S, **Nelson DM**, Raine JI, Askin RA. Coupled palynological and carbon isotopic analyses of *Nothofagus* to quantify Neogene Antarctic climate change. 2011. Geological Society of America- Minneapolis, MN.

Griener K, Warny S, **Nelson DM**, Raine JI, Askin RA. Quantification of aridity changes in Neogene Antarctic paleoenvironments using morphologic and carbon isotopic analyses of pollen. 2011. International Symposium on Antarctic Earth Sciences. Edinburgh, Scotland.

Nelson DM, Urban MA, Verschuren D, Hu FS. 2011. Using SPIRAL (Single Pollen Isotope Ratio AnaLysis) to elucidate grassland responses to environmental change during the late Quaternary and beyond. International Union for Quaternary Research XXVIII Congress- Bern, Switzerland. (invited)

Urban MA, **Nelson DM**, Verschuren D, Hu FS. 2010. Linking grassland fire-regime shifts to climatic variation of the past 25,000 years: Charcoal records from two East African lakes. Ecological Society of America- Pittsburgh, PA.

Nelson DM, Grimm EC. 2010. Trends in the Holocene climate, vegetation, and fire history of

grasslands in the Midwest and Northern Great Plains, U.S.A. Symposia: Pondering the Future by Peering into the Past: Integrating Paleoecology and Contemporary Research to Predict Grassland and Shrubland Responses to Climate Change. Ecological Society of America- Pittsburgh, PA. (invited)

Nelson DM. 2010. $\delta^{13}C$ analysis of single grass-pollen grains: a new tool for investigating the ecology and evolution of C_4 grasses in paleorecords. Midcontinent Paleobotany Colloquium- Frostburg, MD.

Nelson DM, Cann IKO, Mackie RI. 2009. Metagenomic analysis of microbial community structure in the rhizosphere of maize and soybean under current and future atmospheric CO_2 concentrations. Organized oral session: Missing Links in the Root-Soil Organic Matter Continuum. Ecological Society of America- Albuquerque, NM.

Urban MA, **Nelson DM**, Pearson A, Hu FS. 2009. When did C_4 photosynthesis evolve? New evidence from $\delta^{13}C$ analysis of single grass-pollen grains. Ecological Society of America- Albuquerque, NM.

Mackie RI, **Nelson DM**, Wheeler E, Wikelski M, Cann IKO. 2008. Fermentative digestion in herbivorous lizards: bacterial population analysis in the intestinal tract of free-living land (*Conolophus pallidus*) and marine iguanas (*Amblyrynchus cristatus*) on the Galapagos archipelago. MARA- Kenya.

Nelson DM, Hu FS, Pearson A. 2007. Stable carbon isotope ratios of individual pollen grains as a proxy for C_3- versus C_4-grass abundance in paleorecords: a validation study. American Geophysical Union- San Francisco, CA.

Nelson DM, Hu FS, Pearson A. 2006. Carbon isotopic analysis of individual pollen grains from C_3 and C_4 grasses using a moving-wire combustion interface. American Geophysical Union- San Francisco, CA.

Grimm EC and **Nelson DM**. 2006. Vegetation and Climate in Illinois: PaleoIndian to Historic. Midwest Archaeological Conference. Urbana, IL.

Nelson DM and Hu FS. 2004. How climate and vegetation interact to control the fire regime on the northern Prairie Peninsula. Symposia: Cultural and Environmental Controls of Past Fire Regimes. Ecological Society of America- Portland, OR. (invited)

Nelson DM and Hu FS. 2004. Dynamics of middle-Holocene climate, vegetation, and fire on the northern Prairie Peninsula. American Quaternary Association- Lawrence, KS. (invited)

Curry BB, Grimm EC, **Nelson DM**, Slate JE, Greenberg SE, Scott JW. 2004. Contrasting hydrological responses to Holocene climate at Nelson Lake and Crystal Lake, northeastern Illinois. American Quaternary Association- Lawrence, KS.

Nelson DM, Hu FS, Tian J, Brown TA, Stefanova I, Wright HE Jr. 2003. Response of C_3/C_4 plants to mid-Holocene aridity in west-central Minnesota. Ecological Society of America- Savannah, GA.

Nelson DM, Tian J, Hu FS. 2002. Mid-Holocene C_3/C_4 variations in Minnesota as inferred from charcoal $\delta^{13}C$ records. International Paleo-Grasslands Conference- St Cloud, MN.

Poster

Northern Garrett High School Students, Kenyon-Sisler R, Elmore AJ, Doty C, **Nelson DM**, Bostic J, Stylinski CD. 2018. Four years of student-teacher-and-researcher (star) project data measuring sources of nitrogen pollution on schoolyards in western Maryland. Maryland Water Monitoring Council- North Linthicum, MD.

Robins Martin K, Harir M, Bostic J, **Nelson D**, Harris L, Heyes A, Schmitt-Kopplin P, Gonsior M. 2018. Molecular characterization of dissolved organic matter in septic-impacted streams: Identifying novel wastewater tracers. American Geophysical Union- Washington DC.

Bostic J, **Nelson DM**, Eshleman KE. 2018. Quantifying watershed export of atmospheric nitrate across land-uses using triple oxygen isotopes. American Geophysical Union- Washington DC.

Sebestyen SD, Ross DS, Shanley JB, Elliott EM, Kendall C, Campbell DL, Dail B, Shattuck MD, Fernandez IJ, Goodale CL, Lawrence GB, Lovett GM, McHale PJ, Mitchell MJ, Nelson SJ, Wickman TR, Barnes RT, Buda AR, Bostic JT, Burns DA, Eshleman KN, Finlay JC, **Nelson DM**, Ohte N, Pardo LH, Rose LA, Sabo RD, Schiff SL, Spoelstra J, Williard KWJ. 2018. A database of nitrate isotopes in waters of the Northern Forest region in the USA and Canada. American Geophysical Union- Washington DC.

Moore, H, Kenyon-Sisler R, Elmore AJ, Doty C, **Nelson DM**, Bostic J, Stylinski CD. 2017. Fingerprinting sources of nitrogen pollution on schoolyards in western Maryland. Maryland Water Monitoring Council- North Linthicum, MD.

Bostic J, **Nelson DM**, Eshleman KE. 2017. Assessing the role of land use in watershed nitrate export using triple oxygen isotopes. American Geophysical Union- New Orleans, LA.

Campbell CJ, Fitzpatrick MC, **Nelson DM**. 2017. Range-wide migratory movements of North American tree bats inferred from stable isotopes. Ecological Society of America- Portland, OR.

McLauchlan KK, Gerhart LM, Battles JJ, Craine JM, Elmore A, Higuera PE, Mack MC, McNeil BE, **Nelson DM**, Pederson N, Perakis SS, Springer CJ. 2017. Centennial-scale reductions in nitrogen availability in temperate forests of the United States. Annual meeting of the American Association of Geographers- Boston, MA.

Housera C, Ruggieroa J, Whitea G, Elmore AJ, Kenyon-Sisler R, Doty C, **Nelson DM**, Bostic J, Stylinski CD. 2016. Fingerprinting sources of nitrogen pollution on schoolyards in western Maryland. Maryland Water Monitoring Council- North Linthicum, MD.

Campbell CJ, **Nelson DM**, Ogawa NO, Chikaraishi Y, Okhouchi N. 2016. Amino acid nitrogen isotopes reveal the trophic position and dietary strategies of bats. North American Society for Bat Research- San Antonio, TX.

Gerhart LM, McLauchlan KK, Battles JJ, Craine JM, Higuera PE, Mack MC, McNeil BE, **Nelson DM**, Pederson N, Perakis SS, Springer CJ. 2016. Reconstructing century-scale changes in nitrogen cycling in forests throughout the United States using tree-ring $\delta^{15}N$ chronologies. American Geophysical Union- San Francisco, CA.

Zhou Y, **Nelson DM**, Clegg BF, Berry J, Hu FS. 2016. A new method for carbon isotopic analysis of nanogram quantities of carbon from dissolved chitin using a spooling-wire microcombustion interface. American Geophysical Union- San Francisco, CA.

Campbell CJ, **Nelson DM**, Gugger PF. 2016. A continent-wide approach to link movement ecology and genetic structure of migratory foliage-roosting bats. Northeast Bat Working Group meeting- Baltimore, MD.

Sabo R, **Nelson DM**, Eshleman KN. 2015. Forest response to declining atmospheric N deposition: Insights from merging the kinetic N saturation conceptual model with the N flush hypothesis. Gordon Research Conference- Andover, NH.

Cunningham V, **Nelson DM**, Elmore AJ. 2015. Assessing the influence of landscape factors and ecosystem processes on the stability of growing-season canopy greenness in a deciduous forest. Ecological Society of America- Baltimore, MD.

Urban MA, **Nelson DM**, Jimenez-Moreno G, Hu FS. 2014. Spatiotemporal variation in C_4-grass abundance during the early to middle Miocene in Spain. American Geophysical Union- San Francisco, CA.

Pylant, CL, **Nelson DM**, Keller SR. 2014. Stable isotope and genetic tools for investigating the impacts of wind-turbine mortality on Lasiurine tree bats. NWCC Wind Wildlife Research Meeting X- Denver, CO.

Nelson DM, Katzner T, Miller TA, Duerr AE, Cooper J, Lanzone M, Wheeler M, Brandes D. 2013. Assessing the movements and diets of golden eagles in eastern North America using stable isotope and telemetry data. Ecological Society of America- Minneapolis, MN.

Urban MA, **Nelson DM**, Kersaw P, Hu FS. 2013. Long term controls of fire, climate and pCO_2 on C_4 grass abundance in southeastern Australian grasslands. Ecological Society of America- Minneapolis, MN.

Plyant CL, **Nelson DM**, Keller SR, Fitzpatrick MC, Gates JE. 2013. Assessing regional sources of bat mortality at wind turbine sites using stable isotopes and population genetics. Ecological Society of America- Minneapolis, MN.

Griener K, **Nelson DM**, Warny S. 2012. Carbon isotopic analysis of Southern beech (*Nothofagus*) pollen reveals shifts in Antarctic hydrology during the late Eocene. XIII IPC/XI IOPC, Tokyo.

Paulman R and **Nelson DM**. 2011. Identifying the sources and transformations of nitrogen in streams using $\delta^{15}N$ and $\delta^{18}O$ of nitrate. Maryland Streams Symposium. Westminster, MD.

Landesman, WJ, **Nelson DM**, Gardner, R. 2010. Metagenomic analysis of soil microbial community composition at multiple spatial scales: Project design, hypotheses and predictions. 2nd Annual Argonne Soils Workshop. Chicago, IL

Urban MA, **Nelson DM**, Pearson A, Hu FS. 2009. When did C_4 photosynthesis originate: New evidence from $\delta^{13}C$ analysis of single grass-pollen grains. American Geophysical Union- San Francisco, CA.

Nelson DM, Henderson A, Hu FS, Huang YS, Shuman BN, Williams J. 2009. Holocene climate seasonality captured by a dual isotope approach at Steel Lake, Minnesota. American Geophysical Union- San Francisco, CA.

Nelson DM, Cann IKO, Mackie RI. 2008. Pyrosequencing reveals the influence of elevated atmospheric CO_2 on the composition of archaeal communities in the rhizosphere of C_3 and C_4 crops. American Geophysical Union- San Francisco, CA.

Nelson DM, Hu FS, Verschuren D, Pearson A. 2008. Estimating C_3- and C_4-grass abundance in the paleorecord: Development and application of SPIRAL (Single Pollen Isotope Ratio AnaLysis). Ecological Society of America- Milwaukee, WI.

Nelson DM, Hu FS, Pearson A. 2007. Carbon isotopic analysis of individual modern and fossil grass-pollen grains using a moving-wire combustion interface. European Geophysical Union- Vienna, Austria.

Nelson DM, Ohene-Adjei S, Hu FS, Cann IKO, Mackie RI. 2007. Bacterial diversity and distribution in the Holocene sediments of a northern temperate lake. European Geophysical Union- Vienna, Austria.

Hu FS, **Nelson DM**, Yoneji S, Clegg BF, Lee BY, Kaufman DS, Ito E, Ruhland K, Smol JP, Brown TA, Curry BB, Shemesh A. 2003. Abrupt climatic events during the last glacial-interglacial transition in Alaska. International Limnogeology Conference- Tuscon, AZ.

Slate JE, Scherer RP, Curry BB, **Nelson DM**, Grimm EC. Diatoms responded to climate change in the American Midwest. 2003. North American Diatom Symposium- Islamorada, FL.

Tian J, **Nelson DM**, Hu FS, Brown TA, Stefanova I, Wright HE Jr. 2002. Mid-Holocene Climatic Variations in the Midcontinent of North America: Multi-Proxy Analyses of Sediments from Two Minnesota Lakes. Geological Society of America- Denver, CO.

Nelson D and Van Dyke G. 2001. A vegetative inventory of a recently established prairie at the Lake Katherine Nature Preserve, Palos Heights, IL. Illinois State Academy of Science- Macomb, IL.

SERVICE

To University

Member of review committee for Ecology Foundation applications, MEES, 2018-
Member of Presidential Fellowship evaluation committee, UMCES, 2018
Member of graduate education committee, UMCES Appalachian Laboratory, 2018-
Member of Program, Curricula and Courses Committee, UMCES, 2017-
Member of Graduate Faculty Council, UMCES, 2017-
Member and Ecology representative on Program, Curricula and Courses Committee, MEES, 2017-
Member of Program Committee, MEES, 2017-
Ecology representative, MEES Program Committee, 2017-
Vice chair of faculty senate, UMCES, 2016-2017
Member of 5-year review committee for CBL director, UMCES, 2016
Member of faculty development working group, UMCES, 2015-2016
Secretary of faculty senate, UMCES, 2015-2016
Member of faculty senate, UMCES, 2015-2017
Member of faculty search committee for evolutionary ecologist, UMCES Appalachian Laboratory, spring 2015
Member of UMCES Self Study Workgroup on Faculty Excellence for MSCHE accreditation, UMCES, 2014-2015
Member of equipment/infrastructure committee, UMCES Appalachian Laboratory, 2011-
Member of faculty search committee for microbial ecologist, UMCES Horn Point Laboratory, fall 2013
Member of open house committee, UMCES Appalachian Laboratory, 2012, 2015
Member of faculty retreat committee, UMCES Appalachian Laboratory, 2012
Reviewer of Environmental Chemistry AOS applications, MEES Graduate Program, 2010-2011
Member of faculty search committee for forest ecologist, UMCES Appalachian Laboratory, fall 2010
Member of safety committee, UMCES Appalachian Laboratory, 2010-2011
Spring seminar series chair, UMCES Appalachian Laboratory, 2010
Coordinator and presenter at UMCES Science Forum on Environmental Genomics, 2009
Co-chair, IGB Fellows Symposium, University of Illinois, 2008
Audio/visual technician, Ecology and Evolutionary Biology seminar series, University of Illinois, 2004

To Profession

Judge, International Christian Academy of Nagoya (Japan) High School Science Fair. 2017.

STEMnet presentation, 3 environmental science classes, Mountain Ridge High School. 2014.
Judge, Eastern Panhandle (WV) Regional High School Science Fair. 2011-2014, 2016, 2018.
Committee Member, Cooper Award, Ecological Society of America, 2012-2014.
Judge, Mineral County (WV) Middle School Science Fair. 2012.
Chair, Paleoecology section, Ecological Society of America, 2010-2011
Member of organizing committee, 27th Midcontinent Paleobotanical Colloquium, 2010
Co-organizer and moderator, Symposium entitled "Paleoecosystem Ecology: Reconstructing Material and Energy Flows of the Past," Ecological Society of America, 2009
Vice-chair and chair-elect, Paleoecology section, Ecological Society of America, 2008-2010
Judge, Deevey Award, Ecological Society of America meeting, 2008, 2010, 2013
Presider, Paleoecology oral presentations session, Ecological Society of America meeting, 2008
Judge, Best Undergraduate Presentation Award, Ecological Society of America meeting, 2008

Peer reviewer (journals)
Applied and Environmental Microbiology; Atmospheric Environment; *Biological Invasions; Biology Letters*; *Diversity*; *Ecology*; *Ecology and Evolution*; *Ecosystems*; *Environmental Health Insights; Environmental Pollution; Environmental and Experimental Botany*; *Frontiers in Ecology and Evolution*; *Frontiers of Biogeography; Geobiology*; *Geochemistry, Geophysics, Geosystems; Geochimica et Cosmochimica Acta; Geology*; *Geophysical Research Letters*; *Global Change Biology*; *Gondwana Research*; *Hydrobiologia*; *International Journal of Biological Sciences*; *International Journal of Systematic and Evolutionary Microbiology; Journal of Biogeography; Journal of Environmental Management; Journal of Geophysical Research – Atmospheres; Journal of Paleolimnology*; *Mammalian Biology; Marine Ecology Progress Series; Microbial Ecology*; *Microbiology; Movement Ecology; New Phytologist*; *Oecologia; Organic Geochemistry; Palaeogeography, Palaeoclimatology, Palaeoecology; PLOS ONE*; *Polar Research*; *Proceedings of the 17th Central Hardwood Forest Conference*; *Quaternary International*; *Quaternary Research*; *Quaternary Science Reviews*; *Rapid Communications in Mass Spectrometry*; *The Holocene; Trees - Structure and Function; Vegetation History and Archaeobotany*

Editorial board (journals)
Frontiers in Ecology and the Environment (2018-present)
PeerJ (2017-present)

Peer reviewer (proposals)
Austrian Science Fund (FWF), Ecological Society of America Symposia, National Geographic Society, NASA Postdoctoral Program, US National Science Foundation, US Department of Defense's Strategic Environmental Research and Development Program