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EDUCATION

2008 Ph.D., Environmental Sciences, **The University of Virginia**, Charlottesville, VA
2001 M.S., Ecosystem Ecology, Research Center for Eco-environmental Sciences, **Chinese Academy of Sciences**, Beijing, China
1998 B.S., Natural Resource & Planning, **Jilin University**, Changchun, China

PROFESSIONAL EXPERIENCE

2022-Present Associate Professor, **The University of Hong Kong**, Department of Geography
2019-2022 Associate Professor, **The University of Tulsa,** Department of Geosciences
2019 Visiting Professor, **Chinese Academic of Sciences**, Beijing, Chia
2013-2019 Assistant Professor, **The University of Tulsa,** Department of Geosciences
2009-2013 Postdoctoral Research Associate, **University of California, Los Angeles**, Department of Geography
2008-2009 Postdoctoral Research Associate, **Cornell University**, Department of Biological & Environmental Engineering

SCHOLARSHIP
HONORS, AWARDS AND FELLOWSHIPS

2025 Mid-career Award, International Society for Aeolian Research (ISAR)
2014 Excellence Associate Editor Award, Aeolian Research, Elsevier
2007 Research Award, USDA-Agricultural Research Service, Jornada Experimental Range, Las Cruces, NM
2006 ICAR Travel Grant, International Conference on Aeolian Research, VI, Guelph, Canada
2005 Robert J. Huskey Fellowship, The University of Virginia
2005 Best Oral Presentation Winner, 20th Department of Environmental Sciences Student Research Symposium, The University of Virginia
2005 Robert L. Ellison Award for Interdisciplinary Studies, University of Virginia
2005 Governor's Fellowship, The University of Virginia
2004 Robert J. Huskey Fellowship, The University of Virginia
2001 Di'ao Excellent Graduate Student Award, Chinese Academy of Sciences

GRANTS, FUNDING, AND PROPOSALS

2026 **National Natural Science Foundation of China (NSFC)**, Dust activities in East Asia in the 21st century: The relative contribution of China and Mongolia and their impacts on global dust cycle, PI, RMB 465,000, 2027-2030, *pending*.
2025 **NSFC/RGC Joint Research Scheme**, Forest Fire Effects on Vegetation-Soil Carbon Dynamics in Southwest Karst, PI, HK$1.25M, 2026-2029, *pending.*
2025 **RGC General Research Fund**, Dust activity in East Asia in the 21st century (2001-2024): The role of China and Mongolia and significance of extreme dust events, PI, HK$838,890, 2026-2029, *pending.*

2024 **Nature Science Foundation of Guangdong**, Relative role of China and Mongolia dust in the context of dust decline in the 21st century. PI, RMB100,000. 2025-2027.

2024 The University of Hong Kong, **Seed Fund for Basic Research**. Dynamics of oases in China in the 21st century: Drivers and implications. PI, HK$ 77,533, 2024-2025.

2023 Ministry of Science and Technology, **China-USA Government Cooperation Program**. Collaborative Research. Study on the Sustainable Management of Agroforestry Systems in Desert Oases. **Co-PI**, RMB1.5M, 2024-2027.

2023 The University of Hong Kong **University Research Committee**. Plastic pollution in Hong Kong: From physical mechanisms to societal solutions. **PC**, HK$1,000,000, 2023-2026.

2022 The University of Hong Kong, **Seed Fund for Basic Research for New Staff**. Microplastic pollution in Hong Kong: Potential impacts of COVID-19 pandemic. **PI**, HK$149,940, 2023-2024.

2021 Oklahoma Center for Advancement of Science & Technology (**OCAST**), Deterioration, Die-off, and Removal of Shelterbelts: Effects on microclimate and wheat productivity in Oklahoma. **PI,** $96,696, 2022-2023.

2021 Ministry of Science and Technology, China-USA Government Cooperation Program. Collaborative Research. Construction of sustainable agricultural windbreak systems in desert oases. **PI** (USA), RMB 2.6M, 2021-2023.

2021 **The University of Tulsa** Interdisciplinary Project Grant, Sahara desertification, Levantine aridification, and societal collapse: A high-resolution paleoenvironment of Hazor, Israel. **PI**, $20,000, 2021-2022

2020 **National Science Foundation** Sevilleta LTER Research Fellowship, Using carbon isotopes to reconstruct fire and vegetation change history in the Northern Chihuahuan Desert. **PI**, $5,000, 2020

2018 **NASA**, Satellite-aided regional dust forecasting for Valley fever surveillance, highway accident prevention, and air quality management in the Southwestern United States. **Co-I**, PI Daniel Tong, George Mason University, $1,117,002 ($51,053 to Li), 2018-2021

2017 **U.S. Department of Transportation**, Center for Advancing Research in Transportation Emissions, Energy, and Health, Quantifying Land Surface Properties for Blowing Dust Impact on Highway Safety at Lordsburg Playa, New Mexico. **External Co-PI**, $55,000, 2018-2019.

2015 **National Science Foundation,** Geomorphology and Land-use Dynamics. Collaborative research: Quantifying post-fire aeolian sediment transport and nutrient redistribution using rare earth element tracers. **PI,** $125,724, 2015-2018

2014 **U.S. Department of Transportation**, Identifying dust emission "hotspots" in the Southern Plains region of New Mexico, Oklahoma and Texas: Effect of blowing dust on highway safety. **PI**, $356,628, 2015-2017

2014 **The University of Tulsa**, Faculty Development Summer Program. Response of soil water to the die-off and removal of shelterbelts in the Great Plains, **PI**, $8,000

2013 **The University of Tulsa**, Faculty Development Summer Program. The Development of Fertile Islands in Desert Grasslands: An Artificial Christmas Tree Experiment, **PI**, $8,000

PUBLICATIONS (** indicates student or visiting scholar authors supervised by Li*)

PEER-REVIEWED INTERNATIONAL JOURNALS

1) Pan Q*, **Li J**, Wu C, Li JB, Zhu H*, Xiao H, Xin Z. China dominated the contribution of declined dust activities in East Asia in the 21st century, *Journal of Geophysical Research, 2026JF009230, In review*, 2026.

2) Zhu H*, **Li J**, Xiao H, Pan Q*, Xin Z, Wang S. Dynamics of oases in East Asia in the 21st century: Insights from China and Mongolia, *Ecological Indicator*, *In revision*, 2026.

3) Zhu H*, **Li J**, Xiao H, Pan Q*, Xin Z, Wang G, Wang Y, Tang Q. Decreased ecosystem stability during the expansion and greening of East Asian oases in the early 21st century. *Environmental Research Letter*s, ERL-124254, *In review*, 2026.

4) Gao C, Li JB, **Li J**, Fang K, Chen B, Zhang X, Guo Y, Shi C. Human activities alter the seasonality of boreal wildfire, *Communications Earth & Environment*, 2026, *In review*.

5) Karin AD, Tong D, **Li J**. Emerging themes of global dust research: Linking physical processes to human health, safety, and welfare, *GeoHealth*, 2026, *In press*.

6) Chen L, Tang Q, Lu N, Xu C, Arani BMS, Li C, Wang Y, Li X, Sucharitakul P, Wang S, Wei J, **Li J**, He D, Xu Z, Fu B. Improving resilience monitoring in non-stationary systems via a robust data-chunking algorithm, *Science Bulletin*, 2026, *In press*.

7) **Li J**. Modernizing wildfire management in China, *Science*, 388:6743, 10.1126/science.adu3537, 2025.

8) Gao C, Shi C, Li J, **Li J**, Zhang X, Huang X, Shi F, Yang Y, Liu X. Lightning-ignited wildfire prediction in the boreal forest of northeast China. *Global and Planetary Change*, 253, 104948, DOI: https://doi.org/10.1016/j.gloplacha.2025.104948, 2025.

9) Cao Q, Liu T, Xia J, **Li J**, Ravi S, Xing Z, Xiao H. Shifting sands to sustainable soils: spatial dynamics of soil water and salinity in a desert oasis ecotone. *Agric. Water Manage.* 316, 109562, 2025.

10) Ye K, Dong L, Lv Y, Wang W, Xiao Z, **Li J**, Shi Z. MilTilV: A Vertically Resolved Microbial Explicit Soil Organic Carbon Turnover Model Integrated the Effect of Tillage Operation, *Pedospere,* DOI: 10.1016/j.pedsph.2025.06.007, 2025.

11) Wang G, Zhu Z, Cao J, Zhu T, Zhou J, Muller C, **Li J**, Freese D, Le Roux X. Agricultural cultivation duration affects soil inorganic N turnover and supply capacity: Evidence in subtropical karst regions. *Agriculture, Ecosystems and Environment,* DOI: https://doi.org/10.1016/j.agee.2024.109462, 2025.

12) Cao F, Lv K, Jiang Q, Xiao H, **Li J**. How did the regional water-heat distribution in oasis area vary with the different spatial patterns and structures of shelterbelt system—A case study in Ulan Buh desert oasis, *Agricultural and Forest Meteorology*, DOI: https://doi.org/10.1016/j.agrformet.2024.110345, 2024.

13) Tang Z, Wang D, Tian X, Bi X, Zhou Z, Luo F, Ning R, **Li J**. Exploring the factors influencing the carbon sink function of coastal wetlands in the Yellow River Delta, *Scientific Reports*, 14:28938, 2024.

14) Wang G, Xiao H, Xin Z, Luo F, Jin Y, Liu M, **Li J**. Changes in plant-soil-microbe C-N-P contents and stoichiometry during poplar shelterbelt degradation. *Catena*, DOI: https://doi.org/10.1016/j.catena.2024.108227, 2024.

15) Eibedingil IG, Gill TE, Kandakji T, Lee JA, **Li J**, Van Pelt RS. Effect of Spatial and Temporal "Drought Legacy" on Dust Sources in adjacent ecoregions, *Land Degradation & Development*, DOI: 10.1002/ldr.5002, 2024.

16) Luo C, Yang Y, Xin Z, **Li J**, Jia X, Fan G, Zhu J, Song J, Wang Z, Xiao H. Assessment of the declining degree of farmland shelterbelts in a desert oasis based on LiDAR and hyperspectral imagery. *Remote Sensing*, DOI: 10.3390/rs15184508, 2024.

17) Ju X, Li W, **Li J**, He L, Mao J, Han L. Future climate change and urban growth together affect surface runoff in a large-scale urban agglomeration. *Sustainable Cities and Society*, DOI: 10.1016/j.scs.2023.104970, 2024.

18) **Li J**, Jia Z*, Kandakji T, Wang G, Xiao H. A methodology to prioritize well pad restoration in the Permian Basin of western Texas and southeastern New Mexico, USA. *Science of the Total Environment*, DOI: 10.1016/j.scitotenv.2023.167946, 2023.

19) Burger W, Van Pelt R, Grandstaff D, Wang G*, **Li J**, Sankey JB, Ravi J. Multi-year tracing of spatial and temporal dynamics of post-fire aeolian sediment transport using rare earth elements provide insights into grassland management, *Journal of Geophysical Research-Earth Surface* DOI:10.1029/2023JF007274, 2023.

20) Zhang B, Qu Z, Ly S, Hang G, Gao C, Wilkes A, **Li J**, Li Z, Wang S, Wang R, Wang X, Bai Y. Grazing effects on total carbon and nitrogen content of wind-eroded soils in desert steppe, *Land Degradation & Development*, DOI: 10.1002/ldr.4847, 2023.

21) Tong DQ, Gill TE, Sprigg WA, Van Pelt RS, Baklanov AA, Barker BM, Bell JE, Castillo J, Casso S, Gaston CJ, Giffin DW, Huneeus NH, Kahn RA, Kuciauskas AP, Ladino LA, **Li J** et al., Health and safety effects of airborne soil dust in the Americas and beyond, *Review of Geophysics*, DOI: 10.1029/2021RG000763, 2023.

22) Feng T, Ji M, Wang Y, Wang D, Xin Z, Xiao H, **Li J**. The effects of typical patterns of farmland shelterbelt systems on soil properties, nutrient storages and ecosystem functions in desert oasis ecotones of Hetao irrigated area, China, *Catena*, https://doi.org/10.1016/j.catena.2023.107010, 2023.

23) Sun J, Wang Y, Liu S, **Li J**, Zhou H, Wu G and Haregeweyn N (2022) Editorial: Patterns, functions, and processes of alpine grassland ecosystems under global change. *Frontiers in Plant Science*,13:1048031. DOI: 10.3389/fpls.2022.1048031, 2022.

24) Eibedingil IG, Gill TE, Van Pelt RS, Tatarko J, **Li J**, Li WW. Applying Wind Erosion and Air Dispersion Models to Characterize Dust Hazard to Highway Safety at Lordsburg Playa, New Mexico, USA, *Atmosphere*, DOI: 10.3390/atmos13101646, 2022.

25) Pan Y, Xiao H, Xin Z, **Li J**, Miri A, Cao Q. Characteristics of Energy Distribution in a Desert Ecosystem in Inner Mongolia, Northern China, *Frontiers in Environmental Science*, 10:939782, 2022

26) Li M, Xiao H, Xin Z, Li X, **Li J**, Miri A, Cao Q. Soil Seed Bank Characteristics of Nitraria tangutorm Nebkhas in a Desert-Oasis Ecotone, *Frontiers in Environmental Science*, 10:937257, 2022

27) Sun J., Wang Y., Piao S., Liu M., Han G., **Li J.**, Liang E., Lee T.M., Liu G., Wilkes A., Liu S., Zhao W., Zhou H., Yibeltal M., Berihun M.L., Browning D., Fenta A.A., Tsunekawa A.,Brown J., Willms W., and Tsubo M. Toward a sustainable grassland ecosystem worldwide. *The Innovation* 3(4), 100265, 2022

28) Sprigg WA, Gill TE, Tong DQ, **Li J**, Ren L, Van Pelt RS. Are opportunities to apply airborne dust research being missed? *Bulletin of the American Meteorological Society*, DOI: 10.1175/BAMS-D-22-0034.1, 2022

29) **Li J**, Ravi S, Wang G, Van Pelt RS, Gill TE, and Sankey JB. Woody plant encroachment of grassland and the reversibility of shrub dominance: Erosion, fire and feedback processes, *Ecosphere*, DOI: 10.1002/ecs2.3949, 2022.

30) Cao Q, **Li J** et al. On the spatial variability and influencing factors of soil organic carbon and total nitrogen stocks in a desert oasis ecotone of northwestern China, *Catena*, DOI: 10.1016/j.catena.2021.105533, 2021.

31) Wang G*, **Li J**, Ravi S, Theiling B, Burger B. Fire-induced microsite-scale spatial heterogeneity of soil nitrogen (N) and $\delta^{15}N$: Implications for N cycling at a grassland-shrubland ecotone, *Journal of Arid Environments*, DOI:10.1016/j.jaridenv.2020.104422, 2021.

32) Sankey J, Sankey T, **Li J**, Ravi S, Wang G*, Caster J, Kasprak A. Quantifying plant-soil-nutrient dynamics in rangelands: the potential of ground-based LiDAR, UAV hyperspectral-LiDAR fusion, and UAV multispectral-photogrammetry fusion in a shrub-encroached grassland, *Remote Sensing of Environment*, DOI: 10.1016/j.rse.2020.112223, 2021.

33) Ravi S, **Li J,** Meng Z, Zhang J, Mohanty S. Generation, resuspension, and transport of particulate matter from biochar-amended soils: A potential health risk, *GeoHealth*, DOI: 10.1029/2020GH000311, 2020.

34) Van Pelt S, Tatarko, J, Gill, TE, Chang CP, **Li J,** Eibedingil IG, and Mendez M**.** Dust Emission Source Characterization for Visibility Hazard Assessment on Lordsburg Playa in Southwestern New Mexico, USA, *Geoenvironmental Disasters*, DOI: 10.1186/s40677-020-00171-x, 2020.

35) Jiao S*, **Li J** et al. Variation of soil organic carbon in relation to soil physical properties and land uses in the Yellow River Delta, China, *Scientific Reports*, DOI:10.1038/s41598-020-77303-8, 2020.

36) Ju X, Li W, He L, **Li J** et al. Ecological redline policy may significantly alter urban expansion and affect surface runoff in the Beijing-Tianjin-Hebei megaregion of China, *Environmental Research Letters*, DOI:10.1088/1748-9326/abb4ff, 2020.

37) **Li J** and McDonald-Gillespie J*. Airborne lead (Pb) from abandoned mine waste in northeastern Oklahoma, USA, *GeoHealth*, DOI: 10.1029/2020GH000273, 2020.

38) Cao Q, **Li J**, Xiao H et al. Sap flow characteristics of Amorpha fruticose: implications of water use strategy in a semiarid system with secondary salinization in northwestern China, *Scientific Reports*,10-13504, DOI: 10.1038/s41598-020-70511-2, 2020.

39) Gao G, Tuo D, Han X, Jiao L, **Li J**, and Fu B. Effects of land-use patterns on soil carbon and nitrogen variations along revegetated hillslopes in the Chinese Loess Plateau, *Science of the Total Environment*, DOI:10.1016/j.scitotenv.2020.141156, 2020.

40) Cao Q, Yang B, **Li J** et al. Characteristics of soil water and salt associated with Tamarisk communities during normal and dry periods in a semi-arid saline environment, *Catena*, DOI: 10.1016/j.catena.2020.104661, 2020.

41) Ma* R, **Li J** et al. A wind tunnel study on the seasonal shelter efficiency of deciduous windbreaks, *Transactions of the ASABE*, DOI:10.13031/trans.13782, 2020.

42) Li Y*, **Li J** et al. Ecosystem-scale Carbon Allocation Among Different Land Uses: Implications for Carbon Stocks in an Estuarine System in the Yellow River Delta, China, *Ecosphere*, DOI: 10.1002/ecs2.3125, 2020.

43) Wang D, Gao G, **Li J** et al. Sap flow dynamics of xerophytic shrubs differ significantly among rainfall categories in the Loess Plateau of China, *Journal of Hydrology*, DOI: 10.1016/j.jhydrol.2020.124815, 2020.

44) Xiao L*, **Li J** et al. A method to predict the resistivity index for tight sandstone reservoirs from nuclear magnetic resonance (NMR) data, *AAPG*, DOI: 10.1306/05222018269, 2020.

45) Qi Y, Wei W, **Li J** et al. Effects of terracing on root distribution of Pinus tabulaeformis Carr. forest and soil properties in the Loess Plateau of China, *Science of the Total Environment*, DOI: 10.1016/j.scitotenv.2020.137506, 2020.

46) Jiao S*, **Li J** et al. Soil C, N, and P distribution as affected by plant communities in the Yellow River Delta, China, *PLoS ONE* 14(12): e0226887, DOI: 10.1371/journal.pone.0226887, 2019.

47) Feng S, Chen L, Sun R, Feng Z, **Li J** et al. The Distribution and Accessibility of Urban Parks in Beijing, China: Implications of Social Equity, *International Journal of Environmental Research and Public Health*, 16, 4894, DOI:10.3390/ijerph16244894, 2019.

48) Hamid G, Mojtaba DK, **Li J**, Matt TW, Javad A. Diverse sources of aeolian sediment revealed in an arid landscape in southeastern Iran using a Bayesian un-mixing model, *Aeolian Research*, DOI: 10.1016/j.aeolia.2019.100547, 2019.

49) Wang G*, **Li J,** Ravi S. A combined grazing and fire management may reverse woody shrub encroachment in desert grasslands, *Landscape Ecology*, DOI: 10.1007/s10980-019-00873-0, 2019.

50) Ma* R, **Li J** et al. On the airflow field and shelter efficiency of mixed windbreaks: A wind tunnel study, *Aeolian Research*, DOI: 10.1016/j.aeolia.2019.100544, 2019.

51) Liu S, Dong Y, Sun Y, **Li J** et al. Modelling the spatial pattern of biodiversity utilizing the high-resolution tree cover data at large scale: Case study in Yunnan province, Southwest China, *Ecological Engineering*, 134, 1-8, DOI: 10.1016/j.ecoleng.2019.05.001, 2019.

52) Xiao L*, **Li J** et al. A method to evaluate pore structures of fractured tight sandstone reservoirs using borehole electrical image logging, *AAPG Bulletin*, DOI: 10.1306/04301917390, 2019.

53) Wang G*, **Li J**, Ravi S, Dukes D, Gonzales HB, and Sankey JB. Post-fire redistribution of soil carbon and nitrogen at a grassland-shrubland ecotone. *Ecosystems*, 2019, 22:174-188, DOI: 10.1007/s10021-018-0260-2.

54) Wang G*, **Li J** et al. Fire changes the spatial distribution and sources of soil organic carbon in a grassland-shrubland transition zone, *Plant and Soil*, DOI: 10.1007/s11104-018-3895-z, 2018.

55) Ravi S, Gonzales HB, Buynevich LV, **Li J**, Sankey JB, Dukes D, Wang G*. On the development of a magnetic susceptibility-based tracer for aeolian sediment transport research, *Earth Surface Processes and Landforms*, DOI: 10.1002/esp.4536, 2018.

56) Gonzales HB, Ravi S, **Li J**, Sankey JB. Ecohydrological implications of aeolian sediment trapping by sparse vegetation in drylands, *Ecohydrology*, DOI: 10.1002/eco.1986, 2018.

57) **Li J** and Ravi S. Interactions among hydrological-aeolian processes and vegetation determine grain-size distribution of sediments in a coppice dune (nebkha) system. *Journal of Arid Environments*, DOI: 10.1016/j.jaridenv.2018.03.011, 2018.

58) Xiao L*, **Li J** et al., A method to determine nuclear magnetic resonance (NMR) T2cutoff based on normal distribution simulation in tight sandstone reservoirs, *Fuel*, 225, 472-482, DOI: 10.1016/j.fuel.2018.03.178, 2018.

59) Dukes D, Gonzales HB, Ravi S, Grandstaff DE, Van Pelt RS, **Li J**, Wang G*, and Sankey JB. Quantifying Post-Fire Aeolian Sediment Transport Using Rare Earth Element Tracers. *Journal of Geophysical Research-Biogeosciences*, 123(1), 288-299, DOI: 10.1002/2017JG004284, 2018.

60) Xiao L*, Mao Z, **Li J** et al., Effect of hydrocarbon on evaluating formation pore structure using nuclear magnetic resonance (NMR) logging. *Fuel*, 216, 199–207, DOI: 10.1016/j.fuel.2017.12.020, 2018.

61) Liu S, Yin Y, **Li J** et al. Using landscape connectivity to identify key habitats for Asian elephants in southwestern China. *Landscape and Urban Planning*, 171, 80-87, DOI: 10.1016/j.landurbplan.2017.09.017, 2018.

62) **Li J**, Kandakji T, Lee JA, Tatarko JT, Blackwell J*, Gill TE, and Collins J. Blowing dust and highway safety in the southwestern United States: Characteristics of dust emission "hotspots" and management implications. *Science of the Total Environment*, 621, 1023-1032, DOI:10.1016/j.scitotenv.2017.10.124, 2018.

63) Liu D, Xiao L*, **Li J** et al., Method of predicting tight gas deliverability from conventional well logging data based on experimental simulation. *Arabian Journal of Science and Engineering*, DOI: 10.1007/s13369-017-2916-1, 2017.

64) Xiao L*, Liu D, **Li J** et al. The applicability analysis of models for permeability prediction using mercury injection capillary pressure (MICP) data. *Journal of Petroleum Science and Engineering,* DOI: 10.1016/j.petrol.2017.06.042, 2017.

65) Wang G*, **Li J** et al. Aeolian sediment tracers: Approaches, applications, and challenges. *Earth-Science Reviews*, DOI: 10.1016/j.earscirev.2017.05.001, 2017.

66) **Li J**, Gilhooly WP, Okin GS, and Blackwell J*. Abiotic processes are insufficient for fertile island development: A 10-year artificial shrub experiment in a desert grassland. *Geophysical Research Letters*, 44, DOI: 10.1002/2016GL072068, 2017.

67) Ravi S, Sharratt BS, **Li J** et al. Particulate matter emissions from biochar-amended soils: A tradeoff to the negative emission potential. *Scientific Reports*, DOI: 10.1038/srep35984, 2016.

68) Liu S, Yin Y, Liu X, Cheng F, Yang J, **Li J**, Dong S, and Zhu A. Ecosystem services and landscape change associated with plantation expansion in a tropical rainforest region of southwest China. *Ecological Modelling*, 353, 129-138, DOI: 10.1016/j.ecolmodel.2016.03.009, 2016.

69) **Li J**, Flagg C, Okin GS, Painter TH, Dintwe K, and Belnap J. On the prediction of threshold friction velocity of wind erosion using soil reflectance spectroscopy. *Aeolian Research*, DOI: 10.1016/j.aeolian.2015.10.001, 2015.

70) Liu S, Su X, Dong S, Chen F, Zhao H, Wu X, Zhang X, and **Li J**. Modeling aboveground biomass of an alpine dessert grassland with SPOT-VGT NDVI. *GIScience and Remote Sensing*, DOI: 10.1080/15481603.2015.1080143, 2015.

71) Lü Y, Zhang L, Feng X, Zeng Y, Fu B, Yao X, **Li J**, and Wu B. Recent ecological transitions in China: greening, browning, and influential factors. *Scientific Reports*, 5:8732, DOI: 10.1038/srep08732, 2015.

72) Wang J, Yan S, Guo Y, **Li J**, and Sun G. The effects of land consolidation on the ecological connectivity based on ecosystem service value-A case study of Da'an land consolidation project in Jilin Province. *Journal of Geographical Sciences*, (5):603-616, DOI: 10.1007/s11442-015-1190-y, 2015.

73) **Li J**, Okin GS, Tatarko J, Webb NP, and Herrick JE. Consistency of wind erosion assessments across land use and land cover types: A critical analysis. *Aeolian Research*, DOI:10.1016/j.aeolia.2014.04.007, 2014.

74) Liu S, Deng L, Chen L, **Li J**, Dong S, and Zhao H. Landscape network approach to assess ecological impacts of road projects on biological conservation. *Chinese Geographical Sciences,* 24(1), DOI: 10.1007/s11769-014-0651-z, 2014.

75) **Li J,** Okin GS, Skiles SM, and Painter TH. Relating variation of dust deposition on the snow to bare soil dynamics in the western United States. *Environmental Research Letters,* (8) 044054, DOI:10.1088/1748-9326/8/400054, 2013.

76) **Li J**, Okin GS, Herrick JE, Belnap J, Miller ME, Vest K, and Draut AE. Evaluation of a new model of aeolian transport in the presence of vegetation. *Journal of Geophysical Research-Earth Surface*, 118, DOI: 10.1002/jgrf.20040, 2013.

77) Vest KR, Elmore AJ, Kaste, JM, Okin GS, and **Li J**. Estimating total horizontal flux within shrub-invaded groundwater dependent meadows using empirical and mechanistic models. *Journal of Geophysical Research-Earth Surface*, 118-1132-1146, 2013.

78) **Li J**, Anderson T, and Walter TM. Landscape scale variation in nitrous oxide flux along a typical Northeastern US topographic gradient in the early summer. *Water, Air & Soil Pollution*, DOI: 10.1007/s11270-011-0965-8, 2012.

79) Alvarez LJ, Epstein HE, **Li J**, and Okin GS. Aeolian process effects on vegetation communities in an arid grassland ecosystem. *Ecology and Evolution*, 2(4): 809-821, 2012.

80) Alvarez LJ, Epstein HE, **Li J**, and Okin, GS. Spatial patterns of grasses and shrubs in an arid grassland environment. *Ecosphere*, 2(9): 103, DOI:10.1890/ES11-00104.1, 2011.

81) Ravi S, D'Odorico P, Goudie A, Okin GS, **Li J**, Breshears D, Field J, Swap R, Thomas A, and Zobeck T. Aeolian processes and the biosphere. *Review of Geophysics*, 49, RG3001, DOI:10.1029/2010RG000328, 2011.

82) **Li J**, Okin GS, Herrick JE, Belnap J, Munson SM, and Miller ME. A simple method to estimate threshold friction velocity of wind erosion in the field. *Geophysical Research Letters*, DOI:10.1029/2010GL043245, 2010.

83) **Li J**, Okin GS, and Epstein HE. Effects of enhanced wind erosion on surface soil texture and characteristics of windblown sediments. *Journal of Geophysical Research-Biogeosciences*, DOI:10.1029/2008JG000903, 2009.

84) **Li J**, Okin GS, Alvarez L, and Epstein H. Sediment deposition and soil nutrient heterogeneity in two desert grassland ecosystems, southern New Mexico. *Plant and Soil*, DOI: 10.1007/s11104-008-9850-7, 2008.

85) **Li J**, Okin GS, Alvarez L, and Epstein H. Effects of wind erosion on the spatial heterogeneity of soil nutrients in two desert grassland communities. *Biogeochemistry*, 88:73-88, DOI 10.1007/s10533-008-9195-6, 2008.

86) **Li J**, Okin GS, Alvarez L, and Epstein H. Quantitative effects of vegetation cover on wind erosion and soil nutrient loss in a desert grassland of southern New Mexico, USA. *Biogeochemistry*, 85:317-332, DOI 10.1007/s10533-007-9142-y, 2007.

87) Guo X, Fu B, Chen L, Ma K, and **Li J**. Land use effects on soil properties in a hilly area, Northern China. *Ekológia* (Bratislava), 23 (1): 1-13, 2004.

88) Fu B, Guo X, Chen L, Ma K, and **Li J**. Soil nutrients changes due to land-use changes in northern China-A case study in Zunhua County, Hebei Province. *Soil Use and Management*, 17: 294-296, 2001.

PEER-REVIEWED JOURNALS IN CHINESE WITH ENGLISH ABSTRACTS

1) Zhi D, Wang J, Xiao H, **Li J** et al. Wind tunnel simulation on the windbreak effect of Nitraria tangutorum nebkhas in Ulan Buh desert-oasis ecotone of China. Transactions of the Chinese Society of Agricultural Engineering (*Transactions of the CSAE*), 2024, 40 (3): 147-155, DOI:10.11975/j.issn.1002-6819.202307119.

2) Yang X, Xiao H, Xin Z, Fan G, **Li J**, Jia X. Assessment on the declining degree of farmland shelter forest in a desert oasis based on LiDAR and hyperspectrum imagery. *Chinese Journal of Applied Ecology*, 2023, 34(4): 1043-1050.

3) Zhang S, Chen L, Fu B, and **Li J**. The risk assessment of non-point pollution of phosphorus from agricultural lands-A case study of Yuqiao Reservoir watershed, *Quaternary Research*, 2003, 23 (3): 262-269.

4) **Li J**, Chen L, Guo X, and Fu B. Temporal and spatial characteristics of non-point source N in surface water of Yuqiao Reservoir Basin. *Scientia Geographica Sinica*, 2002, 22(2): 238-242

5) Chen L, **Li J**, and Fu B. Synthetic assessment and cluster analysis for eco-environment in Three-gorge Reservoir areas. *Rural Eco-Environment*, 2001, 15 (4): 218-224

6) Guo X, Fu B, Chen L, Ma K, and **Li J**. Effects of land use on soil quality in a hill area-A case study in Zunhua County, Hebei Province. *Acta Geographica Sinica*, 2001, 56 (4): 447-455.

7) Fu B, Guo X, Chen L, Ma K, and **Li J**. Land use changes and soil nutrient changes: A case study in Zunhua County, Hebei Province. *Acta Ecologica Sinica,* 2001, (21) 6: 926-931.

8) Fu B, Liu G, Chen L, Ma K, and **Li J**. Scheme of ecological regionalization in China. *Acta Ecologica Sinica*, 2001, 21(1): 1-6.

9) **Li J**, Chen L, Guo X, and Fu B. Effects of land use structure on non-point source pollution. *China Environmental Sciences,* 2000, 20 (6): 506-510.

10) Chen L, **Li J**, Guo X, and Fu B. Temporal and spatial characteristics of surface water quality in Jiyun River. *Environmental Sciences*, 2000, 21 (6): 61-64.

11) Guo X, Fu B, Chen Li, Ma K, and **Li J**. The spatio-temporal variability of soil nutrients in Zunhua plain of Hebei Province: semivariogram and Kriging Analysis. *Acta Geographica Sinica*, 2000, 55(5): 555-566.

UNREFERRED PUBLICATIONS & MEDIA REPORTS

1) **Li J**. Forward. *Annals of Geographical, Geological & Archaeological Society*, the University of Hong Kong, Issue 46, 2025.
2) Donovan R. Community input drives superfund research, *EOS,* Science News by AGU, Dec 14, 2021, DOI: https://eos.org/articles/community-input-drives-superfund-research
3) Gill TE, Acosta MD, Baddock MC, Lee JA, Eibedingil I, **Li J**. The geology and hydrology of environmental hazards from aeolian dust and sand in the Chihuahuan Desert, *New Mexico Geology*, 40(2):67
4) Certa A, Gallart F, **Li J** et al. Long-range ecogeomorphic processes, in E.N. Muller et al. (eds), *Patterns of Land Degradation in Drylands: Understanding Self-Organised Ecogeomorphic Systems*, 2014, DOI 10.1007/978-94-007-5727-1-5, Springer, Netherland
5) **Li J** and Okin GS. Carbon and nitrogen dynamics with enhanced wind erosion-model evaluation and prediction. In: Fernandez-Bernal A. and Alberto De La Rosa M (eds.). *Arid Environments and Wind Erosion*. 2009. ISBN: 978-1-60692-411-2, Nova Science Publishers, Inc., New York
6) Epstein HE, Okin GS, **Li J**, Alvarez LJ. Wind erosion and ecosystem consequences following vegetation removal in a Chihuahuan Desert grassland. *Global Land Project News*, 2009 (5): 3-4

CONFERENCE ABSTRACTS AND PROCEEDINGS (**student presenter from Li lab)*

2026 JpGU-AGU Joint Meeting (May 24-29), Chiba, Japan
Pan Q*, **Li J**. Multi-model assessment of dust emission contributions from China and Mongolia during severe East Asian dust events

2026 JpGU-AGU Joint Meeting (May 24-29), Chiba, Japan
Zhu H*, **Li J**. Decoupling between oasis greening and resilience under water availability constraints in East Asian oases

2026 International Conference on Aeolian Research ICAR XII (July 13-16), Namibia
Li L*, **Li J**. Shrinking of the Aral Sea: Salt-dust emission and its health implications

2026 International Conference on Aeolian Research ICAR XII (July 13-16), Namibia
Li J. On the decline of dust activities in East Asia in the 21st century: The relative role of China and Mongolia

2026 International Conference on Natural Resources and Planning (March 27-30), Hong Kong, SAR
Li J. Sustainability of desert grasslands in the United States: Beyond woody plant encroachment

2025 AGU Annual Meeting (Dec 15-19), New Orlean, LA
Li J. Modernizing the management and policy framework to prevent future catastrophic wildfires in China

2025 Ecological Society of America Annual Meeting (August 10-15), Baltimore, MD
Li J and Wang G. Modernizing wildfire management in China to avoid future catastrophic fires

2024 AGU Annual Meeting (Dec 9-13), Washington D.C.

Zhu H*, **Li J**. On the driving factors of oases dynamics in China and Mongolia in the 21st century

2024 AGU Annual Meeting (Dec 9-13), Washington D.C.
Li J et al. Fire and human-induced disturbance to the shrub-grass dominance in desert grasslands: What the recovery pace and processes hold?

2024 AAG Annual Meeting (April 16-20), Honolulu, HI
Li J and Zhu H. On the distribution and dynamics of oases in China in the 21st century

2023 AGU Annual Meeting (Dec 11-15), San Francisco, CA
Li J. A methodology to prioritize well pad ecosystem restoration in the Permian Basin

2023 ESA Annual Meeting (August 6-11), Portland, OR
Ravi S, Van Pelt S, **Li J**, Sankey J. Interactions among fires, vegetation and aeolian processes in changing landscapes: from shrub encroachment to exotic grass invasions

2023 AAG Annual Meeting (March 23-27), Denver, CO
Hasan MF*, **Li J**, Roberts K. Human and climatic pressure in shelterbelt declining and their effects on microclimate and wheat production in Oklahoma, USA

2023 AAG Annual Meeting (March 23-27), Denver, CO
Li J. Restoration priority for well pads in the Permian Basin of west Texas and southeastern New Mexico, USA

2022 75th SRM Annual Meeting (Feb 8-11), Albuquerque, NM
Li J. Woody plant encroachment of grassland and the reversibility of shrub dominance in southwestern US: Erosion, fire, and feedback processes

2021 EGU General Assembly 2021 (April 19-30), Virtual
Li J et al. Woody plant encroachment in southwestern US: Drivers, feedbacks, and conceptual models

2021 EGU General Assembly 2021 (April 19-30), Virtual
Wang G*, **Li J** et al. The 38 years of the microclimate change dynamics across a cropland-windbreak-desert transition zone in the Ulan Buh Desert, northern China

2021 EGU General Assembly 2021 (April 19-30), Virtual
Sankey T, Sankey J, **Li J** et al. Quantifying plant-soil-nutrient dynamics in rangelands: Fusion of UAV hyperspectral-LiDAR, UAV multispectral photogrammetry, and ground-based LiDAR-digital photography in a shrub-encroached desert grassland

2020 AGU Fall Meeting (Dec 1-17), Virtual
Haygood L*, Roberts K, **Li J** et al. Hg, As, Cd, and Pb in water, sediment, mussel tissue and shells in the Kiamichi River basin, southeastern Oklahoma: Sources, surface water and groundwater quality, and human health implications

2020 AGU Fall Meeting (Dec 1-17), Virtual
Ravi S, **Li J**, and Mohanty S. Particulate matter emission mechanisms from biochar-amended soils

2020 AGU Fall Meeting (Dec 1-17), Virtual

Tong D, Gill T, **Li J** et al. Reducing highway accidents with a satellite-aided dust early warning system

2020 AGU Fall Meeting (Dec 1-17), Virtual
Sankey JB, Sankey TT, **Li J** et al. UAV monitoring of plant-soil-nutrient dynamics in rangelands

2019 AGU Fall Meeting (Dec 9-13), San Francisco, CA
Wang G*, **Li J**. Reconstructing fire history at a shrub encroached grassland in the Northern Chihuahuan Desert

2019 10th IALE World Congress (July 1-5), Milan, Italy
Li J, Using rare earth element tracers to quantify soil resource redistribution in a grassland-shrubland transition landscape

2019 10th IALE World Congress (July 1-5), Milan, Italy
Li J et al. Grazing and fire on the reversibility and management of woody shrub encroachment: A modeling approach

2019 10th IALE World Congress (July 1-5), Milan, Italy
Jiao S*, **Li J** et al., On the distribution of soil C, N, P in the salination-affected plant communities of the Yellow River Delta, China

2018 AGU Fall Meeting (Dec 11-15), Washington D.C.
Li J et al. Fire changes micro-scale stable isotopes of soil nitrogen (N) spatial heterogeneity in a grassland-shrubland transition system

2018 AGU Fall Meeting (Dec 11-15), Washington D.C.
Wang G*, **Li J** et al. The Reversibility of shrub encroached grasslands under projected long-term droughts

2017 AGU Fall Meeting (Dec 11-15), New Orleans, LA
Li J, McDonald J*, Curtis H*. Quantifying the contribution of airborne lead (Pb) to surface waters in northeastern Oklahoma

2017 Oklahoma Water Resources Center, Water Research Symposium (Oct 31), Norman, OK
McDonald J*, Curtis H*, **J Li**. Impact of climatologic factors on the airborne lead in northeastern Oklahoma

2017 AGU Fall Meeting (Dec 11-15), New Orleans, LA
Wang G*, **Li J** et al. Effects of fire on the plant-soil interactions in northern Chihuahuan Desert

2017 Colorado Plateau Biennial Conference (Sept 13-16), Northern Arizona University, Flagstaff, AZ
Li J et al. Fire and wind erosion induced redistribution of soil carbon and nitrogen at different microsites in a grassland-shrubland ecotone

2017 AAG Annual Meeting (April 5-9), Boston, MA
Li J et al. Blowing dust and highway safety in the Southern Plains: Identifying current and potential dust emission "hot spots"

2016 AGU Fall Meeting (Dec 11-16), San Francisco, CA
Li J and Ravi S. Soil texture in a coppice dune system: The relative role of aeolian and hydrologic processes

2016 AGU Fall Meeting (Dec 11-16), San Francisco, CA
Guan W*, **Li J** et al. Post-fire soil redistribution in northern Chihuahuan Desert

2016 AGU Fall Meeting (Dec 11-16), San Francisco, CA
Blackwell J*, **Li J** et al. Blowing dust and highway safety: Characterizing dust emission hot spots in the Southern Plains

2016 AGU Fall Meeting (Dec 11-16), San Francisco, CA
Dukes D, Ravi S, **Li J** et al. Quantifying post-fire aeolian sediment transport using rare earth elements

2015 AGU Fall Meeting (Dec 14-18), San Francisco, CA
Li J et al. Shifting from grassland to shrubland: New insights from recent experimental studies in the Chihuahuan Desert

2015 European Geosciences Union General Assembly (April 12-17), Vienna, Austria
Li J et al. Blowing dust and highway safety in the southwestern US

2015 European Geosciences Union General Assembly (April 12-17), Vienna, Austria
Li J. Feedbacks between aeolian processes and ecosystem change in a degraded desert grassland in the southwestern US

2014 AGU Fall Meeting (Dec 15-19), San Francisco, CA
Li J et al. Dust and highway safety in the southern plains of the US

2014 The 8th International Conference on Aeolian Research (ICAR VIII) (July 21-25) Lanzhou, China
Li J. On the prediction of threshold friction velocity of wind erosion and soil reflectance spectra

2014 The 8th International Conference on Aeolian Research (ICAR VIII) (July 21-25), Lanzhou, China
Li J. Influence of wind on fertile island formation: Insights from an artificial vegetation experiment

2013 The 12th Biennial Conference of Science and Management on the Colorado Plateau (Sept 16-19), Flagstaff, AZ
Li J et al. Predicting the threshold of wind-driven soil movement using the characteristics of spectral reflectance

2013 AAG Annual Meeting (April 8-11), Los Angeles, CA
Li J et al. Predicting soil threshold shear velocity using reflectance spectra

2012 AGU Fall Meeting (Dec 3-7), San Francisco, CA
Li J, Okin GS, Skilies SM, Painter TH. On the importance of vegetation dynamics and variation of dust deposition on the snow in the Western US

2012 International Dryland Symposium (Jul 12), Las Cruces, NM
Li J, Okin GS, Epstein H, Washington-Allen RA. The biophysics of wind in the Chihuahuan Desert

2011 The 8th International Association for Landscape Ecology World Congress (Aug 18-23), Beijing, China
Li J, Okin GS, Gu J, Painter TH. Using remote sensing to derive vegetation and soil properties for dust emission modeling in the western United States

2010 The 20th Annual Jornada Symposium (July 15), Las Cruces, NM

Li J, Okin GS, Herrick JE, Miller M, Munson S, Belnap J, and Draut A. Wind erosion and dust emission in the presence of vegetation, a modeling approach

2010 The VII ICAR International Conference (July 7-9), Santa Rosa, Argentina
Li J, Okin GS, Herrick JE, Miller M, Munson S, Belnap J, Draut A, Urban F. Dust emission and wind erosion on US rangelands: Model calibration

2010 The 16th Wildland Shrub Symposium (May 20), Logan, UT
Li J, Okin GS, Herrick JE, Belnap J, Munson S, and Miller M. Modeling wind erosion in US rangelands

2010 AGU Fall Meeting (Dec 13-17), San Francisco, CA
Li J, Washington-Allen RA, Okin GS, Mendieta V, Austin M, Delgado A. Characterizing effects of wind erosion on soil micro-topography in a semiarid grassland using terrestrial laser scanning

2009 AGU Fall Meeting (Dec 14-18), San Francisco, CA
Li J, Okin GS, Herrick JE, Miller M, Munson S, Belnap J. A simple method to predict threshold shear velocity in the field

2009 94th ESA Meeting (Aug 4-7), Albuquerque, NM
Li J, Walter TM, Anderson T. Hydrological and meteorological controls on landscape scale nitrous oxide

2007 AGU Fall Meeting (Dec 10-14), San Francisco, CA
Li J and Okin GS. Modeling long-term soil C and N dynamics in response to enhanced wind erosion in semiarid grasslands

2006 AGU Fall Meeting (Dec 11-15), San Francisco, CA
Li J, Okin GS, Alvarez L, Epstein HE. Impacts of wind erosion on the characteristics of sand and dust flux in southern New Mexico

2006 The VI ICAR International Conference (Jul 5-9), Guelph, Canada
Li J, Okin GS, Alvarez L, Epstein HE. Impacts of wind erosion on the distribution of soil nutrients

2006 LTER All-Scientists Meeting (ASM), Estes Park, CO
Li J, Okin GS, Alvarez L, Epstein HE. Changes in soil nutrients in response to wind erosion in desert grasslands of the southwestern United States

2005 AGU Fall Meeting (Dec 5-9), San Francisco, CA
Li J and Okin GS. Impacts of wind erosion and vegetative cover on the spatial distribution of soil nutrients in desert grasslands of southwestern US.

2004 SSSA-ASA-CSSA Joint Annual Meeting (Nov 12-16), Seattle, WA
Li J and Okin GS. Soil C, N distribution in response to wind erosion in desert grassland

2002 SSSA-ASA-CSSA Annual Meeting (Nov 12-16), Indianapolis, IN
Li J and Reddy KJ. Speciation of selenium in aqueous systems

INVITED TALKS

2026 International Society for Aeolian Research Virtuaeolian Seminar (May 13)
Dust activities in East Asia in the 21st century: Beyond declining

2026 Institute of Tibetan Plateau Research, Chinese Academy of Sciences (March 2)

Toward the management of woody plant encroachment in the southwestern US: An eco-geomorphologic perspective

2024 College of Geographical Science, Southwest University (June 11)
Toward the sustainable management of woody plant encroached grasslands in the southwestern United States

2024 Institute of Mountain Hazards and Environment, Chinese Academic of Science, Chengdu, China (June 7)
Toward the sustainable management of woody plant encroached grasslands in the southwestern United States

2024 International Summer School, Beijing Normal University (June 6)
Frontiers of land degradation and desertification in the Anthropocene

2024 College of Ecology and Environmental Science, Yunnan University (Mar 25)
Woody Plant Encroachment and Land Degradation in the southwestern US: Processes, Drivers and Feedback

2023 The 4th Chinese Soil and Water Sonservation Meeting, Fuzhou, Fujian (Dec 7)
Woody shrub encroachment and land degradation in the southwestern US: Processes, drivers and feedback

2023 The 8th Meeting of the Chinese Forestry Society, Ha'erbin, Heilongjiang (July 29)
Ecosystem restoration of well pad sites in the arid and semiarid region: A case study of the Permian Basin in the southwestern US

2023 The Chinese Academy of Forestry Desert Forestry Center, Dengkou, Inner Mongolia (August 2)
Toward the management of woody shrub encroachment in southwestern US: Erosion, fire, and feedback processes

2022 Department of Earth, Environmental and Resource Sciences, The University of Texas, at El Paso (April 11)
Toward the management of woody shrub encroachment in SW US: Erosion, fire and feedback processes

2021 Boone Pickens School of Geology, Oklahoma State University (Nov 18)
The reversibility of shrub dominance in southwestern US: Erosion, fire and feedback processes

2021 Department of Geography, The University of Hong Kong (Aug 24)
Woody plant encroachment in the southwestern US: Drivers, feedbacks and conceptual models

2021 Department of Earth, Environmental and Resource Sciences, The University of Texas at El Paso (April 23)
Woody plant encroachment in the southwestern US: Feedbacks and conceptual models

2020 Department of Geography and Atmospheric Science, University of Kansas (Nov 13), Lawrence, KS
Woody plant encroachment in the southwestern US: Drivers, feedbacks and conceptual models

2020 Duke Kunsan University (Jan 6), Suzhou, China

Airborne Lead (Pb) from an Abandoned Mining Area in Northeastern Oklahoma, USA

2019 Beijing Normal University (July 12), Beijing, China
Implications of fire on ecosystem change and woody shrub encroachment in a semiarid landscape, USA

2019 Beijing Forestry University (June 25), Beijing, China
Fire-induced ecosystem change in a grass-shrub coexisting system

2019 Research Center for Eco-environmental Sciences, Chinese Academy of Sciences (June 14), Beijing, China
Implications of fire on ecosystem change and woody shrub encroachment in a grassland-shrubland transition zone

2018 Department of Environmental Science, Baylor University (Nov 25), Waco, TX
Using rare earth elements to quantify post-fire resource redistribution in a semiarid landscape

2018 East Central High School (Oct 8), Tulsa Regional STEM Alliance, STEM Café, Tulsa, OK
Climate change: What we know and what we do not know?

2018 Inner Mongolia Agricultural University (Aug 3), Hohhot, Inner Mongolian, China
Fire-induced soil resource redistribution in a semiarid shrub-grass transition system

2018 Department of Earth and Environmental Science, University of Texas-Arlington (Apr 6), TX
Fire-induced soil resource redistribution in a semiarid shrub-grass transition zone

2018 School of Earth and Environmental Sciences, Queens College, City University of New York (Mar 12), New York, NY
Using geochemical methods to trace fire-induced soil resource redistribution in a semiarid landscape

2018 College of Science and Engineering seminar, Oral Roberts University (Mar 7), Tulsa, OK
Dust storm and highway safety in the southwestern US: Where and When?

2017 Department of Geography, Kansas State University (Nov 3), Manhattan, KS
Blowing dust and highway safety in the southwestern US: Where and When?

2017 College of Science and Engineering, Oral Roberts University International Forum (Jan 18) Tulsa, OK
Atmospheric dust and haze in China and US: A historical perspective on air pollution.

2016 Department of Geography, Geology, and Planning, Missouri State University (Dec 2), Springfield, MO
Atmospheric dust: Small-scale processes with global consequences

2016 Region 6 Transportation-Climate Submit (Nov 14), Norman, OK
Effects of blowing dust on highway safety: Characteristics of dust emission "hot spots"

2016 Oklahoma Transportation Research Day (Oct 18), Oklahoma City, OK
"Hot spots" of blowing dust along the highways in the Southern Plains: Characteristics and modeling

2016 Microbiome Research in Oklahoma (Oct 7-8), Ardmore, OK
Using rare earth element tracers to quantify soil resource movement in a semiarid grassland following a prescribed fire.

2016 Department of Geosciences, The University of Tulsa (Sept 14), Tulsa, OK
Blowing dust and highway safety in the Southern Plains: Characteristics of dust emission "hot spots"

2016 Research Center for Eco-environmental Sciences, Chinese Academy of Sciences (July 13), Beijing, China
Atmospheric dust: Small-scale processes with global consequences

2016 Inner Mongolia Agricultural University (July 10), Hohhot, Inner Mongolian, China
The biogeochemistry of atmospheric dust

2014 Department of Natural Resource Ecology & Management, Oklahoma State University (Oct 30), Stillwater, OK
Atmospheric dust small scale processes with global consequences

2014 Department of Geosciences, The University of Tulsa, OK (April 18), Tulsa, OK
Feedbacks between dust and climate change: The return of dust bowl?

2013 School of Environment, Beijing Normal University (July 19), Beijing, China
The biogeochemistry of wind in the desert environment

2013 Department of Geosciences, The University of Tulsa (Mar 14), Tulsa, OK
Gone with the wind, the surprising role of wind in arid and semiarid regions

2012 International Workshop on Climate Change and Grassland Management (Sept 6-8), Hohhot, Inner Mongolian, China
Wind erosion in the USA: implications for climate change, ecosystem dynamics and management

2012 Department of Geography, University of Alabama (Mar 4), Tuscaloosa, AL
Interactions among vegetation, soil, and aeolian processes in drylands

2009 Department of Geography, University of California-Los Angeles (Oct 12), CA
Landscape scale variability in nitrous oxide (N_2O) fluxes along a soil wetness gradient

2009 Cornell University Postdoc Research Day (May 15), Ithaca, NY
Landscape scale variability in nitrous oxide (N2O) emissions along a soil wetness gradient

2009 Environmental Change Initiative, Brown University (Mar 12), Providence, RI
Biogeochemistry of nitrogen-from arid deserts to temperate grasslands

2009 Cornell University BEE Annual Research Symposium (Feb 12), Ithaca, NY
Denitrification and nitrous oxide (N_2O) emissions and hydrologic patterns across a temperate grassland-forest-alfalfa landscape

2005 The 15th Annual Jornada Symposium (Jul 13), Las Cruces, NM
Depletion of soil nutrients in response to wind erosion at the Jornada Experimental Range, New Mexico

2005 20th Student Research Symposium (Jan 13), The University of Virginia, Charlottesville, VA

Soil nutrient distribution in response to wind erosion in a desert grassland. *Winner of Best PhD Presentation*

INVITED WORKSHOPS-RESEARCH

2015 Oklahoma Workshop on Remote Sensing Application (Nov 6), Norman, OK Norman, OK

2014 Oklahoma Workshop on Remote Sensing Technology and Application (Nov 12), Norman, OK

2012 International Workshop on Climate Change and Grassland Management (Sept 6-8), Hohhot, Inner Mongolian, China

TEACHING

COURSES AT THE UNIVERSITY OF HONG KONG (Since Fall 2022)

Global Landforms (GEOG 2165)
Energy, Environment & Climate (GEOG 2167)
Nature Conservation for Sustainable Societies (GEOG 1016)

COURSES AT THE UNIVERSITY OF TULSA (Since Fall 2013)

Undergraduate

Introduction to GIS (GEOL 4083)
Energy, Environment & Climate (GEOL 2043)
Geomorphology (GEOG 3053)

Graduate

Hydrogeology (GEOL 6513)
Environmental Geochemistry (GEOL 6523)
Geomorphology (GEOG 6053)
Introduction to GIS (GEOL 6083)

COURSES AT THE UNIVERSITY OF VIRGINIA

2005-2006 EVSC 280 L, Physical Geology Laboratory
Fall 2005 EVSC 796, Advanced Remote Sensing
Spring 2005 EVSC 496, Introduction to Remote Sensing

INVITED LECTURES

2024 April "Air, air quality, and air pollutants" for GEOS 13300 The Atmosphere, Department of Geophysical Sciences, The University of Chicago, Chicago, IL

2012 Mar "Atmospheric and oceanic circulation" for Atmospheric Processes and Patterns, Department of Geography, University of Alabama, Tuscaloosa, AL

2010 Oct "Soil Acidity, Alkalinity and Salinity" for GEOG 1-Earth's Physical Environment, Department of Geography, University of California, Los Angeles

2010 Jan "Weathering and Minerals" for GEOG M127- Soils and Environment, Department of Geography, University of California, Los Angeles

SERVICE, ADVISING AND PROFESSIONAL DEVELOPMENT

UNIVERSITY/DEPARMENT COMMITTEES

2025 Human Resource Committee, Faculty of Social Sciences, The University of Hong Kong
2024/2025 Award Committee, Department of Geography, The University of Hong Kong
2025 Outreach Committee, Department of Geography, The University of Hong Kong
2024 Dean's Search Committee, The University of Hong Kong
2020-2022 Graduate Program Advisor, Department of Geosciences, The University of Tulsa
2018 Chinese Studies Review Committee, The University of Tulsa
2018 Faculty Leadership Development Program, The University of Tulsa
2018 Geosciences Physical Plant Improvement Committee, Continuous Improvement and Assessment Committee, New Student Recruiting Committee, Department of Geosciences, The University of Tulsa

EXTERNAL/COMMUNITY SERVICE

2025- Global Council, International Association of Natural Resources
2024-2026 Committee Member, Sino-Ecologists Association Overseas
2019- Steering Committee, Dust Alliance for North America (DANA)
2019-2023 Executive Committee, Dust Alliance for North America (DANA)

CONFERENCE CHAIR

2026 International Association of Natural Resources (March 27-30), Hong Kong, SAR
Grassland Ecological Restoration and Sustainable Utilization
2024 AAG Annual Meeting (April 16-21), Honolulu, HI, Water in Arid Lands
2023 AGU Fall Meeting (Dec 11-15), San Francisco, CA, Microplastics and the Biosphere
2023 AGU Fall Meeting (Dec 11-15), San Francisco, CA, Dust-Human Interactions in the Earth System: From physical processes to human health, Safety, and Welfare
2021 Organizing Committee, Southern New Mexico & Western US Dust Symposium (Oct 25-27), Virtual
2021 AGU Fall Meeting (Dec 13-17), New Orleans, LA, Earth System Interactions and Implications for Geohealh
2020 AGU Fall Meeting (Dec 7-11), San Francisco, CA, Earth System Interactions and Implications for Geohealth
2019 AGU Fall Meeting (Dec 9-13), San Francisco, CA, Earth System Interactions and Implications for Geohealth
2019 Symposium Chair, International Association for Landscape Ecology (IALE) World Congress (July 1-5), Milan, Italy
Disturbance, degradation, and restoration in fragile ecosystems: Implications for resource distribution and ecosystem service
2015 Co-Session Chair, AGU General Assembly (Dec 14-18), San Francisco, CA
Aeolian Research at the Interface of Biophysical, Sedimentary, and Atmospheric Processes
2015 Session Chair, EGU General Assembly (April 12-17), Vienna, Austria
Degradation of World's Drylands: Biophysical Drivers and Biogeochemical Implications
2015 Organizing Committee, 18th International Soil Conservation Organization Conference (May 31-June 5), Paso, TX
2010 AGU Fall Meeting (Dec 13-17), San Francisco, CA
Aeolian processes: Biophysical drivers and biogeochemical implications

WORKSHOPS

2019 ArcGIS Pro: Essential Workflows, ESRI training (Oct 23-25), St. Charles, MO
2017 Using high resolution topography, UAVs, and GPS in undergraduate field education (Aug 15-18), Boulder, CO
2014 The Early Career Geoscience Faculty Workshop: Teaching, Research and Managing your Career (June 22-26), College Park, MD

JOURNAL EDITOR

2025 *Editorial Board*, Regional Ecology and Management
2023- Associate Editor, *Journal of Geophysical Research-Earth Surfaces*
2023- Associate Editor, *Earth's Future*
2023 Guest Editor, *GeoHealth*
Special Issue "Dust storms and public health and welfare"
2013-23 Associate Editor*, Aeolian Research*
2011 Guest Editor, *Aeolian Research*
Special Issue "Aeolian processes: Biophysical drivers and biogeochemical implications"

JOURNAL REVIEWER

AMBIO, Aeolian Research, Atmospheric Environment, Australian Journal of Soil Research, Catena, Chemosphere, Earth Surface Processes and Landforms, Ecosphere, Ecological Indicator, Environmental Management, Environmental Modelling and Software, Environmental Monitoring and Assessment, Geoderma, Geomorphology, Geophysical Research Letters, JGR-Atmospheric Science, JGR-Biogeosciences, JGR-Earth Surface, Journal of Arid Environment, Land Degradation and Development, Landscape Ecology, Plant and Soil, Plant Ecology, Water Resources Research etc.

PROPOSAL REVIEWER

2020 US National Science Foundation Geomorphology and Land-use Dynamics Program
2019 US-Israel Binational Science Foundation
2019 US National Science Foundation Geomorphology and Land-use Dynamics Program
2019 CABNR/NAES Program, University of Nevada System
2017 Canada Foundation for Innovation.
2016 US National Science Foundation CAREER Program
2015 French National Research Agency
2014 Oklahoma Water Resource Research, USA
2014 Israel Science Foundation

PROFESSIONAL ASSOCIATES

2003- American Geophysical Union-Biogeosciences
2002- Soil Science Society of America
2005- Ecological Society of America
2010- Association of American Geographers

STUDENT AND SCHOLAR ADVISING AND MENTORING

UNDERGRADUATE STUDENTS SUPPORTED BY GRANTS AND MENTORED

2025 Ziyi Ren
2017 Julie McDonald
Bradley Claggett
2016 Kristen Gunn
Bradley Claggett

THE UNIVERSITY OF TULSA TURC PROGRAM

2018 Leah Walker (Holland Hall High School, Tulsa, OK)
2017 Julie McDonald
Hayden Curtis (Jenks High School, Tulsa, OK)

CHAIR OF GRADUATE STUDENT COMMITTEES

Active: Huixin Zhu, Ph.D., Geography, The University of Hong Kong
Lexin Li, Ph.D., Geography, The University of Hong Kong
Chenjing Yang, M.Phil., Geography, The University of Hong Kong
Qidi Pang, Ph.D., Geography, The University of Hong Kong
Aaron Wong, Ph.D., Geography, The University of Hong Kong
Nick Jamison, Ph.D., Geography, The University of Hong Kong
Completed:
2023 Foysal Hasan, M.S., Geosciences
2021 Lauren Haygood, M.S., Geosciences
Avery Johnson, M.S., Geosciences
Cameron Field, M.S., Geosciences
2019 Guan Wang, Ph.D., Geosciences
2017 John Blackwell, M.S., Geosciences
Demet Celik, M.S., Geosciences
2016 Julia Sessions, M.S., Geology

MEMBER OF GRADUATE STUDENT COMMITTEES

Completed:
2025 TSUI Wing Yin Anna, M.S., Sociology
2024 Shuai Chen, Ph.D., Geography
Xu Zhang, Ph.D., Geography
2019 Zhencong Zhao, Ph.D., Geophysics
2019 Xiaobo Liu, Ph.D., Geophysics
2018 Xiao Tan, M.S., Geology
2017 Matthew McCarter, M.S., Geology
2016 Rachel Hojnacki, M.S., Geology
Baorui Chen, M.S., Geophysics
Ryan Kassie, M.S., Geophysics
Bernard Adero, M.S., Geophysics
2015 Mingyu Yang, M.S., Geology
2014 Zhencong Zhao, M.S., Geophysics
Xiaobo Liu, MS; Geophysics

POST-GRADUATE SCHOLAR SUPERVISING

2018-2019 Rui Ma, Visiting scholar, Gansu Agricultural University, China
2017-2018 Liang Xiao, Visiting scholar, China University of Geosciences, Beijing
2014-2015 Shuying Jiao, Visiting scholar, Shandong Agricultural University, China

RESEARCH AND TEACHING FIELD EXPERIENCE

2025 **Leader**, GEOG4001 Overseas Field Trip, Chongqing, Sichuan, Yunan, China
2025 **Leader**, GEOG2165 Field Trip, Sai Kung Geopark, Hong Kong.
2023 **Co-Leader**, GEOG4001 Overseas Field trip, Jiangxi, China
2023 **Co-Leader**, Desert oases in Western China, Inner Mongolia, China
2019 **Co-Leader**, Grain for Green Project, Loess Plateau (July), Shaanxi, China
2017 **Leader**, Using rare earth elements to investigate dune dynamics (June), Jornada, New Mexico.
2016 **Leader**, Field measurements and sampling of the "fire and ecosystem change" NSF project (June), Sevilleta, New Mexico.
2015 **Leader**, Experimental design, setup, and measurement for the "fire and ecosystem change" NSF project (Mar), Sevilleta, New Mexico.
2014 **Participant**, Desert ecosystem restoration and demonstration project (Jul), Shapotou, China.
2011 **Leader**, Field measurements of soil and vegetation properties including threshold shear velocity, vegetation structure, and spectra (June), NE Arizona, SE Utah.
2011 **Leader**, Field measurements of optical and textural properties for soil and vegetation (April-May), Flagstaff, Arizona, Moab, Utah.
2010 **Participant**, Field investigation of wind erosion, geomorphology, and soil texture for the dust source area of San Juan Mountains (Sept), NE Arizona, SE Utah.
2010 **Participant**, Aeolian activities in southern Argentina (Jul), Santa Rosa, Argentina.
2009 **Leader**, Field measurements of threshold shear velocity of desert soil (Dec), Mojave Desert, California.
2009 **Leader**, Measuring soil threshold shear velocity using wind tunnel method, and vegetation structure using transect method (June), Moab, Kanab, Utah.
2009 **Leader**, Field measurements of N_2O fluxes (Mar-May), Ithaca, New York.
2008 **Leader**, Site investigation and set up for N_2O flux measurement (Sept-Oct), Ithaca, New York.
2006 **Co-Leader**, Soil and windblown sediment sampling, atmospheric dry deposition monitoring (June-July), Jornada Experimental Range, New Mexico.
2005 **Leader**, Soil sampling, field site maintenance, and wind erosion monitoring (Jul), Jornada Experimental Range, New Mexico.
2004 **Co-leader**, Soil sampling and wind erosion monitoring (Jul), Jornada Experimental Range.
2004 **Co-leader**, Research site and meteorological tower setup (Mar), Jornada Experimental Range, New Mexico.
2002 **Co-leader**, Water sampling and water quality monitoring in Kendrick Irrigation Project area (Jul), Kasper, Wyoming.